



# HYDRAULIC FITTINGS



## INTRODUCTION

Manuli Hydraulics is globally respected for the breadth and versatility of our hydraulic fittings range. Comprising over 6,000 references, we have fittings to suit most of the common international standards as well as the specific requirements of several of our important OEM customers.

The Manuli Hydraulics fittings range is made up of 3 families: MF2000, MF3000 and Smart Connectors.

The **MF2000** range comprises our core range of two-piece fitting solutions and has over 4,000 references:

**Multifit (MF)** - Simple and cost effective universal solution for wire spiral and wire braid hoses

**Minifit (MN)** - Extremely compact fittings for braided hose (DN6 to DN10)

**Interlock Plus (IP)** - Maximum reliability for very high pressure wire spiral hoses in heavy-duty applications

**Interlock Super (IS)** - High-tech swaged fittings for very large bore wire spiral hose

**Spiralfit (SP)** - No-skive insert for wire spiral hoses and large bore hose

**Spiral it GX (SPGX)** - No-skive insert for wire spiral hoses and large bore hoses

**Pushlock (PL)** - Insert solution for low pressure applications without the need for a swaged ferrule

The **MF3000** range is made up of one-piece fittings for hoses at medium/high pressures:

**One-Piece Flat (OPF)** - No-skive, compact and flat-crimp fittings for wire braid hoses up to 1½"

**One-Piece Kompact (OPK)** - No-skive, compact and flat-crimp fittings for wire spiral and wire braid high pressure hoses up to 2½"

There are also several types of **Smart Connectors** available:

**RotoFit** - A well-known and patented Manuli Hydraulics solution designed to eliminate hose twist under external torques, which can be a major contributor to premature hose failure. The additional advantage of RotoFit is that it is a "Direct-to-Hose" and "Direct-to-Port" solution. By eliminating the need for adaptors, the number of possible leak points is reduced.

**EasyFit** - The Manuli "threadless" fittings solution for quick and easy installation of assemblies.







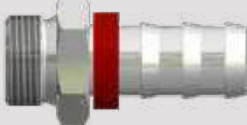
This innovative termination end is fitted with a simple axial push, allowing the hose to self-align and thus improve service life. Maintenance and repair time is also drastically reduced and installation / disconnection in restricted spaces is far easier. Moreover the "Direct-to-Port" concept eliminates the need for adaptors and the possibility of related leakages. All EasyFit fittings have an eco-friendly coating treatment for superior corrosion performance.

**FastFit / FastFit Disconnectable** - A "one plug" connection consisting of a male half integrated onto the hose and then inserted into the female cartridge. This easy and safe operation does not require any tools for assembly and allows easy installation in restricted areas or in complex configurations. FastFit comes in a wide range of cartridges with direct connection on most standard ports, including BSP, SAE METRIC and NPTF. In addition, the new FastFit Disconnectable range offers all the benefits of standard FastFit technology, but with the ability to disconnect the plug from the cartridge if required.

**Adjustable Flange** - A new and innovative product which allows the body of the flange fitting to rotate even after being installed and tightened, making installation simpler and also ensuring that the hose is oriented in its most natural way, reducing the likelihood of premature fatigue failures due to poor hose orientation.



## TWO PIECE TECHNOLOGY

### OVERVIEW

<p><b>MINIFIT</b></p>  <p>p107 - p112</p>	<p><b>MULTIFIT</b></p>  <p>p113 - p175</p>	<p><b>INTERLOCK PLUS</b></p>  <p>p176 - p221</p>	<p><b>INTERLOCK SUPER</b></p>  <p>p222 - p225</p>
<p><b>SPIRALFIT</b></p>  <p>p226 - p247</p>	<p><b>SPIRALFIT GX</b></p>  <p>p248 - p249</p>	<p><b>PUSH-LOCK</b></p>  <p>p250 - p251</p>	<p><a href="#">ACCESSORIES</a></p> <p>p252 - p255</p>

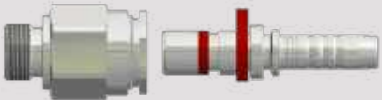


## ONE PIECE TECHNOLOGY

### OVERVIEW

<p><b>OPK</b></p>  <p>p256 - p280</p>	<p><b>OPF</b></p>  <p>p281 - p307</p>
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## SMART FITTINGS

### OVERVIEW

<p><b>EASYFIT</b></p>  <p>p308 - p311</p>	<p><b>FASTFIT</b></p>  <p>p312 - p321</p>	<p><b>ROTOFIT</b></p>  <p>p322 - p332</p>
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Fitting	Maximum Working Pressure (bar)														
	Hose Size / Dash														
	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
	03	04	05	06	08	10	12	16	20	24	32	40	48	56	64
BSP 60° CONE BS5200 / ISO 8434-6	1/8"-28 350	1/4"-19 500		3/8"-19 460	1/2"-14 430	5/8"-14 350	3/4"-14 350	1"-11 350	1 1/4"-11 350	1 1/2"-11 300	2"-11 300	2 1/2"-11 140	3"-11 105		
BSP 60° CONE DOUBLE THRUST-WIRE NUT BS5200 / ISO 8434-6							3/4"-14 650	1"-11 650	1 1/4"-11 650	1 1/2"-11 560					
JIC 37° CONE ISO 8434-2 / SAE J514		7/16"-20 350	1/2"-20 350	9/16"-18 350	3/4"-16 350	7/8"-14 350	1 1/16"-12 350	1 5/16"-12 280	1 5/8"-12 210	1 7/8"-12 160	2 1/2"-12 125				
JIC 37° CONE DOUBLE THRUST-WIRE NUT ISO 8434-2 / SAE J514							1 1/16"-12 420	1 5/16"-12 420	1 5/8"-12 420	1 7/8"-12 420	2 1/2"-12 420				
ORFS ISO 8434-3 / SAE J1453		9/16"-18 460		11/16"-16 460	13/16"-16 420	1"-14 420	1 3/16"-12 420	1 7/16"-12 420	1 11/16"-12 420	2"-12 350					
NPTF MALE SAE J514 / ASME B1.20.3	1/8"-27 350	1/4"-18 350		3/8"-18 280	1/2"-14 245		3/4"-14 210	1"-11.5 175	1 1/4"-11.5 145	1 1/2"-11.5 145	2"-11.5 145				
NPSM FEMALE SAE J514	1/8"-27 350	1/4"-18 350		3/8"-18 280	1/2"-14 245		3/4"-14 210	1"-11.5 175	1 1/4"-11.5 145	1 1/2"-11.5 145	2"-11.5 145				
SAE 45° CONE SAE J512		7/16"-20 350	1/2"-20 350	5/8"-18 350	3/4"-16 310	7/8"-14 240	1 1/16"-14 240	1 3/8"-12 210							
ISO/SAE CODE 61 FLANGE ISO 6162-1 / SAE J518-1					1/2" 350		3/4" 350	1" 350	1-1/4" 280	1-1/2" 210	2" 210	2-1/2" 175	3" 160	3-1/2" 35	4" 35
ISO/SAE CODE 62 FLANGE ISO 6162-2 / SAE J518-2					1/2" 420		3/4" 420	1" 420	1-1/4" 420	1-1/2" 420	2" 420	2-1/2" 420	3" 420		
XTRAF LANGE/61 ISO 6162-1 / SAE J518-1 PORT COMPATIBLE							3/4" 560	1" 560	1-1/4" 560	1-1/2" 560	2" 450	2-1/2" 420	3" 420		
XTRAF LANGE/62 ISO 6162-2 / SAE J518-2 PORT COMPATIBLE							3/4" 420	1" 420	1-1/4" 420						
FLANGE/PLUS ISO 6162-2 / SAE J518-2 PORT COMPATIBLE							3/4" 420	1" 420	1-1/4" 420						
CAT FLANGE ISO 6162-2 / SAE J518-2 PORT COMPATIBLE							3/4" 420	1" 420	1-1/4" 420	1-1/2" 420	2" 420				
METRIC CONE 24° L SERIES ISO 8434-1 / DIN 3865	M12x1.5 415	M14x1.5 400	M16x1.5 350	M18x1.5 330	M22x1.5 275	M26x1.5 250	M30x2 245	M36x2 245	M45x2 220	M52x2 100					
METRIC CONE 24° S SERIES ISO 8434-1 / DIN 3865	M16x1.5 630	M18x1.5 630	M20x1.5 630	M20x1.5 630	M24x1.5 450	M30x2 420	M36x2 420	M42x2 420	M52x2 420						
METRIC CONE 60° LL SERIES DIN 20066							M30x2 63	M38x1.5 63	M45x1.5 63	M52x1.5 63	M65x2 40				
METRIC MULTISEAL DIN 20066	M12x1.5 250	M14x1.5 250	M16x1.5 250	M18x1.5 250	M22x1.5 250	M26x1.5 160									
FRENCH METRIC MILLIMETRIC NF E48-064							M27x1.5 420	M30x1.5 420	M33x1.5 420						
FRENCH GAZ MILLIMETRIC NF E48-064				M20x1.5 630	M24x1.5 630	M30x1.5 420	M36x1.5 420	M45x1.5 420							
JIS METRIC FEMALE 60° CONE (KOMATSU) JIS B8363		M14x1.5 350	M16x1.5 350	M18x1.5 350	M22x1.5 350	M24x1.5 280	M30x1.5 280	M33x1.5 280	M36x1.5 175	M42x2 105					
JIS GAS FEMALE 60° CONE (TOYOTA) JIS B8363		1/4"-19 350		3/8"-19 350	1/2"-14 350		3/4"-14 280	1"-11 280	1 1/4"-11 175	1 1/2"-11 105	2"-11 105				
SAE MALE O-RING BOSS TYPE SAE J516 / ISO 11926		7/16"-20 420		9/16"-18 420	3/4"-16 350	7/8"-14 280	1 1/16"-12 280	1 5/16"-12 210	1 5/8"-12 210						
METRIC STANDPIPE LIGHT DUTY DIN 2353 / ISO 8434-1	6 mm 250	8 mm 250	10 mm 250	12 mm 250	15 mm 250	18 mm 160	22 mm 160	28 mm 100	35 mm 100	42 mm 100					
METRIC STANDPIPE HEAVY DUTY DIN 2353 / ISO 8434-1	8 mm 630	10 mm 630	12 mm 630	14 mm 400	16 mm 400	20 mm 400	25 mm 400	30 mm 250	38 mm 250						
BSP BANJO		1/4"-19 210	3/8"-19 210	3/8"-19 210	1/2"-14 210	5/8"-14 210	3/4"-14 210	1"-11 210							
METRIC BANJO DIN 7642		M12x1.5 210	M14x1.5 210	M16x1.5 210	M22x1.5 210	M22x1.5 210	M26x1.5 210								
WASHCLEANER				M22x1.5 420											

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**MINIFIT**

DN	5	6	8	10	12	16	19	25	31	38	51	60	63	76
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 3/8"	2 1/2"	3"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-38	-40	-48

**FERRULES**

M02400															
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**FITTINGS**

BSP															
DIN METRIC 24° CONE LIGHT TYPE															

**MULTIFIT**

DN	5	6	8	10	12	16	19	25	31	38	51	60	63	76	89	102
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 3/8"	2 1/2"	3"	3 1/2"	4"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-38	-40	-48	-56	-64

**FERRULES**

M00110 / M00120 / M00130																
M00910 / M00920																
M03300																
M03400																
M03500																
M00310 / M00320																
M00820 / M00830																

**FITTINGS**

BSP																
SAE (JIC)																
SAE (ORFS)																
SAE (O-RING BOSS)																
SAE (NPTF-NPSM)																
SAE FLANGE CODE 61																
SAE FLANGE CODE 62																
DIN STANDPIPE																
DIN METRIC 60° CONE																
DIN METRIC MULTISEAL																
DIN METRIC 24° CONE LIGHT TYPE																
DIN METRIC 24° CONE HEAVY TYPE																
NF (FRENCH MILLIMERIC TYPE)																
NF (FRENCH GAZ TYPE)																
JIS																
ORIGINAL EQUIPMENT CONNECTIONS																
BANJO CONNECTIONS																
SAE (45° CONE)																



**INTERLOCK PLUS**

DN	5	6	8	10	12	16	19	25	31	38	51	60	63	76	89	102
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 3/8"	2 1/2"	3"	3 1/2"	4"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-38	-40	-48	-56	-64

FERRULES																	
M01500																	
M01600																	
M01800 / M01810 / M01850																	
M01900																	

FITTINGS																	
BSP																	
SAE (JIC)																	
SAE (ORFS)																	
SAE (O-RING COSS)																	
SAE (NPTF-NPSM)																	
SAE FLANGE CODE 61																	
SAE FLANGE CODE 62																	
DIN METRIC 24° CONE HEAVY TYPE																	
ORIGINAL EQUIPMENT CONNECTIONS																	
XTRAFLLANGE/61																	
XTRAFLLANGE/62																	

**INTERLOCK PLUS STAINLESS STEEL**

DN	5	6	8	10	12	16	19	25	31	38	51	60	63	76	89	102
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 3/8"	2 1/2"	3"	3 1/2"	4"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-38	-40	-48	-56	-64

FERRULES																	
IM01500																	
IM01600																	
IM01800 / IM01810																	
IM01900																	

FITTINGS																	
BSP																	
SAE (JIC)																	
SAE (ORFS)																	
SAE (NPTF)																	
SAE FLANGE CODE 61																	
SAE FLANGE CODE 62																	
DIN METRIC 24° CONE HEAVY TYPE																	
ORIGINAL EQUIPMENT CONNECTIONS																	

## INTERLOCK SUPER

DN	5	6	8	10	12	16	19	25	31	38	51	60	63	76	89	102
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 3/8"	2 1/2"	3"	3 1/2"	4"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-38	-40	-48	-56	-64

### FERRULES

M02700																	
M02800																	

### FITTINGS

SAE FLANGE CODE 62																	
XTRAFRANGE/62																	
BSP																	
ORIGINAL EQUIPMENT CONNECTIONS																	

## SPIRALFIT

DN	5	6	8	10	12	16	19	25	31	38	51	60	63	76	89	102
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 3/8"	2 1/2"	3"	3 1/2"	4"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-38	-40	-48	-56	-64

### FERRULES

M05400																	
M05500																	

### FITTINGS

BSP																	
SAE (JIC)																	
SAE (ORFS)																	
SAE (O-RING BOSS)																	
SAE (NPTF-NPSM)																	
SAE FLANGE CODE 61																	
SAE FLANGE CODE 62																	
DIN METRIC 24° CONE HEAVY TYPE																	
ORIGINAL EQUIPMENT CONNECTIONS																	
XTRAFRANGE/62																	

## SPIRALFIT GX

DN	5	6	8	10	12	16	19	25	31	38	51	60	63	76	89	102
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 3/8"	2 1/2"	3"	3 1/2"	4"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-38	-40	-48	-56	-64

### FERRULES

M05500-GX																	
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### FITTINGS

SAE FLANGE CODE 62																	
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**PUSHLOCK**

DN	5	6	8	10	12	16	19	25	31	38	51	60	63	76	89	102
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 3/8"	2 1/2"	3"	3 1/2"	4"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-38	-40	-48	-56	-64

FITTINGS																
BSP																

**OPF**

DN	5	6	8	10	12	16	19	25	31	38	51
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32

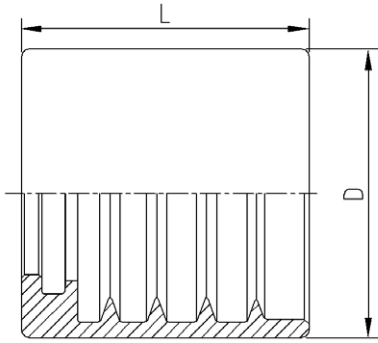
FITTINGS												
BSP												
SAE (JIC)												
SAE (ORFS)												
SAE (O-RING BOSS)												
SAE (NPTF-NPSM)												
SAE FLANGE CODE 61												
DIN STANDPIPE												
DIN METRIC MULTISEAL												
DIN METRIC 24° CONE LIGHT TYPE												
DIN METRIC 24° CONE HEAVY TYPE												
JIS												
ORIGINAL EQUIPMENT CONNECTIONS												

OPK

DN	5	6	8	10	12	16	19	25	31	38	51
Inch	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
Size	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32

FITTINGS

BSP											
SAE (JIC)											
SAE (ORFS)											
SAE (O-RING BOSS)											
SAE (NPTF-NPSM)											
SAE FLANGE CODE 61											
SAE FLANGE CODE 62											
DIN METRIC 24° CONE LIGHT TYPE											
DIN METRIC 24° CONE HEAVY TYPE											
NF (FRENCH MILLIMETRIC TYPE)											
NF (FRENCH GAZ TYPE)											
JIS											
ORIGINAL EQUIPMENT CONNECTIONS											



FERRULE

# M02400

NO-SKIVE FERRULE FOR COMPACT HOSES

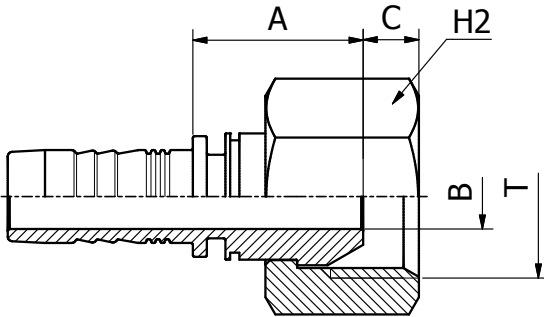
PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M02400-04	6	- 4	1/4"			18.5	18.5				
M02400-05	8	- 5	5/16"			21.3	19.6				
M02400-06	10	- 6	3/8"			23.8	21.2				

107 FITTINGS

BS STANDARD CONNECTIONS

# MS0513

BSP  
FEMALE 60° CONE  
BS5200 / ISO 8434-6

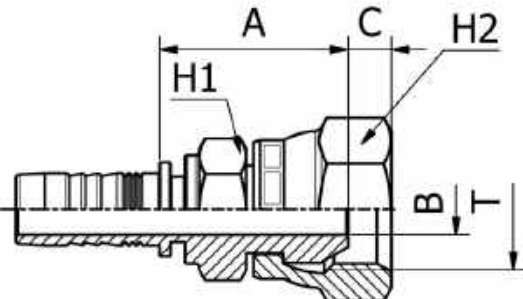


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	H2				
MS0513-04-04	6	- 4	1/4"	1/4" - 19	4.0	15.7	5.4	19.0				
MS0513-06-06	10	- 6	3/8"	3/8" - 19	7.0	18.3	6.0	22.0				

BS STANDARD CONNECTIONS

# MS0511KR

BSP FEMALE 60° CONE  
BS5200 / ISO 8434-6

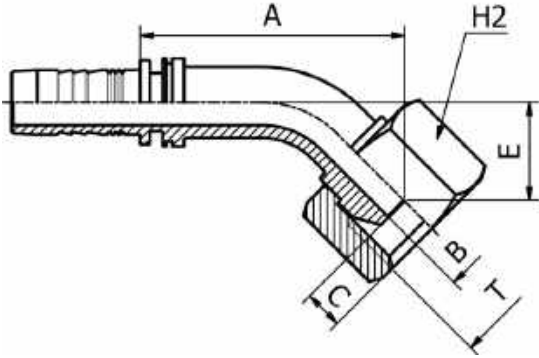


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	H2				
MS0511-04-04H12KR	6	- 4	1/4"	1/4" - 19	4.0	23.5	5.2	19.0				
MS0511-06-06H17KR	10	- 6	3/8"	3/8" - 19	7.0	26.0	6.0	22.0				

BS STANDARD CONNECTIONS

# MS0543

45° BSP  
FEMALE 60° CONE  
BS5200 / ISO 8434-6



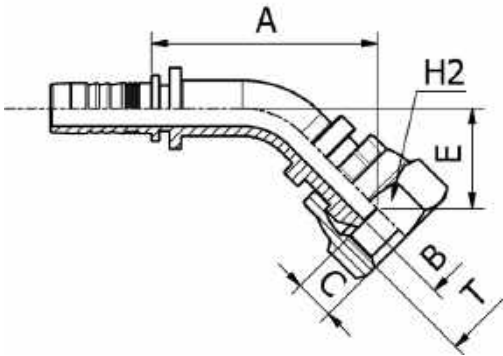
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
MS0543-04-04	6	- 4	1/4"	1/4" - 19	4.0	34.7	5.4	14.7	19.0		
MS0543-06-06	10	- 6	3/8"	3/8" - 19	7.0	41.0	6.0	15.3	22.0		

FITTINGS 108

BS STANDARD CONNECTIONS

# MS0541KR

BSP  
FEMALE 60° CONE  
BS5200 / ISO 8434-6

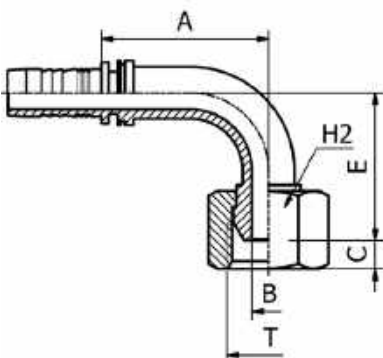


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
MS0541-04-04KR	6	- 4	1/4"	1/4" - 19	4.2	36.5	5.2	16.6	19.0		
MS0541-06-06KR	10	- 6	3/8"	3/8" - 19	7.0	44.5	6.0	20.0	22.0		

BS STANDARD CONNECTIONS

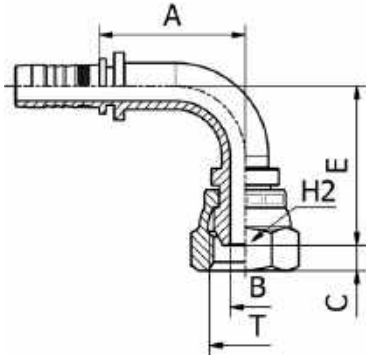
# MS0593

90° BSP  
FEMALE 60° CONE  
BS5200 / ISO 8434-6



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
MS0593-04-04	6	- 4	1/4"	1/4" - 19	4.0	28.2	5.4	29.0	19.0		
MS0593-06-06	10	- 6	3/8"	3/8" - 19	7.0	35.3	6.0	31.5	22.0		

BS STANDARD CONNECTIONS

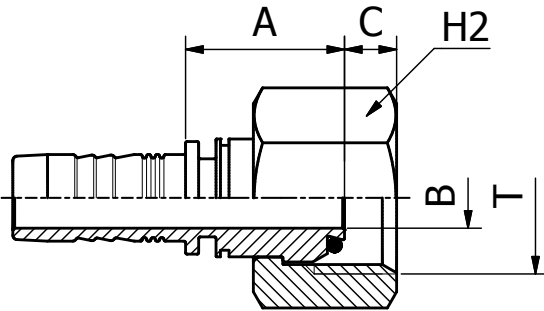


# MS0591KR

90° BSP  
FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 8434-6

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
MS0591-04-04KR	6	- 4	1/4"	1/4" - 19	4.2	27.0	5.2	30.5	19.0		
MS0591-06-06KR	10	- 6	3/8"	3/8" - 19	7.0	34.5	6.0	37.5	22.0		

BS STANDARD CONNECTIONS

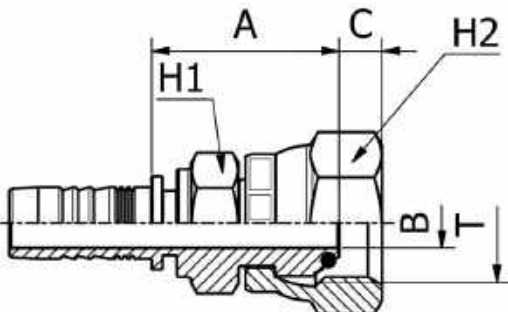


# MS0813

BSP  
O-RING FEMALE 60° CONE  
BS5200 / ISO 8434-6

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H2			
MS0813-04-04	6	- 4	1/4"	1/4" - 19	4.0	15.7	5.4	19.0			
MS0813-05-06	8	- 5	5/16"	3/8" - 19	7.0	18.0	6.0	22.0			
MS0813-06-06	10	- 6	3/8"	3/8" - 19	7.0	18.3	6.0	22.0			

BS STANDARD CONNECTIONS



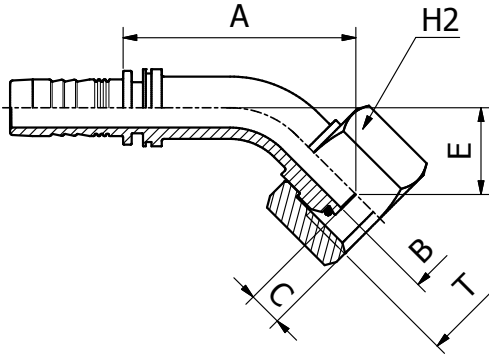
# MS0811HKR

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
MS0811-04-04H12KR	6	- 4	1/4"	1/4" - 19	4.0	23.5	5.2	12.0	19.0		
MS0811-06-06H17KR	10	- 6	3/8"	3/8" - 19	7.0	26.0	6.0	17.0	22.0		

BS STANDARD CONNECTIONS

# MS0843

45° BSP  
O-RING FEMALE 60° CONE  
BS5200 / ISO 8434-6



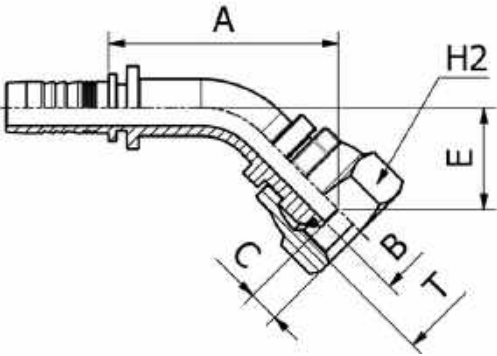
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
MS0843-04-04	6	- 4	1/4"	1/4" - 19	4.0	34.7	5.4	14.7	19.0		
MS0843-05-06	8	- 5	5/16"	3/8" - 19	7.0	40.5	6.0	17.0	22.0		
MS0843-06-06	10	- 6	3/8"	3/8" - 19	7.0	41.0	6.0	15.3	22.0		

FITTINGS 110

BS STANDARD CONNECTIONS

# MS0841KR

45° BSP  
O-RING FEMALE 60° CONE  
BS5200 / ISO 8434-6

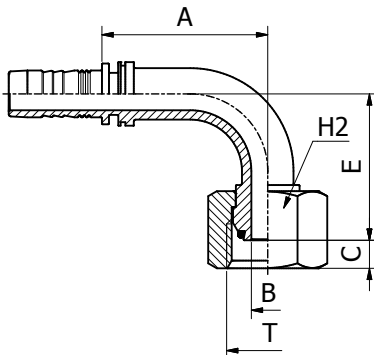


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
MS0841-04-04KR	6	- 4	1/4"	1/4" - 19	4.2	36.5	5.2	16.5	19.0		
MS0841-06-06KR	10	- 6	3/8"	3/8" - 19	7.0	44.5	6.0	20.0	22.0		

BS STANDARD CONNECTIONS

# MS0893

90° BSP  
O-RING FEMALE 60° CONE  
BS5200 / ISO 8434-6



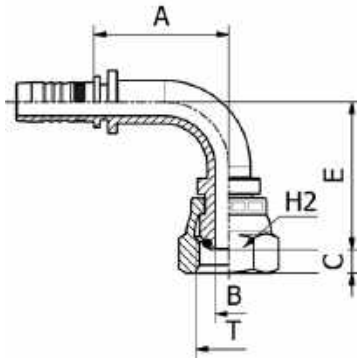
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
MS0893-04-04	6	- 4	1/4"	1/4" - 19	4.0	28.2	5.4	29.0	19.0		
MS0893-05-06	8	- 5	5/16"	3/8" - 19	7.0	31.0	6.0	32.5	22.0		
MS0893-06-06	10	- 6	3/8"	3/8" - 19	7.0	35.3	6.0	31.5	22.0		



BS STANDARD CONNECTIONS

# MS0891KR

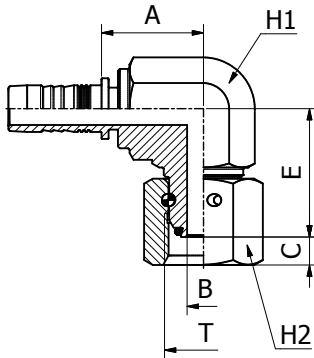
90° BSP  
O-RING FEMALE 60° CONE  
BS5200 / ISO 8434-6



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
MS0891-04-04KR	6	- 4	1/4"	1/4" - 19	4.2	27.0	5.2	30.5	19.0		
MS0891-06-06KR	10	- 6	3/8"	3/8" - 19	7.0	34.5	6.0	37.5	22.0		

BS STANDARD CONNECTIONS

# MS0882F

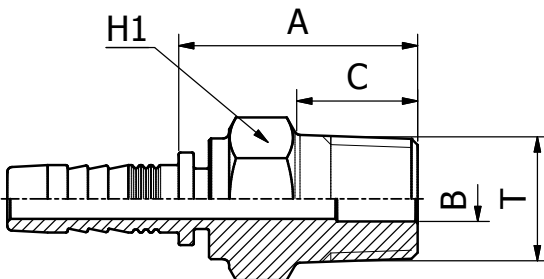


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H1	H2	
MS0882-04-04F	6	-4	1/4"	1/4" - 19	4	18,7	4,1	22	14	19	
MS0882-06-06F	10	-6	3/8"	3/8" - 19	7	21,8	6	27,5	19	22	

BS STANDARD CONNECTIONS

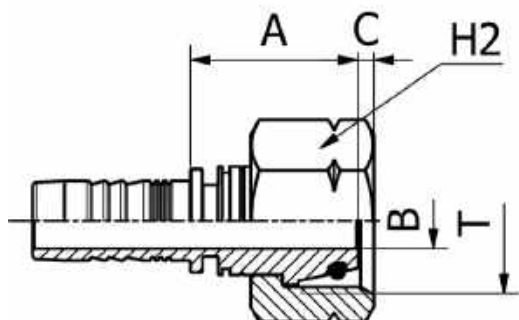
# MT0710

BSP MALE TAPERED



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm				
	DN	Dash	inch	T	B	A	C	H1	
MT0710-04-04	6	- 4	1/4"	1/4" - 19	4.5	23.5	12.0	14.0	

DIN STANDARD CONNECTIONS



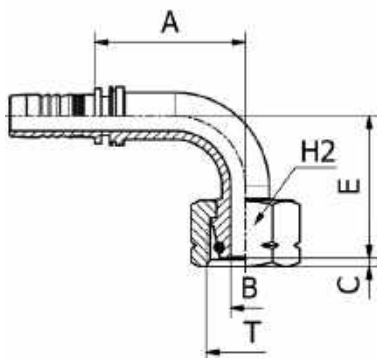
# MS1513

METRIC  
O-RING FEMALE 24° CONE LIGHT DUTY  
ISO 8434-1 / DIN 3865

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H2		
MS1513-04-14	6	- 4	1/4"	M14 X 1.5		4.0	21.0	1.3	17.0		
MS1513-05-16	8	- 5	5/16"	M16 X 1.5		6.0	21.5	1.8	19.0		
MS1513-05-18	8	- 5	5/16"	M18 X 1.5		7.0	20.9	2.0	22.0		
MS1513-06-18	10	- 6	3/8"	M18 X 1.5		7.0	21.1	2.0	22.0		

FITTINGS

112

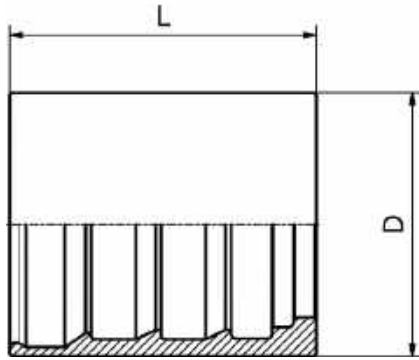


DIN STANDARD CONNECTIONS

# MS1593

90° METRIC  
O-RING FEMALE 24° CONE LIGHT DUTY  
ISO 8434-1 / DIN 3865

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch		T	B	A	C	E	H2
MS1593-04-14	6	- 4	1/4"	M14 X 1.5		4.0	28.0	1.3	31.5	17.0
MS1593-05-16	8	- 5	5/16"	M16 X 1.5		6.0	31.0	1.8	32.5	19.0
MS1593-06-18	10	- 6	3/8"	M18 X 1.5		7.0	35.5	2.5	33.5	22.0



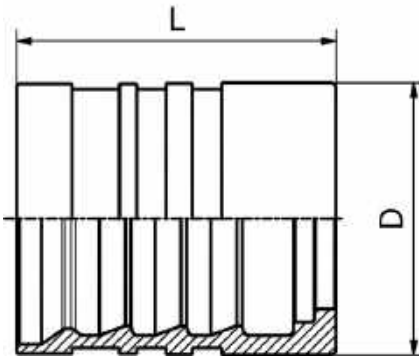
FERRULE

# M00110/M00120/M00130

**SKIVE FERRULE  
FOR WIRE BRAID HOSES**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M00120-03	5	- 3	3/16"			17.0	23.9				
M00120-04	6	- 4	1/4"			19.5	28.0				
M00120-05	8	- 5	5/16"			20.0	28.6				
M00120-06	10	- 6	3/8"			23.0	30.0				
M00120-08	12	- 8	1/2"			26.7	32.0				
M00120-10	16	- 10	5/8"			32.0	38.0				
M00120-12	19	- 12	3/4"			35.8	41.7				
M00130-16	25	- 16	1"			43.0	47.0				
M00110-20	31	- 20	1.1/4"			50.5	59.0				
M00110-24	38	- 24	1.1/2"			57.0	70.0				
M00110-32	51	- 32	2"			70.0	72.0				

113 FITTINGS



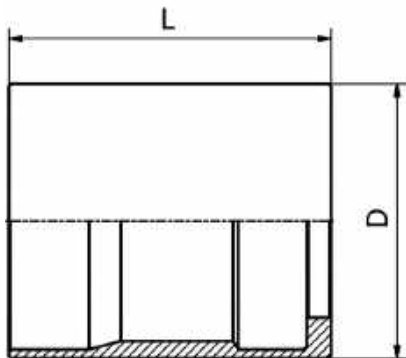
FERRULE

# M00910/M00920/M00930

**SKIVE FERRULE  
FOR WIRE BRAID  
AND SPIRAL HOSES**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M00910-03	5	- 3	3/16"			20.6	26.0				
M00910-04	6	- 4	1/4"			22.0	30.0				
M00910-05	8	- 5	5/16"			24.0	31.0				
M00910-06	10	- 6	3/8"			26.0	33.0				
M00920-06	10	- 6	3/8"			26.7	33.0				
M00910-08	12	- 8	1/2"			30.0	34.0				
M00910-10	16	- 10	5/8"			33.0	39.0				
M00920-12	19	- 12	3/4"			38.0	40.0				
M00930-16	25	- 16	1"			46.0	54.0				
M00920-20	31	- 20	1.1/4"			57.0	60.0				
M00910-24	38	- 24	1.1/2"			65.0	70.0				
M00910-32	51	- 32	2"			79.0	72.0				

FERRULE



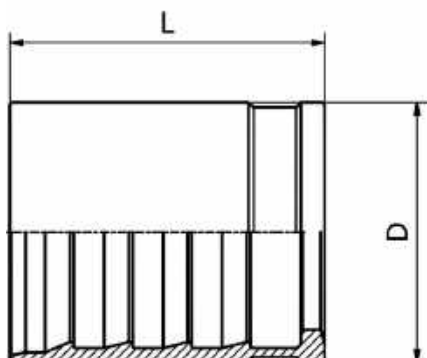
# M00310/M00321

**NO-SKIVE FERRULE  
FOR TEXTILE BRAID HOSES**

FITTINGS 114

PART. REF.	HOSE BORE					DIMENSIONS mm							
	DN	Dash	inch			D	L						
M00310-03	5	- 3	3/16"			17.5	27.0						
M00310-04	6	- 4	1/4"			19.3	30.0						
M00310-05	8	- 5	5/16"			21.0	32.0						
M00310-06	10	- 6	3/8"			24.0	32.0						
M00310-08	12	- 8	1/2"			28.4	34.0						
M00310-10	16	- 10	5/8"			33.0	37.0						
M00321-12	19	- 12	3/4"			37.0	43.0						
M00310-16	25	- 16	1"			43.5	51.0						
M00310-20	31	- 20	1.1/4"			50.0	59.0						

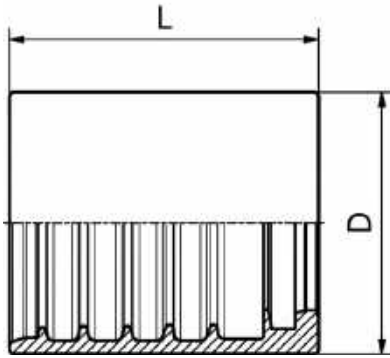
FERRULE



# M00820/M00830

**NO-SKIVE FERRULE  
FOR COMPACT HOSES**

PART. REF.	HOSE BORE					DIMENSIONS mm							
	DN	Dash	inch			D	L						
M00820-03	5	- 3	3/16"			14.0	26.4						
M00830-04	6	- 4	1/4"			18.0	29.6						
M00830-05	8	- 5	5/16"			19.0	31.9						
M00820-06	10	- 6	3/8"			22.0	32.9						
M00820-08	12	- 8	1/2"			26.0	33.9						
M00820-10	16	- 10	5/8"			29.0	35.9						
M00820-12	19	- 12	3/4"			33.0	41.7						
M00820-16	25	- 16	1"			41.0	49.7						
M00820-20	31	- 20	1.1/4"			48.0	57.0						
M00820-24	38	- 24	1.1/2"			55.5	66.0						
M00820-32	51	- 32	2"			68.6	70.0						

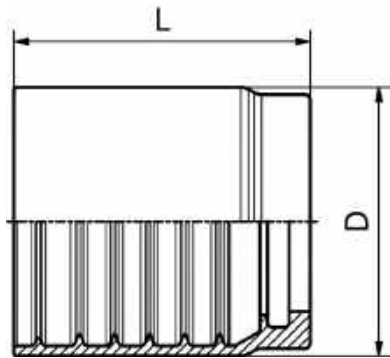


FERRULE

# M03300

**NO-SKIVE FERRULE  
FOR WIRE BRAID HOSES**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M03300-03	5	- 3	3/16"			19.2	22.0				
M03300-04	6	- 4	1/4"			20.5	27.5				
M03300-05	8	- 5	5/16"			22.8	28.5				
M03300-06	10	- 6	3/8"			25.0	30.0				
M03300-08	12	- 8	1/2"			28.0	33.0				



FERRULE

# M03400/M03450

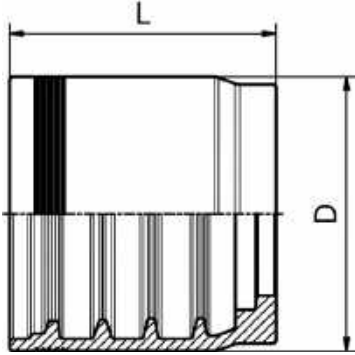
**NO-SKIVE FERRULE  
FOR WIRE BRAID HOSES**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M03400-03	5	- 3	3/16"			21.0	23.0				
M03400-04	6	- 4	1/4"			23.0	30.1				
M03400-05	8	- 5	5/16"			24.0	30.0				
M03400-06	10	- 6	3/8"			26.0	31.1				
M03400-08	12	- 8	1/2"			29.0	34.0				
M03450-08	12	- 8	1/2"			30.3	31.0				
M03400-10	16	- 10	5/8"			33.0	37.0				
M03400-12	19	- 12	3/4"			37.0	42.0				
M03400-16	25	- 16	1"			46.0	50.7				
M03400-20	31	- 20	1.1/4"			59.0	57.2				
M03400-24	38	- 24	1.1/2"			67.0	64.8				
M03400-32	51	- 32	2"			80.0	68.3				
M03400-38	60	- 38	2.3/8"			82.5	69.0				
M03400-40	63	- 40	2.1/2"			88.2	68.8				
M03400-48	76	- 48	3"			103.0	75.0				
M03400-56	89	- 56	3.1/2"			123.4	91.0				

FERRULE

# M03500

**NO SKIVE FERRULE  
FOR WIRE SPIRAL HOSES**



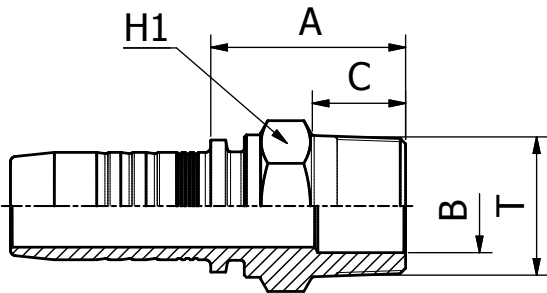
PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M03500-06	10	- 6	3/8"			29.5	30.7				
M03500-08	12	- 8	1/2"			33.4	32.0				
M03500-10	16	- 10	5/8"			37.2	34.8				
M03500-12	19	- 12	3/4"			41.3	40.0				
M03500-16	25	- 16	1"			49.1	51.0				
M03500-20	31	- 20	1.1/4"			59.3	54.5				

FITTINGS 116

BS STANDARD CONNECTIONS

# M10710

**BSP MALE TAPERED - ISO 7**

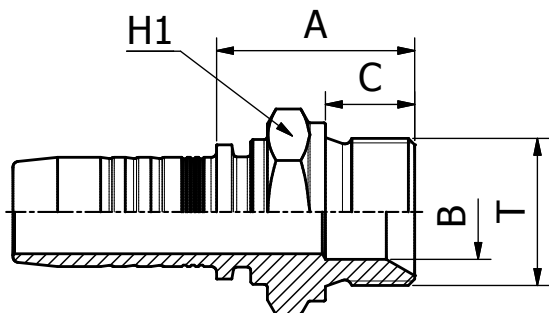


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	H1				
M10710-03-02	5	- 3	3/16"	1/8" - 28	4.5	20.5	8.0	12.0				
M10710-03-04	5	- 3	3/16"	1/4" - 19	4.5	24.5	12.0	14.0				
M10710-04-02	6	- 4	1/4"	1/8" - 28	4.5	21.0	8.0	12.0				
M10710-04-04	6	- 4	1/4"	1/4" - 19	4.5	25.0	12.0	14.0				
M10710-04-06	6	- 4	1/4"	3/8" - 19	7.0	26.0	12.0	19.0				
M10710-04-08	6	- 4	1/4"	1/2" - 14	10.0	29.5	15.0	22.0				
M10710-05-04	8	- 5	5/16"	1/4" - 19	5.5	25.0	12.0	14.0				
M10710-05-06	8	- 5	5/16"	3/8" - 19	7.0	26.5	12.0	19.0				
M10710-05-08	8	- 5	5/16"	1/2" - 14	10.0	30.0	15.0	22.0				
M10710-06-06	10	- 6	3/8"	3/8" - 19	7.0	27.0	12.0	19.0				
M10710-06-08	10	- 6	3/8"	1/2" - 14	10.0	30.5	15.0	22.0				
M10710-08-04	12	- 8	1/2"	1/4" - 19	4.5	26.0	12.0	19.0				
M10710-08-08	12	- 8	1/2"	1/2" - 14	10.0	31.0	15.0	22.0				
M10710-10-08	16	- 10	5/8"	1/2" - 14	10.0	31.0	15.0	22.0				
M10710-10-12	16	- 10	5/8"	3/4" - 14	17.0	34.0	17.0	27.0				
M10710-12-12	19	- 12	3/4"	3/4" - 14	17.0	35.5	17.0	27.0				
M10710-16-12	25	- 16	1"	3/4" - 14	17.0	38.0	17.0	32.0				
M10710-16-16	25	- 16	1"	1" - 11	22.5	42.0	21.0	36.0				
M10710-20-20	31	- 20	1.1/4"	1.1/4" - 11	28.5	47.5	23.0	46.0				
M10710-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.0	50.0	23.0	50.0				
M10710-32-32	51	- 32	2"	2" - 11	44.0	55.5	27.0	65.0				

BS STANDARD CONNECTIONS

# M10510

**BSP MALE PARALLEL 60° CONE SEAT  
BS5200 / ISO 8434-6**

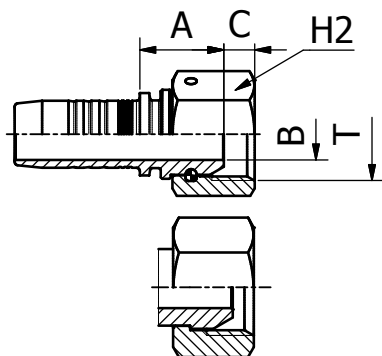


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm				
	DN	Dash	inch		T	B	A	C	H1
M10510-03-02	5	- 3	3/16"	1/8" - 28		3.5	22.5	10.0	14.0
M10510-03-04	5	- 3	3/16"	1/4" - 19		5.0	25.0	11.0	19.0
M10510-04-02	6	- 4	1/4"	1/8" - 28		3.5	22.5	10.0	14.0
M10510-04-04	6	- 4	1/4"	1/4" - 19		5.0	25.5	11.0	19.0
M10510-04-06	6	- 4	1/4"	3/8" - 19		8.0	27.0	12.0	22.0
M10510-04-08	6	- 4	1/4"	1/2" - 14		11.0	30.0	14.0	27.0
M10510-05-04	8	- 5	5/16"	1/4" - 19		5.0	26.0	11.0	19.0
M10510-05-06	8	- 5	5/16"	3/8" - 19		8.0	27.5	12.0	22.0
M10510-06-04	10	- 6	3/8"	1/4" - 19		5.0	26.0	11.0	19.0
M10510-06-06	10	- 6	3/8"	3/8" - 19		8.0	28.0	12.0	22.0
M10510-06-08	10	- 6	3/8"	1/2" - 14		11.0	30.5	14.0	27.0
M10510-08-06	12	- 8	1/2"	3/8" - 19		8.0	28.0	12.0	22.0
M10510-08-08	12	- 8	1/2"	1/2" - 14		11.0	31.0	14.0	27.0
M10510-08-10	12	- 8	1/2"	5/8" - 14		14.5	33.0	16.0	30.0
M10510-08-12	12	- 8	1/2"	3/4" - 14		17.0	34.0	16.0	32.0
M10510-10-10	16	- 10	5/8"	5/8" - 14		14.5	33.0	16.0	30.0
M10510-10-12	16	- 10	5/8"	3/4" - 14		17.0	35.5	16.0	32.0
M10510-12-08	19	- 12	3/4"	1/2" - 14		11.0	32.0	14.0	27.0
M10510-12-12	19	- 12	3/4"	3/4" - 14		17.0	35.5	16.0	32.0
M10510-12-16	19	- 12	3/4"	1" - 11		22.5	39.5	19.0	41.0
M10510-16-12	25	- 16	1"	3/4" - 14		17.0	36.5	16.0	32.0
M10510-16-16	25	- 16	1"	1" - 11		22.5	41.0	19.0	41.0
M10510-16-20	25	- 16	1"	1.1/4" - 11		28.5	45.0	20.0	50.0
M10510-20-20	31	- 20	1.1/4"	1.1/4" - 11		28.5	46.5	20.0	50.0
M10510-20-24	31	- 20	1.1/4"	1.1/2" - 11		33.5	48.5	22.0	55.0
M10510-24-24	38	- 24	1.1/2"	1.1/2" - 11		33.5	49.5	22.0	55.0
M10510-32-32	51	- 32	2"	2" - 11		46.0	54.0	25.0	70.0

BS STANDARD CONNECTIONS

# M20512/M20513

**BSP FEMALE 60° CONE  
BS5200 / ISO 12151-6**



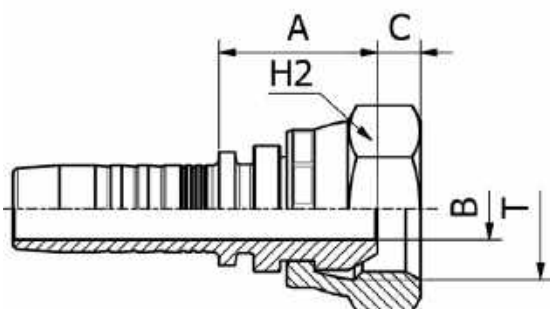
FITTINGS 118

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H2		
M20512-03-02	5	- 3	3/16"	1/8" - 28		3.0	16.0	4.4	14.0		
M20512-04-02	6	- 4	1/4"	1/8" - 28		3.1	16.5	4.4	14.0		
M20512-05-04	8	- 5	5/16"	1/4" - 19		4.1	17.5	4.2	19.0		
M20512-06-04	10	- 6	3/8"	1/4" - 19		4.1	18.0	4.2	19.0		
M20512-08-06	12	- 8	1/2"	3/8" - 19		7.1	21.0	6.0	22.0		
M20512-08-10	12	- 8	1/2"	5/8" - 14		12.1	22.0	10.2	28.0		
M20512-08-12	12	- 8	1/2"	3/4" - 14		15.0	24.5	9.0	32.0		
M20512-10-08	16	- 10	5/8"	1/2" - 14		9.8	24.0	6.5	27.0		
M20512-10-10	16	- 10	5/8"	5/8" - 14		12.5	21.5	10.2	28.0		
M20512-10-12	16	- 10	5/8"	3/4" - 14		15.0	23.0	9.0	32.0		
M20512-12-08	19	- 12	3/4"	1/2" - 14		9.8	25.0	6.5	27.0		
M20512-12-12	19	- 12	3/4"	3/4" - 14		15.0	24.5	9.0	32.0		
M20512-12-16	19	- 12	3/4"	1" - 11		19.8	26.0	10.5	38.0		
M20512-16-12	25	- 16	1"	3/4" - 14		15.0	25.5	9.0	32.0		
M20512-16-16	25	- 16	1"	1" - 11		19.8	27.5	10.5	38.0		
M20513-03-04	5	- 3	3/16"	1/4" - 19		4.0	16.5	5.4	19.0		
M20513-04-04	6	- 4	1/4"	1/4" - 19		4.0	17.0	5.4	19.0		
M20513-04-06	6	- 4	1/4"	3/8" - 19		7.0	19.0	6.0	22.0		
M20513-04-08	6	- 4	1/4"	1/2" - 14		9.5	19.5	6.3	27.0		
M20513-05-06	8	- 5	5/16"	3/8" - 19		7.0	19.0	6.0	22.0		
M20513-05-08	8	- 5	5/16"	1/2" - 14		9.3	20.5	6.3	27.0		
M20513-06-06	10	- 6	3/8"	3/8" - 19		7.0	19.5	6.0	22.0		
M20513-06-08	10	- 6	3/8"	1/2" - 14		9.3	20.0	6.3	27.0		
M20513-08-08	12	- 8	1/2"	1/2" - 14		9.3	20.5	6.3	27.0		

BS STANDARD CONNECTIONS

# M20511KR

**BSP FEMALE 60° CONE  
BS5200 / ISO 12151-6**



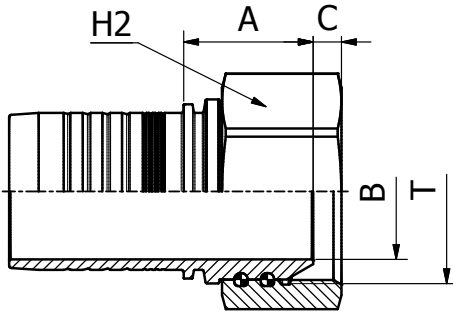
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H2		
M20511-04-04KR	6	- 4	1/4"	1/4" - 19		4.0	20.0	5.2	19.0		
M20511-06-06KR	10	- 6	3/8"	3/8" - 19		7.0	22.0	6.0	22.0		
M20511-08-08KR	12	- 8	1/2"	1/2" - 14		9.3	24.0	6.5	27.0		



BS STANDARD CONNECTIONS

# M20514

BSP FEMALE 60° CONE  
BS5200 / ISO 12151-6

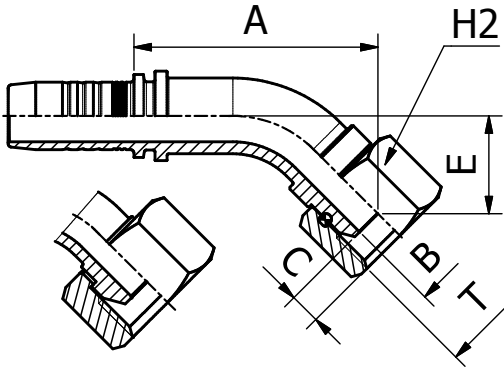


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H2			
M20514-40-40	63	- 40	2.1/2"	2.1/2"	55.4	52.5	11.5	85.0			
M20514-48-48	76	- 48	3"	3"	65.0	57.0	10.9	100.0			

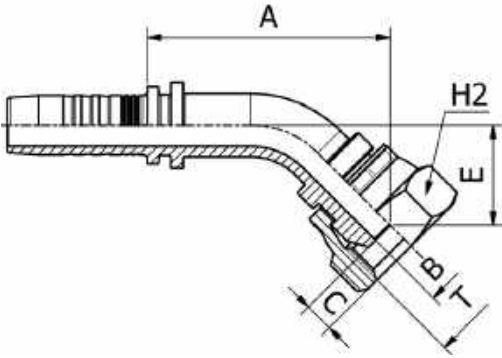
BS STANDARD CONNECTIONS

# M20542/M20543

45° BSP FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M20542-03-02	5	- 3	3/16"	1/8" - 28	3.0	31.0	4.4	15.0	14.0		
M20542-04-02	6	- 4	1/4"	1/8" - 28	3.1	35.5	4.4	14.5	14.0		
M20542-05-04	8	- 5	5/16"	1/4" - 19	4.0	35.5	4.1	16.0	19.0		
M20542-08-06	12	- 8	1/2"	3/8" - 19	7.1	52.0	6.0	20.0	22.0		
M20542-08-10	12	- 8	1/2"	5/8" - 14	12.1	54.5	10.2	22.5	28.0		
M20542-08-12	12	- 8	1/2"	3/4" - 14	15.0	57.0	9.0	25.0	32.0		
M20542-10-08	16	- 10	5/8"	1/2" - 14	9.3	63.5	6.5	26.5	27.0		
M20542-10-10	16	- 10	5/8"	5/8" - 14	12.5	63.0	10.2	26.0	28.0		
M20542-10-12	16	- 10	5/8"	3/4" - 14	15.0	64.0	9.0	27.0	32.0		
M20542-12-08	19	- 12	3/4"	1/2" - 14	9.3	55.5	6.5	22.5	27.0		
M20542-12-12	19	- 12	3/4"	3/4" - 14	15.0	70.5	9.0	28.5	32.0		
M20542-12-16	19	- 12	3/4"	1" - 11	19.8	72.5	10.5	30.0	38.0		
M20542-16-16	25	- 16	1"	1" - 11	19.8	91.0	10.5	36.5	38.0		
M20543-03-04	5	- 3	3/16"	1/4" - 19	4.0	35.5	5.4	14.5	19.0		
M20543-04-04	6	- 4	1/4"	1/4" - 19	4.0	36.0	5.4	15.0	19.0		
M20543-04-06	6	- 4	1/4"	3/8" - 19	7.0	37.5	6.0	16.0	22.0		
M20543-05-06	8	- 5	5/16"	3/8" - 19	7.0	38.0	6.0	13.5	22.0		
M20543-06-06	10	- 6	3/8"	3/8" - 19	7.0	42.0	6.0	15.5	22.0		
M20543-06-08	10	- 6	3/8"	1/2" - 14	9.3	42.5	6.3	16.0	27.0		
M20543-08-08	12	- 8	1/2"	1/2" - 14	9.3	49.5	6.3	17.0	27.0		



BS STANDARD CONNECTIONS

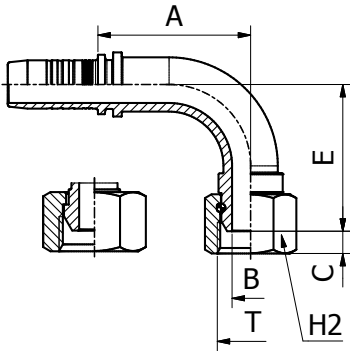
# M20541KR

45° BSP FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6

FITTINGS

120

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M20541-04-04KR	6	- 4	1/4"	1/4" - 19	4.2	38.0	5.2	16.6	19.0		
M20541-06-06KR	10	- 6	3/8"	3/8" - 19	7.0	45.5	6.0	20.0	22.0		
M20541-08-08KR	12	- 8	1/2"	1/2" - 14	9.3	54.0	6.5	22.0	27.0		



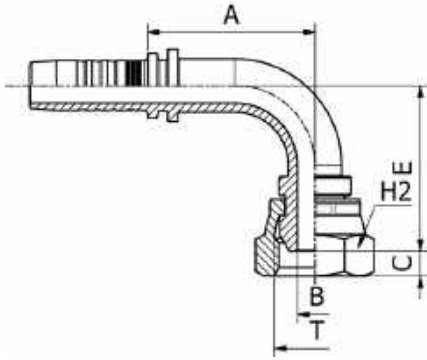
BS STANDARD CONNECTIONS

# M20592/M20593

90° BSP FEMALE SWEPT ELBOW  
60° CONE - BS5200 / ISO 12151-6

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M20592-03-02	5	- 3	3/16"	1/8" - 28	3.0	21.5	4.4	26.0	14.0		
M20592-04-02	6	- 4	1/4"	1/8" - 28	3.1	28.5	4.4	27.0	14.0		
M20592-05-04	8	- 5	5/16"	1/4" - 19	4.0	26.5	4.1	29.5	19.0		
M20592-06-04	10	- 6	3/8"	1/4" - 19	4.0	27.0	4.1	29.5	19.0		
M20592-08-06	12	- 8	1/2"	3/8" - 19	7.1	45.0	6.0	41.0	22.0		
M20592-08-10	12	- 8	1/2"	5/8" - 14	12.1	44.0	10.2	44.0	28.0		
M20592-08-12	12	- 8	1/2"	3/4" - 14	15.0	44.0	9.0	45.5	32.0		
M20592-10-08	16	- 10	5/8"	1/2" - 14	9.3	53.5	6.5	54.5	27.0		
M20592-10-10	16	- 10	5/8"	5/8" - 14	12.5	53.5	10.2	53.5	28.0		
M20592-10-12	16	- 10	5/8"	3/4" - 14	15.0	53.5	9.0	55.0	32.0		
M20592-12-08	19	- 12	3/4"	1/2" - 14	9.3	45.5	6.5	44.0	27.0		
M20592-12-12	19	- 12	3/4"	3/4" - 14	15.0	61.5	9.0	59.5	32.0		
M20592-12-16	19	- 12	3/4"	1" - 11	19.8	61.5	10.5	62.0	38.0		
M20592-16-12	25	- 16	1"	3/4" - 14	15.0	64.5	9.0	59.5	32.0		
M20592-16-16	25	- 16	1"	1" - 11	19.8	79.5	10.5	76.0	38.0		
M20593-03-04	5	- 3	3/16"	1/4" - 19	4.0	29.0	5.4	29.0	19.0		
M20593-04-04	6	- 4	1/4"	1/4" - 19	4.0	29.5	5.4	29.0	19.0		
M20593-04-06	6	- 4	1/4"	3/8" - 19	7.0	29.5	6.0	31.0	22.0		
M20593-05-06	8	- 5	5/16"	3/8" - 19	7.0	32.0	6.0	27.5	22.0		
M20593-05-08	8	- 5	5/16"	1/2" - 14	9.3	36.5	6.3	32.0	27.0		
M20593-06-06	10	- 6	3/8"	3/8" - 19	7.0	36.5	6.0	31.5	22.0		
M20593-06-08	10	- 6	3/8"	1/2" - 14	9.3	36.5	6.3	32.0	27.0		
M20593-08-08	12	- 8	1/2"	1/2" - 14	9.3	45.0	6.3	36.5	27.0		

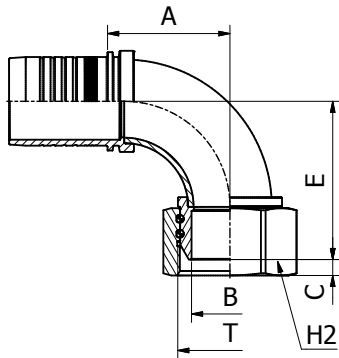
BS STANDARD CONNECTIONS



# M20591KR

90° BSP FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6

PART. REF.	HOSE BORE			Thread	T	DIMENSIONS mm					
	DN	Dash	inch			B	A	C	E	H2	
M20591-04-04KR	6	- 4	1/4"	1/4" - 19	4.2	28.5	5.2	30.5	19.0		
M20591-04-06KR	6	- 4	1/4"	3/8" - 19	7.0	28.5	6.0	32.0	22.0		
M20591-06-06KR	10	- 6	3/8"	3/8" - 19	7.0	35.5	6.0	37.5	22.0		
M20591-06-08KR	10	- 6	3/8"	1/2" - 14	9.3	35.5	6.5	39.0	27.0		
M20591-08-06KR	12	- 8	1/2"	3/8" - 19	7.0	44.0	6.0	42.0	22.0		
M20591-08-08KR	12	- 8	1/2"	1/2" - 14	9.3	44.0	6.5	43.5	27.0		



BS STANDARD CONNECTIONS

# M20594

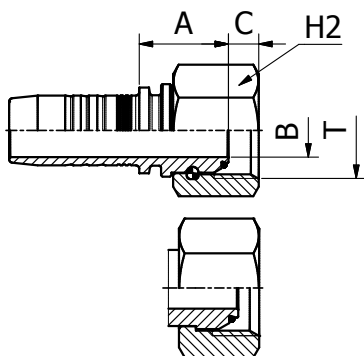
90° BSP FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6

PART. REF.	HOSE BORE			Thread	T	DIMENSIONS mm					
	DN	Dash	inch			B	A	C	E	H2	
M20594-40-40	63	- 40	2.1/2"	2.1/2"	55.4	88.0	11.5	114.0	85.0		
M20594-48-48	76	- 48	3"	3"	65.0	123.0	10.9	135.0	100.0		

BS STANDARD CONNECTIONS

# M20812/M20813

**BSP O-RING FEMALE 60° CONE  
BS5200 / ISO 12151-6**

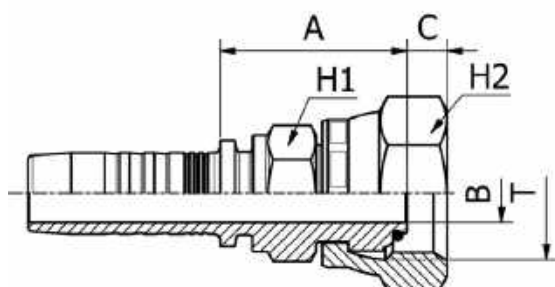


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H2			
M20812-06-04	10	- 6	3/8"	1/4" - 19	4.1	18.0	4.1	19.0			
M20812-10-10	16	- 10	5/8"	5/8" - 14	12.5	22.0	9.7	28.0			
M20812-12-12	19	- 12	3/4"	3/4" - 14	15.0	25.0	8.5	32.0			
M20812-16-12	25	- 16	1"	3/4" - 14	15.0	26.0	8.5	32.0			
M20812-16-16	25	- 16	1"	1" - 11	19.8	27.5	10.6	38.0			
M20812-16-20	25	- 16	1"	1.1/4" - 11	26.1	31.0	10.5	50.0			
M20812-20-16	31	- 20	1.1/4"	1" - 11	19.8	29.0	10.5	38.0			
M20812-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.0	31.5	10.5	50.0			
M20812-20-24	31	- 20	1.1/4"	1.1/2" - 11	32.1	29.5	12.5	60.0			
M20812-24-20	38	- 24	1.1/2"	1.1/4" - 11	26.0	31.5	10.5	50.0			
M20812-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.0	30.5	12.5	60.0			
M20812-24-32	38	- 24	1.1/2"	2" - 11	42.1	30.0	16.1	70.0			
M20812-32-32	51	- 32	2"	2" - 11	42.0	32.0	16.1	70.0			
M20813-03-04	5	- 3	3/16"	1/4" - 19	4.0	16.5	5.4	19.0			
M20813-04-04	6	- 4	1/4"	1/4" - 19	4.0	17.0	5.4	19.0			
M20813-04-06	6	- 4	1/4"	3/8" - 19	7.0	19.0	6.0	22.0			
M20813-06-06	10	- 6	3/8"	3/8" - 19	7.0	19.5	6.0	22.0			
M20813-06-08	10	- 6	3/8"	1/2" - 14	9.3	21.0	6.3	27.0			
M20813-08-08	12	- 8	1/2"	1/2" - 14	9.3	20.5	6.3	27.0			

BS STANDARD CONNECTIONS

# M20811HKR

**BSP O-RING FEMALE 60° CONE  
BS5200 / ISO 12151-6**

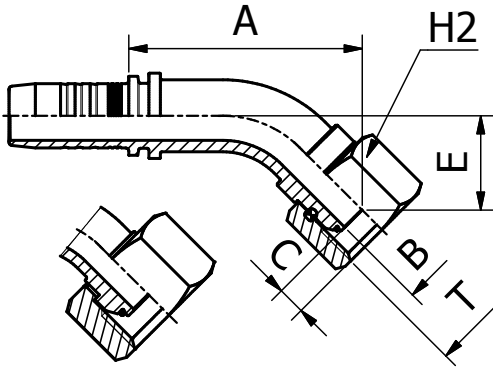


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
M20811-04-04H12KR	6	- 4	1/4"	1/4" - 19	4.0	25.0	5.2	12.0	19.0		
M20811-04-06H17KR	6	- 4	1/4"	3/8" - 19	7.0	27.0	6.0	17.0	22.0		
M20811-06-04H17KR	10	- 6	3/8"	1/4" - 19	4.0	26.0	5.2	17.0	19.0		
M20811-06-06H17KR	10	- 6	3/8"	3/8" - 19	7.0	27.5	6.0	17.0	22.0		
M20811-06-08H19KR	10	- 6	3/8"	1/2" - 14	9.3	29.5	6.5	19.0	27.0		
M20811-08-06H19KR	12	- 8	1/2"	3/8" - 19	7.0	29.5	6.0	19.0	22.0		
M20811-08-08H19KR	12	- 8	1/2"	1/2" - 14	9.3	30.0	5.5	19.0	22.0		

BS STANDARD CONNECTIONS

# M20842/M20843

45° BSP O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6



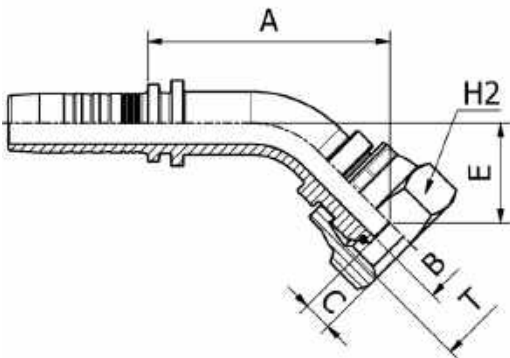
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M20842-10-10	16	- 10	5/8"	5/8" - 14	12.5	63.5	9.7	27.5	28.0		
M20842-12-12	19	- 12	3/4"	3/4" - 14	15.0	71.0	8.5	29.0	32.0		
M20842-16-12	25	- 16	1"	3/4" - 14	15.0	79.5	8.5	29.0	32.0		
M20842-16-16	25	- 16	1"	1" - 11	19.8	90.5	10.6	35.5	38.0		
M20842-16-20	25	- 16	1"	1.1/4" - 11	26.1	93.0	10.5	38.0	50.0		
M20842-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.0	101.5	10.5	39.0	50.0		
M20842-20-24	31	- 20	1.1/4"	1.1/2" - 11	32.1	118.5	12.5	40.5	60.0		
M20842-24-20	38	- 24	1.1/2"	1.1/4" - 11	26.0	106.0	10.5	42.0	50.0		
M20842-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.0	118.0	12.5	45.0	60.0		
M20842-24-32	38	- 24	1.1/2"	2" - 11	42.1	117.5	16.1	44.5	70.0		
M20842-32-32	51	- 32	2"	2" - 11	42.0	134.0	16.1	47.0	70.0		
M20843-04-04	6	- 4	1/4"	1/4" - 19	4.0	36.0	5.4	14.5	19.0		
M20843-06-06	10	- 6	3/8"	3/8" - 19	7.0	42.0	6.0	15.5	22.0		
M20843-08-08	12	- 8	1/2"	1/2" - 14	9.3	49.5	6.3	17.0	27.0		

123 FITTINGS

BS STANDARD CONNECTIONS

# M20841KR

45° BSP O-RING FEMALE 60° CONE  
BS5200 / ISO 12151-6

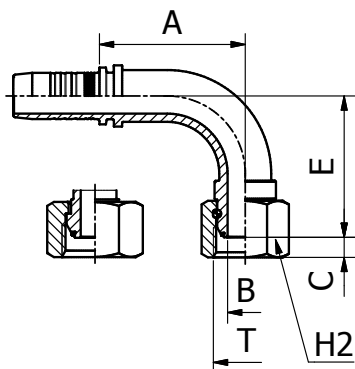


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M20841-04-04KR	6	- 4	1/4"	1/4" - 19	4.2	38.0	5.2	16.6	19.0		
M20841-06-06KR	10	- 6	3/8"	3/8" - 19	7.0	45.5	6.0	16.5	22.0		
M20841-08-08KR	12	- 8	1/2"	1/2" - 14	9.3	54.0	6.5	22.0	27.0		

BS STANDARD CONNECTIONS

# M20892/M20893

90° BSP O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6



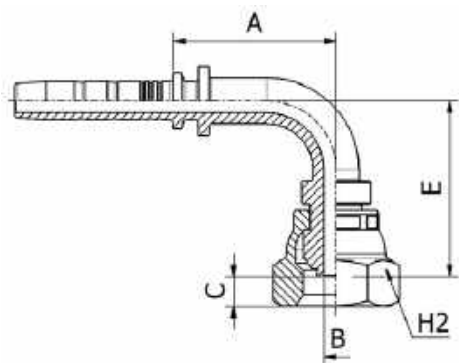
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M20892-06-04	10	- 6	3/8"	1/4" - 19	4.1	35.5	4.1	33.0	19.0		
M20892-10-10	16	- 10	5/8"	5/8" - 14	12.5	53.0	9.7	55.0	28.0		
M20892-12-12	19	- 12	3/4"	3/4" - 14	15.0	61.5	8.5	60.0	32.0		
M20892-12-16	19	- 12	3/4"	1" - 11	19.8	61.5	10.6	62.0	38.0		
M20892-16-12	25	- 16	1"	3/4" - 14	15.0	79.5	8.5	60.0	32.0		
M20892-16-16	25	- 16	1"	1" - 11	19.8	79.5	10.6	76.0	38.0		
M20892-16-20	25	- 16	1"	1.1/4" - 11	26.1	79.5	10.5	78.5	50.0		
M20892-20-16	31	- 20	1.1/4"	1" - 11	19.8	79.5	10.6	76.0	38.0		
M20892-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.0	90.5	10.5	83.5	50.0		
M20892-20-24	31	- 20	1.1/4"	1.1/2" - 11	32.1	90.5	12.5	84.5	60.0		
M20892-24-20	38	- 24	1.1/2"	1.1/4" - 11	26.0	95.0	10.5	90.5	50.0		
M20892-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.0	108.0	12.5	98.5	60.0		
M20892-24-32	38	- 24	1.1/2"	2" - 11	42.1	108.0	16.1	98.0	70.0		
M20892-32-32	51	- 32	2"	2" - 11	42.0	131.0	16.1	110.5	70.0		
M20893-03-04	5	- 3	3/16"	1/4" - 19	4.0	29.0	5.4	29.0	19.0		
M20893-04-04	6	- 4	1/4"	1/4" - 19	4.0	29.5	5.4	29.0	19.0		
M20893-06-06	10	- 6	3/8"	3/8" - 19	7.0	36.5	6.0	31.5	22.0		
M20893-08-08	12	- 8	1/2"	1/2" - 14	9.3	45.0	6.3	36.5	27.0		

FITTINGS 124

BS STANDARD CONNECTIONS

# M20891KR

90° BSP O-RING FEMALE 60° CONE  
BS5200 / ISO 12151-6

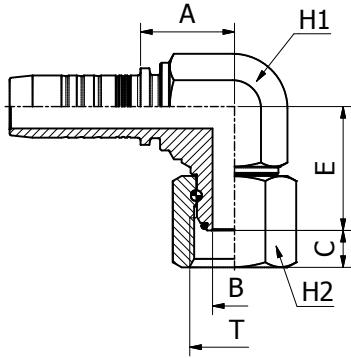


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M20891-04-04KR	6	- 4	1/4"	1/4" - 19	4.2	28.5	5.2	30.5	19.0		
M20891-04-06KR	6	- 4	1/4"	3/8" - 19	7.0	28.5	6.0	32.0	22.0		
M20891-06-04KR	10	- 6	3/8"	1/4" - 19	4.0	37.5	5.2	36.0	19.0		
M20891-06-06KR	10	- 6	3/8"	3/8" - 19	7.0	35.5	6.0	37.5	22.0		
M20891-06-08KR	10	- 6	3/8"	1/2" - 14	9.3	35.5	6.5	39.0	27.0		
M20891-08-06KR	12	- 8	1/2"	3/8" - 19	7.0	44.0	6.0	42.0	22.0		
M20891-08-08KR	12	- 8	1/2"	1/2" - 14	9.3	44.0	5.5	43.5	22.0		

BS STANDARD CONNECTIONS

# M20882F

90° BSP O-RING FEMALE  
COMPACT ELBOW 60° CONE  
BS5200 / ISO 12151-6 (THRUST-WIRE NUT)

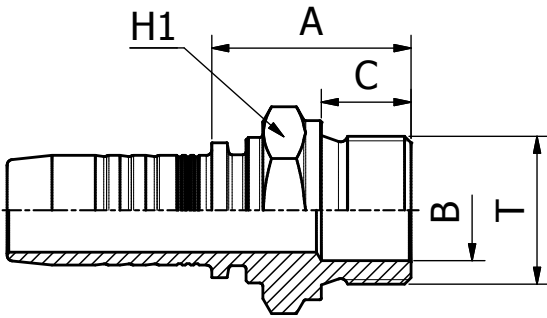


PART. REF.	HOSE BORE			Thread	T	DIMENSIONS mm						
	DN	Dash	inch			B	A	C	E	H1	H2	
M20882-04-04F	6	- 4	1/4"	1/4" - 19		4.0	20.0	4.1	22.0	14.0	19.0	
M20882-06-06F	10	- 6	3/8"	3/8" - 19		7.0	23.0	6.0	27.5	19.0	22.0	
M20882-08-08F	12	- 8	1/2"	1/2" - 14		9.3	25.0	6.5	31.0	22.0	27.0	
M20882-10-10F	16	- 10	5/8"	5/8" - 14		12.5	24.5	9.7	32.5	24.0	28.0	
M20882-12-12F	19	- 12	3/4"	3/4" - 14		15.0	37.5	8.5	36.0	27.0	32.0	
M20882-16-16F	25	- 16	1"	1" - 11		20.0	52.0	10.6	44.0	36.0	38.0	

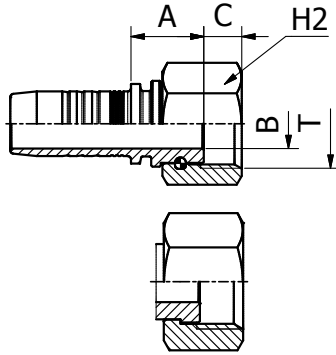
BS STANDARD CONNECTIONS

# M10610

BSP MALE FLAT SEAT



PART. REF.	HOSE BORE			Thread	T	DIMENSIONS mm			
	DN	Dash	inch			B	A	C	H1
M10610-04-04	6	- 4	1/4"	1/4" - 19		6.0	25.5	11.0	19.0
M10610-06-06	10	- 6	3/8"	3/8" - 19		9.5	28.0	12.0	22.0
M10610-06-08	10	- 6	3/8"	1/2" - 14		13.0	30.5	14.0	27.0
M10610-08-08	12	- 8	1/2"	1/2" - 14		13.0	31.0	14.0	27.0
M10610-10-08	16	- 10	5/8"	1/2" - 14		13.0	31.0	14.0	27.0
M10610-12-12	19	- 12	3/4"	3/4" - 14		18.0	35.5	16.0	32.0

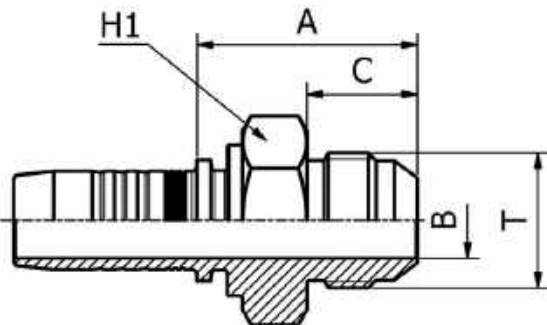


BS STANDARD CONNECTIONS

# M20612/M20613

BSP FEMALE FLAT SEAT

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H2			
M20612-08-12	12	- 8	1/2"	3/4" - 14	15.0	21.0	11.5	32.0			
M20612-10-12	16	- 10	5/8"	3/4" - 14	15.0	20.5	11.5	32.0			
M20612-12-12	19	- 12	3/4"	3/4" - 14	15.0	22.0	11.5	32.0			
M20612-12-16	19	- 12	3/4"	1" - 11	19.8	23.5	13.0	38.0			
M20612-16-16	25	- 16	1"	1" - 11	19.8	25.0	13.0	38.0			
M20612-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.0	26.0	15.0	50.0			
M20613-04-04	6	- 4	1/4"	1/4" - 19	4.0	14.5	7.9	19.0			
M20613-05-06	8	- 5	5/16"	3/8" - 19	7.0	16.0	9.0	22.0			
M20613-06-06	10	- 6	3/8"	3/8" - 19	7.0	16.5	9.0	22.0			
M20613-06-08	10	- 6	3/8"	1/2" - 14	9.3	17.5	9.8	27.0			
M20613-08-08	12	- 8	1/2"	1/2" - 14	9.3	18.0	9.8	27.0			



SAE STANDARD CONNECTIONS

# M12510

JIC MALE 37° CONE  
SAE J516 / ISO 12151-5

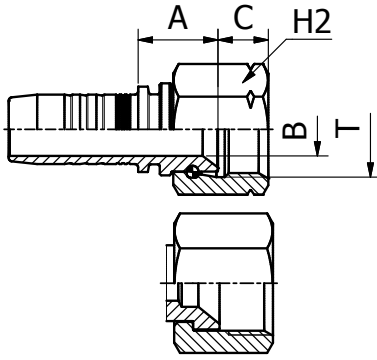
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M12510-04-04	6	- 4	1/4"	7/16" - 20	4.0	28.0	14.0	12.0			
M12510-04-05	6	- 4	1/4"	1/2" - 20	5.5	29.0	14.0	14.0			
M12510-04-06	6	- 4	1/4"	9/16" - 18	7.0	29.0	14.0	17.0			
M12510-05-04	8	- 5	5/16"	7/16" - 20	4.0	29.0	14.0	14.0			
M12510-05-05	8	- 5	5/16"	1/2" - 20	5.5	29.0	14.0	14.0			
M12510-05-06	8	- 5	5/16"	9/16" - 18	7.0	29.0	14.0	17.0			
M12510-06-05	10	- 6	3/8"	1/2" - 20	5.5	29.5	14.0	17.0			
M12510-06-06	10	- 6	3/8"	9/16" - 18	7.0	29.5	14.0	17.0			
M12510-06-08	10	- 6	3/8"	3/4" - 16	9.3	34.0	16.5	19.0			
M12510-06-10	10	- 6	3/8"	7/8" - 14	12.5	38.5	19.5	24.0			
M12510-08-06	12	- 8	1/2"	9/16" - 18	7.0	32.0	14.0	19.0			
M12510-08-08	12	- 8	1/2"	3/4" - 16	9.3	34.5	16.5	19.0			
M12510-08-10	12	- 8	1/2"	7/8" - 14	12.5	39.0	19.5	24.0			
M12510-08-12	12	- 8	1/2"	1.1/16" - 12	15.0	43.0	22.0	27.0			
M12510-10-10	16	- 10	5/8"	7/8" - 14	12.5	39.0	19.5	24.0			
M12510-10-12	16	- 10	5/8"	1.1/16" - 12	15.0	42.5	22.0	27.0			
M12510-12-10	19	- 12	3/4"	7/8" - 14	12.5	41.5	19.5	27.0			
M12510-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	44.0	22.0	27.0			
M12510-12-14	19	- 12	3/4"	1.3/16" - 12	15.0	44.5	22.5	32.0			
M12510-12-16	19	- 12	3/4"	1.5/16" - 12	19.8	47.0	23.0	34.0			
M12510-16-12	25	- 16	1"	1.1/16" - 12	15.0	45.0	22.0	32.0			
M12510-16-16	25	- 16	1"	1.5/16" - 12	19.8	48.0	23.0	34.0			
M12510-16-20	25	- 16	1"	1.5/8" - 12	26.0	53.0	24.3	42.0			
M12510-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	53.5	24.3	42.0			
M12510-20-24	31	- 20	1.1/4"	1.7/8" - 12	32.0	60.5	27.5	50.0			
M12510-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.0	60.5	27.5	50.0			
M12510-32-32	51	- 32	2"	2.1/2" - 12	42.0	72.0	34.0	65.0			



SAE STANDARD CONNECTIONS

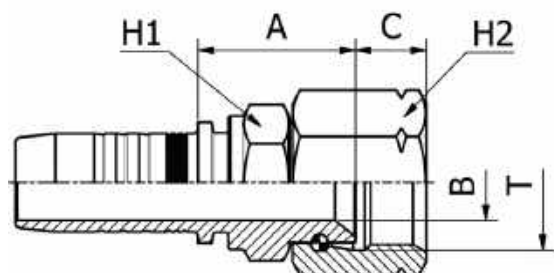
# M22512/M22513

JIC FEMALE 37° CONE SEAT  
SAE J516 / ISO 12151-5



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H2		
M22512-03-05	5	- 3	3/16"	1/2" - 20	4.0	15.5	9.1	17.0			
M22512-04-04	6	- 4	1/4"	7/16" - 20	4.0	15.5	8.7	17.0			
M22512-04-05	6	- 4	1/4"	1/2" - 20	4.0	16.0	9.1	17.0			
M22512-05-04	8	- 5	5/16"	7/16" - 20	4.0	15.5	8.7	17.0			
M22512-05-05	8	- 5	5/16"	1/2" - 20	5.5	16.0	9.1	17.0			
M22512-05-06	8	- 5	5/16"	9/16" - 18	7.0	15.5	9.2	19.0			
M22512-06-05	10	- 6	3/8"	1/2" - 20	5.5	16.5	9.1	17.0			
M22512-06-06	10	- 6	3/8"	9/16" - 18	7.0	16.0	9.2	19.0			
M22512-08-08	12	- 8	1/2"	3/4" - 16	9.3	20.0	10.2	22.0			
M22512-10-10	16	- 10	5/8"	7/8" - 14	12.5	20.0	12.3	27.0			
M22512-12-08	19	- 12	3/4"	3/4" - 16	9.3	21.5	10.2	22.0			
M22512-12-10	19	- 12	3/4"	7/8" - 14	12.5	21.5	12.3	27.0			
M22512-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	22.5	14.2	32.0			
M22512-12-14	19	- 12	3/4"	1.3/16" - 12	15.0	23.0	14.3	36.0			
M22512-12-16	19	- 12	3/4"	1.5/16" - 12	19.8	23.0	15.0	38.0			
M22512-16-12	25	- 16	1"	1.1/16" - 12	15.0	23.5	14.2	32.0			
M22512-16-16	25	- 16	1"	1.5/16" - 12	19.8	24.0	15.0	38.0			
M22512-16-20	25	- 16	1"	1.5/8" - 12	26.0	30.0	16.2	50.0			
M22512-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	30.0	16.2	50.0			
M22512-20-24	31	- 20	1.1/4"	1.7/8" - 12	32.0	35.0	18.8	60.0			
M22512-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.0	35.0	18.8	60.0			
M22512-32-24	51	- 32	2"	1.7/8" - 12	32.0	37.0	18.8	60.0			
M22512-32-32	51	- 32	2"	2.1/2" - 12	44.0	35.5	24.0	75.0			
M22513-03-04	5	- 3	3/16"	7/16" - 20	3.0	15.0	8.0	15.0			
M22513-04-06	6	- 4	1/4"	9/16" - 18	4.0	16.5	9.8	19.0			
M22513-05-08	8	- 5	5/16"	3/4" - 16	5.5	17.0	10.1	22.0			
M22513-06-08	10	- 6	3/8"	3/4" - 16	7.0	17.5	10.1	22.0			
M22513-06-10	10	- 6	3/8"	7/8" - 14	9.3	18.0	12.4	27.0			
M22513-08-10	12	- 8	1/2"	7/8" - 14	9.3	18.5	12.4	27.0			
M22513-08-12	12	- 8	1/2"	1.1/16" - 12	12.5	22.0	14.1	32.0			
M22513-10-12	16	- 10	5/8"	1.1/16" - 12	12.5	21.5	14.1	32.0			

# M22712



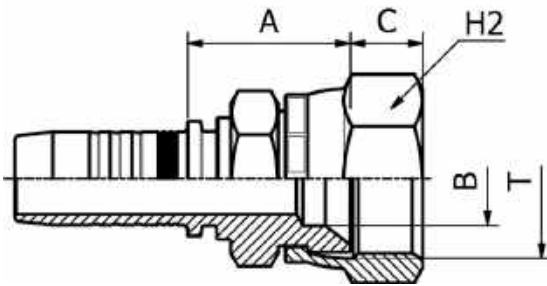
**JIC FEMALE 37° CONE SEAT DOUBLE HEXAGON  
SAE J516 / ISO 12151-5 (THRUST-WIRE NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H1	H2	
M22712-03-04	5	- 3	3/16"	7/16" - 20	4.0	20.5	8.7	12.0	17.0		
M22712-04-04	6	- 4	1/4"	7/16" - 20	4.0	21.0	8.7	12.0	17.0		
M22712-04-05	6	- 4	1/4"	1/2" - 20	4.0	21.5	9.1	12.0	17.0		
M22712-04-06	6	- 4	1/4"	9/16" - 18	7.0	24.0	9.2	14.0	19.0		
M22712-05-05	8	- 5	5/16"	1/2" - 20	5.5	21.5	9.1	14.0	17.0		
M22712-05-06	8	- 5	5/16"	9/16" - 18	7.0	24.0	9.2	14.0	19.0		
M22712-05-08	8	- 5	5/16"	3/4" - 16	9.3	26.0	10.2	19.0	22.0		
M22712-06-04	10	- 6	3/8"	7/16" - 20	4.0	24.5	8.7	17.0	17.0		
M22712-06-05	10	- 6	3/8"	1/2" - 20	5.5	25.0	9.1	17.0	17.0		
M22712-06-06	10	- 6	3/8"	9/16" - 18	7.0	24.5	9.2	17.0	19.0		
M22712-06-08	10	- 6	3/8"	3/4" - 16	9.3	27.0	10.2	19.0	22.0		
M22712-06-10	10	- 6	3/8"	7/8" - 14	12.5	28.0	12.3	22.0	27.0		
M22712-08-06	12	- 8	1/2"	9/16" - 18	7.0	24.5	9.2	19.0	19.0		
M22712-08-08	12	- 8	1/2"	3/4" - 16	9.3	27.5	10.2	19.0	22.0		
M22712-08-10	12	- 8	1/2"	7/8" - 14	12.5	28.5	12.3	22.0	27.0		
M22712-08-12	12	- 8	1/2"	1.1/16" - 12	14.0	30.0	14.2	27.0	32.0		
M22712-10-08	16	- 10	5/8"	3/4" - 16	9.3	28.5	10.2	22.0	22.0		
M22712-10-10	16	- 10	5/8"	7/8" - 14	12.5	28.5	12.3	22.0	27.0		
M22712-10-12	16	- 10	5/8"	1.1/16" - 12	15.0	30.0	14.2	27.0	32.0		
M22712-12-08	19	- 12	3/4"	3/4" - 16	9.3	30.0	10.2	27.0	22.0		
M22712-12-10	19	- 12	3/4"	7/8" - 14	12.5	30.0	12.3	27.0	27.0		
M22712-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	31.5	14.2	27.0	32.0		
M22712-12-14	19	- 12	3/4"	1.3/16" - 12	15.0	33.0	14.3	30.0	36.0		
M22712-12-16	19	- 12	3/4"	1.5/16" - 12	19.8	32.5	15.0	32.0	38.0		
M22712-16-12	25	- 16	1"	1.1/16" - 12	12.5	34.0	14.2	32.0	32.0		
M22712-16-16	25	- 16	1"	1.5/16" - 12	19.8	34.5	15.0	32.0	38.0		
M22712-16-20	25	- 16	1"	1.5/8" - 12	26.0	43.0	16.2	41.0	50.0		
M22712-20-16	31	- 20	1.1/4"	1.5/16" - 12	19.8	36.0	15.0	38.0	38.0		
M22712-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	43.5	16.2	41.0	50.0		
M22712-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.0	51.0	18.8	50.0	60.0		
M22712-32-32	51	- 32	2"	2.1/2" - 12	44.0	51.5	24.0	65.0	75.0		

SAE STANDARD CONNECTIONS

# M22711/M22711KR

**JIC FEMALE  
37° CONE SEAT DOUBLE HEXAGON  
SAE J516 / ISO 12151-5**

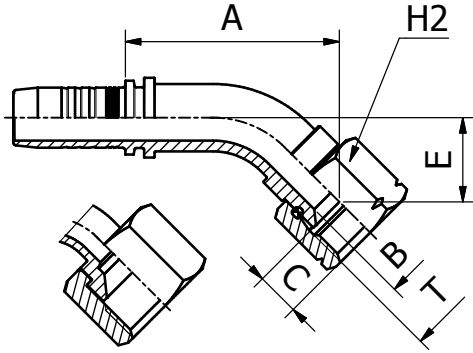


PART. REF.	HOSE BORE			Thread	T	DIMENSIONS mm					
	DN	Dash	inch			B	A	C	H1	H2	
M22711-12-16	19	- 12	3/4"	1.5/16" - 12	19.8	34.5	15.3	32.0	38.0		
M22711-16-16	25	- 16	1"	1.5/16" - 12	19.8	35.5	15.3	32.0	38.0		
M22711-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	42.0	16.1	41.0	50.0		
M22711-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.0	46.5	18.6	50.0	60.0		
M22711-32-32	51	- 32	2"	2.1/2" - 12	42.0	50.5	23.5	65.0	75.0		
M22711-04-04KR	6	- 4	1/4"	7/16" - 20	4.0	20.5	8.9	12.0	15.0		
M22711-04-05KR	6	- 4	1/4"	1/2" - 20	4.0	21.0	9.4	14.0	17.0		
M22711-04-06KR	6	- 4	1/4"	9/16" - 18	7.0	21.5	9.5	14.0	17.0		
M22711-06-04KR	10	- 6	3/8"	7/16" - 20	4.0	21.5	8.9	17.0	15.0		
M22711-06-05KR	10	- 6	3/8"	1/2" - 20	4.0	22.0	9.4	17.0	17.0		
M22711-06-06KR	10	- 6	3/8"	9/16" - 18	7.0	22.0	9.5	17.0	17.0		
M22711-06-08KR	10	- 6	3/8"	3/4" - 16	9.3	26.5	10.7	19.0	22.0		
M22711-08-08KR	12	- 8	1/2"	3/4" - 16	9.3	27.0	10.7	19.0	22.0		
M22711-08-10KR	12	- 8	1/2"	7/8" - 14	9.3	29.5	12.5	22.0	25.0		
M22711-08-12KR	12	- 8	1/2"	1.1/16" - 12	15.0	28.5	14.1	27.0	32.0		
M22711-10-08KR	16	- 10	5/8"	3/4" - 16	9.3	28.5	10.7	22.0	22.0		
M22711-10-10KR	16	- 10	5/8"	7/8" - 14	12.5	29.5	12.5	22.0	25.0		
M22711-10-12KR	16	- 10	5/8"	1.1/16" - 12	15.0	29.0	14.1	27.0	32.0		
M22711-12-08KR	19	- 12	3/4"	3/4" - 16	9.3	29.5	10.7	27.0	22.0		
M22711-12-10KR	19	- 12	3/4"	7/8" - 14	12.5	30.5	12.5	27.0	25.0		
M22711-12-12KR	19	- 12	3/4"	1.1/16" - 12	15.0	30.0	14.1	27.0	32.0		
M22711-16-12KR	25	- 16	1"	1.1/16" - 12	15.0	32.5	14.1	32.0	32.0		

SAE STANDARD CONNECTIONS

# M22542/M22543

45° JIC FEMALE SWEPT ELBOW  
37° CONE SEAT  
SAE J516 / ISO 12151-5



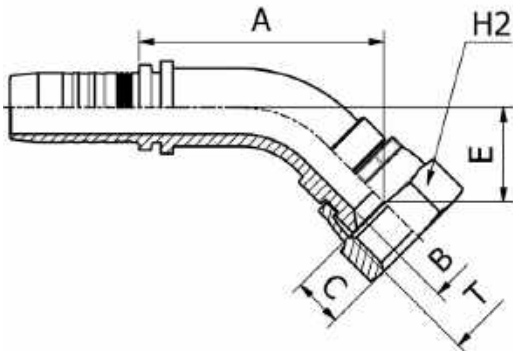
FITTINGS 130

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M22542-03-04	5	- 3	3/16"	7/16" - 20	4.0	35.0	8.7	14.5	17.0		
M22542-04-04	6	- 4	1/4"	7/16" - 20	4.0	35.5	8.7	14.5	17.0		
M22542-04-05	6	- 4	1/4"	1/2" - 20	4.0	35.5	9.1	14.5	17.0		
M22542-05-05	8	- 5	5/16"	1/2" - 20	5.5	37.5	9.1	14.0	17.0		
M22542-05-06	8	- 5	5/16"	9/16" - 18	7.0	38.0	9.2	14.5	19.0		
M22542-06-06	10	- 6	3/8"	9/16" - 18	7.0	42.0	9.2	16.5	19.0		
M22542-08-06	12	- 8	1/2"	9/16" - 18	7.0	43.0	9.2	16.5	19.0		
M22542-08-08	12	- 8	1/2"	3/4" - 16	9.3	52.0	10.2	20.0	22.0		
M22542-10-10	16	- 10	5/8"	7/8" - 14	12.5	62.0	12.3	25.5	27.0		
M22542-12-08	19	- 12	3/4"	3/4" - 16	9.3	53.5	10.2	20.0	22.0		
M22542-12-10	19	- 12	3/4"	7/8" - 14	12.5	63.5	12.3	25.0	27.0		
M22542-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	70.0	14.2	27.5	32.0		
M22542-12-14	19	- 12	3/4"	1.3/16" - 12	15.0	69.5	14.3	27.5	36.0		
M22542-12-16	19	- 12	3/4"	1.5/16" - 12	19.8	70.0	15.0	27.5	38.0		
M22542-16-12	25	- 16	1"	1.1/16" - 12	15.0	72.5	14.2	27.5	32.0		
M22542-16-16	25	- 16	1"	1.5/16" - 12	19.8	84.0	15.0	32.0	38.0		
M22542-16-20	25	- 16	1"	1.5/8" - 12	26.0	90.0	16.2	36.0	50.0		
M22542-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	103.5	16.2	41.5	50.0		
M22542-20-24	31	- 20	1.1/4"	1.7/8" - 12	32.0	106.5	18.8	44.5	60.0		
M22542-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.0	119.0	18.8	46.5	60.0		
M22542-32-32	51	- 32	2"	2.1/2" - 12	44.0	163.0	24.0	68.0	75.0		
M22543-04-06	6	- 4	1/4"	9/16" - 18	4.0	35.5	9.8	14.0	19.0		
M22543-06-08	10	- 6	3/8"	3/4" - 16	7.0	41.0	10.1	14.0	22.0		
M22543-06-10	10	- 6	3/8"	7/8" - 14	9.3	42.5	12.4	15.5	27.0		
M22543-08-10	12	- 8	1/2"	7/8" - 14	9.3	49.5	12.4	17.0	27.0		
M22543-08-12	12	- 8	1/2"	1.1/16" - 12	12.5	49.5	14.1	17.0	32.0		
M22543-10-12	16	- 10	5/8"	1.1/16" - 12	12.5	60.0	14.1	24.0	32.0		

SAE STANDARD CONNECTIONS

# M22541KR

45° JIC FEMALE SWEPT ELBOW  
37° CONE SEAT  
SAE J516 / ISO 12151-5

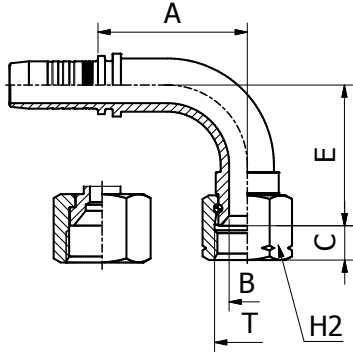


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M22541-04-04KR	6	- 4	1/4"	7/16" - 20	4.2	34.5	8.9	13.5	15.0		
M22541-04-05KR	6	- 4	1/4"	1/2" - 20	4.0	35.0	9.4	14.0	17.0		
M22541-06-06KR	10	- 6	3/8"	9/16" - 18	7.0	42.0	9.5	16.0	17.0		
M22541-08-08KR	12	- 8	1/2"	3/4" - 16	9.3	52.0	10.7	20.0	22.0		
M22541-10-10KR	16	- 10	5/8"	7/8" - 14	12.5	61.0	12.5	22.5	25.0		
M22541-12-12KR	19	- 12	3/4"	1.1/16" - 12	15.0	69.0	14.1	26.5	32.0		

SAE STANDARD CONNECTIONS

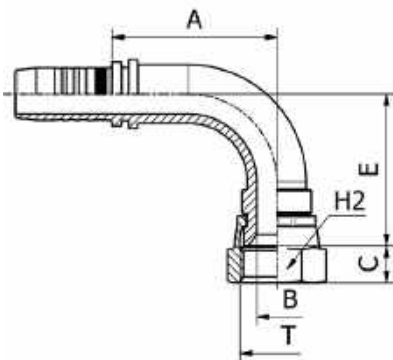
# M22592/M22593

90° JIC FEMALE SWEPT ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M22592-04-04	6	- 4	1/4"	7/16" - 20	4.0	28.5	8.7	27.0	17.0		
M22592-04-05	6	- 4	1/4"	1/2" - 20	4.0	28.5	9.1	27.5	17.0		
M22592-05-05	8	- 5	5/16"	1/2" - 20	5.5	31.0	9.1	28.0	17.0		
M22592-05-06	8	- 5	5/16"	9/16" - 18	7.0	31.0	9.2	28.5	19.0		
M22592-06-05	10	- 6	3/8"	1/2" - 20	5.5	30.0	9.1	26.5	17.0		
M22592-06-06	10	- 6	3/8"	9/16" - 18	7.0	35.5	9.2	32.5	19.0		
M22592-08-06	12	- 8	1/2"	9/16" - 18	7.0	37.0	9.2	33.0	19.0		
M22592-08-08	12	- 8	1/2"	3/4" - 16	9.3	44.0	10.2	41.0	22.0		
M22592-10-10	16	- 10	5/8"	7/8" - 14	12.5	53.5	12.3	52.5	27.0		
M22592-12-10	19	- 12	3/4"	7/8" - 14	12.5	55.0	12.3	52.5	27.0		
M22592-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	62.0	14.2	58.0	32.0		
M22592-12-14	19	- 12	3/4"	1.3/16" - 12	15.0	63.0	14.3	58.0	36.0		
M22592-12-16	19	- 12	3/4"	1.5/16" - 12	19.8	63.0	15.0	57.5	38.0		
M22592-16-16	25	- 16	1"	1.5/16" - 12	19.8	77.0	15.0	68.5	38.0		
M22592-16-20	25	- 16	1"	1.5/8" - 12	26.0	77.5	16.2	74.5	50.0		
M22592-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	90.5	16.2	86.5	50.0		
M22592-20-24	31	- 20	1.1/4"	1.7/8" - 12	32.0	90.5	18.8	90.5	60.0		
M22592-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.0	108.0	18.8	100.5	60.0		
M22592-32-32	51	- 32	2"	2.1/2" - 12	44.0	142.0	24.0	137.0	75.0		
M22593-03-04	5	- 3	3/16"	7/16" - 20	3.0	26.0	8.5	23.5	15.0		
M22593-04-06	6	- 4	1/4"	9/16" - 18	4.0	29.5	9.8	28.0	19.0		
M22593-04-08	6	- 4	1/4"	3/4" - 16	7.0	29.5	10.0	30.5	22.0		
M22593-06-08	10	- 6	3/8"	3/4" - 16	7.0	36.5	10.1	29.5	22.0		
M22593-06-10	10	- 6	3/8"	7/8" - 14	9.3	36.5	12.4	31.5	27.0		
M22593-08-10	12	- 8	1/2"	7/8" - 14	9.3	45.0	12.4	36.0	27.0		
M22593-08-12	12	- 8	1/2"	1.1/16" - 12	12.5	45.0	14.1	36.0	32.0		
M22593-10-12	16	- 10	5/8"	1.1/16" - 12	12.5	51.5	14.1	50.0	32.0		

131 FITTINGS

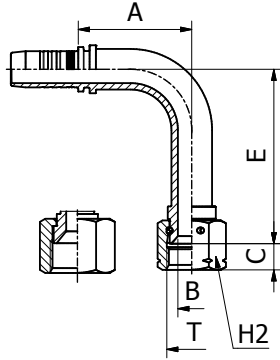


SAE STANDARD CONNECTIONS

# M22591KR

90° JIC FEMALE SWEPT ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M22591-04-04KR	6	- 4	1/4"	7/16" - 20	4.2	28.5	8.9	26.0	15.0		
M22591-04-05KR	6	- 4	1/4"	1/2" - 20	4.0	28.5	9.4	26.5	17.0		
M22591-06-06KR	10	- 6	3/8"	9/16" - 18	7.0	35.5	9.5	32.0	17.0		
M22591-08-08KR	12	- 8	1/2"	3/4" - 16	9.3	44.0	10.7	40.5	22.0		
M22591-10-10KR	16	- 10	5/8"	7/8" - 14	12.5	53.5	12.5	47.0	25.0		
M22591-12-12KR	19	- 12	3/4"	1.1/16" - 12	15.0	62.0	14.1	57.0	32.0		
M22591-16-12KR	25	- 16	1"	1.1/16" - 12	15.0	62.0	14.1	57.0	32.0		

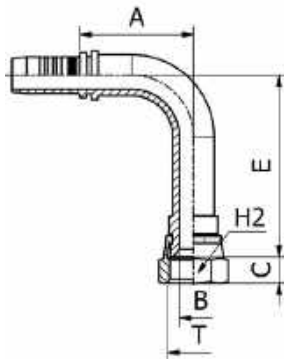


SAE STANDARD CONNECTIONS

# M24792/M24793

**90° JIC FEMALE LONG DROP ELBOW  
37° CONE SEAT  
SAE J516 / ISO 12151-5**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M24792-04-04	6	- 4	1/4"	7/16" - 20	4.0	28.5	8.7	45.0	17.0		
M24792-04-05	6	- 4	1/4"	1/2" - 20	4.0	28.5	9.1	45.0	17.0		
M24792-06-06	10	- 6	3/8"	9/16" - 18	7.0	35.5	9.2	55.0	19.0		
M24792-08-08	12	- 8	1/2"	3/4" - 16	9.3	44.0	10.2	61.0	22.0		
M24792-10-10	16	- 10	5/8"	7/8" - 14	12.5	53.5	12.3	65.5	27.0		
M24792-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	62.0	14.2	94.5	32.0		
M24792-16-16	25	- 16	1"	1.5/16" - 12	19.8	77.5	15.0	110.0	38.0		
M24792-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	90.5	16.2	129.0	50.0		
M24793-04-06	6	- 4	1/4"	9/16" - 18	4.0	29.5	9.8	55.5	19.0		
M24793-06-08	10	- 6	3/8"	3/4" - 16	7.0	36.5	10.1	61.5	22.0		
M24793-08-10	12	- 8	1/2"	7/8" - 14	9.3	45.0	12.4	65.0	27.0		



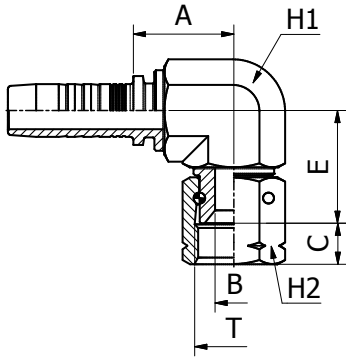
SAE STANDARD CONNECTIONS

# M24791KR

**90° JIC FEMALE LONG DROP ELBOW  
37° CONE SEAT  
SAE J516 / ISO 12151-5**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M24791-04-04KR	6	- 4	1/4"	7/16" - 20	4.2	28.5	8.9	45.0	15.0		
M24791-06-06KR	10	- 6	3/8"	9/16" - 18	7.0	35.5	9.5	55.0	17.0		
M24791-08-08KR	12	- 8	1/2"	3/4" - 16	9.3	44.0	10.7	64.0	22.0		
M24791-10-10KR	16	- 10	5/8"	7/8" - 14	12.5	53.5	12.5	70.0	25.0		
M24791-12-12KR	19	- 12	3/4"	1.1/16" - 12	15.0	62.0	14.1	96.0	32.0		

SAE STANDARD CONNECTIONS



# M22582F

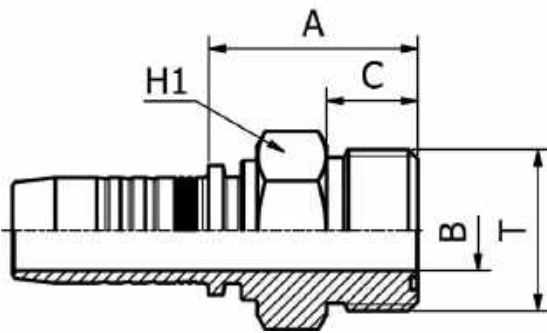
90° JIC FEMALE COMPACT ELBOW  
37° CONE SEAT

SAE J516 / ISO 12151-5 (THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H1	H2	
M22582-04-04F	6	- 4	1/4"	7/16" - 20	4.0	20.0	8.7	20.5	14.0	17.0	
M22582-04-06F	6	- 4	1/4"	9/16" - 18	7.0	20.0	9.2	21.5	14.0	19.0	
M22582-06-06F	10	- 6	3/8"	9/16" - 18	7.0	23.0	9.2	24.0	19.0	19.0	
M22582-06-08F	10	- 6	3/8"	3/4" - 16	9.3	26.5	10.2	28.0	22.0	22.0	
M22582-08-08F	12	- 8	1/2"	3/4" - 16	9.3	25.0	10.2	28.0	22.0	22.0	
M22582-08-10F	12	- 8	1/2"	7/8" - 14	12.5	25.0	12.3	29.0	22.0	27.0	
M22582-12-12F	19	- 12	3/4"	1.1/16" - 12	15.0	37.5	14.2	33.0	27.0	32.0	
M22582-16-16F	25	- 16	1"	1.5/16" - 12	20.0	52.0	15.0	40.0	36.0	38.0	

133 FITTINGS

SAE STANDARD CONNECTIONS

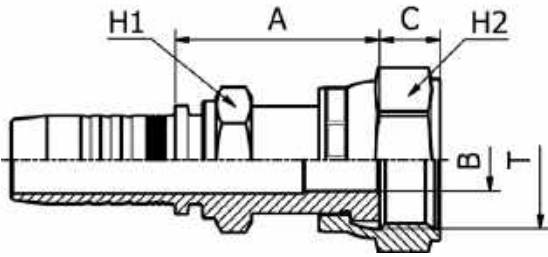


# M12410

ORFS MALE  
SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm				
	DN	Dash	inch	T	B	A	C	H1	
M12410-04-04	6	- 4	1/4"	9/16" - 18	4.0	24.0	9.8	16.0	
M12410-04-06	6	- 4	1/4"	11/16" - 16	6.7	26.5	11.2	19.0	
M12410-05-06	8	- 5	5/16"	11/16" - 16	6.7	27.0	11.2	19.0	
M12410-06-06	10	- 6	3/8"	11/16" - 16	6.7	27.5	11.2	19.0	
M12410-06-08	10	- 6	3/8"	13/16" - 16	9.3	30.0	12.8	22.0	
M12410-08-06	12	- 8	1/2"	11/16" - 16	6.7	29.0	11.2	22.0	
M12410-08-08	12	- 8	1/2"	13/16" - 16	9.3	30.5	12.8	22.0	
M12410-08-10	12	- 8	1/2"	1" - 14	12.5	35.0	15.5	27.0	
M12410-08-12	12	- 8	1/2"	1.3/16" - 12	15.0	37.5	17.0	32.0	
M12410-10-08	16	- 10	5/8"	13/16" - 16	9.3	30.5	12.8	22.0	
M12410-10-10	16	- 10	5/8"	1" - 14	12.5	34.5	15.5	27.0	
M12410-10-12	16	- 10	5/8"	1.3/16" - 12	15.0	37.5	17.0	32.0	
M12410-12-12	19	- 12	3/4"	1.3/16" - 12	15.0	39.0	17.0	32.0	
M12410-12-16	19	- 12	3/4"	1.7/16" - 12	19.8	40.5	17.5	38.0	
M12410-16-16	25	- 16	1"	1.7/16" - 12	19.8	42.0	17.5	38.0	
M12410-16-20	25	- 16	1"	1.11/16" - 12	26.0	44.0	17.5	46.0	
M12410-20-20	31	- 20	1.1/4"	1.11/16" - 12	26.0	46.5	17.5	46.0	
M12410-24-24	38	- 24	1.1/2"	2" - 12	32.0	48.5	17.5	55.0	

SAE STANDARD CONNECTIONS



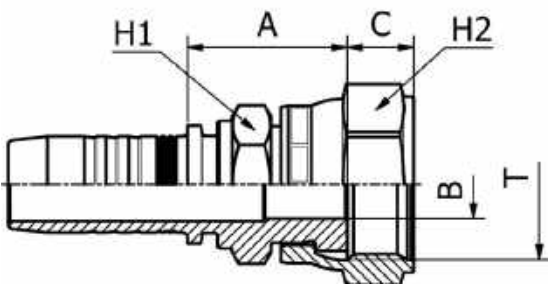
# M22411

ORFS FEMALE  
SAE J516 / ISO 12151-1 PULLBACK TYPE  
(CRIMPED BACK-NUT)

FITTINGS 134

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch		T	B	A	C	H1	H2
M22411-04-04	6	- 4	1/4"	9/16" - 18	4.0	27.5	8.0	13.0	19.0	
M22411-04-06	6	- 4	1/4"	11/16" - 16	7.0	30.0	9.5	16.0	22.0	
M22411-04-08	6	- 4	1/4"	13/16" - 16	9.3	35.5	11.0	19.0	24.0	
M22411-05-04	8	- 5	5/16"	9/16" - 18	4.0	28.5	8.0	16.0	19.0	
M22411-05-06	8	- 5	5/16"	11/16" - 16	7.0	30.5	9.5	16.0	22.0	
M22411-06-04	10	- 6	3/8"	9/16" - 18	4.0	29.0	8.0	16.0	19.0	
M22411-06-06	10	- 6	3/8"	11/16" - 16	7.0	31.0	9.5	16.0	22.0	
M22411-06-08	10	- 6	3/8"	13/16" - 16	9.3	36.5	11.0	19.0	24.0	
M22411-08-06	12	- 8	1/2"	11/16" - 16	7.0	32.0	9.5	19.0	22.0	
M22411-08-08	12	- 8	1/2"	13/16" - 16	9.3	37.0	11.0	19.0	24.0	
M22411-08-10	12	- 8	1/2"	1" - 14	11.5	39.0	13.5	24.0	30.0	
M22411-08-12	12	- 8	1/2"	1.3/16" - 12	13.9	44.0	14.5	28.0	36.0	
M22411-10-08	16	- 10	5/8"	13/16" - 16	9.3	37.0	11.0	24.0	24.0	
M22411-10-10	16	- 10	5/8"	1" - 14	11.5	39.0	13.5	24.0	30.0	
M22411-10-12	16	- 10	5/8"	1.3/16" - 12	13.9	44.0	14.5	28.0	36.0	
M22411-12-10	19	- 12	3/4"	1" - 14	11.5	41.5	13.5	28.0	30.0	
M22411-12-12	19	- 12	3/4"	1.3/16" - 12	13.9	45.5	14.5	28.0	36.0	
M22411-12-16	19	- 12	3/4"	1.7/16" - 12	19.8	48.5	15.0	36.0	41.0	
M22411-16-12	25	- 16	1"	1.3/16" - 12	13.9	48.0	13.5	36.0	36.0	
M22411-16-16	25	- 16	1"	1.7/16" - 12	19.8	49.5	15.0	36.0	41.0	
M22411-16-20	25	- 16	1"	1.11/16" - 12	26.0	52.0	13.6	41.0	50.0	
M22411-20-20	31	- 20	1.1/4"	1.11/16" - 12	26.0	52.0	14.8	41.0	50.0	
M22411-20-24	31	- 20	1.1/4"	2" - 12	32.0	56.5	14.2	50.0	60.0	
M22411-24-24	38	- 24	1.1/2"	2" - 12	32.0	56.5	14.2	50.0	60.0	

SAE STANDARD CONNECTIONS



# M27411

ORFS FEMALE  
SAE J516 / ISO 12151-1 SHORT TYPE  
(CRIMPED BACK-NUT)

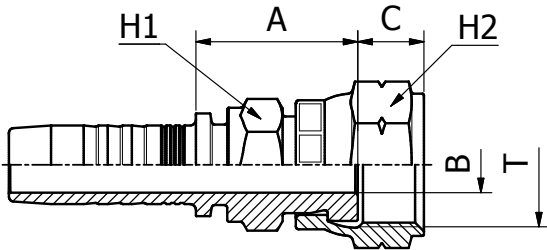
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch		T	B	A	C	H1	H2
M27411-04-04	6	- 4	1/4"	9/16" - 18	4.0	20.5	8.0	13.0	19.0	
M27411-04-06	6	- 4	1/4"	11/16" - 16	7.0	22.0	9.5	16.0	22.0	
M27411-05-06	8	- 5	5/16"	11/16" - 16	7.0	25.5	9.5	16.0	22.0	
M27411-06-06	10	- 6	3/8"	11/16" - 16	7.0	26.0	9.5	16.0	22.0	
M27411-06-08	10	- 6	3/8"	13/16" - 16	9.3	26.5	11.0	19.0	24.0	
M27411-08-08	12	- 8	1/2"	13/16" - 16	9.3	26.5	11.0	19.0	24.0	
M27411-08-10	12	- 8	1/2"	1" - 14	11.5	27.5	12.5	24.0	30.0	
M27411-08-12	12	- 8	1/2"	1.3/16" - 12	13.9	31.0	13.5	28.0	36.0	
M27411-10-10	16	- 10	5/8"	1" - 14	11.5	28.0	12.5	24.0	30.0	
M27411-10-12	16	- 10	5/8"	1.3/16" - 12	13.9	31.0	13.5	28.0	36.0	
M27411-12-12	19	- 12	3/4"	1.3/16" - 12	13.9	32.5	13.5	28.0	36.0	
M27411-16-16	25	- 16	1"	1.7/16" - 12	19.8	36.5	13.5	36.0	41.0	



SAE STANDARD CONNECTIONS

# M27411KR

**ORFS FEMALE  
SAE J516 / ISO 12151-1 SHORT TYPE  
(CRIMPED BACK-NUT)**

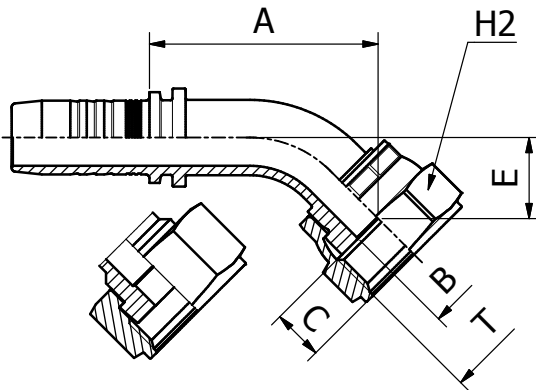


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
M27411-04-04KR	6	- 4	1/4"	9/16" - 18	4.0	20.5	8.0	14.0	17.0		
M27411-06-06KR	10	- 6	3/8"	11/16" - 16	7.0	23.0	9.5	17.0	22.0		
M27411-08-08KR	12	- 8	1/2"	13/16" - 16	9.3	27.0	11.0	19.0	24.0		

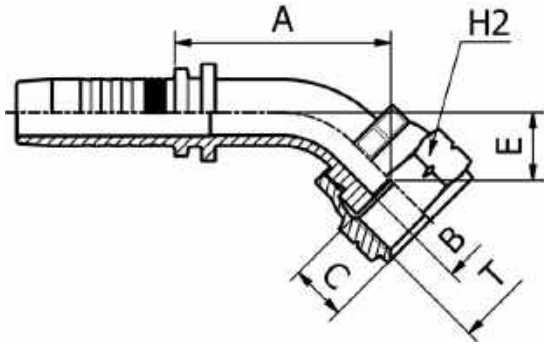
SAE STANDARD CONNECTIONS

# M22441/M22443

**45° ORFS FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1**



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M22441-08-06	12	- 8	1/2"	11/16" - 16	7.0	32.5	9.5	11.0	22.0		
M22441-12-10	19	- 12	3/4"	1" - 14	11.5	51.0	12.5	16.5	30.0		
M22441-16-12	25	- 16	1"	1.3/16" - 12	13.9	66.0	13.5	21.5	36.0		
M22443-04-04	6	- 4	1/4"	9/16" - 18	4.0	31.0	8.2	10.5	17.0		
M22443-04-06	6	- 4	1/4"	11/16" - 16	7.0	31.0	9.5	10.5	22.0		
M22443-05-06	8	- 5	5/16"	11/16" - 16	7.0	34.0	9.5	10.5	22.0		
M22443-06-06	10	- 6	3/8"	11/16" - 16	6.0	32.5	9.5	11.0	22.0		
M22443-06-08	10	- 6	3/8"	13/16" - 16	9.3	34.0	11.0	12.5	24.0		
M22443-08-08	12	- 8	1/2"	13/16" - 16	9.0	42.0	11.0	13.0	24.0		
M22443-08-10	12	- 8	1/2"	1" - 14	11.5	42.0	13.5	13.5	30.0		
M22443-08-12	12	- 8	1/2"	1.3/16" - 12	13.9	46.5	14.5	18.5	36.0		
M22443-10-10	16	- 10	5/8"	1" - 14	11.5	49.0	13.5	16.0	30.0		
M22443-10-12	16	- 10	5/8"	1.3/16" - 12	13.9	51.5	14.5	18.5	36.0		
M22443-12-12	19	- 12	3/4"	1.3/16" - 12	13.9	60.5	14.5	21.5	36.0		
M22443-12-16	19	- 12	3/4"	1.7/16" - 12	19.8	60.0	14.8	21.0	41.0		
M22443-16-16	25	- 16	1"	1.7/16" - 12	19.8	72.0	14.8	23.5	41.0		
M22443-16-20	25	- 16	1"	1.11/16" - 12	26.0	74.0	14.8	25.0	50.0		
M22443-20-20	31	- 20	1.1/4"	1.11/16" - 12	26.0	82.0	14.8	27.0	50.0		
M22443-24-24	38	- 24	1.1/2"	2" - 12	32.0	98.0	14.8	31.5	60.0		



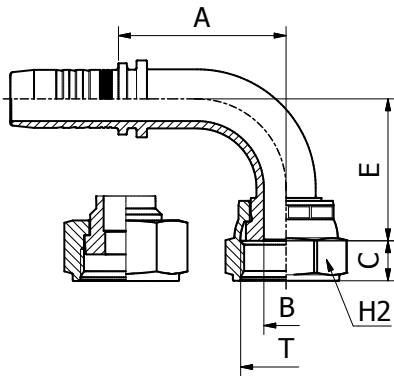
SAE STANDARD CONNECTIONS

# M22441KR

**45° ORFS FEMALE SWEPT ELBOW**  
SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M22441-04-04KR	6	- 4	1/4"	9/16" - 18	4.2	30.0	8.0	10.5	17.0		
M22441-06-06KR	10	- 6	3/8"	11/16" - 16	6.0	31.5	9.5	11.0	22.0		
M22441-08-08KR	12	- 8	1/2"	13/16" - 16	9.0	42.5	11.0	13.5	24.0		

FITTINGS 136



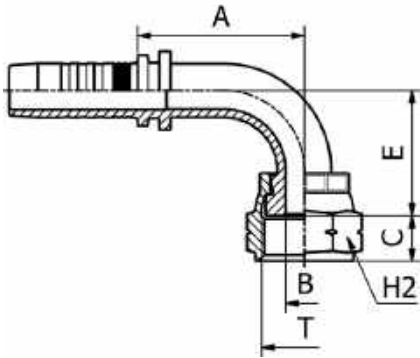
SAE STANDARD CONNECTIONS

# M22491/M22493

**90° ORFS FEMALE SWEPT ELBOW**  
SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M22491-10-10032	16	- 10	5/8"	1" - 14	11.0	42.0	7.5	32.0	30.0		
M22491-06-04	10	- 6	3/8"	9/16" - 18	4.0	28.0	8.0	23.0	19.0		
M22491-08-06	12	- 8	1/2"	11/16" - 16	7.0	30.0	9.5	24.5	22.0		
M22491-10-08	16	- 10	5/8"	13/16" - 16	9.3	41.0	11.0	34.0	24.0		
M22491-12-10	19	- 12	3/4"	1" - 14	11.5	49.0	12.5	38.5	30.0		
M22491-16-12	25	- 16	1"	1.3/16" - 12	13.9	57.5	13.5	48.0	36.0		
M22493-04-04	6	- 4	1/4"	9/16" - 18	4.0	27.5	8.2	22.0	17.0		
M22493-04-06	6	- 4	1/4"	11/16" - 16	7.0	27.5	9.5	22.0	22.0		
M22493-05-06	8	- 5	5/16"	11/16" - 16	7.0	32.0	9.5	23.0	22.0		
M22493-06-06	10	- 6	3/8"	11/16" - 16	6.0	30.0	9.5	24.0	22.0		
M22493-06-08	10	- 6	3/8"	13/16" - 16	9.3	30.0	11.0	26.5	24.0		
M22493-08-08	12	- 8	1/2"	13/16" - 16	9.0	40.5	11.0	30.0	24.0		
M22493-08-10	12	- 8	1/2"	1" - 14	11.5	40.0	13.5	30.5	30.0		
M22493-08-12	12	- 8	1/2"	1.3/16" - 12	13.9	39.5	14.5	37.5	36.0		
M22493-10-10	16	- 10	5/8"	1" - 14	11.5	48.0	13.5	37.5	30.0		
M22493-10-12	16	- 10	5/8"	1.3/16" - 12	13.9	48.0	14.5	41.0	36.0		
M22493-12-12	19	- 12	3/4"	1.3/16" - 12	13.9	56.5	14.5	48.0	36.0		
M22493-12-16	19	- 12	3/4"	1.7/16" - 12	19.8	56.5	14.8	47.5	41.0		
M22493-16-16	25	- 16	1"	1.7/16" - 12	19.8	71.5	14.8	56.0	41.0		
M22493-16-20	25	- 16	1"	1.11/16" - 12	26.0	71.5	14.8	58.5	50.0		
M22493-20-20	31	- 20	1.1/4"	1.11/16" - 12	26.0	83.0	14.8	66.0	50.0		
M22493-24-24	38	- 24	1.1/2"	2" - 12	32.0	102.0	14.8	79.5	60.0		

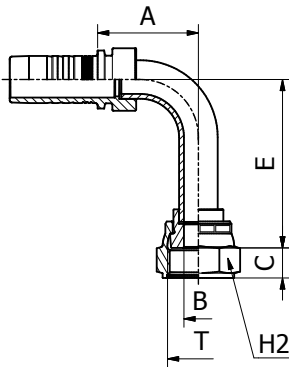
SAE STANDARD CONNECTIONS



# M22491KR

90° ORFS FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M22491-04-04KR	6	- 4	1/4"	9/16" - 18	4.2	26.5	8.0	22.0	17.0		
M22491-04-06KR	6	- 4	1/4"	11/16" - 16	6.0	26.3	9.5	22.0	22.0		
M22491-06-06KR	10	- 6	3/8"	11/16" - 16	6.0	29.0	9.5	24.0	22.0		
M22491-06-08KR	10	- 6	3/8"	13/16" - 16	9.0	35.5	11.0	28.5	24.0		
M22491-08-08KR	12	- 8	1/2"	13/16" - 16	9.0	40.5	11.0	30.5	24.0		



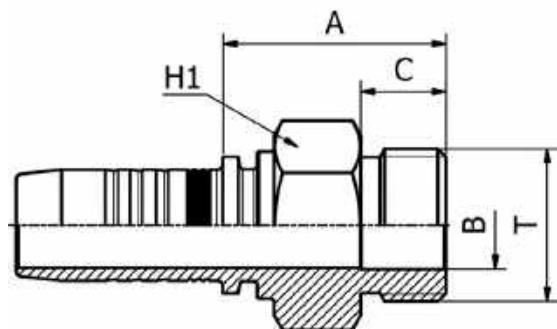
SAE STANDARD CONNECTIONS

# M24491 LONG DROP

90° ORFS FEMALE LONG DROP ELBOW  
SAE J516 / ISO 12151-1  
(CRIMPED-BACK NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M24491-04-04	6	- 4	1/4"	9/16" - 18	4.4	25.0	8.0	46.0	17.0		
M24491-04-06	6	- 4	1/4"	11/16" - 16	7.0	26.5	9.5	53.5	22.0		
M24491-05-06	8	- 5	5/16"	11/16" - 16	6.7	31.5	9.5	54.0	22.0		
M24491-06-06	10	- 6	3/8"	11/16" - 16	6.7	32.0	9.5	54.0	22.0		
M24491-06-08	10	- 6	3/8"	13/16" - 16	6.7	32.0	11.0	54.0	24.0		
M24491-08-08	12	- 8	1/2"	13/16" - 16	9.6	37.0	11.0	64.0	24.0		
M24491-08-10	12	- 8	1/2"	1" - 14	9.6	37.0	12.5	64.5	30.0		
M24491-10-10	16	- 10	5/8"	1" - 14	12.0	41.0	13.0	70.0	30.0		
M24491-10-12	16	- 10	5/8"	1.3/16" - 12	12.7	41.0	13.5	73.0	36.0		
M24491-12-12	19	- 12	3/4"	1.3/16" - 12	15.0	58.5	13.5	96.0	36.0		
M24491-16-16	25	- 16	1"	1.7/16" - 12	19.8	71.5	13.5	114.0	41.0		
M24491-20-20	31	- 20	1.1/4"	1.11/16" - 12	26.0	82.5	13.6	129.0	50.0		

SAE STANDARD CONNECTIONS



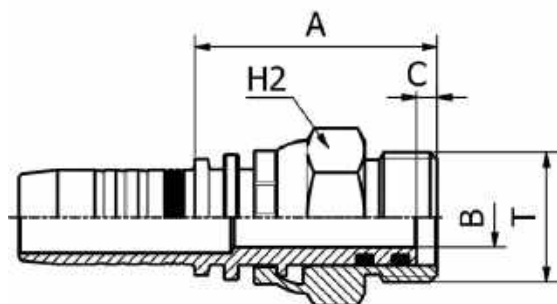
# M13010

SAE MALE O-RING BOSS TYPE  
SAE J516 / ISO 11926

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch		T	B	A	C	H1	
M13010-04-04	6	- 4	1/4"	7/16" - 20	4.4	24.0	9.1	14.0		
M13010-04-06	6	- 4	1/4"	9/16" - 18	7.5	24.5	9.9	17.0		
M13010-06-06	10	- 6	3/8"	9/16" - 18	7.5	25.5	9.9	17.0		
M13010-06-08	10	- 6	3/8"	3/4" - 16	9.9	28.5	11.1	22.0		
M13010-06-10	10	- 6	3/8"	7/8" - 14	12.3	31.5	12.7	25.0		
M13010-08-08	12	- 8	1/2"	3/4" - 16	9.9	29.0	11.1	22.0		
M13010-08-10	12	- 8	1/2"	7/8" - 14	12.3	32.0	12.7	25.0		
M13010-08-12	12	- 8	1/2"	1.1/16" - 12	15.5	38.5	15.1	32.0		
M13010-10-10	16	- 10	5/8"	7/8" - 14	12.5	32.0	12.7	25.0		
M13010-10-12	16	- 10	5/8"	1.1/16" - 12	15.5	37.5	15.1	32.0		
M13010-12-12	19	- 12	3/4"	1.1/16" - 12	15.5	39.5	15.1	32.0		
M13010-12-16	19	- 12	3/4"	1.5/16" - 12	21.5	40.0	15.1	38.0		
M13010-16-16	25	- 16	1"	1.5/16" - 12	21.5	41.0	15.1	38.0		
M13010-20-20	31	- 20	1.1/4"	1.5/8" - 12	27.5	43.5	15.1	46.0		

FITTINGS 138

SAE STANDARD CONNECTIONS



# M14310

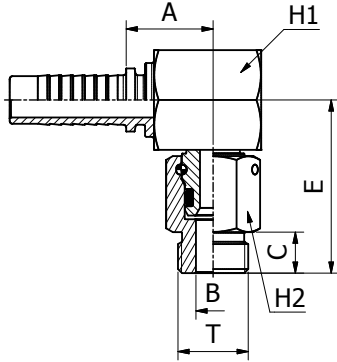
SAE SWIVEL MALE O-RING BOSS TYPE  
SAE J516 / ISO 11926

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch		T	B	A	C	H2	
M14310-04-04	6	- 4	1/4"	7/16" - 20	4.0	43.0	9.1	17.0		
M14310-04-06	6	- 4	1/4"	9/16" - 18	7.0	44.0	9.9	22.0		
M14310-06-06	10	- 6	3/8"	9/16" - 18	7.0	48.0	9.9	22.0		
M14310-06-08	10	- 6	3/8"	3/4" - 16	9.3	47.0	11.1	22.0		
M14310-08-08	12	- 8	1/2"	3/4" - 16	9.3	53.0	11.1	27.0		
M14310-08-10	12	- 8	1/2"	7/8" - 14	9.3	41.5	13.0	27.0		
M14310-08-12	12	- 8	1/2"	1.1/16" - 12	12.5	49.5	15.0	32.0		
M14310-10-10	16	- 10	5/8"	7/8" - 14	9.3	41.5	13.0	27.0		
M14310-12-12	19	- 12	3/4"	1.1/16" - 12	12.5	50.5	15.0	32.0		

SAE STANDARD CONNECTIONS

# M14390

90° SAE SWIVEL MALE O-RING BOSS TYPE  
SAE J516 / ISO 11926

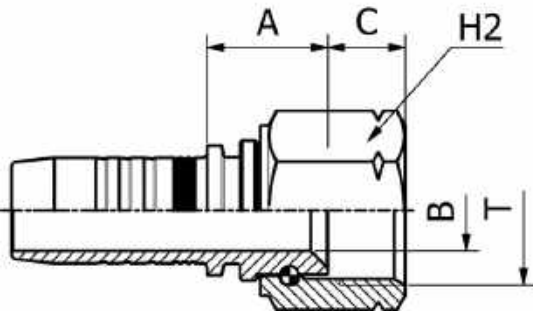


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H1	H2
M14390-06-06	10	- 6	3/8"	9/16" - 18	5.7	20.0	9.9	40.0	22.0	17.0	
M14390-06-08	10	- 6	3/8"	3/4" - 16	9.3	20.0	11.1	44.5	22.0	22.0	
M14390-08-08	12	- 8	1/2"	3/4" - 16	9.3	23.5	11.1	47.0	27.0	22.0	
M14390-08-10	12	- 8	1/2"	7/8" - 14	9.8	23.5	13.0	47.0	27.0	27.0	
M14390-10-10	16	- 10	5/8"	7/8" - 14	9.8	23.5	13.0	47.0	27.0	27.0	
M14390-12-12	19	- 12	3/4"	1.1/16" - 12	13.0	28.0	15.0	58.5	34.0	32.0	

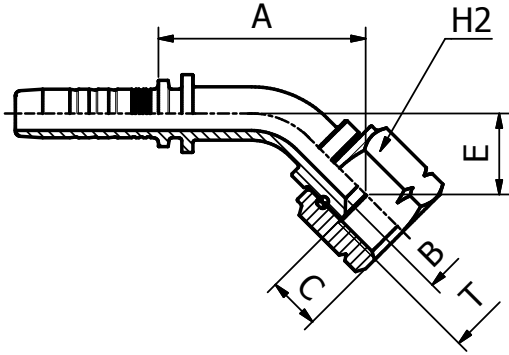
SAE STANDARD CONNECTIONS

# M22612

SAE FEMALE 45° CONE SEAT  
SAE J516/J512  
(THRUST-WIRE NUT)



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H2		
M22612-04-04	6	- 4	1/4"	7/16" - 20	4.0	15.5	8.7	17.0			
M22612-05-06	8	- 5	5/16"	5/8" - 18	7.0	16.0	10.8	22.0			
M22612-06-06	10	- 6	3/8"	5/8" - 18	7.0	16.5	10.8	22.0			
M22612-12-12	19	- 12	3/4"	1.1/16" - 14	15.0	22.5	14.4	32.0			

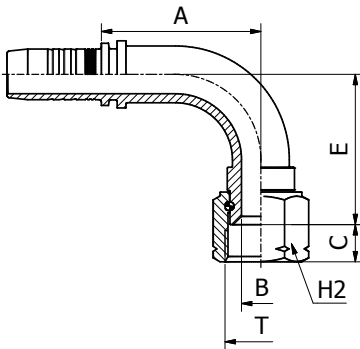


SAE STANDARD CONNECTIONS

# M22642

**45° SAE FEMALE SWEPT ELBOW 45° CONE SEAT  
SAE J516/J512  
(THRUST-WIRE NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M22642-06-06	10	- 6	3/8"	5/8" - 18	7.0	42.5	10.8	16.5	22.0		



SAE STANDARD CONNECTIONS

# M22692

**90° SAE FEMALE SWEPT ELBOW 45° CONE SEAT  
SAE J516/J512  
(THRUST-WIRE NUT)**

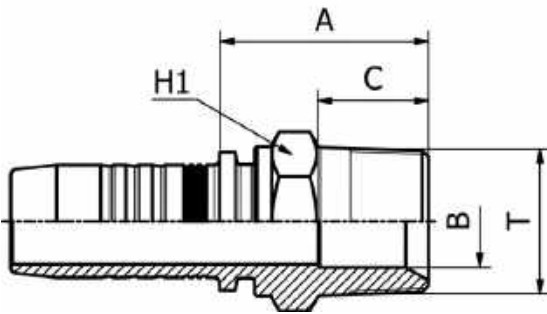
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M22692-04-04	6	- 4	1/4"	7/16" - 20	4.0	28.5	8.7	27.0	17.0		
M22692-06-06	10	- 6	3/8"	5/8" - 18	7.0	35.5	10.8	33.0	22.0		
M22692-12-12	19	- 12	3/4"	1.1/16" - 14	15.0	62.0	14.4	58.0	32.0		

FITTINGS 140

SAE STANDARD CONNECTIONS

# M12810

NPTF MALE 60° CONE SEAT  
SAE J516/J514



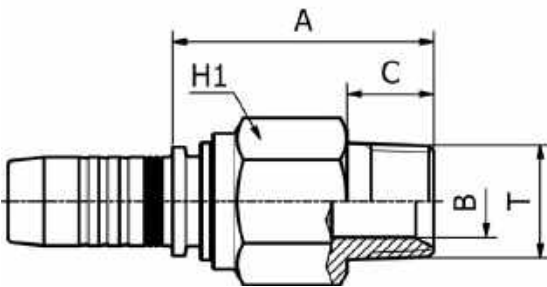
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M12810-03-02	5	- 3	3/16"	1/8" - 27	3.0	23.5	10.0	12.0			
M12810-03-04	5	- 3	3/16"	1/4" - 18	5.5	29.0	14.5	14.0			
M12810-04-02	6	- 4	1/4"	1/8" - 27	4.0	24.0	10.0	12.0			
M12810-04-04	6	- 4	1/4"	1/4" - 18	5.5	29.0	14.5	14.0			
M12810-04-06	6	- 4	1/4"	3/8" - 18	9.3	27.5	14.5	19.0			
M12810-04-08	6	- 4	1/4"	1/2" - 14	9.3	33.5	19.2	24.0			
M12810-05-04	8	- 5	5/16"	1/4" - 18	5.5	29.5	14.5	14.0			
M12810-05-06	8	- 5	5/16"	3/8" - 18	9.3	32.0	14.5	19.0			
M12810-06-04	10	- 6	3/8"	1/4" - 18	5.5	30.0	14.5	14.0			
M12810-06-06	10	- 6	3/8"	3/8" - 18	9.3	28.5	14.5	19.0			
M12810-06-08	10	- 6	3/8"	1/2" - 14	12.5	34.5	19.2	24.0			
M12810-08-06	12	- 8	1/2"	3/8" - 18	9.3	29.0	14.5	19.0			
M12810-08-08	12	- 8	1/2"	1/2" - 14	12.5	35.0	19.2	24.0			
M12810-08-12	12	- 8	1/2"	3/4" - 14	15.5	35.5	19.2	27.0			
M12810-10-08	16	- 10	5/8"	1/2" - 14	12.5	38.5	19.2	24.0			
M12810-10-12	16	- 10	5/8"	3/4" - 14	16.0	40.0	19.2	27.0			
M12810-12-08	19	- 12	3/4"	1/2" - 14	12.5	36.5	19.2	27.0			
M12810-12-12	19	- 12	3/4"	3/4" - 14	16.0	36.5	19.2	27.0			
M12810-12-16	19	- 12	3/4"	1" - 11.5	19.8	46.0	24.2	36.0			
M12810-16-12	25	- 16	1"	3/4" - 14	15.5	39.0	19.2	32.0			
M12810-16-16	25	- 16	1"	1" - 11.5	19.8	44.0	24.2	36.0			
M12810-16-20	25	- 16	1"	1.1/4" - 11.5	26.0	56.5	25.0	46.0			
M12810-20-20	31	- 20	1.1/4"	1.1/4" - 11.5	26.0	56.5	25.0	46.0			
M12810-24-24	38	- 24	1.1/2"	1.1/2" - 11.5	32.0	57.5	26.0	50.0			
M12810-32-32	51	- 32	2"	2" - 11.5	45.0	64.5	26.5	65.0			
M12810-40-40	63	- 40	2.1/2"	2.1/2" - 8	55.4	78.0	39.9	80.0			
M12810-48-48	76	- 48	3"	3" - 8	68.9	86.0	41.5	100.0			

141 FITTINGS

SAE STANDARD CONNECTIONS

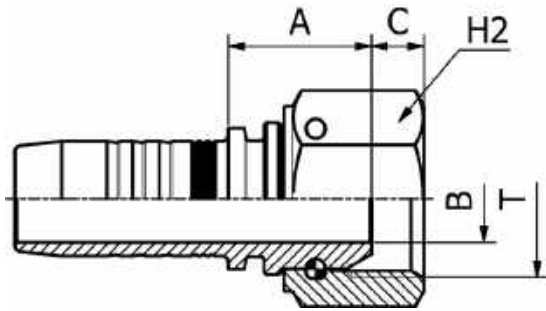
# M14110R

NPTF SWIVEL MALE 60° CONE SEAT  
SAE J516/J514



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M14110-04-02R	6	- 4	1/4"	1/8" - 27	3.0	42.0	10.0	17.0			
M14110-04-04R	6	- 4	1/4"	1/4" - 18	4.0	46.5	14.5	17.0			
M14110-04-06R	6	- 4	1/4"	3/8" - 18	7.0	46.5	14.5	19.0			
M14110-06-04R	10	- 6	3/8"	1/4" - 18	4.0	50.5	14.5	22.0			
M14110-06-06R	10	- 6	3/8"	3/8" - 18	7.0	50.5	14.5	22.0			
M14110-06-08R	10	- 6	3/8"	1/2" - 14	9.3	55.0	19.2	24.0			
M14110-08-06R	12	- 8	1/2"	3/8" - 18	7.0	54.5	14.5	27.0			
M14110-08-08R	12	- 8	1/2"	1/2" - 14	9.3	59.0	19.2	27.0			
M14110-12-12R	19	- 12	3/4"	3/4" - 14	16.0	58.0	19.2	32.0			
M14110-16-16R	25	- 16	1"	1" - 11.5	19.8	66.0	24.2	38.0			

SAE STANDARD CONNECTIONS



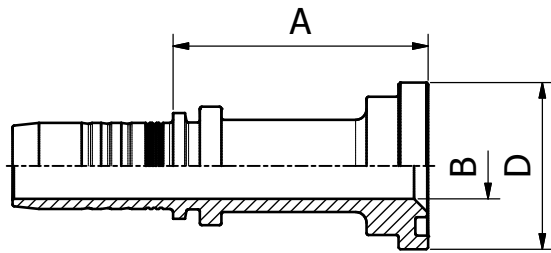
# M22812

**NPSM FEMALE 60° CONE  
SAE J516/J514  
(THRUST-WIRE NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H2			
M22812-04-04	6	- 4	1/4"	1/4" - 18	4.0	17.5	4.2	19.0			
M22812-06-04	10	- 6	3/8"	1/4" - 18	4.1	18.0	4.2	19.0			
M22812-06-06	10	- 6	3/8"	3/8" - 18	7.0	21.0	6.0	22.0			
M22812-08-08	12	- 8	1/2"	1/2" - 14	9.3	23.0	6.5	27.0			
M22812-12-12	19	- 12	3/4"	3/4" - 14	15.0	24.5	9.0	32.0			
M22812-16-16	25	- 16	1"	1" - 11.5	19.8	27.5	10.5	38.0			

FITTINGS 142

SAE STANDARD CONNECTIONS



# M23311

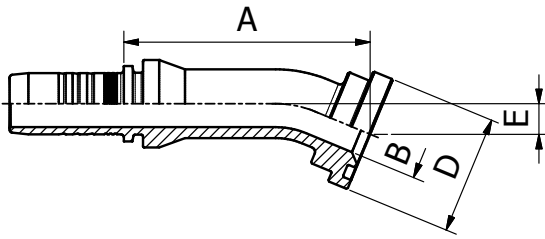
**ISO/SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3**

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS mm					
	DN	Dash	inch	inch	B	A	D			
M23311-08-08	12	-8	1/2"	1/2"	9.3	51.0	30.3			
M23311-08-12	12	-8	1/2"	3/4"	15.1	58.0	38.0			
M23311-10-08	16	-10	5/8"	1/2"	9.3	51.0	30.3			
M23311-10-12	16	-10	5/8"	3/4"	15.0	65.5	38.0			
M23311-10-24	16	-10	5/8"	1.1/2"	32.0	69.5	60.5			
M23311-12-12	19	-12	3/4"	3/4"	15.0	58.0	38.0			
M23311-12-16	19	-12	3/4"	1"	20.0	58.0	44.6			
M23311-12-20	19	-12	3/4"	1.1/4"	26.0	69.5	51.0			
M23311-16-12	25	-16	1"	3/4"	15.0	60.5	38.0			
M23311-16-16	25	-16	1"	1"	19.8	64.5	44.6			
M23311-16-20	25	-16	1"	1.1/4"	26.0	70.5	51.0			
M23311-20-12	31	-20	1.1/4"	3/4"	15.0	61.0	38.0			
M23311-20-16	31	-20	1.1/4"	1"	19.8	64.5	44.6			
M23311-20-20	31	-20	1.1/4"	1.1/4"	26.0	70.5	51.0			
M23311-20-24	31	-20	1.1/4"	1.1/2"	32.0	72.5	60.5			
M23311-20-32	31	-20	1.1/4"	2"	42.0	75.5	71.6			
M23311-24-24	38	-24	1.1/2"	1.1/2"	32.0	75.5	60.5			
M23311-24-32	38	-24	1.1/2"	2"	42.0	75.5	71.6			
M23311-32-32	51	-32	2"	2"	42.0	79.0	71.6			
M23311-32-40	51	-32	2"	2.1/2"	56.0	81.0	84.3			
M23311-38-40	60	-38	2.3/8"	2.1/2"	50.5	84.0	84.3			
M23311-40-32	63	-40	2.1/2"	2"	42.0	78.5	71.6			
M23311-40-40	63	-40	2.1/2"	2.1/2"	55.4	84.0	84.3			
M23311-40-48	63	-40	2.1/2"	3"	68.9	79.0	101.6			
M23311-40-56	63	-40	2.1/2"	3.1/2"	79.0	90.5	114.3			
M23311-40-64	63	-40	2.1/2"	4"	90.0	96.5	127.0			
M23311-48-48	76	-48	3"	3"	68.9	85.5	101.6			
M23311-56-56	89	-56	3.1/2"	3.1/2"	79.0	94.5	114.3			
M23311-64-64	102	-64	4"	4"	90.0	100.5	127.0			



SAE STANDARD CONNECTIONS

# M23321



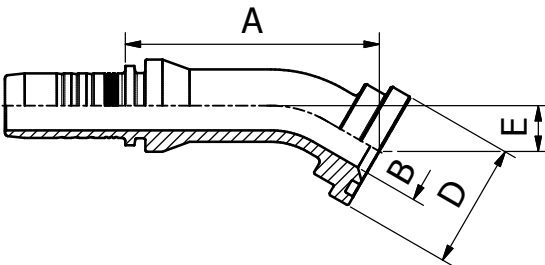
22.5° ISO/SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23321-08-08	12	-8	1/2"	1/2"		9.3	64.0	30.3	8.0			
M23321-12-12	19	-12	3/4"	3/4"		15.0	74.5	38.0	10.0			
M23321-12-16	19	-12	3/4"	1"		20.0	74.5	44.6	10.0			
M23321-16-16	25	-16	1"	1"		19.8	89.0	44.6	11.5			
M23321-16-20	25	-16	1"	1.1/4"		26.0	88.5	51.0	11.5			
M23321-16-24	25	-16	1"	1.1/2"		32.0	88.5	60.5	12.0			
M23321-20-20	31	-20	1.1/4"	1.1/4"		26.0	100.0	51.0	12.0			
M23321-20-20018	31	-20	1.1/4"	1.1/4"		26.0	99.0	51.0	18.0			
M23321-20-24	31	-20	1.1/4"	1.1/2"		32.0	102.0	60.5	13.0			
M23321-24-24	38	-24	1.1/2"	1.1/2"		32.0	116.5	60.5	14.0			
M23321-24-24023	38	-24	1.1/2"	1.1/2"		32.0	115.0	60.5	23.0			
M23321-24-32	38	-24	1.1/2"	2"		42.0	116.5	71.6	14.0			
M23321-32-32	51	-32	2"	2"		42.0	134.5	71.6	15.0			
M23321-40-40	63	-40	2.1/2"	2.1/2"		52.0	80.0	84.3	16.5			
M23321-40-48	63	-40	2.1/2"	3"		61.0	107.5	101.6	20.5			
M23321-48-48	76	-48	3"	3"		61.0	111.0	101.6	20.5			

All items are made from solid with the exception of M23321-40-40, M23321-40-48, M23321-48-48

SAE STANDARD CONNECTIONS

# M23331



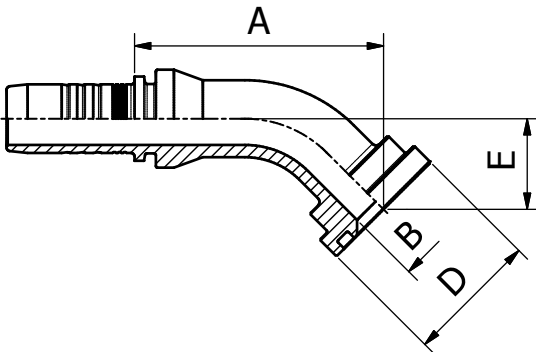
30° ISO/SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23331-08-08	12	-8	1/2"	1/2"		9.3	62.5	30.3	11.0			
M23331-08-12	12	-8	1/2"	3/4"		15.0	63.5	38.0	11.5			
M23331-12-12	19	-12	3/4"	3/4"		15.0	73.0	38.0	14.0			
M23331-12-16	19	-12	3/4"	1"		20.0	73.0	44.6	14.0			
M23331-16-16	25	-16	1"	1"		19.8	87.0	44.6	16.5			
M23331-16-20	25	-16	1"	1.1/4"		26.0	87.0	51.0	16.5			
M23331-20-20	31	-20	1.1/4"	1.1/4"		26.0	98.0	51.0	17.5			
M23331-20-24	31	-20	1.1/4"	1.1/2"		32.0	100.0	60.5	18.5			
M23331-20-24044	31	-20	1.1/4"	1.1/2"		32.0	131.5	60.5	44.0			
M23331-24-24	38	-24	1.1/2"	1.1/2"		32.0	114.5	60.5	20.0			
M23331-24-32	38	-24	1.1/2"	2"		42.0	114.5	71.6	20.0			
M23331-32-32	51	-32	2"	2"		42.0	132.0	71.6	22.0			
M23331-40-40	63	-40	2.1/2"	2.1/2"		52.0	87.5	84.3	24.0			
M23331-40-48	63	-40	2.1/2"	3"		52.0	85.0	101.6	24.5			
M23331-48-48	76	-48	3"	3"		61.0	117.5	101.6	31.5			

All items are made from solid with the exception of M23331-40-40, M23331-40-48, M23331-48-48

# M23341

45° ISO/SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3



FITTINGS 144

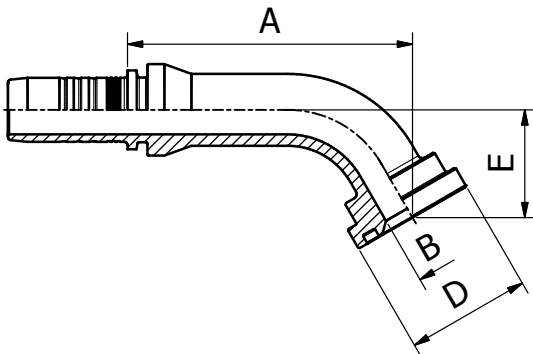
PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23341-06-08	10	-6	3/8"	1/2"		9.3	52.5	30.0	17.5			
M23341-08-08	12	-8	1/2"	1/2"		9.3	58.5	30.3	18.5			
M23341-08-12	12	-8	1/2"	3/4"		15.0	59.5	38.0	19.0			
M23341-08-16	12	-8	1/2"	1"		19.8	59.5	44.6	19.0			
M23341-10-12	16	-10	5/8"	3/4"		15.0	61.0	38.0	22.0			
M23341-12-12	19	-12	3/4"	3/4"		15.0	71.0	38.0	26.0			
M23341-12-16	19	-12	3/4"	1"		20.0	68.5	44.6	23.0			
M23341-16-12	25	-16	1"	3/4"		15.0	74.5	38.0	23.0			
M23341-16-16	25	-16	1"	1"		19.8	81.5	44.6	27.5			
M23341-16-16032	25	-16	1"	1"		19.8	86.0	44.5	32.0			
M23341-16-20	25	-16	1"	1.1/4"		26.0	81.5	51.0	27.5			
M23341-20-16	31	-20	1.1/4"	1"		19.8	84.5	44.6	29.5			
M23341-20-20	31	-20	1.1/4"	1.1/4"		26.0	92.0	51.0	29.5			
M23341-20-20038	31	-20	1.1/4"	1.1/4"		26.0	100.5	50.9	38.0			
M23341-20-24	31	-20	1.1/4"	1.1/2"		32.0	93.5	60.5	31.0			
M23341-24-24	38	-24	1.1/2"	1.1/2"		32.0	107.5	60.5	34.5			
M23341-24-24044	38	-24	1.1/2"	1.1/2"		32.0	117.0	60.5	44.0			
M23341-24-32	38	-24	1.1/2"	2"		42.0	107.5	71.6	34.5			
M23341-32-20	51	-32	2"	1.1/4"		26.0	128.5	51.0	32.0			
M23341-32-32	51	-32	2"	2"		42.0	124.0	71.6	39.0			
M23341-32-32056	51	-32	2"	2"		42.0	141.0	71.5	56.0			
M23341-32-40	51	-32	2"	2.1/2"		56.0	136.5	84.3	49.5			
M23341-40-32	63	-40	2.1/2"	2"		42.0	152.0	71.6	48.5			
M23341-40-40	63	-40	2.1/2"	2.1/2"		52.0	95.0	84.3	48.5			
M23341-40-48	63	-40	2.1/2"	3"		61.0	117.5	101.6	53.5			
M23341-48-48	76	-48	3"	3"		58.0	125.5	101.6	53.5			
M23341-56-56	89	-56	3.1/2"	3.1/2"		79.0	139.0	114.3	68.0			
M23341-56-64	89	-56	3.1/2"	4"		79.0	124.5	127.0	53.5			
M23341-64-64	102	-64	4"	4"		90.0	132.0	127.0	56.5			

All items are made from solid with the exception of M23341-40-40, M23341-40-48, M23341-48-48, M23341-56-56, M23341-56-64, M23341-64-64.

SAE STANDARD CONNECTIONS

# M23361

60° ISO/SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3



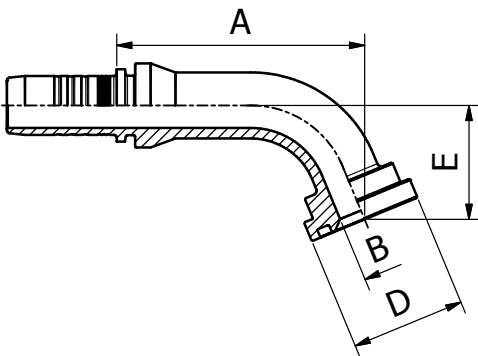
PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23361-08-08	12	-8	1/2"	1/2"		9.3	71.5	30.3	26.0			
M23361-08-12	12	-8	1/2"	3/4"		15.0	72.0	38.0	26.5			
M23361-12-12	19	-12	3/4"	3/4"		15.0	87.0	38.0	33.0			
M23361-12-16	19	-12	3/4"	1"		20.0	87.0	44.6	33.0			
M23361-16-16	25	-16	1"	1"		19.8	104.0	44.6	39.0			
M23361-16-20	25	-16	1"	1.1/4"		26.0	104.0	51.0	39.0			
M23361-20-20	31	-20	1.1/4"	1.1/4"		26.0	120.0	51.0	43.0			
M23361-20-20065	31	-20	1.1/4"	1.1/4"		26.0	107.5	51.0	65.0			
M23361-20-24	31	-20	1.1/4"	1.1/2"		32.0	121.0	60.5	44.5			
M23361-24-20	38	-24	1.1/2"	1.1/4"		26.0	136.5	51.0	46.5			
M23361-24-24	38	-24	1.1/2"	1.1/2"		32.0	143.5	60.5	50.5			
M23361-24-32	38	-24	1.1/2"	2"		42.0	143.5	71.6	51.0			
M23361-32-32	51	-32	2"	2"		42.0	129.0	71.6	58.0			
M23361-40-40	63	-40	2.1/2"	2.1/2"		52.0	94.5	84.3	67.0			
M23361-40-48	63	-40	2.1/2"	3"		52.0	87.5	101.6	54.5			
M23361-48-48	76	-48	3"	3"		61.0	128.5	101.6	79.0			

All items are made from solid with the exception of M23361-40-40, M23361-40-48, M23361-48-48.

SAE STANDARD CONNECTIONS

# M23371

67.5° ISO/SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3



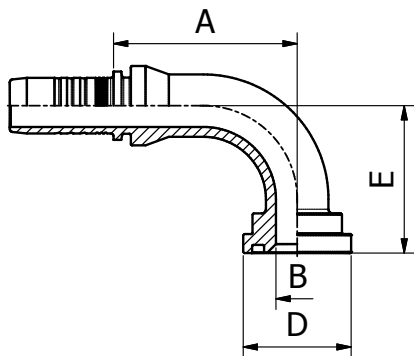
PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23371-08-08	12	-8	1/2"	1/2"		9.3	68.0	30.3	29.5			
M23371-08-12	12	-8	1/2"	3/4"		15.0	68.5	38.0	30.5			
M23371-08-16	12	-8	1/2"	1"		19.8	68.5	44.6	30.5			
M23371-12-12	19	-12	3/4"	3/4"		15.0	82.0	38.0	38.0			
M23371-12-16	19	-12	3/4"	1"		20.0	82.0	44.6	38.0			
M23371-12-20	19	-12	3/4"	1.1/4"		26.0	82.0	51.0	38.0			
M23371-16-16	25	-16	1"	1"		19.8	98.5	44.6	45.0			
M23371-16-20	25	-16	1"	1.1/4"		26.0	98.5	51.0	45.0			
M23371-20-20	31	-20	1.1/4"	1.1/4"		26.0	114.0	51.0	50.0			
M23371-20-24	31	-20	1.1/4"	1.1/2"		32.0	115.0	60.5	52.0			
M23371-24-24	38	-24	1.1/2"	1.1/2"		32.0	136.5	60.5	59.0			
M23371-24-32	38	-24	1.1/2"	2"		42.0	136.5	71.6	59.0			
M23371-32-32	51	-32	2"	2"		42.0	162.0	71.6	68.5			
M23371-32-32085	51	-32	2"	2"		42.0	150.5	71.6	85.0			
M23371-32-40	51	-32	2"	2.1/2"		56.0	171.5	84.3	83.5			
M23371-40-40	63	-40	2.1/2"	2.1/2"		52.0	95.0	84.3	78.0			
M23371-40-48	63	-40	2.1/2"	3"		52.0	90.5	101.6	64.5			

All items are made from solid with the exception of M23371-40-40, M23371-40-48.

SAE STANDARD CONNECTIONS

# M23391

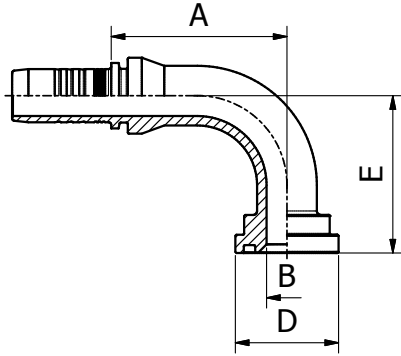
90° ISO/SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3



PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23391-06-08	10	-6	3/8"	1/2"		9.3	44.5	30.0	34.5			
M23391-08-08	12	-8	1/2"	1/2"		9.3	54.5	30.3	40.0			
M23391-08-12	12	-8	1/2"	3/4"		15.0	54.5	38.0	41.0			
M23391-08-16	12	-8	1/2"	1"		19.8	54.5	44.6	66.0			
M23391-10-08	16	-10	5/8"	1/2"		9.3	56.0	30.3	46.5			
M23391-10-12	16	-10	5/8"	3/4"		15.0	56.0	38.0	47.5			
M23391-12-12	19	-12	3/4"	3/4"		15.0	64.5	38.0	52.0			
M23391-12-16	19	-12	3/4"	1"		20.0	64.5	44.6	52.0			
M23391-12-20	19	-12	3/4"	1.1/4"		26.0	64.5	51.0	52.0			
M23391-16-12	25	-16	1"	3/4"		15.0	71.0	38.0	52.0			
M23391-16-16	25	-16	1"	1"		19.8	77.5	44.6	62.0			
M23391-16-20	25	-16	1"	1.1/4"		26.0	77.5	51.0	62.0			
M23391-16-24	25	-16	1"	1.1/2"		32.0	77.0	60.5	64.0			
M23391-20-16	31	-20	1.1/4"	1"		19.8	80.0	44.6	66.0			
M23391-20-20	31	-20	1.1/4"	1.1/4"		26.0	90.5	51.0	70.0			
M23391-20-24	31	-20	1.1/4"	1.1/2"		32.0	90.5	60.5	72.0			
M23391-20-32	31	-20	1.1/4"	2"		42.0	93.5	71.6	76.0			
M23391-24-20	38	-24	1.1/2"	1.1/4"		26.0	104.5	51.0	75.0			
M23391-24-24	38	-24	1.1/2"	1.1/2"		32.0	108.0	60.5	84.0			
M23391-24-32	38	-24	1.1/2"	2"		42.0	108.0	71.6	84.0			
M23391-32-24	51	-32	2"	1.1/2"		32.0	136.0	60.5	89.0			
M23391-32-32	51	-32	2"	2"		42.0	129.0	71.6	99.0			
M23391-32-40	51	-32	2"	2.1/2"		56.0	132.5	84.3	116.0			
M23391-40-32	63	-40	2.1/2"	2"		42.0	149.5	71.6	114.0			
M23391-40-40	63	-40	2.1/2"	2.1/2"		52.0	88.0	84.3	119.0			
M23391-40-48	63	-40	2.1/2"	3"		61.0	120.0	101.6	140.0			
M23391-48-48	76	-48	3"	3"		58.0	123.0	101.6	140.0			
M23391-48-56	76	-48	3"	3.1/2"		61.0	123.0	114.3	115.0			
M23391-56-56	89	-56	3.1/2"	3.1/2"		79.0	134.5	114.3	160.0			
M23391-64-64	102	-64	4"	4"		90.0	153.5	127.0	158.5			

All items are made from solid with the exception of M23391-40-40, M23391-40-48, M23391-48-48, M23391-48-56, M23391-56-56, M23391-64-64.

SAE STANDARD CONNECTIONS

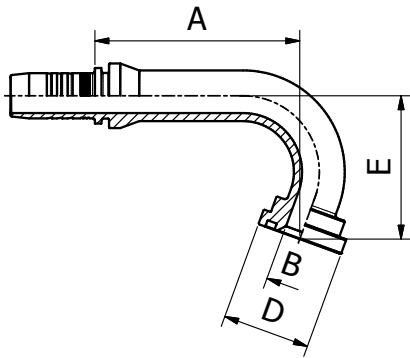


# M23391 LONG DROP

90° LONG DROP ISO/SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23391-06-08041	10	-6	3/8"	1/2"		9.3	44.5	30.0	41.0			
M23391-12-12058	19	-12	3/4"	3/4"		15.0	64.5	38.0	58.0			
M23391-16-16070	25	-16	1"	1"		19.8	77.5	44.5	70.0			
M23391-16-20117	25	-16	1"	1.1/4"		26.0	77.5	51.0	117.0			
M23391-16-24107	25	-16	1"	1.1/2"		32.0	77.0	60.5	107.0			
M23391-20-20091	31	-20	1.1/4"	1.1/4"		26.0	90.5	51.0	91.0			
M23391-20-20100	31	-20	1.1/4"	1.1/4"		26.0	90.5	51.0	100.0			
M23391-20-20112	31	-20	1.1/4"	1.1/4"		26.0	90.5	51.0	112.0			
M23391-20-20130	31	-20	1.1/4"	1.1/4"		26.0	90.5	51.0	130.0			
M23391-20-20168	31	-20	1.1/4"	1.1/4"		26.0	90.5	51.0	168.0			
M23391-20-24118	31	-20	1.1/4"	1.1/2"		32.0	90.5	60.5	118.0			
M23391-20-24130	31	-20	1.1/4"	1.1/2"		32.0	90.5	60.5	130.0			
M23391-24-24104	38	-24	1.1/2"	1.1/2"		32.0	108.0	60.5	104.0			
M23391-24-24148	38	-24	1.1/2"	1.1/2"		32.0	108.0	60.5	148.0			
M23391-24-24172	38	-24	1.1/2"	1.1/2"		32.0	108.0	60.5	172.0			
M23391-24-32115	38	-24	1.1/2"	2"		42.0	108.0	71.6	115.0			
M23391-24-32172	38	-24	1.1/2"	2"		42.0	108.0	71.6	172.0			
M23391-32-32138	51	-32	2"	2"		42.0	129.0	71.5	138.0			
M23391-32-32203	51	-32	2"	2"		42.0	129.0	71.6	203.0			

147 FITTINGS

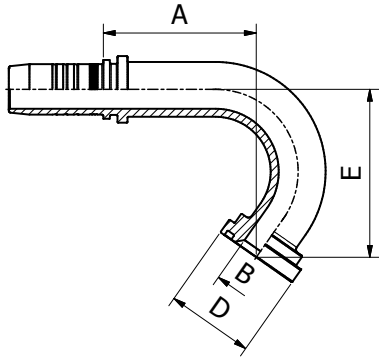


SAE STANDARD CONNECTIONS

# M23301P

110° ISO/SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23301-08-12P	12	-8	1/2"	3/4"		15.0	53.0	38.0	48.0			
M23301-12-12P	19	-12	3/4"	3/4"		15.0	89.0	38.0	62.0			
M23301-12-16P	19	-12	3/4"	1"		20.0	89.0	44.6	62.0			
M23301-16-16P	25	-16	1"	1"		19.8	88.5	44.6	79.0			
M23301-16-20133P	25	-16	1"	1.1/4"		26.0	69.0	51.0	133.0			
M23301-20-20P	31	-20	1.1/4"	1.1/4"		26.0	102.0	51.0	91.0			
M23301-20-24P	31	-20	1.1/4"	1.1/2"		32.0	96.5	60.5	93.0			
M23301-24-24119P	38	-24	1.1/2"	1.1/2"		32.0	105.5	60.5	119.0			
M23301-32-32P	51	-32	2"	2"		42.0	142.0	71.6	123.0			



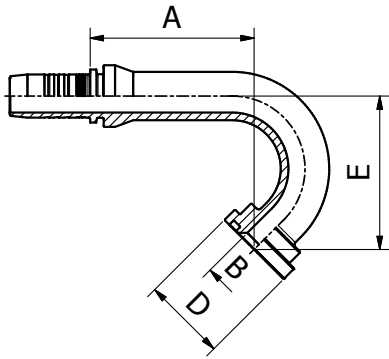
SAE STANDARD CONNECTIONS

# M23301S

**125° ISO/SAE CODE 61 FLANGE**  
**SAE J516 / ISO 12151-3**

PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23301-32-32151S	51	-32	2"	2"		42.0	118.5	71.6	151.0			

FITTINGS 148



SAE STANDARD CONNECTIONS

# M23301T

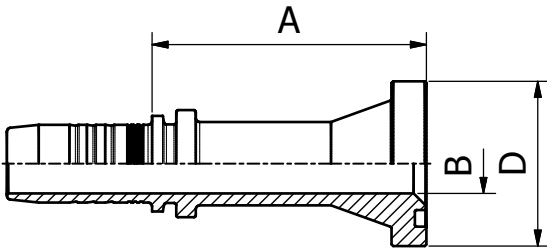
**135° ISO/SAE CODE 61 FLANGE**  
**SAE J516 / ISO 12151-3**

PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M23301-12-12T	19	-12	3/4"	3/4"		15.0	74.5	38.0	70.0			
M23301-12-16T	19	-12	3/4"	1"		20.0	74.5	44.6	70.0			
M23301-16-16T	25	-16	1"	1"		19.8	70.0	44.6	88.5			

SAE STANDARD CONNECTIONS

# M23611

ISO/SAE CODE 62 FLANGE  
SAE J516 / ISO 12151-3



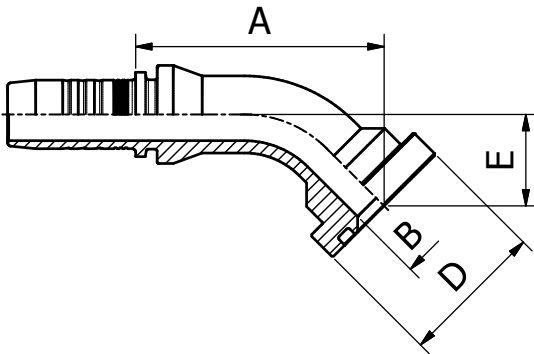
PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm							
	DN	Dash	inch	inch		B	A	D					
M23611-08-08	12	-8	1/2"	1/2"		9.3	52.0	31.8					
M23611-08-12	12	-8	1/2"	3/4"		15.0	68.5	41.5					
M23611-10-08	16	-10	5/8"	1/2"		9.3	52.0	31.8					
M23611-10-12	16	-10	5/8"	3/4"		15.0	70.0	41.5					
M23611-10-16	16	-10	5/8"	1"		20.0	80.0	47.7					
M23611-12-12	19	-12	3/4"	3/4"		15.0	69.0	41.5					
M23611-12-16	19	-12	3/4"	1"		20.0	81.0	47.7					
M23611-16-16	25	-16	1"	1"		19.8	82.5	47.7					
M23611-16-20	25	-16	1"	1.1/4"		26.0	90.0	54.2					
M23611-20-16	31	-20	1.1/4"	1"		19.8	82.5	47.7					
M23611-20-20	31	-20	1.1/4"	1.1/4"		26.0	84.5	54.2					
M23611-20-24	31	-20	1.1/4"	1.1/2"		32.0	90.5	63.7					
M23611-24-24	38	-24	1.1/2"	1.1/2"		32.0	92.5	63.6					
M23611-32-32	51	-32	2"	2"		42.0	109.0	79.5					

149 FITTINGS

SAE STANDARD CONNECTIONS

# M23641

45° ISO/SAE CODE 62 FLANGE  
SAE J516 / ISO 12151-3

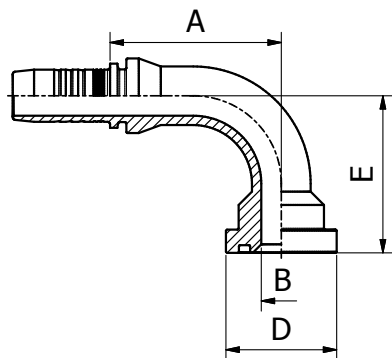


PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm							
	DN	Dash	inch	inch		B	A	D	E				
M23641-08-08	12	-8	1/2"	1/2"		9.3	59.0	31.7	19.0				
M23641-08-12	12	-8	1/2"	3/4"		15.0	68.0	41.5	27.5				
M23641-10-08	16	-10	5/8"	1/2"		9.3	62.5	31.8	23.5				
M23641-10-12	16	-10	5/8"	3/4"		15.0	67.5	41.5	31.0				
M23641-12-12	19	-12	3/4"	3/4"		15.0	72.5	41.5	28.0				
M23641-12-16	19	-12	3/4"	1"		20.0	77.0	47.7	32.5				
M23641-16-12	25	-16	1"	3/4"		15.0	80.0	41.5	30.0				
M23641-16-16	25	-16	1"	1"		19.8	83.5	47.7	32.5				
M23641-16-20	25	-16	1"	1.1/4"		26.0	88.5	54.2	37.5				
M23641-20-20	31	-20	1.1/4"	1.1/4"		26.0	95.0	54.2	37.5				
M23641-20-24	31	-20	1.1/4"	1.1/2"		32.0	102.5	63.7	45.0				
M23641-24-24	38	-24	1.1/2"	1.1/2"		32.0	118.0	63.7	44.0				
M23641-24-32	38	-24	1.1/2"	2"		42.0	129.0	79.6	55.5				
M23641-32-32	51	-32	2"	2"		42.0	151.5	79.6	60.5				
M23641-32-32056	51	-32	2"	2"		42.0	147.5	79.6	56.5				

SAE STANDARD CONNECTIONS

# M23691

90° ISO/SAE CODE 62 FLANGE  
SAE J516 / ISO 12151-3



FITTINGS 150

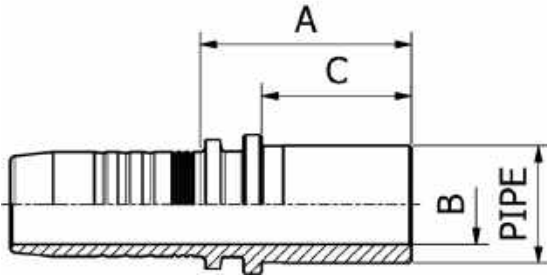
PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	C	H2			
M23691-08-08	12	-8	1/2"	1/2"		9.3	54.5	31.8	45.0			
M23691-08-08040	12	-8	1/2"	1/2"		9.3	54.5	31.7	41.0			
M23691-08-12	12	-8	1/2"	3/4"		15.0	54.5	41.5	53.0			
M23691-10-08	16	-10	5/8"	1/2"		9.3	57.5	31.8	45.0			
M23691-10-12	16	-10	5/8"	3/4"		15.0	53.5	41.5	60.5			
M23691-10-16	16	-10	5/8"	1"		19.8	56.0	47.7	64.0			
M23691-12-08	19	-12	3/4"	1/2"		9.3	60.6	31.8	57.5			
M23691-12-12	19	-12	3/4"	3/4"		15.0	64.0	41.5	59.0			
M23691-12-16	19	-12	3/4"	1"		20.0	64.5	47.7	65.0			
M23691-16-12	25	-16	1"	3/4"		15.0	74.5	41.5	67.0			
M23691-16-16	25	-16	1"	1"		19.8	73.5	47.7	68.0			
M23691-16-20	25	-16	1"	1.1/4"		26.0	73.5	54.2	75.0			
M23691-20-16	31	-20	1.1/4"	1"		19.8	82.5	47.7	68.0			
M23691-20-20	31	-20	1.1/4"	1.1/4"		26.0	85.5	54.2	81.0			
M23691-20-20090	31	-20	1.1/4"	1.1/4"		26.0	85.5	54.1	90.0			
M23691-20-24	31	-20	1.1/4"	1.1/2"		32.0	85.5	63.7	91.5			
M23691-24-20	38	-24	1.1/2"	1.1/4"		26.0	105.0	54.2	91.0			
M23691-24-24	38	-24	1.1/2"	1.1/2"		32.0	106.0	63.7	94.5			
M23691-24-24104	38	-24	1.1/2"	1.1/2"		32.0	106.0	63.7	104.0			
M23691-24-32	38	-24	1.1/2"	2"		42.0	106.0	79.6	110.5			
M23691-32-32	51	-32	2"	2"		42.0	138.0	79.6	132.0			
M23691-32-32138	51	-32	2"	2"		42.0	138.0	79.6	138.0			



DIN STANDARD CONNECTIONS

# M22010

METRIC STANDPIPE LIGHT DUTY  
DIN 2353 / ISO 8434-1



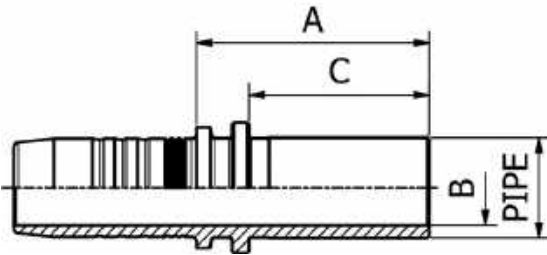
PART. REF.	HOSE BORE			Pipe	DIMENSIONS mm								
	DN	Dash	inch		mm	B	A	C					
M22010-03-04	5	- 3	3/16"	4.0		2.0	29.5	22.0					
M22010-03-06	5	- 3	3/16"	6.0		3.0	29.5	22.0					
M22010-04-06	6	- 4	1/4"	6.0		3.0	30.0	22.0					
M22010-05-08	8	- 5	5/16"	8.0		5.5	30.0	22.0					
M22010-05-10	8	- 5	5/16"	10.0		7.0	31.0	23.0					
M22010-06-10	10	- 6	3/8"	10.0		7.0	31.5	23.0					
M22010-06-12	10	- 6	3/8"	12.0		8.0	31.5	23.0					
M22010-06-15	10	- 6	3/8"	15.0		10.5	33.5	25.0					
M22010-08-12	12	- 8	1/2"	12.0		8.0	32.0	23.0					
M22010-08-15	12	- 8	1/2"	15.0		10.5	34.0	25.0					
M22010-08-18	12	- 8	1/2"	18.0		12.5	35.0	26.0					
M22010-10-18	16	- 10	5/8"	18.0		12.5	35.0	26.0					
M22010-10-22	16	- 10	5/8"	22.0		15.0	37.0	28.0					
M22010-12-18	19	- 12	3/4"	18.0		12.5	36.5	26.0					
M22010-12-22	19	- 12	3/4"	22.0		15.0	38.5	28.0					
M22010-16-28	25	- 16	1"	28.0		19.8	41.5	30.0					
M22010-20-35	31	- 20	1.1/4"	35.0		26.0	48.5	36.0					
M22010-24-42	38	- 24	1.1/2"	42.0		32.0	52.5	40.0					

151 FITTINGS

DIN STANDARD CONNECTIONS

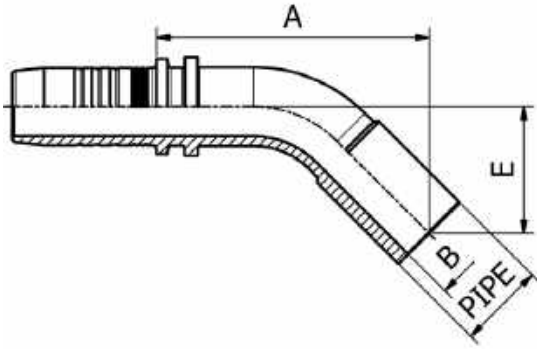
# M22110

METRIC STANDPIPE HEAVY DUTY  
DIN 2353 / ISO 8434-1



PART. REF.	HOSE BORE			Pipe	DIMENSIONS mm								
	DN	Dash	inch		mm	B	A	C					
M22110-03-08	5	- 3	3/16"	8.0		3.0	31.0	24.0					
M22110-03-10	5	- 3	3/16"	10.0		3.0	29.5	22.0					
M22110-04-08	6	- 4	1/4"	8.0		4.0	32.0	24.0					
M22110-04-10	6	- 4	1/4"	10.0		4.0	34.0	26.0					
M22110-04-12	6	- 4	1/4"	12.0		7.0	34.0	26.0					
M22110-05-12	8	- 5	5/16"	12.0		7.0	34.0	26.0					
M22110-06-14	10	- 6	3/8"	14.0		8.0	37.5	29.0					
M22110-08-14	12	- 8	1/2"	14.0		9.3	38.0	29.0					
M22110-08-16	12	- 8	1/2"	16.0		10.5	39.0	30.0					
M22110-10-20	16	- 10	5/8"	20.0		12.5	45.0	36.0					
M22110-12-20	19	- 12	3/4"	20.0		15.0	46.5	36.0					
M22110-12-25	19	- 12	3/4"	25.0		15.0	50.5	40.0					
M22110-16-25	25	- 16	1"	25.0		15.0	51.5	40.0					
M22110-16-30	25	- 16	1"	30.0		19.8	55.5	44.0					
M22110-16-38	25	- 16	1"	38.0		26.0	61.5	50.0					
M22110-20-30	31	- 20	1.1/4"	30.0		20.5	56.5	44.0					
M22110-20-38	31	- 20	1.1/4"	38.0		26.0	62.5	50.0					
M22110-24-38	38	- 24	1.1/2"	38.0		26.0	62.5	50.0					

DIN STANDARD CONNECTIONS

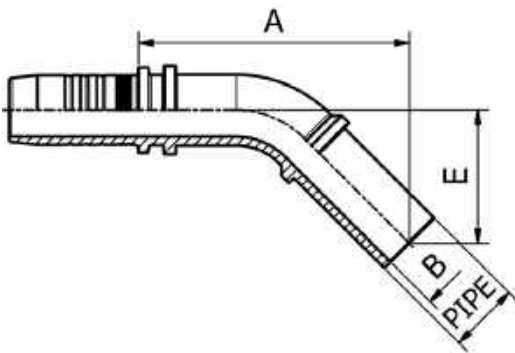


# M22040

45° METRIC STANDPIPE LIGHT DUTY  
DIN 2353 / ISO 8434-1

FITTINGS 152

PART. REF.	HOSE BORE			Pipe	DIMENSIONS mm					
	DN	Dash	inch		B	A	E			
M22040-03-06	5	- 3	3/16"	6.0	3.0	37.5	20.5			
M22040-04-06	6	- 4	1/4"	6.0	3.0	38.0	20.5			
M22040-05-10	8	- 5	5/16"	10.0	7.0	44.5	22.5			
M22040-06-10	10	- 6	3/8"	10.0	7.0	47.5	23.0			
M22040-06-12	10	- 6	3/8"	12.0	8.0	49.5	25.0			
M22040-08-15	12	- 8	1/2"	15.0	10.5	58.0	28.0			
M22040-10-18	16	- 10	5/8"	18.0	12.5	63.5	30.5			
M22040-12-22	19	- 12	3/4"	22.0	15.0	69.0	32.0			
M22040-16-28	25	- 16	1"	28.0	19.8	81.5	37.0			



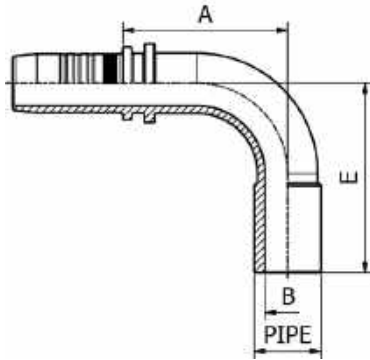
DIN STANDARD CONNECTIONS

# M22140

45° METRIC STANDPIPE HEAVY DUTY  
DIN 2353 / ISO 8434-1

PART. REF.	HOSE BORE			Pipe	DIMENSIONS mm					
	DN	Dash	inch		B	A	E			
M22140-04-08	6	- 4	1/4"	8.0	4.0	42.0	22.0			
M22140-04-10	6	- 4	1/4"	10.0	6.0	44.0	24.0			
M22140-06-14	10	- 6	3/8"	14.0	9.3	54.5	29.0			
M22140-08-16	12	- 8	1/2"	16.0	10.5	61.0	30.0			
M22140-10-20	16	- 10	5/8"	20.0	12.5	69.0	36.0			
M22140-12-25	19	- 12	3/4"	25.0	15.0	80.5	40.5			
M22140-16-25	25	- 16	1"	25.0	15.0	82.0	41.0			

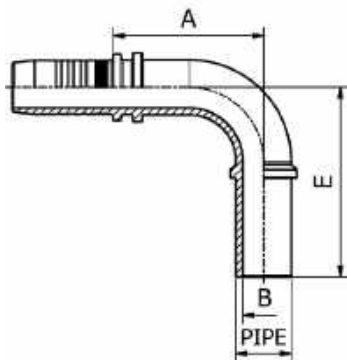
DIN STANDARD CONNECTIONS



# M22090

90° METRIC STANDPIPE LIGHT DUTY  
DIN 2353 / ISO 8434-1

PART. REF.	HOSE BORE			Pipe	DIMENSIONS mm							
	DN	Dash	inch		mm	B	A	E				
M22090-03-06	5	- 3	3/16"	6.0		3.0	22.5	34.0				
M22090-04-06	6	- 4	1/4"	6.0		3.0	23.0	34.0				
M22090-05-10	8	- 5	5/16"	10.0		7.0	29.5	40.0				
M22090-06-10	10	- 6	3/8"	10.0		7.0	33.0	42.5				
M22090-06-12	10	- 6	3/8"	12.0		8.0	34.0	45.0				
M22090-08-12	12	- 8	1/2"	12.0		8.0	34.5	45.0				
M22090-08-15	12	- 8	1/2"	15.0		10.5	42.0	52.0				
M22090-08-18	12	- 8	1/2"	18.0		12.5	42.0	55.0				
M22090-10-18	16	- 10	5/8"	18.0		12.5	49.0	59.0				
M22090-10-22	16	- 10	5/8"	22.0		15.0	53.5	63.0				
M22090-12-22	19	- 12	3/4"	22.0		15.0	54.5	63.0				
M22090-16-28	25	- 16	1"	28.0		19.8	67.5	75.0				
M22090-20-35	31	- 20	1.1/4"	35.0		26.0	80.5	94.0				



DIN STANDARD CONNECTIONS

# M22190

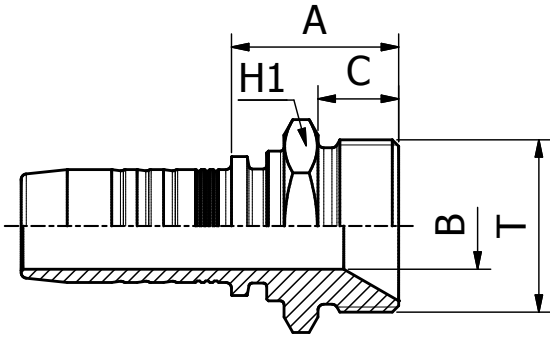
90° METRIC STANDPIPE HEAVY DUTY  
DIN 2353 / ISO 8434-1

PART. REF.	HOSE BORE			Pipe	DIMENSIONS mm							
	DN	Dash	inch		mm	B	A	E				
M22190-04-08	6	- 4	1/4"	8.0		4.0	27.0	38.0				
M22190-04-10	6	- 4	1/4"	10.0		6.0	27.0	41.0				
M22190-04-12	6	- 4	1/4"	12.0		7.0	27.0	44.0				
M22190-05-12	8	- 5	5/16"	12.0		7.0	30.5	44.0				
M22190-06-14	10	- 6	3/8"	14.0		9.3	35.0	51.0				
M22190-08-14	12	- 8	1/2"	14.0		9.3	42.0	53.5				
M22190-08-16	12	- 8	1/2"	16.0		10.5	43.0	55.0				
M22190-10-20	16	- 10	5/8"	20.0		12.5	49.0	66.5				
M22190-12-20	19	- 12	3/4"	20.0		15.0	54.5	69.0				
M22190-12-25	19	- 12	3/4"	25.0		15.0	57.5	75.0				
M22190-16-25	25	- 16	1"	25.0		15.0	61.5	76.5				
M22190-16-30	25	- 16	1"	30.0		19.8	69.5	87.0				

DIN STANDARD CONNECTIONS

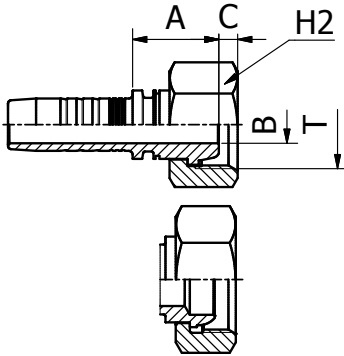
# M11010

METRIC MALE 60° CONE SEAT  
SUPER LIGHT - DIN 3863



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H1		
M11010-04-12	6	- 4	1/4"	M12 X 1.5	4.0	19.5	8.0	14.0			
M11010-04-16	6	- 4	1/4"	M16 X 1.5	4.0	23.5	11.0	19.0			
M11010-05-16	8	- 5	5/16"	M16 X 1.5	5.5	23.5	11.0	19.0			
M11010-10-26	16	- 10	5/8"	M26 X 1.5	12.5	25.5	12.0	27.0			

FITTINGS 154



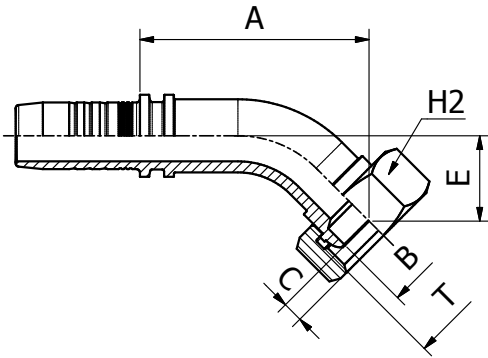
DIN STANDARD CONNECTIONS

# M21012/M21013

METRIC FEMALE 60° CONE  
DIN 20078/3863

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H2		
M21012-03-10	5	-3	3/16"	M10 X1	3.0	18.5	1.8	14.0			
M21012-04-12	6	-4	1/4"	M12 X 1.5	4.0	19.5	3.9	17.0			
M21012-06-14	10	-6	3/8"	M14 X 1.5	6.0	19.5	3.9	17.0			
M21012-06-16	10	-6	3/8"	M16 X 1.5	8.0	21.5	3.8	19.0			
M21013-06-18	10	-6	3/8"	M18 X 1.5	10.0	19.5	4.5	22.0			
M21013-10-26	16	-10	5/8"	M26 X 1.5	12.5	22.0	2.0	32.0			
M21013-10-30	16	-10	5/8"	M30 X 1.5	20.0	20.0	6.0	36.0			
M21013-12-30	19	-12	3/4"	M30 X 1.5	20.0	21.0	6.0	36.0			
M21013-16-38	25	-16	1"	M38 X 1.5	26.0	23.0	7.5	46.0			
M21013-20-45	31	-20	1.1/4"	M45 X 1.5	33.0	23.5	8.0	50.0			
M21013-24-52	38	-24	1.1/2"	M52 X 1.5	40.0	25.0	8.0	60.0			
M21013-32-65	51	-32	2"	M65 X 2	42.0	35.0	5.2	75.0			

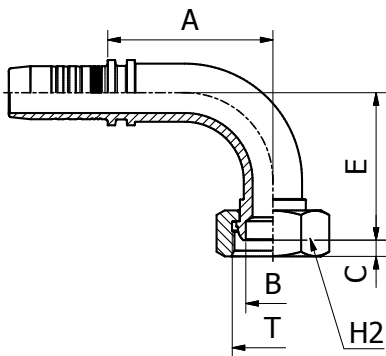
DIN STANDARD CONNECTIONS



# M21043

**45° METRIC FEMALE SWEPT ELBOW 60° CONE  
DIN 20078/3863**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M21043-12-30	19	- 12	3/4"	M30 X 1.5	20.0	67.5	7.0	25.0	36.0		
M21043-16-38	25	- 16	1"	M38 X 1.5	26.0	81.0	7.5	28.0	46.0		

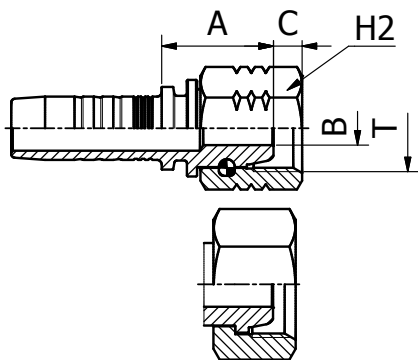


DIN STANDARD CONNECTIONS

# M21093

**90° METRIC FEMALE SWEPT ELBOW 60° CONE  
DIN 20078/3863**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M21093-12-30	19	- 12	3/4"	M 30X1.5	20.0	61.0	6.0	54.5	36.0		
M21093-16-38	25	- 16	1"	M 38X1.5	26.0	76.5	7.5	63.0	46.0		
M21093-20-45	31	- 20	1.1/4"	M 45X1.5	33.0	92.0	8.0	81.0	50.0		

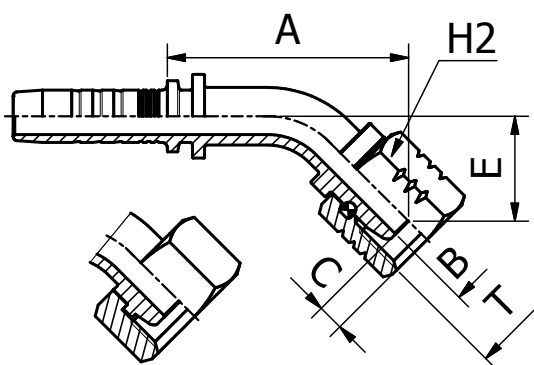


DIN STANDARD CONNECTIONS

# M21312/M21313

METRIC FEMALE MULTISEAL  
DIN 20078/3868

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	H2
M21312-04-12	6	- 4	1/4"	M 12X1.5	6.0	4.0	19.5	4.0	17.0		
M21312-06-14	10	- 6	3/8"	M 14X1.5	8.0	4.0	19.5	3.9	17.0		
M21312-06-16	10	- 6	3/8"	M 16X1.5	10.0	7.0	21.5	5.0	19.0		
M21312-08-18	12	- 8	1/2"	M 18X1.5	12.0	7.0	23.0	5.9	22.0		
M21312-10-22	16	- 10	5/8"	M 22X1.5	15.0	9.3	23.5	5.5	27.0		
M21313-03-12	5	- 3	3/16"	M 12X1.5	6.0	3.0	18.5	3.2	14.0		
M21313-04-14	6	- 4	1/4"	M 14X1.5	8.0	4.0	19.5	3.0	17.0		
M21313-04-16	6	- 4	1/4"	M 16X1.5	10.0	4.0	19.5	4.0	19.0		
M21313-05-16	8	- 5	5/16"	M 16X1.5	10.0	5.5	19.5	4.0	19.0		
M21313-05-18	8	- 5	5/16"	M 18X1.5	12.0	5.5	19.5	4.0	22.0		
M21313-06-18	10	- 6	3/8"	M 18X1.5	12.0	7.0	20.0	4.0	22.0		
M21313-06-22	10	- 6	3/8"	M 22X1.5	15.0	7.0	21.0	4.7	27.0		
M21313-08-22	12	- 8	1/2"	M 22X1.5	15.0	9.3	21.5	4.7	27.0		
M21313-10-26	16	- 10	5/8"	M 26X1.5	18.0	12.5	22.0	5.0	32.0		



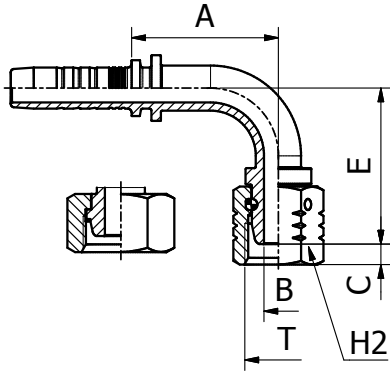
DIN STANDARD CONNECTIONS

# M21342/M21343

45° METRIC FEMALE SWEPT ELBOW MULTISEAL  
DIN 20078/3868

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	E
M21342-05-14	8	- 5	5/16"	M 14X1.5	8.0	4.0	40.0	3.9	19.5	17.0	
M21342-06-16	10	- 6	3/8"	M 16X1.5	10.0	7.0	46.0	5.0	20.0	19.0	
M21343-04-14	6	- 4	1/4"	M 14X1.5	8.0	4.0	36.5	3.0	15.0	17.0	
M21343-04-16	6	- 4	1/4"	M 16X1.5	10.0	4.0	36.5	4.0	15.0	19.0	
M21343-05-16	8	- 5	5/16"	M 16X1.5	10.0	5.5	39.0	4.0	15.0	19.0	
M21343-06-18	10	- 6	3/8"	M 18X1.5	12.0	7.0	42.0	4.0	15.5	22.0	
M21343-06-22	10	- 6	3/8"	M 22X1.5	15.0	7.0	42.5	4.7	15.5	27.0	
M21343-08-22	12	- 8	1/2"	M 22X1.5	15.0	9.3	49.5	4.7	17.0	27.0	
M21343-10-26	16	- 10	5/8"	M 26X1.5	18.0	12.5	60.0	5.0	24.0	32.0	

DIN STANDARD CONNECTIONS

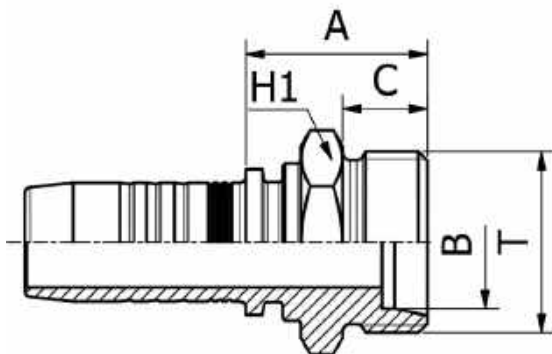


# M21392/M21393

90° METRIC FEMALE SWEPT ELBOW MULTISEAL  
DIN 20078/3868

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm				
	DN	Dash	inch	T	mm	B	A	C	E	H2
M21392-04-12	6	- 4	1/4"	M 12X1.5	6.0	4.0	28.0	4.0	30.5	17.0
M21392-06-16	10	- 6	3/8"	M 16X1.5	10.0	7.0	35.5	5.0	38.0	19.0
M21392-12-26	19	- 12	3/4"	M 26X1.5	18.0	15.0	61.5	2.3	63.0	32.0
M21393-03-12	5	- 3	3/16"	M 12X1.5	6.0	3.0	26.0	3.2	27.0	14.0
M21393-04-14	6	- 4	1/4"	M 14X1.5	8.0	4.0	29.5	3.0	29.5	17.0
M21393-04-16	6	- 4	1/4"	M 16X1.5	10.0	4.0	29.5	4.0	29.5	19.0
M21393-05-16	8	- 5	5/16"	M 16X1.5	10.0	5.5	32.0	4.0	29.0	19.0
M21393-05-18	8	- 5	5/16"	M 18X1.5	12.0	7.0	32.0	4.0	30.5	22.0
M21393-06-18	10	- 6	3/8"	M 18X1.5	12.0	7.0	36.5	4.0	31.5	22.0
M21393-06-22	10	- 6	3/8"	M 22X1.5	15.0	7.0	36.5	4.7	32.0	27.0
M21393-08-22	12	- 8	1/2"	M 22X1.5	15.0	9.3	45.0	4.7	36.5	27.0
M21393-10-26	16	- 10	5/8"	M 26X1.5	18.0	12.5	51.5	5.0	50.0	32.0

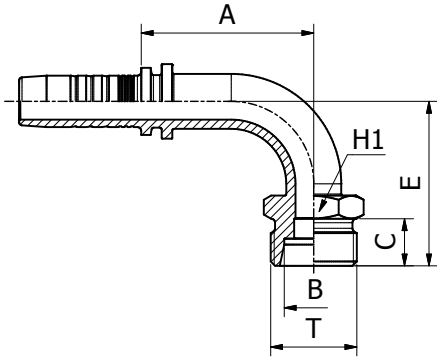
DIN STANDARD CONNECTIONS



# M11110

METRIC MALE 24° CONE SEAT LIGHT DUTY  
DIN 20066 / ISO 12151-2

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm			
	DN	Dash	inch	T	mm	B	A	C	H1
M11110-03-12	5	- 3	3/16"	M 12X1.5	6.0	3.0	21.0	10.0	14.0
M11110-04-12	6	- 4	1/4"	M 12X1.5	6.0	4.0	21.5	10.0	14.0
M11110-04-14	6	- 4	1/4"	M 14X1.5	8.0	4.0	21.5	10.0	14.0
M11110-04-16	6	- 4	1/4"	M 16X1.5	10.0	7.0	23.5	11.0	17.0
M11110-04-18	6	- 4	1/4"	M 18X1.5	12.0	9.0	23.5	11.0	19.0
M11110-05-16	8	- 5	5/16"	M 16X1.5	10.0	7.0	24.0	11.0	17.0
M11110-05-18	8	- 5	5/16"	M 18X1.5	12.0	9.0	24.0	11.0	19.0
M11110-06-16	10	- 6	3/8"	M 16X1.5	10.0	7.0	24.0	11.0	17.0
M11110-06-18	10	- 6	3/8"	M 18X1.5	12.0	9.0	24.5	11.0	19.0
M11110-06-22	10	- 6	3/8"	M 22X1.5	15.0	10.0	25.5	12.0	22.0
M11110-06-26	10	- 6	3/8"	M 26X1.5	18.0	12.5	26.5	12.0	27.0
M11110-08-16	12	- 8	1/2"	M 16X1.5	10.0	7.0	24.5	11.0	22.0
M11110-08-18	12	- 8	1/2"	M 18X1.5	12.0	9.3	24.5	11.0	22.0
M11110-08-22	12	- 8	1/2"	M 22X1.5	15.0	10.0	25.5	12.0	22.0
M11110-08-26	12	- 8	1/2"	M 26X1.5	18.0	12.5	26.5	12.0	27.0
M11110-10-22	16	- 10	5/8"	M 22X1.5	15.0	10.0	25.5	12.0	22.0
M11110-10-26	16	- 10	5/8"	M 26X1.5	18.0	12.5	26.5	12.0	27.0
M11110-10-30	16	- 10	5/8"	M 30X2	22.0	15.0	28.5	14.0	30.0
M11110-12-26	19	- 12	3/4"	M 26X1.5	18.0	15.0	28.0	12.0	27.0
M11110-12-30	19	- 12	3/4"	M 30X2	22.0	15.0	30.0	14.0	30.0
M11110-12-36	19	- 12	3/4"	M 36X2	28.0	19.8	31.0	14.0	36.0
M11110-16-36	25	- 16	1"	M 36X2	28.0	19.8	32.5	14.0	36.0
M11110-20-45	31	- 20	1.1/4"	M 45X2	35.0	26.0	40.5	16.0	46.0
M11110-24-52	38	- 24	1.1/2"	M 52X2	42.0	32.0	43.0	16.0	55.0



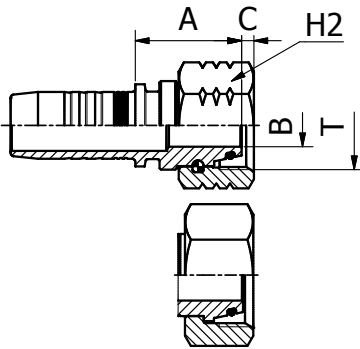
DIN STANDARD CONNECTIONS

# M11190

**90° METRIC MALE 24° CONE SEAT LIGHT DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	E	H1	
M11190-04-14	6	- 4	1/4"	M 14X1.5	8.0	4.0	27.0	10.0	33.0	14.0		
M11190-06-18	10	- 6	3/8"	M 18X1.5	12.0	9.0	32.0	11.0	35.5	19.0		

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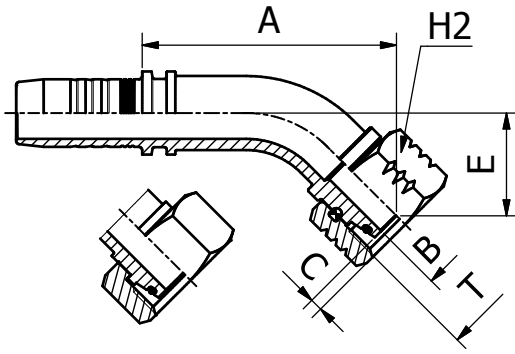
DIN STANDARD CONNECTIONS

# M21512/M21513

**METRIC O-RING FEMALE  
24° CONE LIGHT DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	H2		
M21512-04-12	6	- 4	1/4"	M 12X1.5	6.0	3.0	21.0	2.2	17.0			
M21512-05-14	8	- 5	5/16"	M 14X1.5	8.0	4.0	20.0	2.9	17.0			
M21512-06-16	10	- 6	3/8"	M 16X1.5	10.0	6.0	23.0	3.0	19.0			
M21512-08-18	12	- 8	1/2"	M 18X1.5	12.0	7.0	29.0	2.9	22.0			
M21512-10-18	16	- 10	5/8"	M 18X1.5	12.0	7.0	29.0	2.9	22.0			
M21512-10-22	16	- 10	5/8"	M 22X1.5	15.0	9.5	26.5	2.4	27.0			
M21512-12-22	19	- 12	3/4"	M 22X1.5	15.0	9.5	31.0	2.4	27.0			
M21512-12-26	19	- 12	3/4"	M 26X1.5	18.0	12.5	31.0	2.3	32.0			
M21512-16-30	25	- 16	1"	M 30X2	22.0	15.0	34.0	4.2	36.0			
M21512-20-36	31	- 20	1.1/4"	M 36X2	28.0	19.8	35.5	5.0	41.0			
M21512-24-45	38	- 24	1.1/2"	M 45X2	35.0	26.0	42.5	5.8	50.0			
M21512-32-52	51	- 32	2"	M 52X2	42.0	32.0	50.5	5.6	60.0			
M21513-03-12	5	- 3	3/16"	M 12X1.5	6.0	3.0	22.0	0.7	14.0			
M21513-03-14	5	- 3	3/16"	M 14X1.5	8.0	4.0	24.5	1.3	17.0			
M21513-04-14	6	- 4	1/4"	M 14X1.5	8.0	4.0	22.0	1.3	17.0			
M21513-04-16	6	- 4	1/4"	M 16X1.5	10.0	6.0	22.5	1.8	19.0			
M21513-04-18	6	- 4	1/4"	M 18X1.5	12.0	7.0	22.0	2.0	22.0			
M21513-05-16	8	- 5	5/16"	M 16X1.5	10.0	6.0	22.5	1.8	19.0			
M21513-05-18	8	- 5	5/16"	M 18X1.5	12.0	7.0	22.0	2.0	22.0			
M21513-06-18	10	- 6	3/8"	M 18X1.5	12.0	7.0	22.5	2.0	22.0			
M21513-06-22	10	- 6	3/8"	M 22X1.5	15.0	9.3	25.0	1.5	27.0			
M21513-08-22	12	- 8	1/2"	M 22X1.5	15.0	9.3	25.5	1.5	27.0			
M21513-08-26	12	- 8	1/2"	M 26X1.5	18.0	12.5	26.0	2.0	32.0			
M21513-10-26	16	- 10	5/8"	M 26X1.5	18.0	12.5	26.0	2.0	32.0			
M21513-10-30	16	- 10	5/8"	M 30X2	22.0	15.0	34.0	3.0	36.0			
M21513-10-36	16	- 10	5/8"	M 36X2	28.0	20.0	30.5	3.7	41.0			
M21513-12-30	19	- 12	3/4"	M 30X2	22.0	15.0	28.0	3.0	36.0			
M21513-12-36	19	- 12	3/4"	M 36X2	28.0	20.0	28.5	3.7	41.0			
M21513-16-36	25	- 16	1"	M 36X2	28.0	19.8	29.5	3.7	41.0			
M21513-16-45	25	- 16	1"	M 45X2	35.0	26.0	39.0	4.0	50.0			
M21513-20-45	31	- 20	1.1/4"	M 45X2	35.0	26.0	33.0	4.0	50.0			
M21513-20-52	31	- 20	1.1/4"	M 52X2	42.0	32.0	32.5	4.5	60.0			
M21513-24-52	38	- 24	1.1/2"	M 52X2	42.0	32.0	33.0	4.5	60.0			





# M21542/M21543

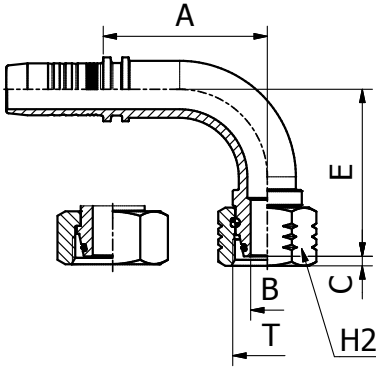
**45° METRIC O-RING FEMALE SWEPT ELBOW  
24° CONE LIGHT DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch	T	mm	B	A	C	E	H2	
M21542-04-12	6	- 4	1/4"	M 12X1.5	6.0	3.0	39.0	2.2	18.0	17.0	
M21542-06-16	10	- 6	3/8"	M 16X1.5	10.0	6.0	47.5	3.0	21.5	19.0	
M21542-08-18	12	- 8	1/2"	M 18X1.5	12.0	7.0	56.5	2.9	25.0	22.0	
M21542-10-22	16	- 10	5/8"	M 22X1.5	15.0	9.3	65.5	3.0	29.0	27.0	
M21542-12-26	19	- 12	3/4"	M 26X1.5	18.0	12.5	73.0	2.3	31.0	32.0	
M21542-20-36	31	- 20	1.1/4"	M 36X2	28.0	19.8	107.5	5.0	44.0	41.0	
M21542-24-36	38	- 24	1.1/2"	M 36X2	28.0	19.8	113.0	5.0	34.5	41.0	
M21543-03-12	5	- 3	3/16"	M 12X1.5	6.0	3.0	35.0	0.7	16.0	14.0	
M21543-04-14	6	- 4	1/4"	M 14X1.5	8.0	4.0	38.0	1.3	16.5	17.0	
M21543-04-16	6	- 4	1/4"	M 16X1.5	10.0	6.0	38.0	1.8	17.0	19.0	
M21543-04-18	6	- 4	1/4"	M 18X1.5	12.0	7.0	38.5	2.0	17.5	22.0	
M21543-05-16	8	- 5	5/16"	M 16X1.5	10.0	6.0	41.5	1.8	17.5	19.0	
M21543-05-18	8	- 5	5/16"	M 18X1.5	12.0	7.0	41.5	2.0	17.0	22.0	
M21543-06-18	10	- 6	3/8"	M 18X1.5	12.0	7.0	43.5	2.0	16.5	22.0	
M21543-06-22	10	- 6	3/8"	M 22X1.5	15.0	9.3	45.0	1.5	18.0	27.0	
M21543-08-22	12	- 8	1/2"	M 22X1.5	15.0	9.3	52.0	1.5	19.0	27.0	
M21543-08-26	12	- 8	1/2"	M 26X1.5	18.0	12.5	52.5	2.0	19.5	32.0	
M21543-10-26	16	- 10	5/8"	M 26X1.5	18.0	12.5	62.0	2.0	26.5	32.0	
M21543-12-30	19	- 12	3/4"	M 30X2	22.0	15.0	71.0	3.0	28.5	36.0	
M21543-12-36	19	- 12	3/4"	M 36X2	28.0	19.8	72.0	3.7	30.0	41.0	
M21543-16-36	25	- 16	1"	M 36X2	28.0	19.8	85.0	3.7	32.0	41.0	
M21543-20-45	31	- 20	1.1/4"	M 45X2	35.0	26.0	100.0	4.0	36.0	50.0	
M21543-20-52	31	- 20	1.1/4"	M 52X2	42.0	32.0	100.0	4.5	42.0	60.0	
M21543-24-52	38	- 24	1.1/2"	M 52X2	42.0	32.0	117.0	4.5	44.5	60.0	

DIN STANDARD CONNECTIONS

# M21592/M21593

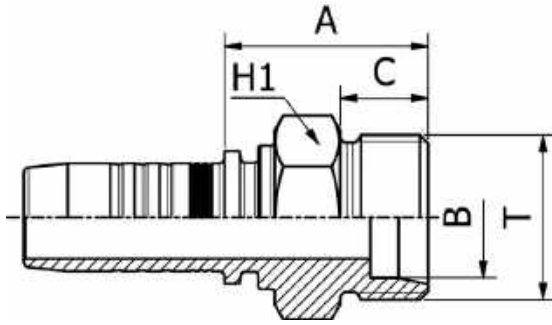
**90° METRIC O-RING FEMALE SWEPT ELBOW  
24° CONE LIGHT DUTY  
DIN 20066 / ISO 12151-2**



PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	E	H2
M21592-04-12	6	- 4	1/4"	M 12X1.5	6.0	3.0	28.5	2.2	32.5	17.0		
M21592-05-14	8	- 5	5/16"	M 14X1.5	8.0	4.0	31.0	2.9	33.0	17.0		
M21592-06-16	10	- 6	3/8"	M 16X1.5	10.0	6.0	35.5	3.0	40.0	19.0		
M21592-08-18	12	- 8	1/2"	M 18X1.5	12.0	7.0	44.0	2.9	48.0	22.0		
M21592-10-22	16	- 10	5/8"	M 22X1.5	15.0	9.3	53.5	3.0	57.5	27.0		
M21592-12-26	19	- 12	3/4"	M 26X1.5	18.0	12.5	61.5	2.3	63.0	32.0		
M21592-16-30	25	- 16	1"	M 30X2	22.0	15.0	79.5	4.2	80.5	36.0		
M21592-20-36	31	- 20	1.1/4"	M 36X2	28.0	19.8	93.5	5.0	92.0	41.0		
M21592-24-36	38	- 24	1.1/2"	M 36X2	28.0	19.8	97.0	5.0	68.0	41.0		
M21592-32-52	51	- 32	2"	M 52X2	42.0	32.0	131.0	5.6	119.0	60.0		
M21593-03-12	5	- 3	3/16"	M 12X1.5	6.0	3.0	26.0	0.7	30.0	14.0		
M21593-03-14	5	- 3	3/16"	M 14X1.5	8.0	4.0	29.0	1.3	31.5	17.0		
M21593-04-14	6	- 4	1/4"	M 14X1.5	8.0	4.0	29.5	1.3	31.5	17.0		
M21593-04-16	6	- 4	1/4"	M 16X1.5	10.0	6.0	29.5	1.8	32.0	19.0		
M21593-04-18	6	- 4	1/4"	M 18X1.5	12.0	7.0	29.5	2.0	33.0	22.0		
M21593-05-16	8	- 5	5/16"	M 16X1.5	10.0	6.0	32.0	1.8	32.5	19.0		
M21593-05-18	8	- 5	5/16"	M 18X1.5	12.0	7.0	32.0	2.0	32.5	22.0		
M21593-05-22	8	- 5	5/16"	M 22X1.5	15.0	9.3	36.0	1.5	35.0	27.0		
M21593-06-18	10	- 6	3/8"	M 18X1.5	12.0	7.0	36.5	2.0	33.5	22.0		
M21593-06-22	10	- 6	3/8"	M 22X1.5	15.0	9.3	36.5	1.5	35.0	27.0		
M21593-08-22	12	- 8	1/2"	M 22X1.5	15.0	9.3	45.0	1.5	39.5	27.0		
M21593-08-26	12	- 8	1/2"	M 26X1.5	18.0	12.5	45.0	2.0	40.0	32.0		
M21593-10-26	16	- 10	5/8"	M 26X1.5	18.0	12.5	51.5	2.0	53.0	32.0		
M21593-10-30	16	- 10	5/8"	M 30X2	22.0	15.0	51.5	3.0	54.0	36.0		
M21593-12-30	19	- 12	3/4"	M 30X2	22.0	15.0	61.5	3.0	59.5	36.0		
M21593-12-36	19	- 12	3/4"	M 36X2	28.0	19.8	61.5	3.7	61.0	41.0		
M21593-16-36	25	- 16	1"	M 36X2	28.0	19.8	76.5	3.7	69.5	41.0		
M21593-16-45	25	- 16	1"	M 45X2	35.0	26.0	79.0	4.0	72.0	50.0		
M21593-20-45	31	- 20	1.1/4"	M 45X2	35.0	26.0	93.5	4.0	81.0	50.0		
M21593-24-52	38	- 24	1.1/2"	M 52X2	42.0	32.0	107.5	4.5	98.0	60.0		

DIN STANDARD CONNECTIONS

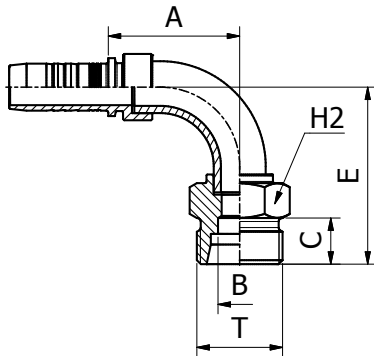
# M11210



**METRIC MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	H1
M11210-04-16	6	- 4	1/4"	M 16X1.5	8.0	5.5	25.5	12.0	17.0		
M11210-04-18	6	- 4	1/4"	M 18X1.5	10.0	6.0	26.5	12.0	19.0		
M11210-04-20	6	- 4	1/4"	M 20X1.5	12.0	7.0	29.0	12.0	22.0		
M11210-05-16	8	- 5	5/16"	M 16X1.5	8.0	5.5	26.0	12.0	17.0		
M11210-05-18	8	- 5	5/16"	M 18X1.5	10.0	7.0	26.5	12.0	19.0		
M11210-05-20	8	- 5	5/16"	M 20X1.5	12.0	7.0	29.0	12.0	22.0		
M11210-06-18	10	- 6	3/8"	M 18X1.5	10.0	7.0	27.0	12.0	19.0		
M11210-06-20	10	- 6	3/8"	M 20X1.5	12.0	7.0	29.0	12.0	22.0		
M11210-06-22	10	- 6	3/8"	M 22X1.5	14.0	8.0	31.0	14.0	22.0		
M11210-08-20	12	- 8	1/2"	M 20X1.5	12.0	9.3	29.5	12.0	22.0		
M11210-08-22	12	- 8	1/2"	M 22X1.5	14.0	9.3	31.5	14.0	22.0		
M11210-08-24	12	- 8	1/2"	M 24X1.5	16.0	9.3	31.5	14.0	24.0		
M11210-10-30	16	- 10	5/8"	M 30X2	20.0	15.0	35.5	16.0	30.0		
M11210-10-36	16	- 10	5/8"	M 36X2	25.0	19.8	40.0	18.0	36.0		
M11210-12-30	19	- 12	3/4"	M 30X2	20.0	15.0	37.0	16.0	30.0		
M11210-12-36	19	- 12	3/4"	M 36X2	25.0	19.8	41.0	18.0	36.0		
M11210-16-36	25	- 16	1"	M 36X2	25.0	19.8	42.5	18.0	36.0		
M11210-16-42	25	- 16	1"	M 42X2	30.0	25.0	44.5	20.0	46.0		
M11210-20-52	31	- 20	1.1/4"	M 52X2	38.0	30.0	51.0	22.0	55.0		

161 FITTINGS



DIN STANDARD CONNECTIONS

# M11290

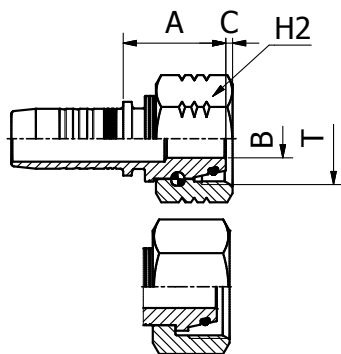
**90° METRIC MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	E
M11290-05-20	8	- 5	5/16"	M 20X1.5	12.0	7.0	29.0	12.0	36.5	22.0	
M11290-10-30	16	- 10	5/8"	M 30X2	20.0	15.0	45.5	16.0	61.5	30.0	

DIN STANDARD CONNECTIONS

# M21612/M21613

**METRIC O-RING FEMALE  
24° CONE HEAVY DUTY  
DIN 20066 / ISO 12151-2**



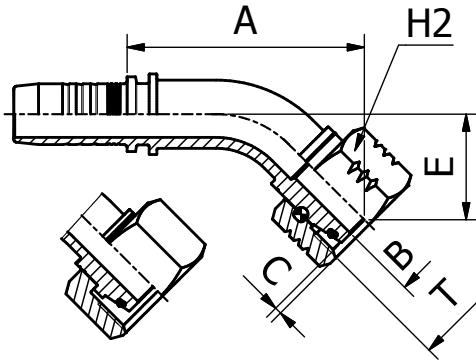
FITTINGS 162

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C			
M21612-08-20	12	- 8	1/2"	M 20X1.5	12.0	7.0	29.0	2.5	24.0			
M21612-08-22	12	- 8	1/2"	M 22X1.5	14.0	7.0	27.0	2.5	27.0			
M21612-10-24	16	- 10	5/8"	M 24X1.5	16.0	9.3	29.5	4.0	30.0			
M21612-12-24	19	- 12	3/4"	M 24X1.5	16.0	9.3	30.5	4.0	30.0			
M21612-12-30	19	- 12	3/4"	M 30X2	20.0	12.5	33.5	2.2	36.0			
M21612-16-30	25	- 16	1"	M 30X2	20.0	12.5	34.5	2.2	36.0			
M21612-16-36	25	- 16	1"	M 36X2	25.0	15.0	35.5	1.7	41.0			
M21613-03-14	5	- 3	3/16"	M 14X1.5	6.0	2.5	25.5	3.5	17.0			
M21613-03-16	5	- 3	3/16"	M 16X1.5	8.0	3.0	21.5	3.4	19.0			
M21613-04-14	6	- 4	1/4"	M 14X1.5	6.0	3.0	23.5	1.9	17.0			
M21613-04-16	6	- 4	1/4"	M 16X1.5	8.0	4.0	22.0	3.4	19.0			
M21613-04-18	6	- 4	1/4"	M 18X1.5	10.0	4.0	28.0	2.5	22.0			
M21613-04-20	6	- 4	1/4"	M 20X1.5	12.0	7.0	26.0	2.0	24.0			
M21613-05-18	8	- 5	5/16"	M 18X1.5	10.0	5.5	28.0	2.5	22.0			
M21613-05-20	8	- 5	5/16"	M 20X1.5	12.0	5.5	25.0	2.0	24.0			
M21613-06-18	10	- 6	3/8"	M 18X1.5	10.0	7.0	28.5	2.5	22.0			
M21613-06-20	10	- 6	3/8"	M 20X1.5	12.0	7.0	25.5	2.0	24.0			
M21613-06-22	10	- 6	3/8"	M 22X1.5	14.0	7.0	32.5	3.0	27.0			
M21613-06-24	10	- 6	3/8"	M 24X1.5	16.0	7.0	32.0	4.0	30.0			
M21613-08-24	12	- 8	1/2"	M 24X1.5	16.0	9.3	26.5	4.0	30.0			
M21613-08-30	12	- 8	1/2"	M 30X2	20.0	12.5	37.0	3.5	36.0			
M21613-10-30	16	- 10	5/8"	M 30X2	20.0	12.5	30.5	3.5	36.0			
M21613-10-36	16	- 10	5/8"	M 36X2	25.0	15.0	40.0	4.5	41.0			
M21613-12-36	19	- 12	3/4"	M 36X2	25.0	15.0	34.0	4.5	41.0			
M21613-16-42	25	- 16	1"	M 42X2	30.0	19.8	35.5	6.3	50.0			
M21613-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.0	37.5	8.0	60.0			
M21613-24-52	38	- 24	1.1/2"	M 52X2	38.0	26.0	49.5	8.0	60.0			

DIN STANDARD CONNECTIONS

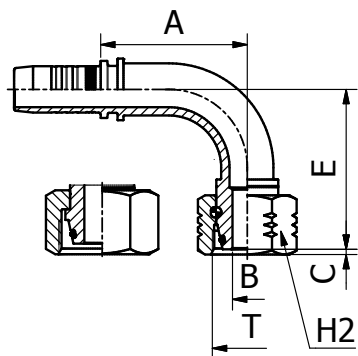
# M21642/M21643

45° METRIC O-RING FEMALE SWEEP ELBOW  
 24° CONE HEAVY DUTY  
 DIN 20066 / ISO 12151-2



PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	E	H2
M21642-06-18	10	- 6	3/8"	M 18X1.5	10.0	4.0	49.0	3.9	23.0	22.0		
M21642-08-22	12	- 8	1/2"	M 22X1.5	14.0	7.0	57.5	2.5	25.5	27.0		
M21642-12-30	19	- 12	3/4"	M 30X2	20.0	12.5	76.5	2.2	34.0	36.0		
M21642-16-36	25	- 16	1"	M 36X2	25.0	15.0	98.0	1.7	43.5	41.0		
M21642-24-52	38	- 24	1.1/2"	M 52X2	38.0	24.7	111.0	8.8	48.0	60.0		
M21643-04-14	6	- 4	1/4"	M 14X1.5	6.0	3.0	38.5	1.9	17.5	17.0		
M21643-04-16	6	- 4	1/4"	M 16X1.5	8.0	4.0	36.5	3.4	15.0	19.0		
M21643-04-18	6	- 4	1/4"	M 18X1.5	10.0	4.0	37.5	2.5	16.5	22.0		
M21643-05-18	8	- 5	5/16"	M 18X1.5	10.0	4.0	42.5	2.5	18.0	22.0		
M21643-05-20	8	- 5	5/16"	M 20X1.5	12.0	5.5	42.0	2.0	18.5	24.0		
M21643-06-20	10	- 6	3/8"	M 20X1.5	12.0	7.0	45.0	2.5	18.0	24.0		
M21643-06-22	10	- 6	3/8"	M 22X1.5	14.0	7.0	45.5	3.0	18.5	27.0		
M21643-08-24	12	- 8	1/2"	M 24X1.5	16.0	9.3	52.5	4.0	20.0	30.0		
M21643-10-30	16	- 10	5/8"	M 30X2	20.0	12.5	65.5	3.5	29.5	36.0		
M21643-12-36	19	- 12	3/4"	M 36X2	25.0	15.0	75.0	4.5	32.5	41.0		
M21643-16-42	25	- 16	1"	M 42X2	30.0	19.8	90.0	6.3	35.5	50.0		
M21643-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.0	103.0	8.0	39.5	60.0		

DIN STANDARD CONNECTIONS

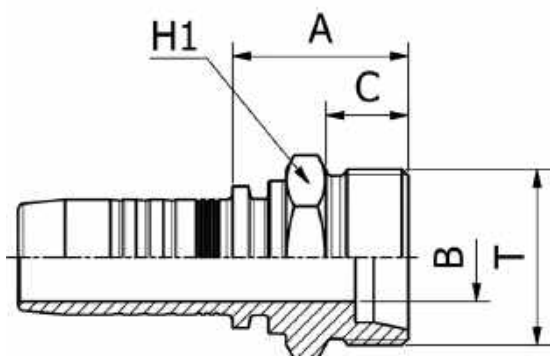


# M21692/M21693

**90° METRIC O-RING FEMALE SWEPT ELBOW  
24° CONE HEAVY DUTY  
DIN 20066 / ISO 12151-2**

FITTINGS 164

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	E	H2
M21692-06-18	10	- 6	3/8"	M 18X1.5	10.0	4.0	35.5	3.9	42.5	22.0		
M21692-08-22	12	- 8	1/2"	M 22X1.5	14.0	7.0	44.0	2.5	48.5	27.0		
M21692-10-24	16	- 10	5/8"	M 24X1.5	16.0	9.3	53.5	4.0	58.5	30.0		
M21692-12-30	19	- 12	3/4"	M 30X2	20.0	12.5	61.5	2.2	67.5	36.0		
M21692-16-36	25	- 16	1"	M 36X2	25.0	15.0	79.5	1.7	86.0	41.0		
M21692-24-52	38	- 24	1.1/2"	M 52X2	38.0	24.7	91.5	8.8	95.5	60.0		
M21693-03-14	5	- 3	3/16"	M 14X1.5	6.0	3.0	26.0	3.5	30.0	17.0		
M21693-03-16	5	- 3	3/16"	M 16X1.5	8.0	3.0	26.0	3.4	29.5	19.0		
M21693-04-14	6	- 4	1/4"	M 14X1.5	6.0	3.0	29.5	1.9	32.5	17.0		
M21693-04-16	6	- 4	1/4"	M 16X1.5	8.0	4.0	29.5	3.4	29.5	19.0		
M21693-04-18	6	- 4	1/4"	M 18X1.5	10.0	4.0	29.5	2.5	31.0	22.0		
M21693-04-20	6	- 4	1/4"	M 20X1.5	12.0	5.5	29.5	2.0	34.5	24.0		
M21693-05-18	8	- 5	5/16"	M 18X1.5	10.0	4.0	32.0	2.5	33.5	22.0		
M21693-05-20	8	- 5	5/16"	M 20X1.5	12.0	5.5	32.0	2.0	34.0	24.0		
M21693-06-20	10	- 6	3/8"	M 20X1.5	12.0	7.0	36.5	2.0	35.0	24.0		
M21693-06-22	10	- 6	3/8"	M 22X1.5	14.0	7.0	36.5	3.0	37.0	27.0		
M21693-06-24	10	- 6	3/8"	M 24X1.5	16.0	9.3	36.5	4.0	36.0	30.0		
M21693-08-24	12	- 8	1/2"	M 24X1.5	16.0	9.3	45.0	4.0	40.5	30.0		
M21693-08-30	12	- 8	1/2"	M 30X2	20.0	12.5	45.0	3.5	44.5	36.0		
M21693-10-30	16	- 10	5/8"	M 30X2	20.0	12.5	51.5	3.5	57.5	36.0		
M21693-12-36	19	- 12	3/4"	M 36X2	25.0	15.0	61.5	4.5	64.5	41.0		
M21693-16-42	25	- 16	1"	M 42X2	30.0	19.8	79.0	6.3	74.5	50.0		
M21693-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.0	93.5	8.0	85.5	60.0		



NF STANDARD CONNECTIONS

# M11710

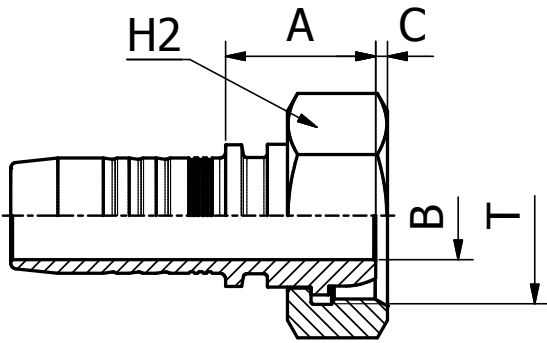
**FRENCH METRIC MALE  
24° CONE SEAT MILLIMETRIC TYPE**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	H1	
M11710-10-2718	16	- 10	5/8"	M 27X1.5	18.0	12.5	28.5	14.0	28.0			
M11710-10-2720	16	- 10	5/8"	M 27X1.5	20.0	12.5	28.5	14.0	28.0			
M11710-12-30	19	- 12	3/4"	M 30X1.5	22.0	15.0	30.0	14.0	30.0			
M11710-12-33	19	- 12	3/4"	M 33X1.5	25.0	15.0	31.0	14.0	34.0			

NF STANDARD CONNECTIONS

# M21713

FRENCH METRIC FEMALE  
MILLIMETRIC TYPE (SLIP-ON NUT)

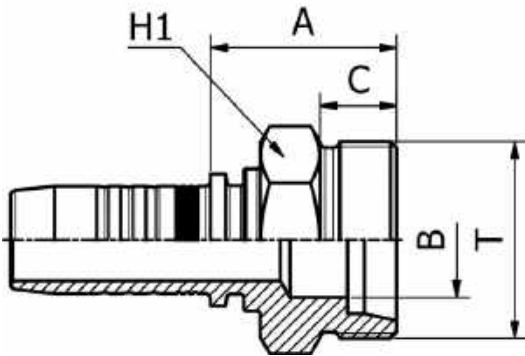


PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	H2		
M21713-10-2718	16	-10	5/8"	M 27X1.5	18	12.5	21.5	5.0	32.0			
M21713-10-2720	16	-10	5/8"	M 27X1.5	20	12.5	21.5	5.0	32.0			
M21713-12-30	19	-12	3/4"	M 30X1.5	22	15.0	25.5	2.0	36.0			
M21713-12-33	19	-12	3/4"	M 33X1.5	25	15.0	25.5	2.0	38.0			
M21713-16-36	25	-16	1"	M 36X1.5	28	19.8	28.0	4.7	41.0			
M21713-16-39	25	-16	1"	M 39X1.5	30	19.8	28.5	4.2	46.0			

NF STANDARD CONNECTIONS

# M11810

FRENCH METRIC MALE  
24° CONE SEAT GAZ TYPE

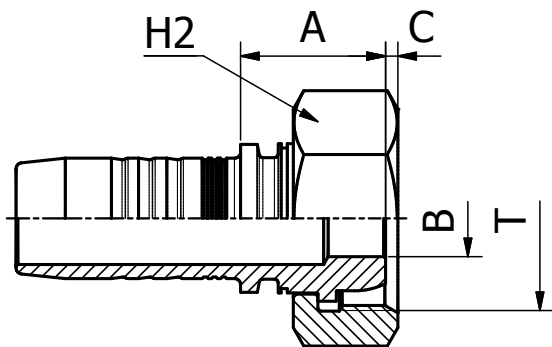


PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	H1		
M11810-05-20	8	- 5	5/16"	M 20X1.5	13.25	8.0	27.0	12.0	22.0			
M11810-06-20	10	- 6	3/8"	M 20X1.5	13.25	8.0	27.5	12.0	22.0			
M11810-06-24	10	- 6	3/8"	M 24X1.5	16.75	12.0	28.0	12.0	24.0			
M11810-08-24	12	- 8	1/2"	M 24X1.5	16.75	12.0	28.5	12.0	24.0			
M11810-10-30	16	- 10	5/8"	M 30X1.5	21.25	15.0	31.5	14.0	30.0			
M11810-12-36	19	- 12	3/4"	M 36X1.5	26.75	21.0	34.0	14.0	36.0			
M11810-16-45	25	- 16	1"	M 45X1.5	33.5	26.0	39.5	16.0	46.0			

NF STANDARD CONNECTIONS

# M21813

FRENCH METRIC FEMALE  
GAZ TYPE (SLIP-ON NUT)



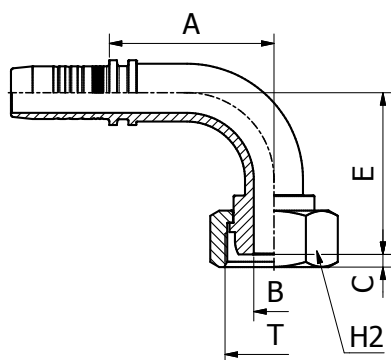
PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	H2		
M21813-04-20	6	-4	1/4"	M 20X1.5	13.25	7.0	22.0	4.0	24.0			
M21813-05-20	8	-5	5/16"	M 20X1.5	13.25	7.0	22.0	4.0	24.0			
M21813-06-20	10	-6	3/8"	M 20X1.5	13.25	7.0	22.5	4.0	24.0			
M21813-06-24	10	-6	3/8"	M 24X1.5	16.75	9.3	25.5	3.5	30.0			
M21813-08-24	12	-8	1/2"	M 24X1.5	16.75	9.3	26.0	3.5	30.0			
M21813-08-30	12	-8	1/2"	M 30X1.5	21.25	12.5	23.5	2.0	36.0			
M21813-10-30	16	-10	5/8"	M 30X1.5	21.25	12.5	23.5	2.0	36.0			
M21813-12-36	19	-12	3/4"	M 36X1.5	26.75	15.0	27.0	4.7	41.0			
M21813-16-45	25	-16	1"	M 45X1.5	33.5	19.8	27.0	4.5	50.0			

FITTINGS 166

NF STANDARD CONNECTIONS

# M21893

90° FRENCH METRIC FEMALE  
GAZ TYPE (SLIP-ON NUT)



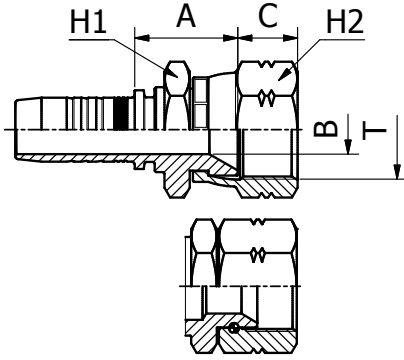
PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	E	H2	
M21893-05-20	8	-5	5/16"	M 20X1.5	13.25	7.0	32.0	4.0	29.5	24.0		
M21893-06-20	10	-6	3/8"	M 20X1.5	13.25	7.0	36.5	4.0	33.5	24.0		
M21893-08-24	12	-8	1/2"	M 24X1.5	16.75	12.0	45.0	3.5	41.0	30.0		
M21893-10-30	16	-10	5/8"	M 30X1.5	21.25	12.5	51.5	2.0	53.5	36.0		
M21893-12-36	19	-12	3/4"	M 36X1.5	26.75	15.0	61.5	4.7	60.0	41.0		



JIS STANDARD CONNECTIONS

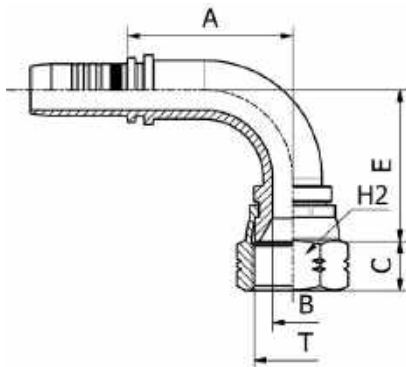
# M24011/M24012

JIS METRIC FEMALE 60° CONE SEAT  
(KOMATSU) JIS B 8363



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
M24011-04-14	6	- 4	1/4"	M 14X1.5	4.0	23.0	10.5	19.0	19.0		
M24011-04-18	6	- 4	1/4"	M 18X1.5	7.0	22.5	11.5	24.0	24.0		
M24011-05-16	8	- 5	5/16"	M 16X1.5	5.5	22.5	9.3	21.0	21.0		
M24011-06-14	10	- 6	3/8"	M 14X1.5	4.0	23.5	10.5	19.0	19.0		
M24011-06-18	10	- 6	3/8"	M 18X1.5	7.0	23.5	11.5	24.0	24.0		
M24011-08-22	12	- 8	1/2"	M 22X1.5	9.3	25.0	13.0	27.0	27.0		
M24011-10-24	16	- 10	5/8"	M 24X1.5	12.5	26.5	15.1	32.0	32.0		
M24011-12-30	19	- 12	3/4"	M 30X1.5	15.0	31.5	18.3	36.0	36.0		
M24011-16-33	25	- 16	1"	M 33X1.5	19.8	33.5	21.3	41.0	41.0		
M24011-20-36	31	- 20	1.1/4"	M 36X1.5	19.8	41.0	20.0	46.0	46.0		
M24012-24-42	38	- 24	1.1/2"	M 42X1.5	26.0	44.0	18.8	55.0	55.0		

167 FITTINGS



JIS STANDARD CONNECTIONS

# M24091

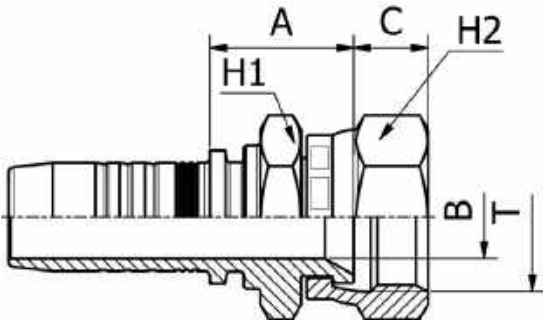
90° JIS METRIC FEMALE 60° CONE SEAT

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M24091-04-14	6	- 4	1/4"	M 14X1.5	4.0	29.0	10.5	28.5	19.0		
M24091-06-18	10	- 6	3/8"	M 18X1.5	7.0	35.5	11.5	34.0	24.0		
M24091-08-22	12	- 8	1/2"	M 22X1.5	9.3	44.0	13.0	40.0	27.0		
M24091-10-24	16	- 10	5/8"	M 24X1.5	12.5	53.5	15.2	47.0	32.0		
M24091-12-30	19	- 12	3/4"	M 30X1.5	15.0	61.5	18.3	56.5	36.0		

JIS STANDARD CONNECTIONS

# M23811

JIS BSP FEMALE 60° CONE SEAT  
(TOYOTA) - JIS B 8363  
(CRIMPED-BACK NUT)



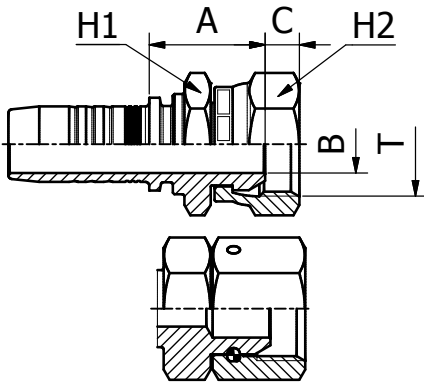
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H1	H2	
M23811-04-04	6	- 4	1/4"	1/4" - 19	4.0	18.5	8.3	19.0	19.0		
M23811-06-06	10	- 6	3/8"	3/8" - 19	7.0	23.0	10.0	22.0	22.0		
M23811-08-08	12	- 8	1/2"	1/2" - 14	9.3	22.0	11.5	27.0	27.0		
M23811-12-12	19	- 12	3/4"	3/4" - 14	15.0	26.0	13.5	32.0	32.0		
M23811-16-16	25	- 16	1"	1" - 11	19.8	30.5	14.5	38.0	38.0		

FITTINGS 168

JIS STANDARD CONNECTIONS

# M20711/M20712

JIS BSP FEMALE 60° CONE  
(NISSAN) - JIS B 8363

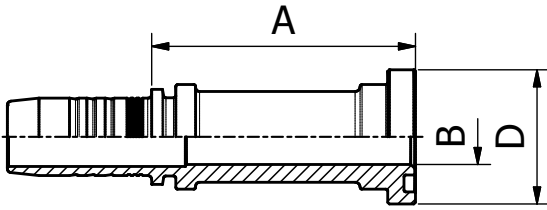


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H1	H2	
M20711-04-04	6	- 4	1/4"	1/4" - 19	4.0	22.5	4.5	19.0	19.0		
M20711-06-06	10	- 6	3/8"	3/8" - 19	7.0	24.5	6.4	22.0	22.0		
M20711-08-08	12	- 8	1/2"	1/2" - 14	9.3	26.5	6.7	27.0	27.0		
M20711-12-12	19	- 12	3/4"	3/4" - 14	15.0	30.0	8.9	32.0	32.0		
M20712-10-08	16	- 10	5/8"	1/2" - 14	9.3	29.0	6.5	27.0	27.0		
M20712-10-12	16	- 10	5/8"	3/4" - 14	15.0	30.5	9.0	32.0	32.0		
M20712-16-16	25	- 16	1"	1" - 11	19.8	35.5	10.5	38.0	38.0		
M20712-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.0	44.5	12.5	50.0	50.0		

ORIGINAL EQUIPMENT CONNECTIONS

# M24111

STRAIGHT KOMATSU FLANGE

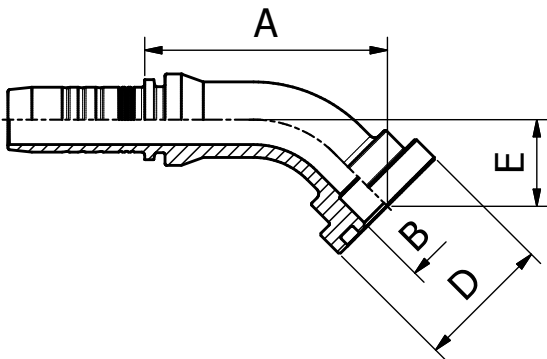


PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch			inch	B	A	D			
M24111-08-10	12	-8	1/2"	5/8"		14.0	66.0	34.0				
M24111-10-10	16	-10	5/8"	5/8"		14.0	65.5	34.0				
M24111-12-10	19	-12	3/4"	5/8"		14.0	66.5	34.0				

ORIGINAL EQUIPMENT CONNECTIONS

# M24141

45° KOMATSU FLANGE

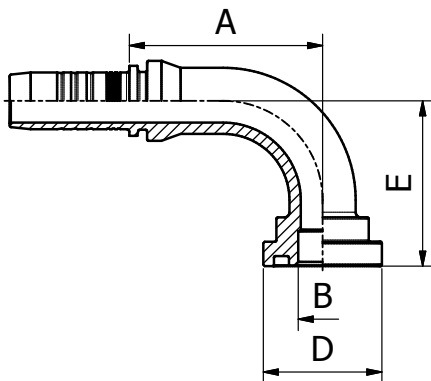


PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch			inch	B	A	C	H1	H2	
M24141-10-10	16	-10	5/8"	5/8"		14.0	61.0	34.0	22.0			

ORIGINAL EQUIPMENT CONNECTIONS

# M24191

90° KOMATSU FLANGE

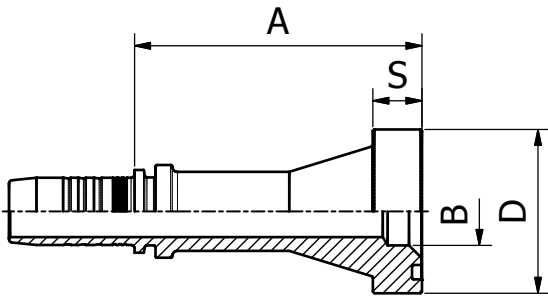


PART. REF.	HOSE BORE			FLANGE		DIMENSIONS mm						
	DN	Dash	inch			inch	B	A	C	H1	H2	
M24191-10-10	16	-10	5/8"	5/8"		14.0	56.0	34.0	47.5			
M24191-12-10	19	-12	3/4"	5/8"		14.0	56.0	34.0	47.5			

ORIGINAL EQUIPMENT CONNECTIONS

# M23911

## STRAIGHT SUPERCAT FLANGE

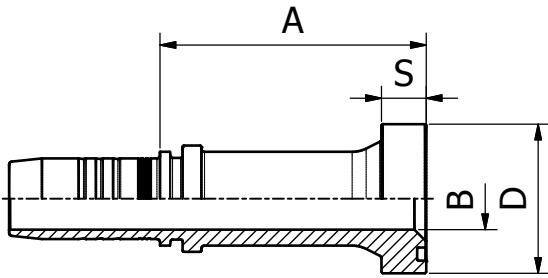


PART. REF.	HOSE BORE			FLANGE	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	S			
M23911-12-12	19	-12	3/4"	3/4"	15.0	74.5	41.5	14.3			
M23911-12-16	19	-12	3/4"	1"	19.8	83.5	47.7	14.3			
M23911-16-16	25	-16	1"	1"	19.8	87.0	47.7	14.3			
M23911-16-20	25	-16	1"	1.1/4"	26.0	92.5	54.0	14.3			
M23911-20-20	31	-20	1.1/4"	1.1/4"	26.0	86.0	54.0	14.3			
M23911-24-24	38	-24	1.1/2"	1.1/2"	32.0	94.0	63.6	14.3			

ORIGINAL EQUIPMENT CONNECTIONS

# M23911CT

## STRAIGHT REALCAT FLANGE



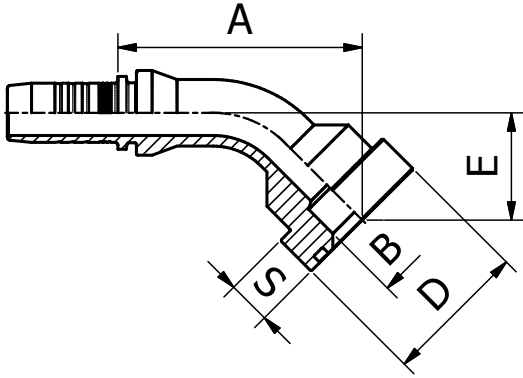
PART. REF.	HOSE BORE			FLANGE	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	S			
M23911-16-16CT	25	-16	1"	1"	19.8	85.0	47.7	14.3			
M23911-20-20CT	31	-20	1.1/4"	1.1/4"	26.0	88.5	54.0	14.3			
M23911-24-24CT	38	-24	1.1/2"	1.1/2"	32.0	93.0	63.6	14.3			

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ORIGINAL EQUIPMENT CONNECTIONS

# M23941

45° SUPERCAT FLANGE

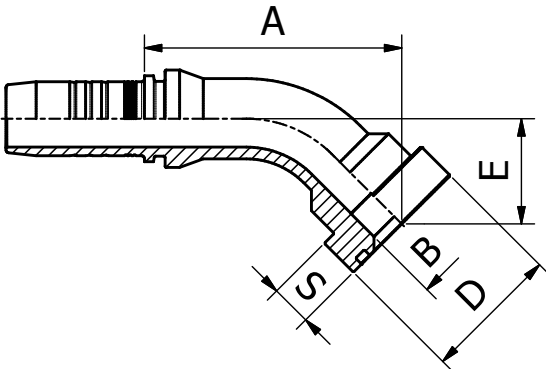


PART. REF.	HOSE BORE			FLANGE	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M23941-12-12	19	-12	3/4"	3/4"	15.0	77.0	41.5	32.0	14.3		
M23941-16-16	25	-16	1"	1"	19.8	89.5	47.7	36.5	14.3		
M23941-16-20	25	-16	1"	1"	26.0	92.5	54.0	40.5	14.3		
M23941-20-20	31	-20	1.1/4"	1.1/4"	26.0	99.0	54.0	41.5	14.3		
M23941-24-24	38	-24	1.1/2"	1.1/2"	32.0	119.0	63.6	45.5	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# M23941CT

45° REALCAT FLANGE

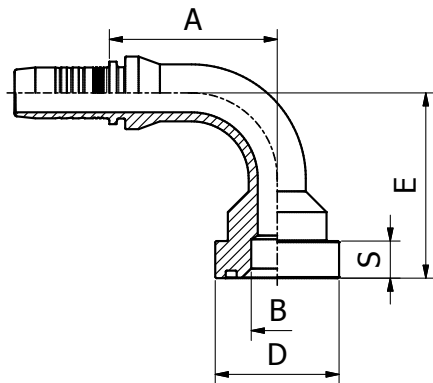


PART. REF.	HOSE BORE			FLANGE	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M23941-16-16CT	25	-16	1"	1"	19.8	89.5	47.7	36.5	14.3		
M23941-16-20CT	25	-16	1"	1.1/4"	26.0	93.0	54.0	40.5	14.3		
M23941-20-20CT	31	-20	1.1/4"	1.1/4"	26.0	99.0	54.0	41.5	14.3		
M23941-24-24CT	38	-24	1.1/2"	1.1/2"	32.0	119.0	63.7	45.0	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# M23991

90° SUPERCAT FLANGE



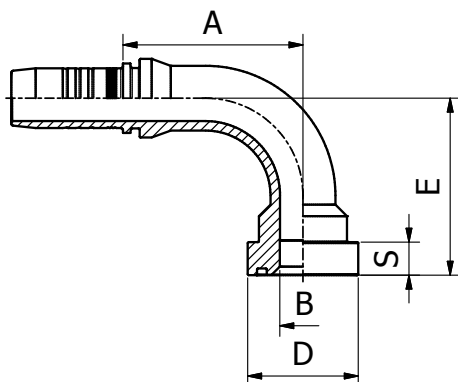
PART. REF.	HOSE BORE			FLANGE	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	E	S		
M23991-12-12	19	-12	3/4"	3/4"	15.0	64.5	41.5	64.5	14.3		
M23991-16-16	25	-16	1"	1"	19.8	77.5	47.7	76.5	14.3		
M23991-16-20	25	-16	1"	1.1/4"	26.0	75.5	54.0	80.5	14.3		
M23991-20-20	31	-20	1.1/4"	1.1/4"	26.0	85.5	54.0	87.0	14.3		
M23991-20-24	31	-20	1.1/4"	1.1/2"	32.0	85.5	63.7	93.0	14.3		

FITTINGS 172

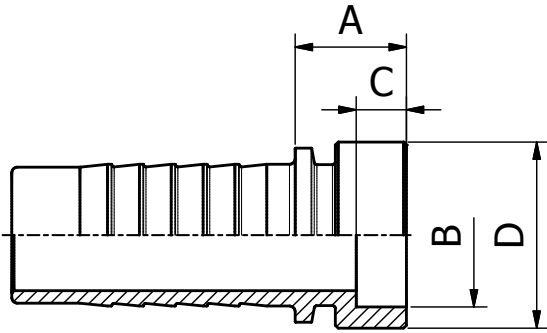
ORIGINAL EQUIPMENT CONNECTIONS

# M23991CT

90° REALCAT FLANGE



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	E	S		
M23991-16-16CT	25	-16	1"	1"	19.8	77.5	47.7	76.5	14.3		
M23991-16-20CT	25	-16	1"	1.1/4"	26.0	75.5	54.0	80.5	14.3		
M23991-20-20CT	31	-20	1.1/4"	1.1/4"	26.0	85.5	54.0	87.0	14.3		
M23991-24-24CT	38	-24	1.1/2"	1.1/2"	32.0	106.0	63.7	96.0	14.3		



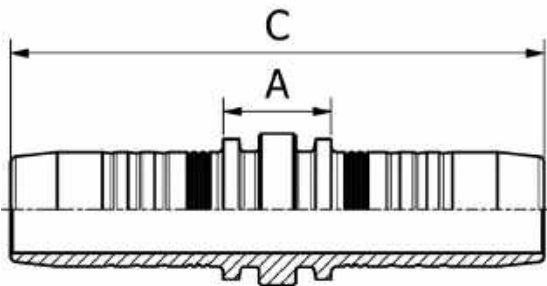
TAIL

M..IP..

BRAZING TAIL

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch	B	A	C	D				
M03IP06	5	- 3	3/16"	6.0	11.5	5.0	10.0				
M04IP08	6	- 4	1/4"	8.0	13.0	5.0	12.0				
M05IP10	8	- 5	5/16"	10.0	13.5	6.0	14.0				
M06IP12	10	- 6	3/8"	12.0	13.5	6.0	16.0				
M06IP14	10	- 6	3/8"	14.0	13.5	6.0	18.0				
M08IP15	12	- 8	1/2"	15.0	14.0	6.0	20.0				
M08IP16	12	- 8	1/2"	16.0	14.0	6.0	20.0				
M10IP18	16	- 10	5/8"	18.0	15.0	7.0	23.0				
M12IP22	19	- 12	3/4"	22.0	16.0	7.0	26.0				
M16IP28	25	- 16	1"	28.0	18.5	8.0	34.0				
M20IP35	31	- 20	1.1/4"	35.0	20.5	9.0	40.0				
M24IP40	38	- 24	1.1/2"	40.0	21.5	9.0	50.0				
M32IP50	51	- 32	2"	50.0	23.0	10.0	60.0				
M40IP60	63	- 40	2.1/2"	61.0	19.0	7.0	73.0				
M48IP70	76	- 48	3"	70.0	38.0	10.0	89.0				

173 FITTINGS



DOUBLE CONNECTOR

M10050

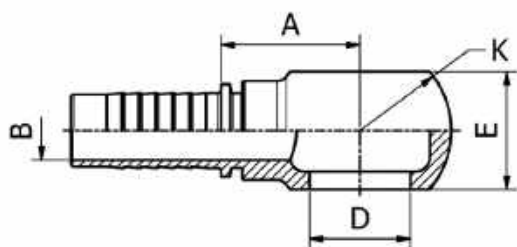
DOUBLE CONNECTOR

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch	B	A	C					
M10050-03-03	5	- 3	3/16"	3.0	15.5	58.2					
M10050-04-04	6	- 4	1/4"	4.0	14.0	69.0					
M10050-05-05	8	- 5	5/16"	5.5	14.0	70.0					
M10050-06-06	10	- 6	3/8"	7.0	14.5	73.5					
M10050-08-08	12	- 8	1/2"	9.3	15.5	77.9					
M10050-10-10	16	- 10	5/8"	12.5	15.5	84.0					
M10050-12-12	19	- 12	3/4"	15.0	18.5	91.5					
M10050-16-16	25	- 16	1"	19.8	22.5	119.0					
M10050-20-20	31	- 20	1.1/4"	26.0	23.0	128.1					
M10050-24-24	38	- 24	1.1/2"	32.0	23.5	147.5					

BANJO CONNECTIONS

# O20310

## BSP BANJO

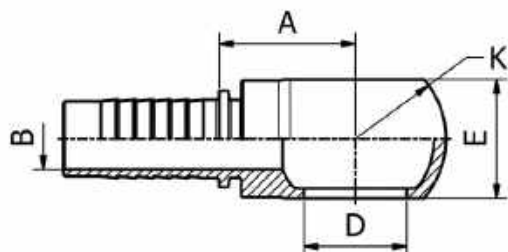


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	D	E	K	
O20310-04-04	6	- 4	1/4"	1/4" - 19	4.4	22.0	13.25	15.0	24.0		
O20310-04-06	6	- 4	1/4"	3/8" - 19	4.4	23.5	16.7	18.0	28.0		
O20310-05-04	8	- 5	5/16"	1/4" - 19	5.0	23.0	13.2	14.0	24.0		
O20310-05-06	8	- 5	5/16"	3/8" - 19	5.6	23.0	16.7	20.0	29.0		
O20310-06-06	10	- 6	3/8"	3/8" - 19	7.0	24.5	16.7	20.0	29.0		
O20310-06-08	10	- 6	3/8"	1/2" - 19	7.1	27.0	21.0	25.0	38.0		
O20310-08-08	12	- 8	1/2"	1/2" - 14	9.8	27.5	21.0	25.0	38.0		
O20310-10-10	16	- 10	5/8"	5/8" - 14	12.7	29.5	23.0	27.0	40.0		
O20310-12-12	19	- 12	3/4"	3/4" - 14	15.5	36.5	26.5	31.0	48.0		
O20310-16-16	25	- 16	1"	1" - 11	20.5	40.5	33.3	42.0	60.0		

BANJO CONNECTIONS

# O20910

## METRIC BANJO DIN 7642



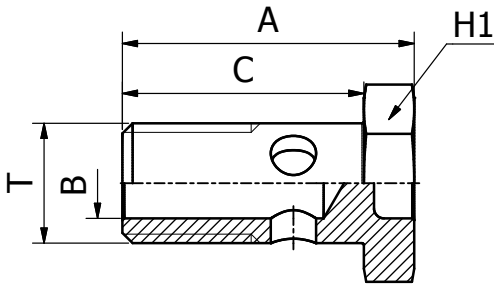
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	D	E	K	
O20910-04-12	6	- 4	1/4"	M 12X1.5	4.4	22.5	12.0	12.0	20.0		
O20910-04-14	6	- 4	1/4"	M 14X1.5	4.4	23.5	14.0	14.0	24.0		
O20910-05-14	8	- 5	5/16"	M 14X1.5	5.6	23.5	14.0	14.0	24.0		
O20910-06-14	10	- 6	3/8"	M 14X1.5	7.1	25.0	14.0	14.0	24.0		
O20910-06-16	10	- 6	3/8"	M 16X1.5	7.1	25.0	16.0	16.0	28.0		
O20910-06-18	10	- 6	3/8"	M 18X1.5	7.1	27.0	18.0	20.0	32.0		
O20910-08-18	12	- 8	1/2"	M 18X1.5	9.8	28.0	18.0	20.0	32.0		
O20910-08-22	12	- 8	1/2"	M 22X1.5	9.8	31.0	22.0	25.0	39.0		
O20910-10-22	16	- 10	5/8"	M 22X1.5	12.7	31.0	22.0	25.0	39.0		
O20910-12-26	19	- 12	3/4"	M 26X1.5	15.5	34.5	26.0	30.0	46.0		



BOLT

**080810**

METRIC BOLT - DIN 7643



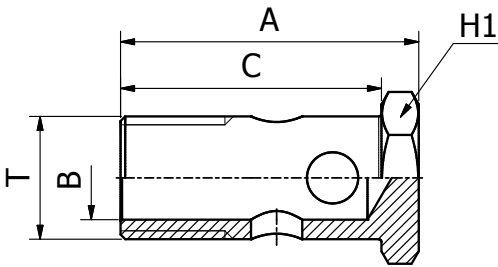
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	H1			
O80810-12				M 12X1.5		7.0	29.0	24.0	17.0			
O80810-14				M 14X1.5		9.0	31.0	26.0	19.0			
O80810-16				M 16X1.5		11.0	33.0	28.0	22.0			
O80810-18				M 18X1.5		13.0	37.0	32.0	24.0			
O80810-22				M 22X1.5		16.0	45.0	39.0	27.0			
O80810-26				M 26X1.5		20.0	51.0	45.0	32.0			

175 FITTINGS

BOLT

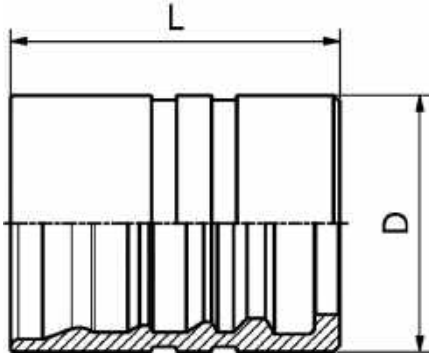
**080210**

BSP BOLT



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	H1			
O80210-04				1/4" - 19		6.0	34.5	28.5	17.0			
O80210-06				3/8" - 19		9.0	45.5	38.5	22.0			
O80210-08				1/2" - 14		13.0	52.0	44.0	27.0			
O80210-10				5/8" - 14		15.0	56.5	48.5	30.0			
O80210-12				3/4" - 14		18.0	64.0	54.0	32.0			
O80210-16				1" - 11		24.0	77.5	68.5	41.0			

FERRULE



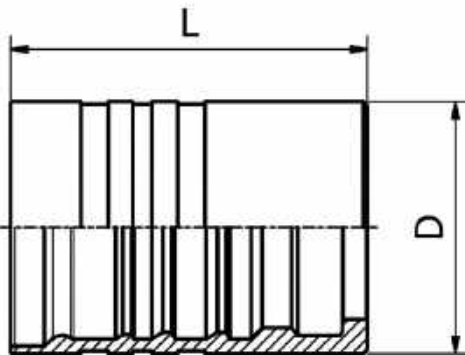
# M01500

**DOUBLE SKIVE FERRULE  
FOR HEAVY DUTY SPIRAL HOSES (4 PLY)**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M01500-10	16	- 10	5/8"			35.0	40.9				
M01500-12	19	- 12	3/4"			40.0	51.4				
M01500-16	25	- 16	1"			48.0	64.5				
M01500-20	31	- 20	1.1/4"			57.0	84.0				
M01500-24	38	- 24	1.1/2"			64.3	94.0				
M01500-32	51	- 32	2"			83.5	107.0				
M01500-40	63	- 40	2.1/2"			100.0	135.0				
M01500-48	76	- 48	3"			107.0	125.0				

FITTINGS 176

FERRULE

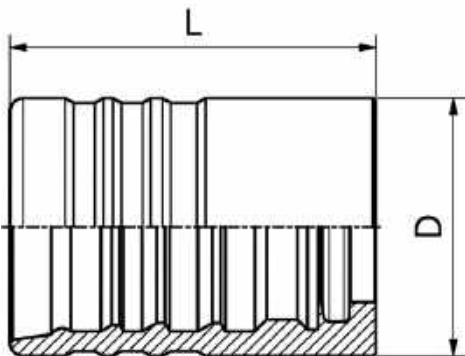


# M01600

**DOUBLE SKIVE FERRULE  
FOR HEAVY DUTY SPIRAL HOSES (6 PLY)**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M01600-20	31	- 20	1.1/4"			60.0	85.0				
M01600-24	38	- 24	1.1/2"			69.0	96.0				

FERRULE



# M01800/M01810/M01850

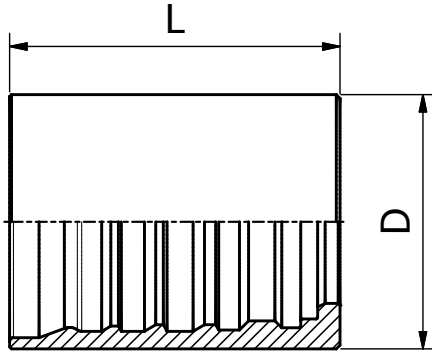
**DOUBLE SKIVE FERRULE FOR  
EXTRA DUTY SPIRAL HOSES (6 PLY)**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M01850-12	19	-12	3/4"			45.1	51.4				
M01850-16	25	-16	1"			53.5	64.5				
M01850-20	31	- 20	1.1/4"			65.0	88.2				
M01800-32	51	- 32	2"			86.5	108.0				
M01810-40	63	- 40	2.1/2"			103.0	135.0				
M01810-48	76	- 48	3"			113.5	125.0				

FERRULE

# M01900

DOUBLE SKIVE FERRULE

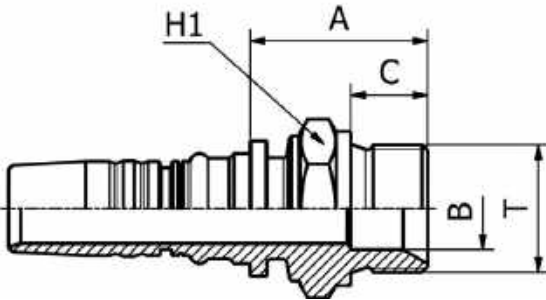


PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M01900-20	31	-20	1.1/4"			68	88,2				
M01900-40	63	-40	2.1/2"			109	135				

BS STANDARD CONNECTIONS

# M30510

BSP MALE  
PARALLEL 60° CONE SEAT  
BS5200 / ISO 8434-6

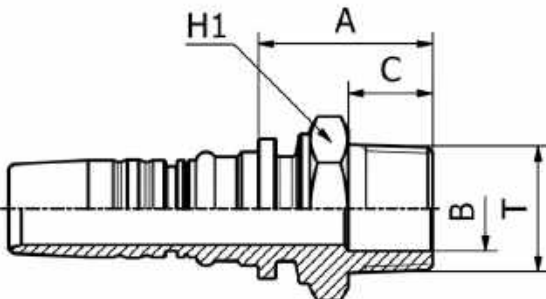


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	H1				
M30510-12-12	19	- 12	3/4"	3/4" - 14	17.0	37.0	16.0	32.0				
M30510-12-16	19	- 12	3/4"	1" - 11	22.5	43.0	19.0	41.0				
M30510-16-16	25	- 16	1"	1" - 11	22.5	43.0	19.0	41.0				
M30510-16-20	25	- 16	1"	1.1/4" - 11	28.5	48.0	20.0	50.0				
M30510-20-20	31	- 20	1.1/4"	1.1/4" - 11	28.5	50.5	20.0	50.0				
M30510-24-24	38	- 24	1.1/2"	1.1/2" - 11	33.5	54.5	22.0	55.0				
M30510-32-32	51	- 32	2"	2" - 11	42.0	58.0	25.0	70.0				

BS STANDARD CONNECTIONS

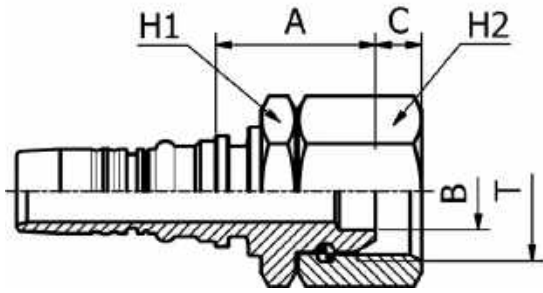
# M30710

BSP  
MALE (TAPERED)



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	H1				
M30710-12-12	19	- 12	3/4"	3/4" BSPT	17.0	35.0	17.0	32.0				
M30710-16-16	25	- 16	1"	1" BSPT	22.5	41.5	21.0	41.0				
M30710-20-20	31	- 20	1.1/4"	1.1/4" BSPT	28.5	82.0	23.0	46.0				
M30710-24-24	38	- 24	1.1/2"	1.1/2" - 11	33.5	52.0	23.0	55.0				
M30710-32-32	51	- 32	2"	2" - 11	42.0	56.1	27.0	70.0				

BS STANDARD CONNECTIONS



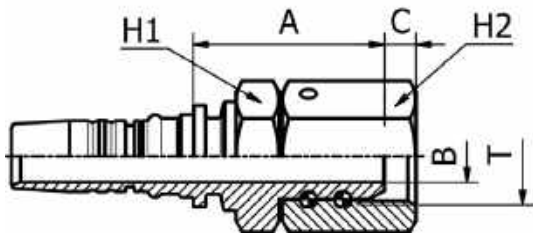
# M40512

**BSP  
FEMALE 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT)**

PART. REF.	HOSE BORE			Thread	T	DIMENSIONS mm						
	DN	Dash	inch			B	A	C	H1	H2		
M40512-10-12H32	16	- 10	5/8"	3/4" - 14		15.0	31.0	9.0	32.0	32.0		

FITTINGS 178

BS STANDARD CONNECTIONS

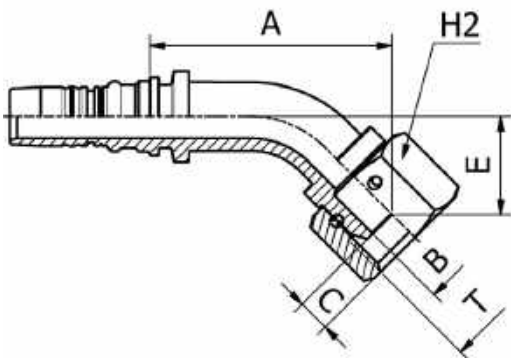


# M40514

**BSP  
FEMALE 60° CONE  
BS5200 / ISO 12151-6  
(DOUBLE THRUST-WIRE)**

PART. REF.	HOSE BORE			Thread	T	DIMENSIONS mm						
	DN	Dash	inch			B	A	C	H1	H2		
M40514-12-12	19	- 12	3/4"	3/4" - 14		14.5	53.0	8.7	36.0	36.0		
M40514-16-16	25	- 16	1"	1" - 11		18.0	58.0	11.1	41.0	41.0		
M40514-20-20	31	- 20	1.1/4"	1.1/4" - 11		23.0	75.0	10.1	50.0	55.0		
M40514-24-24	38	- 24	1.1/2"	1.1/2" - 11		27.0	76.0	12.5	55.0	60.0		

BS STANDARD CONNECTIONS

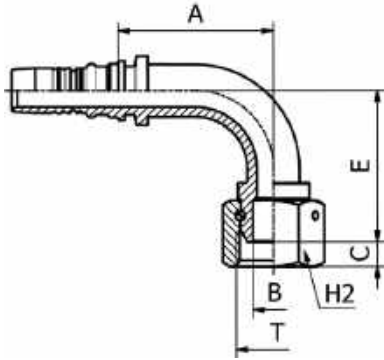


# M40542

**45° BSP  
FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT)**

PART. REF.	HOSE BORE			Thread	T	DIMENSIONS mm						
	DN	Dash	inch			B	A	C	E	H2		
M40542-10-12	16	- 10	5/8"	3/4" - 14		15.0	67.0	9.0	27.0	32.0		

BS STANDARD CONNECTIONS

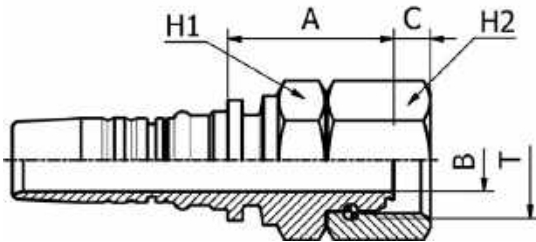


# M40592

90° BSP  
FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M40592-10-12	16	- 10	5/8"	3/4" - 14	15.0	56.5	9.0	55.0	32.0		

BS STANDARD CONNECTIONS

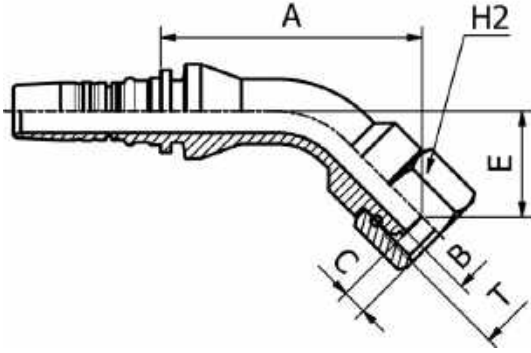


# M40812

BSP O-RING  
FEMALE 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
M40812-12-12	19	- 12	3/4"	3/4" - 14	14.5	39.0	8.5	32.0	32.0		
M40812-12-16	19	- 12	3/4"	1" - 11	19.0	36.5	10.6	32.0	41.0		
M40812-16-12	25	- 16	1"	3/4" - 14	15.0	35.0	8.5	41.0	32.0		
M40812-16-16	25	- 16	1"	1" - 11	19.5	44.5	10.6	41.0	41.0		
M40812-16-20	25	- 16	1"	1.1/4" - 11	26.1	41.0	10.5	41.0	50.0		
M40812-20-16	31	- 20	1.1/4"	1" - 11	19.0	44.5	10.6	50.0	41.0		
M40812-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.1	52.5	10.5	50.0	50.0		
M40812-20-24	31	- 20	1.1/4"	1.1/2" - 11	32.1	46.0	12.5	50.0	60.0		
M40812-24-20	38	- 24	1.1/2"	1.1/4" - 11	26.1	48.5	10.5	60.0	50.0		
M40812-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.1	51.5	12.5	60.0	60.0		
M40812-32-32	51	- 32	2"	2" - 11	42.0	51.5	16.1	70.0	70.0		

BS STANDARD CONNECTIONS

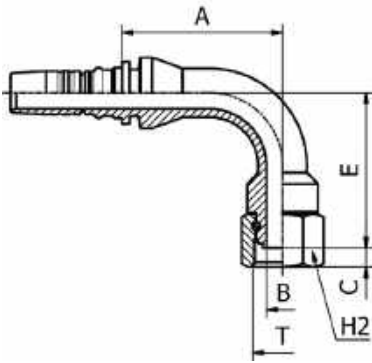


# M40842

45° BSP  
O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M40842-12-12	19	- 12	3/4"	3/4" - 14	14.5	88.0	8.5	35.0	32.0		
M40842-12-16	19	- 12	3/4"	1" - 11	19.0	89.5	10.6	36.5	41.0		
M40842-16-12	25	- 16	1"	3/4" - 14	15.0	105.5	8.5	36.0	32.0		
M40842-16-16	25	- 16	1"	1" - 11	19.5	97.0	10.6	40.0	41.0		
M40842-16-20	25	- 16	1"	1.1/4" - 11	26.1	108.5	10.5	38.0	50.0		
M40842-20-16	31	- 20	1.1/4"	1" - 11	19.0	118.0	10.6	47.5	41.0		
M40842-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.1	120.0	10.5	49.5	50.0		
M40842-20-24	31	- 20	1.1/4"	1.1/2" - 11	32.1	114.5	12.5	40.0	60.0		
M40842-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.1	126.5	12.5	50.0	60.0		
M40842-32-32	51	- 32	2"	2" - 11	42.0	162.5	16.1	66.5	70.0		

FITTINGS 180



BS STANDARD CONNECTIONS

# M40892

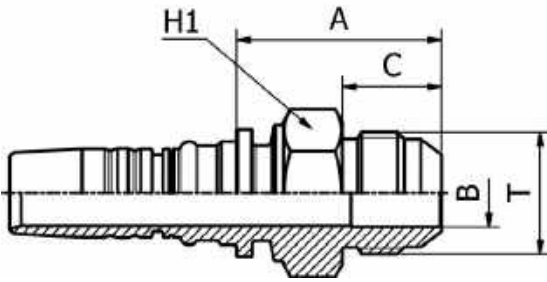
90° BSP  
O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M40892-12-12	19	- 12	3/4"	3/4" - 14	14.5	72.5	8.5	70.0	32.0		
M40892-12-16	19	- 12	3/4"	1" - 11	19.0	72.5	10.6	71.0	41.0		
M40892-16-16	25	- 16	1"	1" - 11	19.5	82.0	10.6	80.5	41.0		
M40892-16-20	25	- 16	1"	1.1/4" - 11	26.1	95.0	10.5	78.5	50.0		
M40892-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.1	98.5	10.5	98.0	50.0		
M40892-20-24	31	- 20	1.1/4"	1.1/2" - 11	32.1	98.5	12.5	84.5	60.0		
M40892-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.1	111.5	12.5	109.0	60.0		
M40892-32-32	51	- 32	2"	2" - 11	42.0	143.0	16.1	140.5	70.0		

SAE STANDARD CONNECTIONS

# M32510

JIC  
MALE 37° CONE  
SAE J516 / ISO 12151-5

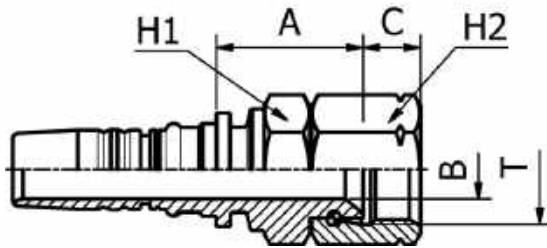


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M32510-10-10	16	- 10	5/8"	7/8" - 14	12.0	41.0	19.5	27.0			
M32510-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	45.5	22.0	32.0			
M32510-16-16	25	- 16	1"	1.5/16" - 12	20.0	50.5	23.0	38.0			
M32510-16-20	25	- 16	1"	1.5/8" - 12	26.0	57.0	24.3	42.0			
M32510-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.1	66.0	24.3	46.0			
M32510-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	64.0	27.5	50.0			
M32510-32-32	51	- 32	2"	2.1/2" - 12	42.0	81.0	34.0	70.0			

SAE STANDARD CONNECTIONS

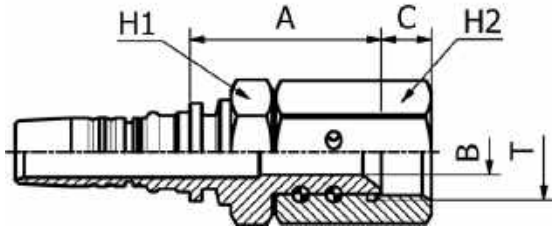
# M42512

JIC  
FEMALE 37° CONE SEAT  
SAE J516 / ISO 12151-5  
(THRUST-WIRE NUT)



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
M42512-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	36.0	14.2	32.0	32.0		
M42512-12-16	19	- 12	3/4"	1.5/16" - 12	21.7	32.5	15.2	41.0	41.0		
M42512-16-16	25	- 16	1"	1.5/16" - 12	21.7	40.5	15.2	41.0	41.0		
M42512-16-20	25	- 16	1"	1.5/8" - 12	26.1	44.0	16.2	50.0	50.0		
M42512-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.1	51.5	16.2	50.0	50.0		
M42512-20-24	31	- 20	1.1/4"	1.7/8" - 12	30.5	51.0	18.8	55.0	60.0		
M42512-24-24	38	- 24	1.1/2"	1.7/8" - 12	31.0	54.5	18.8	55.0	60.0		
M42512-32-32	51	- 32	2"	2.1/2" - 12	42.0	54.0	24.0	70.0	75.0		

SAE STANDARD CONNECTIONS

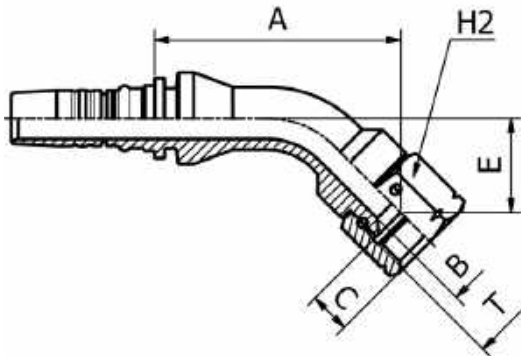


# M42714

JIC  
 FEMALE 37° CONE SEAT  
 SAE J516 / ISO 12151-5  
 (DOUBLE THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	H1	H2		
M42714-12-12	19	- 12	3/4"	1.1/16" - 12		13.0	55.0	14.4	36.0	36.0		
M42714-16-16	25	- 16	1"	1.5/16" - 12		18.0	60.5	15.1	41.0	41.0		
M42714-20-20	31	- 20	1.1/4"	1.5/8" - 12		23.0	71.0	15.9	50.0	55.0		
M42714-24-24	38	- 24	1.1/2"	1.7/8" - 12		27.0	71.0	18.6	55.0	60.0		
M42714-32-32	51	- 32	2"	2.1/2" - 12		37.0	77.5	23.8	70.0	75.0		

FITTINGS 182



SAE STANDARD CONNECTIONS

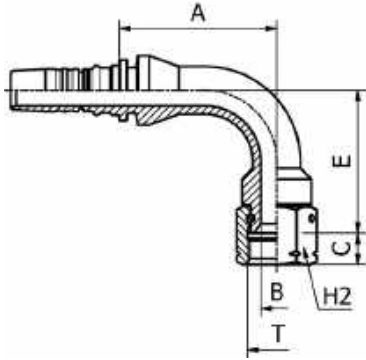
# M42542

45° JIC  
 FEMALE SWEPT ELBOW 37° CONE SEAT  
 SAE J516 / ISO 12151-5  
 (THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	E	H2		
M42542-12-12	19	- 12	3/4"	1.1/16" - 12		15.0	86.0	14.2	33.0	32.0		
M42542-16-16	25	- 16	1"	1.5/16" - 12		21.7	95.0	15.2	37.0	41.0		
M42542-16-20	25	- 16	1"	1.5/8" - 12		26.1	102.5	16.2	36.5	50.0		
M42542-20-20	31	- 20	1.1/4"	1.5/8" - 12		26.1	115.5	16.2	45.0	50.0		
M42542-24-24	38	- 24	1.1/2"	1.7/8" - 12		32.1	126.5	18.8	50.0	60.0		
M42542-32-32	51	- 32	2"	2.1/2" - 12		42.0	161.5	24.0	63.5	75.0		



SAE STANDARD CONNECTIONS



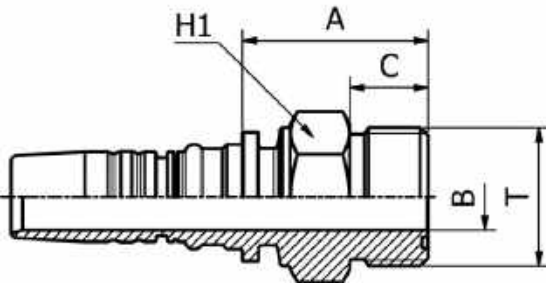
# M42592

90° JIC  
 FEMALE SWEPT ELBOW 37° CONE SEAT  
 SAE J516 / ISO 12151-5  
 (THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M42592-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	72.5	14.2	66.0	32.0		
M42592-12-16	19	- 12	3/4"	1.5/16" - 12	21.7	72.5	15.2	71.5	41.0		
M42592-16-16	25	- 16	1"	1.5/16" - 12	21.7	82.5	15.2	77.5	41.0		
M42592-16-20	25	- 16	1"	1.5/8" - 12	26.1	90.5	16.2	76.5	50.0		
M42592-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.1	98.5	16.2	92.0	50.0		
M42592-20-24	31	- 20	1.1/4"	1.7/8" - 12	32.1	101.5	18.8	108.0	60.0		
M42592-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	111.5	18.8	106.0	60.0		
M42592-32-32	51	- 32	2"	2.1/2" - 12	42.0	144.5	24.0	137.0	75.0		

183 FITTINGS

SAE STANDARD CONNECTIONS

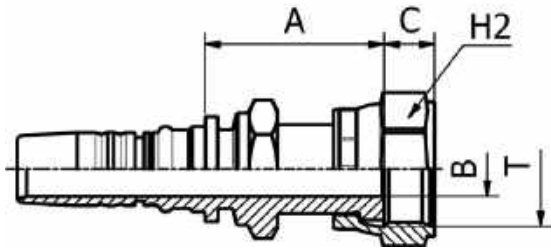


# M32410

ORFS  
 MALE  
 SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch	T	B	A	C	H1		
M32410-10-08	16	- 10	5/8"	13/16" - 16	9.3	33.0	12.8	27.0		
M32410-10-10	16	- 10	5/8"	1" - 14	12.0	36.0	15.5	27.0		
M32410-10-12	16	- 10	5/8"	1.3/16" - 12	15.0	39.0	17.0	32.0		
M32410-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	40.5	17.0	32.0		
M32410-12-16	19	- 12	3/4"	1.7/16" - 12	19.8	42.5	17.5	38.0		
M32410-16-16	25	- 16	1"	1.7/16" - 12	19.5	45.0	17.5	41.0		
M32410-16-20	25	- 16	1"	1.11/16" - 12	25.0	48.0	17.5	46.0		
M32410-20-16	31	- 20	1.1/4"	1.7/16" - 12	19.5	47.0	17.5	50.0		
M32410-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	50.5	17.5	46.0		
M32410-24-24	38	- 24	1.1/2"	2" - 12	31.0	53.0	17.5	55.0		
M32410-32-24	51	- 32	2"	2" - 12	31.0	53.0	17.5	70.0		

SAE STANDARD CONNECTIONS



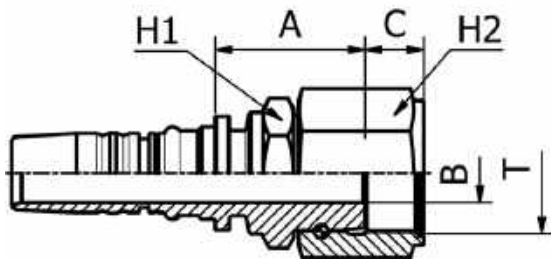
# M42411

ORFS  
FEMALE

SAE J516 / ISO 12151-1  
PULLBACK TYPE (CRIMPED BACK-NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H1	H2	
M42411-10-10	16	- 10	5/8"	1" - 14	11.5	40.5	12.5	24.0	30.0		
M42411-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	48.0	13.5	32.0	36.0		
M42411-12-16	19	- 12	3/4"	1.7/16" - 12	19.0	50.0	13.5	36.0	41.0		
M42411-16-12	25	- 16	1"	1.3/16" - 12	14.3	50.0	13.5	41.0	36.0		
M42411-16-16	25	- 16	1"	1.7/16" - 12	19.5	51.5	13.5	41.0	41.0		
M42411-16-20	25	- 16	1"	1.11/16" - 12	26.0	51.5	13.6	41.0	50.0		
M42411-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	58.0	13.6	50.0	50.0		
M42411-24-24	38	- 24	1.1/2"	2" - 12	31.0	60.5	14.2	60.0	60.0		

SAE STANDARD CONNECTIONS



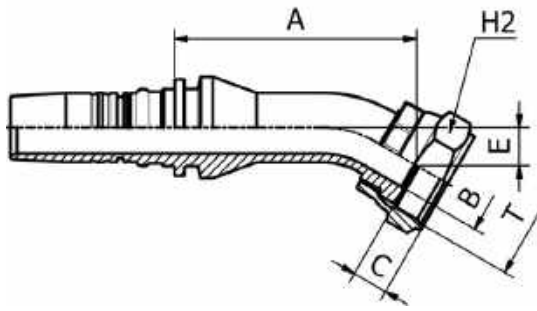
# M42412

ORFS  
FEMALE

SAE J516 / ISO 12151-1  
HEAVY TYPE (THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	H1	H2	
M42412-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	37.0	14.1	32.0	36.0		
M42412-12-16	19	- 12	3/4"	1.7/16" - 12	19.8	41.0	15.0	41.0	46.0		
M42412-16-16	25	- 16	1"	1.7/16" - 12	19.5	42.0	15.0	41.0	46.0		
M42412-16-20	25	- 16	1"	1.11/16" - 12	26.0	50.0	15.1	46.0	55.0		
M42412-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	52.0	15.1	50.0	55.0		
M42412-20-24	31	- 20	1.1/4"	2" - 12	31.0	53.0	15.0	55.0	60.0		
M42412-24-24	38	- 24	1.1/2"	2" - 12	31.0	55.0	15.0	60.0	60.0		

SAE STANDARD CONNECTIONS

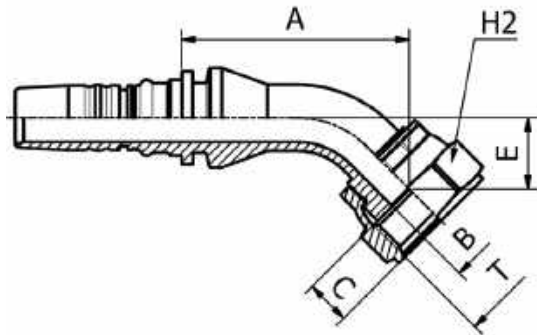


# M42431

**30° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1  
(CRIMPED BACK-NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M42431-16-16	25	- 16	1"	1.7/16", 25.4 MM, 1"	19.5	91.0	10.3	14.0	41.0		

SAE STANDARD CONNECTIONS

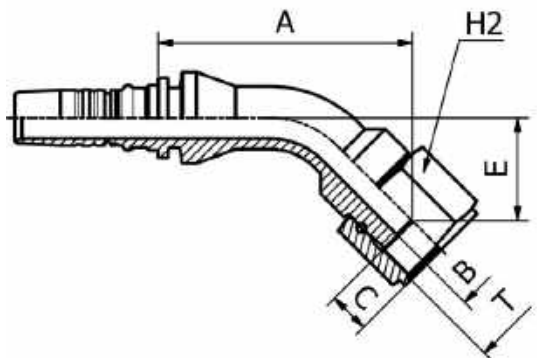


# M42441

**45° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1  
(CRIMPED BACK-NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M42441-10-12	16	- 10	5/8"	1.3/16" - 12	14.3	56.0	13.5	21.5	36.0		
M42441-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	69.0	13.5	21.5	36.0		
M42441-12-16	19	- 12	3/4"	1.7/16" - 12	19.0	77.5	13.5	25.0	41.0		
M42441-16-16	25	- 16	1"	1.7/16" - 12	19.5	86.0	13.5	24.0	41.0		
M42441-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	97.0	13.6	27.0	50.0		
M42441-24-24	38	- 24	1.1/2"	2" - 12	31.0	112.0	14.2	31.5	60.0		

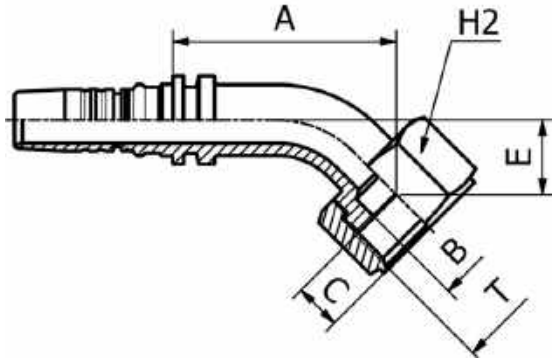
SAE STANDARD CONNECTIONS



# M42442

**45° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1  
HEAVY TYPE (THRUST-WIRE NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M42442-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	89.0	14.0	36.0	36.0		
M42442-16-16	25	- 16	1"	1.7/16" - 12	19.5	100.0	15.0	42.5	46.0		
M42442-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	119.5	15.1	49.5	55.0		
M42442-24-24	38	- 24	1.1/2"	2" - 12	31.0	128.5	15.0	52.0	60.0		

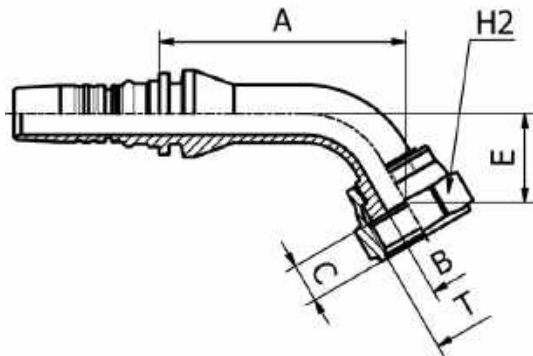


SAE STANDARD CONNECTIONS

# M42443

**45° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1  
(SLIP-ON NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M42443-12-16	19	- 12	3/4"	1.7/16" - 12	19.8	71.0	14.8	23.5	41.0		
M42443-16-20	25	- 16	1"	1.11/16" - 12	26.0	81.0	14.8	24.0	50.0		
M42443-20-24	31	- 20	1.1/4"	2" - 12	32.0	99.0	14.8	29.0	60.0		

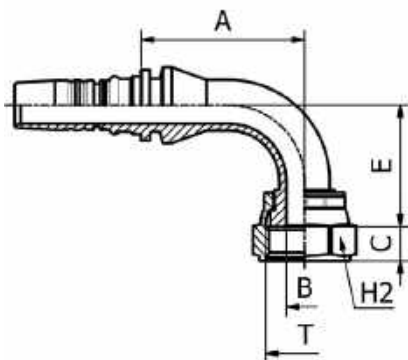


SAE STANDARD CONNECTIONS

# M42461

**60° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1  
(CRIMPED BACK-NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M42461-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	85.5	13.5	30.5	36.0		

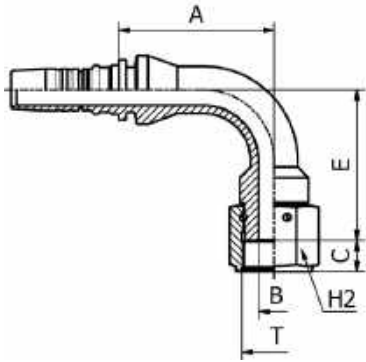


SAE STANDARD CONNECTIONS

# M42491

**90° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1  
(CRIMPED BACK-NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M42491-10-12	16	- 10	5/8"	1.3/16" - 12	14.3	51.0	13.5	47.0	36.0		
M42491-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	65.0	13.5	48.0	36.0		
M42491-12-12109	19	- 12	3/4"	1.3/16" - 12	14.5	65.0	13.5	109.0	36.0		
M42491-12-16	19	- 12	3/4"	1.7/16" - 12	19.0	70.0	13.5	53.0	41.0		
M42491-16-16	25	- 16	1"	1.7/16" - 12	19.5	85.0	13.5	57.0	41.0		
M42491-16-16128	25	- 16	1"	1.7/16" - 12	19.5	85.0	13.5	128.0	41.0		
M42491-16-20	25	- 16	1"	1.11/16" - 12	24.0	84.5	13.6	61.0	50.0		
M42491-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	98.5	13.6	66.0	50.0		
M42491-24-24	38	- 24	1.1/2"	2" - 12	31.0	116.0	14.2	79.5	60.0		

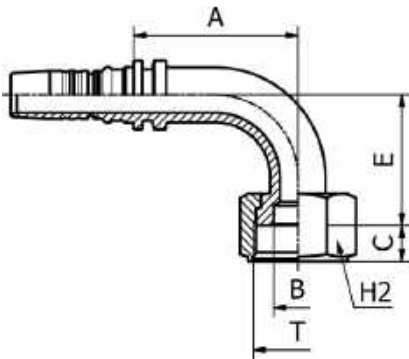


SAE STANDARD CONNECTIONS

# M42492

90° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1  
HEAVY TYPE (THRUST-WIRE-NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M42492-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	72.5	14.1	70.5	36.0		
M42492-16-16	25	- 16	1"	1.7/16" - 12	19.5	82.5	15.0	84.5	46.0		
M42492-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	98.5	15.1	98.0	55.0		
M42492-24-24	38	- 24	1.1/2"	2" - 12	31.0	111.5	15.0	109.0	60.0		

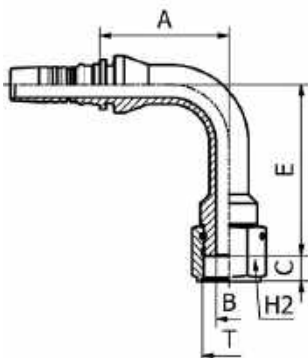


SAE STANDARD CONNECTIONS

# M42493

90° ORFS FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1  
(SLIP-ON NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M42493-12-16	19	- 12	3/4"	1.7/16" - 12	19.8	67.0	14.8	53.0	41.0		
M42493-16-20	25	- 16	1"	1.11/16" - 12	26.0	81.5	14.8	58.5	50.0		
M42493-20-24	31	- 20	1.1/4"	2" - 12	32.0	100.0	14.8	70.5	60.0		



SAE STANDARD CONNECTIONS

# M44492 LONG DROP

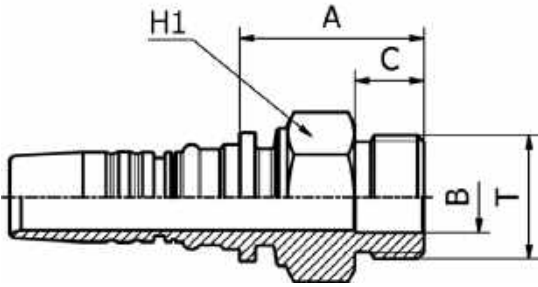
90° ORFS  
FEMALE LONG DROP ELBOW  
SAE J516 / ISO 12151-1  
(THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M44492-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	72.5	14.1	96.0	36.0		
M44492-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	98.5	15.1	129.0	55.0		

SAE STANDARD CONNECTIONS

# M33010

SAE  
MALE O-RING BOSS TYPE  
SAE J516 / ISO 11926

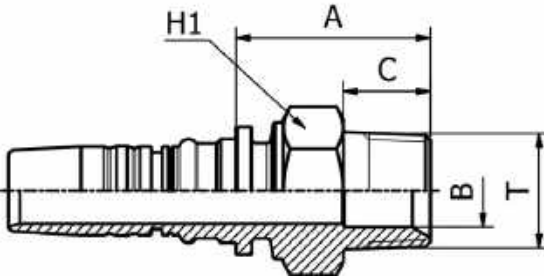


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M33010-12-12	19	- 12	3/4"	1.1/16" - 12	15.5	42.0	15.1	32.0			
M33010-16-16	25	- 16	1"	1.5/16" - 12	21.5	43.5	15.1	38.0			
M33010-20-20	31	- 20	1.1/4"	1.5/8" - 12	27.5	47.5	15.1	46.0			

SAE STANDARD CONNECTIONS

# M32810

NPTF  
MALE 60° CONE SEAT  
SAE J516/J514

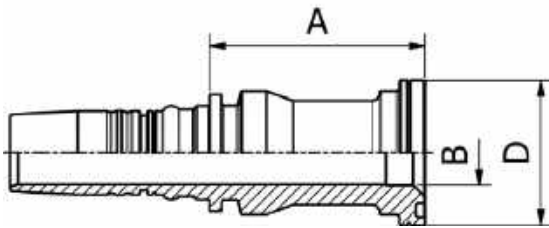


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M32810-10-12	16	- 10	5/8"	3/4" - 14	16.0	40.7	19.2	27.0			
M32810-12-12	19	- 12	3/4"	3/4" - 14	16.0	42.9	19.2	32.0			
M32810-16-16	25	- 16	1"	1" - 11,5	19.5	50.5	24.2	38.0			
M32810-20-20	31	- 20	1.1/4"	1.1/4" - 11,5	26.1	61.0	25.0	46.0			
M32810-24-24	38	- 24	1.1/2"	1.1/2" - 11,5	32.1	62.5	26.0	50.0			
M32810-24-32	38	- 24	1.1/2"	2" - 11,5	42.0	67.0	26.5	70.0			
M32810-32-32	51	- 32	2"	2" - 11,5	42.0	67.0	26.5	70.0			
M32810-40-40	63	- 40	2.1/2"	2.1/2" - 8	51.5	94.5	43.0	80.0			
M32810-48-48	76	- 48	3"	3" - 8	62.5	123.5	51.5	100.0			

SAE STANDARD CONNECTIONS

# M43310

ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3



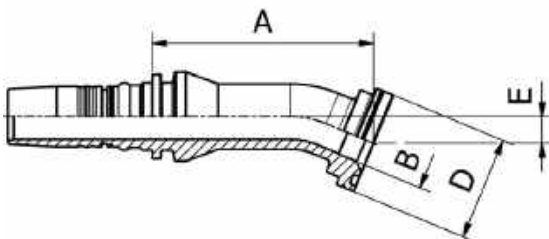
PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	D					
M43310-10-16	16	- 10	5/8"	1"	20.0	64.0	44.6					
M43310-12-12	19	- 12	3/4"	3/4"	16.0	60.0	38.0					
M43310-12-16	19	- 12	3/4"	1"	20.0	65.5	44.6					
M43310-16-12	25	- 16	1"	3/4"	16.0	67.0	38.0					
M43310-16-16	25	- 16	1"	1"	20.0	66.5	44.6					
M43310-16-20	25	- 16	1"	1.1/4"	26.1	73.0	51.0					
M43310-20-20	31	- 20	1.1/4"	1.1/4"	26.1	75.0	51.0					
M43310-20-24	31	- 20	1.1/4"	1.1/2"	32.1	80.0	60.5					
M43310-24-24	38	- 24	1.1/2"	1.1/2"	32.1	80.5	60.5					
M43310-24-32	38	- 24	1.1/2"	2"	42.0	88.5	71.6					
M43310-32-24	38	- 24	1.1/2"	2"	32.1	104.0	60.5					
M43310-32-32	51	- 32	2"	2"	42.0	82.5	71.6					
M43310-40-40	63	- 40	2.1/2"	2.1/2"	51.5	92.5	84.3					
M43310-48-48	76	- 48	3"	3"	62.5	101.0	101.6					

189 FITTINGS

SAE STANDARD CONNECTIONS

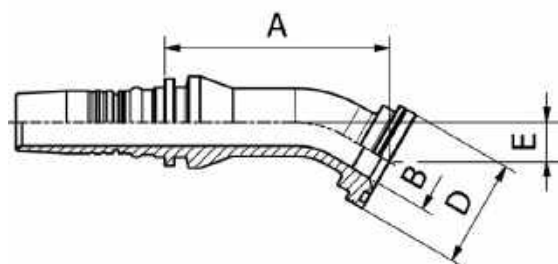
# M43320

22,5° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	D	E				
M43320-16-16	25	- 16	1"	1"	20.0	94.5	44.6	11.5				

SAE STANDARD CONNECTIONS

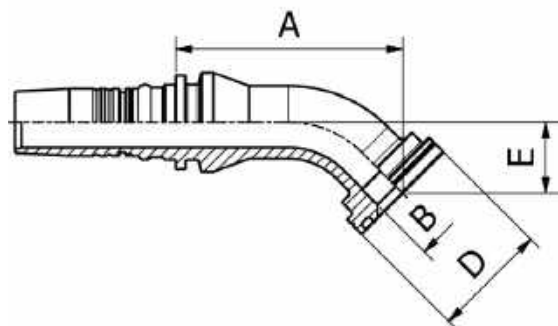


# M43330

30° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	D	E				
M43330-16-16	25	- 16	1"	1"	20.0	93.0	44.6	16.5				
M43330-20-20	31	- 20	1.1/4"	1.1/4"	26.1	106.5	51.0	17.5				
M43330-24-24	38	- 24	1.1/2"	1.1/2"	32.1	118.0	60.5	20.0				
M43330-32-32	51	- 32	2"	2"	42.0	137.0	71.6	22.0				

FITTINGS 190



SAE STANDARD CONNECTIONS

# M43340

45° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

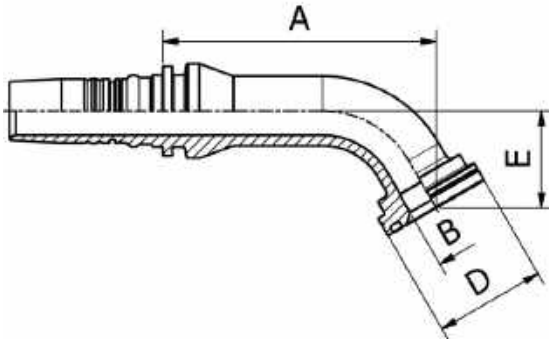
PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	D	E				
M43340-12-12	19	- 12	3/4"	3/4"	16.0	75.5	38.0	26.0				
M43340-12-16	19	- 12	3/4"	1"	20.0	76.0	44.6	23.0				
M43340-16-16	25	- 16	1"	1"	20.0	87.0	44.6	27.5				
M43340-16-16032	25	- 16	1"	1"	20.0	92.0	44.5	32.0				
M43340-16-20	25	- 16	1"	1.1/4"	26.0	87.5	51.0	27.5				
M43340-20-20	31	- 20	1.1/4"	1.1/4"	26.1	100.5	51.0	29.5				
M43340-20-20038	31	- 20	1.1/4"	1.1/4"	26.1	109.0	50.9	38.0				
M43340-20-24	31	- 20	1.1/4"	1.1/2"	32.1	101.5	60.5	31.0				
M43340-24-24	38	- 24	1.1/2"	1.1/2"	32.1	111.0	60.5	34.5				
M43340-24-24044	38	- 24	1.1/2"	1.1/2"	32.1	120.0	60.5	44.0				
M43340-24-32	38	- 24	1.1/2"	2"	42.0	113.0	71.6	34.5				
M43340-32-32	51	- 32	2"	2"	42.0	128.5	71.6	39.0				
M43340-32-32056	51	- 32	2"	2"	42.0	146.0	71.6	56.0				
M43340-48-48	76	- 48	3"	3"	59.0	147.5	101.6	53.0				



SAE STANDARD CONNECTIONS

# M43360

**60° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3**

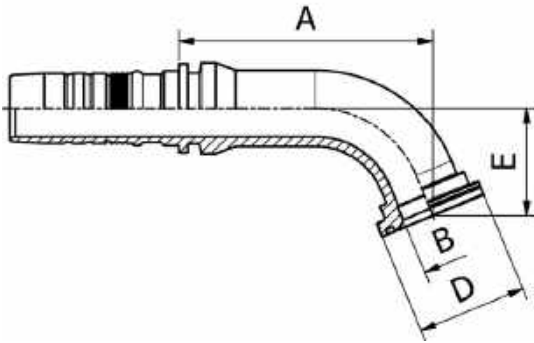


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch		inch	B	A	D	E			
M43360-16-16	25	- 16	1"	1"	20.0	110.0	44.6	39.0				
M43360-20-24	31	- 20	1.1/4"	1.1/2"	32.1	219.0	60.6	45.0				
M43360-24-24	38	- 24	1.1/2"	1.1/2"	32.1	147.0	60.5	51.0				
M43360-24-32	38	- 24	1.1/2"	2"	42.0	147.0	71.6	51.0				
M43360-32-32	51	- 32	2"	2"	42.0	175.0	71.6	58.5				

SAE STANDARD CONNECTIONS

# M43370

**67.5° ISO / SAE  
FLANGE 3000 PSI  
SAE J516 / ISO 12151-3**



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch		inch	B	A	D	E			
M43370-24-24	38	- 24	1.1/2"	1.1/2"	32.1	139.5	60.5	59.0				
M43370-24-32	38	- 24	1.1/2"	2"	42.0	130.0	71.6	59.0				
M43370-32-32	51	- 32	2"	2"	42.0	167.0	71.5	68.5				

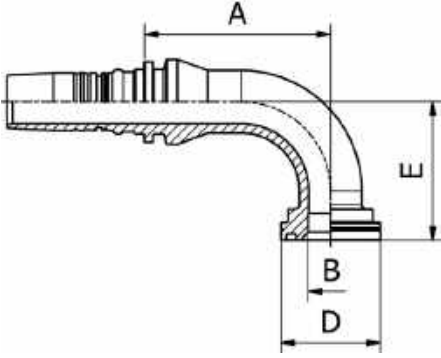
SAE STANDARD CONNECTIONS

# M43390

90° ISO / SAE

CODE 61 FLANGE

SAE J516 / ISO 12151-3



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	E			
M43390-10-16	16	- 10	5/8"	1"	20.0	71.0	44.6	52.0			
M43390-12-12	19	- 12	3/4"	3/4"	16.0	72.0	38.0	52.0			
M43390-12-12058	19	- 12	3/4"	3/4"	16.0	72.0	38.0	58.0			
M43390-12-16	19	- 12	3/4"	1"	20.0	72.5	44.6	52.0			
M43390-16-16	25	- 16	1"	1"	20.0	83.5	44.6	62.0			
M43390-16-16070	25	- 16	1"	1"	20.0	83.5	44.5	70.0			
M43390-16-20	25	- 16	1"	1.1/4"	26.0	83.5	51.0	62.0			
M43390-20-20	31	- 20	1.1/4"	1.1/4"	26.1	99.0	51.0	70.0			
M43390-20-20090	31	- 20	1.1/4"	1.1/4"	26.1	99.0	50.9	90.0			
M43390-20-16	31	- 20	1.1/4"	1"	19.8	96.5	44.6	66.0			
M43390-20-24	31	- 20	1.1/4"	1.1/2"	32.1	98.5	60.5	72.0			
M43390-24-24	38	- 24	1.1/2"	1.1/2"	32.1	111.5	60.5	84.0			
M43390-24-24104	38	- 24	1.1/2"	1.1/2"	32.1	111.5	60.5	104.0			
M43390-24-32	38	- 24	1.1/2"	2"	42.0	111.5	71.6	84.0			
M43390-32-32	51	- 32	2"	2"	42.0	133.5	71.6	99.0			
M43390-32-32138	51	- 32	2"	2"	42.0	133.5	71.5	138.0			
M43390-48-48	76	- 48	3"	3"	59.0	145.0	101.6	140.0			

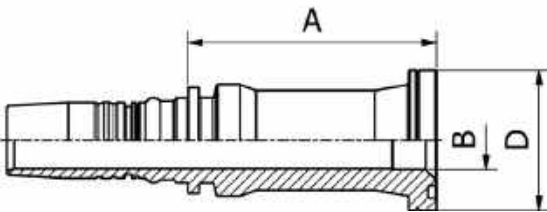
SAE STANDARD CONNECTIONS

# M43610

ISO / SAE

CODE 62 FLANGE

SAE J516 / ISO 12151-3

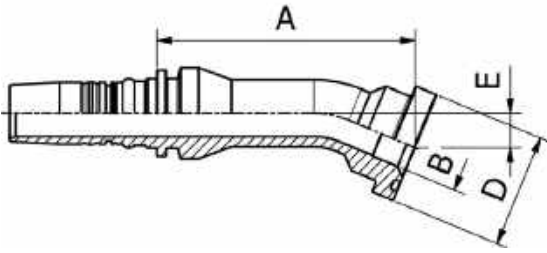


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm					
	DN	Dash	inch	inch	B	A	D			
M43610-10-12	16	- 10	5/8"	3/4"	16.0	65.0	41.5			
M43610-10-16	16	- 10	5/8"	1"	20.0	81.5	47.7			
M43610-12-12	19	- 12	3/4"	3/4"	16.0	71.5	41.4			
M43610-12-16	19	- 12	3/4"	1"	20.0	83.5	47.7			
M43610-16-12	25	- 16	1"	3/4"	16.0	80.5	41.4			
M43610-16-16	25	- 16	1"	1"	20.0	84.5	47.7			
M43610-16-20	25	- 16	1"	1.1/4"	26.0	89.0	54.2			
M43610-20-16	31	- 20	1.1/4"	1"	20.0	87.0	47.7			
M43610-20-20	31	- 20	1.1/4"	1.1/4"	26.1	91.0	54.2			
M43610-20-24	31	- 20	1.1/4"	1.1/2"	32.1	97.0	63.7			
M43610-24-20	38	- 24	1.1/2"	1.1/4"	26.0	101.0	54.2			
M43610-24-24	38	- 24	1.1/2"	1.1/2"	32.1	97.5	63.7			
M43610-24-32	38	- 24	1.1/2"	2"	42.0	113.0	79.6			
M43610-32-24	51	- 32	2"	1.1/2"	32.1	117.0	63.7			
M43610-32-32	51	- 32	2"	2"	42.0	112.5	79.6			
M43610-40-40	63	- 40	2.1/2"	2.1/2"	51.5	126.5	107.9			
M43610-48-48	76	- 48	3"	3"	62.5	167.0	131.9			

SAE STANDARD CONNECTIONS

# M43620

**22.5° ISO / SAE  
FLANGE 6000 PSI  
SAE J516 / ISO 12151-3**

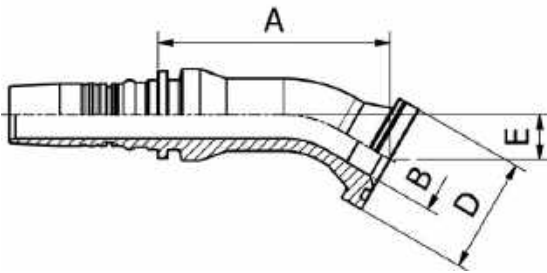


PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M43620-12-12	19	- 12	3/4"	3/4"		16.0	89.0	41.3	12.5			
M43620-16-16	25	- 16	1"	1"		20.0	100.5	47.7	14.5			
M43620-16-16023	25	- 16	1"	1"		20.0	106.5	47.7	23.0			
M43620-20-20	31	- 20	1.1/4"	1.1/4"		26.0	118.3	54.1	16.5			
M43620-20-20030	31	- 20	1.1/4"	1.1/4"		26.0	132.5	54.2	30.0			
M43620-24-24	38	- 24	1.1/2"	1.1/2"		32.0	136.5	63.7	19.0			
M43620-32-32	51	- 32	2"	2"		42.0	171.0	79.6	26.0			

SAE STANDARD CONNECTIONS

# M43630

**30° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3**

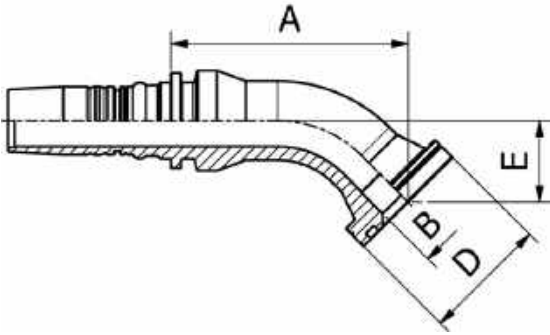


PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M43630-12-12	19	- 12	3/4"	3/4"		16.0	87.0	41.4	17.5			
M43630-16-12	25	- 16	1"	3/4"		16.0	93.0	41.4	17.0			
M43630-16-16	25	- 16	1"	1"		20.0	98.5	47.7	20.0			
M43630-20-20	31	- 20	1.1/4"	1.1/4"		26.1	115.5	54.2	23.0			
M43630-24-24	38	- 24	1.1/2"	1.1/2"		32.0	133.5	63.7	27.0			
M43630-32-32	51	- 32	2"	2"		42.0	167.0	79.6	36.5			

SAE STANDARD CONNECTIONS

# M43640

45° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3



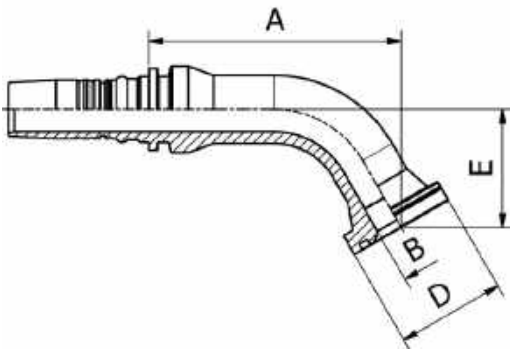
PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	D	E				
M43640-10-12	16	- 10	5/8"	3/4"	16.0	71.0	41.4	31.0				
M43640-10-16	16	- 10	5/8"	1"	20.0	83.5	47.7	32.5				
M43640-12-12	19	- 12	3/4"	3/4"	16.0	79.0	41.4	26.0				
M43640-12-16	19	- 12	3/4"	1"	20.0	85.5	47.7	32.5				
M43640-16-12	25	- 16	1"	3/4"	16.0	87.0	41.4	28.0				
M43640-16-16	25	- 16	1"	1"	20.0	91.5	47.7	32.5				
M43640-16-20	25	- 16	1"	1.1/4"	26.0	93.5	54.2	37.5				
M43640-20-16	31	- 20	1.1/4"	1"	20.0	106.5	47.7	36.0				
M43640-20-20	31	- 20	1.1/4"	1.1/4"	26.1	108.0	54.2	37.5				
M43640-20-24	31	- 20	1.1/4"	1.1/2"	32.1	115.0	63.7	45.0				
M43640-24-20	38	- 24	1.1/2"	1.1/4"	26.0	124.5	54.2	43.0				
M43640-24-24	38	- 24	1.1/2"	1.1/2"	32.0	124.5	63.7	44.0				
M43640-24-32	38	- 24	1.1/2"	2"	42.0	135.5	79.6	55.5				
M43640-32-32	51	- 32	2"	2"	42.0	154.0	79.6	60.5				
M43640-32-32056	51	- 32	2"	2"	42.0	150.0	79.6	56.5				

FITTINGS 194

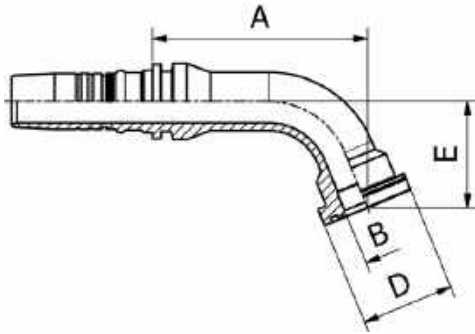
SAE STANDARD CONNECTIONS

# M43660

60° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	D	E				
M43660-12-12	19	- 12	3/4"	3/4"	16.0	98.5	41.4	39.0				
M43660-12-16	19	- 12	3/4"	1"	20.0	101.0	47.7	44.0				
M43660-16-16	25	- 16	1"	1"	20.0	107.0	47.7	52.0				
M43660-20-20	31	- 20	1.1/4"	1.1/4"	26.1	130.0	54.2	59.0				
M43660-20-24	31	- 20	1.1/4"	1.1/2"	32.1	136.5	63.7	66.0				
M43660-24-24	38	- 24	1.1/2"	1.1/2"	32.0	154.0	63.7	61.5				
M43660-32-32	51	- 32	2"	2"	42.0	197.5	79.6	85.0				

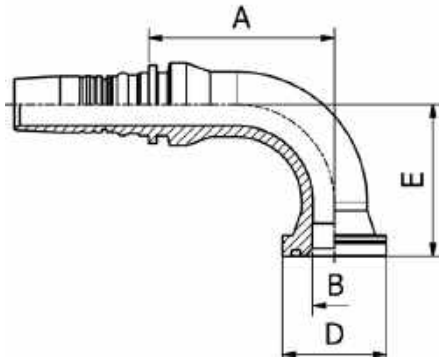


SAE STANDARD CONNECTIONS

# M43670

67.5° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M43670-16-20	25	- 16	1"	1.1/4"		26.0	105.0	54.1	58.5			
M43670-20-16T34	31	- 20	1.1/4"	1"		26.0	125.3	47.7	58.2			
M43670-20-20	31	- 20	1.1/4"	1.1/4"		26.1	125.5	54.2	62.0			
M43670-24-16	38	- 24	1.1/2"	1"		19.0	125.5	47.7	51.0			
M43670-24-20	38	- 24	1.1/2"	1.1/4"		26.0	142.5	54.1	54.1			
M43670-24-20T40	38	- 24	1.1/2"	1.1/4"		31.0	145.0	54.2	71.0			



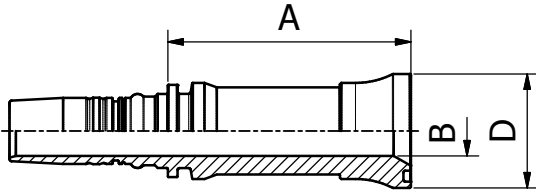
SAE STANDARD CONNECTIONS

# M43690

90° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M43690-10-12	16	- 10	5/8"	3/4"		16.0	56.5	41.4	60.5			
M43690-12-12	19	- 12	3/4"	3/4"		16.0	72.5	41.4	59.0			
M43690-12-16	19	- 12	3/4"	1"		20.0	72.5	47.7	65.0			
M43690-16-12	25	- 16	1"	3/4"		16.0	81.5	41.4	62.0			
M43690-16-16	25	- 16	1"	1"		20.0	81.0	47.7	68.0			
M43690-16-20	25	- 16	1"	1.1/4"		26.0	78.5	54.2	76.0			
M43690-20-16	31	- 20	1.1/4"	1"		20.0	98.5	47.7	79.0			
M43690-20-20	31	- 20	1.1/4"	1.1/4"		26.1	98.5	54.2	81.0			
M43690-20-20090	31	- 20	1.1/4"	1.1/4"		26.1	98.5	54.1	90.0			
M43690-20-24	31	- 20	1.1/4"	1.1/2"		32.1	98.5	63.7	91.5			
M43690-24-20	38	- 24	1.1/2"	1.1/4"		26.0	111.0	54.2	91.0			
M43690-24-24	38	- 24	1.1/2"	1.1/2"		32.0	112.5	63.7	94.5			
M43690-24-24104	38	- 24	1.1/2"	1.1/2"		32.0	112.5	63.7	104.0			
M43690-24-32	38	- 24	1.1/2"	2"		42.0	112.5	79.6	110.5			
M43690-32-32	51	- 32	2"	2"		42.0	140.5	79.6	132.0			
M43690-32-32138	51	- 32	2"	2"		42.0	140.5	79.6	138.0			

195 FITTINGS



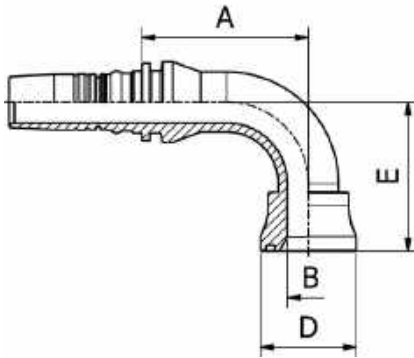
XTRAFRANGE

# M48410

**XTRAFRANGE/61**  
**(ISO 6162-1/SAE J518 CODE 61**  
**PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D			
M48410-16-16	25	- 16	1"	1"	19.5	94.5	44.5				
M48410-20-20	31	- 20	1.1/4"	1.1/4"	25.0	103.5	50.5				
M48410-24-24	38	- 24	1.1/2"	1.1/2"	31.0	116.0	60.5				
M48410-32-32	51	- 32	2"	2"	41.0	101.0	71.6				
M48410-40-40	63	- 40	2.1/2"	2.1/2"	51.5	103.0	84.4				

FITTINGS  
196



XTRAFRANGE

# M48490

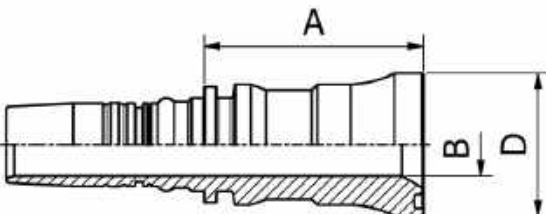
**90° XTRAFRANGE/61**  
**(ISO 6162-1/SAE J518 CODE 61**  
**PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E		
M48490-16-16	25	- 16	1"	1"	19.5	77.5	44.5	69.5			
M48490-20-20	31	- 20	1.1/4"	1.1/4"	25.0	107.0	50.5	90.0			
M48490-24-24	38	- 24	1.1/2"	1.1/2"	31.0	112.0	60.5	104.0			
M48490-32-32	51	- 32	2"	2"	41.0	145.0	71.6	138.0			

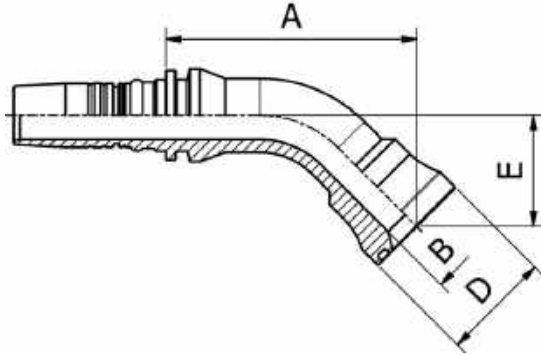
XTRAFRANGE

# M48510

**XTRAFRANGE/62**  
**(SAE J518 CODE 62 - ISO 6162-2**  
**PORT COMPATIBLE)**



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D			
M48510-12-12	19	- 12	3/4"	3/4"	14.5	64.0	41.4				
M48510-16-16	25	- 16	1"	1"	19.5	68.5	47.7				
M48510-20-20	31	- 20	1.1/4"	1.1/4"	25.0	88.0	54.4				
M48510-24-24	38	- 24	1.1/2"	1.1/2"	31.0	102.0	63.7				
M48510-32-32	51	- 32	2"	2"	41.0	128.5	79.6				
M48510-40-40	63	- 40	2.1/2"	2.1/2"	51.5	148.5	99.2				

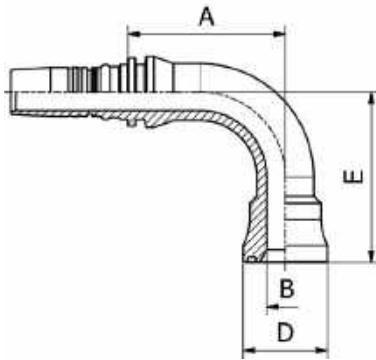


XTRAFRANGE

# M48540

**45° XTRAFRANGE/62**  
**(SAE J518 CODE 62 - ISO 6162-2**  
**PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch		inch	B	A	D	E			
M48540-12-12	19	- 12	3/4"	3/4"	14.5	92.5	41.4	38.0				
M48540-16-16	25	- 16	1"	1"	19.5	101.5	47.7	45.0				
M48540-20-20	31	- 20	1.1/4"	1.1/4"	25.0	138.0	54.4	62.5				
M48540-24-24	38	- 24	1.1/2"	1.1/2"	31.0	155.0	63.7	71.5				
M48540-32-32	51	- 32	2"	2"	39.0	193.5	79.6	92.5				



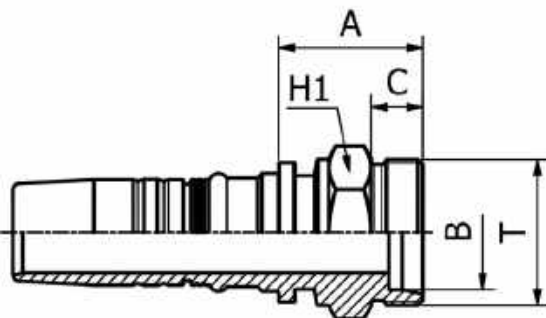
XTRAFRANGE

# M48590

**90° XTRAFRANGE/62**  
**(SAE J518 CODE 62 - ISO 6162-2**  
**PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch		inch	B	A	D	E			
M48590-12-12	19	- 12	3/4"	3/4"	14.5	75.5	41.4	75.0				
M48590-16-16	25	- 16	1"	1"	19.5	83.5	47.7	90.0				
M48590-20-20	31	- 20	1.1/4"	1.1/4"	25.0	107.0	54.4	120.0				
M48590-24-24	38	- 24	1.1/2"	1.1/2"	31.0	122.0	63.7	140.0				
M48590-32-32	51	- 32	2"	2"	39.0	147.5	79.6	178.0				

DIN STANDARD CONNECTIONS

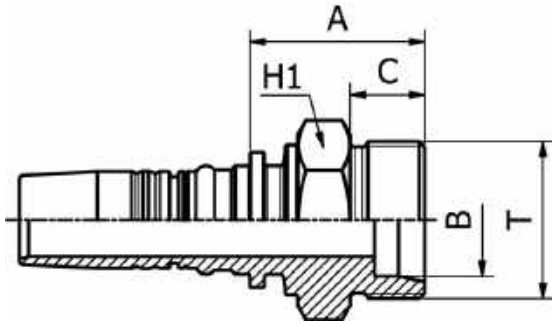


# M31110

**METRIC**  
**MALE 24° CONE SEAT LIGHT DUTY**  
**DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	H1	
M31110-20-45	31	- 20	1.1/4"	M 45X2	35.0	35.3	44.5	16.0	46.0			

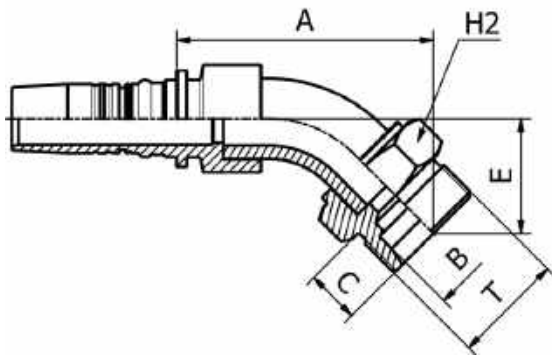
DIN STANDARD CONNECTIONS



# M31210

**METRIC  
MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	B	A	C	H1	
M31210-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	37.0	16.0	30.0		
M31210-12-30	19	- 12	3/4"	M 30X2	20.0	14.5	38.5	16.0	32.0		
M31210-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	43.5	18.0	36.0		
M31210-16-36	25	- 16	1"	M 36X2	25.0	19.5	45.0	18.0	36.0		
M31210-16-42	25	- 16	1"	M 42X2	30.0	19.5	47.0	20.0	46.0		
M31210-20-52	31	- 20	1.1/4"	M 52X2	38.0	25.0	55.0	22.0	55.0		
M31210-24-52	38	- 24	1.1/2"	M 52X2	38.0	31.0	55.5	22.0	55.0		



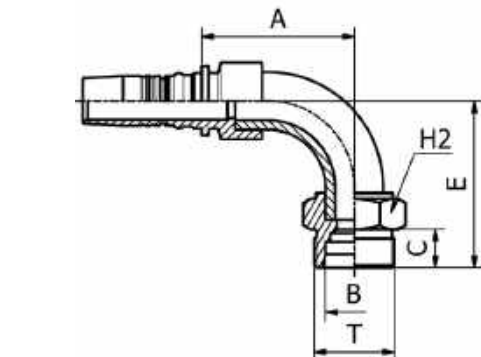
DIN STANDARD CONNECTIONS

# M31240

**45° METRIC  
MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	B	A	C	E	H2
M31240-16-42	25	- 16	1"	M 42X2	30.0	25.0	96.0	20.0	43.0	46.0	
M31240-20-52	31	- 20	1.1/4"	M 52X2	38.0	25.0	110.0	22.0	49.5	55.0	

\*All items are made from brazing



DIN STANDARD CONNECTIONS

# M31290

**90° METRIC  
MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	B	A	C	E	H2
M31290-10-30	16	- 10	5/8"	M 30X2	20.0	15.0	64.5	29.0	64.0	32.0	
M31290-16-42	25	- 16	1"	M 42X2	30.0	20.0	79.5	20.0	87.0	46.0	
M31290-20-52	31	- 20	1.1/4"	M 52X2	38.0	25.0	96.0	22.0	105.0	55.0	

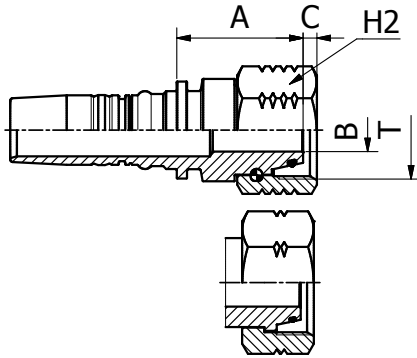
\*All items are made from brazing



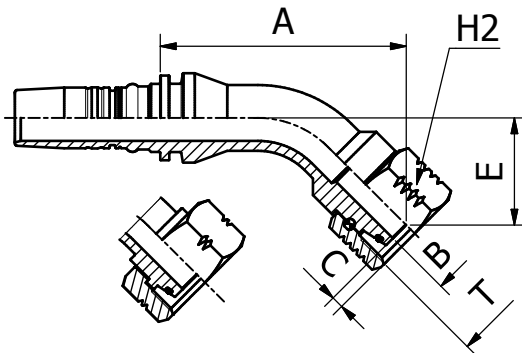
DIN STANDARD CONNECTIONS

# M41612/M41613

METRIC  
O-RING FEMALE 24° CONE HEAVY DUTY  
DIN 20066 / ISO 12151-2



PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch	T	mm	B	A	C	H2			
M41612-10-24	16	- 10	5/8"	M 24X1,5	16.0	9.3	31.0	4.0	30.0			
M41613-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	37.0	3.5	36.0			
M41612-12-30	19	- 12	3/4"	M 30X2	20.0	12.5	44.0	3.2	36.0			
M41613-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	42.0	3.4	41.0			
M41613-12-42	19	- 12	3/4"	M 42X2	30.0	19.0	36.0	6.3	50.0			
M41612-16-36	25	- 16	1"	M 36X2	25.0	16.0	47.0	4.1	41.0			
M41613-16-42	25	- 16	1"	M 42X2	30.0	19.5	46.5	5.3	50.0			
M41613-16-52	25	- 16	1"	M 52X2	38.0	26.1	49.5	8.0	60.0			
M41612-20-42	31	- 20	1.1/4"	M 42X2	30.0	19.0	47.5	6.0	50.0			
M41613-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.1	41.5	8.0	60.0			
M41612-24-52	38	- 24	1.1/2"	M 52X2	38.0	29.0	52.5	8.8	60.0			



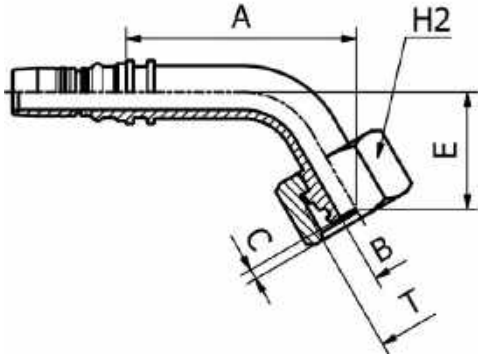
DIN STANDARD CONNECTIONS

# M41642/M41643

45° METRIC  
O-RING FEMALE SWEEP ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch	T	mm	B	A	C	E	H2		
M41643-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	66.5	3.5	29.5	36.0		
M41642-12-30	19	- 12	3/4"	M 30X2	20.0	12.5	79.0	3.2	35.0	36.0		
M41643-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	81.0	3.4	33.5	41.0		
M41642-16-36	25	- 16	1"	M 36X2	25.0	16.0	103.0	4.1	45.5	41.0		
M41643-16-42	25	- 16	1"	M 42X2	30.0	19.5	93.0	5.3	36.0	50.0		
M41642-20-42	31	- 20	1.1/4"	M 42X2	30.0	19.1	116.5	6.0	44.5	50.0		
M41643-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.1	110.0	8.0	40.0	60.0		
M41642-24-52	38	- 24	1.1/2"	M 52X2	38.0	29.0	128.0	8.8	51.5	60.0		

DIN STANDARD CONNECTIONS

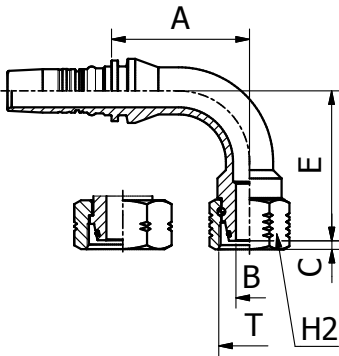


# M41663

**60° METRIC  
O-RING FEMALE SWEPT ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch	T	mm	B	A	C	E	H2		
M41663-10-30	16	- 10	5/8"	M30X2	20.0	12.0	78.4	3.5	40.0	36		

FITTINGS 200

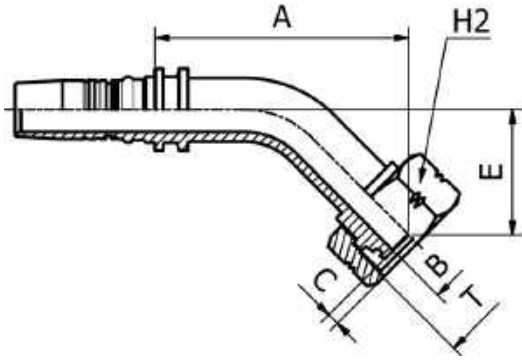


DIN STANDARD CONNECTIONS

# M41692/M41693

**90° METRIC  
O-RING FEMALE SWEPT ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch	T	mm	B	A	C	E	H2		
M41693-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	52.5	3.5	57.5	36.0		
M41692-12-30	19	- 12	3/4"	M 30X2	25.0	12.5	64.0	3.2	68.5	36.0		
M41693-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	67.0	3.4	67.5	41.0		
M41692-16-36	25	- 16	1"	M 36X2	25.0	16.0	81.5	4.1	89.0	41.0		
M41693-16-42	25	- 16	1"	M 42X2	30.0	19.5	81.5	5.3	75.5	50.0		
M41692-20-42	31	- 20	1.1/4"	M 42X2	30.0	19.1	103.5	6.0	90.0	50.0		
M41693-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.1	100.0	8.0	86.5	60.0		

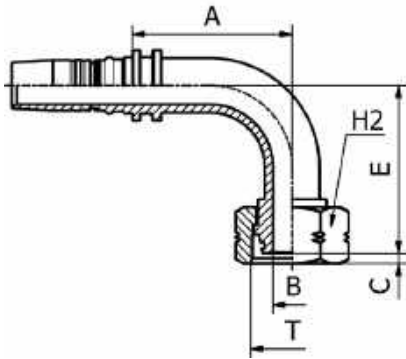


DIN STANDARD CONNECTIONS

# M41243 LONG DROP

45° METRIC  
O-RING FEMALE  
MEDIUM/LONG DROP ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066/ ISO 12151-2 (SLIP-ON NUT)

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	E	H2	
M41243-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	77.5	3.5	35.0	36.0		
M41243-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	101.0	3.4	45.0	41.0		
M41243-16-42	25	- 16	1"	M 42X2	30.0	19.5	112.0	5.3	55.0	50.0		
M41243-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.1	133.0	8.0	63.0	60.0		



DIN STANDARD CONNECTIONS

# M41293 LONG DROP

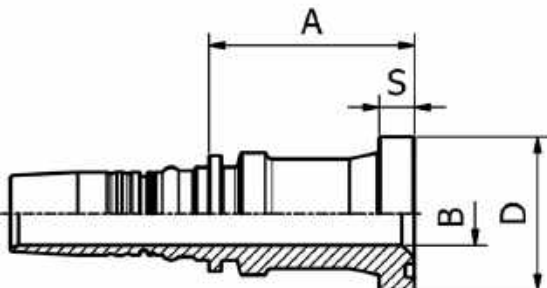
90° METRIC  
O-RING FEMALE  
MEDIUM/LONG DROP ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2 (SLIP-ON NUT)

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	E	H2	
M41293-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	53.0	3.5	60.0	36.0		
M41293-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	67.0	3.4	67.5	41.0		
M41293-16-42	25	- 16	1"	M 42X2	30.0	19.5	81.5	5.3	86.0	50.0		
M41293-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.1	100.0	8.0	92.0	60.0		

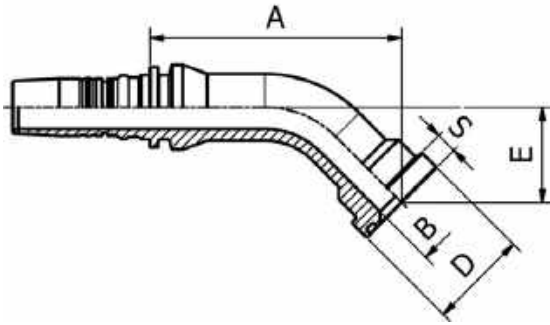
ORIGINAL EQUIPMENT CONNECTIONS

# M43710

FLANGE PLUS  
(SAE J518 CODE 62 - ISO 6162-2  
PORT COMPATIBLE)



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	S		
M43710-10-12	16	- 10	5/8"	3/4"		16.0	51.5	41.5	9.0		
M43710-12-12	19	- 12	3/4"	3/4"		14.5	71.5	41.4	10.0		
M43710-16-16	25	- 16	1"	1"		19.5	64.0	47.7	11.0		
M43710-20-20	31	- 20	1.1/4"	1.1/4"		25.0	81.0	54.2	12.0		



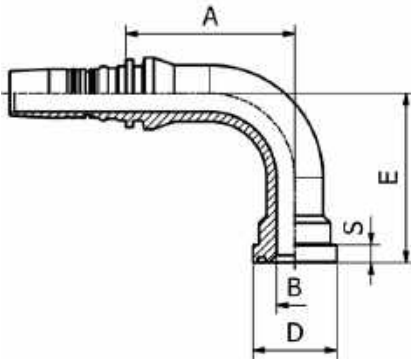
ORIGINAL EQUIPMENT CONNECTIONS

# M43740

**45° FLANGE PLUS**  
 (SAE J518 CODE 62 - ISO 6162-2  
 PORT COMPATIBLE)

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43740-10-12	16	- 10	5/8"	3/4"	16.0	72.5	41.4	31.0	9.0		
M43740-12-12	19	- 12	3/4"	3/4"	14.5	113.0	41.4	40.0	10.0		
M43740-16-16	25	- 16	1"	1"	19.5	113.5	47.7	43.0	11.0		
M43740-20-20	31	- 20	1.1/4"	1.1/4"	25.0	133.5	54.2	50.0	12.0		

FITTINGS 202



ORIGINAL EQUIPMENT CONNECTIONS

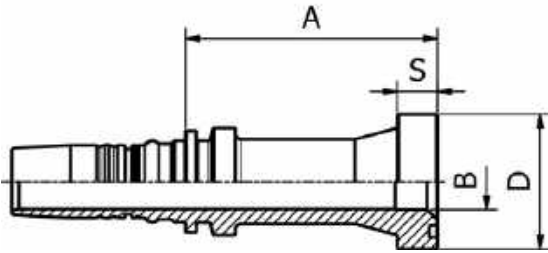
# M43790

**90° FLANGE PLUS**  
 (SAE J518 CODE 62 - ISO 6162-2  
 PORT COMPATIBLE)

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43790-10-12	16	- 10	5/8"	3/4"	16.0	61.5	41.4	60.5	9.0		
M43790-12-12	19	- 12	3/4"	3/4"	14.5	93.0	41.4	75.0	10.0		
M43790-16-16	25	- 16	1"	1"	19.5	90.0	47.7	90.0	11.0		
M43790-20-20	31	- 20	1.1/4"	1.1/4"	25.0	115.0	54.2	110.0	12.0		

ORIGINAL EQUIPMENT CONNECTIONS

# M43910



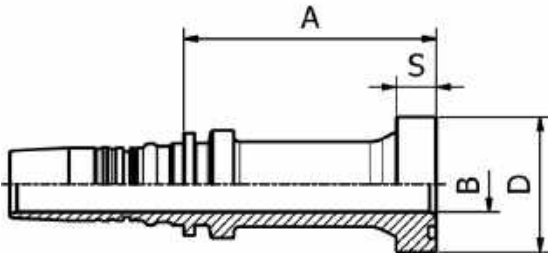
## STRAIGHT SUPERCAT SERIES FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm			
	DN	Dash	inch		inch	B	A	D
M43910-12-12	19	- 12	3/4"	3/4"	16.0	77.0	41.5	14.3
M43910-12-16	19	- 12	3/4"	1"	20.0	88.5	47.7	14.3
M43910-16-16	25	- 16	1"	1"	20.0	89.5	47.7	14.3
M43910-16-20	25	- 16	1"	1.1/4"	26.0	93.5	54.0	14.3
M43910-20-20	31	- 20	1.1/4"	1.1/4"	26.1	95.0	54.0	14.3
M43910-20-24	31	- 20	1.1/4"	1.1/2"	32.1	98.5	63.6	14.3
M43910-24-24	38	- 24	1.1/2"	1.1/2"	32.1	99.0	63.6	14.3
M43910-24-32	38	- 24	1.1/2"	2"	42.0	115.0	79.3	14.3
M43910-32-24	51	- 32	2"	1.1/2"	32.1	119.5	63.6	14.3
M43910-32-32	51	- 32	2"	2"	42.0	114.5	79.3	14.3

203 FITTINGS

ORIGINAL EQUIPMENT CONNECTIONS

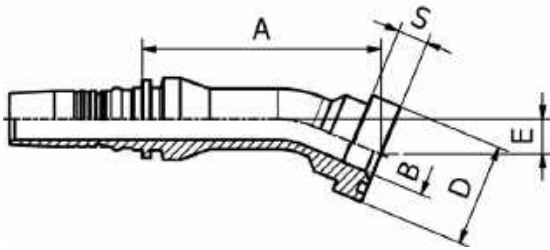
# M43910CT



## STRAIGHT REALCAT FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm			
	DN	Dash	inch		inch	B	A	D
M43910-16-16CT	25	- 16	1"	1"	19.5	89.5	47.7	14.3
M43910-20-20CT	31	- 20	1.1/4"	1.1/4"	25.0	95.0	54.0	14.3
M43910-20-24CT	31	- 20	1.1/4"	1.1/2"	31.0	98.0	63.6	14.3
M43910-24-24CT	38	- 24	1.1/2"	1.1/2"	31.0	99.0	63.6	14.3

ORIGINAL EQUIPMENT CONNECTIONS



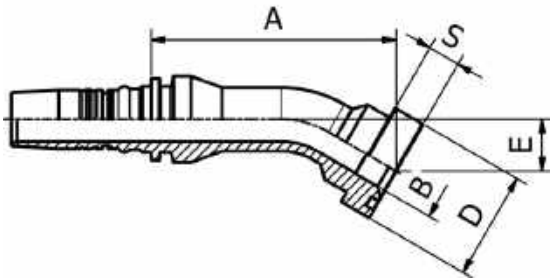
# M43920

22,5° SUPERCAT SERIES FLANGE

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch			inch	B	A	D	E	S	
M43920-12-12	19	- 12	3/4"	3/4"		16.0	94.0	41.5	14.5	14.3		
M43920-12-16	19	- 12	3/4"	1"		20.0	101.5	47.7	16.5	14.3		
M43920-16-16	25	- 16	1"	1"		20.0	110.5	47.7	16.5	14.3		
M43920-16-20	25	- 16	1"	1.1/4"		26.1	115.5	54.0	19.0	14.3		
M43920-20-20	31	- 20	1.1/4"	1.1/4"		26.1	122.0	54.0	18.0	14.3		
M43920-20-24	31	- 20	1.1/4"	1.1/2"		32.0	139.0	63.7	23.0	14.3		
M43920-24-24	38	- 24	1.1/2"	1.1/2"		32.0	138.0	63.7	20.0	14.3		

FITTINGS 204

ORIGINAL EQUIPMENT CONNECTIONS



# M43930

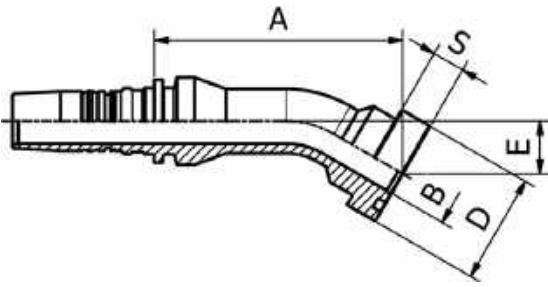
30° SUPERCAT SERIES FLANGE

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch			inch	B	A	D	E	S	
M43930-12-12	19	- 12	3/4"	3/4"		16.0	92.0	41.5	20.0	14.3		
M43930-12-16	19	- 12	3/4"	1"		20.0	99.0	47.7	22.5	14.3		
M43930-16-16	25	- 16	1"	1"		20.0	108.0	47.7	23.0	14.3		
M43930-16-20	25	- 16	1"	1.1/4"		26.1	112.5	54.0	26.0	14.3		
M43930-20-20	31	- 20	1.1/4"	1.1/4"		26.1	119.5	54.0	25.0	14.3		
M43930-20-24	31	- 20	1.1/4"	1.1/2"		32.0	135.5	63.7	32.0	14.3		
M43930-24-24	38	- 24	1.1/2"	1.1/2"		32.0	135.0	63.7	28.0	14.3		
M43930-24-32	38	- 24	1.1/2"	2"		42.0	151.5	79.3	36.0	14.3		
M43930-32-32	51	- 32	2"	2"		42.0	171.5	79.3	37.5	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# M43930CT

30° REALCAT SERIES FLANGE

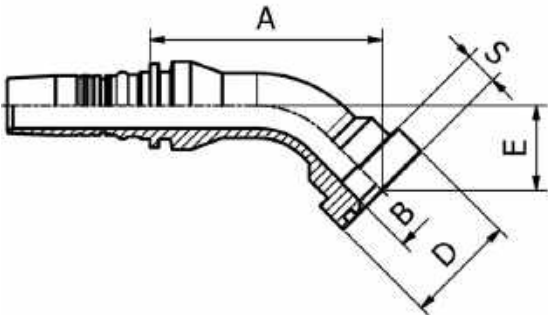


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43930-12-12CT	19	- 12	3/4"	3/4"	14.5	92.0	41.5	20.0	14.3		
M43930-16-16CT	25	- 16	1"	1"	19.5	108.0	47.7	23.0	14.3		
M43930-20-20CT	31	- 20	1.1/4"	1.1/4"	25.0	119.5	54.0	25.0	14.3		
M43930-24-24CT	38	- 24	1.1/2"	1.1/2"	31.0	135.0	63.7	28.0	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# M43940

45° SUPERCAT SERIES FLANGE

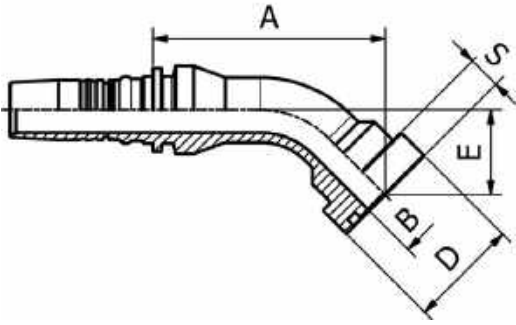


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43940-12-12	19	- 12	3/4"	3/4"	16.0	85.0	41.5	32.0	14.3		
M43940-12-16	19	- 12	3/4"	1"	20.0	91.5	47.7	35.5	14.3		
M43940-16-16	25	- 16	1"	1"	20.0	100.5	47.7	36.5	14.3		
M43940-16-20	25	- 16	1"	1.1/4"	26.1	103.5	54.0	40.5	14.3		
M43940-20-20	31	- 20	1.1/4"	1.1/4"	26.1	110.5	54.0	40.5	14.3		
M43940-20-24	31	- 20	1.1/4"	1.1/2"	32.0	124.5	63.7	50.5	14.3		
M43940-24-24	38	- 24	1.1/2"	1.1/2"	32.0	125.5	63.7	45.5	14.3		
M43940-24-32	38	- 24	1.1/2"	2"	42.0	139.5	79.3	56.5	14.3		
M43940-32-32	51	- 32	2"	2"	42.0	158.5	79.3	61.5	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# M43940CT

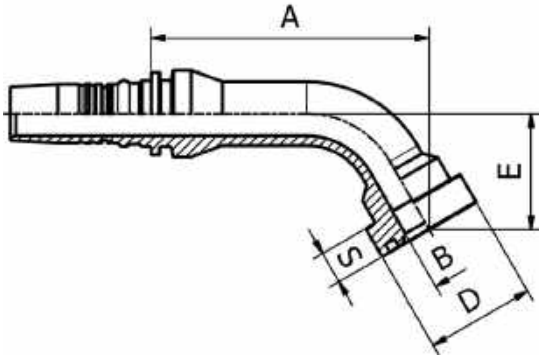
45° REALCAT FLANGE



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43940-16-16CT	25	- 16	1"	1"	19.5	100.5	47.7	36.5	14.3		
M43940-16-20CT	25	- 16	1"	1.1/4"	25.0	103.5	54.0	40.5	14.3		
M43940-20-24CT	31	- 20	1.1/4"	1.1/2"	31.0	124.5	63.7	50.5	14.3		
M43940-20-20CT	31	- 20	1.1/4"	1.1/4"	25.0	110.5	54.0	40.5	14.3		
M43940-24-24CT	38	- 24	1.1/2"	1.1/2"	31.0	125.5	63.7	45.0	14.3		

FITTINGS

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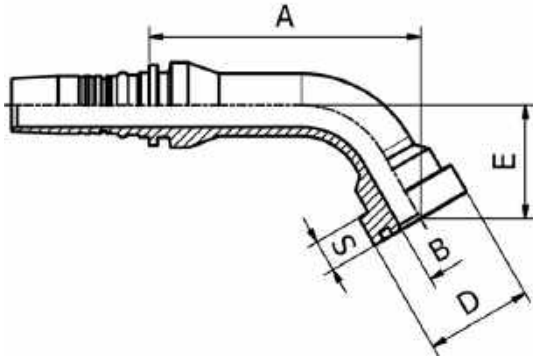
ORIGINAL EQUIPMENT CONNECTIONS

# M43960

60° SUPERCAT SERIES FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43960-12-16	19	- 12	3/4"	1"	20.0	106.0	47.7	48.0	14.3		
M43960-12-12	19	- 12	3/4"	3/4"	16.0	101.0	41.5	44.0	14.3		
M43960-16-16	25	- 16	1"	1"	20.0	122.0	47.7	51.0	14.3		
M43960-16-16055	25	- 16	1"	1"	20.0	102.5	47.7	55.0	14.3		
M43960-16-20	25	- 16	1"	1.1/4"	26.1	122.0	54.0	55.0	14.3		
M43960-20-20	31	- 20	1.1/4"	1.1/4"	26.1	136.0	54.0	56.0	14.3		
M43960-20-24	31	- 20	1.1/4"	1.1/2"	32.0	149.0	63.7	69.0	14.3		
M43960-24-24	38	- 24	1.1/2"	1.1/2"	32.0	154.5	63.7	63.0	14.3		
M43960-32-32	51	- 32	2"	2"	42.0	202.0	79.3	86.5	14.3		
M43960-32-32150	51	- 32	2"	2"	42.0	196.5	79.3	150.0	14.3		



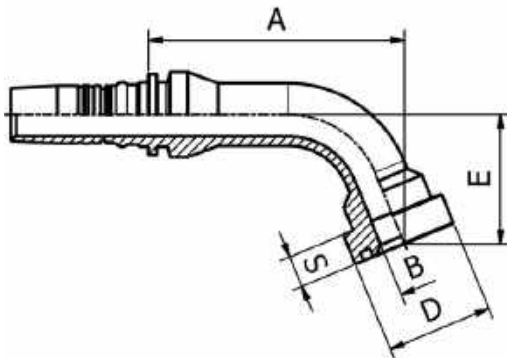


ORIGINAL EQUIPMENT CONNECTIONS

# M43960CT

60° REALCAT SERIES FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43960-16-16CT	25	- 16	1"	1"	19.5	122.0	47.7	51.0	14.3		
M43960-16-20CT	25	- 16	1"	1.1/4"	25.0	122.0	54.0	55.0	14.3		
M43960-24-24CT	38	- 24	1.1/2"	1.1/2"	31.0	154.5	63.7	63.5	14.3		

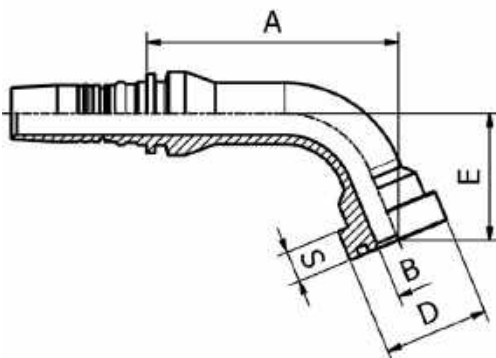


ORIGINAL EQUIPMENT CONNECTIONS

# M43970

67,5° SUPERCAT SERIES FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43970-12-12	19	- 12	3/4"	3/4"	16.0	95.0	41.5	49.5	14.3		
M43970-12-16	19	- 12	3/4"	1"	20.0	99.5	47.7	54.0	14.3		
M43970-16-16	25	- 16	1"	1"	20.0	115.0	47.7	58.0	14.3		
M43970-16-20	25	- 16	1"	1.1/4"	26.1	114.5	54.0	62.0	14.3		
M43970-20-20	31	- 20	1.1/4"	1.1/4"	26.1	128.0	54.0	64.0	14.3		
M43970-20-24	31	- 20	1.1/4"	1.1/2"	32.0	139.5	63.7	78.0	14.3		
M43970-24-24	38	- 24	1.1/2"	1.1/2"	32.0	146.0	63.7	72.0	14.3		
M43970-32-32	51	- 32	2"	2"	42.0	189.5	79.3	99.0	14.3		

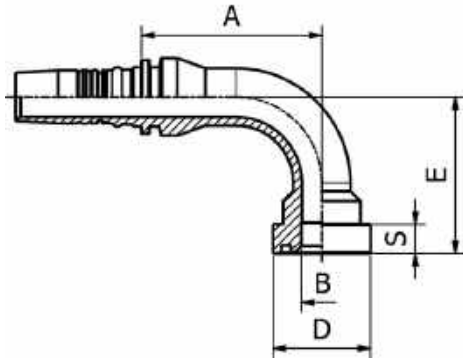


ORIGINAL EQUIPMENT CONNECTIONS

# M43970CT

67,5° REALCAT SERIES FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43970-16-16CT	25	- 16	1"	1"	19.5	115.0	47.7	58.0	14.3		
M43970-16-20CT	25	- 16	1"	1.1/4"	25.0	114.5	64.0	62.0	14.3		



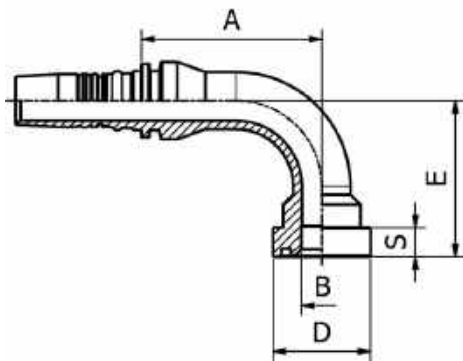
ORIGINAL EQUIPMENT CONNECTIONS

# M43990

90° SUPERCAT SERIES FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43990-12-12	19	- 12	3/4"	3/4"	16.0	72.5	41.5	64.5	14.3		
M43990-12-16	19	- 12	3/4"	1"	20.0	75.0	47.7	69.5	14.3		
M43990-16-16	25	- 16	1"	1"	20.0	88.5	47.7	76.5	14.3		
M43990-16-20	25	- 16	1"	1.1/4"	26.1	86.5	54.0	80.5	14.3		
M43990-20-20	31	- 20	1.1/4"	1.1/4"	26.1	98.5	54.0	85.0	14.3		
M43990-20-24	31	- 20	1.1/4"	1.1/2"	32.0	104.0	63.7	101.0	14.3		
M43990-24-24	38	- 24	1.1/2"	1.1/2"	32.0	112.5	63.7	96.0	14.3		
M43990-24-32	38	- 24	1.1/2"	2"	42.0	115.0	79.3	112.0	14.3		
M43990-32-32	51	- 32	2"	2"	42.0	144.0	79.3	133.5	14.3		

FITTINGS 208



ORIGINAL EQUIPMENT CONNECTIONS

# M43990 LONG DROP

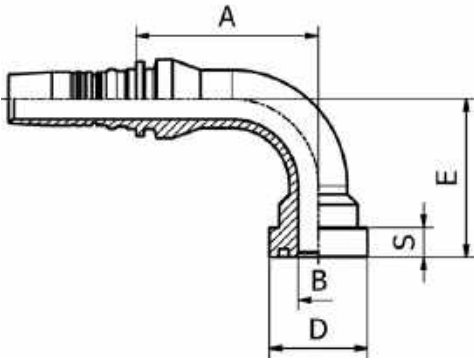
90° LONG DROP SUPERCAT SERIES FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43990-16-16150	25	- 16	1"	1"	20.0	88.5	47.7	150.0	14.3		
M43990-16-16132	25	- 16	1"	1"	20.0	88.5	47.7	132.0	14.3		
M43990-16-20150	25	- 16	1"	1.1/4"	26.1	88.5	54.0	150.0	14.3		
M43990-20-24135	31	- 20	1.1/4"	1.1/2"	32.0	98.5	63.7	135.0	14.3		
M43990-20-20150	31	- 20	1.1/4"	1.1/4"	26.1	98.5	54.0	150.0	14.3		
M43990-20-20092	31	- 20	1.1/4"	1.1/4"	26.1	98.5	54.0	92.0	14.3		
M43990-24-24106	38	- 24	1.1/2"	1.1/2"	32.0	112.5	63.7	106.0	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# M43990CT

90° REALCAT FLANGE

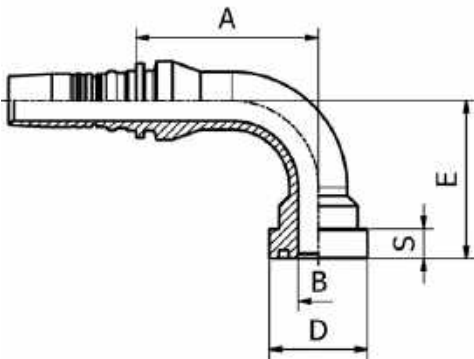


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43990-16-16CT	25	- 16	1"	1"	19.5	88.5	47.7	76.5	14.3		
M43990-16-20CT	25	- 16	1"	1.1/4"	25.0	86.5	54.0	80.5	14.3		
M43990-20-20CT	31	- 20	1.1/4"	1.1/4"	25.0	98.5	54.0	85.0	14.3		
M43990-24-24CT	38	- 24	1.1/2"	1.1/2"	31.0	112.5	63.7	96.0	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# M43990CT LONG DROP

90° LONG DROP REALCAT FLANGE

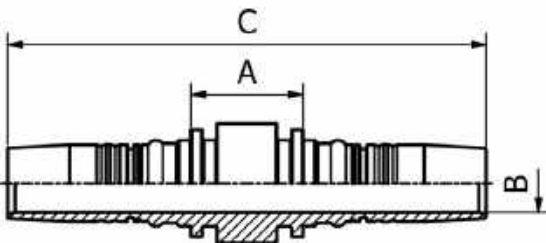


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M43990-16-16132CT	25	- 16	1"	1"	19.5	88.5	47.7	132.0	14.3		
M43990-20-20150CT	25	- 16	1"	1.1/4"	25.0	98.5	54.0	150.0	14.3		
M43990-24-24106CT	31	- 20	1.1/4"	1.1/2"	31.0	112.5	63.7	106.0	14.3		

DOUBLE CONNECTOR

# M30050

DOUBLE CONNECTOR

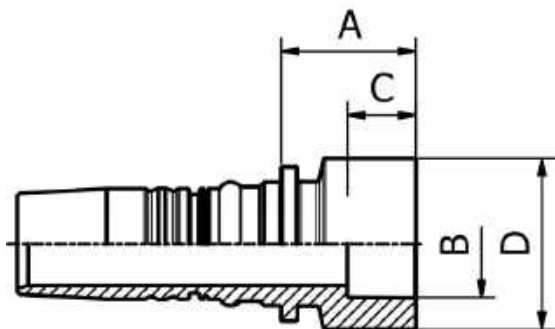


PART. REF.	HOSE BORE			DIMENSIONS mm						
	DN	Dash	inch	B	A	C				
M30050-20-20	31	- 20	1.1/4"	25.0	42.0	206.0				
M30050-24-24	38	- 24	1.1/2"	31.0	43.1	229.1				
M30050-32-32	51	- 32	2"	41.0	43.0	244.7				

TAIL

# M49510WL

WELDING TAIL

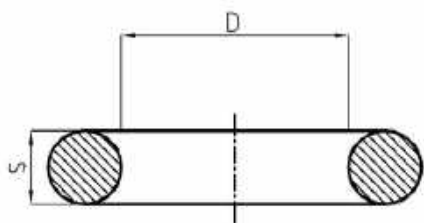


PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch	B	A	C	D				
M49510-10-18WL	16	- 10	5/8"	18.1	20.5	10.0	26.0				
M49510-12-22WL	19	- 12	3/4"	22.1	27.5	12.0	34.0				
M49510-16-28WL	25	- 16	1"	28.1	31.5	14.0	40.0				
M49510-20-35WL	31	- 20	1.1/4"	35.1	33.0	14.0	49.0				

FITTINGS 210

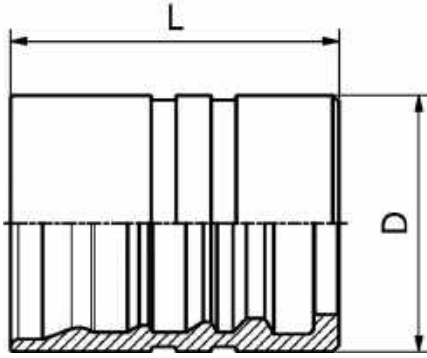
O-RING

# JO29



OPTIONAL INTERLOCK PLUS O-RING

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch	D	S						
JO29161218	16	- 10	5/8"	12.42	1.78						
JO29191618	19	- 12	3/4"	15.6	1.78						
JO29262218	25	- 16	1"	21.95	1.78						
JO29322818	31	- 20	1.1/4"	28.3	1.78						
JO29383518	38	- 24	1.1/2"	34.65	1.78						
JO29514718	51	- 32	2"	47.35	1.78						
JO29605718	63	- 40	2.1/2"	56.87	1.78						
JO29737018	76	- 48	3"	69.57	1.78						



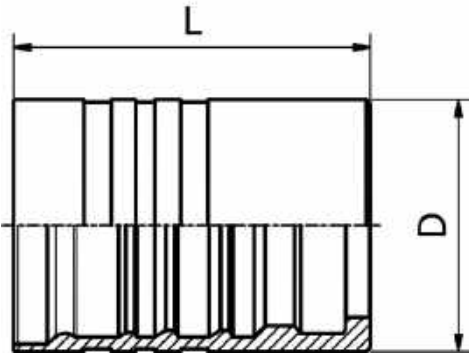
FERRULE

# IM01500

**DOUBLE SKIVE FERRULE  
FOR HEAVY DUTY SPIRAL HOSES (4 PLY)  
STAINLESS STEEL**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
IM01500-10	16	- 10	5/8"			35.0	40.9				
IM01500-12	19	- 12	3/4"			40.0	51.4				
IM01500-16	25	- 16	1"			48.0	64.5				
IM01500-20	31	- 20	1.1/4"			57.0	84.0				
IM01500-24	38	- 24	1.1/2"			64.3	94.0				
IM01500-32	51	- 32	2"			83.5	107.0				
IM01500-40	63	- 40	2.1/2"			100.0	135.0				
IM01500-48	76	- 48	3"			107.0	125.0				

211 FITTINGS

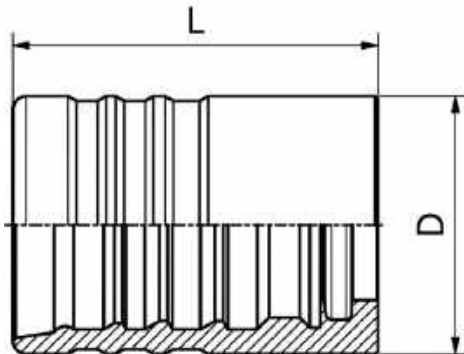


FERRULE

# IM01600

**DOUBLE SKIVE FERRULE  
FOR HEAVY DUTY SPIRAL HOSES (6 PLY)  
STAINLESS STEEL**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
IM01600-20	31	- 20	1.1/4"			60.0	85.0				
IM01600-24	38	- 24	1.1/2"			69.0	96.0				



FERRULE

# IM01800/IM01810

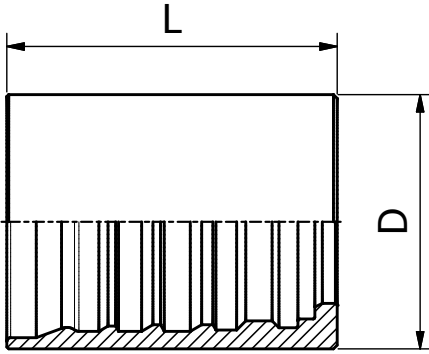
**DOUBLE SKIVE FERRULE  
FOR EXTRA DUTY SPIRAL HOSES (6 PLY)  
STAINLESS STEEL**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
IM01800-32	51	- 32	2"			86.5	108.0				
IM01810-40	63	- 40	2.1/2"			103.0	135.0				
IM01810-48	76	- 48	3"			113.5	125.0				

FERRULE

# IM01900

DOUBLE SKIVE FERRULE



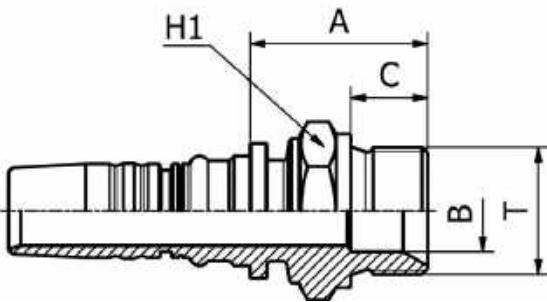
PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
IM01900-20	31	-20	1.1/4"			68	88,2				

FITTINGS 212

BS STANDARD CONNECTIONS

# IM30510

BSP  
MALE PARALLEL 60° CONE SEAT  
BS5200 / ISO 8434-6  
(STAINLESS STEEL)

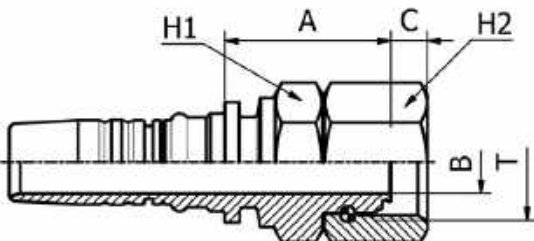


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
IM30510-12-12	19	- 12	3/4"	3/4" - 14	17.0	37.0	16.0	32.0			
IM30510-16-16	25	- 16	1"	1" - 11	22.5	43.0	19.0	41.0			
IM30510-20-20	31	- 20	1.1/4"	1.1/4" - 11	28.5	50.5	20.0	50.0			
IM30510-24-24	38	- 24	1.1/2"	1.1/2" - 11	33.5	54.5	22.0	55.0			
IM30510-32-32	51	- 32	2"	2" - 11	42.0	58.0	25.0	70.0			

BS STANDARD CONNECTIONS

# IM40812

BSP  
O-RING FEMALE 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT) STAINLESS STEEL

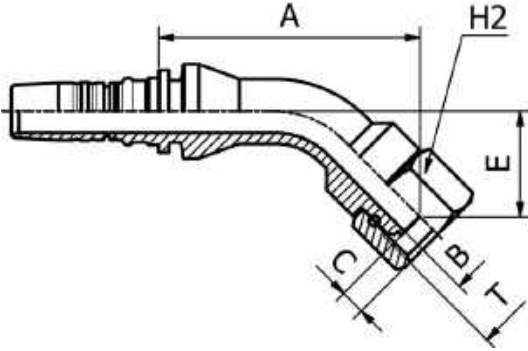


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
IM40812-12-12	19	- 12	3/4"	3/4" - 14	14.5	39.0	8.5	32.0	32.0		
IM40812-16-16	25	- 16	1"	1" - 11	19.5	44.5	10.6	41.0	41.0		
IM40812-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.1	52.5	10.5	50.0	50.0		
IM40812-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.1	51.5	12.5	60.0	60.0		
IM40812-32-32	38	- 24	1.1/2"	1.1/2" - 11	42.0	51.5	16.1	70.0	70.0		

BS STANDARD CONNECTIONS

# IM40842

45° BSP  
O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT) STAINLESS STEEL

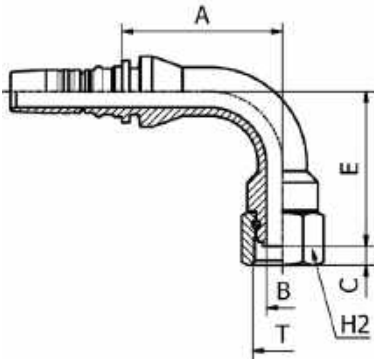


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
IM40842-12-12	19	- 12	3/4"	3/4" - 14	14.5	88.0	8.5	35.0	32.0		
IM40842-16-16	25	- 16	1"	1" - 11	19.5	97.0	10.6	40.0	41.0		
IM40842-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.1	120.0	10.5	49.5	50.0		
IM40842-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.1	126.5	12.5	50.0	60.0		
IM40842-32-32	51	- 32	2"	2" - 11,5	42.0	162.5	16.1	66.5	70.0		

BS STANDARD CONNECTIONS

# IM40892

90° BSP  
O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT) STAINLESS STEEL

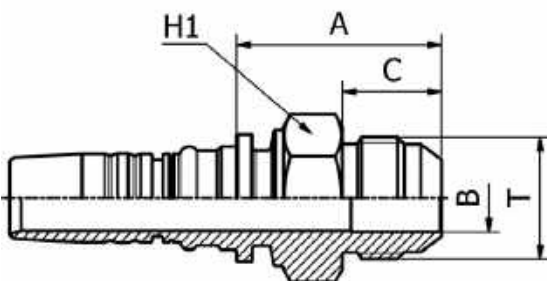


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
IM40892-12-12	19	- 12	3/4"	3/4" - 14	14.5	72.5	8.5	70.0	32.0		
IM40892-16-16	25	- 16	1"	1" - 11	19.5	82.0	10.6	80.5	41.0		
IM40892-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.1	98.5	10.5	98.0	50.0		
IM40892-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.1	111.5	12.5	109.0	60.0		
IM40892-32-32	51	- 32	2"	2" - 11,5	42.0	143.0	16.1	140.5	70.0		

SAE STANDARD CONNECTIONS

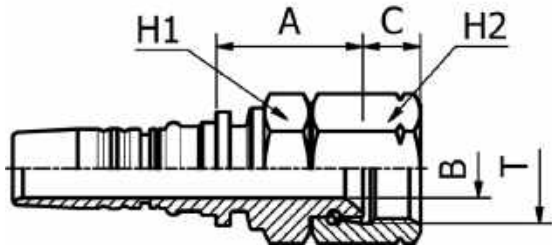
# IM32510

JIC  
MALE 37° CONE  
SAE J516 / ISO 12151-5  
STAINLESS STEEL



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch	T	B	A	C	H1		
IM32510-10-10	16	- 10	5/8"	7/8" - 14	12.0	41.0	19.5	27.0		
IM32510-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	45.5	22.0	32.0		
IM32510-16-16	25	- 16	1"	1.5/16" - 12	20.0	50.5	23.0	38.0		
IM32510-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.1	66.0	24.3	46.0		
IM32510-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	64.0	27.5	50.0		
IM32510-32-32	51	- 32	2"	2.1/2" - 12	42.0	81.0	34.0	70.0		

SAE STANDARD CONNECTIONS

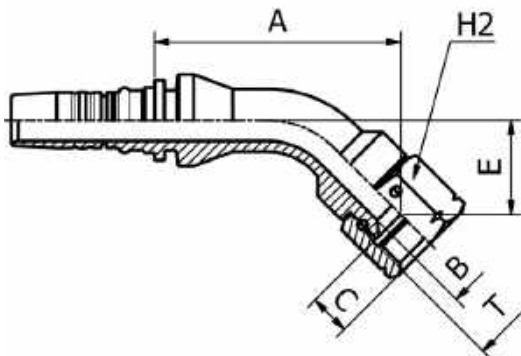


# IM42512

JIC  
 FEMALE 37° CONE SEAT  
 SAE J516 / ISO 12151-5  
 (THRUST-WIRE NUT) STAINLESS STEEL

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
IM42512-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	36.0	16.0	32.0	32.0		
IM42512-16-16	25	- 16	1"	1.5/16" - 12	21.7	40.5	15.2	41.0	41.0		
IM42512-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.1	51.5	16.2	50.0	50.0		
IM42512-24-24	38	- 24	1.1/2"	1.7/8" - 12	31.0	54.5	18.8	55.0	60.0		
IM42512-32-32	51	- 32	2"	2.1/2" - 8	42.0	54.0	24.0	70.0	75.0		

FITTINGS 214



SAE STANDARD CONNECTIONS

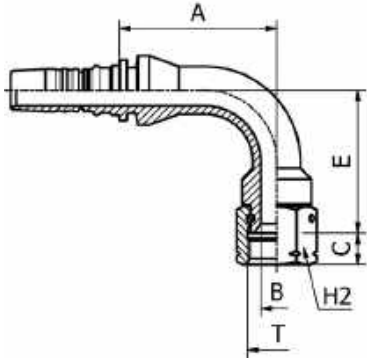
# IM42542

45° JIC  
 FEMALE SWEPT ELBOW 37° CONE SEAT  
 SAE J516 / ISO 12151-5  
 (THRUST-WIRE NUT) STAINLESS STEEL

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
IM42542-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	86.0	16.0	33.0	32.0		
IM42542-16-16	25	- 16	1"	1.5/16" - 12	21.7	95.0	15.2	37.0	41.0		
IM42542-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.1	115.5	16.2	45.0	50.0		
IM42542-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	126.5	18.8	50.0	60.0		



SAE STANDARD CONNECTIONS

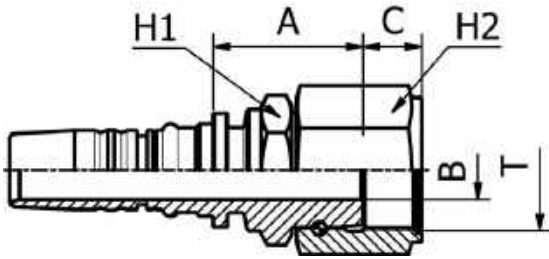


# IM42592

90° JIC  
FEMALE SWEPT ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5  
(THRUST-WIRE NUT) STAINLESS STEEL

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
IM42592-12-12	19	- 12	3/4"	1.1/16" - 12	15.0	72.5	16.0	66.0	32.0		
IM42592-12-16	19	- 12	3/4"	1.5/16" - 12	21.7	72.5	15.2	71.5	41.0		
IM42592-16-16	25	- 16	1"	1.5/16" - 12	21.7	82.5	15.2	77.5	41.0		
IM42592-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.1	98.5	16.2	92.0	50.0		
IM42592-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	111.5	18.8	106.0	60.0		
IM42592-32-32	51	- 32	2"	2.1/2" - 8	42.0	144.5	24.0	137.0	75.0		

SAE STANDARD CONNECTIONS

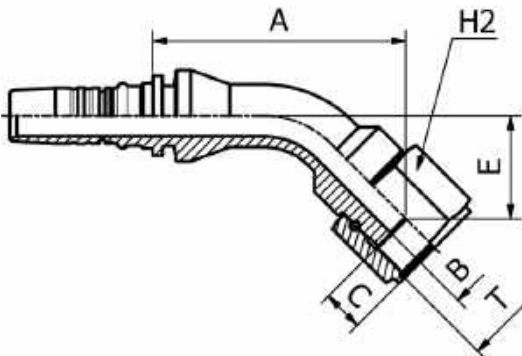


# IM42412

ORFS  
FEMALE  
SAE J516 / ISO 12151-1 HEAVY TYPE  
(THRUST-WIRE NUT) STAINLESS STEEL

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	H1	H2			
IM42412-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	37.0	32.0	36.0			
IM42412-16-16	25	- 16	1"	1.7/16" - 12	19.5	42.0	15.0	41.0	46.0		
IM42412-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	52.0	15.1	50.0	55.0		
IM42412-24-24	38	- 24	1.1/2"	2" - 12	31.0	55.0	15.0	60.0	60.0		

SAE STANDARD CONNECTIONS



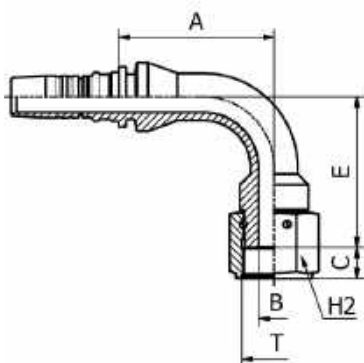
# IM42442

45° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1 HEAVY TYPE  
(THRUST-WIRE-NUT) STAINLESS STEEL

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
IM42442-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	89.0	13.9	36.0	36.0		
IM42442-16-16	25	- 16	1"	1.7/16" - 12	19.5	100.0	15.0	42.5	46.0		
IM42442-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	119.5	15.1	49.5	55.0		
IM42442-24-24	38	- 24	1.1/2"	2" - 12	31.0	128.5	15.0	52.0	60.0		

215 FITTINGS

SAE STANDARD CONNECTIONS



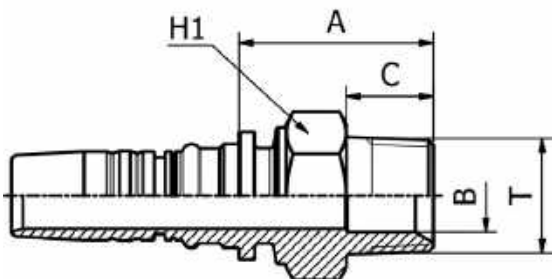
# IM42492

**90° ORFS  
FEMALE SWEEP ELBOW  
SAE J516 / ISO 12151-1 HEAVY TYPE  
(THRUST-WIRE-NUT) STAINLESS STEEL**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
IM42492-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	72.5	13.9	70.5	36.0		
IM42492-16-16	25	- 16	1"	1.7/16" - 12	19.5	82.5	15.0	84.5	46.0		
IM42492-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	98.5	15.1	98.0	55.0		
IM42492-24-24	38	- 24	1.1/2"	2" - 12	31.0	111.5	15.0	109.0	60.0		

FITTINGS 216

SAE STANDARD CONNECTIONS



# IM32810

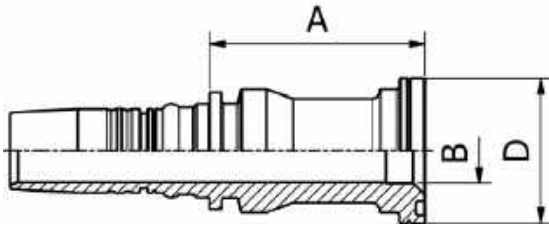
**NPTF  
MALE 60° CONE SEAT  
SAE J516/J514  
(STAINLESS STEEL)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
IM32810-10-08	16	- 10	5/8"	1/2" - 14	12.0	39.5	19.2	24.0			
IM32810-10-12	16	- 10	5/8"	3/4" - 14	16.0	40.5	19.2	27.0			
IM32810-12-12	19	- 12	3/4"	3/4" - 14	16.0	43.0	19.2	32.0			
IM32810-16-16	25	- 16	1"	1" - 11,5	19.5	50.5	24.2	38.0			
IM32810-20-20	31	- 20	1.1/4"	1.1/4" - 11,5	26.1	61.0	25.0	46.0			
IM32810-24-24	38	- 24	1.1/2"	1.1/2" - 11,5	32.1	62.5	26.0	50.0			
IM32810-32-32	51	- 32	2"	2" - 11	42.0	67.0	26.5	70.0			
IM32810-40-40	63	- 40	2.1/2"	2.1/2" - 8	51.5	94.5	43.0	80.0			
IM32810-48-48	76	- 48	3"	3" - 8	62.5	123.5	51.5	100.0			

SAE STANDARD CONNECTIONS

# IM43310

ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3  
(STAINLESS STEEL)

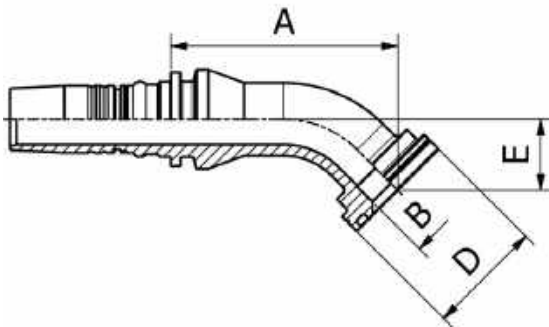


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	D					
IM43310-12-12	19	- 12	3/4"	3/4"	16.0	60.0	38.0					
IM43310-16-16	25	- 16	1"	1"	20.0	66.5	44.6					
IM43310-20-20	31	- 20	1.1/4"	1.1/4"	26.1	75.0	51.0					
IM43310-24-24	38	- 24	1.1/2"	1.1/2"	32.1	80.5	60.5					
IM43310-32-32	51	- 32	2"	2"	42.0	83.0	71.6					

SAE STANDARD CONNECTIONS

# IM43340

45° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3  
(STAINLESS STEEL)

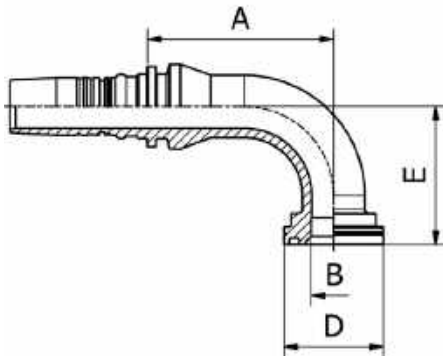


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	D	E				
IM43340-12-12	19	- 12	3/4"	3/4"	16.0	75.5	38.0	23.0				
IM43340-16-16	25	- 16	1"	1"	20.0	87.0	44.6	27.3				
IM43340-20-20	31	- 20	1.1/4"	1.1/4"	26.1	100.5	51.0	29.5				
IM43340-24-24	38	- 24	1.1/2"	1.1/2"	32.1	111.0	60.5	34.5				
IM43340-32-32	51	- 32	2"	2"	42.0	128.5	71.6	39.0				

SAE STANDARD CONNECTIONS

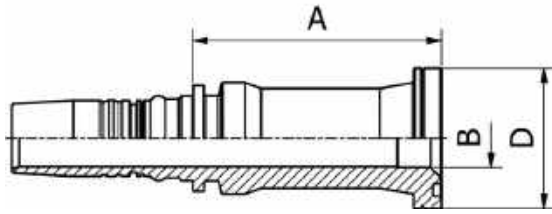
# IM43390

90° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3  
(STAINLESS STEEL)



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	D	E				
IM43390-12-12	19	- 12	3/4"	3/4"	16.0	72.0	38.0	52.0				
IM43390-16-16	25	- 16	1"	1"	20.0	83.5	44.6	62.0				
IM43390-20-20	31	- 20	1.1/4"	1.1/4"	26.1	99.0	51.0	70.0				
IM43390-24-24	38	- 24	1.1/2"	1.1/2"	32.1	111.5	60.5	84.0				
IM43390-32-32	51	- 32	2"	2"	42.0	133.5	71.6	99.0				

SAE STANDARD CONNECTIONS



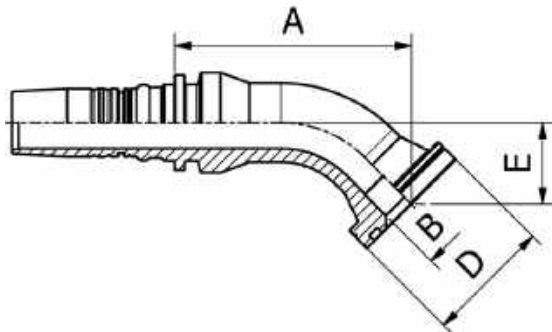
# IM43610

ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3  
(STAINLESS STEEL)

FITTINGS 218

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch		inch	B	A	D				
IM43610-10-12	16	- 10	5/8"	3/4"		16.0	65.0	41.5				
IM43610-10-16	16	- 10	5/8"	1"		20.0	81.5	47.7				
IM43610-12-12	19	- 12	3/4"	3/4"		16.0	71.5	41.4				
IM43610-12-16	19	- 12	3/4"	1"		20.0	83.5	47.7				
IM43610-16-12	25	- 16	1"	3/4"		16.0	80.3	41.4				
IM43610-16-16	25	- 16	1"	1"		20.0	84.5	47.7				
IM43610-16-20	25	- 16	1"	1.1/4"		26.0	89.0	54.2				
IM43610-20-16	31	- 20	1.1/4"	1"		20.0	87.0	47.7				
IM43610-20-20	31	- 20	1.1/4"	1.1/4"		26.1	91.0	54.2				
IM43610-20-24	31	- 20	1.1/4"	1.1/2"		32.1	97.0	63.7				
IM43610-24-20	38	- 24	1.1/2"	1.1/4"		26.0	101.0	54.2				
IM43610-24-24	38	- 24	1.1/2"	1.1/2"		32.1	97.5	63.7				
IM43610-24-32	38	- 24	1.1/2"	2"		42.0	113.0	79.6				
IM43610-32-24	51	- 32	2"	1.1/2"		32.1	117.0	63.7				
IM43610-32-32	51	- 32	2"	2"		42.0	113.0	79.6				
IM43610-40-40	63	- 40	2.1/2"	2.1/2"		51.5	126.5	107.9				
IM43610-48-48	76	- 48	3"	3"		62.5	167.0	131.9				

SAE STANDARD CONNECTIONS

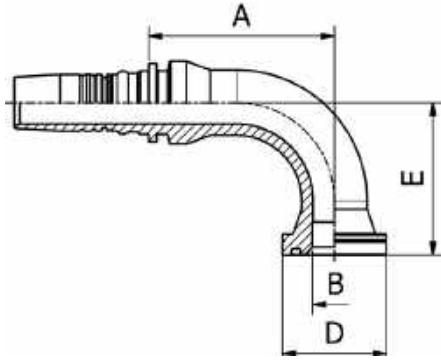


# IM43640

45° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3  
(STAINLESS STEEL)

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm								
	DN	Dash	inch		inch	B	A	D	E				
IM43640-12-12	19	- 12	3/4"	3/4"		16.0	81.0	41.4	28.0				
IM43640-16-16	25	- 16	1"	1"		20.0	91.5	47.7	32.5				
IM43640-20-20	31	- 20	1.1/4"	1.1/4"		26.0	108.0	54.2	37.5				
IM43640-24-24	38	- 24	1.1/2"	1.1/2"		32.0	124.5	63.7	44.0				
IM43640-32-32	51	- 32	2"	2"		42.0	154.0	79.6	60.5				

SAE STANDARD CONNECTIONS



# IM43690

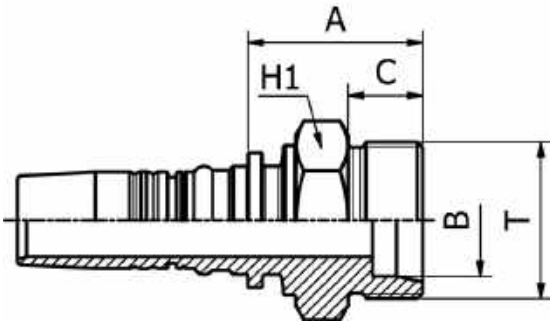
90° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3  
(STAINLESS STEEL)

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	E			
IM43690-10-12	16	- 10	5/8"	3/4"	16.0	57.5	41.4	60.5			
IM43690-12-12	19	- 12	3/4"	3/4"	16.0	72.4	41.4	59.0			
IM43690-16-16	25	- 16	1"	1"	20.0	81.0	47.7	68.0			
IM43690-20-20	31	- 20	1.1/4"	1.1/4"	26.0	98.5	54.2	81.0			
IM43690-24-24	38	- 24	1.1/2"	1.1/2"	32.0	112.5	63.7	94.5			
IM43690-32-32	51	- 32	2"	2"	42.0	140.5	79.6	132.0			

DIN STANDARD CONNECTIONS

# IM31210

METRIC  
MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2  
(STAINLESS STEEL)

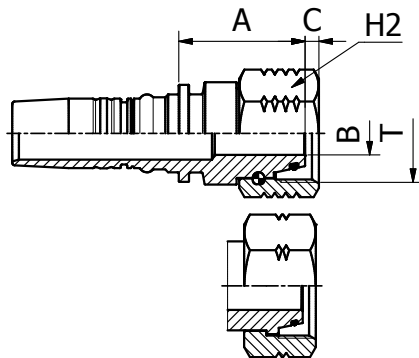


PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch	T	mm	B	A	C	H1		
IM31210-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	37.0	16.0	30.0		
IM31210-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	43.5	18.0	36.0		
IM31210-16-42	25	- 16	1"	M 42X2	30.0	19.5	46.8	20.0	46.0		
IM31210-20-52	31	- 20	1.1/4"	M 52X2	38.0	25.0	55.0	22.0	55.0		

DIN STANDARD CONNECTIONS

# IM41612/IM41613

METRIC  
O-RING FEMALE 24° CONE HEAVY DUTY  
DIN 20066 / ISO 12151-2  
(STAINLESS STEEL)

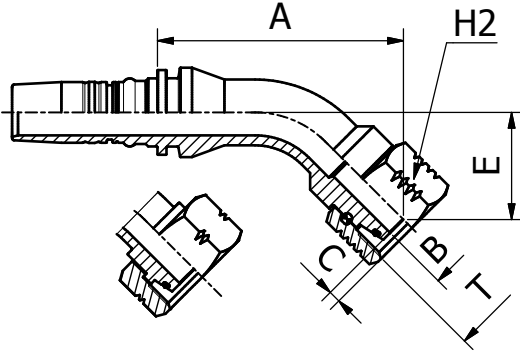


PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch	T	mm	B	A	C	H2		
IM41613-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	37.0	3.5	36.0		
IM41613-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	42.0	3.4	41.0		
IM41613-16-42	25	- 16	1"	M 42X2	30.0	19.5	46.5	5.3	50.0		
IM41613-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.1	41.5	8.0	60.0		

DIN STANDARD CONNECTIONS

# IM41642/IM41643

45° METRIC  
O-RING FEMALE SWEEP ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2 (STAINLESS STEEL)



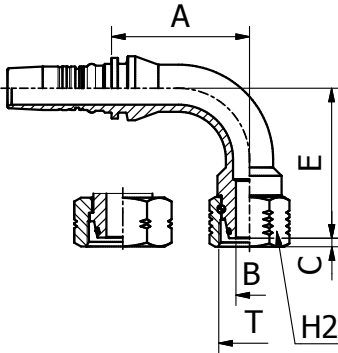
PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch	T	mm	B	A	C	E	H2		
IM41643-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	66.5	3.5	29.5	36.0		
IM41643-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	81.0	3.4	33.5	41.0		
IM41643-16-42	25	- 16	1"	M 42X2	30.0	19.5	93.0	5.3	36.0	50.0		
IM41643-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.1	110.0	8.0	40.0	60.0		

FITTINGS 220

DIN STANDARD CONNECTIONS

# IM41692/IM41693

90° METRIC  
O-RING FEMALE SWEEP ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2 (STAINLESS STEEL)

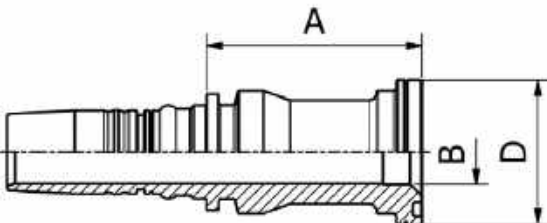


PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch	T	mm	B	A	C	E	H2		
IM41693-10-30	16	- 10	5/8"	M 30X2	20.0	12.0	52.5	3.5	57.5	36.0		
IM41693-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	67.0	3.4	67.5	41.0		
IM41693-16-42	25	- 16	1"	M 42X2	30.0	19.5	81.5	5.3	75.5	50.0		
IM41692-20-42	31	- 20	1.1/4"	M 42X2	30.0	19.1	103.5	6.1	90.0	50.0		
IM41693-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.0	100.0	8.0	86.5	60.0		

SAE STANDARD CONNECTIONS

# IM43310

ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3  
(STAINLESS STEEL)

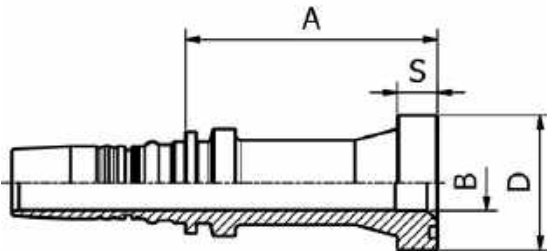


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm					
	DN	Dash	inch	inch	B	A	D			
IM43310-12-12	19	- 12	3/4"	3/4"	16.0	60.0	38.0			
IM43310-16-16	25	- 16	1"	1"	20.0	66.5	44.6			
IM43310-20-20	31	- 20	1.1/4"	1.1/4"	26.1	75.0	51.0			
IM43310-24-24	38	- 24	1.1/2"	1.1/2"	32.1	80.5	60.5			
IM43310-32-32	51	- 32	2"	2"	42.0	83.0	71.6			

ORIGINAL EQUIPMENT CONNECTIONS

# IM43910

## STRAIGHT SUPERCAT SERIES FLANGE (STAINLESS STEEL)

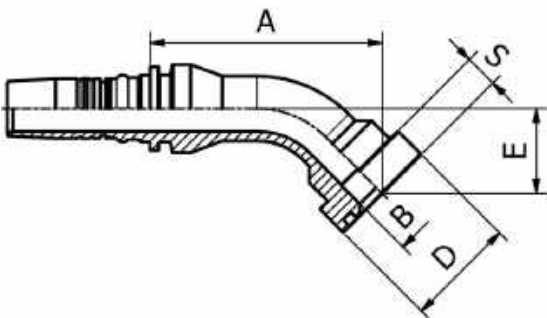


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	S		
IM43910-12-12	19	- 12	3/4"	3/4"		16.0	77.0	41.5	14.3		
IM43910-16-16	25	- 16	1"	1"		20.0	89.5	47.7	14.3		
IM43910-20-20	31	- 20	1.1/4"	1.1/4"		26.0	95.0	54.0	14.3		
IM43910-24-24	38	- 24	1.1/2"	1.1/2"		32.1	99.0	63.6	14.3		
IM43910-32-32	51	- 32	2"	2"		42.0	114.0	79.3	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# IM43940

## 45° SUPERCAT SERIES FLANGE (STAINLESS STEEL)

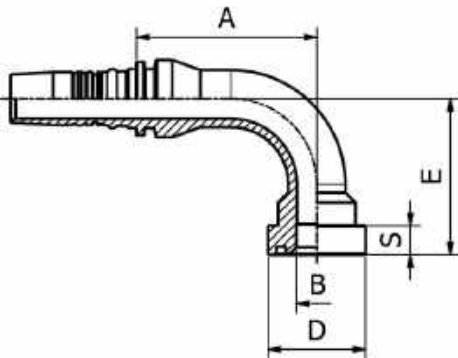


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
IM43940-12-12	19	- 12	3/4"	3/4"		16.0	85.0	41.5	32.0	14.3	
IM43940-16-16	25	- 16	1"	1"		20.0	100.5	47.7	36.5	14.3	
IM43940-20-20	31	- 20	1.1/4"	1.1/4"		26.1	110.5	54.0	40.5	14.3	
IM43940-24-24	38	- 24	1.1/2"	1.1/2"		32.0	125.5	63.7	45.5	14.3	
IM43940-32-32	51	- 32	2"	2"		42.0	158.5	79.3	61.5	14.3	

ORIGINAL EQUIPMENT CONNECTIONS

# IM43990

## 90° SUPERCAT SERIES FLANGE (STAINLESS STEEL)

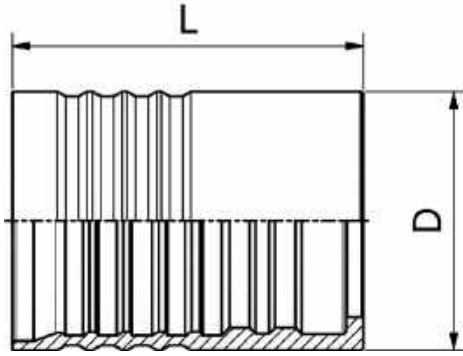


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
IM43990-12-12	19	- 12	3/4"	3/4"		16.0	72.5	41.5	64.5	14.3	
IM43990-16-16	25	- 16	1"	1"		20.0	88.5	47.7	76.5	14.3	
IM43990-20-20	31	- 20	1.1/4"	1.1/4"		26.1	98.5	54.0	85.0	14.3	
IM43990-24-24	38	- 24	1.1/2"	1.1/2"		32.0	112.5	63.7	96.0	14.3	
IM43990-32-32	51	- 32	2"	2"		42.0	144.0	79.3	133.5	14.3	

FERRULE

# M02700

**DOUBLE SKIVE FERRULE  
EXD.8WS**



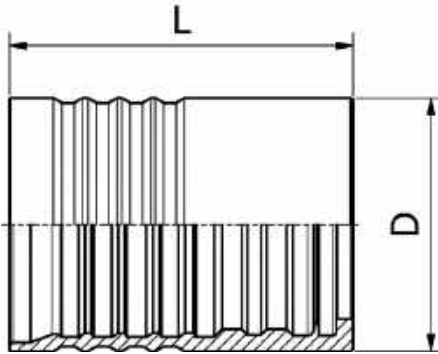
PART. REF.	HOSE BORE			DIMENSIONS mm						
	DN	Dash	inch		D	L				
M02700-24	38	- 24	1.1/2"		74.0	104.2				
M02700-32	51	- 32	2"		89.0	122.0				
M02700-48	76	- 48	3"		122.0	165.0				

FITTINGS 222

FERRULE

# M02800

**DOUBLE SKIVE FERRULE  
FOR HEAVY DUTY SPIRAL HOSES (8 PLY)**

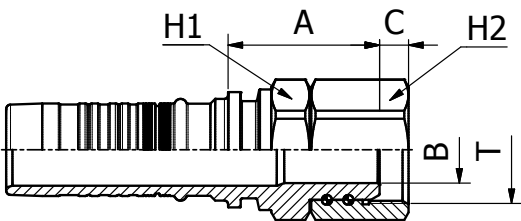


PART. REF.	HOSE BORE			DIMENSIONS mm						
	DN	Dash	inch		D	L				
M02800-48	76	- 48	3"		122.0	165.0				

BS STANDARD CONNECTIONS

# MB0514

**BSP FEMALE 60° CONE  
BS5200 / ISO 12151-6**



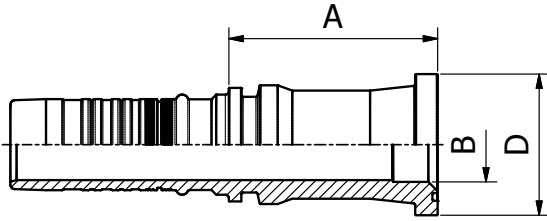
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch	T	B	A	C	H1	H2	
MB0514-24-24	38	-24	1.1/2"	1.1/2" - 11	27	86	12,5	55	60	
MB0514-32-32	51	-32	2"	2" - 11	37	84	16,1	70	70	



SAE STANDARD CONNECTIONS

# MB3610

ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

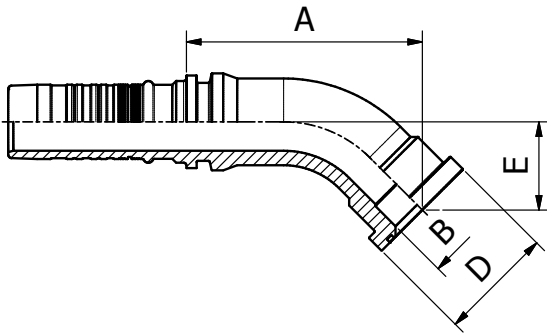


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm								
	DN	Dash	inch		inch	B	A	D					
MB3610-24-24	38	-24	1.1/2"	1.1/2"		32,1	102,5	63,7					
MB3610-32-32	51	-32	2"	2"		42	117,5	79,6					
MB3610-48-48	76	-48	3"	3"		62,5	169	131,9					

SAE STANDARD CONNECTIONS

# MB3640

ISO / SAE  
45° CODE 62 FLANGE  
SAE J516 / ISO 12151-3

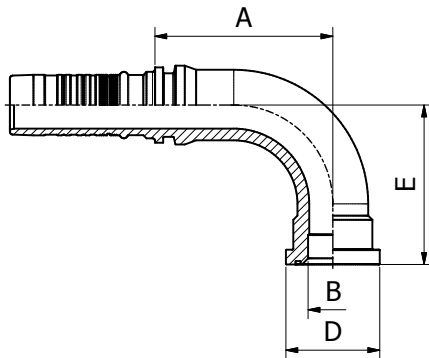


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm								
	DN	Dash	inch		inch	B	A	D	E				
MB3640-24-24	38	-24	1.1/2"	1.1/2"		32,1	126,5	63,7	46				
MB3640-32-32	51	-32	2"	2"		42	163	79,6	61				

SAE STANDARD CONNECTIONS

# MB3690

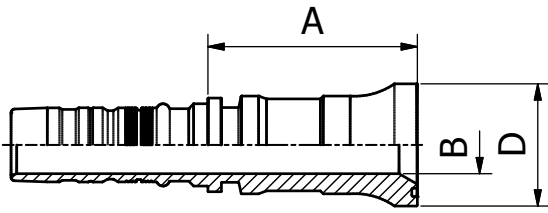
ISO / SAE  
90° CODE 62 FLANGE  
SAE J516 / ISO 12151-3



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm								
	DN	Dash	inch		inch	B	A	D	E				
MB3690-24-24	38	-24	1.1/2"	1.1/2"		32,1	119	63,7	104				
MB3690-32-32	51	-32	2"	2"		42	151	79,6	135,5				

XTRAFLANGE

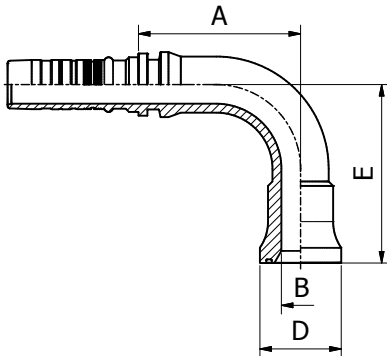
# MB8510



**XTRAFLANGE/62**  
**(SAE J518 CODE 62 ISO 6162-2**  
**PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm					
	DN	Dash	inch		inch	B	A	D		
MB8510-24-24	38	-24	1.1/2"	1.1/2"	30	109	63,7			
MB8510-32-32	51	-32	2"	2"	40	123	79,6			
MB8510-48-48	76	-48	3"	3"	62,5	152	128			

FITTINGS  
224



XTRAFLANGE

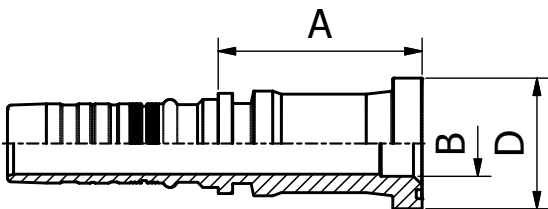
# MB8590

**90° XTRAFLANGE/62**  
**(SAE J518 CODE 62 ISO 6162-2**  
**PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm					
	DN	Dash	inch		inch	B	A	D	E	
MB8590-24-24	38	-24	1.1/2"	1.1/2"	30	127	63,7	140		
MB8590-32-32	51	-32	2"	2"	39	152	79,6	178		

ORIGINAL EQUIPMENT CONNECTIONS

# MB3910



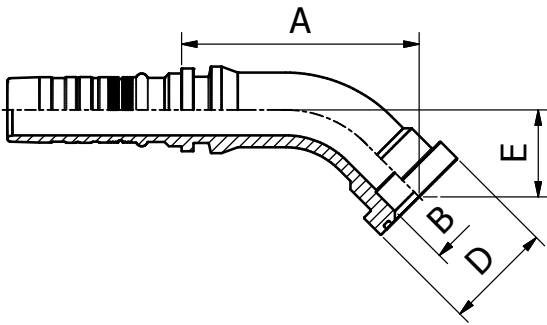
**STRAIGHT SUPERCAT FLANGE**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm					
	DN	Dash	inch		inch	B	A	D	S	
MB3910-24-24	38	-24	1.1/2"	1.1/2"	32,0	99,0	63,7	14,3		

ORIGINAL EQUIPMENT CONNECTIONS

# MB3940

45° SUPERCAT FLANGE

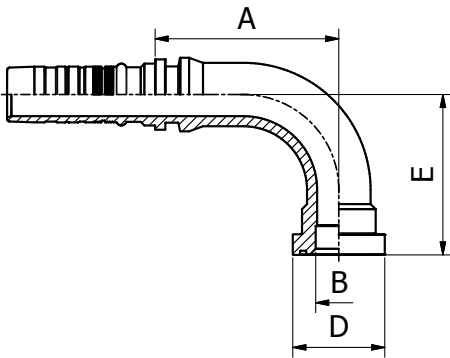


PART. REF.	HOSE BORE			Flange	inch	DIMENSIONS mm						
	DN	Dash	inch			B	A	D	E	S		
MB3940-24-24	38	-24	1.1/2"	1.1/2"		32.0	140.0	63.7	51.5	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# MB3990

90° SUPERCAT FLANGE

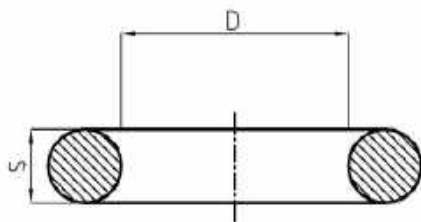


PART. REF.	HOSE BORE			Flange	inch	DIMENSIONS mm						
	DN	Dash	inch			B	A	D	E	S		
MB3990-24-24	38	-24	1.1/2"	1.1/2"		32.0	127.0	63.7	111.0	14.3		

O-RING

# JO29

INTERLOCK SUPER O-RING

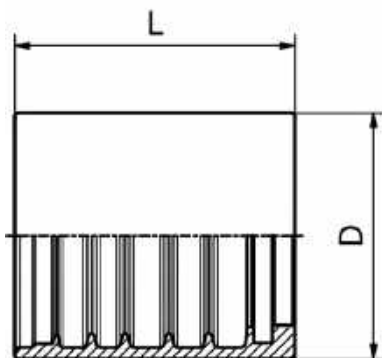


PART. REF.	HOSE BORE			inch	D	S	DIMENSIONS mm					
	DN	Dash	inch									
JO29757026	76	- 48	3"		69.5	2.6						
JO29878226	89	- 56	3.1/2"		82.2	2.6						
JO291029535	102	-64	4"		94.8	3.5						

FERRULE

# M05400

**NO-SKIVE FERRULE  
FOR HEAVY DUTY SPIRAL HOSES (4 PLY)**



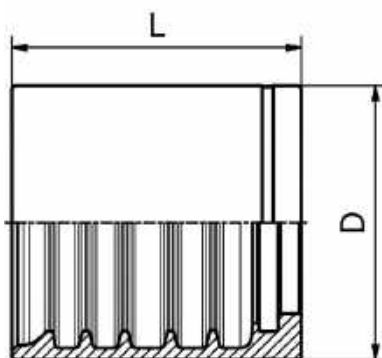
PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M05400-10	16	- 10	5/8"			40.0	44.3				
M05400-12	19	- 12	3/4"			43.8	53.3				
M05400-16	25	- 16	1"			52.0	64.3				
M05400-20	31	- 20	1.1/4"			59.3	72.0				
M05400-24	38	- 24	1.1/2"			68.5	78.0				
M05400-32	51	- 32	2"			84.6	97.1				
M05400-40	63	- 40	2.1/2"			97.0	116.0				
M05400-48	76	- 48	3"			109.8	124.0				
M05400-56	89	- 56	3.1/2"			127.7	123.5				
M05400-64	102	- 64	4"			145.0	126.5				

FITTINGS 226

FERRULE

# M05500

**NO-SKIVE FERRULE  
FOR HEAVY DUTY SPIRAL HOSES (4-6 PLY)**

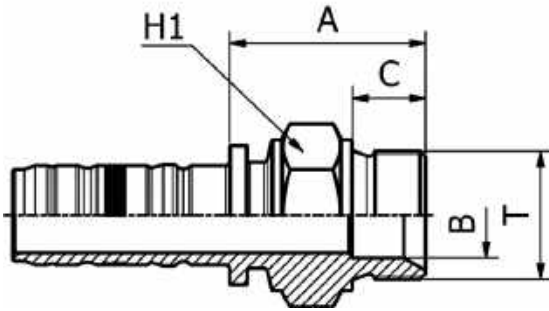


PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M05500-24	38	- 24	1.1/2"			75.0	79.0				
M05500-20	31	- 20	1.1/4"			66.0	70.0				
M05500-32	51	- 32	2"			90.0	98.1				

BS STANDARD CONNECTIONS

# M70510

**BSP  
MALE PARALLEL 60° CONE SEAT  
BS5200 / ISO 12151-6**

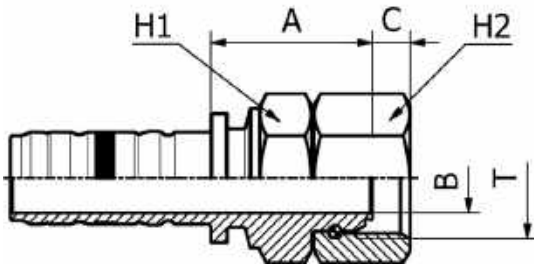


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M70510-12-12	19	- 12	3/4"	3/4" - 14	16.8	43.5	16.0	32.0			
M70510-12-16	19	- 12	3/4"	1" - 11	22.2	49.5	19.0	41.0			
M70510-16-16	25	- 16	1"	1" - 11	22.2	51.0	19.0	41.0			
M70510-16-20	25	- 16	1"	1.1/4" - 11	28.5	56.0	20.0	50.0			
M70510-20-20	31	- 20	1.1/4"	1.1/4" - 11	28.5	56.5	20.0	50.0			
M70510-24-24	38	- 24	1.1/2"	1.1/2" - 11	33.5	60.5	22.0	55.0			
M70510-32-32	51	- 32	2"	2" - 11	42.0	64.0	25.0	70.0			

BS STANDARD CONNECTIONS

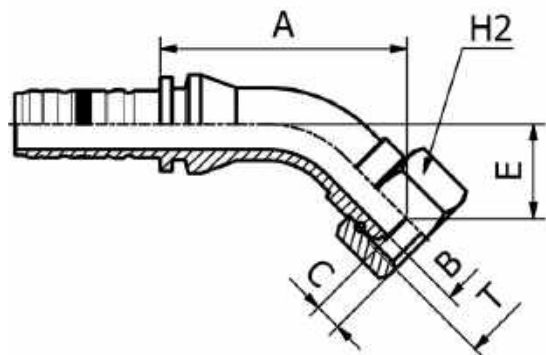
# M80812

**BSP  
O-RING FEMALE 60° CONE  
BS5200 / ISO 12151-6**



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
M80812-12-12	19	- 12	3/4"	3/4" - 14	14.5	39.5	8.5	32.0	32.0		
M80812-12-16	19	- 12	3/4"	1" - 11	19.5	44.0	10.6	41.0	41.0		
M80812-16-12	25	- 16	1"	3/4" - 14	15.0	44.5	8.5	41.0	32.0		
M80812-16-16	25	- 16	1"	1" - 11	19.5	45.5	10.6	41.0	41.0		
M80812-16-20	25	- 16	1"	1.1/4" - 11	26.1	50.5	10.5	50.0	50.0		
M80812-20-16	31	- 20	1.1/4"	1" - 11	19.0	48.0	10.6	50.0	41.0		
M80812-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.1	50.5	10.5	50.0	50.0		
M80812-20-24	31	- 20	1.1/4"	1.1/2" - 11	32.1	50.0	12.5	50.0	60.0		
M80812-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.1	52.0	12.5	60.0	60.0		
M80812-24-20	38	- 24	1.1/2"	1.1/4" - 11	26.1	52.0	10.5	55.0	50.0		
M80812-32-32	51	- 32	2"	2" - 11	42.0	53.5	16.1	70.0	70.0		

BS STANDARD CONNECTIONS



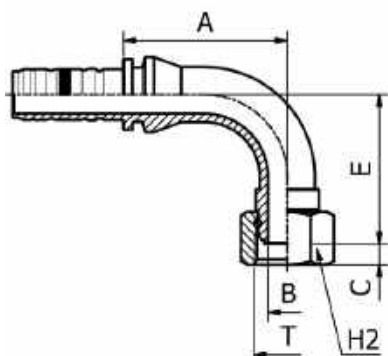
# M80842

45° BSP  
O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M80842-12-12	19	- 12	3/4"	3/4" - 14	14.5	82.5	8.5	29.0	32.0		
M80842-12-16	19	- 12	3/4"	1" - 11	19.5	84.0	10.6	30.0	41.0		
M80842-16-12	25	- 16	1"	3/4" - 14	15.0	106.5	8.5	36.0	32.0		
M80842-16-16	25	- 16	1"	1" - 11	19.5	95.0	10.6	36.5	41.0		
M80842-16-16028	25	- 16	1"	1" - 11	19.5	84.0	10.6	28.0	41.0		
M80842-16-20	25	- 16	1"	1.1/4" - 11	26.1	109.5	10.5	38.0	50.0		
M80842-20-16	31	- 20	1.1/4"	1" - 11	19.5	102.0	10.6	36.5	41.0		
M80842-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.0	99.0	10.5	39.0	50.0		
M80842-20-24	31	- 20	1.1/4"	1.1/2" - 11	32.0	114.0	12.5	54.0	60.0		
M80842-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.0	122.5	12.5	45.0	60.0		
M80842-32-32	51	- 32	2"	2" - 11	42.0	155.0	16.1	66.0	70.0		

FITTINGS 228

BS STANDARD CONNECTIONS



# M80892

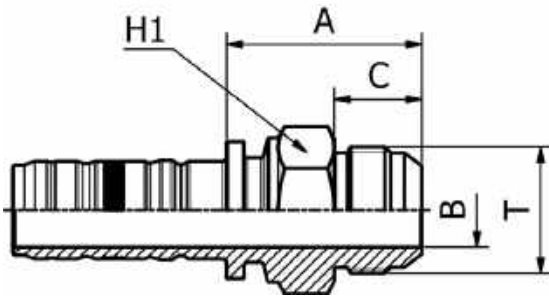
90° BSP  
O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M80892-12-12	19	- 12	3/4"	3/4" - 14	14.5	73.5	8.5	60.0	32.0		
M80892-12-12050	19	- 12	3/4"	3/4" - 14	14.5	67.5	8.5	50.0	32.0		
M80892-12-16	19	- 12	3/4"	1" - 11	19.5	73.5	10.6	62.0	41.0		
M80892-16-12	25	- 16	1"	3/4" - 14	15.0	90.0	8.5	70.0	32.0		
M80892-16-16	25	- 16	1"	1" - 11	19.5	83.0	10.6	76.0	41.0		
M80892-16-16058	25	- 16	1"	1" - 11	19.5	74.5	10.6	58.5	41.0		
M80892-16-20	25	- 16	1"	1.1/4" - 11	26.1	96.0	10.5	78.5	50.0		
M80892-20-16	31	- 20	1.1/4"	1" - 11	19.5	90.0	10.6	76.0	41.0		
M80892-20-20	31	- 20	1.1/4"	1.1/4" - 11	26.0	88.0	10.5	83.5	50.0		
M80892-20-24	31	- 20	1.1/4"	1.1/2" - 11	32.0	88.0	12.5	92.0	60.0		
M80892-24-24	38	- 24	1.1/2"	1.1/2" - 11	32.0	103.0	12.5	98.5	60.0		
M80892-32-32	51	- 32	2"	2" - 11	42.0	135.9	16.1	140.5	70.0		

SAE STANDARD CONNECTIONS

# M72510

JIC  
**MALE 37° CONE**  
 SAE J516 / ISO 12151-5

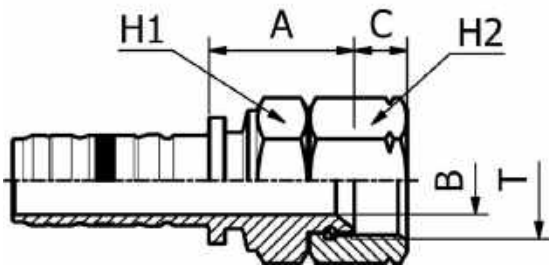


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M72510-12-12	19	- 12	3/4"	1.1/16" - 12	14.5	44.5	22.0	30.0			
M72510-16-16	25	- 16	1"	1.5/16" - 12	19.5	51.5	23.0	38.0			
M72510-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	60.0	27.5	50.0			
M72510-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.1	56.0	24.3	46.0			
M72510-32-32	51	- 32	2"	2.1/2" - 12	42.0	75.5	34.0	65.0			

SAE STANDARD CONNECTIONS

# M82712

JIC  
**FEMALE 37° CONE SEAT DOUBLE HEXAGON**  
 SAE J516 / ISO 12151-5  
 (THRUST-WIRE NUT)

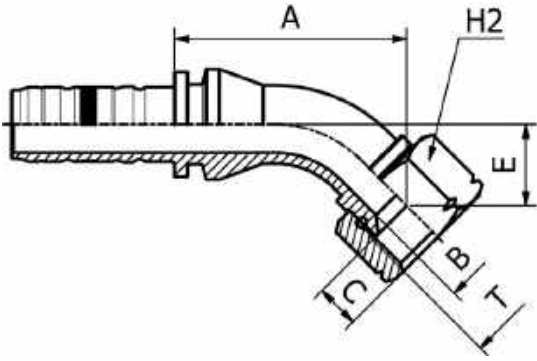


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
M82712-12-12	19	- 12	3/4"	1.1/16" - 12	14.5	36.5	14.2	32.0	32.0		
M82712-12-16	19	- 12	3/4"	1.5/16" - 12	19.5	36.5	15.2	32.0	41.0		
M82712-16-16	25	- 16	1"	1.5/16" - 12	19.5	41.5	15.2	41.0	41.0		
M82712-16-20	25	- 16	1"	1.5/8" - 12	26.1	46.5	16.2	41.0	50.0		
M82712-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.1	51.5	16.2	50.0	50.0		
M82712-20-24	31	- 20	1.1/4"	1.7/8" - 12	32.0	54.5	18.8	55.0	60.0		
M82712-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	54.5	18.8	55.0	60.0		
M82712-32-32	51	- 32	2"	2.1/2" - 12	42.0	56.0	24.0	65.0	75.0		

SAE STANDARD CONNECTIONS

# M82542

45° JIC  
FEMALE SWEPT ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5

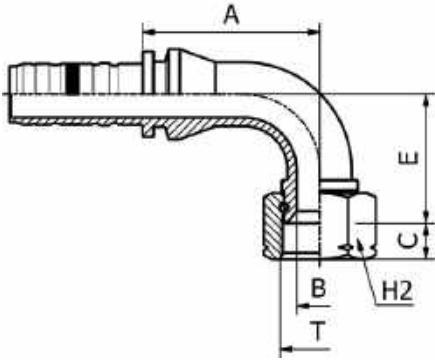


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M82542-12-12	19	- 12	3/4"	1.1/16" - 12	14.5	75.0	14.2	22.5	32.0		
M82542-16-16	25	- 16	1"	1.5/16" - 12	19.5	81.5	15.2	26.0	41.0		
M82542-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	101.0	16.2	41.5	50.0		
M82542-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	121.5	18.8	48.5	60.0		
M82542-32-32	51	- 32	2"	2.1/2" - 12	42.0	162.0	24.0	63.5	75.0		

SAE STANDARD CONNECTIONS

# M82592

90° JIC  
FEMALE SWEPT ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5



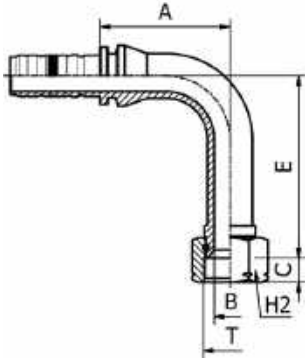
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M82592-12-16	19	- 12	3/4"	1.5/16" - 12	19.8	73.5	15.2	57.5	41.0		
M82592-12-12	19	- 12	3/4"	1.1/16" - 12	14.5	67.5	14.2	47.5	32.0		
M82592-16-12	25	- 16	1"	1.1/16" - 12	14.5	76.5	14.2	47.5	32.0		
M82592-16-16	25	- 16	1"	1.5/16" - 12	19.5	74.5	15.2	55.5	41.0		
M82592-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	88.0	16.2	86.5	50.0		
M82592-20-24	31	- 20	1.1/4"	1.7/8" - 12	32.0	88.0	18.8	90.5	60.0		
M82592-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	105.0	18.8	101.0	60.0		
M82592-32-32	51	- 32	2"	2.1/2" - 12	42.0	145.0	24.0	139.0	75.0		



SAE STANDARD CONNECTIONS

# M84792

90° JIC  
FEMALE LONG DROP ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5

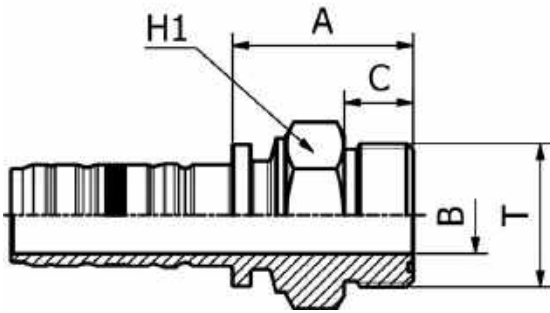


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
M84792-12-12	19	- 12	3/4"	1.1/16" - 12	14.5	73.5	14.2	94.5	32.0		
M84792-16-16	25	- 16	1"	1.5/16" - 12	19.5	81.0	15.2	114.0	41.0		
M84792-20-20	31	- 20	1.1/4"	1.5/8" - 12	26.0	88.0	16.2	129.0	50.0		
M84792-24-24	38	- 24	1.1/2"	1.7/8" - 12	32.1	105.0	18.8	141.0	60.0		
M84792-32-32	38	- 24	1.1/2"	2.1/2" - 12	42.0	145.0	24.0	222.0	75.0		

SAE STANDARD CONNECTIONS

# M72410

ORFS  
MALE  
SAE J516 / ISO 12151-1

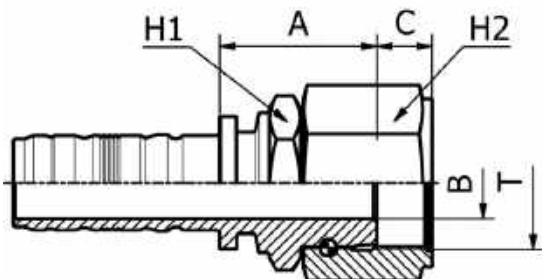


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch	T	B	A	C	H1		
M72410-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	41.0	17.0	32.0		
M72410-16-16	25	- 16	1"	1.7/16" - 12	19.5	46.0	17.5	41.0		
M72410-20-20	31	- 20	1.1/4"	1.11/16" - 12	26.0	50.5	17.5	46.0		
M72410-24-24	38	- 24	1.1/2"	2" - 12	32.0	53.0	17.5	55.0		

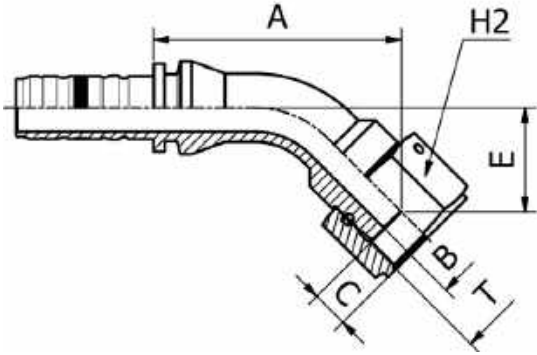
SAE STANDARD CONNECTIONS

# M82412

ORFS  
FEMALE  
SAE J516/ISO 12151.1



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1	H2		
M82412-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	38.0	14.1	32.0	36.0		
M82412-12-16	19	- 12	3/4"	1.7/16" - 12	19.5	42.0	15.0	41.0	46.0		
M82412-16-16	25	- 16	1"	1.7/16" - 12	19.5	43.0	15.0	41.0	46.0		
M82412-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	52.5	15.1	50.0	55.0		
M82412-24-24	38	- 24	1.1/2"	2" - 12	30.5	55.0	15.0	60.0	60.0		

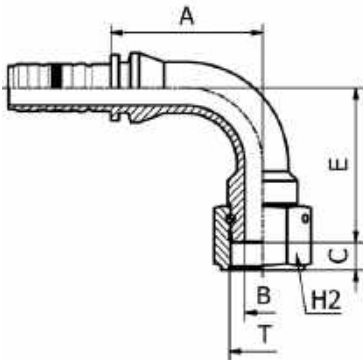


SAE STANDARD CONNECTIONS

## M82442

45° ORFS  
FEMALE SWEPT ELBOW SAE  
J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M82442-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	90.0	14.1	36.0	36.0		
M82442-12-16	19	- 12	3/4"	1.7/16" - 12	19.5	90.5	15.0	36.5	46.0		
M82442-16-16	25	- 16	1"	1.7/16" - 12	19.5	101.0	15.0	42.5	46.0		
M82442-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	120.0	15.1	49.5	55.0		
M82442-24-24	38	- 24	1.1/2"	2" - 12	32.0	123.5	15.0	50.5	60.0		

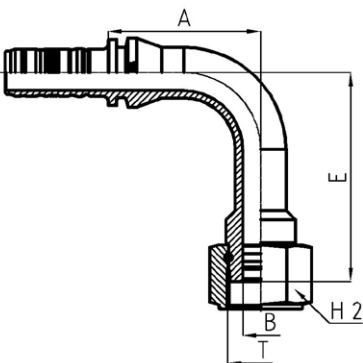


SAE STANDARD CONNECTIONS

## M82492

90° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M82492-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	73.5	14.1	70.5	36.0		
M82492-12-16	19	- 12	3/4"	1.7/16" - 12	19.5	86.0	15.0	71.0	46.0		
M82492-16-12	25	- 16	1"	1.3/16" - 12	14.5	89.5	14.1	70.5	36.0		
M82492-16-16	25	- 16	1"	1.7/16" - 12	19.5	83.0	15.0	84.5	46.0		
M82492-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	99.0	15.1	98.0	55.0		
M82492-24-24	38	- 24	1.1/2"	2" - 12	32.0	105.0	15.0	104.0	60.0		



SAE STANDARD CONNECTIONS

## M84492

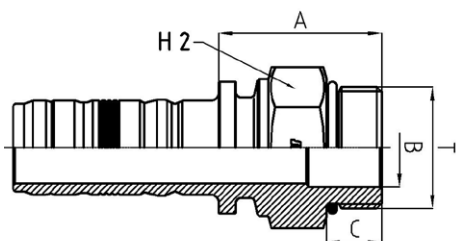
90° ORFS  
FEMALE LONG DROP ELBOW  
SAE J516 / ISO 12151-1  
(THURST- WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	H2	
M84492-12-12	19	- 12	3/4"	1.3/16" - 12	14.5	73.5	14.1	96.0	36.0		
M84492-16-16	25	- 16	1"	1.7/16" - 12	19.5	83.0	15.0	114.0	46.0		
M84492-20-20	31	- 20	1.1/4"	1.11/16" - 12	25.0	99.0	15.1	129.0	55.0		

SAE STANDARD CONNECTIONS

# M73010

SAE  
MALE O-RING BOSS TYPE  
SAE J516 / ISO 11926

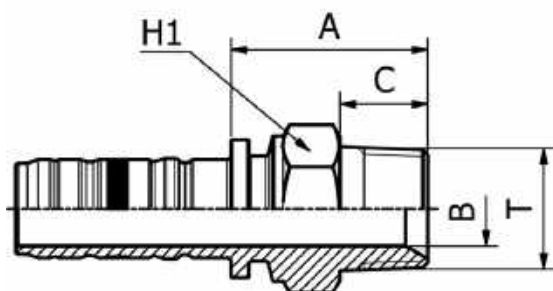


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M73010-12-12	19	- 12	3/4"	1.1/16" - 12	15.5	42.5	15.1	32.0			
M73010-16-16	25	- 16	1"	1.5/16" - 12	21.5	44.5	15.1	38.0			
M73010-20-20	31	- 20	1.1/4"	1.5/8" - 12	27.5	47.5	15.1	46.0			

SAE STANDARD CONNECTIONS

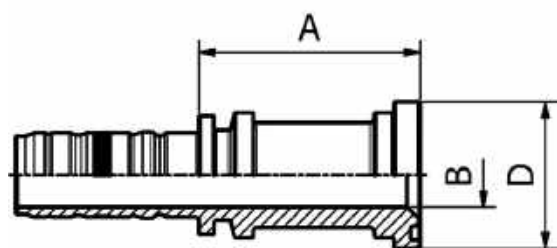
# M72810

NPTF  
MALE 60° CONE SEAT  
SAE J516/J514



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	H1			
M72810-12-12	19	- 12	3/4"	3/4" - 14	16.0	41.5	19.2	30.0			
M72810-16-16	25	- 16	1"	1" - 11,5	19.5	52.0	24.2	38.0			
M72810-20-20	31	- 20	1.1/4"	1.1/4" - 11,5	25.0	61.5	25.0	46.0			
M72810-24-24	38	- 24	1.1/2"	1.1/2" - 11,5	30.5	60.5	26.0	50.0			
M72810-32-32	51	- 32	2"	2" - 11,5	41.0	67.5	26.5	65.0			
M72810-48-48	76	- 48	3"	3" - 8	62.5	121.5	51.5	100.0			

SAE STANDARD CONNECTIONS

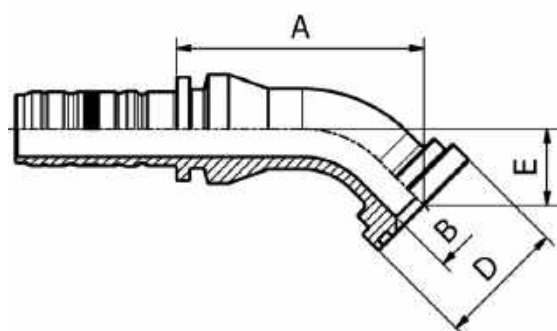


# M83311

ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange	Flange	DIMENSIONS mm					
	DN	Dash	inch			inch	B	A	D		
M83311-12-12	19	- 12	3/4"	3/4"		14.5	66.5	38.0			
M83311-12-16	19	- 12	3/4"	1"		19.5	52.5	44.6			
M83311-16-12	25	- 16	1"	3/4"		14.5	67.5	38.0			
M83311-16-16	25	- 16	1"	1"		19.5	67.5	44.6			
M83311-16-20	25	- 16	1"	1.1/4"		26.0	53.5	51.0			
M83311-20-16	31	- 20	1.1/4"	1"		19.5	69.0	44.6			
M83311-20-20	31	- 20	1.1/4"	1.1/4"		26.0	75.0	51.0			
M83311-20-24	31	- 20	1.1/4"	1.1/2"		32.0	60.0	60.5			
M83311-24-24	38	- 24	1.1/2"	1.1/2"		32.0	78.5	60.5			
M83311-24-32	38	- 24	1.1/2"	2"		42.0	60.5	71.6			
M83311-32-32	51	- 32	2"	2"		42.0	82.5	71.6			
M83311-40-40	63	- 40	2.1/2"	2.1/2"		51.5	93.0	84.3			
M83311-48-48	76	- 48	3"	3"		62.5	88.5	101.6			
M83311-56-56	89	- 56	3.1/2"	3.1/2"		76.0	98.5	114.3			
M83311-64-64	102	- 64	4"	4"		89.0	105.0	127.0			

FITTINGS 234



SAE STANDARD CONNECTIONS

# M83341

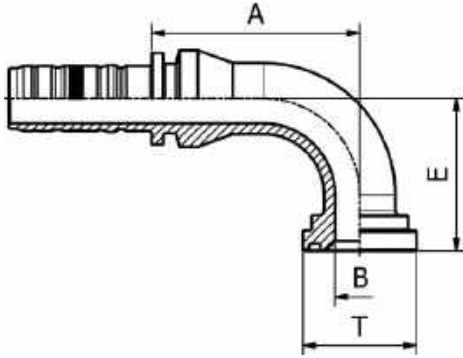
45° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange	Flange	DIMENSIONS mm						
	DN	Dash	inch			inch	B	A	D	E		
M83341-12-12	19	- 12	3/4"	3/4"		16.0	78.0	38.0	24.5			
M83341-12-16	19	- 12	3/4"	1"		19.5	78.0	44.6	24.5			
M83341-16-12	25	- 16	1"	3/4"		16.0	90.5	38.0	24.5			
M83341-16-16	25	- 16	1"	1"		19.5	86.5	44.6	26.5			
M83341-16-20	25	- 16	1"	1.1/4"		26.0	92.0	51.0	32.0			
M83341-20-16	31	- 20	1.1/4"	1"		19.5	90.5	44.6	26.5			
M83341-20-20	31	- 20	1.1/4"	1.1/4"		26.0	87.5	51.0	29.0			
M83341-20-24	31	- 20	1.1/4"	1.1/2"		32.0	88.5	60.5	30.0			
M83341-24-24	38	- 24	1.1/2"	1.1/2"		32.0	102.5	60.5	38.0			
M83341-24-32	38	- 24	1.1/2"	2"		42.0	102.5	71.6	38.0			
M83341-32-32	51	- 32	2"	2"		42.0	143.5	71.6	52.0			
M83341-40-40	63	- 40	2.1/2"	2.1/2"		49.2	131.0	84.3	44.5			
M83341-48-48	76	- 48	3"	3"		59.0	147.0	101.6	53.0			

SAE STANDARD CONNECTIONS

# M83391

90° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3



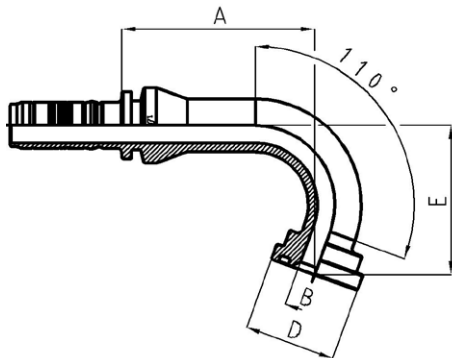
PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M83391-12-12	19	- 12	3/4"	3/4"		16.0	72.5	38.0	58.0			
M83391-12-16	19	- 12	3/4"	1"		19.5	72.5	44.6	70.0			
M83391-12-16054	19	- 12	3/4"	1"		19.5	72.5	44.6	54.0			
M83391-16-12	25	- 16	1"	3/4"		16.0	85.0	38.0	58.0			
M83391-16-16	25	- 16	1"	1"		19.5	82.0	44.6	60.0			
M83391-16-20	25	- 16	1"	1.1/4"		26.0	82.0	51.0	68.0			
M83391-20-24	31	- 20	1.1/4"	1.1/2"		32.0	85.0	60.5	69.0			
M83391-20-16	31	- 20	1.1/4"	1"		19.5	86.0	44.6	60.0			
M83391-20-20	31	- 20	1.1/4"	1.1/4"		26.0	85.0	51.0	67.0			
M83391-24-24	38	- 24	1.1/2"	1.1/2"		32.0	96.5	60.5	81.0			
M83391-24-32	38	- 24	1.1/2"	2"		42.0	101.5	71.6	84.0			
M83391-32-32	51	- 32	2"	2"		42.0	135.5	71.6	120.0			
M83391-40-40	63	- 40	2.1/2"	2.1/2"		49.2	128.0	84.3	118.0			
M83391-48-48	76	- 48	3"	3"		59.0	144.5	101.6	140.0			
M83391-56-56	89	- 56	3.1/2"	3.1/2"		73.7	164.0	114.3	160.0			

235 FITTINGS

SAE STANDARD CONNECTIONS

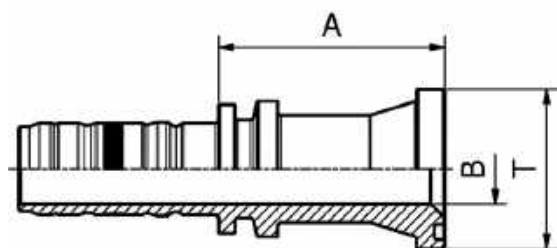
# M83301...P

110° ISO / SAE  
CODE 61 FLANGE



PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M83301-12-12P	19	- 12	3/4"	3/4"		16.0	80.0	38.0	62.0			
M83301-16-16P	25	- 16	1"	1"		19.5	91.5	44.6	79.0			
M83301-20-20P	31	- 20	1.1/4"	1.1/4"		26.0	121.5	51.0	91.0			
M83301-24-24P	38	- 24	1.1/2"	1.1/2"		32.0	124.8	60.5	109.0			
M83301-32-32P	51	- 32	2"	2"		42.0	146.5	71.6	140.0			

SAE STANDARD CONNECTIONS



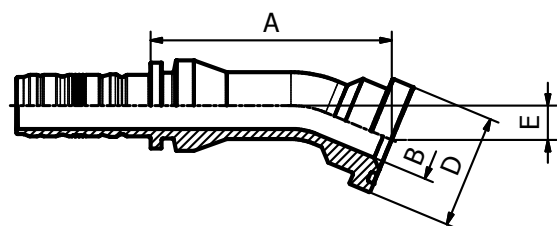
# M83611

ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm							
	DN	Dash	inch			inch	B	A	D				
M83611-12-12	19	- 12	3/4"	3/4"		14.5	53.5	41.4					
M83611-12-16	19	- 12	3/4"	1"		19.5	59.5	47.7					
M83611-16-12	25	- 16	1"	3/4"		16.0	62.5	41.4					
M83611-16-16	25	- 16	1"	1"		19.5	63.5	47.7					
M83611-16-20	25	- 16	1"	1.1/4"		26.0	70.0	54.2					
M83611-20-16	31	- 20	1.1/4"	1"		19.5	62.0	47.7					
M83611-20-20	31	- 20	1.1/4"	1.1/4"		26.0	66.0	54.2					
M83611-20-24	31	- 20	1.1/4"	1.1/2"		32.0	74.5	63.7					
M83611-24-24	38	- 24	1.1/2"	1.1/2"		32.0	74.5	63.7					
M83611-24-32	38	- 24	1.1/2"	2"		42.0	88.5	79.6					
M83611-24-20	38	- 24	1.1/2"	1.1/4"		26.0	66.5	54.2					
M83611-32-24	51	- 32	2"	1.1/2"		32.0	91.5	63.7					

FITTINGS 236

SAE STANDARD CONNECTIONS



# M83621

22.5° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

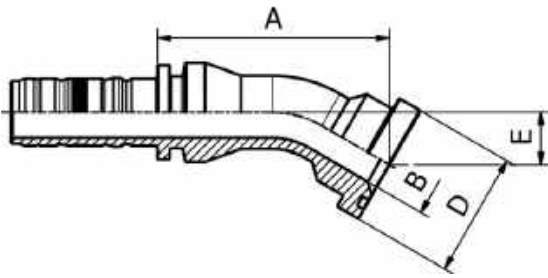
PART. REF.	HOSE BORE			Flange		DIMENSIONS mm							
	DN	Dash	inch			inch	B	A	D	E			
M83621-12-12	19	-12	3/4"	3/4"		16.0	89.5	41.4	12.0				
M83621-16-16	25	-16	1"	1"		19.5	101.0	47.7	14.5				
M83621-20-20	31	-20	1.1/4"	1.1/4"		26.0	107.0	54.2	17.0				
M83621-24-24	38	-24	1.1/2"	1.1/2"		32.0	122.0	63.7	19.5				
M83621-32-32	51	-32	2"	2"		42.0	164.0	79.5	25.0				

SAE STANDARD CONNECTIONS

# M83631

30° ISO / SAE  
CODE 62 FLANGE

SAE J516 / ISO 12151-3



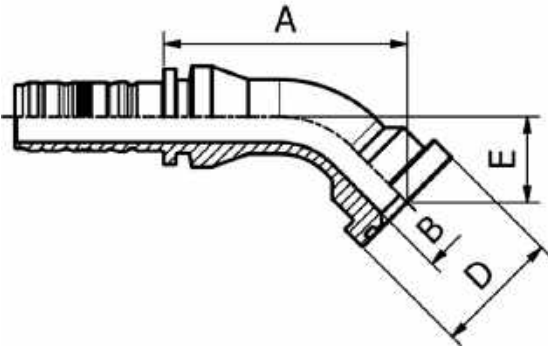
PART. REF.	HOSE BORE			Flange	inch	DIMENSIONS mm			
	DN	Dash	inch			B	A	D	E
M83631-12-12	19	- 12	3/4"	3/4"		16.0	78.5	41.4	17.5
M83631-16-16	25	- 16	1"	1"		19.5	89.0	47.7	20.0
M83631-20-20	31	- 20	1.1/4"	1.1/4"		26.0	90.5	54.2	22.5
M83631-24-24	38	- 24	1.1/2"	1.1/2"		32.0	104.5	63.7	27.0

SAE STANDARD CONNECTIONS

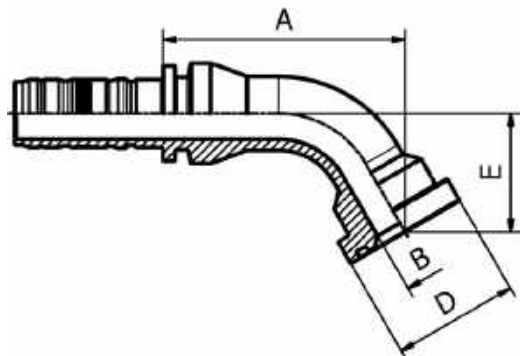
# M83641

45° ISO / SAE  
CODE 62 FLANGE

SAE J516 / ISO 12151-3



PART. REF.	HOSE BORE			Flange	inch	DIMENSIONS mm			
	DN	Dash	inch			B	A	D	E
M83641-12-12	19	- 12	3/4"	3/4"		16.0	81.5	41.4	28.0
M83641-12-16	19	- 12	3/4"	1"		19.5	85.5	47.7	32.5
M83641-16-12	25	- 16	1"	3/4"		16.0	87.5	41.4	28.0
M83641-16-16	25	- 16	1"	1"		19.5	92.0	47.7	32.5
M83641-16-20	25	- 16	1"	1.1/4"		26.0	97.0	54.2	37.0
M83641-20-16	31	- 20	1.1/4"	1"		19.5	95.5	47.7	31.5
M83641-20-20	31	- 20	1.1/4"	1.1/4"		26.0	96.5	54.2	38.0
M83641-20-24	31	- 20	1.1/4"	1.1/2"		32.0	104.5	63.7	44.5
M83641-24-20	38	- 24	1.1/2"	1.1/4"		26.0	110.5	54.2	38.0
M83641-24-24	38	- 24	1.1/2"	1.1/2"		32.0	109.5	63.7	44.0
M83641-24-32	38	- 24	1.1/2"	2"		42.0	121.5	79.6	56.0
M83641-32-32	51	- 32	2"	2"		42.0	148.0	79.6	59.0



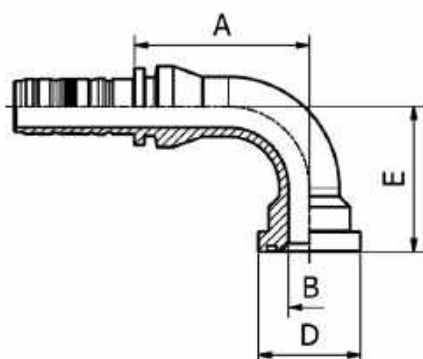
SAE STANDARD CONNECTIONS

# M83661

60° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M83661-12-12	19	- 12	3/4"	3/4"		16.0	81.0	41.4	39.0			
M83661-12-16	19	- 12	3/4"	1"		19.5	84.0	47.7	44.0			
M83661-16-16	25	- 16	1"	1"		19.5	92.0	47.7	45.0			
M83661-20-20	31	- 20	1.1/4"	1.1/4"		26.0	97.5	54.2	55.0			
M83661-20-24	31	- 20	1.1/4"	1.1/2"		32.0	101.5	63.7	62.0			
M83661-24-24	38	- 24	1.1/2"	1.1/2"		32.0	110.5	63.7	61.5			
M83661-32-32	51	- 32	2"	2"		42.0	151.0	79.6	85.0			

FITTINGS 238



SAE STANDARD CONNECTIONS

# M83691

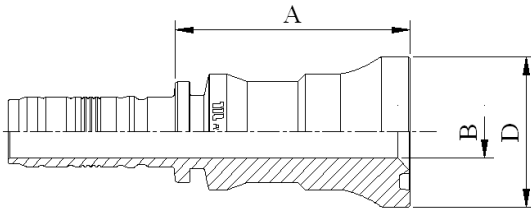
90° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E			
M83691-12-12	19	- 12	3/4"	3/4"		16.0	72.5	41.4	59.0			
M83691-12-16	19	- 12	3/4"	1"		19.5	72.6	47.7	65.0			
M83691-16-12	25	- 16	1"	3/4"		16.0	82.0	41.4	62.0			
M83691-16-16	25	- 16	1"	1"		19.5	82.0	47.7	68.0			
M83691-16-20	25	- 16	1"	1.1/4"		26.0	82.0	54.2	90.0			
M83691-16-20075	25	- 16	1"	1.1/4"		26.0	82.0	54.2	75.0			
M83691-20-16	31	- 20	1.1/4"	1"		19.5	86.0	47.7	68.0			
M83691-20-20	31	- 20	1.1/4"	1.1/4"		26.0	85.0	54.2	90.0			
M83691-20-24	31	- 20	1.1/4"	1.1/2"		32.0	85.0	63.7	104.0			
M83691-24-20	38	- 24	1.1/2"	1.1/4"		26.0	99.0	54.2	90.0			
M83691-24-24	38	- 24	1.1/2"	1.1/2"		32.0	98.0	63.7	104.0			
M83691-24-32	38	- 24	1.1/2"	2"		42.0	98.0	79.6	138.0			
M83691-32-32	51	- 32	2"	2"		42.0	136.0	79.6	138.0			



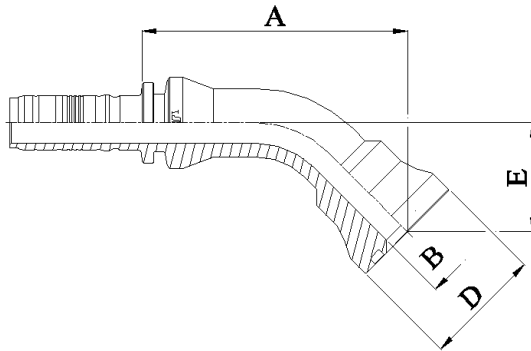
XTRAFRANGE

# M88511



**XTRAFRANGE/62**  
**(SAE J518 -2/ ISO 6162-2**  
**PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch		inch	B	A	D				
M88511-12-12	19	- 12	3/4"	3/4"		14.5	65.5	41.4				
M88511-16-16	25	- 16	1"	1"		19.5	69.0	47.7				
M88511-20-20	31	- 20	1.1/4"	1.1/4"		25.0	88.0	54.4				
M88511-24-24	38	- 24	1.1/2"	1.1/2"		30.5	102.0	63.7				
M88511-32-32	51	- 32	2"	2"		41.0	129.5	79.6				

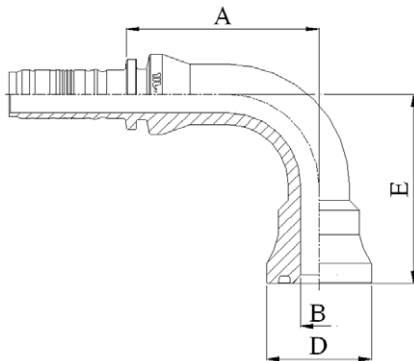


XTRAFRANGE

# M88541

**45° XTRAFRANGE/62**  
**(SAE J518 -2/ ISO 6162-2**  
**PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch		inch	B	A	D	E			
M88541-12-12	19	- 12	3/4"	3/4"		14.5	93.5	41.4	38.0			
M88541-16-16	25	- 16	1"	1"		19.5	103.5	47.7	45.0			
M88541-20-20	31	- 20	1.1/4"	1.1/4"		25.0	138.0	54.4	62.5			
M88541-24-24	38	- 24	1.1/2"	1.1/2"		30.5	155.0	63.7	71.5			
M88541-32-32	51	- 32	2"	2"		39.0	194.5	79.6	92.5			



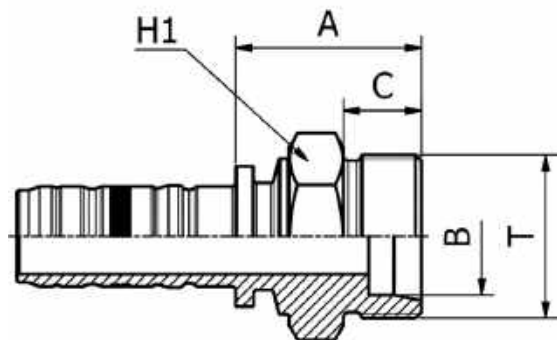
XTRAFRANGE

# M88591

**90° XTRAFRANGE/62**  
**(SAE J518 -2/ ISO 6162-2**  
**PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch		inch	B	A	D	E			
M88591-12-12	19	- 12	3/4"	3/4"		14.5	76.5	41.4	75.0			
M88591-16-16	25	- 16	1"	1"		19.5	84.5	47.7	90.0			
M88591-20-20	31	- 20	1.1/4"	1.1/4"		25.0	107.0	54.4	120.0			
M88591-24-24	38	- 24	1.1/2"	1.1/2"		30.5	122.0	63.7	140.0			
M88591-32-32	51	- 32	2"	2"		39.0	148.5	79.6	178.0			

DIN STANDARD CONNECTIONS



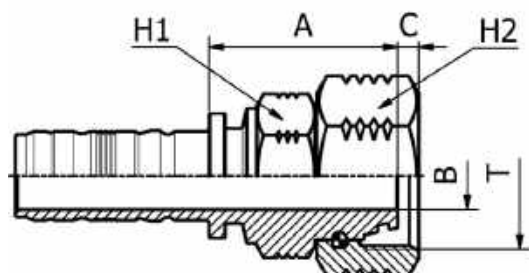
# M71210

**METRIC  
MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	B	A	C	H1	
M71210-12-30	19	- 12	3/4"	M 30X2	20.0	14.5	39.5	16.0	32.0		
M71210-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	44.5	18.0	36.0		
M71210-16-36	25	- 16	1"	M 36X2	25.0	19.5	46.0	18.0	36.0		
M71210-16-42	25	- 16	1"	M 42X2	30.0	19.5	47.5	20.0	46.0		
M71210-20-52	31	- 20	1.1/4"	M 52X2	38.0	25.0	55.0	22.0	55.0		
M71210-24-52	38	- 24	1.1/2"	M 52X2	38.0	30.5	55.5	22.0	55.0		

FITTINGS 240

DIN STANDARD CONNECTIONS



# M81612

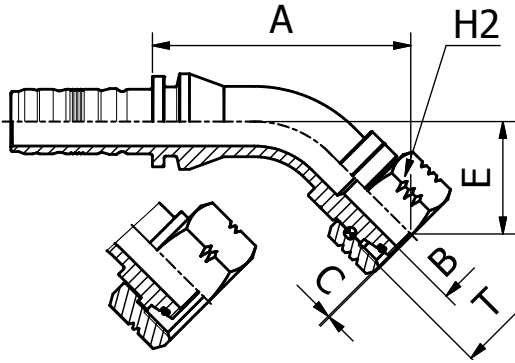
**METRIC  
O-RING FEMALE 24° CONE HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm				
	DN	Dash	inch			T	B	A	C	H1
M81612-16-42	25	- 16	1"	M 42X2	30.0	19.5	54.5	6.0	41.0	50.0
M81612-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	52.0	4.1	36.0	41.0
M81612-24-52	38	- 24	1.1/2"	M 52X2	38.0	26.1	58.0	8.8	55.0	60.0
M81612-12-42	19	- 12	3/4"	M 42X2	30.0	19.5	52.5	6.0	41.0	50.0
M81612-16-52	25	- 16	1"	M 52X2	38.0	25.0	56.0	8.8	50.0	60.0
M81612-12-30	19	- 12	3/4"	M 30X2	20.0	12.5	49.5	3.2	32.0	36.0
M81612-16-36	25	- 16	1"	M 36X2	25.0	16.0	56.0	4.1	41.0	41.0
M81612-20-52	31	- 20	1.1/4"	M 52X2	38.0	25.0	57.0	8.8	50.0	60.0
M81612-20-42	31	- 20	1.1/4"	M 42X2	30.0	19.5	56.0	6.1	46.0	50.0

DIN STANDARD CONNECTIONS

# M81642/M81643

45° METRIC  
O-RING FEMALE SWEPT ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2



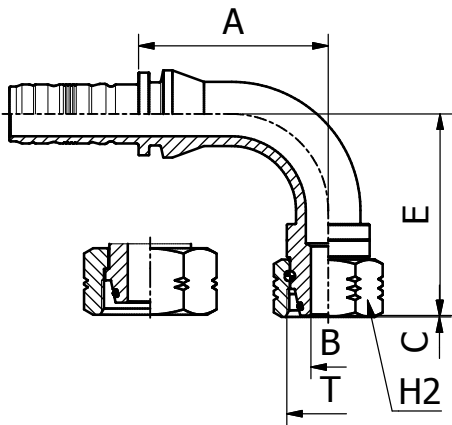
PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	E	H2	
M81642-12-30	19	- 12	3/4"	M 30X2	20.0	12.5	80.0	3.2	35.0	36.0		
M81643-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	82.0	3.4	33.5	41.0		
M81642-16-36	25	- 16	1"	M 36X2	25.0	15.0	103.0	4.1	44.5	41.0		
M81643-16-42	25	- 16	1"	M 42X2	30.0	19.5	94.0	5.3	36.0	50.0		
M81642-20-42	31	- 20	1.1/4"	M 42X2	30.0	19.1	117.5	6.0	44.0	50.0		
M81643-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.1	111.0	8.0	40.0	60.0		

241 FITTINGS

DIN STANDARD CONNECTIONS

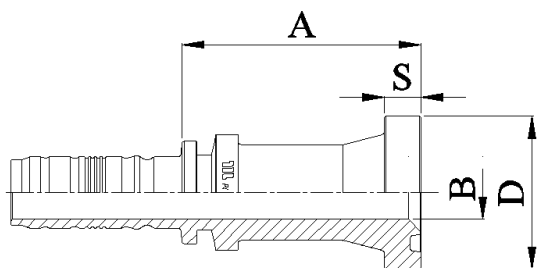
# M81692/M81693

90° METRIC  
O-RING FEMALE SWEPT ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2



PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	B	A	C	E	H2	
M81692-12-30	19	- 12	3/4"	M 30X2	20.0	12.5	64.5	3.2	68.5	36.0		
M81693-12-36	19	- 12	3/4"	M 36X2	25.0	14.5	68.0	3.4	67.5	41.0		
M81692-16-36	25	- 16	1"	M 36X2	25.0	15.0	83.0	4.1	87.5	41.0		
M81693-16-42	25	- 16	1"	M 42X2	30.0	19.5	82.5	5.3	75.5	50.0		
M81692-20-42	31	- 20	1.1/4"	M 42X2	30.0	19.1	102.0	6.0	90.0	50.0		
M81693-20-52	31	- 20	1.1/4"	M 52X2	38.0	26.1	101.0	8.0	86.5	60.0		

ORIGINAL EQUIPMENT CONNECTIONS

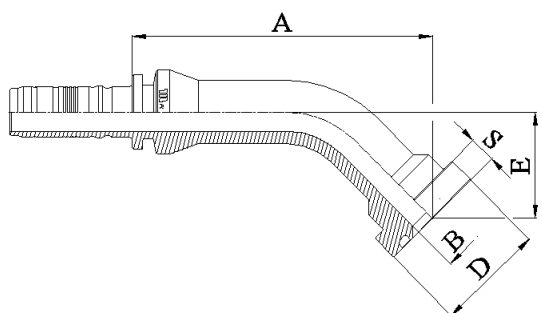


# M83711

**FLANGE PLUS**  
(SAE J518 -2 /ISO 6162-2 P  
ORT COMPATIBLE)

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm					
	DN	Dash	inch		inch	B	A	D	S	
M83711-12-12	19	- 12	3/4"	3/4"	14.5	65.0	41.4	10.0		
M83711-16-16	25	- 16	1"	1"	19.5	65.0	47.7	11.0		
M83711-20-20	31	- 20	1.1/4"	1.1/4"	25.0	81.0	54.2	12.0		

FITTINGS 242



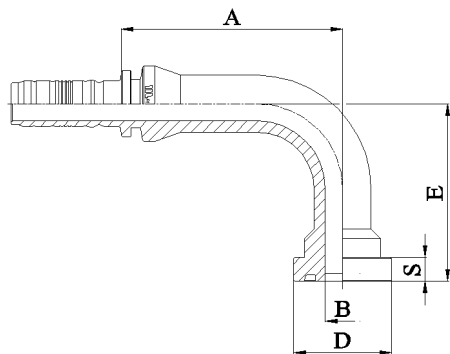
ORIGINAL EQUIPMENT CONNECTIONS

# M83741

**45° FLANGE PLUS**  
(SAE J518-2/ISO 6162-2  
PORT COMPATIBLE)

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm					
	DN	Dash	inch		inch	B	A	D	E	S
M83741-12-12	19	- 12	3/4"	3/4"	14.5	114.0	41.4	40.0	10.0	
M83741-16-16	25	- 16	1"	1"	19.5	107.5	47.7	43.0	11.0	
M83741-20-20	31	- 20	1.1/4"	1.1/4"	25.0	133.5	54.2	50.0	12.0	

ORIGINAL EQUIPMENT CONNECTIONS

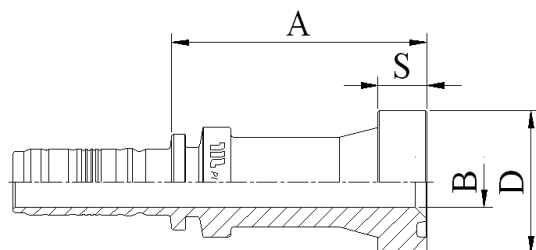


# M83791

**90° FLANGE PLUS  
(SAE J518 -2/ ISO 6162-2  
PORT COMPATIBLE)**

PART. REF.	HOSE BORE			Flange	Flange	DIMENSIONS mm						
	DN	Dash	inch			inch	B	A	D	E	S	
M83791-12-12	19	- 12	3/4"	3/4"		14.5	93.5	41.4	75.0	10.0		
M83791-16-16	25	- 16	1"	1"		19.5	91.0	47.7	90.0	11.0		
M83791-20-20	31	- 20	1.1/4"	1.1/4"		25.0	115.0	54.2	110.0	12.0		

ORIGINAL EQUIPMENT CONNECTIONS



# M83911

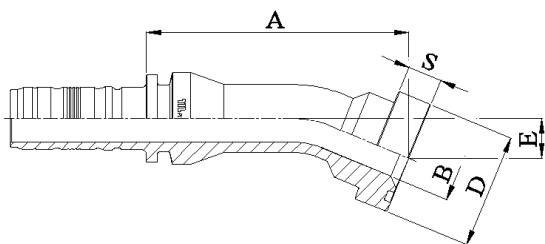
**STRAIGHT SUPERCAT SERIES FLANGE**

PART. REF.	HOSE BORE			Flange	Flange	DIMENSIONS mm			
	DN	Dash	inch			inch	B	A	D
M83911-12-12	19	- 12	3/4"	3/4"		14.5	75.0	41.5	14.3
M83911-12-16	19	- 12	3/4"	1"		19.5	80.5	47.7	14.3
M83911-16-16	25	- 16	1"	1"		19.5	80.0	47.7	14.3
M83911-16-20	25	- 16	1"	1.1/4"		26.0	84.0	54.0	14.3
M83911-20-20	31	- 20	1.1/4"	1.1/4"		26.0	80.5	54.0	14.3
M83911-20-24	31	- 20	1.1/4"	1.1/2"		32.0	84.0	63.6	14.3
M83911-24-24	38	- 24	1.1/2"	1.1/2"		32.0	84.5	63.6	14.3
M83911-24-32	38	- 24	1.1/2"	2"		42.0	107.5	79.3	14.3
M83911-32-24	51	- 32	2"	1.1/2"		32.0	95.5	63.6	14.3
M83911-32-32	51	- 32	2"	2"		42.0	110.5	79.3	14.3

ORIGINAL EQUIPMENT CONNECTIONS

# M83921

22,5° SUPERCAT SERIES FLANGE



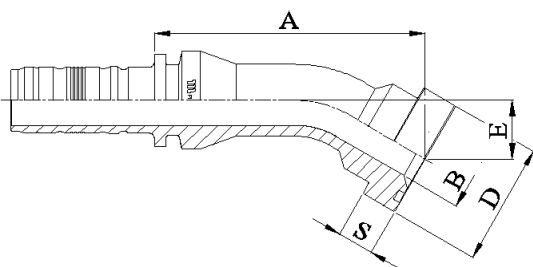
PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M83921-12-12	19	- 12	3/4"	3/4"	16.0	101.5	41.5	16.0	14.3		
M83921-12-16	19	- 12	3/4"	1"	19.5	98.0	47.7	16.5	14.3		
M83921-16-16	25	- 16	1"	1"	19.5	108.5	47.7	16.5	14.3		
M83921-16-20	25	- 16	1"	1.1/4"	26.0	113.0	54.0	18.5	14.3		
M83921-20-20	31	- 20	1.1/4"	1.1/4"	26.0	120.5	54.0	18.0	14.3		
M83921-20-24	31	- 20	1.1/4"	1.1/2"	32.0	119.0	63.7	21.0	14.3		
M83921-24-24	38	- 24	1.1/2"	1.1/2"	32.0	123.5	63.7	20.0	14.3		

FITTINGS 244

ORIGINAL EQUIPMENT CONNECTIONS

# M83931

30° SUPERCAT SERIES FLANGE

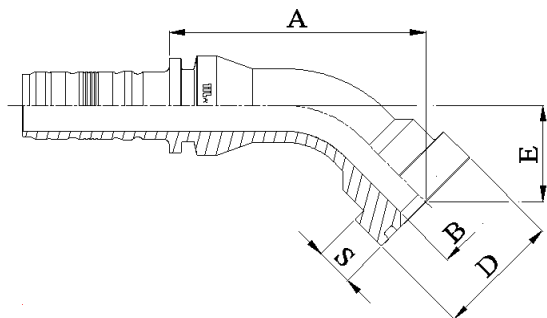


PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M83931-12-12	19	- 12	3/4"	3/4"	16.0	99.0	41.5	22.0	14.3		
M83931-12-16	19	- 12	3/4"	1"	19.5	99.5	47.7	22.5	14.3		
M83931-16-16	25	- 16	1"	1"	19.5	106.0	47.7	23.0	14.3		
M83931-16-20	25	- 16	1"	1.1/4"	26.0	110.0	54.0	26.0	14.3		
M83931-20-20	31	- 20	1.1/4"	1.1/4"	26.0	117.5	54.0	25.0	14.3		
M83931-20-24	31	- 20	1.1/4"	1.1/2"	32.0	115.5	63.7	29.0	14.3		
M83931-24-24	38	- 24	1.1/2"	1.1/2"	32.0	120.5	63.7	28.0	14.3		
M83931-24-32	38	- 24	1.1/2"	2"	42.0	134.5	79.3	36.0	14.3		
M83931-32-32	51	- 32	2"	2"	42.0	163.5	79.3	37.5	14.3		

ORIGINAL EQUIPMENT CONNECTIONS

# M83941

45° SUPERCAT SERIES FLANGE



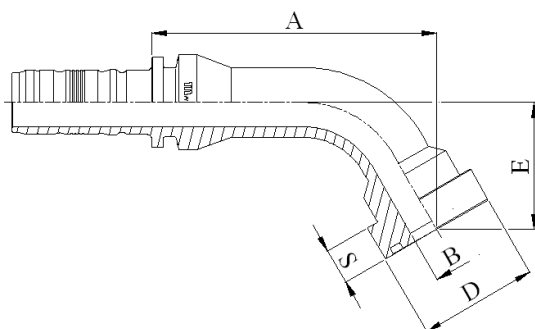
PART. REF.	HOSE BORE			Flange	Flange	DIMENSIONS mm				
	DN	Dash	inch			inch	B	A	D	E
M83941-12-12	19	- 12	3/4"	3/4"		16.0	91.5	41.5	34.5	14.3
M83941-12-16	19	- 12	3/4"	1"		19.5	92.0	47.7	35.5	14.3
M83941-16-16	25	- 16	1"	1"		19.5	98.0	47.7	36.5	14.3
M83941-16-20	25	- 16	1"	1.1/4"		26.0	101.0	54.0	40.5	14.3
M83941-20-20	31	- 20	1.1/4"	1.1/4"		26.0	109.0	54.0	40.0	14.3
M83941-20-24	31	- 20	1.1/4"	1.1/2"		32.0	106.0	63.7	46.0	14.3
M83941-24-24	38	- 24	1.1/2"	1.1/2"		32.0	111.0	63.7	45.5	14.3
M83941-24-32	38	- 24	1.1/2"	2"		42.0	122.0	79.3	56.5	14.3
M83941-32-32	51	- 32	2"	2"		42.0	150.5	79.3	61.5	14.3

245 FITTINGS

ORIGINAL EQUIPMENT CONNECTIONS

# M83961

60° SUPERCAT SERIES FLANGE

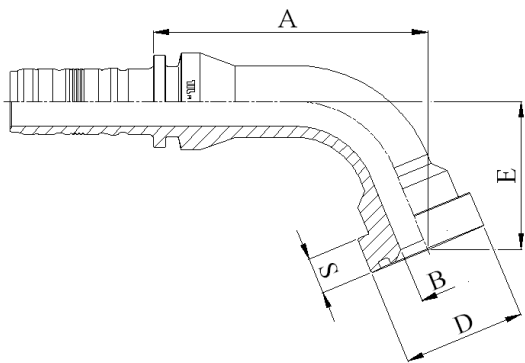


PART. REF.	HOSE BORE			Flange	Flange	DIMENSIONS mm				
	DN	Dash	inch			inch	B	A	D	E
M83961-12-12	19	- 12	3/4"	3/4"		16.0	106.5	41.5	47.0	14.3
M83961-12-16	19	- 12	3/4"	1"		19.5	107.0	47.7	48.0	14.3
M83961-16-16	25	- 16	1"	1"		19.5	114.0	47.7	51.0	14.3
M83961-16-16055	25	- 16	1"	1"		19.5	100.0	47.7	55.0	14.3
M83961-16-20	25	- 16	1"	1.1/4"		26.0	116.5	54.0	54.0	14.3
M83961-20-20	31	- 20	1.1/4"	1.1/4"		26.0	130.0	54.0	54.5	14.3
M83961-20-24	31	- 20	1.1/4"	1.1/2"		32.0	126.0	63.7	63.5	14.3
M83961-24-24	38	- 24	1.1/2"	1.1/2"		32.0	140.0	63.7	63.0	14.3
M83961-32-32	51	- 32	2"	2"		42.0	194.0	79.3	86.5	14.3
M83961-32-32150	51	- 32	2"	2"		42.0	198.0	79.3	150.0	14.3

ORIGINAL EQUIPMENT CONNECTIONS

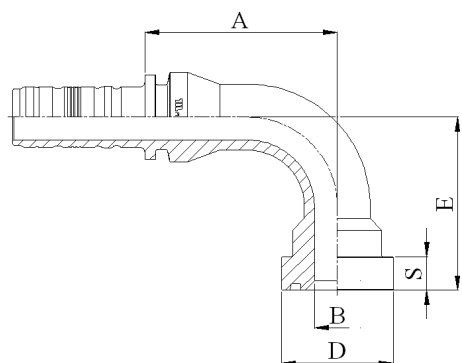
# M83971

67,5° SUPERCAT SERIES FLANGE



PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch			inch	B	A	D	E	S	
M83971-12-12	19	- 12	3/4"	3/4"		16.0	100.0	41.5	53.0	14.3		
M83971-12-16	19	- 12	3/4"	1"		19.5	100.5	47.7	54.0	14.3		
M83971-16-16	25	- 16	1"	1"		19.5	107.0	47.7	58.0	14.3		
M83971-16-20	25	- 16	1"	1.1/4"		26.0	109.0	54.0	62.0	14.3		
M83971-20-20	31	- 20	1.1/4"	1.1/4"		26.0	123.0	54.0	62.0	14.3		
M83971-20-24	31	- 20	1.1/4"	1.1/2"		32.0	117.5	63.7	71.5	14.3		
M83971-24-24	38	- 24	1.1/2"	1.1/2"		32.0	131.0	63.7	72.0	14.3		
M83971-32-32	51	- 32	2"	2"		42.0	181.5	79.3	99.0	14.3		

FITTINGS 246



ORIGINAL EQUIPMENT CONNECTIONS

# M83991

90° SUPERCAT SERIES FLANGE

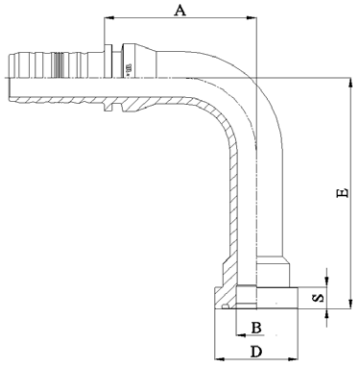
PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch			inch	B	A	D	E	S	
M83991-12-12	19	- 12	3/4"	3/4"		16.0	76.0	41.5	68.5	14.3		
M83991-12-16	19	- 12	3/4"	1"		19.5	76.0	47.7	69.5	14.3		
M83991-16-16	25	- 16	1"	1"		19.5	82.0	47.7	73.5	14.3		
M83991-16-20	25	- 16	1"	1.1/4"		26.0	82.0	54.0	78.5	14.3		
M83991-20-20	31	- 20	1.1/4"	1.1/4"		26.0	94.0	54.0	82.0	14.3		
M83991-20-24	31	- 20	1.1/4"	1.1/2"		32.0	85.0	63.7	92.0	14.3		
M83991-24-24	38	- 24	1.1/2"	1.1/2"		32.0	98.0	63.7	96.0	14.3		
M83991-24-32	38	- 24	1.1/2"	2"		42.0	98.0	79.3	112.0	14.3		
M83991-32-32	51	- 32	2"	2"		42.0	136.0	79.3	133.5	14.3		



ORIGINAL EQUIPMENT CONNECTIONS

# M83991 LONG DROP

90° LONG DROP SUPERCAT SERIES FLANGE



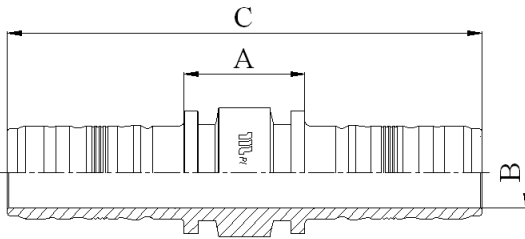
PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	S	
M83991-16-16132	25	- 16	1"	1"	19.5	86.0	47.7	132.0	14.3		
M83991-16-16150	25	- 16	1"	1"	19.5	86.0	47.7	150.0	14.3		
M83991-16-20150	25	- 16	1"	1.1/4"	26.0	82.0	54.0	150.0	14.3		
M83991-20-20092	31	- 20	1.1/4"	1.1/4"	26.1	99.0	54.0	92.0	14.3		
M83991-20-20150	31	- 20	1.1/4"	1.1/4"	26.1	99.0	54.0	150.0	14.3		
M83991-20-24135	31	- 20	1.1/4"	1.1/2"	32.0	98.5	63.7	135.0	14.3		
M83991-24-24106	38	- 24	1.1/2"	1.1/2"	32.0	112.5	63.7	106.0	14.3		

247 FITTINGS

DOUBLE CONNECTOR

# M70050

DOUBLE CONNECTOR

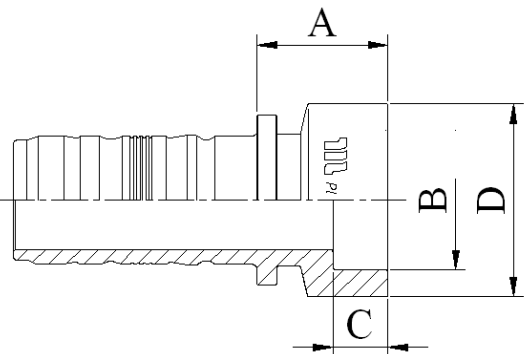


PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch	B	A	C					
M70050-20-20	31	- 20	1.1/4"	25.0	42.5	166.2					
M70050-24-24	38	- 24	1.1/2"	30.5	43.0	178.9					
M70050-32-32	51	- 32	2"	41.0	45.5	220.8					

TAIL

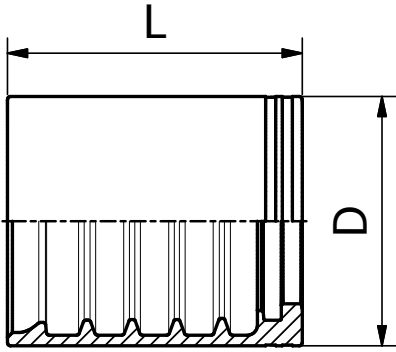
# M89510WL

WELDING TAIL



PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch	B	A	C	D				
M89510-12-22WL	19	- 12	3/4"	22.1	28.5	12.0	34.0				
M89510-16-28WL	25	- 16	1"	28.1	32.5	14.0	40.0				
M89510-20-35WL	31	- 20	1.1/4"	35.1	33.0	14.0	49.0				

FERRULE



# M05500-GX

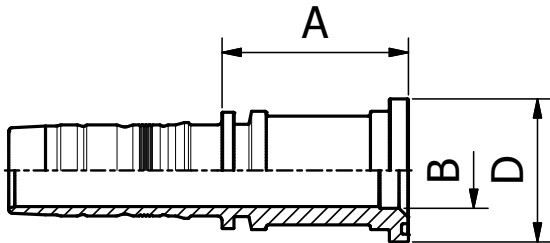
**NO-SKIVE FERRULE FOR  
HEAVY DUTY SPIRAL HOSES  
(4-6 PLY)**

FITTINGS 248

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
M05500-24GX	38	- 24	1.1/2"			75.0	88.5				
M05500-32GX	51	- 32	2"			98.0	120.3				

SAE STANDARD CONNECTIONS

# M83611-GX

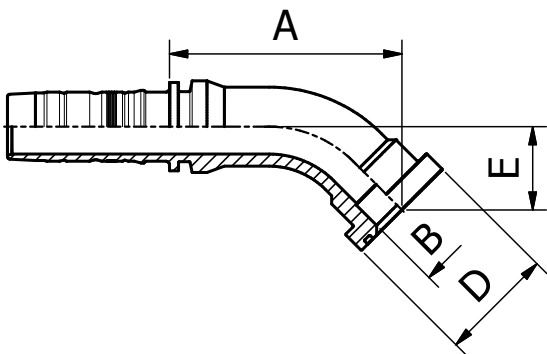


**ISO/SAE CODE 62 FLANGE  
(ISO 6162-2 / SAE J518 CODE 62)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch		B	A	D				
M83611-24-24GX	38	- 24	1.1/2"	1.1/2"		32.0	79.0	63.7				
M83611-24-32GX	38	- 24	1.1/2"	2"		42.0	95.0	79.6				
M83611-32-32GX	51	- 32	2"	2"		42.0	98.5	79.6				

SAE STANDARD CONNECTIONS

# M83641-GX



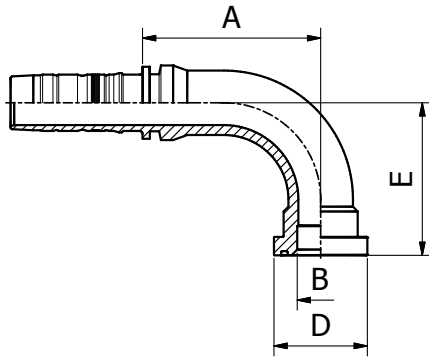
**45° ISO/SAE CODE 62 FLANGE  
(ISO 6162-2 / SAE J518 CODE 62)**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch		B	A	D	E			
M83641-24-24GX	38	- 24	1.1/2"	1.1/2"		32.0	129.0	63.7	46.5			
M83641-24-32GX	38	- 24	1.1/2"	2"		32.0	138.0	79.6	57.5			
M83641-32-32GX	51	- 32	2"	2"		42.0	149.0	79.6	59.0			

SAE STANDARD CONNECTIONS

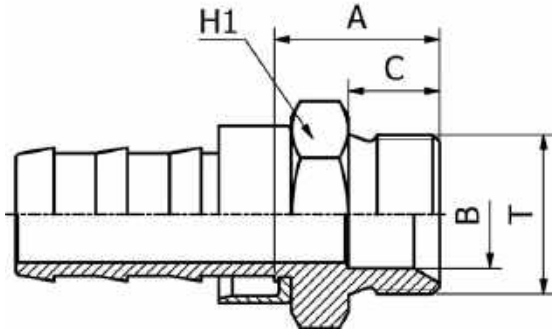
**M83691-GX**

**90° ISO/SAE CODE 62 FLANGE  
(ISO 6162-2 / SAE J518 CODE 62)**



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	E			
M83691-24-24GX	38	- 24	1.1/2"	1.1/2"	32.0	121.5	63.7	104.5			
M83691-32-32GX	51	- 32	2"	2"	42.0	136.5	79.6	138.0			

BS STANDARD CONNECTIONS



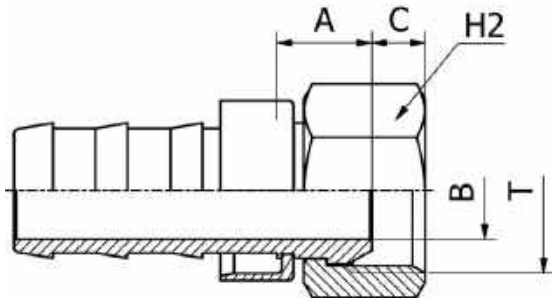
# L10510

**BSP  
MALE PARALLEL 60° CONE SEAT  
BS5200 / ISO 8434-6**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	H1			
L10510-04-04	6	- 4	1/4"	1/4" - 19		5.0	20.5	11.0	19.0			
L10510-04-06	6	- 4	1/4"	3/8" - 19		8.0	22.5	12.0	22.0			
L10510-06-06	10	- 6	3/8"	3/8" - 19		8.0	23.0	12.0	22.0			
L10510-08-08	12	- 8	1/2"	1/2" - 14		11.0	27.0	14.0	27.0			
L10510-10-10	16	- 10	5/8"	5/8" - 14		14.5	28.5	16.0	30.0			
L10510-12-12	19	- 12	3/4"	3/4" - 14		17.0	30.5	16.0	32.0			
L10510-16-16	25	- 16	1"	1" - 11		22.5	34.5	19.0	41.0			

FITTINGS 250

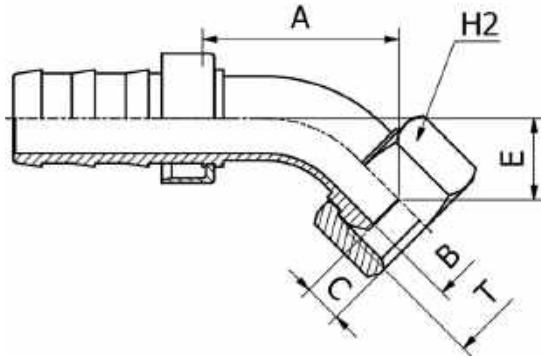
BS STANDARD CONNECTIONS



# L20513

**BSP  
FEMALE 60° CONE  
BS5200 / ISO 12151-6  
(SLIP-ON NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	H2			
L20513-04-04	6	- 4	1/4"	1/4" - 19		4.0	12.5	5.8	19.0			
L20513-04-06	6	- 4	1/4"	3/8" - 19		7.0	14.6	6.2	22.0			
L20513-06-06	10	- 6	3/8"	3/8" - 19		7.0	15.0	6.2	22.0			
L20513-08-08	12	- 8	1/2"	1/2" - 14		9.5	16.5	6.5	27.0			
L20513-10-10	16	- 10	5/8"	5/8" - 14		12.0	16.0	9.0	28.0			
L20513-12-12	19	- 12	3/4"	3/4" - 14		16.0	18.0	9.0	32.0			
L20513-12-16	19	- 12	3/4"	1" - 11		19.0	19.5	11.0	38.0			
L20513-16-16	25	- 16	1"	1" - 11		19.0	19.5	11.0	38.0			

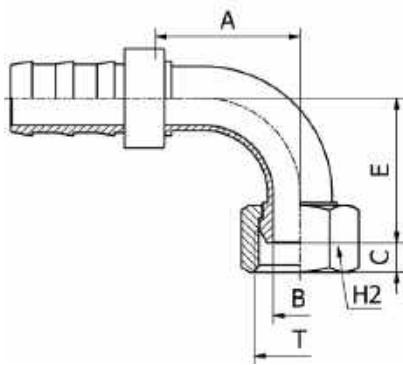


BS STANDARD CONNECTIONS

# L20543

**45° BSP  
FEMALE SWEPT ELBOW 60° CONE  
BS5200/ISO 12151-6  
(SLIP-ON NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
L20543-04-04	6	- 4	1/4"	1/4" - 19	4.0	31.0	5.8	12.0	19.0		
L20543-06-06	10	- 6	3/8"	3/8" - 19	7.0	38.5	6.2	14.5	22.0		
L20543-08-08	12	- 8	1/2"	1/2" - 14	9.5	44.0	6.5	18.5	27.0		
L20543-10-10	16	- 10	5/8"	5/8" - 14	12.0	50.5	9.0	19.0	28.0		
L20543-12-12	19	- 12	3/4"	3/4" - 14	16.0	53.0	9.0	21.0	32.0		
L20543-16-16	25	- 16	1"	1" - 11	19.0	56.0	11.0	23.5	38.0		

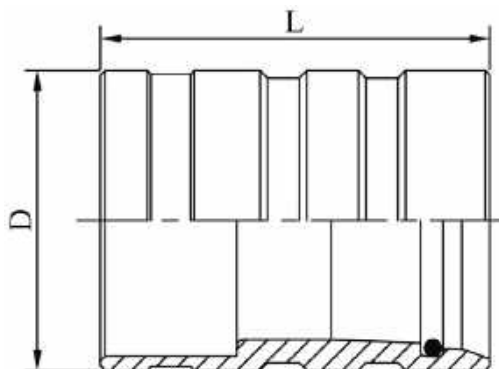


BS STANDARD CONNECTIONS

# L20593

**90° BSP  
FEMALE SWEPT ELBOW 60° CONE  
BS5200/ISO 12151-6  
(SLIP-ON NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	H2		
L20593-04-04	6	- 4	1/4"	1/4" - 19	4.0	26.0	5.8	24.0	19.0		
L20593-06-06	10	- 6	3/8"	3/8" - 19	7.0	35.0	6.2	30.5	22.0		
L20593-08-08	12	- 8	1/2"	1/2" - 14	9.5	38.0	6.5	38.5	27.0		
L20593-10-10	16	- 10	5/8"	5/8" - 14	12.0	45.5	9.0	41.0	28.0		
L20593-12-16	19	- 12	3/4"	1" - 11	19.0	48.5	11.0	48.5	38.0		
L20593-12-12	19	- 12	3/4"	3/4" - 14	16.0	48.5	9.0	46.5	32.0		
L20593-16-16	25	- 16	1"	1" - 11	19.0	54.0	11.0	54.0	38.0		



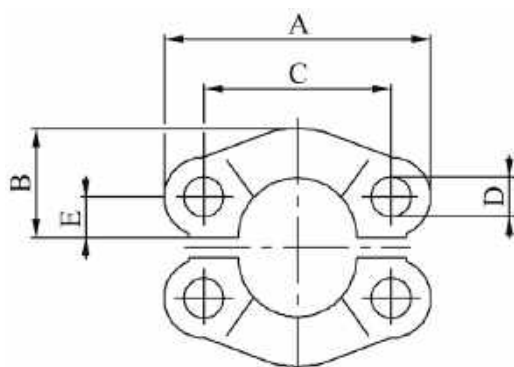
ACCESSORIES

**0820**

**ANTI-KINK SLEEVE**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
O82040-12	19	- 12	3/4"			45.0	67.0				
O82040-16	25	- 16	1"			52.0	81.0				
O82068-16	25	- 16	1"			55.0	75.0				
O82062-20	31	- 20	1.1/4"			64.0	83.0				
O82060-20	31	- 20	1.1/4"			64.0	84.0				
O82068-20	31	- 20	1.1/4"			65.5	83.0				
O82060-24	38	- 24	1.1/2"			72.0	102.0				
O82068-24	38	- 24	1.1/2"			73.0	99.0				
O82068-32	51	- 32	2"			86.5	116.0				
O82068-40	63	- 40	2.1/2"			100.5	148.5				
O82068-48	76	- 48	3"			112.0	158.0				

FITTINGS 252



ACCESSORIES

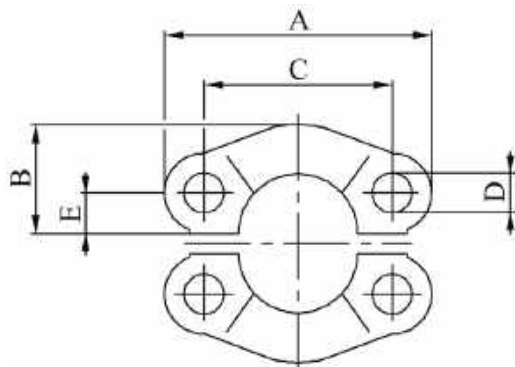
**083308**

**ISO/SAE  
CODE 61 SPLIT FLANGE CLAMPS  
SAE J518 / ISO 6162-1**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			B	A	C	D	E	
O83308-08						22.8	54.0	38.1	8.75	8.7	
O83308-12						25.9	65.0	47.6	10.75	11.1	
O83308-16						29.2	70.0	52.4	10.75	13.1	
O83308-20						36.3	79.0	58.7	12.0	15.1	
O83308-24						41.1	94.0	69.8	13.5	17.9	
O83308-32						48.2	102.0	77.8	13.5	21.4	
O83308-40						54.1	114.0	88.9	13.5	25.4	
O83308-48						65.3	135.0	106.4	16.75	31.0	
O83308-56						70.0	152.0	120.65	17.0	34.85	
O83308-64						75.0	160.0	130.18	17.0	38.9	

ACCESSORIES

# 083609



ISO/SAE  
CODE 62 SPLIT FLANGE CLAMPS  
SAE J518 / ISO 6162-2

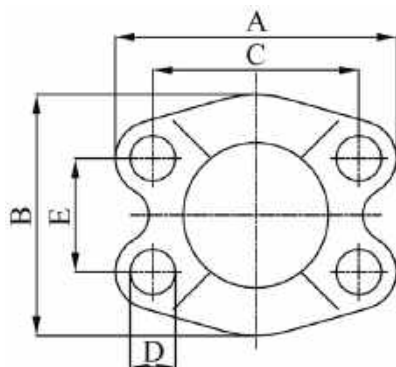
PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch	B	A	C	D	E			
O83609-08				23.6	56.0	40.5	8.75	9.1			
O83609-12				30.0	71.0	50.8	11.0	11.9			
O83609-16				34.8	81.0	57.1	13.0	13.9			
O83609-20				38.6	95.0	66.7	15.0	15.9			
O83609-24				47.5	113.0	79.4	17.0	18.3			
O83609-32				56.9	133.0	96.8	21.0	22.2			

FITTINGS

253

ACCESSORIES

# 083607



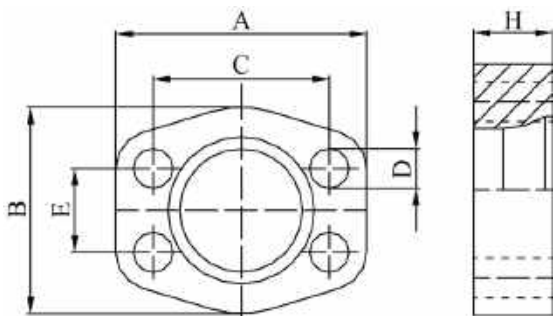
CODE 62 ONE-PIECE FLANGE CLAMP  
ISO 6162-2 / SAE J518

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch	B	A	C	D	E			
O83607-12	19	- 12	3/4"	60.0	72.0	50.8	10.5	23.8			
O83607-16	25	- 16	1"	70.0	81.0	57.2	13.0	27.8			
O83607-20	31	- 20	1.1/4"	78.0	96.0	66.7	15.0	31.8			
O83607-24	38	- 24	1.1/2"	96.0	113.0	79.4	17.0	36.5			
O83607-32	51	- 32	2"	114.0	134.0	96.8	21.0	44.4			
O83607-40	63	- 40	2.1/2"	150.0	175.0	123.8	25.0	58.7			
O83607-48	76	- 48	3"	178.0	210.0	152.4	32.0	71.4			

ACCESSORIES

# 088507

**ONE-PIECE CODE 62 XTRAFRANGE CLAMP  
ISO 6162-2 / SAE J518  
PORT COMPATIBLE**



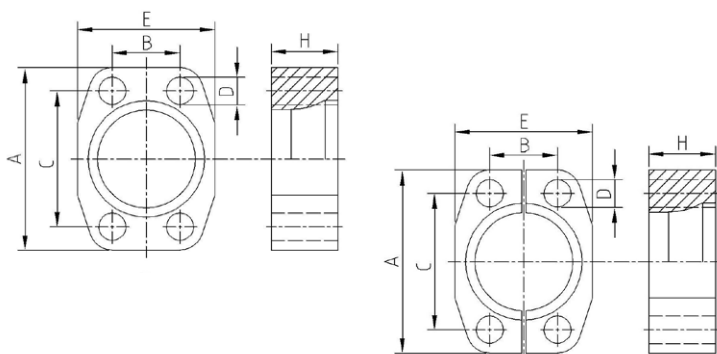
PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch	B	A	C	D	E	H		
O88507-12				60.0	71.5	50.8	11.0	23.8	21.5		
O88507-16				66.7	80.0	57.2	13.0	27.8	24.0		
O88507-20				78.0	95.0	66.7	15.0	31.7	30.0		
O88507-24				94.0	112.0	79.4	17.0	36.5	36.0		
O88507-32				114.0	133.0	96.8	21.0	44.5	47.0		
O88507-40				150.0	180.0	123.8	26.0	58.8	55.0		
O88507-48				176.0	210.3	152.4	31.0	71.4	60.0		

FITTINGS 254

ACCESSORIES

# 088407

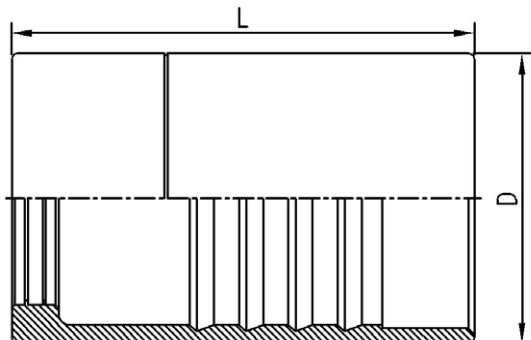
**ONE-PIECE XTRAFRANGE 61 CLAMP /  
SPLIT XTRAFRANGE/61 CLAMP**



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch	inch	B	A	C	D	E	H		
O88407-16				1"	26.2	70.5	52.4	10.6	53.0	25.7		
O88407-20				1.1/4"	30.2	80.0	58.7	12.0	64.0	26.8		
O88407-24				1.1/2"	35.7	94.0	69.9	13.3	77.0	33.6		
O88407-32				2"	42.9	102.0	77.8	13.3	88.0	35.0		
O88407-40				2.1/2"	50.8	114.0	88.9	13.3	102.0	44.3		

O88407-32 and O88407-40: Split XtraFlange/61 Clamp





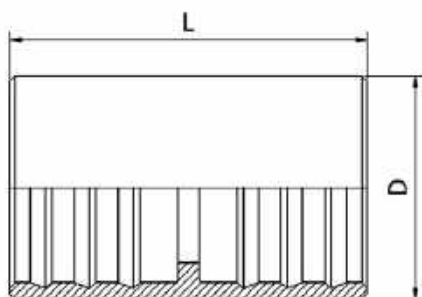
ACCESSORIES

# IO821GA

**METAL SLEEVE FOR ARMOUR  
(STAINLESS STEEL)**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
IO82110-06GA	10	- 6	3/8"			40.5	60.0				
IO82110-08GA	12	- 8	1/2"			46.8	75.0				
IO82110-10GA	16	- 10	5/8"			53.2	90.0				
IO82110-12GA	19	- 12	3/4"			59.5	105.0				
IO82110-16GA	25	- 16	1"			66.0	120.0				
IO82110-20GA	31	- 20	1.1/4"			78.6	135.0				
IO82110-24GA	38	- 24	1.1/2"			91.5	150.0				
IO82110-32GA	51	- 32	2"			106.5	165.0				

255 FITTINGS



ACCESSORIES

# IO84210

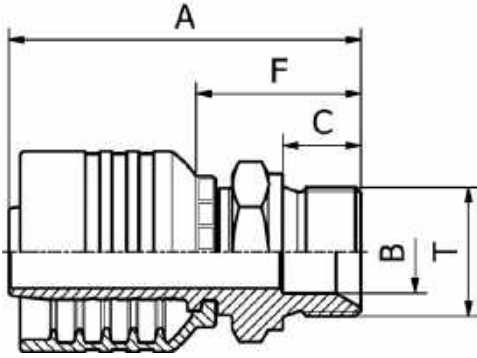
**ARMOUR-JOINT**

PART. REF.	HOSE BORE			DIMENSIONS mm							
	DN	Dash	inch			D	L				
IO84210-06	10	- 6	3/8"			40.5	65.0				
IO84210-08	12	- 8	1/2"			46.8	65.0				
IO84210-10	16	- 10	5/8"			53.2	65.0				
IO84210-12	19	- 12	3/4"			59.5	70.0				
IO84210-16	25	- 16	1"			66.0	75.0				
IO84210-20	31	- 20	1.1/4"			78.6	95.0				
IO84210-24	38	- 24	1.1/2"			91.5	105.0				
IO84210-32	51	- 32	2"			106.5	115.0				

BS STANDARD CONNECTIONS

# OPK10510

**BSP  
MALE PARALLEL 60° CONE SEAT  
BS5200 / ISO 8434-6**

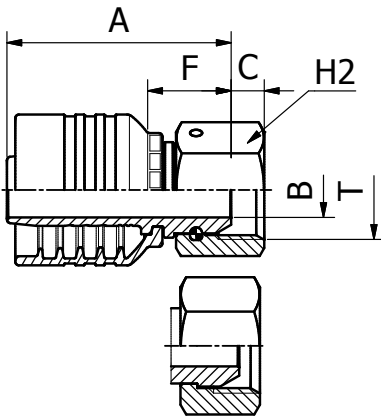


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1		
OPK10510-06A04	10	- 6	3/8"	1/4" - 19	5.0	55.5	11.0	26.0	19.0		
OPK10510-06A06	10	- 6	3/8"	3/8" - 19	8.0	57.5	12.0	28.0	22.0		
OPK10510-06A08	10	- 6	3/8"	1/2" - 14	11.0	60.0	14.0	30.5	27.0		
OPK10510-08A06	12	- 8	1/2"	3/8" - 19	8.0	59.0	12.0	28.0	22.0		
OPK10510-08A08	12	- 8	1/2"	1/2" - 14	11.0	62.0	14.0	31.0	27.0		
OPK10510-08A10	12	- 8	1/2"	5/8" - 14	14.5	64.0	16.0	33.0	30.0		
OPK10510-08A12	12	- 8	1/2"	3/4" - 14	17.0	65.0	16.0	34.0	32.0		
OPK10510-10A10	16	- 10	5/8"	5/8" - 14	14.5	67.5	16.0	33.0	30.0		
OPK10510-10A12	16	- 10	5/8"	3/4" - 14	17.0	68.5	16.0	35.5	32.0		
OPK10510-12A12	19	- 12	3/4"	3/4" - 14	17.0	72.0	16.0	35.5	32.0		
OPK10510-12A16	19	- 12	3/4"	1" - 11	22.5	76.0	19.0	39.5	41.0		
OPK10510-16A16	25	- 16	1"	1" - 11	22.5	89.0	19.0	41.0	41.0		
OPK10510-16A20	25	- 16	1"	1.1/4" - 11	28.5	93.0	20.0	45.0	50.0		
OPK10510-20A20	31	- 20	1.1/4"	1.1/4" - 11	28.5	99.0	20.0	46.5	50.0		
OPK10510-24A24	38	- 24	1.1/2"	1.1/2" - 11	33.5	111.5	22.0	49.5	55.0		
OPK10510-32A32	51	- 32	2"	2" - 11	46.0	120.0	25.0	54.0	70.0		

BS STANDARD CONNECTIONS

# OPK20512/OPK20513

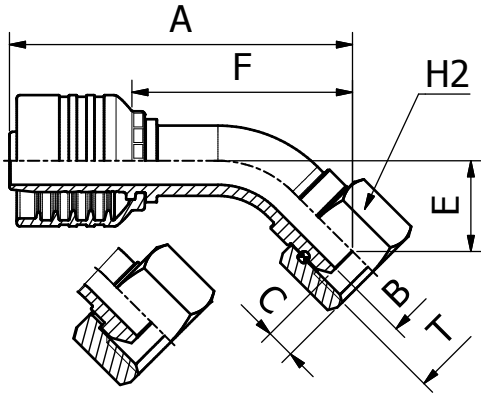
**BSP  
FEMALE 60° CONE  
BS5200 / ISO 12151-6**



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H2		
OPK20512-06A04	10	- 6	3/8"	1/4" - 19	4.1	47.5	4.2	18.0	19.0		
OPK20513-06A06	10	- 6	3/8"	3/8" - 19	7.0	49.0	6.0	19.5	22.0		
OPK20513-06A08	10	- 6	3/8"	1/2" - 14	9.3	49.5	6.3	20.0	27.0		
OPK20512-08A06	12	- 8	1/2"	3/8" - 19	7.1	52.0	6.0	21.0	22.0		
OPK20513-08A08	12	- 8	1/2"	1/2" - 14	9.3	51.5	6.3	20.5	27.0		
OPK20512-08A10	12	- 8	1/2"	5/8" - 14	12.1	53.0	10.2	22.0	28.0		
OPK20512-08A12	12	- 8	1/2"	3/4" - 14	15.0	56.0	9.0	24.5	32.0		
OPK20512-10A10	16	- 10	5/8"	5/8" - 14	12.5	56.0	10.2	21.5	28.0		
OPK20512-10A12	16	- 10	5/8"	3/4" - 14	15.0	57.5	9.0	23.0	32.0		
OPK20512-12A16	19	- 12	3/4"	1" - 11	19.8	62.5	10.5	26.0	38.0		
OPK20512-12A12	19	- 12	3/4"	3/4" - 14	15.0	61.0	9.0	24.5	32.0		
OPK20512-16A16	25	- 16	1"	1" - 11	19.8	75.5	10.5	27.5	38.0		

OPK20512: THRUST WIRE NUT / OPK20513: SLIP-ON NUT

BS STANDARD CONNECTIONS

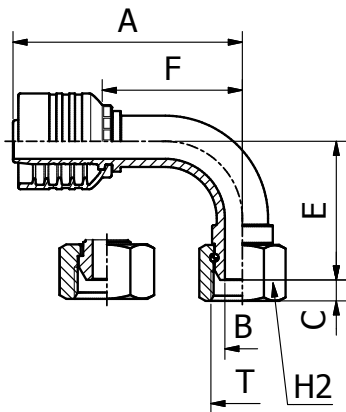


# OPK20542/OPK20543

45° BSP  
FEMALE ELBOW 60° CONE  
BS5200 / ISO 12151-6

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPK20543-06A06	10	- 6	3/8"	3/8" - 19	7.0	71.5	6.0	15.5	42.0	22.0	
OPK20543-06A08	10	- 6	3/8"	1/2" - 14	9.3	72.0	6.3	16.0	42.5	27.0	
OPK20543-08A08	12	- 8	1/2"	1/2" - 14	9.3	81.0	6.3	17.0	49.5	27.0	
OPK20542-08A10	12	- 8	1/2"	5/8" - 14	12.1	85.5	10.2	22.5	54.5	28.0	
OPK20542-10A10	16	- 10	5/8"	5/8" - 14	12.5	97.5	10.2	26.0	63.0	28.0	
OPK20542-10A12	16	- 10	5/8"	3/4" - 14	15.0	98.0	9.0	27.0	64.0	32.0	
OPK20542-12A12	19	- 12	3/4"	3/4" - 14	15.0	107.0	9.0	28.5	70.5	32.0	
OPK20542-12A16	19	- 12	3/4"	1" - 11	19.8	109.0	10.5	30.0	72.5	38.0	
OPK20542-16A16	25	- 16	1"	1" - 11	19.8	139.5	10.5	36.5	91.0	38.0	

OPK20542: THRUST WIRE NUT / OPK20543: SLIP-ON NUT



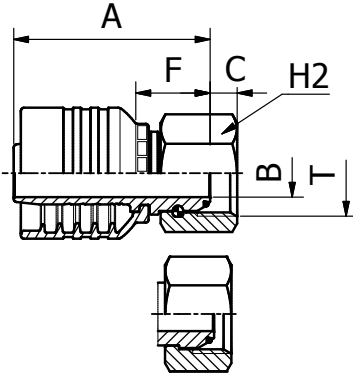
BS STANDARD CONNECTIONS

# OPK20592/OPK20593

90° BSP  
FEMALE ELBOW 60° CONE  
BS5200

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPK20593-06A06	10	- 6	3/8"	3/8" - 19	7.0	66.0	6.0	31.5	36.5	22.0	
OPK20593-06A08	10	- 6	3/8"	1/2" - 14	9.3	66.0	6.3	32.0	36.5	27.0	
OPK20592-08A06	12	- 8	1/2"	3/8" - 19	7.1	76.0	6.0	41.0	45.0	22.0	
OPK20593-08A08	12	- 8	1/2"	1/2" - 14	9.3	76.0	6.3	36.5	45.0	27.0	
OPK20592-08A10	12	- 8	1/2"	5/8" - 14	12.1	75.5	10.2	44.0	44.0	28.0	
OPK20592-08A12	12	- 8	1/2"	3/4" - 14	15.0	75.5	9.0	45.5	44.0	32.0	
OPK20592-10A10	16	- 10	5/8"	5/8" - 14	12.5	88.0	10.2	53.5	53.5	28.0	
OPK20592-10A12	16	- 10	5/8"	3/4" - 14	15.0	88.0	9.0	55.0	53.5	32.0	
OPK20592-12A12	19	- 12	3/4"	3/4" - 14	15.0	98.0	9.0	59.5	61.5	32.0	
OPK20592-12A16	19	- 12	3/4"	1" - 11	19.8	98.0	10.5	62.0	61.5	38.0	
OPK20592-16A16	25	- 16	1"	1" - 11	19.8	127.5	10.5	76.0	79.5	38.0	

OPK20592: THRUST WIRE NUT / OPK20593: SLIP-ON NUT



BS STANDARD CONNECTIONS

# OPK20812/OPK20813

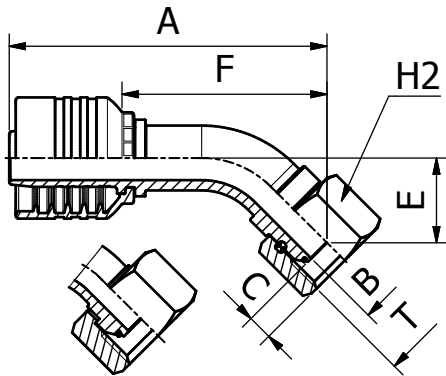
**BSP  
O-RING FEMALE 60° CONE  
BS5200 / ISO 12151-6**

FITTINGS 258

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch		T	B	A	C	F	H2
OPK20812-06A04	10	- 6	3/8"	1/4" - 19	4.1	47.5	4.1	18.0	19.0	
OPK20813-06A06	10	- 6	3/8"	3/8" - 19	7.0	49.0	6.0	19.5	22.0	
OPK20813-08A08	12	- 8	1/2"	1/2" - 14	9.3	51.5	6.3	20.5	27.0	
OPK20812-10A10	16	- 10	5/8"	5/8" - 14	12.5	56.5	9.7	22.0	28.0	
OPK20812-12A12	19	- 12	3/4"	3/4" - 14	15.0	61.5	8.5	25.0	32.0	
OPK20812-16A16	25	- 16	1"	1" - 11	19.8	75.5	10.6	27.5	38.0	
OPK20812-16A20	25	- 16	1"	1.1/4" - 11	26.1	79.0	10.5	31.0	50.0	
OPK20812-20A20	31	- 20	1.1/4"	1.1/4" - 11	26.0	84.0	10.5	31.5	50.0	
OPK20812-20A24	31	- 20	1.1/4"	1.1/2" - 11	32.1	82.0	12.5	29.5	60.0	
OPK20812-24A24	38	- 24	1.1/2"	1.1/2" - 11	32.0	92.5	12.5	30.5	60.0	
OPK20812-24A32	38	- 24	1.1/2"	2"	42.1	92.0	16.1	30.0	70.0	
OPK20812-32A32	51	- 32	2"	2"	42.0	98.0	16.1	32.0	70.0	

OPK20812: THRUST WIRE NUT / OPK20813: SLIP-ON NUT

BS STANDARD CONNECTIONS



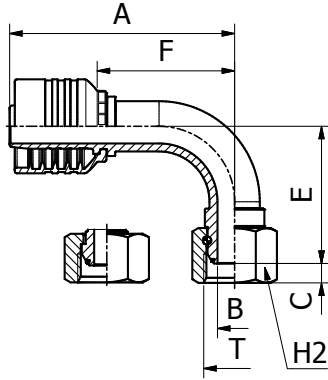
# OPK20842/OPK20843

**45° BSP  
O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch		T	B	A	C	E	F
OPK20843-06A06	10	- 6	3/8"	3/8" - 19	7.0	71.5	6.0	15.5	42.0	22.0
OPK20843-08A08	12	- 8	1/2"	1/2" - 14	9.3	81.0	6.3	17.0	49.5	27.0
OPK20842-10A10	16	- 10	5/8"	5/8" - 14	12.5	98.0	9.7	27.5	63.5	28.0
OPK20842-12A12	19	- 12	3/4"	3/4" - 14	15.0	107.5	8.5	29.0	71.0	32.0
OPK20842-20A20	31	- 20	1.1/4"	1.1/4" - 11	26.0	154.0	10.5	39.0	101.5	50.0
OPK20842-24A24	38	- 24	1.1/2"	1.1/2" - 11	32.0	180.0	12.5	45.0	118.0	60.0
OPK20842-16A16	25	- 16	1"	1" - 11	19.8	138.5	10.6	35.5	90.5	38.0
OPK20842-32A32	51	- 32	2"	2" - 11	42.0	200.0	16.1	47.0	134.0	70.0

OPK20842: THRUST WIRE NUT / OPK20843: SLIP-ON NUT

BS STANDARD CONNECTIONS

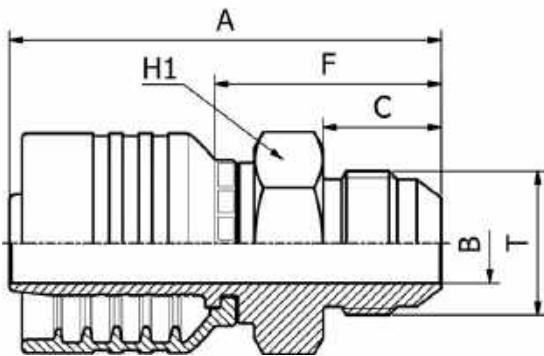


# OPK20892/OPK20893

90° BSP  
O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPK20892-06A04	10	- 6	3/8"	1/4" - 19	4.1	65.0	4.1	33.0	35.5	19.0	
OPK20893-06A06	10	- 6	3/8"	3/8" - 19	7.0	66.0	6.0	31.5	36.5	22.0	
OPK20893-08A08	12	- 8	1/2"	1/2" - 14	9.3	76.0	6.3	36.5	45.0	27.0	
OPK20892-10A10	16	- 10	5/8"	5/8" - 14	12.5	87.5	9.7	55.0	53.0	28.0	
OPK20892-12A12	19	- 12	3/4"	3/4" - 14	15.0	98.0	8.5	60.0	61.5	32.0	
OPK20892-16A20	25	- 16	1"	1.1/4" - 11	26.1	127.5	10.5	78.5	79.5	50.0	
OPK20892-16A16	25	- 16	1"	1" - 11	19.8	127.5	10.6	76.0	79.5	38.0	
OPK20892-20A20	31	- 20	1.1/4"	1.1/4" - 11	26.0	143.0	10.5	83.5	90.5	50.0	
OPK20892-20A24	31	- 20	1.1/4"	1.1/2" - 11	32.1	143.0	12.5	84.5	90.5	60.0	
OPK20892-24A24	38	- 24	1.1/2"	1.1/2" - 11	32.0	170.0	12.5	98.5	108.0	60.0	
OPK20892-32A32	51	- 32	2"	2" - 11	42.0	197.0	16.1	110.5	131.0	70.0	

OPK20892: THRUST WIRE NUT / OPK20893: SLIP-ON NUT



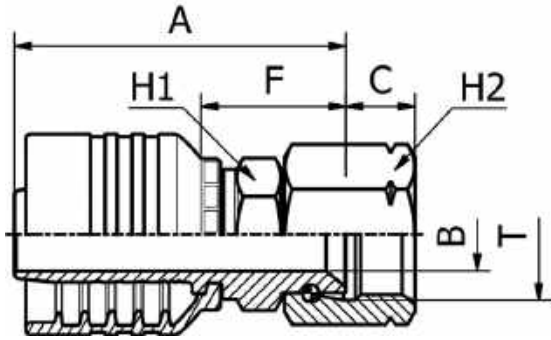
SAE STANDARD CONNECTIONS

# OPK12510

JIC  
MALE 37° CONE  
SAE J516 / ISO 12151-5

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch	T	B	A	C	F	H1	
OPK12510-06A06	10	- 6	3/8"	9/16" - 18	7.0	59.0	14.0	29.5	17.0	
OPK12510-06A08	10	- 6	3/8"	3/4" - 16	9.3	63.5	16.5	34.0	19.0	
OPK12510-06A10	10	- 6	3/8"	7/8" - 14	12.5	68.0	19.5	38.5	24.0	
OPK12510-08A06	12	- 8	1/2"	9/16" - 18	7.0	63.0	14.0	32.0	19.0	
OPK12510-08A08	12	- 8	1/2"	3/4" - 16	9.3	65.5	16.5	34.5	19.0	
OPK12510-08A10	12	- 8	1/2"	7/8" - 14	12.5	70.0	19.5	39.0	24.0	
OPK12510-08A12	12	- 8	1/2"	1.1/16" - 12	15.0	74.0	22.0	43.0	27.0	
OPK12510-10A10	16	- 10	5/8"	7/8" - 14	12.5	73.5	19.5	39.0	24.0	
OPK12510-10A12	16	- 10	5/8"	1.1/16" - 12	15.0	77.0	22.0	42.5	27.0	
OPK12510-12A10	19	- 12	3/4"	7/8" - 14	12.5	78.0	19.5	41.5	27.0	
OPK12510-12A12	19	- 12	3/4"	1.1/16" - 12	15.0	80.5	22.0	44.0	27.0	
OPK12510-12A14	19	- 12	3/4"	1.3/16" - 12	15.0	81.0	22.5	44.5	32.0	
OPK12510-12A16	19	- 12	3/4"	1.5/16" - 12	19.8	83.5	23.0	47.0	34.0	
OPK12510-16A12	25	- 16	1"	1.1/16" - 12	15.0	93.0	22.0	45.0	32.0	
OPK12510-16A16	25	- 16	1"	1.5/16" - 12	19.8	96.0	23.0	48.0	34.0	
OPK12510-16A20	25	- 16	1"	1.5/8" - 12	26.0	101.0	24.3	53.0	42.0	
OPK12510-20A20	31	- 20	1.1/4"	1.5/8" - 12	26.0	106.0	24.3	53.5	42.0	
OPK12510-20A24	31	- 20	1.1/4"	1.7/8" - 12	32.0	113.0	27.5	60.5	50.0	
OPK12510-24A24	38	- 24	1.1/2"	1.7/8" - 12	32.0	122.5	27.5	60.5	50.0	
OPK12510-32A32	51	- 32	2"	2.1/2" - 12	42.0	138.0	34.0	72.0	65.0	

SAE STANDARD CONNECTIONS

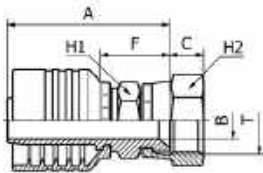


# OPK22712

JIC  
 FEMALE 37° CONE SEAT DOUBLE HEXAGON  
 SAE J516 / ISO 12151-5  
 (THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	F	H1	H2
OPK22712-12A16	19	- 12	3/4"	1.5/16" - 12	19.8	69.0	15.0	32.5	32.0	38.0	
OPK22712-16A20	25	- 16	1"	1.5/8" - 12	26.0	91.0	16.2	43.0	41.0	50.0	
OPK22712-20A20	31	- 20	1.1/4"	1.5/8" - 12	26.0	96.0	16.2	43.5	41.0	50.0	

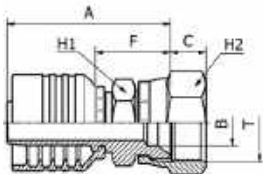
FITTINGS 260



SAE STANDARD CONNECTIONS

# OPK22711/OPK22711KR

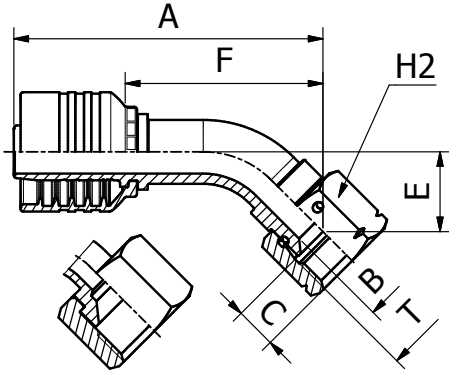
JIC  
 FEMALE 37° CONE SEAT DOUBLE HEXAGON  
 SAE J516 / ISO 12151-5



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	F	H1	H2
OPK22711-06A06KR	10	- 6	3/8"	9/16" - 18	7.0	51.5	9.5	22.0	17.0	17.0	
OPK22711-06A08KR	10	- 6	3/8"	3/4" - 16	9.3	56.0	10.7	26.5	19.0	22.0	
OPK22711-08A08KR	12	- 8	1/2"	3/4" - 16	9.3	58.0	10.7	27.0	19.0	22.0	
OPK22711-08A10KR	12	- 8	1/2"	7/8" - 14	9.3	60.5	12.5	29.5	22.0	25.0	
OPK22711-08A12KR	12	- 8	1/2"	1.1/16" - 12	15.0	60.0	14.1	28.5	27.0	32.0	
OPK22711-10A08KR	16	- 10	5/8"	3/4" - 16	9.3	62.5	10.7	28.5	22.0	22.0	
OPK22711-10A10KR	16	- 10	5/8"	7/8" - 14	12.5	64.0	12.5	29.5	22.0	25.0	
OPK22711-16A12KR	25	- 16	1"	1.1/16" - 12	15.0	80.5	14.1	32.5	32.0	32.0	
OPK22711-12A08KR	19	- 12	3/4"	3/4" - 16	9.3	66.0	10.7	29.5	27.0	22.0	
OPK22711-12A10KR	19	- 12	3/4"	7/8" - 14	12.5	67.0	12.5	30.5	27.0	25.0	
OPK22711-12A12KR	19	- 12	3/4"	1.1/16" - 12	15.0	66.5	14.1	30.0	27.0	32.0	
OPK22711-12A16	19	- 12	3/4"	1.5/16" - 12	19.8	71.0	15.3	34.5	32.0	38.0	
OPK22711-16A16	25	- 16	1"	1.5/16" - 12	19.8	83.5	15.3	35.5	32.0	38.0	

KR: CRIMPED BACK COMPACT ROBUST NUT

SAE STANDARD CONNECTIONS

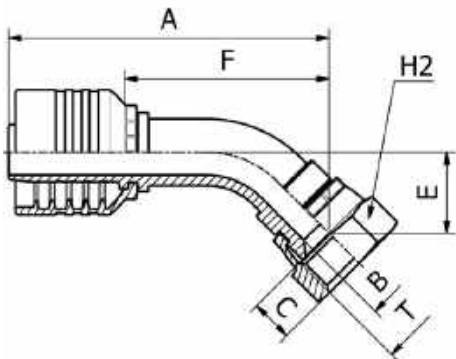


# OPK22542/OPK22543

45° JIC  
FEMALE SWEPT ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	F	H2
OPK22542-06A06	10	- 6	3/8"	9/16" - 18	7.0	71.5	9.2	16.5	42.0	19.0	
OPK22543-06A08	10	- 6	3/8"	3/4" - 16	7.0	70.5	10.1	14.0	41.0	22.0	
OPK22543-06A10	10	- 6	3/8"	7/8" - 14	9.3	72.0	12.4	15.5	42.5	27.0	
OPK22542-08A08	12	- 8	1/2"	3/4" - 16	9.3	83.0	10.2	20.0	52.0	22.0	
OPK22543-08A10	12	- 8	1/2"	7/8" - 14	9.3	80.5	12.4	17.0	49.5	27.0	
OPK22543-08A12	12	- 8	1/2"	1.1/16" - 12	12.5	80.5	14.1	17.0	49.5	32.0	
OPK22542-10A10	16	- 10	5/8"	7/8" - 14	12.5	96.5	12.3	25.5	62.0	27.0	
OPK22543-10A12	16	- 10	5/8"	1.1/16" - 12	12.5	94.5	14.1	24.0	60.0	32.0	
OPK22542-12A12	19	- 12	3/4"	1.1/16" - 12	15.0	106.0	14.2	27.5	70.0	32.0	
OPK22542-12A14	19	- 12	3/4"	1.3/16" - 12	15.0	106.0	14.3	27.5	69.5	36.0	
OPK22542-12A16	19	- 12	3/4"	1.5/16" - 12	19.8	106.5	15.0	27.5	70.0	38.0	
OPK22542-16A16	25	- 16	1"	1.5/16" - 12	19.8	132.5	15.0	32.0	84.0	38.0	
OPK22542-16A20	25	- 16	1"	1.5/8" - 12	26.0	138.0	16.2	36.0	90.0	50.0	
OPK22542-20A20	31	- 20	1.1/4"	1.5/8" - 12	26.0	156.0	16.2	41.5	103.5	50.0	
OPK22542-20A24	31	- 20	1.1/4"	1.7/8" - 12	32.0	159.0	18.8	44.5	106.5	60.0	
OPK22542-24A24	38	- 24	1.1/2"	1.7/8" - 12	32.0	181.0	18.8	46.5	119.0	60.0	
OPK22542-32A32	51	- 32	2"	2.1/2" - 12	44.0	229.0	24.0	68.0	163.0	75.0	

OPK22542: THRUST WIRE NUT / OPK22543: SLIP-ON NUT



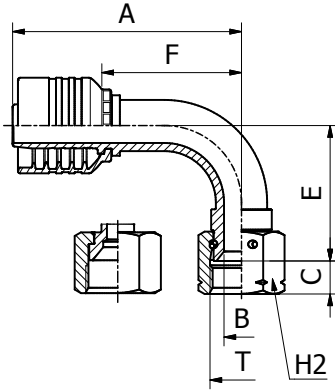
SAE STANDARD CONNECTIONS

# OPK22541KR

45° ELBOW JIC  
FEMALE 37° CONE SEAT  
SAE J516 / ISO 12151-5  
(CRIMPED-BACK NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	F	H2
OPK22541-06A06KR	10	- 6	3/8"	9/16" - 18	7.0	71.5	9.5	16.0	42.0	17.0	
OPK22541-08A08KR	12	- 8	1/2"	3/4" - 16	9.3	83.0	10.7	20.0	52.0	22.0	
OPK22541-10A10KR	16	- 10	5/8"	7/8" - 14	12.5	95.5	12.5	22.5	61.0	25.0	
OPK22541-12A12KR	19	- 12	3/4"	1.1/16" - 12	15.0	105.5	14.1	26.5	69.0	32.0	

SAE STANDARD CONNECTIONS



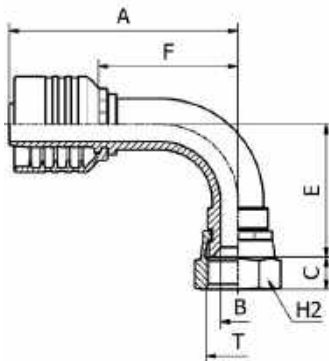
# OPK22592/OPK22593

90° JIC  
FEMALE SWEPT ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5

FITTINGS 262

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	F	H2
OPK22592-06A05	10	- 6	3/8"	1/2" - 20	5.5	59.5	9.1	26.5	30.0	17.0	
OPK22592-06A06	10	- 6	3/8"	9/16" - 18	7.0	65.0	9.2	32.5	35.5	19.0	
OPK22593-06A08	10	- 6	3/8"	3/4" - 16	7.0	66.0	10.1	29.5	36.5	22.0	
OPK22593-06A10	10	- 6	3/8"	7/8" - 14	9.3	66.0	12.4	31.5	36.5	27.0	
OPK22592-08A06	12	- 8	1/2"	9/16" - 18	7.0	68.0	9.2	33.0	37.0	19.0	
OPK22592-08A08	12	- 8	1/2"	3/4" - 16	9.3	75.5	10.2	41.0	44.0	22.0	
OPK22593-08A10	12	- 8	1/2"	7/8" - 14	9.3	76.0	12.4	36.0	45.0	27.0	
OPK22593-08A12	12	- 8	1/2"	1.1/16" - 12	12.5	76.0	14.1	36.0	45.0	32.0	
OPK22592-10A10	16	- 10	5/8"	7/8" - 14	12.5	88.0	12.3	52.5	53.5	27.0	
OPK22593-10A12	16	- 10	5/8"	1.1/16" - 12	12.5	86.0	14.1	50.0	51.5	32.0	
OPK22592-12A10	19	- 12	3/4"	7/8" - 14	12.5	91.5	12.3	52.5	55.0	27.0	
OPK22592-12A12	19	- 12	3/4"	1.1/16" - 12	15.0	98.0	14.2	58.0	62.0	32.0	
OPK22592-12A14	19	- 12	3/4"	1.3/16" - 12	15.0	99.0	14.3	58.0	63.0	36.0	
OPK22592-12A16	19	- 12	3/4"	1.5/16" - 12	19.8	99.0	15.0	57.5	63.0	38.0	
OPK22592-16A16	25	- 16	1"	1.5/16" - 12	19.8	124.0	15.0	68.5	76.0	38.0	
OPK22592-16A20	25	- 16	1"	1.5/8" - 12	26.0	125.5	16.2	74.5	77.5	50.0	
OPK22592-20A20	31	- 20	1.1/4"	1.5/8" - 12	26.0	143.0	16.2	86.5	90.5	50.0	
OPK22592-20A24	31	- 20	1.1/4"	1.7/8" - 12	32.0	143.0	18.8	90.5	90.5	60.0	
OPK22592-24A24	38	- 24	1.1/2"	1.7/8" - 12	32.0	170.0	18.8	100.5	108.0	60.0	
OPK22592-32A32	51	- 32	2"	2.1/2" - 12	44.0	208.0	24.0	137.0	142.0	75.0	

OPK22592: THRUST WIRE NUT / OPK22593: SLIP-ON NUT



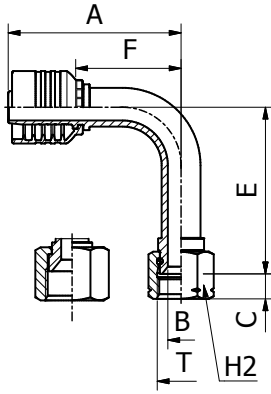
SAE STANDARD CONNECTIONS

# OPK22591KR

90° ELBOW JIC  
FEMALE 37° CONE SEAT SAE  
J516 / ISO 12151-5  
(CRIMPED-BACK NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	F	H2
OPK22591-06A06KR	10	- 6	3/8"	9/16" - 18	7.0	65.0	9.5	32.0	35.5	17.0	
OPK22591-08A08KR	12	- 8	1/2"	3/4" - 16	9.3	75.5	10.7	40.5	44.0	22.0	
OPK22591-10A10KR	16	- 10	5/8"	7/8" - 14	12.5	88.0	12.5	47.0	53.5	25.0	
OPK22591-12A12KR	19	- 12	3/4"	1.1/16" - 12	15.0	98.0	14.1	57.0	62.0	32.0	





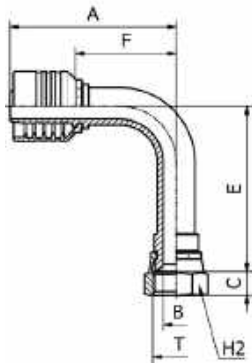
SAE STANDARD CONNECTIONS

# OPK24792/OPK24793

90° JIC  
FEMALE LONG DROP ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPK24792-06A06	10	- 6	3/8"	9/16" - 18	7.0	65.0	9.2	55.0	35.5	19.0	
OPK24793-06A08	10	- 6	3/8"	3/4" - 16	7.0	66.0	10.1	61.5	36.5	22.0	
OPK24793-08A10	12	- 8	1/2"	7/8" - 14	9.3	76.0	12.4	65.0	45.0	27.0	
OPK24792-08A08	12	- 8	1/2"	3/4" - 16	9.3	75.5	10.2	61.0	44.0	22.0	
OPK24792-10A10	16	- 10	5/8"	7/8" - 14	12.5	88.0	12.3	65.5	53.5	27.0	
OPK24792-12A12	19	- 12	3/4"	1.1/16" - 12	15.0	98.0	14.2	94.5	62.0	32.0	
OPK24792-16A16	25	- 16	1"	1.5/16" - 12	19.8	125.5	15.0	110.0	77.5	38.0	

OPK24792: THRUST WIRE NUT / OPK24793: SLIP-ON NUT

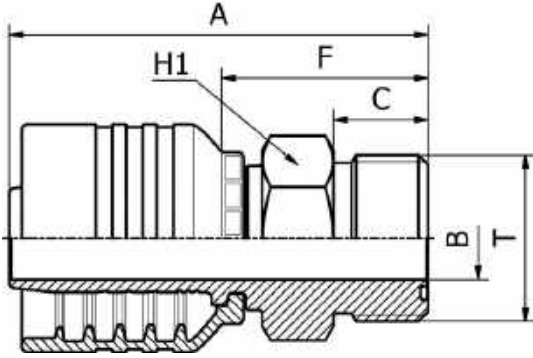


SAE STANDARD CONNECTIONS

# OPK24791KR

90° LONG DROP ELBOW JIC  
FEMALE 37° CONE SEAT  
SAE J516 / ISO 12151-5  
(CRIMPED-BACK NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPK24791-06A06KR	10	- 6	3/8"	9/16" - 18	7.0	65.0	9.5	55.0	35.5	17.0	
OPK24791-08A08KR	12	- 8	1/2"	3/4" - 16	9.3	75.5	10.7	64.0	44.0	22.0	
OPK24791-10A10KR	16	- 10	5/8"	7/8" - 14	12.5	88.0	12.5	70.0	53.5	25.0	
OPK24791-12A12KR	19	- 12	3/4"	1.1/16" - 12	15.0	98.0	14.1	96.0	62.0	32.0	



SAE STANDARD CONNECTIONS

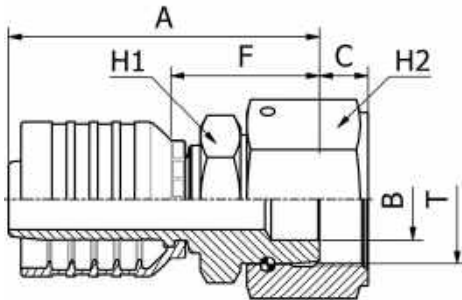
# OPK12410

ORFS  
MALE

SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1		
OPK12410-06A06	10	- 6	3/8"	11/16" - 16	6.7	57.0	11.2	27.5	19.0		
OPK12410-06A08	10	- 6	3/8"	13/16" - 16	9.3	59.5	12.8	30.0	22.0		
OPK12410-08A08	12	- 8	1/2"	13/16" - 16	9.3	61.5	12.8	30.5	22.0		
OPK12410-08A10	12	- 8	1/2"	1" - 14	12.5	66.0	15.5	35.0	27.0		
OPK12410-10A10	16	- 10	5/8"	1" - 14	12.5	69.0	15.5	34.5	27.0		
OPK12410-10A12	16	- 10	5/8"	1.3/16" - 12	15.0	72.0	17.0	37.5	32.0		
OPK12410-12A12	19	- 12	3/4"	1.3/16" - 12	15.0	75.5	17.0	39.0	32.0		
OPK12410-12A16	19	- 12	3/4"	1.7/16" - 12	19.8	77.0	17.5	40.5	38.0		
OPK12410-16A16	25	- 16	1"	1.7/16" - 12	19.8	90.0	17.5	42.0	38.0		
OPK12410-20A20	31	- 20	1.1/4"	1.11/16" - 12	26.0	99.0	17.5	46.5	46.0		
OPK12410-24A24	38	- 24	1.1/2"	2" - 12	32.0	110.5	17.5	48.5	55.0		

FITTINGS 264



SAE STANDARD CONNECTIONS

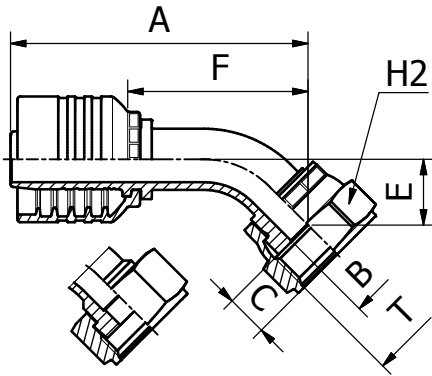
# OPK22411

ORFS  
FEMALE

SAE J516 / ISO 12151-1  
PULLBACK TYPE

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1	H2	
OPK22411-06A06	10	- 6	3/8"	11/16" - 16	7.0	60.5	9.5	31.0	16.0	22.0	
OPK22411-06A08	10	- 6	3/8"	13/16" - 16	9.3	65.0	11.0	35.5	19.0	24.0	
OPK22411-08A06	12	- 8	1/2"	11/16" - 16	7.0	63.0	9.5	32.0	19.0	22.0	
OPK22411-08A08	12	- 8	1/2"	13/16" - 16	9.3	67.0	11.0	36.0	19.0	24.0	
OPK22411-08A10	12	- 8	1/2"	1" - 14	11.5	69.5	13.5	38.5	24.0	30.0	
OPK22411-08A12	12	- 8	1/2"	1.3/16" - 12	13.9	73.0	14.5	42.0	28.0	36.0	
OPK22411-10A10	16	- 10	5/8"	1" - 14	11.5	73.0	13.5	38.5	24.0	30.0	
OPK22411-10A12	16	- 10	5/8"	1.3/16" - 12	13.9	76.5	14.5	42.0	28.0	36.0	
OPK22411-12A10	19	- 12	3/4"	1" - 14	11.5	77.5	13.5	41.0	28.0	30.0	
OPK22411-12A12	19	- 12	3/4"	1.3/16" - 12	13.9	80.0	14.5	43.5	28.0	36.0	
OPK22411-12A16	19	- 12	3/4"	1.7/16" - 12	19.8	82.0	15.0	45.5	36.0	41.0	
OPK22411-16A12	25	- 16	1"	1.3/16" - 12	13.9	94.0	13.5	48.0	36.0	36.0	
OPK22411-16A16	25	- 16	1"	1.7/16" - 12	19.8	94.5	15.0	46.5	36.0	41.0	
OPK22411-16A20	25	- 16	1"	1.11/16" - 12	26.0	97.5	14.8	49.5	41.0	50.0	
OPK22411-20A20	31	- 20	1.1/4"	1.11/16" - 12	26.0	101.5	14.8	49.0	41.0	50.0	
OPK22411-24A24	38	- 24	1.1/2"	2" - 12	32.0	116.0	15.8	54.0	50.0	60.0	

SAE STANDARD CONNECTIONS

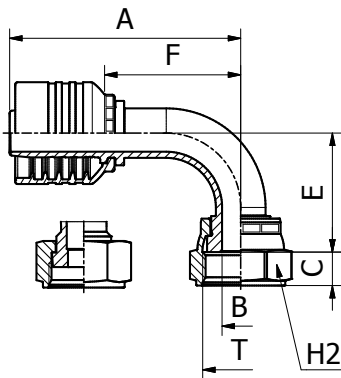


# OPK22441/OPK22443

45° ORFS  
FEMALE ELBOW  
SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPK22443-06A06	10	- 6	3/8"	11/16" - 16	6.0	61.5	9.5	11.0	32.5	22.0	
OPK22443-06A08	10	- 6	3/8"	13/16" - 16	9.3	63.0	11.0	12.5	34.0	24.0	
OPK22441-08A06	12	- 8	1/2"	11/16" - 16	7.0	63.5	9.5	11.0	32.5	22.0	
OPK22443-08A08	12	- 8	1/2"	13/16" - 16	9.0	73.0	11.0	13.0	42.0	24.0	
OPK22443-08A10	12	- 8	1/2"	1" - 14	11.5	73.0	13.5	13.5	42.0	30.0	
OPK22443-08A12	12	- 8	1/2"	1.3/16" - 12	13.9	78.0	14.5	18.5	46.5	36.0	
OPK22443-10A10	16	- 10	5/8"	1" - 14	11.5	83.5	13.5	16.0	49.0	30.0	
OPK22443-10A12	16	- 10	5/8"	1.3/16" - 12	13.9	86.0	14.5	18.5	51.5	36.0	
OPK22441-12A10	19	- 12	3/4"	1" - 14	11.5	87.0	13.5	16.5	50.5	30.0	
OPK22443-12A12	19	- 12	3/4"	1.3/16" - 12	13.9	97.0	14.5	21.5	60.5	36.0	
OPK22443-12A16	19	- 12	3/4"	1.7/16" - 12	19.8	96.5	14.8	21.0	60.0	41.0	
OPK22443-16A16	25	- 16	1"	1.7/16" - 12	19.8	120.0	14.8	23.5	72.0	41.0	
OPK22443-16A20	25	- 16	1"	1.11/16" - 12	26.0	122.0	14.8	25.0	74.0	50.0	
OPK22443-20A20	31	- 20	1.1/4"	1.11/16" - 12	26.0	134.5	14.8	27.0	82.0	50.0	

OPK22442: THRUST WIRE NUT / OPK22443: SLIP-ON NUT



SAE STANDARD CONNECTIONS

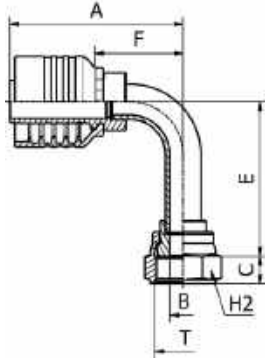
# OPK22491/OPK22493

90° ORFS  
FEMALE ELBOW  
SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPK22493-06A06	10	- 6	3/8"	11/16" - 16	6.0	59.5	9.5	24.0	30.0	22.0	
OPK22493-06A08	10	- 6	3/8"	13/16" - 16	9.3	59.5	11.0	26.5	30.0	24.0	
OPK22491-08A06	12	- 8	1/2"	11/16" - 16	7.0	61.5	9.5	24.5	30.0	22.0	
OPK22493-08A08	12	- 8	1/2"	13/16" - 16	9.0	71.5	11.0	30.0	40.5	24.0	
OPK22493-08A10	12	- 8	1/2"	1" - 14	11.5	71.0	13.5	30.5	40.0	30.0	
OPK22493-08A12	12	- 8	1/2"	1.3/16" - 12	13.9	71.0	14.5	37.5	39.5	36.0	
OPK22493-10A10	16	- 10	5/8"	1" - 14	11.5	82.5	13.5	37.5	48.0	30.0	
OPK22493-10A12	16	- 10	5/8"	1.3/16" - 12	13.9	82.5	14.5	41.0	48.0	36.0	
OPK22491-12A10	19	- 12	3/4"	1" - 14	11.5	85.5	13.5	38.0	49.0	30.0	
OPK22493-12A12	19	- 12	3/4"	1.3/16" - 12	13.9	93.0	14.5	48.0	56.5	36.0	
OPK22493-12A16	19	- 12	3/4"	1.7/16" - 12	19.8	93.0	14.8	47.5	56.5	41.0	
OPK22491-16A12	25	- 16	1"	1.3/16" - 12	13.9	106.0	13.5	48.0	57.5	36.0	
OPK22493-16A16	25	- 16	1"	1.7/16" - 12	19.8	119.5	14.8	56.0	71.5	41.0	
OPK22493-16A20	25	- 16	1"	1.11/16" - 12	26.0	119.5	14.8	58.5	71.5	50.0	
OPK22493-20A20	31	- 20	1.1/4"	1.11/16" - 12	26.0	135.5	14.8	66.0	83.0	50.0	
OPK22493-24A24	38	- 24	1.1/2"	2" - 12	32.0	164.0	14.8	79.5	102.0	60.0	

OPK22492: THRUST WIRE NUT / OPK22493: SLIP-ON NUT

SAE STANDARD CONNECTIONS

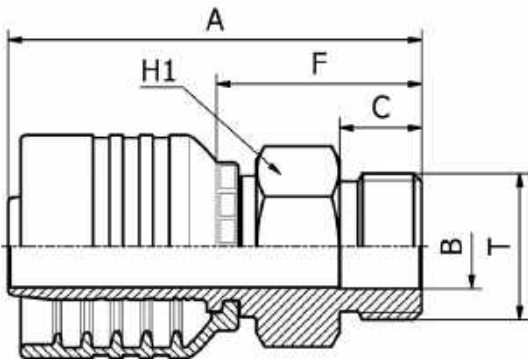


# OPK24491

90° ORFS  
FEMALE LONG DROP ELBOW  
SAE J516 / ISO 12151-1  
(CRIMPED-BACK NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPK24491-06A06	10	- 6	3/8"	11/16" - 16	6.7	61.5	9.5	54.0	32.0	22.0	
OPK24491-06A08	10	- 6	3/8"	13/16" - 16	6.7	61.5	11.0	54.0	32.0	24.0	
OPK24491-08A08	12	- 8	1/2"	13/16" - 16	9.6	68.0	11.0	64.0	37.0	24.0	
OPK24491-08A10	12	- 8	1/2"	1" - 14	9.6	68.0	12.5	64.5	37.0	30.0	
OPK24491-10A10	16	- 10	5/8"	1" - 14	12.0	75.5	13.0	70.0	41.0	30.0	
OPK24491-10A12	16	- 10	5/8"	1.3/16" - 12	12.7	75.5	13.5	73.0	41.0	36.0	
OPK24491-12A12	19	- 12	3/4"	1.3/16" - 12	15.0	95.0	13.5	96.0	58.5	36.0	
OPK24491-16A16	25	- 16	1"	1.7/16" - 12	19.8	119.5	13.5	114.0	71.5	41.0	

All items made by brazing with the exception of OPK24491-12-12 and OPK24491-16-16

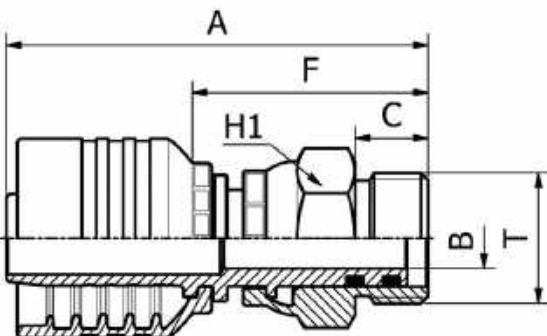


SAE STANDARD CONNECTIONS

# OPK13010

SAE  
MALE O'RING BOSS TYPE

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch	T	B	A	C	F	H1	
OPK13010-08A08	12	- 8	1/2"	3/4" - 16	9.9	60.0	11.1	29.0	22.0	
OPK13010-12A12	19	- 12	3/4"	1.1/16" - 12	15.5	76.0	15.1	39.5	32.0	
OPK13010-16A16	25	- 16	1"	1.5/16" - 12	21.5	89.5	15.1	41.0	38.0	



SAE STANDARD CONNECTIONS

# OPK14310

SAE  
SWIVEL MALE O'RING BOSS TYPE

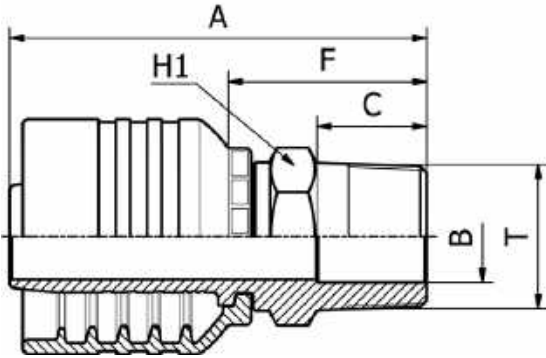
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch	T	B	A	C	F	H2	
OPK14310-08A08	12	- 8	1/2"	3/4" - 16	9.3	84.0	11.1	53.0	27.0	

Not to be used as a live swivel

SAE STANDARD CONNECTIONS

# OPK12810

NPTF  
MALE 60° CONE SEAT  
SAE J516/J514



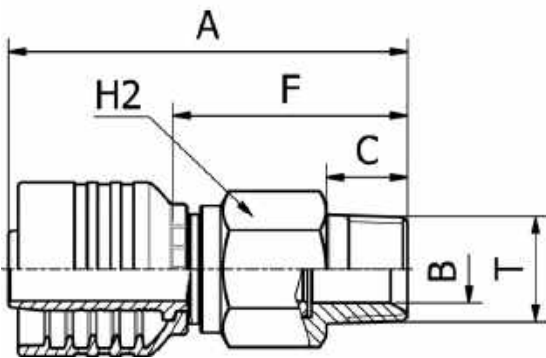
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1		
OPK12810-06A04	10	- 6	3/8"	1/4" - 18	5.5	59.5	14.5	30.0	14.0		
OPK12810-06A06	10	- 6	3/8"	3/8" - 18	9.3	58.0	14.5	28.5	19.0		
OPK12810-06A08	10	- 6	3/8"	1/2" - 14	12.5	64.0	19.2	34.5	24.0		
OPK12810-08A06	12	- 8	1/2"	3/8" - 18	9.3	60.0	14.5	29.0	19.0		
OPK12810-08A08	12	- 8	1/2"	1/2" - 14	12.5	66.0	19.2	35.0	24.0		
OPK12810-08A12	12	- 8	1/2"	3/4" - 14	15.5	66.5	19.2	35.5	27.0		
OPK12810-10A08	16	- 10	5/8"	1/2" - 14	12.5	73.0	19.2	38.5	24.0		
OPK12810-10A12	16	- 10	5/8"	3/4" - 14	16.0	74.5	19.2	40.0	27.0		
OPK12810-12A08	19	- 12	3/4"	1/2" - 14	12.5	73.0	19.2	36.5	27.0		
OPK12810-12A12	19	- 12	3/4"	3/4" - 14	16.0	73.0	19.2	36.5	27.0		
OPK12810-12A16	19	- 12	3/4"	1" - 11,5	19.8	82.5	24.2	46.0	36.0		
OPK12810-16A20	25	- 16	1"	1.1/4" - 11,5	26.0	104.5	25.0	56.5	46.0		
OPK12810-16A12	25	- 16	1"	3/4" - 14	15.5	87.0	19.2	39.0	32.0		
OPK12810-16A16	25	- 16	1"	1" - 11,5	19.8	92.0	24.2	44.0	36.0		
OPK12810-20A20	31	- 20	1.1/4"	1.1/4" - 11,5	26.0	109.0	25.0	56.5	46.0		
OPK12810-24A24	38	- 24	1.1/2"	1.1/2" - 11,5	32.0	119.5	26.0	57.5	50.0		
OPK12810-32A32	51	- 32	2"	2" - 11,5	45.0	130.5	26.5	64.5	65.0		

267 FITTINGS

SAE STANDARD CONNECTIONS

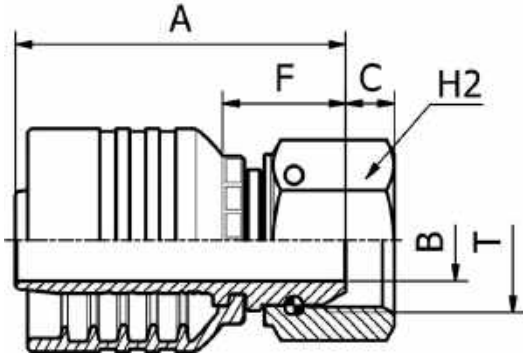
# OPK14110R

NPTF  
SWIVEL MALE 60° CONE SEAT  
SAE J516/J514



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H2		
OPK14110-06A04R	10	- 6	3/8"	1/4" - 18	4.0	80.0	14.5	50.5	22.0		
OPK14110-06A06R	10	- 6	3/8"	3/8" - 18	7.0	80.0	14.5	50.5	22.0		
OPK14110-08A08R	12	- 8	1/2"	1/2" - 14	9.3	90.0	19.2	59.0	27.0		
OPK14110-12A12R	19	- 12	3/4"	3/4" - 14	16.0	94.5	19.2	58.0	32.0		
OPK14110-16A16R	25	- 16	1"	1" - 11,5	19.8	114	24.2	66.0	38.0		

Not to be used as a live swivel



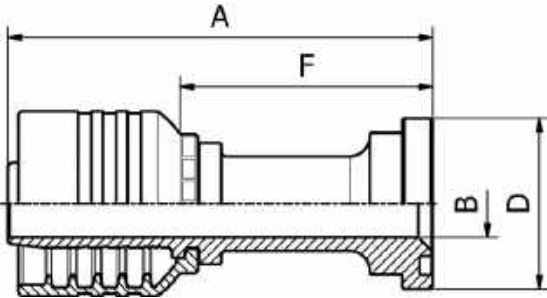
SAE STANDARD CONNECTIONS

# OPK22812

**NPSM  
FEMALE 60° CONE  
SAE J516/J514  
(THRUST-WIRE NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H2		
OPK22812-06A06	10	- 6	3/8"	3/8" - 18	7.0	50.5	6.0	21.0	22.0		
OPK22812-08A08	12	- 8	1/2"	1/2" - 14	9.3	54.0	6.5	23.0	27.0		
OPK22812-12A12	19	- 12	3/4"	3/4" - 14	15.0	61.0	9.0	24.5	32.0		
OPK22812-16A16	25	- 16	1"	1" - 11,5	19.8	75.5	10.5	27.5	38.0		

FITTINGS 268



SAE STANDARD CONNECTIONS

# OPK23311

**ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3**

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	F			
OPK23311-08A08	12	- 8	1/2"	1/2"	9.3	82.0	30.3	51.0			
OPK23311-08A12	12	- 8	1/2"	3/4"	15.1	89.0	38.0	58.0			
OPK23311-10A12	16	- 10	5/8"	3/4"	15.0	100.0	38.0	65.5			
OPK23311-12A12	19	- 12	3/4"	3/4"	15.0	94.5	38.0	58.0			
OPK23311-12A16	19	- 12	3/4"	1"	20.0	94.5	44.6	58.0			
OPK23311-16A16	25	- 16	1"	1"	19.8	112.5	44.6	64.5			
OPK23311-16A20	25	- 16	1"	1.1/4"	26.0	118.5	51.0	70.5			
OPK23311-20A20	31	- 20	1.1/4"	1.1/4"	26.0	123.0	51.0	70.5			
OPK23311-20A24	31	- 20	1.1/4"	1.1/2"	32.0	125.0	60.5	72.5			
OPK23311-24A24	38	- 24	1.1/2"	1.1/2"	32.0	137.5	60.5	75.5			
OPK23311-24A32	38	- 24	1.1/2"	2"	42.0	137.5	71.6	75.5			
OPK23311-32A32	51	- 32	2"	2"	42.0	145.0	71.6	79.0			
OPK23311-32A40	51	- 32	2"	2.1/2"	56.0	147.0	84.3	81.0			

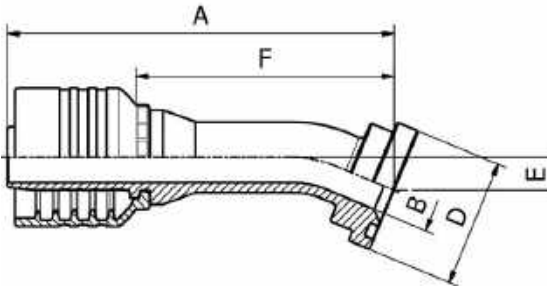
SAE STANDARD CONNECTIONS

# OPK23321

22,5° ISO / SAE

CODE 61 FLANGE

SAE J516 / ISO 12151-3



PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPK23321-08A08	12	- 8	1/2"	1/2"		9.3	95.0	30.3	8.0	64.0		
OPK23321-12A12	19	- 12	3/4"	3/4"		15.0	111.0	38.0	10.0	74.5		
OPK23321-12A16	19	- 12	3/4"	1"		20.0	111.0	44.6	10.0	74.5		
OPK23321-16A16	25	- 16	1"	1"		19.8	137.0	44.6	11.5	89.0		
OPK23321-20A20	31	- 20	1.1/4"	1.1/4"		26.0	152.5	51.0	12.0	100.0		
OPK23321-20A24	31	- 20	1.1/4"	1.1/2"		32.0	154.5	60.5	13.0	102.0		

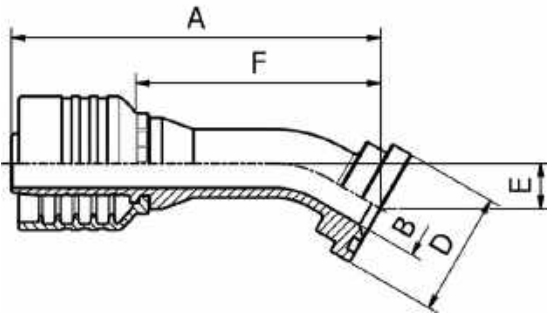
SAE STANDARD CONNECTIONS

# OPK23331

30° ISO / SAE

CODE 61 FLANGE

SAE J516 / ISO 12151-3

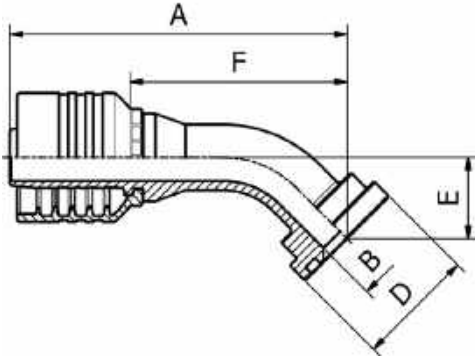


PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPK23331-08A08	12	- 8	1/2"	1/2"		9.3	93.5	30.3	11.0	62.5		
OPK23331-12A12	19	- 12	3/4"	3/4"		15.0	109.5	38.0	14.0	73.0		
OPK23331-12A16	19	- 12	3/4"	1"		20.0	109.5	44.6	14.0	73.0		
OPK23331-16A16	25	- 16	1"	1"		19.8	135.0	44.6	16.5	87.0		
OPK23331-20A20	31	- 20	1.1/4"	1.1/4"		26.0	150.5	51.0	17.5	98.0		
OPK23331-24A24	38	- 24	1.1/2"	1.1/2"		32.0	176.5	60.5	20.0	114.5		

SAE STANDARD CONNECTIONS

# OPK23341

45° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3



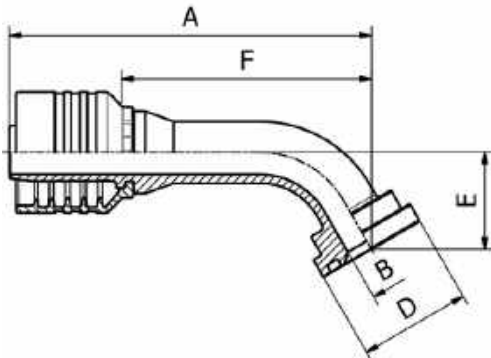
PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	E	F		
OPK23341-08A08	12	- 8	1/2"	1/2"	9.3	90.0	30.3	18.5	58.5		
OPK23341-08A12	12	- 8	1/2"	3/4"	15.0	90.5	38.0	19.0	59.5		
OPK23341-10A12	16	- 10	5/8"	3/4"	15.0	95.0	38.0	22.0	61.0		
OPK23341-12A12	19	- 12	3/4"	3/4"	15.0	104.5	38.0	23.0	68.5		
OPK23341-12A16	19	- 12	3/4"	1"	20.0	104.5	44.6	23.0	68.5		
OPK23341-16A16	25	- 16	1"	1"	19.8	129.5	44.6	27.5	81.5		
OPK23341-16A20	25	- 16	1"	1.1/4"	26.0	129.5	51.0	27.5	81.5		
OPK23341-20A20	31	- 20	1.1/4"	1.1/4"	26.0	144.5	51.0	29.5	92.0		
OPK23341-20A24	31	- 20	1.1/4"	1.1/2"	32.0	146.0	60.5	31.0	93.5		
OPK23341-24A24	38	- 24	1.1/2"	1.1/2"	32.0	169.5	60.5	34.5	107.5		
OPK23341-24A32	38	- 24	1.1/2"	2"	42.0	169.5	71.6	34.5	107.5		
OPK23341-32A32	51	- 32	2"	2"	42.0	190.0	71.6	39.0	124.0		

FITTINGS 270

SAE STANDARD CONNECTIONS

# OPK23361

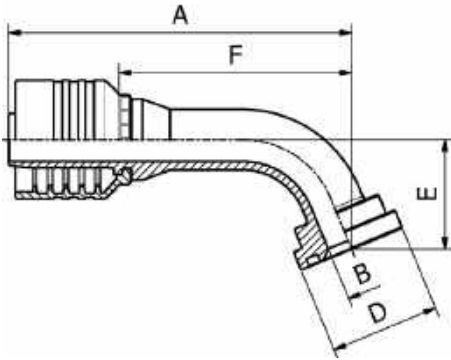
60° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3



PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	E	F		
OPK23361-08A08	12	- 8	1/2"	1/2"	9.3	102.5	30.3	26.0	71.5		
OPK23361-12A12	19	- 12	3/4"	3/4"	15.0	123.5	38.0	33.0	87.0		
OPK23361-16A16	25	- 16	1"	1"	19.8	152.0	44.6	39.0	104.0		
OPK23361-16A20	25	- 16	1"	1.1/4"	26.0	152.0	51.0	39.0	104.0		
OPK23361-20A24	31	- 20	1.1/4"	1.1/2"	32.0	173.5	60.5	44.5	121.0		
OPK23361-20A20	31	- 20	1.1/4"	1.1/4"	26.0	172.5	51.0	43.0	120.0		
OPK23361-24A24	38	- 24	1.1/2"	1.1/2"	32.0	205.5	60.5	50.5	143.5		



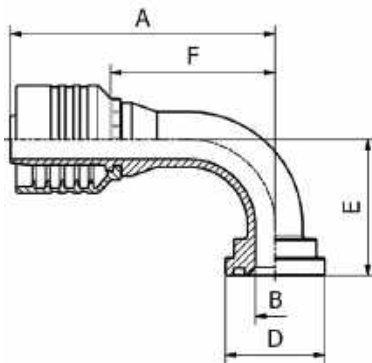
SAE STANDARD CONNECTIONS



# OPK23371

67,5° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPK23371-08A08	12	- 8	1/2"	1/2"		9.3	99.0	30.3	29.5	68.0		
OPK23371-12A12	19	- 12	3/4"	3/4"		15.0	118.5	38.0	38.0	82.0		
OPK23371-12A16	19	- 12	3/4"	1"		20.0	118.5	44.6	38.0	82.0		
OPK23371-16A16	25	- 16	1"	1"		19.8	147.0	44.6	45.0	98.5		
OPK23371-20A20	31	- 20	1.1/4"	1.1/4"		26.0	166.5	51.0	50.0	114.0		
OPK23371-24A24	38	- 24	1.1/2"	1.1/2"		32.0	198.5	60.5	59.0	136.5		



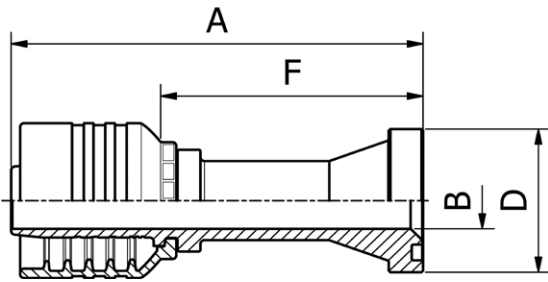
SAE STANDARD CONNECTIONS

# OPK23391

90° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPK23391-08A08	12	- 8	1/2"	1/2"		9.3	85.5	30.3	40.0	54.5		
OPK23391-08A12	12	- 8	1/2"	3/4"		15.0	85.5	38.0	41.0	54.5		
OPK23391-10A12	16	- 10	5/8"	3/4"		15.0	90.0	38.0	47.5	56.0		
OPK23391-12A12	19	- 12	3/4"	3/4"		15.0	101.0	38.0	52.0	64.5		
OPK23391-12A16	19	- 12	3/4"	1"		20.0	101.0	44.6	52.0	64.5		
OPK23391-16A16	25	- 16	1"	1"		19.8	125.5	44.6	62.0	77.5		
OPK23391-16A20	25	- 16	1"	1.1/4"		26.0	125.5	51.0	62.0	77.5		
OPK23391-20A20	31	- 20	1.1/4"	1.1/4"		26.0	143.0	51.0	70.0	90.5		
OPK23391-20A24	31	- 20	1.1/4"	1.1/2"		32.0	143.0	60.5	72.0	90.5		
OPK23391-24A24	38	- 24	1.1/2"	1.1/2"		32.0	170.0	60.5	84.0	108.0		
OPK23391-24A32	38	- 24	1.1/2"	2"		42.0	170.0	71.6	84.0	108.0		
OPK23391-32A32	51	- 32	2"	2"		42.0	195.0	71.6	99.0	129.0		

SAE STANDARD CONNECTIONS

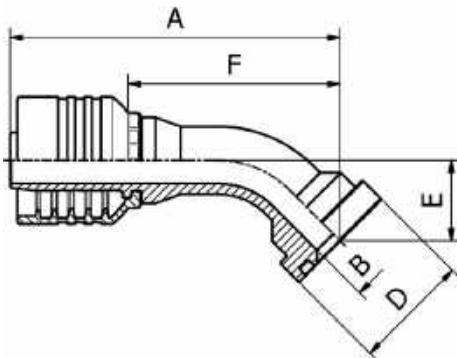


# OPK23611

ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	F			
OPK23611-08A08	12	- 8	1/2"	1/2"	9.3	83.0	31.8	52.0			
OPK23611-08A12	12	- 8	1/2"	3/4"	15.0	99.5	41.5	68.5			
OPK23611-10A08	16	- 10	5/8"	1/2"	9.3	86.5	31.8	52.0			
OPK23611-10A12	16	- 10	5/8"	3/4"	15.0	104.5	41.5	70.0			
OPK23611-12A12	19	- 12	3/4"	3/4"	15.0	105.5	41.5	69.0			
OPK23611-12A16	19	- 12	3/4"	1"	20.0	117.5	47.7	81.0			
OPK23611-16A16	25	- 16	1"	1"	19.8	130.5	47.7	82.5			
OPK23611-16A20	25	- 16	1"	1.1/4"	26.0	138.0	54.2	90.0			
OPK23611-20A20	31	- 20	1.1/4"	1.1/4"	26.0	137.0	54.2	84.5			
OPK23611-20A24	31	- 20	1.1/4"	1.1/2"	32.0	143.0	63.7	90.5			
OPK23611-24A24	38	- 24	1.1/2"	1.1/2"	32.0	154.5	63.6	92.5			
OPK23611-32A32	51	- 32	2"	2"	42.0	175.0	79.5	109.0			

FITTINGS 272

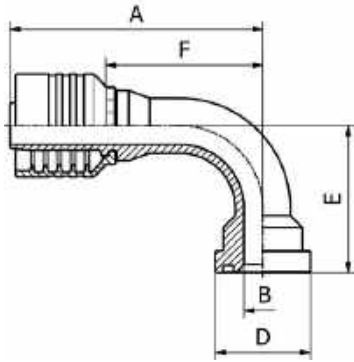


SAE STANDARD CONNECTIONS

# OPK23641

45° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	E	F		
OPK23641-08A08	12	- 8	1/2"	1/2"	9.3	93.5	31.8	22.0	62.0		
OPK23641-08A12	12	- 8	1/2"	3/4"	15.0	99.0	41.5	27.5	68.0		
OPK23641-10A12	16	- 10	5/8"	3/4"	15.0	102.0	41.5	31.0	67.5		
OPK23641-12A12	19	- 12	3/4"	3/4"	15.0	109.0	41.5	28.0	72.5		
OPK23641-12A16	19	- 12	3/4"	1"	20.0	114.0	47.7	32.5	77.0		
OPK23641-16A12	25	- 16	1"	3/4"	15.0	128.0	41.5	30.0	80.0		
OPK23641-16A16	25	- 16	1"	1"	19.8	132.0	47.7	32.5	83.5		
OPK23641-16A20	25	- 16	1"	1.1/4"	26.0	136.5	54.2	37.5	88.5		
OPK23641-20A20	31	- 20	1.1/4"	1.1/4"	26.0	147.5	54.2	37.5	95.0		
OPK23641-20A24	31	- 20	1.1/4"	1.1/2"	32.0	155.0	63.7	45.0	102.5		
OPK23641-24A24	38	- 24	1.1/2"	1.1/2"	32.0	180.0	63.7	44.0	118.0		
OPK23641-32A32	51	- 32	2"	2"	42.0	217.5	79.6	60.5	151.5		



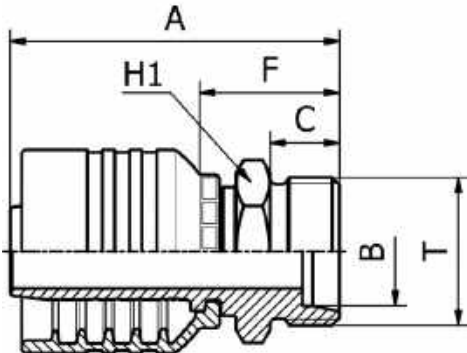
SAE STANDARD CONNECTIONS

# OPK23691

90° ISO / SAE  
CODE 62 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPK23691-08A08	12	- 8	1/2"	1/2"		9.3	85.5	31.8	45.0	54.5		
OPK23691-08A12	12	- 8	1/2"	3/4"		15.0	85.5	41.5	53.0	54.5		
OPK23691-10A12	16	- 10	5/8"	3/4"		15.0	87.5	41.5	60.5	53.5		
OPK23691-10A16	16	- 10	5/8"	1"		19.8	90.0	47.7	64.0	56.0		
OPK23691-12A12	19	- 12	3/4"	3/4"		15.0	100.5	41.5	59.0	64.0		
OPK23691-12A16	19	- 12	3/4"	1"		20.0	101.0	47.7	65.0	64.5		
OPK23691-16A16	25	- 16	1"	1"		19.8	121.5	47.7	68.0	73.5		
OPK23691-16A20	25	- 16	1"	1.1/4"		26.0	121.5	54.2	75.0	73.5		
OPK23691-20A20	31	- 20	1.1/4"	1.1/4"		26.0	138.0	54.2	81.0	85.5		
OPK23691-20A24	31	- 20	1.1/4"	1.1/2"		32.0	138.0	63.7	91.5	85.5		
OPK23691-24A24	38	- 24	1.1/2"	1.1/2"		32.0	168.0	63.7	94.5	106.0		
OPK23691-32A32	51	- 32	2"	2"		42.0	204.0	79.6	132.0	138.0		

273 FITTINGS

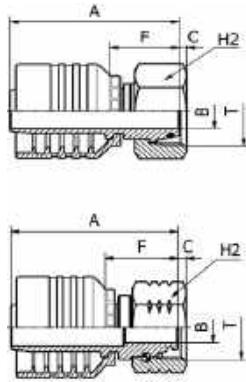


DIN STANDARD CONNECTIONS

# OPK11110

METRIC  
MALE 24° CONE SEAT LIGHT DUTY  
DIN 20066 / ISO 12151-2

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch	T	mm	B	A	C	F	H1		
OPK11110-06A16	10	- 6	3/8"	M 16X1,5	10.0	7.0	53.5	11.0	24.0	17.0		
OPK11110-06A18	10	- 6	3/8"	M 18X1,5	12.0	9.0	54.0	11.0	24.5	19.0		
OPK11110-06A22	10	- 6	3/8"	M 22X1,5	15.0	10.0	55.0	12.0	25.5	22.0		
OPK11110-08A22	12	- 8	1/2"	M 22X1,5	15.0	10.0	56.5	12.0	25.5	22.0		
OPK11110-08A26	12	- 8	1/2"	M 26X1,5	18.0	12.5	57.5	12.0	26.5	27.0		
OPK11110-10A22	16	- 10	5/8"	M 22X1,5	15.0	10.0	60.0	12.0	25.5	22.0		
OPK11110-10A26	16	- 10	5/8"	M 26X1,5	18.0	12.5	61.0	12.0	26.5	27.0		
OPK11110-12A30	19	- 12	3/4"	M 30X2	22.0	15.0	66.5	14.0	30.0	30.0		
OPK11110-16A36	25	- 16	1"	M 36X2	28.0	19.8	80.5	14.0	32.5	36.0		
OPK11110-20A45	31	- 20	1.1/4"	M 45X2	35.0	26.0	93.0	16.0	40.5	46.0		
OPK11110-24A52	38	- 24	1.1/2"	M 52X2	42.0	32.0	105.0	16.0	43.0	55.0		



DIN STANDARD CONNECTIONS

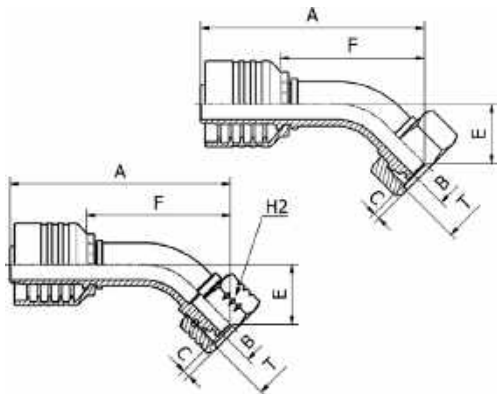
# OPK21512/OPK21513

**METRIC**  
**O-RING FEMALE 24° CONE LIGHT DUTY**  
**DIN 20066 / ISO 12151-2**

FITTINGS 274

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	F
OPK21512-06A16	10	- 6	3/8"	M 16X1,5	10.0	6.0	52.5	3.0	23.0	19.0	
OPK21513-06A18	10	- 6	3/8"	M 18X1,5	12.0	7.0	52.0	2.0	22.5	22.0	
OPK21513-06A22	10	- 6	3/8"	M 22X1,5	15.0	9.3	54.5	1.5	25.0	27.0	
OPK21512-08A18	12	- 8	1/2"	M 18X1,5	12.0	7.0	60.0	2.9	29.0	22.0	
OPK21513-08A22	12	- 8	1/2"	M 22X1,5	15.0	9.3	56.5	1.5	25.5	27.0	
OPK21513-08A26	12	- 8	1/2"	M 26X1,5	18.0	12.5	57.0	2.0	26.0	32.0	
OPK21513-10A26	16	- 10	5/8"	M 26X1,5	18.0	12.5	60.5	2.0	26.0	32.0	
OPK21513-10A30	16	- 10	5/8"	M 30X2	22.0	15.0	68.5	3.0	34.0	36.0	
OPK21512-12A26	19	- 12	3/4"	M 26X1,5	18.0	12.5	67.5	2.3	31.0	32.0	
OPK21513-12A30	19	- 12	3/4"	M 30X2	22.0	15.0	64.5	3.0	28.0	36.0	
OPK21513-12A36	19	- 12	3/4"	M 36X2	28.0	20.0	65.0	3.7	28.5	41.0	
OPK21513-16A36	25	- 16	1"	M 36X2	28.0	19.8	77.5	3.7	29.5	41.0	
OPK21513-20A45	31	- 20	1.1/4"	M 45X2	35.0	26.0	85.5	4.0	33.0	50.0	
OPK21513-24A52	38	- 24	1.1/2"	M 52X2	42.0	32.0	95.0	4.5	33.0	60.0	

OPK21512: THRUST WIRE NUT / OPK21513: SLIP-ON NUT



DIN STANDARD CONNECTIONS

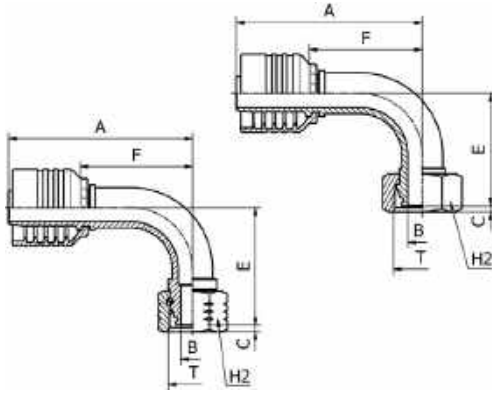
# OPK21542/OPK21543

**45° METRIC**  
**O-RING FEMALE SWEPT ELBOW 24° CONE**  
**LIGHT DUTY**  
**DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	E
OPK21542-06A16	10	- 6	3/8"	M 16X1,5	10.0	6.0	77.0	3.0	21.5	47.5	19.0
OPK21543-06A18	10	- 6	3/8"	M 18X1,5	12.0	7.0	73.0	2.0	16.5	43.5	22.0
OPK21543-06A22	10	- 6	3/8"	M 22X1,5	15.0	9.3	74.0	1.5	18.0	45.0	27.0
OPK21543-08A22	12	- 8	1/2"	M 22X1,5	15.0	9.3	83.0	1.5	19.0	52.0	27.0
OPK21543-10A26	16	- 10	5/8"	M 26X1,5	18.0	12.5	96.5	2.0	26.5	62.0	32.0
OPK21543-12A30	19	- 12	3/4"	M 30X2	22.0	15.0	107.5	3.0	28.5	71.0	36.0
OPK21543-16A36	25	- 16	1"	M 36X2	28.0	19.8	133.0	3.7	32.0	85.0	41.0
OPK21543-20A45	31	- 20	1.1/4"	M 45X2	35.0	26.0	152.5	4.0	36.0	100.0	50.0
OPK21543-24A52	38	- 24	1.1/2"	M 52X2	42.0	32.0	179.0	4.5	44.5	117.0	60.0

OPK21542: THRUST WIRE NUT / OPK21543: SLIP-ON NUT

DIN STANDARD CONNECTIONS

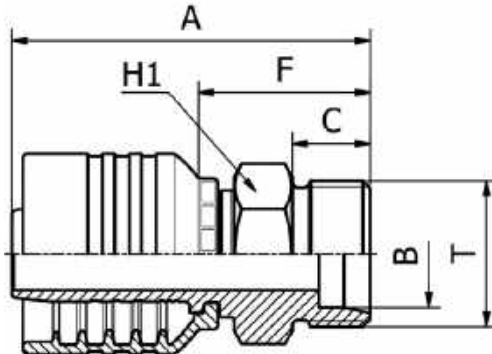


# OPK21592/OPK21593

**90° METRIC  
O-RING FEMALE SWEPT ELBOW 24° CONE  
LIGHT DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch	T	mm	B	A	C	E	F	H2
OPK21592-06A16	10	- 6	3/8"	M 16X1,5	10.0	6.0	65.0	3.0	40.0	35.5	19.0
OPK21593-06A18	10	- 6	3/8"	M 18X1,5	12.0	7.0	66.0	2.0	33.5	36.5	22.0
OPK21593-06A22	10	- 6	3/8"	M 22X1,5	15.0	9.3	66.0	1.5	35.0	36.5	27.0
OPK21592-08A18	12	- 8	1/2"	M 18X1,5	12.0	7.0	75.0	2.9	48.0	44.0	22.0
OPK21593-08A22	12	- 8	1/2"	M 22X1,5	15.0	9.3	76.0	1.5	39.5	45.0	27.0
OPK21593-08A26	12	- 8	1/2"	M 26X1,5	18.0	12.5	76.0	2.0	40.0	45.0	32.0
OPK21593-10A26	16	- 10	5/8"	M 26X1,5	18.0	12.5	86.0	2.0	53.0	51.5	32.0
OPK21593-10A30	16	- 10	5/8"	M 30X2	22.0	15.0	86.0	3.0	54.0	51.5	36.0
OPK21593-12A30	19	- 12	3/4"	M 30X2	22.0	15.0	97.5	3.0	59.5	61.5	36.0
OPK21593-16A36	25	- 16	1"	M 36X2	28.0	19.8	125.0	3.7	69.5	76.5	41.0
OPK21593-20A45	31	- 20	1.1/4"	M 45X2	35.0	26.0	146.0	4.0	81.0	93.5	50.0
OPK21593-24A52	38	- 24	1.1/2"	M 52X2	42.0	32.0	169.5	4.5	98.0	107.5	60.0

OPK21592: THRUST WIRE NUT / OPK21593: SLIP-ON NUT



DIN STANDARD CONNECTIONS

# OPK11210

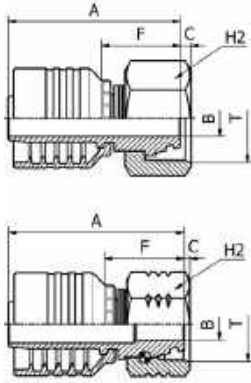
**METRIC  
MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch	T	mm	B	A	C	F	H1	
OPK11210-06A18	10	- 6	3/8"	M 18X1,5	10.0	7.0	56.5	12.0	27.0	19.0	
OPK11210-06A20	10	- 6	3/8"	M 20X1,5	12.0	7.0	58.5	12.0	29.0	22.0	
OPK11210-06A22	10	- 6	3/8"	M 22X1,5	14.0	8.0	60.5	14.0	31.0	22.0	
OPK11210-08A24	12	- 8	1/2"	M 24X1,5	16.0	9.3	62.5	14.0	31.5	24.0	
OPK11210-10A30	16	- 10	5/8"	M 30X2	20.0	15.0	70.0	16.0	35.5	30.0	
OPK11210-12A30	19	- 12	3/4"	M 30X2	20.0	15.0	73.5	16.0	37.0	30.0	
OPK11210-12A36	19	- 12	3/4"	M 36X2	25.0	19.8	77.5	18.0	41.0	36.0	
OPK11210-16A36	25	- 16	1"	M 36X2	25.0	19.8	90.5	18.0	42.5	36.0	
OPK11210-16A42	25	- 16	1"	M 42X2	30.0	25.0	92.5	20.0	44.5	46.0	
OPK11210-20A52	31	- 20	1.1/4"	M 52X2	38.0	30.0	103.5	22.0	51.0	55.0	

DIN STANDARD CONNECTIONS

# OPK21612/OPK21613

**METRIC**  
**O-RING FEMALE 24° CONE HEAVY DUTY**  
**DIN 20066 / ISO 12151-2**



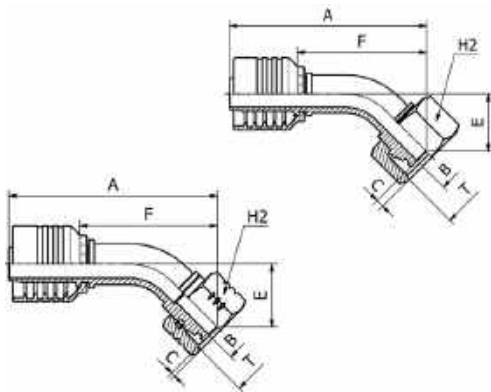
PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	F
OPK21613-06A20	10	- 6	3/8"	M 20X1,5	12.0	7.0	54.5	2.0	25.5	24.0	
OPK21613-06A22	10	- 6	3/8"	M 22X1,5	14.0	7.0	62.0	3.0	32.5	27.0	
OPK21613-08A24	12	- 8	1/2"	M 24X1,5	16.0	9.3	58.0	4.0	26.5	30.0	
OPK21613-10A30	16	- 10	5/8"	M 30X2	20.0	12.5	65.0	3.5	30.5	36.0	
OPK21612-12A30	19	- 12	3/4"	M 30X2	20.0	12.5	70.0	2.2	33.5	36.0	
OPK21613-12A36	19	- 12	3/4"	M 36X2	25.0	15.0	70.5	4.5	34.0	41.0	
OPK21612-16A36	25	- 16	1"	M 36X2	25.0	15.0	83.5	1.7	35.5	41.0	
OPK21613-16A42	25	- 16	1"	M 42X2	30.0	19.8	83.5	6.3	35.5	50.0	
OPK21613-20A52	31	- 20	1.1/4"	M 52X2	38.0	26.0	90.0	8.0	37.5	60.0	
OPK21613-24A52	38	- 24	1.1/2"	M 52X2	38.0	26.0	111.5	8.0	49.5	60.0	

OPK21612: THRUST WIRE NUT / OPK21613: SLIP-ON NUT

DIN STANDARD CONNECTIONS

# OPK21642/OPK21643

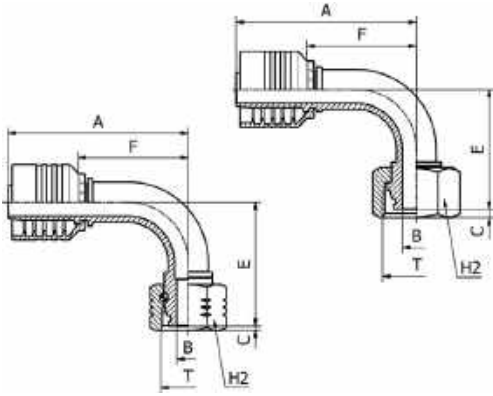
**45° METRIC**  
**O-RING FEMALE SWEPT ELBOW 24° CONE**  
**HEAVY DUTY**  
**DIN 20066 / ISO 12151-2**



PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	E
OPK21643-06A20	10	- 6	3/8"	M 20X1,5	12.0	7.0	73.5	2.0	17.0	44.0	24.0
OPK21643-06A22	10	- 6	3/8"	M 22X1,5	14.0	7.0	75.0	3.0	18.5	45.5	27.0
OPK21643-08A24	12	- 8	1/2"	M 24X1,5	16.0	9.3	83.5	4.0	20.0	52.5	30.0
OPK21643-10A30	16	- 10	5/8"	M 30X2	20.0	12.5	99.5	3.5	29.5	65.5	36.0
OPK21642-12A30	19	- 12	3/4"	M 30X2	20.0	12.5	113.0	2.2	34.0	76.5	36.0
OPK21643-12A36	19	- 12	3/4"	M 36X2	25.0	15.0	111.5	4.5	32.5	75.0	41.0
OPK21643-16A42	25	- 16	1"	M 42X2	30.0	19.8	138.0	6.3	35.5	90.0	50.0
OPK21643-20A52	31	- 20	1.1/4"	M 52X2	38.0	26.0	155.5	8.0	39.5	103.0	60.0

OPK21642: THRUST WIRE NUT / OPK21643: SLIP-ON NUT

DIN STANDARD CONNECTIONS

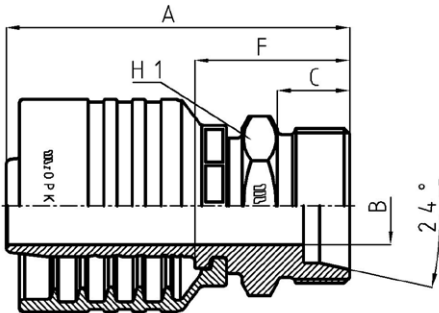


# OPK21692/OPK21693

**90° METRIC  
O-RING FEMALE SWEPT ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	E	F
OPK21693-06A20	10	- 6	3/8"	M 20X1,5	12.0	7.0	66.0	2.0	35.0	36.5	24.0	
OPK21693-06A22	10	- 6	3/8"	M 22X1,5	14.0	7.0	66.0	3.0	37.0	36.5	27.0	
OPK21693-06A24	10	- 6	3/8"	M 24X1,5	16.0	9.3	66.0	4.0	36.0	36.5	30.0	
OPK21693-08A24	12	- 8	1/2"	M 24X1,5	16.0	9.3	76.0	4.0	40.5	45.0	30.0	
OPK21693-10A30	16	- 10	5/8"	M 30X2	20.0	12.5	86.0	3.5	57.5	51.5	36.0	
OPK21692-12A30	19	- 12	3/4"	M 30X2	20.0	12.5	98.0	2.2	67.5	61.5	36.0	
OPK21693-12A36	19	- 12	3/4"	M 36X2	25.0	15.0	97.5	4.5	64.5	61.5	41.0	
OPK21692-16A36	25	- 16	1"	M 36X2	25.0	15.0	127.5	1.7	86.0	79.5	41.0	
OPK21693-16A42	25	- 16	1"	M 42X2	30.0	19.8	127.5	6.3	74.5	79.0	50.0	
OPK21693-20A52	31	- 20	1.1/4"	M 52X2	38.0	26.0	146.0	8.0	85.5	93.5	60.0	

OPK21692: THRUST WIRE NUT / OPK21693: SLIP-ON NUT

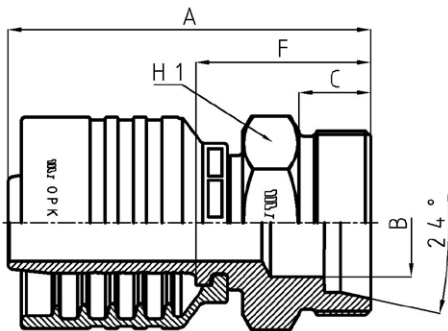


NF STANDARD CONNECTIONS

# OPK11710

**FRENCH METRIC  
MALE 24° CONE SEAT  
MILLIMETRIC TYPE**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	F	H1
OPK11710-12A30	19	- 12	3/4"	M 30X1,5	22.0	15.0	66.5	14.0	30.0	30.0		



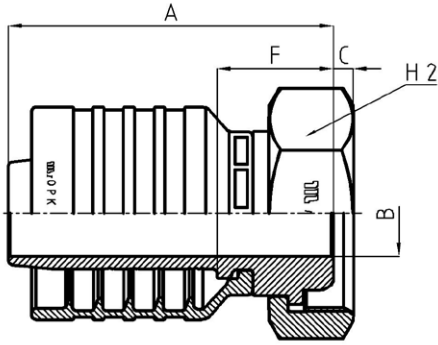
NF STANDARD CONNECTIONS

# OPK11810

**FRENCH METRIC  
MALE 24° CONE SEAT  
GAZ TYPE**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	F	H1
OPK11810-12A36	19	- 12	3/4"	M 36X1,5	26.8	21.0	70.5	14.0	34.0	36.0		

NF STANDARD CONNECTIONS



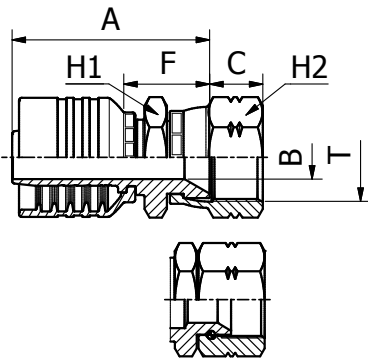
# OPK21813

FRENCH METRIC  
FEMALE  
GAZ TYPE

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch	T	mm	B	A	C	F	H2		
OPK21813-16A45	25	- 16	1"	M 45X1,5	33.5	19.8	75.0	4.5	27.0	50.0		

FITTINGS 278

JIS STANDARD CONNECTIONS



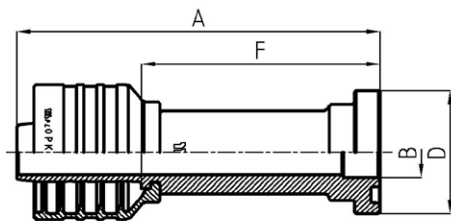
# OPK24011/OPK24012

JIS METRIC  
FEMALE (KOMATSU)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1	H2	
OPK24011-06A18	10	- 6	3/8"	M 18X1,5	7.0	53.0	11.5	23.5	24.0	24.0	
OPK24011-08A22	12	- 8	1/2"	M 22X1,5	9.3	56.0	13.0	25.0	27.0	27.0	
OPK24011-10A24	16	- 10	5/8"	M 24X1,5	12.5	61.0	15.1	26.5	32.0	32.0	
OPK24011-12A30	19	- 12	3/4"	M 30X1,5	15.0	68.0	18.3	31.5	36.0	36.0	
OPK24011-16A33	25	- 16	1"	M 33X1,5	19.8	81.5	21.3	33.5	41.0	41.0	
OPK24012-24A42	38	- 24	1.1/2"	M 42X1,5	26.0	106.0	18.8	44.0	55.0	55.0	

OPK24011: CRIMPED BACK-NUT / OPK24012: THRUST WIRE NUT

ORIGINAL EQUIPMENT CONNECTIONS



# OPK24111

STRAIGHT KOMATSU FLANGE

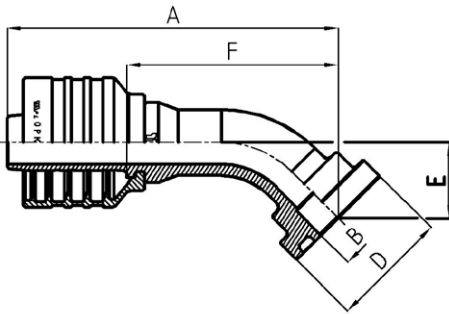
PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch	inch	B	A	D	F			
OPK24111-10A10	16	- 10	5/8"	5/8"	14.0	100.0	34.0	65.5			



ORIGINAL EQUIPMENT CONNECTIONS

# OPK24141

45° KOMATSU FLANGE

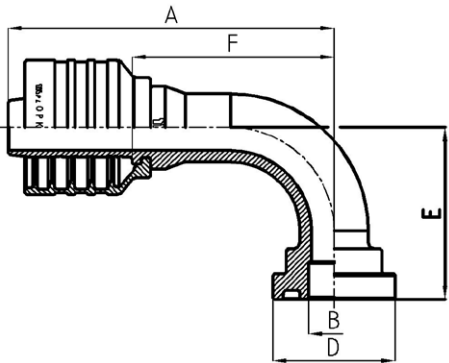


PART. REF.	HOSE BORE			Flange	inch	DIMENSIONS mm						
	DN	Dash	inch			B	A	D	E	F		
OPK24141-10A10	16	- 10	5/8"	5/8"		14.0	95.0	34.0	22.0	61.0		

ORIGINAL EQUIPMENT CONNECTIONS

# OPK24191

90° KOMATSU FLANGE

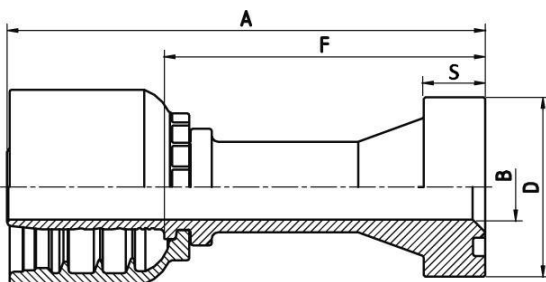


PART. REF.	HOSE BORE			Flange	inch	DIMENSIONS mm						
	DN	Dash	inch			B	A	D	E	F		
OPK24191-10A10	16	- 10	5/8"	5/8"		14.0	90.0	34.0	47.5	56.0		

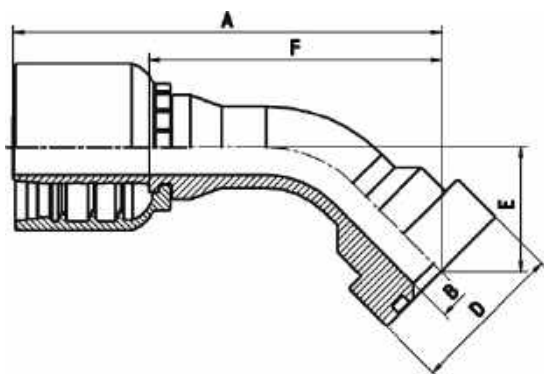
ORIGINAL EQUIPMENT CONNECTIONS

# OPK23911

STRAIGHT SUPERCAT FLANGE



PART. REF.	HOSE BORE			Flange	inch	DIMENSIONS mm				
	DN	Dash	inch			B	A	D	F	S
OPK23911-12A12	19	- 12	3/4"	3/4"		15.0	111.0	41.5	74.5	14.3
OPK23911-16A16	25	- 16	1"	1"		19.8	135.0	47.7	87.0	14.3
OPK23911-16A20	25	- 16	1"	1.1/4"		26.0	140.5	54.0	92.5	14.3
OPK23911-20A20	31	- 20	1.1/4"	1.1/4"		26.0	138.5	54.0	86.0	14.3
OPK23911-24A24	38	- 24	1.1/2"	1.1/2"		32.0	156.0	63.6	94.0	14.3



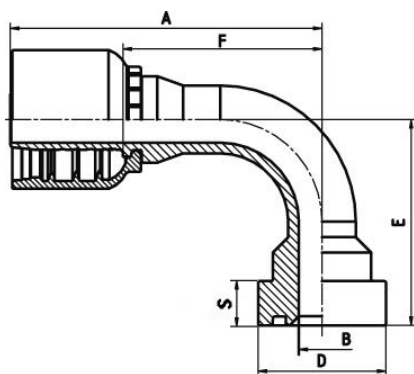
ORIGINAL EQUIPMENT CONNECTIONS

# OPK23941

45° SUPERCAT FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	F	S
OPK23941-12A12	19	- 12	3/4"	3/4"	15.0	114.0	41.5	32.0	77.0	14.3	
OPK23941-16A16	25	- 16	1"	1"	19.8	138.0	47.7	36.5	89.5	14.3	
OPK23941-16A20	25	- 16	1"	1.1/4"	26.0	140.5	54.0	40.5	92.5	14.3	
OPK23941-20A20	31	- 20	1.1/4"	1.1/4"	26.0	151.5	54.0	41.5	99.0	14.3	

FITTINGS 280



ORIGINAL EQUIPMENT CONNECTIONS

# OPK23991

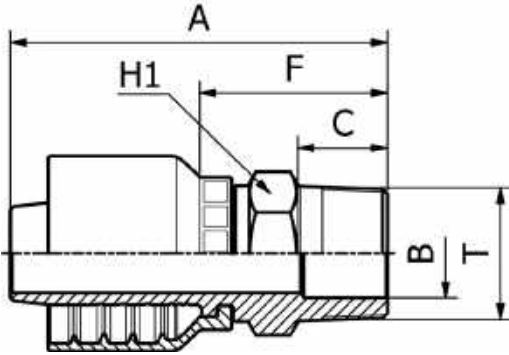
90° SUPERCAT FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		inch	B	A	D	E	F	S
OPK23991-12A12	19	- 12	3/4"	3/4"	15.0	101.0	41.5	64.5	64.5	14.3	
OPK23991-16A16	25	- 16	1"	1"	19.8	125.5	47.7	76.5	77.5	14.3	
OPK23991-16A20	25	- 16	1"	1.1/4"	26.0	123.5	54.0	80.5	75.5	14.3	
OPK23991-20A20	31	- 20	1.1/4"	1.1/4"	26.0	138.0	54.0	87.0	85.5	14.3	

BS STANDARD CONNECTIONS

# OPF10710

**BSP  
MALE TAPERED**

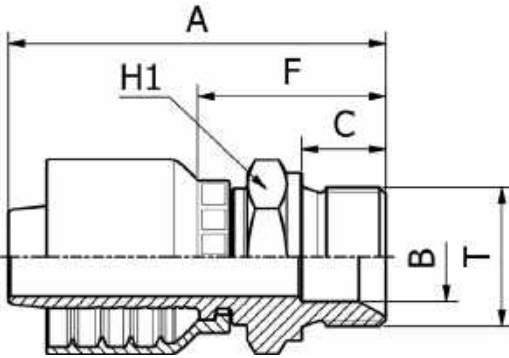


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	F	H1	
OPF10710-08A08	12	- 8	1/2"	1/2" - 14	10.0	62.0	15.0	31.0	22.0		
OPF10710-10A12	16	- 10	5/8"	3/4" - 14	17.0	68.5	17.0	34.0	27.0		

BS STANDARD CONNECTIONS

# OPF10510

**BSP  
MALE PARALLEL 60° CONE SEAT  
BS5200 / ISO 8434-6**

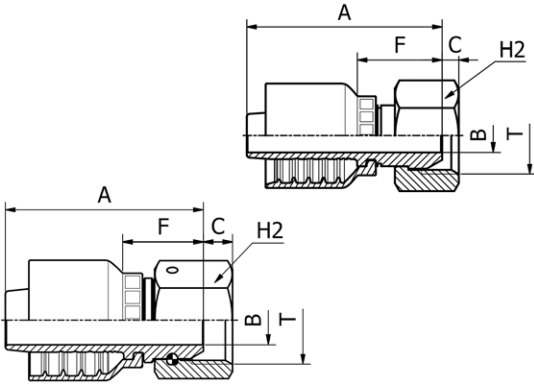


PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	F	H1	
OPF10510-03A02	5	- 3	3/16"	1/8" - 28	3.5	44.0	10.0	22.5	14.0		
OPF10510-04A02	6	- 4	1/4"	1/8" - 28	3.5	50.0	10.0	22.5	14.0		
OPF10510-04A04	6	- 4	1/4"	1/4" - 19	5.0	53.0	11.0	25.5	19.0		
OPF10510-04A06	6	- 4	1/4"	3/8" - 19	8.0	54.5	12.0	27.0	22.0		
OPF10510-05A04	8	- 5	5/16"	1/4" - 19	5.0	54.0	11.0	26.0	19.0		
OPF10510-05A06	8	- 5	5/16"	3/8" - 19	8.0	55.5	12.0	27.5	22.0		
OPF10510-06A04	10	- 6	3/8"	1/4" - 19	5.0	55.5	11.0	26.0	19.0		
OPF10510-06A06	10	- 6	3/8"	3/8" - 19	8.0	57.5	12.0	28.0	22.0		
OPF10510-06A08	10	- 6	3/8"	1/2" - 14	11.0	60.0	14.0	30.5	27.0		
OPF10510-08A06	12	- 8	1/2"	3/8" - 19	8.0	59.0	12.0	28.0	22.0		
OPF10510-08A08	12	- 8	1/2"	1/2" - 14	11.0	62.0	14.0	31.0	27.0		
OPF10510-08A10	12	- 8	1/2"	5/8" - 14	14.5	64.0	16.0	33.0	30.0		
OPF10510-08A12	12	- 8	1/2"	3/4" - 14	17.0	65.0	16.0	34.0	32.0		
OPF10510-10A10	16	- 10	5/8"	5/8" - 14	14.5	67.5	16.0	33.0	30.0		
OPF10510-10A12	16	- 10	5/8"	3/4" - 14	17.0	68.5	16.0	34.0	32.0		
OPF10510-12A12	19	- 12	3/4"	3/4" - 14	17.0	72.0	16.0	35.5	32.0		
OPF10510-12A16	19	- 12	3/4"	1" - 11	22.5	76.0	19.0	39.5	41.0		
OPF10510-16A16	25	- 16	1"	1" - 11	22.5	89.0	19.0	41.0	41.0		
OPF10510-16A20	25	- 16	1"	1.1/4" - 11	28.5	93.0	20.0	45.0	50.0		

BS STANDARD CONNECTIONS

# OPF20512/OPF20513

**BSP  
FEMALE 60° CONE  
BS5200 / ISO 12151-6**



FITTINGS 282

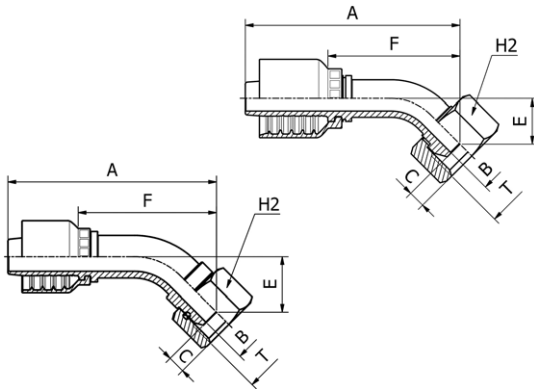
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch		T	B	A	C	F	H2
OPF20512-03A02	5	- 3	3/16"	1/8" - 28	3.0	37.0	4.4	16.0	14.0	
OPF20513-03A04	5	- 3	3/16"	1/4" - 19	4.0	38.0	5.4	16.5	19.0	
OPF20512-04A02	6	- 4	1/4"	1/8" - 28	3.1	44.0	4.4	16.5	14.0	
OPF20513-04A04	6	- 4	1/4"	1/4" - 19	4.0	44.5	5.4	17.0	19.0	
OPF20513-04A06	6	- 4	1/4"	3/8" - 19	7.0	45.5	6.0	19.0	22.0	
OPF20512-05A04	8	- 5	5/16"	1/4" - 19	4.1	45.5	4.2	17.5	19.0	
OPF20513-05A06	8	- 5	5/16"	3/8" - 19	7.0	47.0	6.0	19.0	22.0	
OPF20512-06A04	10	- 6	3/8"	1/4" - 19	4.1	47.5	4.2	18.0	19.0	
OPF20513-06A06	10	- 6	3/8"	3/8" - 19	7.0	49.0	6.0	19.5	22.0	
OPF20513-06A08	10	- 6	3/8"	1/2" - 14	9.3	49.5	6.3	20.0	27.0	
OPF20512-08A06	12	- 8	1/2"	3/8" - 19	7.1	52.0	6.0	21.0	22.0	
OPF20513-08A08	12	- 8	1/2"	1/2" - 14	9.3	51.5	6.3	20.5	27.0	
OPF20512-08A10	12	- 8	1/2"	5/8" - 14	12.1	53.0	10.2	22.0	28.0	
OPF20512-08A12	12	- 8	1/2"	3/4" - 14	15.0	56.0	9.0	24.5	32.0	
OPF20512-10A10	16	- 10	5/8"	5/8" - 14	12.5	56.0	10.2	21.5	28.0	
OPF20512-10A12	16	- 10	5/8"	3/4" - 14	15.0	57.5	9.0	23.0	32.0	
OPF20512-12A12	19	- 12	3/4"	3/4" - 14	15.0	61.0	9.0	24.5	32.0	
OPF20512-12A16	19	- 12	3/4"	1" - 11	19.8	62.5	10.5	26.0	38.0	
OPF20512-16A16	25	- 16	1"	1" - 11	19.8	75.5	10.5	27.5	38.0	

OPF20512: THRUST WIRE NUT / OPF20513: SLIP-ON NUT

BS STANDARD CONNECTIONS

# OPF20542/OPF20543

**45° BSP  
FEMALE ELBOW 60° CONE  
BS5200 / ISO 12151-6**



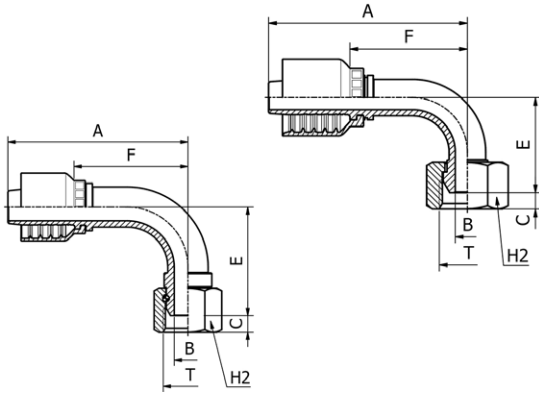
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	F	H2
OPF20543-04A04	6	- 4	1/4"	1/4" - 19	4.0	63.5	5.4	15.0	36.0	19.0	
OPF20543-04A06	6	- 4	1/4"	3/8" - 19	7.0	65.0	6.0	16.0	37.5	22.0	
OPF20543-05A06	8	- 5	5/16"	3/8" - 19	7.0	66.0	6.0	13.5	38.0	22.0	
OPF20543-06A06	10	- 6	3/8"	3/8" - 19	7.0	71.5	6.0	15.5	42.0	22.0	
OPF20543-06A08	10	- 6	3/8"	1/2" - 14	9.3	72.0	6.3	16.0	42.5	27.0	
OPF20543-08A08	12	- 8	1/2"	1/2" - 14	9.3	81.0	6.3	17.0	49.5	27.0	
OPF20542-08A10	12	- 8	1/2"	5/8" - 14	12.1	85.5	10.2	22.5	54.5	28.0	
OPF20542-10A10	16	- 10	5/8"	5/8" - 14	12.5	97.5	10.2	26.0	63.0	28.0	
OPF20542-10A12	16	- 10	5/8"	3/4" - 14	15.0	98.0	9.0	27.0	64.0	32.0	
OPF20542-12A12	19	- 12	3/4"	3/4" - 14	15.0	107.0	9.0	28.5	70.5	32.0	
OPF20542-12A16	19	- 12	3/4"	1" - 11	19.8	109.0	10.5	30.0	72.5	38.0	
OPF20542-16A16	25	- 16	1"	1" - 11	19.8	139.5	10.5	36.5	91.0	38.0	

OPF20542: THRUST WIRE NUT / OPF20543: SLIP-ON NUT

BS STANDARD CONNECTIONS

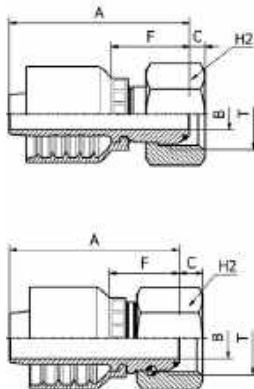
# OPF20592/OPF20593

90° BSP  
FEMALE ELBOW 60° CONE  
BS5200 / ISO 12151-6



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	E	F	H2	
OPF20592-03A02	5	- 3	3/16"	1/8" - 28		3.0	43.0	4.4	26.0	21.5	14.0	
OPF20592-04A02	6	- 4	1/4"	1/8" - 28		3.1	56.0	4.4	27.0	28.5	14.0	
OPF20593-04A04	6	- 4	1/4"	1/4" - 19		4.0	57.0	5.4	29.0	29.5	19.0	
OPF20593-04A06	6	- 4	1/4"	3/8" - 19		7.0	57.0	6.0	31.0	29.5	22.0	
OPF20593-05A06	8	- 5	5/16"	3/8" - 19		7.0	60.0	6.0	27.5	32.0	22.0	
OPF20592-05A04	8	- 5	5/16"	1/4" - 19		4.0	54.5	4.1	29.5	26.5	19.0	
OPF20593-06A08	10	- 6	3/8"	1/2" - 14		9.3	66.0	6.3	32.0	36.5	27.0	
OPF20593-06A06	10	- 6	3/8"	3/8" - 19		7.0	66.0	6.0	31.5	36.5	22.0	
OPF20592-08A06	12	- 8	1/2"	3/8" - 19		7.1	76.0	6.0	41.0	45.0	22.0	
OPF20593-08A08	12	- 8	1/2"	1/2" - 14		9.3	76.0	6.3	36.5	45.0	27.0	
OPF20592-08A10	12	- 8	1/2"	5/8" - 14		12.1	75.5	10.2	44.0	44.0	28.0	
OPF20592-08A12	12	- 8	1/2"	3/4" - 14		15.0	75.5	9.0	45.5	44.0	32.0	
OPF20592-10A10	16	- 10	5/8"	5/8" - 14		12.5	88.0	10.2	53.5	53.5	28.0	
OPF20592-10A12	16	- 10	5/8"	3/4" - 14		15.0	88.0	9.0	55.0	53.5	32.0	
OPF20592-12A12	19	- 12	3/4"	3/4" - 14		15.0	98.0	9.0	59.5	61.5	32.0	
OPF20592-12A16	19	- 12	3/4"	1" - 11		19.8	98.0	10.5	62.0	61.5	38.0	
OPF20592-16A16	25	- 16	1"	1" - 11		19.8	127.5	10.5	76.0	79.5	38.0	

OPF20592: THRUST WIRE NUT / OPF20593: SLIP-ON NUT



BS STANDARD CONNECTIONS

# OPF20812/OPF20813

BSP  
O-RING FEMALE 60° CONE  
BS5200 / ISO 12151-6

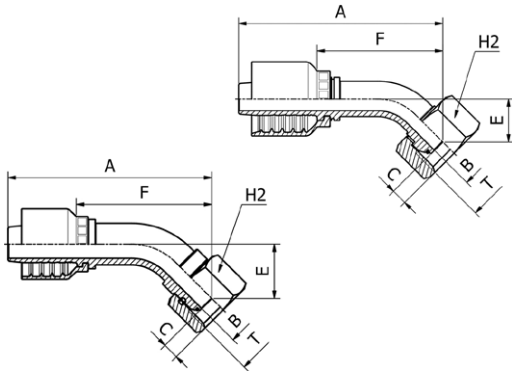
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	F	H2		
OPF20813-04A04	6	- 4	1/4"	1/4" - 19		4.0	44.5	5.4	17.0	19.0		
OPF20812-06A04	10	- 6	3/8"	1/4" - 19		4.1	47.5	4.1	18.0	19.0		
OPF20813-06A06	10	- 6	3/8"	3/8" - 19		7.0	49.0	6.0	19.5	22.0		
OPF20813-08A08	12	- 8	1/2"	1/2" - 14		9.3	51.5	6.3	20.5	27.0		
OPF20812-10A10	16	- 10	5/8"	5/8" - 14		12.5	56.5	9.7	22.0	28.0		
OPF20812-12A12	19	- 12	3/4"	3/4" - 14		15.0	61.5	8.5	25.0	32.0		
OPF20812-16A16	25	- 16	1"	1" - 11		19.8	75.5	10.6	27.5	38.0		
OPF20812-16A20	25	- 16	1"	1.1/4" - 11		26.1	79.0	10.5	31.0	50.0		

OPF20812: THRUST WIRE NUT / OPF20813: SLIP-ON NUT

BS STANDARD CONNECTIONS

# OPF20842/OPF20843

45° BSP  
O-RING FEMALE ELBOW 60° CONE  
BS5200 / ISO 12151-6



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPF20843-04A04	6	- 4	1/4"	1/4" - 19	4.0	63.5	5.4	14.5	36.0	19.0	
OPF20843-06A06	10	- 6	3/8"	3/8" - 19	7.0	71.5	6.0	15.5	42.0	22.0	
OPF20843-08A08	12	- 8	1/2"	1/2" - 14	9.3	81.0	6.3	17.0	49.5	27.0	
OPF20842-10A10	16	- 10	5/8"	5/8" - 14	12.5	98.0	9.7	27.5	63.5	28.0	
OPF20842-12A12	19	- 12	3/4"	3/4" - 14	15.0	107.5	8.5	29.0	71.0	32.0	
OPF20842-16A16	25	- 16	1"	1" - 11	19.8	138.5	10.6	35.5	90.5	38.0	

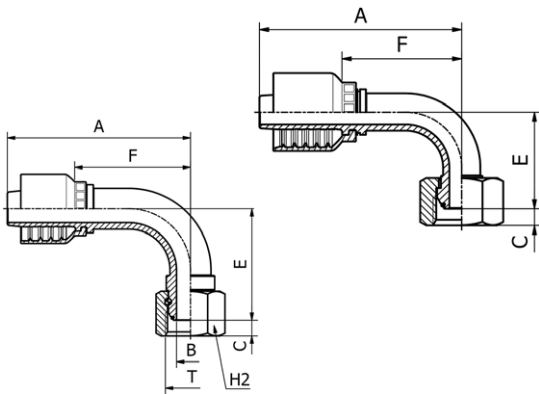
OPF20842: THRUST WIRE NUT / OPF20843: SLIP-ON NUT

FITTINGS 284

BS STANDARD CONNECTIONS

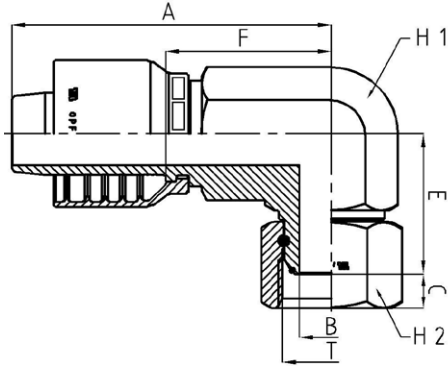
# OPF20892/OPF20893

90° BSP  
O-RING FEMALE SWEPT ELBOW 60° CONE  
BS5200 / ISO 12151-6



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPF20893-04A04	6	- 4	1/4"	1/4" - 19	4.0	57.0	5.4	29.0	29.5	19.0	
OPF20892-06A04	10	- 6	3/8"	1/4" - 19	4.1	65.0	4.1	33.0	35.5	19.0	
OPF20893-06A06	10	- 6	3/8"	3/8" - 19	7.0	66.0	6.0	31.5	36.5	22.0	
OPF20893-08A08	12	- 8	1/2"	1/2" - 14	9.3	76.0	6.3	36.5	45.0	27.0	
OPF20892-10A10	16	- 10	5/8"	5/8" - 14	12.5	87.5	9.7	55.0	53.0	28.0	
OPF20892-12A12	19	- 12	3/4"	3/4" - 14	15.0	98.0	8.5	60.0	61.5	32.0	
OPF20892-16A16	25	- 16	1"	1" - 11	19.8	127.5	10.6	76.0	79.5	38.0	
OPF20892-16A20	25	- 16	1"	1.1/4" - 11	26.1	127.5	10.5	78.5	79.5	50.0	

OPF20892: THRUST WIRE NUT / OPF20893: SLIP-ON NUT

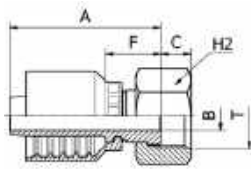


BS STANDARD CONNECTIONS

# OPF20882F

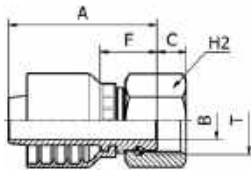
90° BSP  
O-RING FEMALE COMPACT ELBOW 60° CONE  
BS5200 / ISO 12151-6  
(THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	E	F	H1	H2	
OPF20882-04A04F	6	- 4	1/4"	1/4" - 19	4.0	47.5	4.1	22.0	20.0	14.0	19.0	
OPF20882-06A06F	10	- 6	3/8"	3/8" - 19	7.0	52.5	6.0	27.5	23.0	19.0	22.0	
OPF20882-08A08F	12	- 8	1/2"	1/2" - 14	9.3	56.0	6.5	31.0	25.0	22.0	27.0	
OPF20882-10A10F	16	- 10	5/8"	5/8" - 14	12.5	59.0	9.7	32.5	24.5	24.0	28.0	
OPF20882-12A12F	19	- 12	3/4"	3/4" - 14	15.0	74.0	8.5	36.0	37.5	27.0	32.0	
OPF20882-16A16F	25	- 16	1"	1" - 11	20.0	100.0	10.6	44.0	52.0	36.0	38.0	



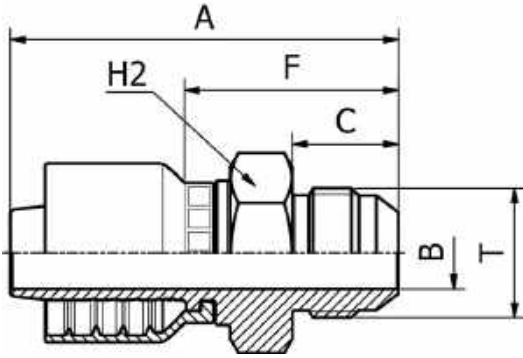
BS STANDARD CONNECTIONS

# OPF20612/OPF20613



BSP  
FEMALE FLAT SEAT  
(SLIP-ON NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	F	H2			
OPF20613-06A06	10	- 6	3/8"	3/8" - 19	7.0	46.0	9.0	16.5	22.0			
OPF20613-06A08	10	- 6	3/8"	1/2" - 14	9.3	47.0	9.8	17.5	27.0			
OPF20613-08A08	12	- 8	1/2"	1/2" - 14	9.3	49.0	9.8	18.0	27.0			
OPF20612-08A12	12	- 8	1/2"	3/4" - 14	15.0	52.0	11.5	21.0	32.0			



SAE STANDARD CONNECTIONS

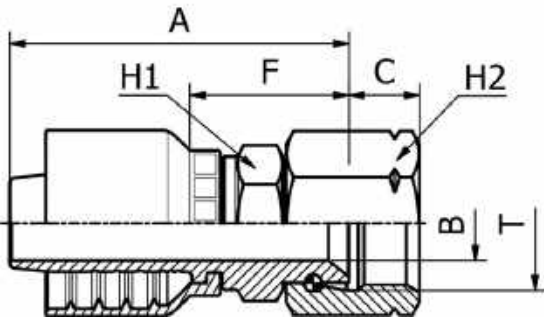
# OPF12510

JIC  
MALE 37° CONE  
SAE J516 / ISO 12151-5

FITTINGS 286

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1		
OPF12510-04A04	6	- 4	1/4"	7/16" - 20	4.0	55.5	14.0	28.0	12.0		
OPF12510-04A05	6	- 4	1/4"	1/2" - 20	5.5	56.5	14.0	29.0	14.0		
OPF12510-04A06	6	- 4	1/4"	9/16" - 18	7.0	56.5	14.0	29.0	17.0		
OPF12510-05A05	8	- 5	5/16"	1/2" - 20	5.5	57.0	14.0	29.0	14.0		
OPF12510-05A06	8	- 5	5/16"	9/16" - 18	7.0	57.0	14.0	29.0	17.0		
OPF12510-06A06	10	- 6	3/8"	9/16" - 18	7.0	59.0	14.0	29.5	17.0		
OPF12510-06A08	10	- 6	3/8"	3/4" - 16	9.3	63.5	16.5	34.0	19.0		
OPF12510-06A10	10	- 6	3/8"	7/8" - 14	12.5	68.0	19.5	38.5	24.0		
OPF12510-08A06	12	- 8	1/2"	9/16" - 18	7.0	63.0	14.0	32.0	19.0		
OPF12510-08A08	12	- 8	1/2"	3/4" - 16	9.3	65.5	16.5	34.5	19.0		
OPF12510-08A10	12	- 8	1/2"	7/8" - 14	12.5	70.0	19.5	39.0	24.0		
OPF12510-08A12	12	- 8	1/2"	1.1/16" - 12	15.0	74.0	22.0	43.0	27.0		
OPF12510-10A10	16	- 10	5/8"	7/8" - 14	12.5	73.5	19.5	39.0	24.0		
OPF12510-10A12	16	- 10	5/8"	1.1/16" - 12	15.0	77.0	22.0	42.5	27.0		
OPF12510-12A10	19	- 12	3/4"	7/8" - 14	12.5	78.0	19.5	41.5	27.0		
OPF12510-12A12	19	- 12	3/4"	1.1/16" - 12	15.0	80.5	22.0	44.0	27.0		
OPF12510-12A14	19	- 12	3/4"	1.3/16" - 12	15.0	81.0	22.5	44.5	32.0		
OPF12510-12A16	19	- 12	3/4"	1.5/16" - 12	19.8	83.5	23.0	47.0	34.0		
OPF12510-16A12	25	- 16	1"	1.1/16" - 12	15.0	93.0	22.0	45.0	32.0		
OPF12510-16A16	25	- 16	1"	1.5/16" - 12	19.8	96.0	23.0	48.0	34.0		
OPF12510-16A20	25	- 16	1"	1.5/8" - 12	26.0	101.0	24.3	53.0	42.0		

SAE STANDARD CONNECTIONS

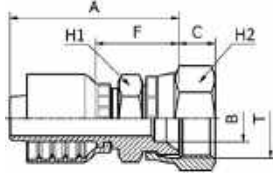
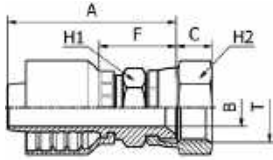


# OPF22712

JIC  
FEMALE 37° CONE SEAT DOUBLE HEXAGON  
SAE J516 / ISO 12151-5  
(THRUST-WIRE NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1	H2	
OPF22712-12A14	19	- 12	3/4"	1.3/16" - 12	15.0	69.5	14.3	33.0	30.0	36.0	
OPF22712-16A20	25	- 16	1"	1.5/8" - 12	26.0	91.0	16.2	43.0	41.0	50.0	





SAE STANDARD CONNECTIONS

# OPF22711/OPF22711KR/ OPF22711K

JIC  
FEMALE 37° CONE SEAT DOUBLE HEXAGON  
SAE J516 / ISO 12151-5  
(CRIMPED-BACK NUT)

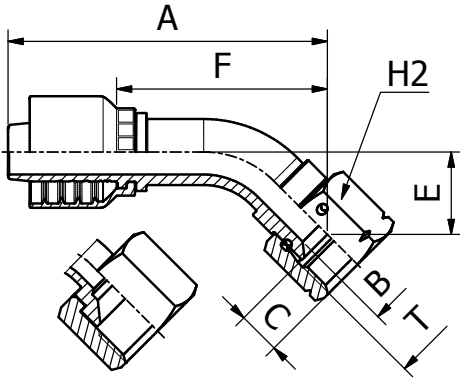
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	F	H1	H2
OPF22711-03A04K	5	- 3	3/16"	7/16" - 20	4.0	41.5	8.9	20.0	12.0	15.0	
OPF22711-04A04KR	6	- 4	1/4"	7/16" - 20	4.0	48.0	8.9	20.5	12.0	15.0	
OPF22711-04A05KR	6	- 4	1/4"	1/2" - 20	4.0	48.5	9.4	21.0	14.0	17.0	
OPF22711-04A06KR	6	- 4	1/4"	9/16" - 18	7.0	49.0	9.5	21.5	14.0	17.0	
OPF22711-05A05KR	8	- 5	5/16"	1/2" - 20	4.0	49.5	9.4	21.5	17.0	17.0	
OPF22711-06A06KR	10	- 6	3/8"	9/16" - 18	7.0	51.5	9.5	22.0	17.0	17.0	
OPF22711-06A08KR	10	- 6	3/8"	3/4" - 16	9.3	56.0	10.7	26.5	19.0	22.0	
OPF22711-08A12KR	12	- 8	1/2"	1.1/16" - 12	15.0	60.0	14.1	28.5	27.0	32.0	
OPF22711-08A06KR	12	- 8	1/2"	9/16" - 18	7.0	55.5	9.5	24.0	19.0	17.0	
OPF22711-08A08KR	12	- 8	1/2"	3/4" - 16	9.3	58.0	10.7	27.0	19.0	22.0	
OPF22711-08A10KR	12	- 8	1/2"	7/8" - 14	9.3	60.5	12.5	29.5	22.0	25.0	
OPF22711-10A08KR	16	- 10	5/8"	3/4" - 16	9.3	62.5	10.7	28.5	22.0	22.0	
OPF22711-10A10KR	16	- 10	5/8"	7/8" - 14	9.3	64.0	12.5	29.5	22.0	25.0	
OPF22711-10A12KR	16	- 10	5/8"	1.1/16" - 12	15.0	63.5	14.1	29.0	27.0	32.0	
OPF22711-12A08KR	19	- 12	3/4"	3/4" - 16	9.3	66.0	10.7	29.5	27.0	22.0	
OPF22711-12A10KR	19	- 12	3/4"	7/8" - 14	12.5	67.0	12.5	30.5	27.0	25.0	
OPF22711-12A12KR	19	- 12	3/4"	1.1/16" - 12	15.0	66.5	14.1	30.0	27.0	32.0	
OPF22711-12A16	19	- 12	3/4"	1.5/16" - 12	19.8	71.0	15.3	34.5	32.0	38.0	
OPF22711-16A12KR	25	- 16	1"	1.1/16" - 12	15.0	80.5	14.1	32.5	32.0	32.0	
OPF22711-16A16	25	- 16	1"	1.5/16" - 12	19.8	83.5	15.3	35.5	32.0	38.0	

KR: CRIMPED KOMPACT ROBUST BACK-NUT

SAE STANDARD CONNECTIONS

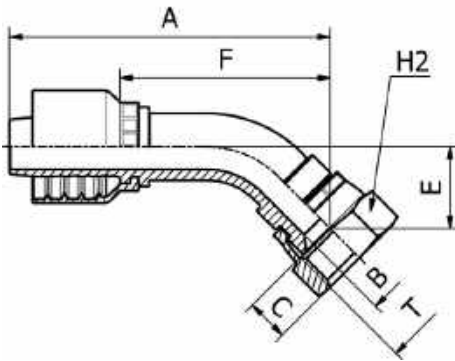
# OPF22542/OPF22543

45° JIC  
FEMALE SWEPT ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	F	H2
OPF22542-04A04	6	- 4	1/4"	7/16" - 20	4.0	63.0	8.7	14.5	35.5	17.0	
OPF22542-04A05	6	- 4	1/4"	1/2" - 20	4.0	63.0	9.1	14.5	35.5	17.0	
OPF22543-04A06	6	- 4	1/4"	9/16" - 18	4.0	63.0	9.8	14.0	35.5	19.0	
OPF22542-05A05	8	- 5	5/16"	1/2" - 20	5.5	65.5	9.1	14.0	37.5	17.0	
OPF22542-05A06	8	- 5	5/16"	9/16" - 18	7.0	66.0	9.2	14.5	38.0	19.0	
OPF22542-06A06	10	- 6	3/8"	9/16" - 18	7.0	71.5	9.2	16.5	42.0	19.0	
OPF22543-06A08	10	- 6	3/8"	3/4" - 16	7.0	70.5	10.1	14.0	41.0	22.0	
OPF22543-06A10	10	- 6	3/8"	7/8" - 14	9.3	72.0	12.4	15.5	42.5	27.0	
OPF22542-08A08	12	- 8	1/2"	3/4" - 16	9.3	83.0	10.2	20.0	52.0	22.0	
OPF22543-08A10	12	- 8	1/2"	7/8" - 14	9.3	80.5	12.4	17.0	49.5	27.0	
OPF22543-08A12	12	- 8	1/2"	1.1/16" - 12	12.5	80.5	14.1	17.0	49.5	32.0	
OPF22542-10A10	16	- 10	5/8"	7/8" - 14	12.5	96.5	12.3	25.5	62.0	27.0	
OPF22543-10A12	16	- 10	5/8"	1.1/16" - 12	12.5	94.5	14.1	24.0	60.0	32.0	
OPF22542-12A12	19	- 12	3/4"	1.1/16" - 12	15.0	106.0	14.2	27.5	70.0	32.0	
OPF22542-12A14	19	- 12	3/4"	1.3/16" - 12	15.0	106.0	14.3	27.5	69.5	36.0	
OPF22542-12A16	19	- 12	3/4"	1.5/16" - 12	19.8	106.5	15.0	27.5	70.0	38.0	
OPF22542-16A12	25	- 16	1"	1.1/16" - 12	15.0	120.5	14.2	27.5	72.5	32.0	
OPF22542-16A16	25	- 16	1"	1.5/16" - 12	19.8	132.5	15.0	32.0	84.0	38.0	
OPF22542-16A20	25	- 16	1"	1.5/8" - 12	26.0	138.0	16.2	36.0	90.0	50.0	

OPF22542: THRUST WIRE NUT / OPF22543: SLIP-ON NUT



SAE STANDARD CONNECTIONS

# OPF22541KR

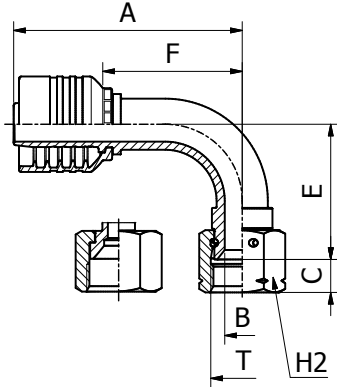
45° ELBOW JIC  
FEMALE 37° CONE SEAT  
SAE J516 / ISO 12151-5  
(CRIMPED-BACK NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	E	F	H2
OPF22541-04A04KR	6	- 4	1/4"	7/16" - 20	4.2	62.0	8.9	13.5	34.5	15.0	
OPF22541-04A05KR	6	- 4	1/4"	1/2" - 20	4.0	62.5	9.4	14.0	35.0	17.0	
OPF22541-06A06KR	10	- 6	3/8"	9/16" - 18	7.0	71.5	9.5	16.0	42.0	17.0	
OPF22541-08A08KR	12	- 8	1/2"	3/4" - 16	9.3	83.0	10.7	20.0	52.0	22.0	
OPF22541-10A10KR	16	- 10	5/8"	7/8" - 14	12.5	95.5	12.5	22.5	61.0	25.0	
OPF22541-12A12KR	19	- 12	3/4"	1.1/16" - 12	15.0	105.5	14.1	26.5	69.0	32.0	

SAE STANDARD CONNECTIONS

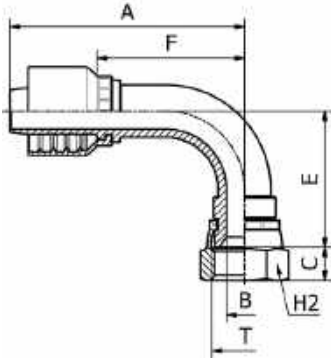
# OPF22592/OPF22593

90° JIC  
FEMALE ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPF22593-03A04	5	- 3	3/16"	7/16" - 20	3.0	47.5	8.5	23.5	26.0	15.0	
OPF22592-04A04	6	- 4	1/4"	7/16" - 20	4.0	56.0	8.7	27.0	28.5	17.0	
OPF22592-04A05	6	- 4	1/4"	1/2" - 20	4.0	56.0	9.1	27.5	28.5	17.0	
OPF22593-04A06	6	- 4	1/4"	9/16" - 18	4.0	57.0	9.8	28.0	29.5	19.0	
OPF22593-04A08	6	- 4	1/4"	3/4" - 16	7.0	57.0	10.0	30.5	29.5	22.0	
OPF22592-05A05	8	- 5	5/16"	1/2" - 20	5.5	59.0	9.1	28.0	31.0	17.0	
OPF22592-05A06	8	- 5	5/16"	9/16" - 18	7.0	59.0	9.2	28.5	31.0	19.0	
OPF22592-06A05	10	- 6	3/8"	1/2" - 20	5.5	59.5	9.1	26.5	30.0	17.0	
OPF22592-06A06	10	- 6	3/8"	9/16" - 18	7.0	65.0	9.2	32.5	35.5	19.0	
OPF22593-06A08	10	- 6	3/8"	3/4" - 16	7.0	66.0	10.1	29.5	36.5	22.0	
OPF22593-06A10	10	- 6	3/8"	7/8" - 14	9.3	66.0	12.4	31.5	36.5	27.0	
OPF22592-08A06	12	- 8	1/2"	9/16" - 18	7.0	68.0	9.2	33.0	37.0	19.0	
OPF22592-08A08	12	- 8	1/2"	3/4" - 16	9.3	75.5	10.2	41.0	44.0	22.0	
OPF22593-08A10	12	- 8	1/2"	7/8" - 14	9.3	76.0	12.4	36.0	45.0	27.0	
OPF22593-08A12	12	- 8	1/2"	1.1/16" - 12	12.5	76.0	14.1	36.0	45.0	32.0	
OPF22592-10A10	16	- 10	5/8"	7/8" - 14	12.5	88.0	12.3	52.5	53.5	27.0	
OPF22593-10A12	16	- 10	5/8"	1.1/16" - 12	12.5	86.0	14.1	50.0	51.5	32.0	
OPF22592-12A10	19	- 12	3/4"	7/8" - 14	12.5	91.5	12.3	52.5	55.0	27.0	
OPF22592-12A12	19	- 12	3/4"	1.1/16" - 12	15.0	98.0	14.2	58.0	62.0	32.0	
OPF22592-12A14	19	- 12	3/4"	1.3/16" - 12	15.0	99.0	14.3	58.0	63.0	36.0	
OPF22592-12A16	19	- 12	3/4"	1.5/16" - 12	19.8	99.0	15.0	57.5	63.0	38.0	
OPF22592-16A16	25	- 16	1"	1.5/16" - 12	19.8	124.0	15.0	68.5	76.0	38.0	
OPF22592-16A20	25	- 16	1"	1.5/8" - 12	26.0	125.5	16.2	74.5	77.5	50.0	

OPF22592: THRUST WIRE NUT / OPF22593: SLIP-ON NUT



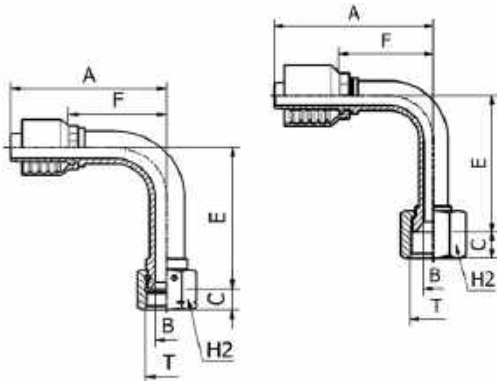
SAE STANDARD CONNECTIONS

# OPF22591KR

**90° ELBOW JIC  
FEMALE 37° CONE SEAT  
SAE J516 / ISO 12151-5  
(CRIMPED-BACK NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPF22591-04A04KR	6	- 4	1/4"	7/16" - 20	4.2	56.0	8.9	26.0	28.5	15.0	
OPF22591-04A05KR	6	- 4	1/4"	1/2" - 20	4.0	56.0	9.4	26.5	28.5	17.0	
OPF22591-06A06KR	10	- 6	3/8"	9/16" - 18	7.0	65.0	9.5	32.0	35.5	17.0	
OPF22591-08A08KR	12	- 8	1/2"	3/4" - 16	9.3	75.5	10.7	40.5	44.0	22.0	
OPF22591-10A10KR	16	- 10	5/8"	7/8" - 14	12.5	88.0	12.5	47.0	53.5	25.0	
OPF22591-12A12KR	19	- 12	3/4"	1.1/16" - 12	15.0	98.0	14.1	57.0	62.0	32.0	

FITTINGS 290



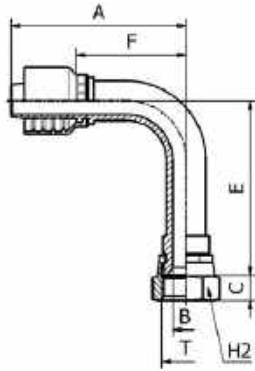
SAE STANDARD CONNECTIONS

# OPF24792/OPF24793

**90° JIC  
FEMALE LONG DROP ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPF24792-04A04	6	- 4	1/4"	7/16" - 20	4.0	56.0	8.7	45.0	28.5	17.0	
OPF24792-04A05	6	- 4	1/4"	1/2" - 20	4.0	56.0	9.1	45.0	28.5	17.0	
OPF24793-04A06	6	- 4	1/4"	9/16" - 18	4.0	57.0	9.8	55.5	29.5	19.0	
OPF24792-08A08	12	- 8	1/2"	3/4" - 16	9.3	75.5	10.2	61.0	44.0	22.0	
OPF24792-06A06	10	- 6	3/8"	9/16" - 18	7.0	65.0	9.2	55.0	35.5	19.0	
OPF24793-06A08	10	- 6	3/8"	3/4" - 16	7.0	66.0	10.1	61.5	36.5	22.0	
OPF24793-08A10	12	- 8	1/2"	7/8" - 14	9.3	76.0	12.4	65.0	45.0	27.0	
OPF24792-10A10	16	- 10	5/8"	7/8" - 14	12.5	88.0	12.3	65.5	53.5	27.0	
OPF24792-12A12	19	- 12	3/4"	1.1/16" - 12	15.0	98.0	14.2	94.5	62.0	32.0	
OPF24792-16A16	25	- 16	1"	1.5/16" - 12	19.8	125.5	15.0	110.0	77.5	38.0	

OPF24792: THRUST WIRE NUT / OPF24793: SLIP-ON NUT

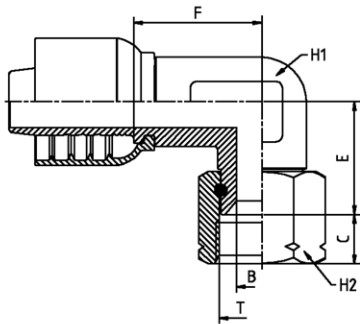


SAE STANDARD CONNECTIONS

# OPF24791KR

**90° LONG DROP ELBOW JIC  
FEMALE 37° CONE SEAT  
SAE J516 / ISO 12151-5  
(CRIMPED-BACK NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	E	F	H2		
OPF24791-04A04KR	6	- 4	1/4"	7/16" - 20	4.2	56.0	8.9	45.0	28.5	15.0		
OPF24791-06A06KR	10	- 6	3/8"	9/16" - 18	7.0	65.0	9.5	55.0	35.5	17.0		
OPF24791-08A08KR	12	- 8	1/2"	3/4" - 16	9.3	75.5	10.7	64.0	44.0	22.0		
OPF24791-10A10KR	16	- 10	5/8"	7/8" - 14	12.5	88.0	12.5	70.0	53.5	25.0		
OPF24791-12A12KR	19	- 12	3/4"	1.1/16" - 12	15.0	98.0	14.1	96.0	62.0	32.0		



SAE STANDARD CONNECTIONS

# OPF22582F

**90° JIC  
FEMALE COMPACT ELBOW 37° CONE SEAT  
SAE J516 / ISO 12151-5  
(THRUST-WIRE NUT)**

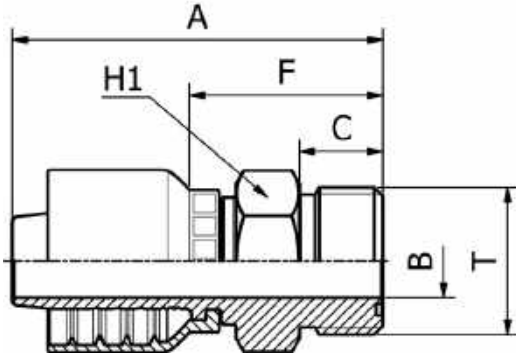
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	E	F	H1	H2	
OPF22582-04A04F	6	- 4	1/4"	7/16" - 20	4.0	47.5	8.7	20.5	20.0	14.0	17.0	
OPF22582-04A06F	6	- 4	1/4"	9/16" - 18	7.0	47.5	9.2	21.5	20.0	14.0	19.0	
OPF22582-06A06F	10	- 6	3/8"	9/16" - 18	7.0	52.5	9.2	24.0	23.0	19.0	19.0	
OPF22582-06A08F	10	- 6	3/8"	3/4" - 16	9.3	56.0	10.2	28.0	26.5	22.0	22.0	
OPF22582-08A08F	12	- 8	1/2"	3/4" - 16	9.3	56.0	10.2	28.0	25.0	22.0	22.0	
OPF22582-08A10F	12	- 8	1/2"	7/8" - 14	12.5	56.0	12.3	29.0	25.0	22.0	27.0	
OPF22582-12A12F	19	- 12	3/4"	1.1/16" - 12	15.0	74.0	14.2	33.0	37.5	27.0	32.0	
OPF22582-16A16F	25	- 16	1"	1.5/16" - 12	20.0	100.0	15.0	40.0	52.0	36.0	38.0	

SAE STANDARD CONNECTIONS

# OPF12410

ORFS  
MALE

SAE J516 / ISO 12151-1



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1		
OPF12410-04A04	6	- 4	1/4"	9/16" - 18	4.0	51.5	9.8	24.0	16.0		
OPF12410-04A06	6	- 4	1/4"	11/16" - 16	6.7	54.0	11.2	26.5	19.0		
OPF12410-05A06	8	- 5	5/16"	11/16" - 16	6.7	55.0	11.2	27.0	19.0		
OPF12410-06A06	10	- 6	3/8"	11/16" - 16	6.7	57.0	11.2	27.5	19.0		
OPF12410-06A08	10	- 6	3/8"	13/16" - 16	9.3	59.5	12.8	30.0	22.0		
OPF12410-08A08	12	- 8	1/2"	13/16" - 16	9.3	61.5	12.8	30.5	22.0		
OPF12410-08A10	12	- 8	1/2"	1" - 14	12.5	66.0	15.5	35.0	27.0		
OPF12410-10A10	16	- 10	5/8"	1" - 14	12.5	69.0	15.5	34.5	27.0		
OPF12410-10A12	16	- 10	5/8"	1.3/16" - 12	15.0	72.0	17.0	37.5	32.0		
OPF12410-12A12	19	- 12	3/4"	1.3/16" - 12	15.0	75.5	17.0	39.0	32.0		
OPF12410-12A16	19	- 12	3/4"	1.7/16" - 12	19.8	77.0	17.5	40.5	38.0		
OPF12410-16A16	25	- 16	1"	1.7/16" - 12	19.8	90.0	17.5	42.0	38.0		

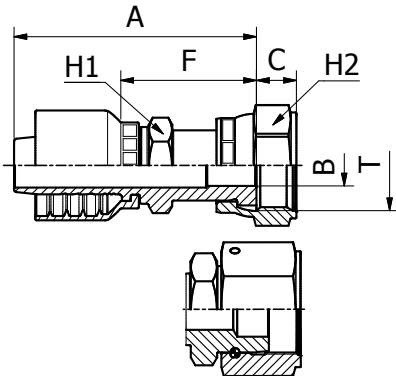
FITTINGS 292

SAE STANDARD CONNECTIONS

# OPF22411 / OPF22412

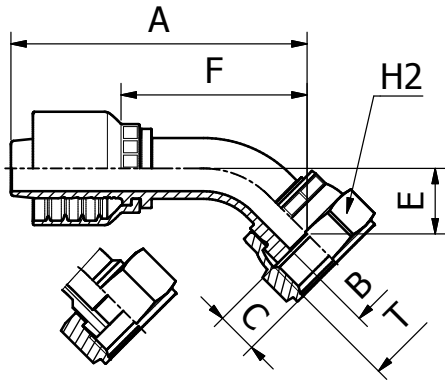
ORFS  
FEMALE

SAE J516 / ISO 12151-1  
PULL-BACK TYPE



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm					
	DN	Dash	inch	T	B	A	C	F	H1	H2
OPF22411-04A04	6	- 4	1/4"	9/16" - 18	4.0	55.0	8.0	27.5	13.0	19.0
OPF22411-04A06	6	- 4	1/4"	11/16" - 16	7.0	57.5	9.5	30.0	16.0	22.0
OPF22411-05A06	8	- 5	5/16"	11/16" - 16	7.0	58.5	9.5	30.5	16.0	22.0
OPF22411-06A06	10	- 6	3/8"	11/16" - 16	7.0	60.5	9.5	31.0	16.0	22.0
OPF22411-06A08	10	- 6	3/8"	13/16" - 16	9.3	65.0	11.0	35.5	19.0	24.0
OPF22411-08A06	12	- 8	1/2"	11/16" - 16	7.0	63.0	9.5	32.0	19.0	22.0
OPF22411-08A08	12	- 8	1/2"	13/16" - 16	9.3	67.0	11.0	36.0	19.0	24.0
OPF22411-08A10	12	- 8	1/2"	1" - 14	11.5	69.5	13.5	38.5	24.0	30.0
OPF22411-08A12	12	- 8	1/2"	1.3/16" - 12	13.9	73.0	14.5	42.0	28.0	36.0
OPF22411-10A10	16	- 10	5/8"	1" - 14	11.5	73.0	13.5	38.5	24.0	30.0
OPF22411-10A12	16	- 10	5/8"	1.3/16" - 12	13.9	76.5	14.5	42.0	28.0	36.0
OPF22411-12A10	19	- 12	3/4"	1" - 14	11.5	77.5	13.5	41.0	28.0	30.0
OPF22411-12A12	19	- 12	3/4"	1.3/16" - 12	13.9	80.0	14.5	43.5	28.0	36.0
OPF22411-12A16	19	- 12	3/4"	1.7/16" - 12	19.8	82.0	15.0	45.5	36.0	41.0
OPF22411-16A12	25	- 16	1"	1.3/16" - 12	13.9	94.0	13.5	48.0	36.0	36.0
OPF22411-16A16	25	- 16	1"	1.7/16" - 12	19.8	94.5	15.0	46.5	36.0	41.0

SAE STANDARD CONNECTIONS

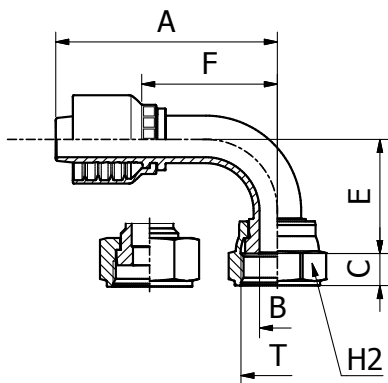


# OPF22441 / OPF22443

45° ORFS  
FEMALE ELBOW  
SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	E	F	H2	
OPF22443-04A04	6	- 4	1/4"	9/16" - 18		4.0	58.5	8.2	10.5	31.0	17.0	
OPF22443-04A06	6	- 4	1/4"	11/16" - 16		7.0	58.5	9.5	10.5	31.0	22.0	
OPF22443-05A06	8	- 5	5/16"	11/16" - 16		7.0	62.0	9.5	10.5	34.0	22.0	
OPF22443-06A06	10	- 6	3/8"	11/16" - 16		6.0	61.5	9.5	11.0	32.5	22.0	
OPF22443-06A08	10	- 6	3/8"	13/16" - 16		9.3	63.0	11.0	12.5	34.0	24.0	
OPF22441-08A06	12	- 8	1/2"	11/16" - 16		7.0	63.5	9.5	11.0	32.5	22.0	
OPF22443-08A08	12	- 8	1/2"	13/16" - 16		9.0	73.0	11.0	13.0	42.0	24.0	
OPF22443-08A10	12	- 8	1/2"	1" - 14		11.5	73.0	13.5	13.5	42.0	30.0	
OPF22443-08A12	12	- 8	1/2"	1.3/16" - 12		13.9	78.0	14.5	18.5	46.5	36.0	
OPF22443-10A10	16	- 10	5/8"	1" - 14		11.5	83.5	13.5	16.0	49.0	30.0	
OPF22443-10A12	16	- 10	5/8"	1.3/16" - 12		13.9	86.0	14.5	18.5	51.5	36.0	
OPF22441-12A10	19	- 12	3/4"	1" - 14		11.5	87.0	13.5	16.5	50.5	30.0	
OPF22443-12A12	19	- 12	3/4"	1.3/16" - 12		13.9	97.0	14.5	21.5	60.5	36.0	
OPF22443-12A16	19	- 12	3/4"	1.7/16" - 12		19.8	96.5	14.8	21.0	60.0	41.0	
OPF22443-16A16	25	- 16	1"	1.7/16" - 12		19.8	120.0	14.8	23.5	72.0	41.0	
OPF22443-16A20	25	- 16	1"	1.11/16" - 12		26.0	122.0	14.8	25.0	74.0	50.0	

OPF22441: CRIMPED BACK-NUT / OPF22443: SLIP-ON NUT



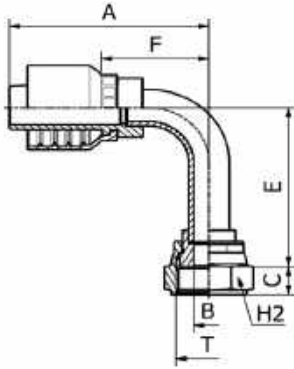
SAE STANDARD CONNECTIONS

# OPF22491 / OPF22493

90° ORFS  
FEMALE SWEPT ELBOW  
SAE J516 / ISO 12151-1

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	E	F	H2	
OPF22493-04A04	6	- 4	1/4"	9/16" - 18		4.0	55.0	8.2	22.0	27.5	17.0	
OPF22493-04A06	6	- 4	1/4"	11/16" - 16		7.0	55.0	9.5	22.0	27.5	22.0	
OPF22493-05A06	8	- 5	5/16"	11/16" - 16		7.0	60.0	9.5	23.0	32.0	22.0	
OPF22493-06A06	10	- 6	3/8"	11/16" - 16		6.0	59.5	9.5	24.0	30.0	22.0	
OPF22493-06A08	10	- 6	3/8"	13/16" - 16		9.3	59.5	11.0	26.5	30.0	24.0	
OPF22491-08A06	12	- 8	1/2"	11/16" - 16		7.0	61.5	9.5	24.5	30.0	22.0	
OPF22493-08A08	12	- 8	1/2"	13/16" - 16		9.0	71.5	11.0	30.0	40.5	24.0	
OPF22493-08A10	12	- 8	1/2"	1" - 14		11.5	71.0	13.5	30.5	40.0	30.0	
OPF22493-08A12	12	- 8	1/2"	1.3/16" - 12		13.9	71.0	14.5	37.5	39.5	36.0	
OPF22493-10A10	16	- 10	5/8"	1" - 14		11.5	82.5	13.5	37.5	48.0	30.0	
OPF22493-10A12	16	- 10	5/8"	1.3/16" - 12		13.9	82.5	14.5	41.0	48.0	36.0	
OPF22491-12A10	19	- 12	3/4"	1" - 14		11.5	85.5	13.5	38.0	49.0	30.0	
OPF22493-12A12	19	- 12	3/4"	1.3/16" - 12		13.9	93.0	14.5	48.0	56.5	36.0	
OPF22493-12A16	19	- 12	3/4"	1.7/16" - 12		19.8	93.0	14.8	47.5	56.5	41.0	
OPF22491-16A12	25	- 16	1"	1.3/16" - 12		13.9	106.0	13.5	48.0	57.5	36.0	
OPF22493-16A16	25	- 16	1"	1.7/16" - 12		19.8	119.5	14.8	56.0	71.5	41.0	
OPF22493-16A20	25	- 16	1"	1.11/16" - 12		26.0	119.5	14.8	58.5	71.5	50.0	

OPF22491: CRIMPED BACK-NUT / OPF22493: SLIP-ON NUT



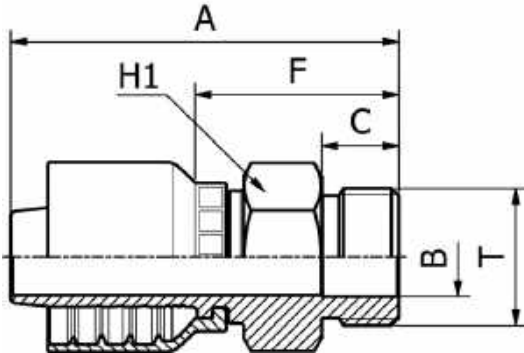
SAE STANDARD CONNECTIONS

# OPF24491

**90° ORFS  
FEMALE LONG DROP ELBOW  
SAE J516 / ISO 12151-1  
(CRIMPED-BACK NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	E	F	H2	
OPF24491-04A04	6	- 4	1/4"	9/16" - 18	4.4	52.5	8.0	46.0	25.0	17.0	
OPF24491-06A06	10	- 6	3/8"	11/16" - 16	6.7	61.5	9.5	54.0	32.0	22.0	
OPF24491-06A08	10	- 6	3/8"	13/16" - 16	6.7	61.5	11.0	54.0	32.0	24.0	
OPF24491-08A08	12	- 8	1/2"	13/16" - 16	9.6	68.0	11.0	64.0	37.0	24.0	
OPF24491-08A10	12	- 8	1/2"	1" - 14	9.6	68.0	12.5	64.5	37.0	30.0	
OPF24491-10A10	16	- 10	5/8"	1" - 14	12.0	75.5	13.0	70.0	41.0	30.0	
OPF24491-10A12	16	- 10	5/8"	1.3/16" - 12	12.7	75.5	13.5	73.0	41.0	36.0	
OPF24491-12A12	19	- 12	3/4"	1.3/16" - 12	15.0	95.0	13.5	96.0	58.5	36.0	
OPF24491-16A16	25	- 16	1"	1.7/16" - 12	19.8	119.5	13.5	114.0	71.5	41.0	

All items made by brazing with the exception of OPF24491-12A12 and OPF24491-16A16



SAE STANDARD CONNECTIONS

# OPF13010

**SAE MALE  
O-RING BOSS TYPE  
SAE J516 / ISO 11926**

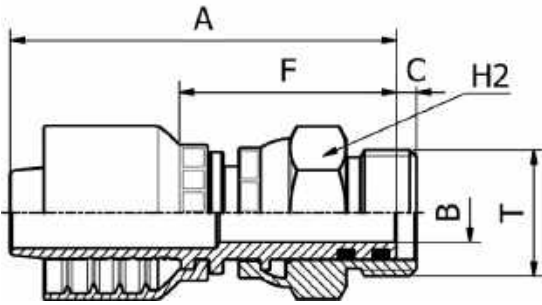
PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1		
OPF13010-04A04	6	- 4	1/4"	7/16" - 20	4.4	51.5	9.1	24.0	14.0		
OPF13010-04A06	6	- 4	1/4"	9/16" - 18	7.5	52.0	9.9	24.5	17.0		
OPF13010-06A06	10	- 6	3/8"	9/16" - 18	7.5	55.0	9.9	25.5	17.0		
OPF13010-06A08	10	- 6	3/8"	3/4" - 16	9.9	58.0	11.1	28.5	22.0		
OPF13010-08A08	12	- 8	1/2"	3/4" - 16	9.9	60.0	11.1	29.0	22.0		
OPF13010-08A10	12	- 8	1/2"	7/8" - 14	12.3	63.0	12.7	32.0	25.0		
OPF13010-10A10	16	- 10	5/8"	7/8" - 14	12.5	63.0	12.7	32.0	25.0		
OPF13010-10A12	16	- 10	5/8"	1.1/16" - 12	15.5	72.0	15.1	37.5	32.0		
OPF13010-12A12	19	- 12	3/4"	1.1/16" - 12	15.5	76.0	15.1	39.5	32.0		
OPF13010-12A16	19	- 12	3/4"	1.5/16" - 12	21.5	76.5	15.1	40.0	38.0		
OPF13010-16A16	25	- 16	1"	1.5/16" - 12	21.5	89.5	15.1	41.0	38.0		



SAE STANDARD CONNECTIONS

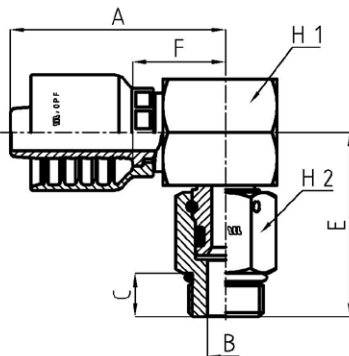
# OPF14310

SAE  
SWIVEL MALE OR. BOSS TYPE



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H2		
OPF14310-04A04	6	- 4	1/4"	7/16" - 20	4.0	70.5	9.1	43.0	17.0		
OPF14310-04A06	6	- 4	1/4"	9/16" - 18	7.0	71.5	9.9	44.0	22.0		
OPF14310-06A06	10	- 6	3/8"	9/16" - 18	7.0	77.5	9.9	48.0	22.0		
OPF14310-06A08	10	- 6	3/8"	3/4" - 16	9.3	76.5	11.1	47.0	22.0		
OPF14310-08A08	12	- 8	1/2"	3/4" - 16	9.3	84.0	11.1	53.0	27.0		
OPF14310-08A10	12	- 8	1/2"	7/8" - 14	9.3	72.4	13.0	41.5	27.0		
OPF14310-12A12	19	- 12	3/4"	1.1/16" - 12	12.5	87.0	15.0	50.5	32.0		

Not to be used as a live swivel



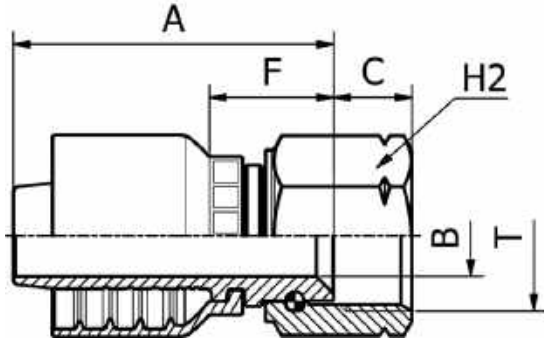
SAE STANDARD CONNECTIONS

# OPF14390

90° SAE  
SWIVEL MALE OR. BOSS

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch	T	B	A	C	E	F	H1	H2	
OPF14390-06A06	10	- 6	3/8"	9/16" - 18	5.7	49.5	9.9	40.0	20.0	22.0	17.0	
OPF14390-06A08	10	- 6	3/8"	3/4" - 16	9.3	49.5	11.1	44.5	20.0	22.0	22.0	
OPF14390-08A08	12	- 8	1/2"	3/4" - 16	9.3	54.5	11.1	47.0	23.5	27.0	22.0	
OPF14390-08A10	12	- 8	1/2"	7/8" - 14	9.8	54.5	13.0	47.0	23.5	27.0	27.0	
OPF14390-10A10	16	- 10	5/8"	7/8" - 14	9.8	58.0	13.0	47.0	23.5	27.0	27.0	
OPF14390-12A12	19	- 12	3/4"	1.1/16" - 12	13.0	64.5	15.0	58.5	28.0	34.0	32.0	

SAE STANDARD CONNECTIONS



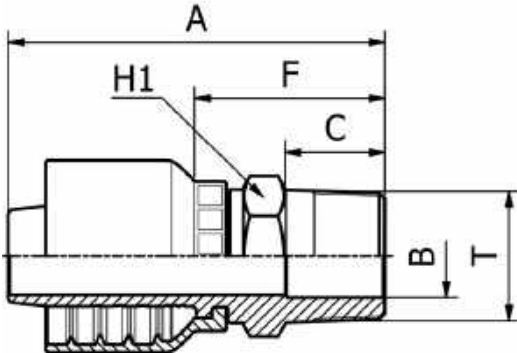
# OPF22612

**SAE FEMALE  
45° CONE SEAT  
SAE J516 / J512  
(THRUST-WIRE NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	F	H2	
OPF22612-06A06	10	- 6	3/8"	9/16" - 18	7.0	46.0	10.8	16.5	22.0		

FITTINGS 296

SAE STANDARD CONNECTIONS



# OPF12810

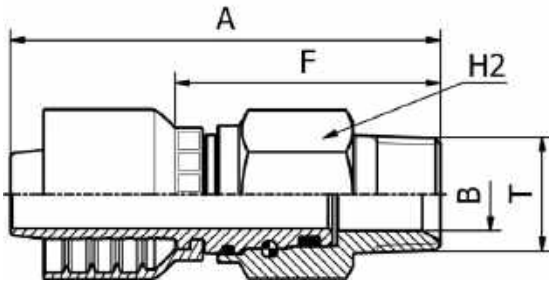
**NPTF  
MALE 60° CONE SEAT  
SAE J516 / J514**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch		T	B	A	C	F	H1	
OPF12810-03A02	5	- 3	3/16"	1/8" - 27	3.0	45.0	10.0	23.5	12.0		
OPF12810-03A04	5	- 3	3/16"	1/4" - 18	5.5	50.5	14.5	29.0	14.0		
OPF12810-04A02	6	- 4	1/4"	1/8" - 27	4.0	51.5	10.0	24.0	12.0		
OPF12810-04A04	6	- 4	1/4"	1/4" - 18	5.5	56.5	14.5	29.0	14.0		
OPF12810-04A06	6	- 4	1/4"	3/8" - 18	9.3	55.0	14.5	27.5	19.0		
OPF12810-04A08	6	- 4	1/4"	1/2" - 14	9.3	61.0	19.2	33.5	24.0		
OPF12810-05A04	8	- 5	5/16"	1/4" - 18	5.5	57.5	14.5	29.5	14.0		
OPF12810-05A06	8	- 5	5/16"	3/8" - 18	9.3	60.0	14.5	32.0	19.0		
OPF12810-06A04	10	- 6	3/8"	1/4" - 18	5.5	59.5	14.5	30.0	14.0		
OPF12810-06A06	10	- 6	3/8"	3/8" - 18	9.3	58.0	14.5	28.5	19.0		
OPF12810-06A08	10	- 6	3/8"	1/2" - 14	12.5	64.0	19.2	34.5	24.0		
OPF12810-08A06	12	- 8	1/2"	3/8" - 18	9.3	60.0	14.5	29.0	19.0		
OPF12810-08A08	12	- 8	1/2"	1/2" - 14	12.5	66.0	19.2	35.0	24.0		
OPF12810-08A12	12	- 8	1/2"	3/4" - 14	15.5	66.5	19.2	35.5	27.0		
OPF12810-10A08	16	- 10	5/8"	1/2" - 14	12.5	73.0	19.2	38.5	24.0		
OPF12810-10A12	16	- 10	5/8"	3/4" - 14	16.0	74.5	19.2	40.0	27.0		
OPF12810-12A08	19	- 12	3/4"	1/2" - 14	12.5	73.0	19.2	36.5	27.0		
OPF12810-12A12	19	- 12	3/4"	3/4" - 14	16.0	73.0	19.2	36.5	27.0		
OPF12810-12A16	19	- 12	3/4"	1" - 11,5	19.8	82.5	24.2	46.0	36.0		
OPF12810-16A12	25	- 16	1"	3/4" - 14	15.5	87.0	19.2	39.0	32.0		
OPF12810-16A16	25	- 16	1"	1" - 11,5	19.8	92.0	24.2	44.0	36.0		
OPF12810-16A20	25	- 16	1"	1.1/4" - 11,5	26.0	104.5	25.0	56.5	46.0		

SAE STANDARD CONNECTIONS

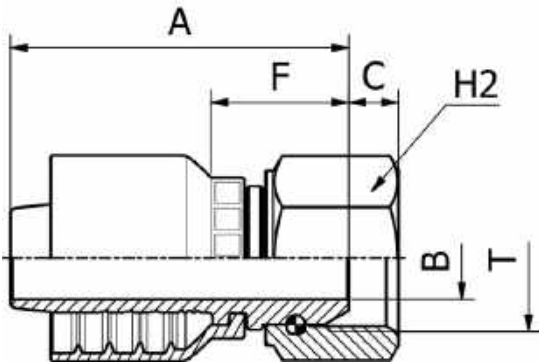
# OPF14110R

**NPTF  
SWIVEL MALE**



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H1		
OPF14110-04A02R	6	- 4	1/4"	1/8" - 28	3.0	69.5	10.0	42.0	17.0		
OPF14110-04A04R	6	- 4	1/4"	1/4" - 18	4.0	74.0	14.5	46.5	17.0		
OPF14110-04A06R	6	- 4	1/4"	3/8" - 18	7.0	74.0	14.5	46.5	19.0		
OPF14110-06A04R	10	- 6	3/8"	1/4" - 18	4.0	80.0	14.5	50.5	22.0		
OPF14110-06A06R	10	- 6	3/8"	3/8" - 18	7.0	80.0	14.5	50.5	22.0		
OPF14110-06A08R	10	- 6	3/8"	1/2" - 14	9.3	84.5	19.2	55.0	24.0		
OPF14110-08A08R	12	- 8	1/2"	1/2" - 14	9.3	90.0	19.2	59.0	27.0		
OPF14110-12A12R	19	- 12	3/4"	3/4" - 14	16.0	94.5	19.2	58.0	32.0		
OPF14110-16A16R	25	- 16	1"	1" - 11	19.8	114.0	24.2	66.0	38.0		

Not to be used as a live swivel



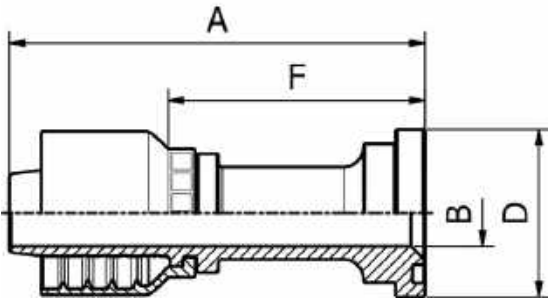
SAE STANDARD CONNECTIONS

# OPF22812

**NPSM  
FEMALE 60° CONE  
SAE J516 / J514  
(THRUST-WIRE NUT)**

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm						
	DN	Dash	inch	T	B	A	C	F	H2		
OPF22812-04A04	6	- 4	1/4"	1/4" - 18	4.0	45.0	4.2	17.5	19.0		
OPF22812-06A06	10	- 6	3/8"	3/8" - 18	7.0	50.5	6.0	21.0	22.0		
OPF22812-08A08	12	- 8	1/2"	1/2" - 14	9.3	54.0	6.5	23.0	27.0		
OPF22812-12A12	19	- 12	3/4"	3/4" - 14	15.0	61.0	9.0	24.5	32.0		
OPF22812-16A16	25	- 16	1"	1" - 11,5	19.8	75.5	10.5	27.5	38.0		

SAE STANDARD CONNECTIONS

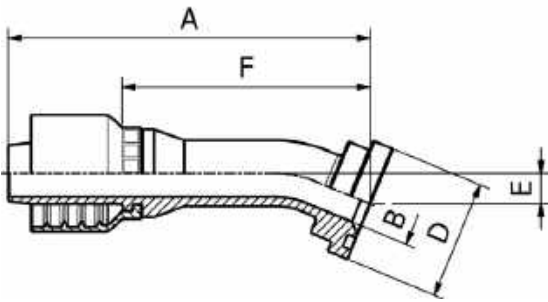


# OPF23311

ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		B	A	D	F			
OPF23311-08A08	12	- 8	1/2"	1/2"	9.3	82.0	30.3	51.0			
OPF23311-08A12	12	- 8	1/2"	3/4"	15.1	89.0	38.0	58.0			
OPF23311-10A12	16	- 10	5/8"	3/4"	15.0	100.0	38.0	65.5			
OPF23311-12A12	19	- 12	3/4"	3/4"	15.0	94.5	38.0	58.0			
OPF23311-12A16	19	- 12	3/4"	1"	20.0	94.5	44.6	58.0			
OPF23311-16A16	25	- 16	1"	1"	19.8	112.5	44.6	64.5			
OPF23311-16A20	25	- 16	1"	1.1/4"	26.0	118.5	51.0	70.5			

SAE STANDARD CONNECTIONS

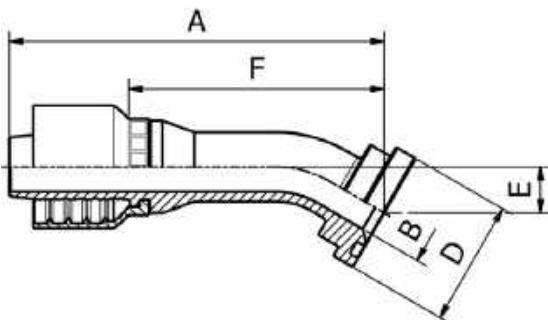


# OPF23321

22,5° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		B	A	D	E	F		
OPF23321-08A08	12	- 8	1/2"	1/2"	9.3	95.0	30.3	8.0	64.0		
OPF23321-12A12	19	- 12	3/4"	3/4"	15.0	111.0	38.0	10.0	74.5		
OPF23321-12A16	19	- 12	3/4"	1"	20.0	111.0	44.6	10.0	74.5		
OPF23321-16A16	25	- 16	1"	1"	19.8	137.0	44.6	11.5	89.0		

SAE STANDARD CONNECTIONS

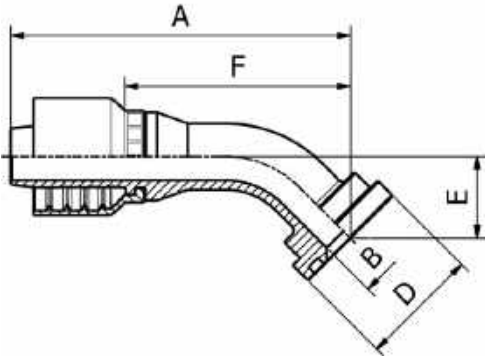


# OPF23331

30° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		B	A	D	E	F		
OPF23331-08A08	12	- 8	1/2"	1/2"	9.3	93.5	30.3	11.0	62.5		
OPF23331-12A12	19	- 12	3/4"	3/4"	15.0	109.5	38.0	14.0	73.0		
OPF23331-12A16	19	- 12	3/4"	1"	20.0	109.5	44.6	14.0	73.0		
OPF23331-16A16	25	- 16	1"	1"	19.8	135.0	44.6	16.5	87.0		

SAE STANDARD CONNECTIONS



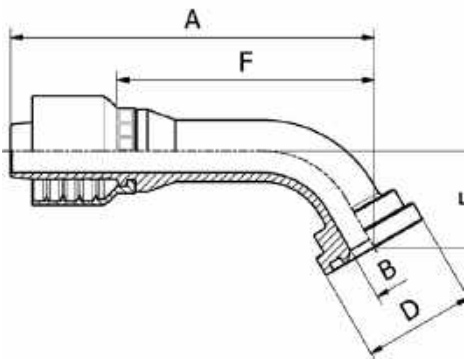
# OPF23341

45° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPF23341-08A08	12	- 8	1/2"	1/2"		9.3	90.0	30.3	18.5	58.5		
OPF23341-08A12	12	- 8	1/2"	3/4"		15.0	90.5	38.0	19.0	59.5		
OPF23341-10A12	16	- 10	5/8"	3/4"		15.0	95.0	38.0	22.0	61.0		
OPF23341-12A12	19	- 12	3/4"	3/4"		15.0	104.5	38.0	23.0	68.5		
OPF23341-12A16	19	- 12	3/4"	1"		20.0	104.5	44.6	23.0	68.5		
OPF23341-16A16	25	- 16	1"	1"		19.8	129.5	44.6	27.5	81.5		
OPF23341-16A20	25	- 16	1"	1.1/4"		26.0	129.5	51.0	27.5	81.5		

299 FITTINGS

SAE STANDARD CONNECTIONS

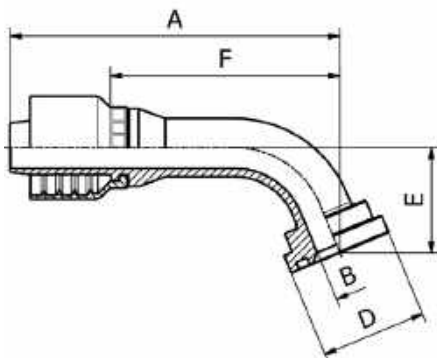


# OPF23361

60° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPF23361-08A08	12	- 8	1/2"	1/2"		9.3	102.5	30.3	26.0	71.5		
OPF23361-12A12	19	- 12	3/4"	3/4"		15.0	123.5	38.0	33.0	87.0		
OPF23361-16A16	25	- 16	1"	1"		19.8	152.0	44.6	39.0	104.0		
OPF23361-16A20	25	- 16	1"	1.1/4"		26.0	152.0	51.0	39.0	104.0		

SAE STANDARD CONNECTIONS

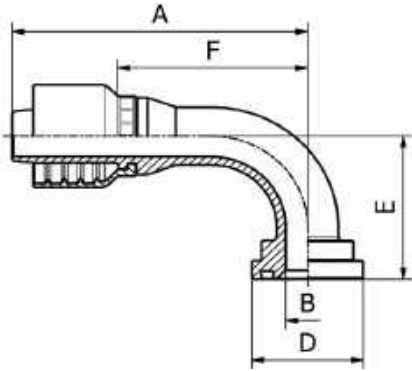


# OPF23371

67,5° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPF23371-08A08	12	- 8	1/2"	1/2"		9.3	99.0	30.3	29.5	68.0		
OPF23371-12A12	19	- 12	3/4"	3/4"		15.0	118.5	38.0	38.0	82.0		
OPF23371-12A16	19	- 12	3/4"	1"		20.0	118.5	44.6	38.0	82.0		
OPF23371-16A16	25	- 16	1"	1"		19.8	147.0	44.6	45.0	98.5		

SAE STANDARD CONNECTIONS



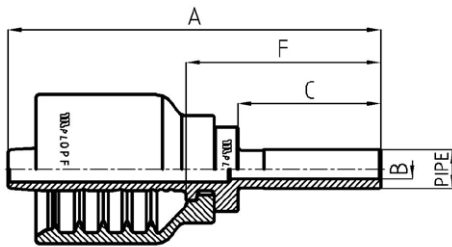
# OPF23391

90° ISO / SAE  
CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm						
	DN	Dash	inch		B	A	D	E	F		
OPF23391-08A08	12	- 8	1/2"	1/2"	9.3	85.5	30.3	40.0	54.5		
OPF23391-08A12	12	- 8	1/2"	3/4"	15.0	85.5	38.0	41.0	54.5		
OPF23391-10A12	16	- 10	5/8"	3/4"	15.0	90.0	38.0	47.5	56.0		
OPF23391-12A12	19	- 12	3/4"	3/4"	15.0	101.0	38.0	52.0	64.5		
OPF23391-12A16	19	- 12	3/4"	1"	20.0	101.0	44.6	52.0	64.5		
OPF23391-16A16	25	- 16	1"	1"	19.8	125.5	44.6	62.0	77.5		
OPF23391-16A20	25	- 16	1"	1.1/4"	26.0	125.5	51.0	62.0	77.5		

FITTINGS 300

DIN STANDARD CONNECTIONS

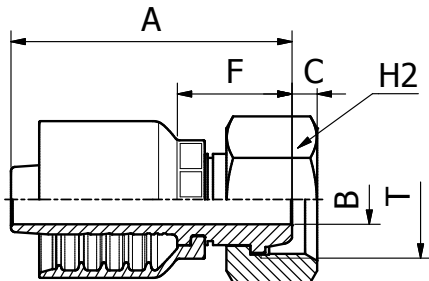


# OPF22010

METRIC  
STANDPIPE STRAIGHT L.T.

PART. REF.	HOSE BORE			Pipe	DIMENSIONS mm						
	DN	Dash	inch		B	A	C	F			
OPF22010-04A06	6	- 4	1/4"	6.0	3.0	57.5	22.0	30.0			
OPF22010-06A10	10	- 6	3/8"	10.0	7.0	61.0	23.0	31.5			

DIN STANDARD CONNECTIONS



# OPF21312/OPF21313

METRIC  
FEMALE  
MULTISEAL

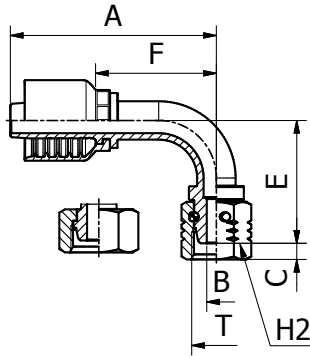
PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm				
	DN	Dash	inch			T	B	A	C	F
OPF21312-06A16	10	- 6	3/8"	M 16X1,5	10.0	7.0	51.0	5.0	21.5	19.0
OPF21313-06A18	10	- 6	3/8"	M 18X1,5	12.0	7.0	49.5	4.0	20.0	22.0
OPF21313-08A22	12	- 8	1/2"	M 22X1,5	15.0	9.3	52.5	4.7	21.5	27.0

OPF21312: THRUST WIRE NUT / OPF21313: SLIP-ON NUT

DIN STANDARD CONNECTIONS

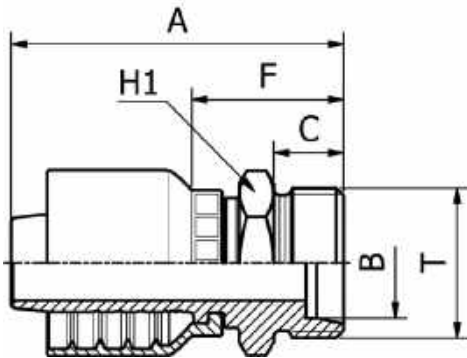
# OPF21392/OPF21393

90° METRIC  
FEMALE  
MULTISEAL



PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch	T	mm	B	A	C	E	F	H2	
OPF21392-06A16	10	- 6	3/8"	M 16X1,5	10.0	7.0	65.0	5.0	38.0	35.5	19.0	
OPF21393-06A18	10	- 6	3/8"	M 18X1,5	12.0	7.0	66.0	4.0	31.5	36.5	22.0	

OPF21392: THRUST WIRE NUT / OPF21393: SLIP-ON NUT



DIN STANDARD CONNECTIONS

# OPF11110

METRIC  
MALE 24° CONE SEAT LIGHT DUTY  
DIN 20066 / ISO 12151-2

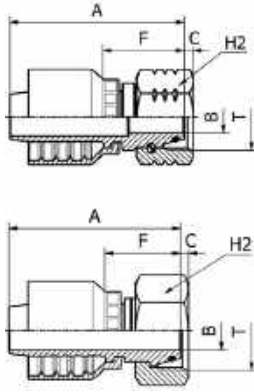
PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch	T	mm	B	A	C	F	H1	
OPF11110-04A12	6	- 4	1/4"	M 12X1,5	6.0	4.0	49.0	10.0	21.5	14.0	
OPF11110-04A14	6	- 4	1/4"	M 14X1,5	8.0	4.0	49.0	10.0	21.5	14.0	
OPF11110-04A16	6	- 4	1/4"	M 16X1,5	10.0	7.0	51.0	11.0	23.5	17.0	
OPF11110-04A18	6	- 4	1/4"	M 18X1,5	12.0	9.0	51.0	11.0	23.5	19.0	
OPF11110-05A16	8	- 5	5/16"	M 16X1,5	10.0	7.0	52.0	11.0	24.0	17.0	
OPF11110-05A18	8	- 5	5/16"	M 18X1,5	12.0	9.0	52.0	11.0	24.0	19.0	
OPF11110-06A16	10	- 6	3/8"	M 16X1,5	10.0	7.0	53.5	11.0	24.0	17.0	
OPF11110-06A18	10	- 6	3/8"	M 18X1,5	12.0	9.0	54.0	11.0	24.5	19.0	
OPF11110-06A22	10	- 6	3/8"	M 22X1,5	15.0	10.0	55.0	12.0	25.5	22.0	
OPF11110-08A22	12	- 8	1/2"	M 22X1,5	15.0	10.0	56.5	12.0	25.5	22.0	
OPF11110-08A26	12	- 8	1/2"	M 26X1,5	18.0	12.5	57.5	12.0	26.5	27.0	
OPF11110-10A22	16	- 10	5/8"	M 22X1,5	15.0	10.0	60.0	12.0	25.5	22.0	
OPF11110-10A26	16	- 10	5/8"	M 26X1,5	18.0	12.5	61.0	12.0	26.5	27.0	
OPF11110-12A30	19	- 12	3/4"	M 30X2	22.0	15.0	66.5	14.0	30.0	30.0	

FITTINGS  
301

DIN STANDARD CONNECTIONS

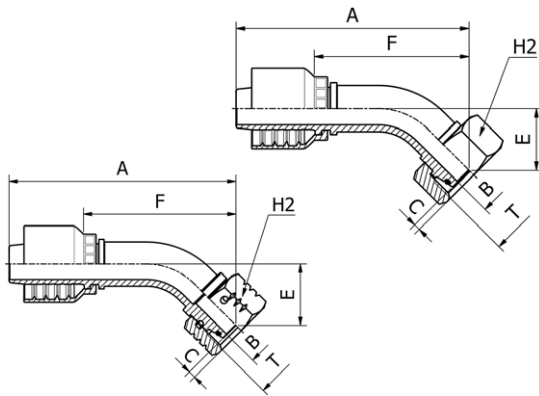
# OPF21512/OPF21513

**METRIC**  
**O-RING FEMALE 24° CONE LIGHT DUTY**  
**DIN 20066 / ISO 12151-2**



PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	F
OPF21512-04A12	6	- 4	1/4"	M 12X1,5	6.0	3.0	48.5	2.2	21.0	17.0	
OPF21513-04A14	6	- 4	1/4"	M 14X1,5	8.0	4.0	49.5	1.3	22.0	17.0	
OPF21513-04A16	6	- 4	1/4"	M 16X1,5	10.0	6.0	50.0	1.8	22.5	19.0	
OPF21513-04A18	6	- 4	1/4"	M 18X1,5	12.0	7.0	49.5	2.0	22.0	22.0	
OPF21512-05A14	8	- 5	5/16"	M 14X1,5	8.0	4.0	48.0	2.9	20.0	17.0	
OPF21513-05A16	8	- 5	5/16"	M 16X1,5	10.0	6.0	50.5	1.8	22.5	19.0	
OPF21513-05A18	8	- 5	5/16"	M 18X1,5	12.0	7.0	50.0	2.0	22.0	22.0	
OPF21512-06A16	10	- 6	3/8"	M 16X1,5	10.0	6.0	52.5	3.0	23.0	19.0	
OPF21513-06A18	10	- 6	3/8"	M 18X1,5	12.0	7.0	52.0	2.0	22.5	22.0	
OPF21513-06A22	10	- 6	3/8"	M 22X1,5	15.0	9.3	54.5	1.5	25.0	27.0	
OPF21512-08A18	12	- 8	1/2"	M 18X1,5	12.0	7.0	60.0	2.9	29.0	22.0	
OPF21513-08A22	12	- 8	1/2"	M 22X1,5	15.0	9.3	56.5	1.5	25.5	27.0	
OPF21513-08A26	12	- 8	1/2"	M 26X1,5	18.0	12.5	57.0	2.0	26.0	32.0	
OPF21513-10A26	16	- 10	5/8"	M 26X1,5	18.0	12.5	60.5	2.0	26.0	32.0	
OPF21513-10A30	16	- 10	5/8"	M 30X2	22.0	15.0	68.5	3.0	34.0	36.0	
OPF21512-12A26	19	- 12	3/4"	M 26X1,5	18.0	12.5	67.5	2.3	31.0	32.0	
OPF21513-12A30	19	- 12	3/4"	M 30X2	22.0	15.0	64.5	3.0	28.0	36.0	
OPF21513-12A36	19	- 12	3/4"	M 36X2	28.0	20.0	65.0	3.7	28.5	41.0	
OPF21513-16A36	25	- 16	1"	M 36X2	28.0	19.8	77.5	3.7	29.5	41.0	

OPF21512: THRUST WIRE NUT / OPF21513: SLIP-ON NUT



DIN STANDARD CONNECTIONS

# OPF21542/OPF21543

**45° METRIC**  
**O-RING FEMALE SWEEP ELBOW 24° CONE**  
**LIGHT DUTY**  
**DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	E
OPF21543-04A14	6	- 4	1/4"	M 14X1,5	8.0	4.0	65.5	1.3	16.5	38.0	17.0
OPF21543-04A16	6	- 4	1/4"	M 16X1,5	10.0	6.0	65.5	1.8	17.0	38.0	19.0
OPF21543-05A16	8	- 5	5/16"	M 16X1,5	10.0	6.0	69.5	1.8	17.5	41.5	19.0
OPF21543-05A18	8	- 5	5/16"	M 18X1,5	12.0	7.0	69.5	2.0	17.0	41.5	22.0
OPF21542-06A16	10	- 6	3/8"	M 16X1,5	10.0	6.0	77.0	3.0	21.5	47.5	19.0
OPF21543-06A18	10	- 6	3/8"	M 18X1,5	12.0	7.0	73.0	2.0	16.5	43.5	22.0
OPF21543-06A22	10	- 6	3/8"	M 22X1,5	15.0	9.3	74.0	1.5	18.0	45.0	27.0
OPF21543-08A22	12	- 8	1/2"	M 22X1,5	15.0	9.3	83.0	1.5	19.0	52.0	27.0
OPF21543-10A26	16	- 10	5/8"	M 26X1,5	18.0	12.5	96.5	2.0	26.5	62.0	32.0
OPF21543-12A30	19	- 12	3/4"	M 30X2	22.0	15.0	107.5	3.0	28.5	71.0	36.0
OPF21543-16A36	25	- 16	1"	M 36X2	28.0	19.8	133.0	3.7	32.0	85.0	41.0

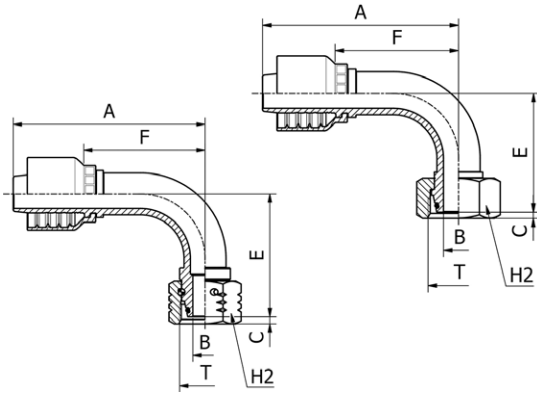
OPF21542: THRUST WIRE NUT / OPF21543: SLIP-ON NUT



DIN STANDARD CONNECTIONS

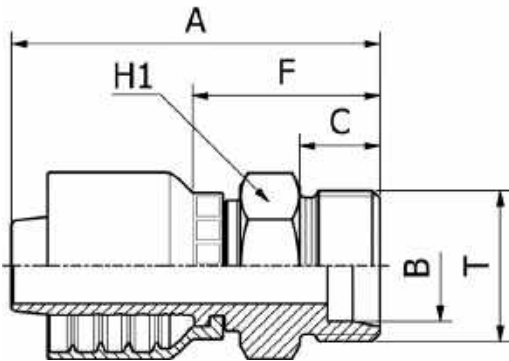
# OPF21592/OPF21593

**90° METRIC  
O-RING FEMALE SWEPT ELBOW 24° CONE  
LIGHT DUTY  
DIN 20066 / ISO 12151-2**



PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	E	F
OPF21593-03A12	5	- 3	3/16"	M 12X1,5	6.0	3.0	47.5	0.7	30.0	26.0	14.0	
OPF21592-04A12	6	- 4	1/4"	M 12X1,5	6.0	3.0	56.0	2.2	32.5	28.5	17.0	
OPF21593-04A14	6	- 4	1/4"	M 14X1,5	8.0	4.0	57.0	1.3	31.5	29.5	17.0	
OPF21593-04A16	6	- 4	1/4"	M 16X1,5	10.0	6.0	57.0	1.8	32.0	29.5	19.0	
OPF21593-04A18	6	- 4	1/4"	M 18X1,5	12.0	7.0	57.0	2.0	33.0	29.5	22.0	
OPF21593-05A16	8	- 5	5/16"	M 16X1,5	10.0	6.0	60.0	1.8	32.5	32.0	19.0	
OPF21593-05A18	8	- 5	5/16"	M 18X1,5	12.0	7.0	60.0	2.0	32.5	32.0	22.0	
OPF21592-06A16	10	- 6	3/8"	M 16X1,5	10.0	6.0	65.0	3.0	40.0	35.5	19.0	
OPF21593-06A18	10	- 6	3/8"	M 18X1,5	12.0	7.0	66.0	2.0	33.5	36.5	22.0	
OPF21593-06A22	10	- 6	3/8"	M 22X1,5	15.0	9.3	66.0	1.5	35.0	36.5	27.0	
OPF21592-08A18	12	- 8	1/2"	M 18X1,5	12.0	7.0	75.0	2.9	48.0	44.0	22.0	
OPF21593-08A26	12	- 8	1/2"	M 26X1,5	18.0	12.5	76.0	2.0	40.0	45.0	32.0	
OPF21593-08A22	12	- 8	1/2"	M 22X1,5	15.0	9.3	76.0	1.5	39.5	45.0	27.0	
OPF21593-10A26	16	- 10	5/8"	M 26X1,5	18.0	12.5	86.0	2.0	53.0	51.5	32.0	
OPF21593-10A30	16	- 10	5/8"	M 30X2	22.0	15.0	86.0	3.0	54.0	51.5	36.0	
OPF21593-12A30	19	- 12	3/4"	M 30X2	22.0	15.0	97.5	3.0	59.5	61.5	36.0	
OPF21593-16A36	25	- 16	1"	M 36X2	28.0	19.8	125.0	3.7	69.5	76.5	41.0	

OPF21592: THRUST WIRE NUT / OPF21593: SLIP-ON NUT



DIN STANDARD CONNECTIONS

# OPF11210

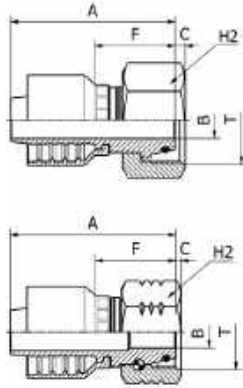
**METRIC  
MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2**

PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	F
OPF11210-04A16	6	- 4	1/4"	M 16X1,5	8.0	5.5	53.0	12.0	25.5	17.0	
OPF11210-04A18	6	- 4	1/4"	M 18X1,5	10.0	6.0	54.0	12.0	26.5	19.0	
OPF11210-04A20	6	- 4	1/4"	M 20X1,5	12.0	7.0	56.5	12.0	29.0	22.0	
OPF11210-05A20	8	- 5	5/16"	M 20X1,5	12.0	7.0	57.0	12.0	29.0	22.0	
OPF11210-06A18	10	- 6	3/8"	M 18X1,5	10.0	7.0	56.5	12.0	27.0	19.0	
OPF11210-06A20	10	- 6	3/8"	M 20X1,5	12.0	7.0	58.5	12.0	29.0	22.0	
OPF11210-06A22	10	- 6	3/8"	M 22X1,5	14.0	8.0	60.5	14.0	31.0	22.0	
OPF11210-08A24	12	- 8	1/2"	M 24X1,5	16.0	9.3	62.5	14.0	31.5	24.0	
OPF11210-10A30	16	- 10	5/8"	M 30X2	20.0	15.0	70.0	16.0	35.5	30.0	
OPF11210-12A30	19	- 12	3/4"	M 30X2	20.0	15.0	73.5	16.0	37.0	30.0	
OPF11210-12A36	19	- 12	3/4"	M 36X2	25.0	19.8	77.5	18.0	41.0	36.0	
OPF11210-16A36	25	- 16	1"	M 36X2	25.0	19.8	90.5	18.0	42.5	36.0	
OPF11210-16A42	25	- 16	1"	M 42X2	30.0	25.0	92.5	20.0	44.5	46.0	

DIN STANDARD CONNECTIONS

# OPF21612/OPF21613

**METRIC**  
**O-RING FEMALE 24° CONE HEAVY DUTY**  
**DIN 20066 / ISO 12151-2**



PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm					
	DN	Dash	inch			T	mm	B	A	C	F
OPF21613-03A16	5	- 3	3/16"	M 16X1,5	8.0	3.0	43.0	3.4	21.5	19.0	
OPF21613-04A14	6	- 4	1/4"	M 14X1,5	6.0	3.0	51.0	1.9	23.5	17.0	
OPF21613-04A16	6	- 4	1/4"	M 16X1,5	8.0	4.0	49.5	3.4	22.0	19.0	
OPF21613-04A18	6	- 4	1/4"	M 18X1,5	10.0	4.0	55.5	2.5	28.0	22.0	
OPF21613-04A20	6	- 4	1/4"	M 20X1,5	12.0	7.0	53.5	2.0	26.0	24.0	
OPF21613-05A18	8	- 5	5/16"	M 18X1,5	10.0	5.5	56.0	2.5	28.0	22.0	
OPF21613-05A20	8	- 5	5/16"	M 20X1,5	12.0	5.5	53.0	2.0	25.0	24.0	
OPF21613-06A20	10	- 6	3/8"	M 20X1,5	12.0	7.0	54.5	2.0	25.5	24.0	
OPF21613-06A22	10	- 6	3/8"	M 22X1,5	14.0	7.0	62.0	3.0	32.5	27.0	
OPF21613-08A24	12	- 8	1/2"	M 24X1,5	16.0	9.3	58.0	4.0	26.5	30.0	
OPF21613-10A30	16	- 10	5/8"	M 30X2	20.0	12.5	65.0	3.5	30.5	36.0	
OPF21612-12A30	19	- 12	3/4"	M 30X2	20.0	12.5	70.0	2.2	33.5	36.0	
OPF21613-12A36	19	- 12	3/4"	M 36X2	25.0	15.0	70.5	4.5	34.0	41.0	
OPF21612-16A36	25	- 16	1"	M 36X2	25.0	15.0	83.5	1.7	35.5	41.0	
OPF21613-16A42	25	- 16	1"	M 42X2	30.0	19.8	83.5	6.3	35.5	50.0	

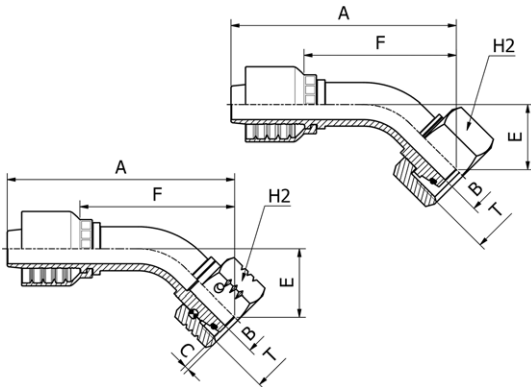
OPF21612: THRUST WIRE NUT / OPF21613: SLIP-ON NUT

FITTINGS 304

DIN STANDARD CONNECTIONS

# OPF21642/OPF21643

**45° METRIC**  
**O-RING FEMALE SWEPT ELBOW 24° CONE**  
**HEAVY DUTY**  
**DIN 20066 / ISO 12151-2**



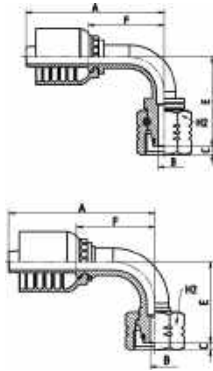
PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	E	F
OPF21643-04A16	6	- 4	1/4"	M 16X1,5	8.0	4.0	64.0	3.4	15.0	36.5	19.0	
OPF21643-04A18	6	- 4	1/4"	M 18X1,5	10.0	4.0	65.0	2.5	16.5	37.5	22.0	
OPF21643-05A20	8	- 5	5/16"	M 20X1,5	12.0	5.5	70.0	2.0	18.5	42.0	24.0	
OPF21643-06A20	10	- 6	3/8"	M 20X1,5	12.0	7.0	73.5	2.0	17.0	44.0	24.0	
OPF21643-06A22	10	- 6	3/8"	M 22X1,5	14.0	7.0	75.0	3.0	18.5	45.5	27.0	
OPF21643-08A24	12	- 8	1/2"	M 24X1,5	16.0	9.3	83.5	4.0	20.0	52.5	30.0	
OPF21643-10A30	16	- 10	5/8"	M 30X2	20.0	12.5	99.5	3.5	29.5	65.5	36.0	
OPF21642-12A30	19	- 12	3/4"	M 30X2	20.0	12.5	113.0	2.2	34.0	76.5	36.0	
OPF21643-12A36	19	- 12	3/4"	M 36X2	25.0	15.0	111.5	4.5	32.5	75.0	41.0	
OPF21643-16A42	25	- 16	1"	M 42X2	30.0	19.8	138.0	6.3	35.5	90.0	50.0	

OPF21642: THRUST WIRE NUT / OPF21643: SLIP-ON NUT

DIN STANDARD CONNECTIONS

# OPF21692/OPF21693

90° METRIC  
O-RING FEMALE SWEPT ELBOW 24° CONE  
HEAVY DUTY  
DIN 20066 / ISO 12151-2



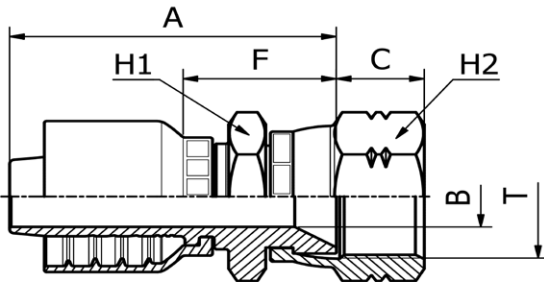
PART. REF.	HOSE BORE			Thread	Pipe	DIMENSIONS mm						
	DN	Dash	inch			T	mm	B	A	C	E	F
OPF21693-04A16	6	- 4	1/4"	M 16X1,5	8.0	4.0	57.0	3.4	29.5	29.5	19.0	
OPF21693-04A18	6	- 4	1/4"	M 18X1,5	10.0	4.0	57.0	2.5	31.0	29.5	22.0	
OPF21693-04A20	6	- 4	1/4"	M 20X1,5	12.0	5.5	57.0	2.0	34.5	29.5	24.0	
OPF21693-05A20	8	- 5	5/16"	M 20X1,5	12.0	5.5	60.0	2.0	34.0	32.0	24.0	
OPF21693-06A20	10	- 6	3/8"	M 20X1,5	12.0	7.0	66.0	2.0	35.0	36.5	24.0	
OPF21693-06A22	10	- 6	3/8"	M 22X1,5	14.0	7.0	66.0	3.0	37.0	36.5	27.0	
OPF21693-06A24	10	- 6	3/8"	M 24X1,5	16.0	9.3	66.0	4.0	36.0	36.5	30.0	
OPF21693-08A24	12	- 8	1/2"	M 24X1,5	16.0	9.3	76.0	4.0	40.5	45.0	30.0	
OPF21693-10A30	16	- 10	5/8"	M 30X2	20.0	12.5	86.0	3.5	57.5	51.5	36.0	
OPF21692-12A30	19	- 12	3/4"	M 30X2	20.0	12.5	98.0	2.2	67.5	61.5	36.0	
OPF21693-12A36	19	- 12	3/4"	M 36X2	25.0	15.0	97.5	4.5	64.5	61.5	41.0	
OPF21692-16A36	25	- 16	1"	M 36X2	25.0	15.0	127.5	1.7	86.0	79.5	41.0	
OPF21693-16A42	25	- 16	1"	M 42X2	30.0	19.8	127.5	6.3	74.5	79.0	50.0	

OPF21692: THRUST WIRE NUT / OPF21693: SLIP-ON NUT

JIS STANDARD CONNECTIONS

# OPF24011

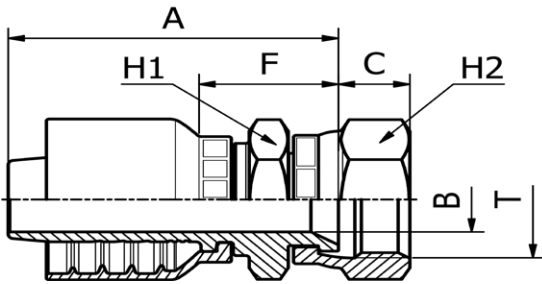
JIS METRIC  
FEMALE (KOMATSU)



PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	mm	B	A	C	F	H1	H2
OPF24011-04A14	6	- 4	1/4"	M 14X1,5		4.0	50.5	10.5	23.0	19.0	19.0	
OPF24011-06A14	10	- 6	3/8"	M 14X1,5		4.0	53.0	10.5	23.5	19.0	19.0	
OPF24011-06A18	10	- 6	3/8"	M 18X1,5		7.0	53.0	11.5	23.5	24.0	24.0	
OPF24011-08A22	12	- 8	1/2"	M 22X1,5		9.3	56.0	13.0	25.0	27.0	27.0	
OPF24011-10A24	16	- 10	5/8"	M 24X1,5		12.5	61.0	15.1	26.5	32.0	32.0	
OPF24011-12A30	19	- 12	3/4"	M 30X1,5		15.0	68.0	18.3	31.5	36.0	36.0	
OPF24011-16A33	25	- 16	1"	M 33X1,5		19.8	81.5	21.3	33.5	41.0	41.0	

305 FITTINGS

JIS STANDARD CONNECTIONS



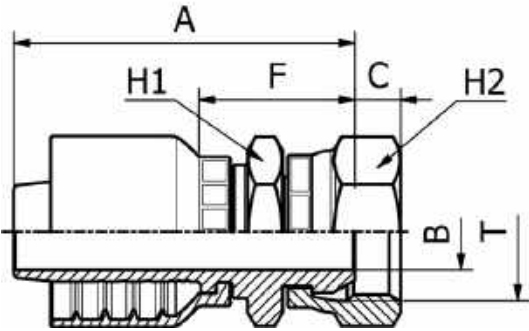
# OPF23811

JIS BSP  
 FEMALE 60° CONE SEAT (TOYOTA)  
 JIS B 8363  
 (CRIMPED-BACK NUT)

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	F	H1	H2	
OPF23811-04A04	6	- 4	1/4"	1/4" - 19		4.0	46.0	8.3	18.5	19.0	19.0	
OPF23811-06A06	10	- 6	3/8"	3/8" - 19		7.0	52.5	10.0	23.0	22.0	22.0	
OPF23811-08A08	12	- 8	1/2"	1/2" - 14		9.3	53.0	11.5	22.0	27.0	27.0	
OPF23811-12A12	19	- 12	3/4"	3/4" - 14		15.0	62.5	13.5	26.0	32.0	32.0	
OPF23811-16A16	25	- 16	1"	1" - 11		19.8	78.5	14.5	30.5	38.0	38.0	

FITTINGS 306

JIS STANDARD CONNECTIONS

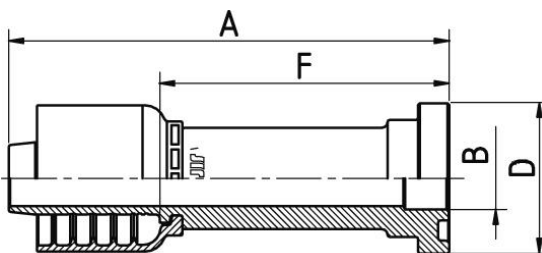


# OPF20711

JIS BSP  
 FEMALE 60° CONE (NISSAN)  
 JIS B 8363

PART. REF.	HOSE BORE			Thread	DIMENSIONS mm							
	DN	Dash	inch		T	B	A	C	F	H1	H2	
OPF20711-12A12	19	- 12	3/4"	3/4" - 14		15.0	66.5	8.9	30.0	32.0	32.0	

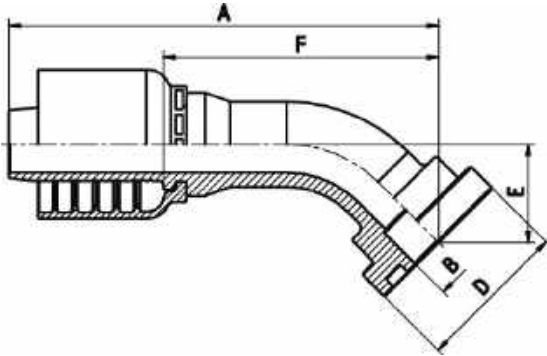
ORIGINAL EQUIPMENT CONNECTIONS



# OPF24111

STRAIGHT KOMATSU FLANGE

PART. REF.	HOSE BORE			Flange	DIMENSIONS mm							
	DN	Dash	inch		inch	B	A	D	F			
OPF24111-10A10	16	- 10	5/8"	5/8"		14.0	100.0	34.0	65.5			

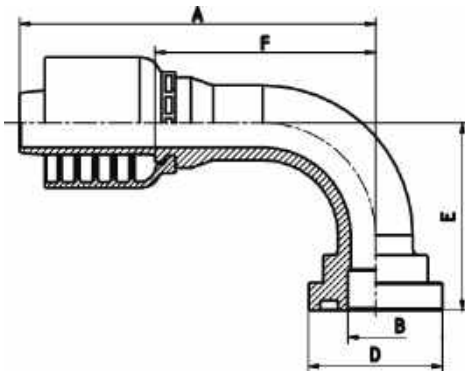


ORIGINAL EQUIPMENT CONNECTIONS

# OPF24141

45° KOMATSU FLANGE

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPF24141-10A10	16	- 10	5/8"	5/8"		14.0	95.0	34.0	22.0	61.0		



ORIGINAL EQUIPMENT CONNECTIONS

# OPF24191

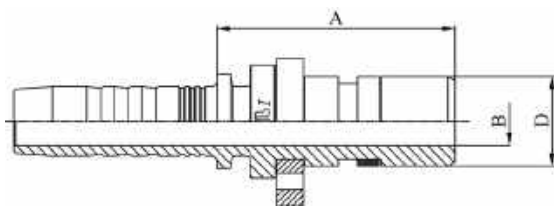
90° KOMATSU FLANGE

PART. REF.	HOSE BORE			Flange		DIMENSIONS mm						
	DN	Dash	inch	inch		B	A	D	E	F		
OPF24191-10A10	16	- 10	5/8"	5/8"		14.0	90.0	34.0	47.5	56.0		

MULTIFIT INSERT

# M12H10

EF STRAIGHT  
MALE INSERT



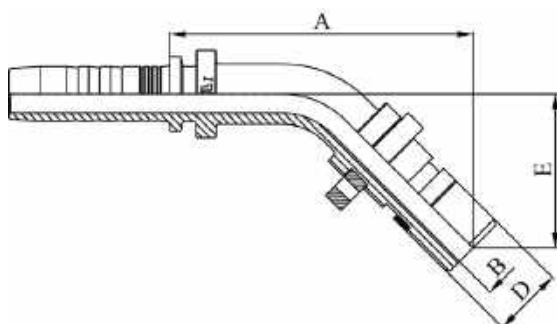
PART. REF.	HOSE BORE			Bar	DIMENSIONS mm					
	DN	Dash	inch		B	A	D			
M12H10-04-04	6	- 4	1/4"	350.0	4.0	30.0	10.0			
M12H10-04-06	6	- 4	1/4"	350.0	7.0	34.0	13.0			
M12H10-05-06	8	- 5	5/16"	350.0	7.0	34.0	13.0			
M12H10-06-04	10	- 6	3/8"	350.0	4.0	30.5	10.0			
M12H10-06-06	10	- 6	3/8"	350.0	7.0	34.5	13.0			
M12H10-06-08	10	- 6	3/8"	350.0	9.3	34.5	16.0			
M12H10-08-06	12	- 8	1/2"	350.0	7.0	35.0	13.0			
M12H10-08-08	12	- 8	1/2"	350.0	9.3	35.0	16.0			
M12H10-10-08	16	- 10	5/8"	350.0	9.3	35.0	16.0			
M12H10-10-12	16	- 10	5/8"	280.0	15.0	44.5	23.0			
M12H10-12-12	19	- 12	3/4"	280.0	15.0	44.5	23.0			

FITTINGS 308

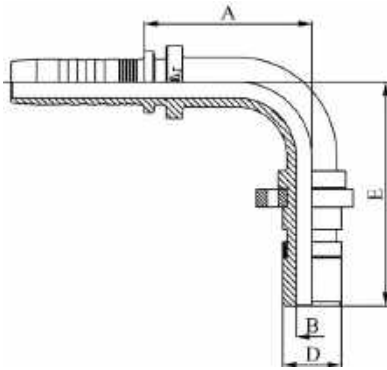
MULTIFIT INSERT

# M12H40

EF 45° ELBOW  
MALE INSERT



PART. REF.	HOSE BORE			Bar	DIMENSIONS mm					
	DN	Dash	inch		B	A	D	E		
M12H40-04-04	6	- 4	1/4"	350.0	4.0	46.0	10.0	23.5		
M12H40-04-06	6	- 4	1/4"	350.0	7.0	52.0	13.0	27.0		
M12H40-05-06	8	- 5	5/16"	350.0	7.0	53.0	13.0	27.5		
M12H40-06-04	10	- 6	3/8"	350.0	4.0	47.0	10.0	23.5		
M12H40-06-06	10	- 6	3/8"	350.0	7.0	55.5	13.0	28.0		
M12H40-08-08	12	- 8	1/2"	350.0	9.3	61.5	16.0	30.0		
M12H40-10-12	16	- 10	5/8"	280.0	15.0	79.0	23.0	41.0		
M12H40-10-08	16	- 10	5/8"	350.0	9.3	65.0	16.0	30.0		
M12H40-12-12	19	- 12	3/4"	280.0	15.0	85.5	23.0	42.5		



MULTIFIT INSERT

# M12H90

EF 90° ELBOW  
MALE INSERT

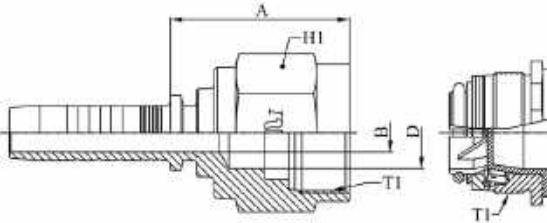
PART. REF.	HOSE BORE			Bar	DIMENSIONS mm								
	DN	Dash	inch		B	A	D	E					
M12H90-04-04	6	- 4	1/4"	350.0	4.0	30.0	10.0	40.0					
M12H90-04-06	6	- 4	1/4"	350.0	7.0	32.0	13.0	45.0					
M12H90-05-06	8	- 5	5/16"	350.0	7.0	33.5	13.0	46.5					
M12H90-06-04	10	- 6	3/8"	350.0	4.0	30.5	10.0	40.0					
M12H90-06-06	10	- 6	3/8"	350.0	7.0	37.0	13.0	49.5					
M12H90-08-06	12	- 8	1/2"	350.0	7.0	37.5	13.0	49.5					
M12H90-08-08	12	- 8	1/2"	350.0	9.3	44.0	16.0	55.0					
M12H90-10-08	16	- 10	5/8"	350.0	9.3	47.0	16.0	55.0					
M12H90-10-12	16	- 10	5/8"	280.0	15.0	55.0	23.0	74.5					
M12H90-12-12	19	- 12	3/4"	280.0	15.0	62.5	23.0	79.0					

309 FITTINGS

MULTIFIT INSERT

# M22H10

EF STRAIGHT  
FEMALE INSERT

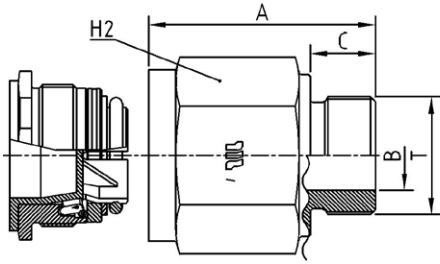


PART. REF.	HOSE BORE			Thread	W.P.	DIMENSIONS mm							
	DN	Dash	inch	T	Bar	B	A	D	H1				
M22H10-04-04	6	- 4	1/4"	M 18X1	350.0	4.0	30.0	10.0	22.0				
M22H10-06-06	10	- 6	3/8"	M 22X1	350.0	7.0	33.5	13.0	25.0				
M22H10-08-08	12	- 8	1/2"	M 25X1	350.0	9.3	34.0	16.0	28.0				
M22H10-10-08	16	- 10	5/8"	M 25X1	350.0	12.5	34.0	23.0	28.0				
M22H10-10-12	16	- 10	5/8"	M 33X1,5	280.0	12.5	45.5	23.0	38.0				
M22H10-12-12	19	- 12	3/4"	M 33X1,5	280.0	15.0	46.5	23.0	38.0				

ADAPTORS

# A52032H

**ADAPTOR BSP  
MALE O-RING BOSS TYPE  
ISO 1179  
EF FEMALE**

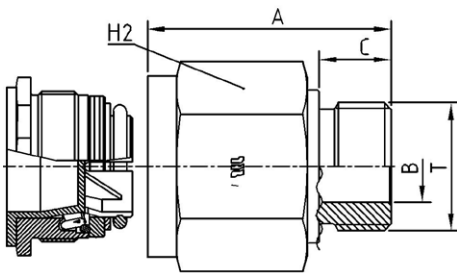


PART. REF.	HOSE BORE			Thread	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	Bar	B	A	C	D	H2
A52032H-04-04	6	- 4	1/4"	1/4" - 19	350.0	7.5	34.0	11.2	10.0	22.0		
A52032H-06-04	6	- 4	1/4"	3/8" - 19	350.0	9.0	34.0	11.2	10.0	22.0		
A52032H-06-06	10	- 6	3/8"	3/8" - 19	350.0	9.9	36.5	11.2	13.0	25.0		
A52032H-08-06	10	- 6	3/8"	1/2" - 14	350.0	12.3	39.5	14.5	13.0	27.0		
A52032H-08-08	12	- 8	1/2"	1/2" - 14	350.0	12.3	40.0	14.5	16.0	28.0		
A52032H-12-12	19	- 12	3/4"	3/4" - 14	280.0	15.5	50.5	14.5	23.0	38.0		
A52032H-16-12	19	- 12	3/4"	1" - 11	280.0	20.0	53.5	18.6	23.0	46.0		

ADAPTORS

# A52302H

**ADAPTOR SAE  
O-RING BOSS MALE  
ISO 11926  
EF FEMALE**



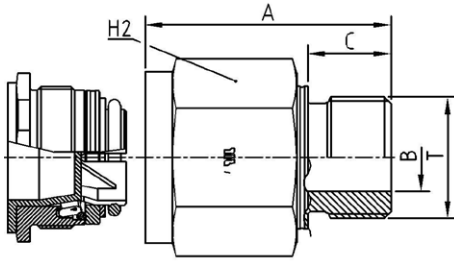
PART. REF.	HOSE BORE			Thread	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	Bar	B	A	C	D	H2
A52302H-06-04	6	- 4	1/4"	9/16" - 18	350.0	7.0	32.5	9.9	10.0	22.0		
A52302H-06-06	10	- 6	3/8"	9/16" - 18	350.0	7.0	36.0	9.9	13.0	25.0		
A52302H-08-06	10	- 6	3/8"	3/4" - 16	350.0	9.3	37.0	11.1	13.0	25.0		
A52302H-08-08	12	- 8	1/2"	3/4" - 16	350.0	9.3	37.0	11.1	16.0	28.0		
A52302H-10-08	12	- 8	1/2"	7/8" - 14	350.0	12.5	38.5	12.7	16.0	28.0		
A52302H-10-12	19	- 12	3/4"	7/8" - 14	280.0	12.5	49.5	12.7	23.0	38.0		
A52302H-12-12	19	- 12	3/4"	1.1/16" - 12	280.0	15.0	51.0	15.1	23.0	38.0		



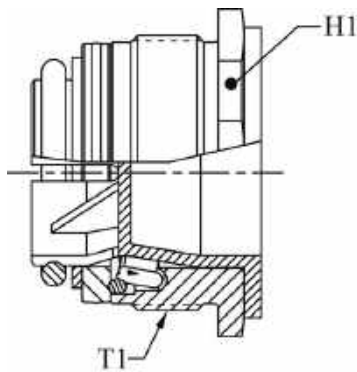
ADAPTORS

# A52192H

**ADAPTOR METRIC  
MALE  
ISO 6149  
EF FEMALE**



PART. REF.	HOSE BORE			Thread	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	Bar	B	A	C	D	H2
A52192H-14-04	6	- 4	1/4"	M 14X1,5	350.0	6.0	34.0	11.0	10.0	22.0		
A52192H-16-04	6	- 4	1/4"	M 16X1,5	350.0	7.0	35.0	12.5	10.0	22.0		
A52192H-18-06	10	- 6	3/8"	M 18X1,5	350.0	9.0	40.0	14.0	13.0	25.0		
A52192H-22-06	10	- 6	3/8"	M 22X1,5	350.0	12.0	40.0	15.0	13.0	27.0		
A52192H-22-08	12	- 8	1/2"	M 22X1,5	350.0	12.0	40.0	15.0	16.0	28.0		
A52192H-27-08	12	- 8	1/2"	M 27X2	350.0	15.0	43.0	18.5	16.0	32.0		
A52192H-27-12	19	- 12	3/4"	M 27X2	280.0	15.0	55.0	18.5	23.0	38.0		
A52192H-33-12	19	- 12	3/4"	M 33X2	280.0	20.0	54.0	18.5	23.0	41.0		



ADAPTORS

# O82H10

**CARTRIDGE  
EF**



PART. REF.	HOSE BORE			Thread	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	Bar	D	H1			
O82H10-04	6	- 4	1/4"	M 18X1	350.0	10.0	19.0					
O82H10-06	10	- 6	3/8"	M 22X1	350.0	13.0	23.0					
O82H10-08	12	- 8	1/2"	M 25X1	350.0	16.0	26.0					
O82H10-12	19	- 12	3/4"	M 33X1,5	280.0	23.0	34.0					

311 FITTINGS



# FASTFIT TYPE PUSH-TO-CONNECT

FITTINGS 312

TECHNICAL DATA				
				
SIZE			WORKING PRESSURE [Dynamic]	
DN	Dash	inch	MPa	PSI
10	-06	3/8"	42	6,090
12	-08	1/2"	42	6,090
16	-10	5/8"	42	6,090
19	-12	3/4"	42	6,090
25	-16	1"	42	6,090
31	-20	1.1/4"	42	6,090

## PRODUCT DESCRIPTION

- Push-to-connect design
- No assembly tools required
- Low connection effort
- Reduced assembly time even in hard-to-reach areas
- Disconnection by unscrewing adaptor

## MATERIAL

Adaptor and Insert in steel, with some hardened areas in correspondence to the most stressed points. Seals in NBR. Other materials (VITON, EPDM or any others) on request

## WORKING TEMPERATURE

-22°F up to +230°F (-30°C up to +110°C)  
For different temperature range, the coupling can be assembled with specific seals

## SAFETY FACTOR

4:1 for dynamic pressures

## IMPULSE PRESSURES

500,000 cycles at 120% of the rated one (freq. 1Hz)

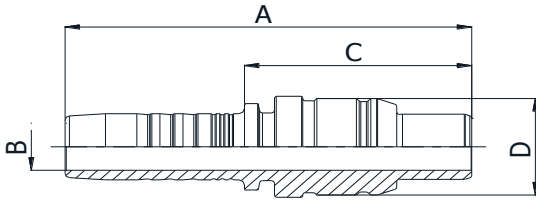
## TEST SPECIFICATIONS

ISO 18879

MULTIFIT INSERT

# M13H10

**FAST-FIT STRAIGHT MALE INSERT**

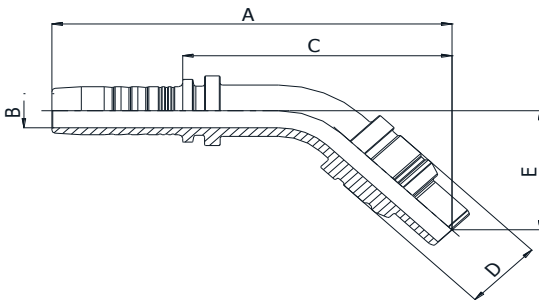


SIZE			PART REF.	SIZE			W.P	DIMENSIONS mm					
DN	Dash	inch		DN	Dash	inch	MPa	A	B	C	D		
10	-06	3/8"	M13H10-04-06	6	-04	1/4"	42	63.0	4.0	35.5	14.8		
10	-06	3/8"	M13H10-06-06	10	-06	3/8"	42	66.5	7.0	37.1	14.8		
12	-08	1/2"	M13H10-08-08	12	-08	1/2"	42	70.5	9.3	39.4	19.1		
16	-10	5/8"	M13H10-10-10	16	-10	5/8"	38	74.8	12.5	40.5	21.5		
19	-12	3/4"	M13H10-12-12	19	-12	3/4"	38	80.5	15.0	44.0	26.1		
25	-16	1"	M13H10-16-16	25	-16	1"	32	96.0	19.8	47.8	31.3		

MULTIFIT INSERT

# M13H40

**FAST-FIT 45° ELBOW MALE INSERT**

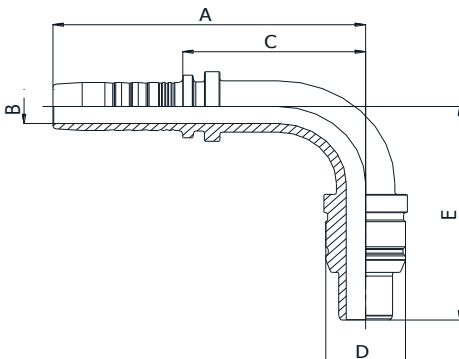


SIZE			PART REF.	SIZE			W.P	DIMENSIONS mm					
DN	Dash	inch		DN	Dash	inch	MPa	A	B	C	D	E	
10	-06	3/8"	M13H40-04-06	6	-04	1/4"	42	77.6	4.0	50.1	14.8	27.0	
10	-06	3/8"	M13H40-06-06	10	-06	3/8"	42	86.1	7.0	56.7	14.8	29.4	
12	-08	1/2"	M13H40-08-08	12	-08	1/2"	42	95.1	9.3	64.0	19.1	32.5	
19	-12	3/4"	M13H40-12-12	19	-12	3/4"	38	120.4	15.0	83.9	26.1	40.7	
25	-16	1"	M13H40-16-16	25	-16	1"	32	152.3	19.8	104.1	31.3	50.2	

MULTIFIT INSERT

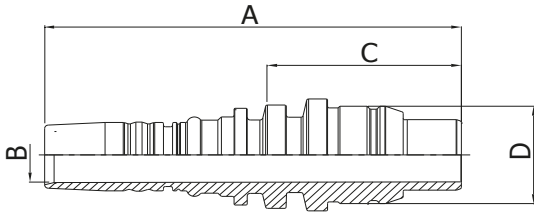
# M13H90

**FAST-FIT 90° ELBOW MALE INSERT**



SIZE			PART REF.	SIZE			W.P	DIMENSIONS mm					
DN	Dash	inch		DN	Dash	inch	MPa	A	B	C	D	E	
10	-06	3/8"	M13H90-04-06	6	-04	1/4"	42	57.6	4.0	30.1	14.8	45.2	
10	-06	3/8"	M13H90-06-06	10	-06	3/8"	42	66.4	7.0	37.0	14.8	51.2	
12	-08	1/2"	M13H90-08-08	12	-08	1/2"	42	74.9	9.3	43.8	19.1	58.3	
19	-12	3/4"	M13H90-12-12	19	-12	3/4"	38	99.0	15.0	62.5	26.1	76.9	
25	-16	1"	M13H90-16-16	25	-16	1"	32	125.5	19.8	77.3	31.3	94.4	

INTERLOCK PLUS INSERT



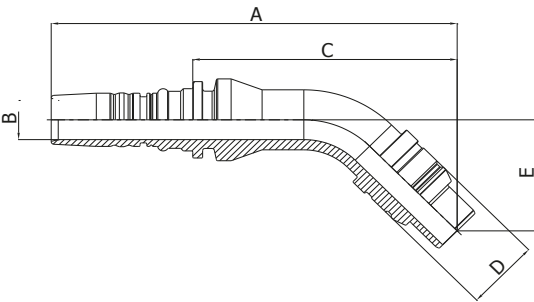
# M33H10

**FAST-FIT STRAIGHT  
MALE INSERT**

SIZE			PART REF.	SIZE			W.P	DIMENSIONS mm					
DN	Dash	inch		DN	Dash	inch	MPa	A	B	C	D		
19	-12	3/4"	M33H10-12-12	19	-12	3/4"	42	96.6	14.5	46.4	26.1		
25	-16	1"	M33H10-16-16	25	-16	1"	42	112.0	19.5	50.3	31.3		

**FITTINGS 314**

INTERLOCK PLUS INSERT

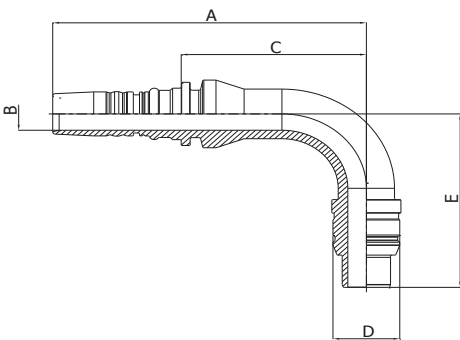


# M33H40

**FAST-FIT 45° ELBOW  
MALE INSERT**

SIZE			PART REF.	SIZE			W.P	DIMENSIONS mm					
DN	Dash	inch		DN	Dash	inch	MPa	A	B	C	D	E	
19	-12	3/4"	M33H40-12-12	19	-12	3/4"	42	143.9	14.5	93.8	26.1	40.7	
25	-16	1"	M33H40-16-16	25	-16	1"	42	174.8	19.5	113.1	31.3	50.2	

INTERLOCK PLUS INSERT



# M33H90

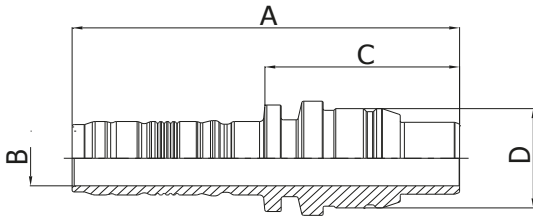
**FAST-FIT 90° ELBOW  
MALE INSERT**

SIZE			PART REF.	SIZE			W.P	DIMENSIONS mm					
DN	Dash	inch		DN	Dash	inch	MPa	A	B	C	D	E	
19	-12	3/4"	M33H90-12-12	19	-12	3/4"	42	122.6	14.5	72.4	26.1	76.9	
25	-16	1"	M33H90-16-16	25	-16	1"	42	148.0	19.5	86.3	31.3	94.4	

SPIRALFIT INSERT

# M73H10

**FAST-FIT STRAIGHT MALE INSERT**

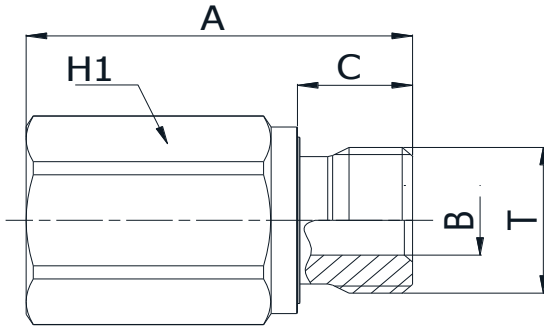


SIZE			PART REF.	SIZE			W.P	DIMENSIONS mm					
DN	Dash	inch		DN	Dash	inch	MPa	A	B	C	D		
19	-12	3/4"	M73H10-12-12	19	-12	3/4"	42	93.4	14.5	46.9	26.1		
25	-16	1"	M73H10-16-16	25	-16	1"	42	107.5	19.5	51.3	31.3		

ADAPTORS

# A52013H

**BSP MALE OR BOSS TYPE TO ISO 1179- 2**

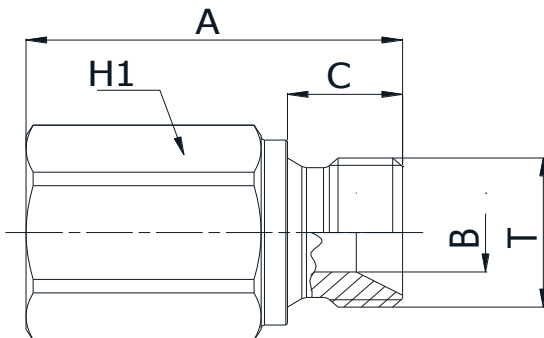


SIZE			PART. REF.	Thread	W.P	DIMENSIONS mm					
DN	Dash	inch		T	MPa	A	B	C	H1		
10	-06	3/8"	A52013H-04-06	1/4"-19	42	45.0	5.0	12.0	19		
10	-06	3/8"	A52013H-06-06	3/8"-19	42	44.5	8.0	12.0	22		
12	-08	1/2"	A52013H-08-08	1/2"-14	42	47.0	10.0	14.0	27		
19	-12	3/4"	A52013H-12-12	3/4"-14	42	53.0	16.0	16.0	32		
25	-16	1"	A52013H-16-16	1"-11	42	60.0	20.0	18.0	41		

ADAPTORS

# A52053H

**BSP MALE 60° CONE (ISO 8434-6 / BS5200)**

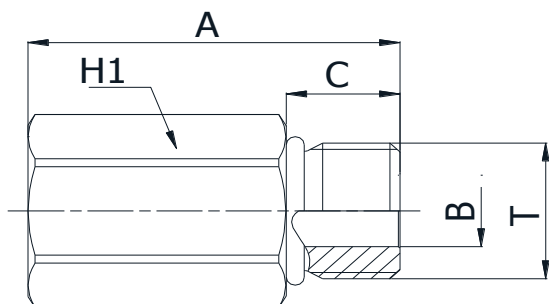


SIZE			PART. REF.	Thread	W.P	DIMENSIONS mm					
DN	Dash	inch		T	MPa	A	B	C	H1		
12	-08	1/2"	A52053H-08-08	1/2"-14	42	45.8	11.0	14.0	27		

ADAPTORS

# A52323H

SAE MALE  
OR BOSS TYPE  
TO SAE J1926-2



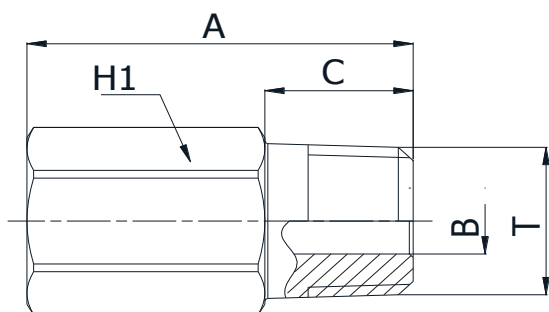
SIZE			PART. REF.	Thread	W.P	DIMENSIONS mm						
DN	Dash	inch		T	MPa	A	B	C	H1			
10	-06	3/8"	A52323H-04-06	7/16"-20	42	42.2	4.5	11.0	19			
10	-06	3/8"	A52323H-06-06	9/16"-18	42	42.4	7.5	12.0	19			
12	-08	1/2"	A52323H-08-08	3/4"-16	42	45.8	10.0	14.0	24			
16	-10	5/8"	A52323H-10-10	7/8"-14	42	49.2	12.5	16.0	27			
19	-12	3/4"	A52323H-12-12	1.1/16"-12	42	53.5	15.5	18.5	32			
25	-16	1"	A52323H-16-16	1.5/16"-12	42	56.0	20.5	18.5	38			

FITTINGS 316

ADAPTORS

# A52283H

STRAIGHT ADAPTOR  
NPTF MALE  
TO ASME B1.20.3

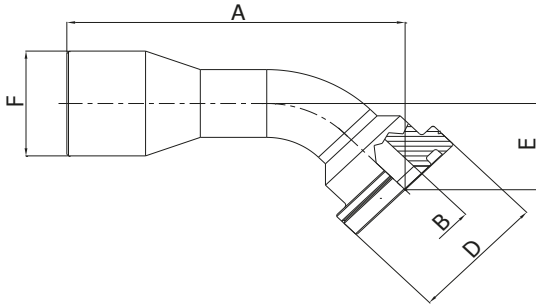


SIZE			PART. REF.	Thread	W.P	DIMENSIONS mm						
DN	Dash	inch		T	MPa	A	B	C	H1			
10	-06	3/8"	A52283H-04-06	1/4"-18	42	44.7	6.0	14.5	19			
10	-06	3/8"	A52283H-06-06	3/8"-18	42	43.7	8.0	14.5	19			
12	-08	1/2"	A52283H-08-08	1/2"-14	42	50.0	9.5	19.2	24			
19	-12	3/4"	A52283H-12-12	3/4"-14	42	54.5	15.0	19.2	32			
25	-16	1"	A52283H-16-16	1"-11.5	42	62.0	19.5	24.2	38			

ADAPTORS

# A54363H

**45° ISO / SAE CODE 62 FLANGE  
SAE J516 / ISO 12151-3**

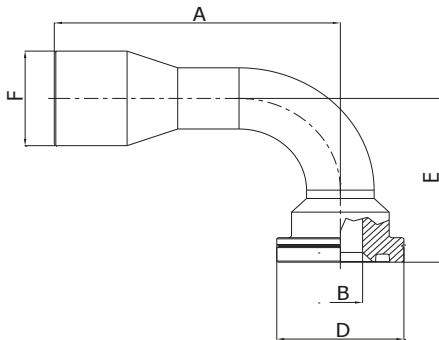


SIZE			PART. REF.	FLANGE	W.P	DIMENSIONS mm						
DN	Dash	inch		inch	MPa	A	B	D	E	F		
12	-08	1/2"	A54363H-08-08	1/2"	42	82.0	9.3	31.8	21.9	25.0		
19	-12	3/4"	A54363H-12-12	3/4"	42	101.8	14.5	41.4	28.0	34.0		
25	-16	1"	A54363H-16-16	1"	42	125.2	19.5	47.7	37.9	41.0		
31	-20	1-1/4"	A54363H-20-20	1-1/4"	42	136.1	25.0	54.2	35.6	55.0		

ADAPTORS

# A57363H

**90° ISO / SAE CODE 62 FLANGE  
SAE J516 / ISO 12151-3**



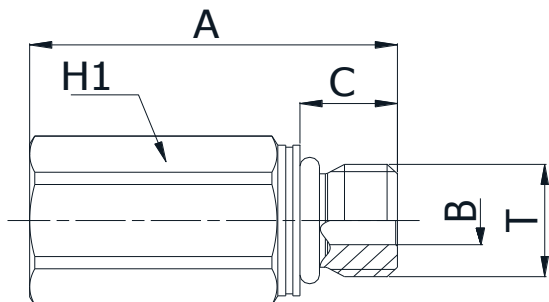
SIZE			PART. REF.	FLANGE	W.P	DIMENSIONS mm						
DN	Dash	inch		inch	MPa	A	B	D	E	F		
12	-08	1/2"	A57363H-08-08	1/2"	42	74.2	9.3	31.8	45.0	25.0		
19	-12	3/4"	A57363H-12-12	3/4"	42	93.2	14.5	41.4	58.9	34.0		
25	-16	1"	A57363H-16-16	1"	42	113.6	19.5	47.7	80.0	41.0		
31	-20	1-1/4"	A57363H-20-20	1-1/4"	42	132.1	25.0	54.2	82.0	55.0		

**FITTINGS**  
**317**

ADAPTORS

# A52193H

**STRAIGHT ADAPTOR  
METRIC MALE  
ISO 6149-2**



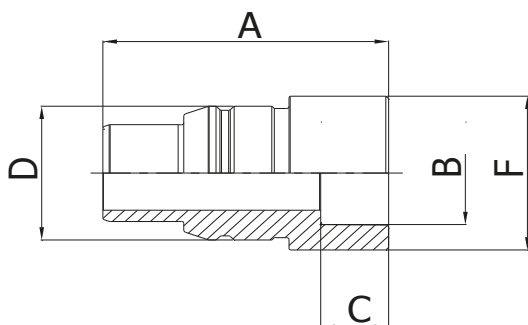
SIZE			PART. REF.	Thread	W.P	DIMENSIONS mm						
DN	Dash	inch		T	MPa	A	B	C	H1			
10	-06	3/8"	A52193H-14-06	M14X1.5	42	41.5	6.0	11.0	19			
10	-06	3/8"	A52193H-18-06	M18X1.5	42	43.5	8.0	14.0	24			
12	-08	1/2"	A52193H-22-08	M22X1.5	42	45.0	10.0	15.0	27			
19	-12	3/4"	A52193H-27-12	M27X2	42	53.5	15.0	18.5	32			
25	-16	1"	A52193H-33-16	M33X2	42	57.0	20.0	18.5	41			

FITTINGS 318

ADAPTORS

# A523H95

**BRAZING SOCKET**



SIZE			PART. REF.	SIZE	W.P	DIMENSIONS mm						
DN	Dash	inch			MPa	A	B	C	D	F		
19	- 12	3/4"	A523H95-12-20		42	50.5	20.1	12.0	26.1	30.0		
25	- 16	1"	A523H95-16-26		42	58.0	26.1	16.0	31.3	38.0		





# DISCONNECTABLE FASTFIT TYPE PUSH-TO-CONNECT

TECHNICAL DATA				
SIZE			WORKING PRESSURE (Dynamic)	
DN	Dash	inch	MPa	PSI
12	-08	1/2"	42	6,090

## PRODUCT DESCRIPTION

- Push-to-connect design
- No assembly tools required
- Low connection effort
- Reduced assembly time even in hard-to-reach areas
- Disconnection by unlocking male insert by means of a standard tool

## MATERIAL

Adaptor and Insert in steel, with some hardened areas in correspondence to the most stressed points. Seals in NBR. Other materials (VITON, EPDM or any others) on request

## WORKING TEMPERATURE

-22°F up to +230°F (-30°C up to +110°C)  
For different temperature range, the coupling can be assembled with specific seals

## SAFETY FACTOR

4:1 for dynamic pressures

## IMPULSE PRESSURES

500,000 cycles at 120% of the rated one (freq. 1Hz)

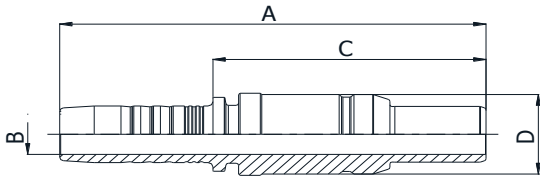
## TEST SPECIFICATIONS

ISO 18879

MULTIFIT INSERT

# M14H10

**DISCONNECTABLE FAST-FIT  
STRAIGHT MALE INSERT**

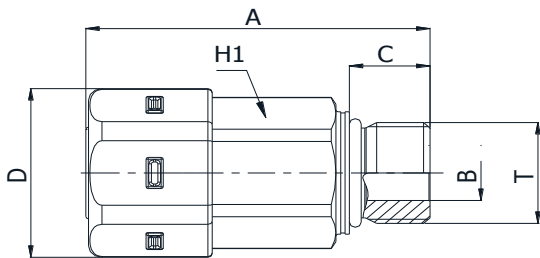


SIZE			PART REF.	SIZE			W.P	DIMENSIONS mm					
DN	Dash	inch		DN	Dash	inch	MPa	A	B	C	D		
12	-08	1/2"	M14H10-08-08	12	-08	1/2"	42	86.5	9.3	55.4	18.4		

ADAPTORS

# A52194H

**STRAIGHT ADAPTOR  
METRIC MALE ISO 6149-2**

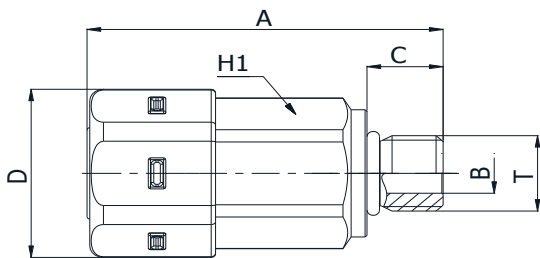


SIZE			PART. REF.	Thread	W.P	DIMENSIONS mm						
DN	Dash	inch		T	MPa	A	B	C	D	H1		
12	-08	1/2"	A52194H-22-08	M22X1.5	42	64.0	12.0	15.0	37.0	30.0		

ADAPTORS

# A52324H

**SAE MALE  
OR BOSS TYPE  
TO SAE J1926-2**

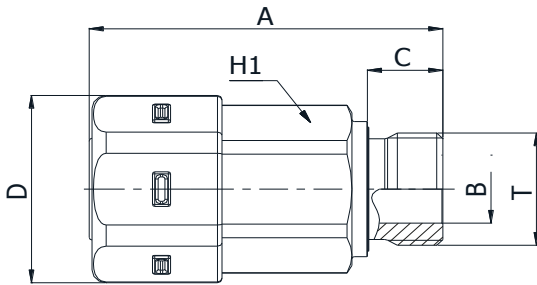


SIZE			PART. REF.	Thread	W.P	DIMENSIONS mm						
DN	Dash	inch		T	MPa	A	B	C	D	H1		
12	-08	1/2"	A52324H-08-08	3/4"-16	42	64.8	10.0	14.0	37.0	30.0		

ADAPTORS

**A52014H**

**BSP MALE  
OR BOSS TYPE  
TO ISO 1179-2**



SIZE			PART. REF.	Thread	W.P	DIMENSIONS mm						
DN	Dash	inch		T	MPa	A	B	C	D	H1		
12	-08	1/2"	A52014H-08-08	1/2"-14	42	66.0	12.0	14.0	37.0	30.0		



# ROTOFIT TYPE SWIVEL JOINT

FITTINGS 322

TECHNICAL DATA										
 SIZE			 WORKING PRESSURE (Dynamic)							
			MULTIFIT		INTERLOCK PLUS		SPIRALFIT		ADAPTOR	
DN	Dash	inch	MPa	PSI	MPa	PSI	MPa	PSI	MPa	PSI
6	-04	1/4"	42	6,090	-	-	-	-	-	-
10	-06	3/8"	42	6,090	-	-	-	-	42	6,090
12	-08	1/2"	42	6,090	-	-	-	-	-	-
16	-10	5/8"	42	6,090	-	-	-	-	35	5,075
19	-12	3/4"	35	5,075	42	6,090	42	6,090	35	5,075
25	-16	1"	35	5,075	42	6,090	42	6,090	35	5,075
31	-20	1.1/4"	35	5,075	42	6,090	42	6,090	35	5,075
38	-24	1.1/2"	28	4,060	42	6,090	42	6,090	35	5,075
51	-32	2"	21	3,045	-	-	-	-	-	-
63	-40	2.1/2"	14	2,030	-	-	-	-	-	-

## PRODUCT DESCRIPTION

- Swivel joint purposely designed to eliminate torsional stresses due to hose twist under external torque
- Prevents connection unscrewing
- Full flow design to minimize pressure drops
- High number of balls to minimize friction

### ROTATION ANGLE

Up to 40°

### ROTATION FREQUENCY

Up to 15 alternative RPM

### MATERIAL

Body in steel, with some hardened areas in correspondence to the most stressed points. Balls in 100Cr6 quenched and seals in NBR or Polyurethane. Other materials (VITON, EPDM or any others) on request

### WORKING TEMPERATURE

-22°F up to +230°F (-30°C up to +110°C)  
For different temperature range, the coupling can be assembled with specific seals

### SAFETY FACTOR

4:1 for dynamic pressures

### IMPULSE PRESSURES

500,000 cycles at 120% of the rated one (freq. 1Hz)

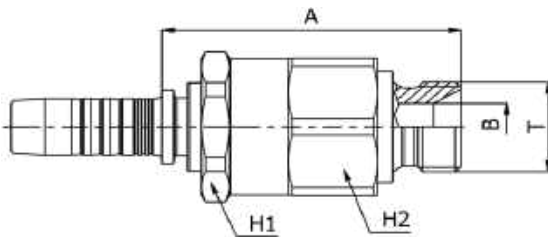
### TEST SPECIFICATIONS

ISO 18879

BS STANDARD CONNECTIONS

# MR10510

**BSP MALE  
PARALLEL 60° CONE SEAT  
BS5200 / ISO 8434-6**

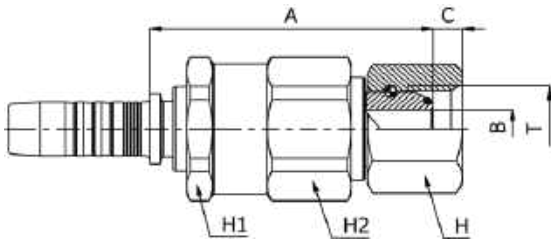


PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	MPa	A	B	H1	H2	
MR10510-04-04	6	-04	1/4"	1/4"-19	42	57.7	4.7	24	24			
MR10510-06-06	10	-06	3/8"	3/8"-19	42	58.2	8.0	27	27			
MR10510-08-08	12	-08	1/2"	1/2"-14	42	61.6	11.0	32	32			
MR10510-10-10	16	-10	5/8"	5/8"-14	35	69.3	14.3	36	36			
MR10510-12-12	19	-12	3/4"	3/4"-14	35	71.0	16.7	41	41			
MR10510-16-16	25	-16	1"	1"-11	35	83.0	22.2	50	50			
MR10510-20-20	31	-20	1.1/4"	1.1/4"-11	35	91.9	28.6	60	60			
MR10510-24-24	38	-24	1.1/2"	1.1/2"-11	28	105.1	33.3	70	70			

BS STANDARD CONNECTIONS

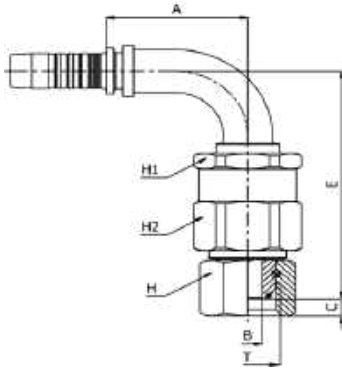
# MR20812

**BSP O-RING  
FEMALE 60° CONE  
BS5200 / ISO 12151-6**



PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	MPa	A	B	C	H	H1
MR20812-04-04	6	-04	1/4"	1/4"-19	42	58.0	4.3	4.1	19	24	24	
MR20812-06-06	10	-06	3/8"	3/8"-19	42	59.4	7.0	5.9	22	27	27	
MR20812-08-08	12	-08	1/2"	1/2"-14	42	62.4	9.3	6.5	27	32	32	
MR20812-10-10	16	-10	5/8"	5/8"-14	35	68.0	12.5	9.7	28	36	36	
MR20812-12-12	19	-12	3/4"	3/4"-14	35	70.8	15.0	8.5	32	41	41	
MR20812-16-16	25	-16	1"	1"-11	35	81.0	19.8	10.6	38	50	50	

BS STANDARD CONNECTIONS



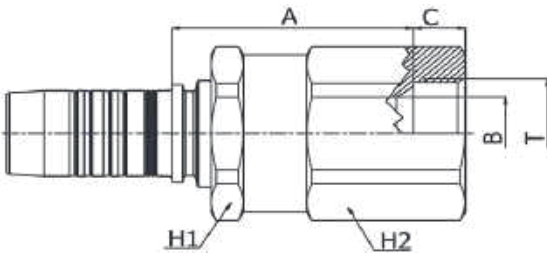
# MR20892RT

90° BSP O-RING FEMALE SWEEP ELBOW  
60° CONE BS5200 / ISO 12151-6

PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	A	B	C	E	H	H1
MR20892-08-08RT	12	-08	1/2"	1/2"-14	42	45.9	9.3	6.5	85.3	27	32	32

FITTINGS 324

SAE STANDARD CONNECTIONS

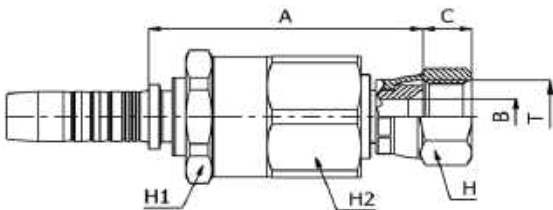


# MR22510

SWIVEL JOINT JIC  
FEMALE 37° CONE SEAT  
SAE J516 / ISO 12151-5

PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	A	B	C	H1	H2	
MR22510-20-20	31	-20	1.1/4"	1.5/8"-12	21	76.7	27.5	16.5	60	60		
MR22510-24-24	38	-24	1.1/2"	1.7/8"-12	16	87.5	33.5	19.5	70	70		

SAE STANDARD CONNECTIONS



# MR22711

JIC  
FEMALE DOUBLE HEXAGON 37° CONE SEAT

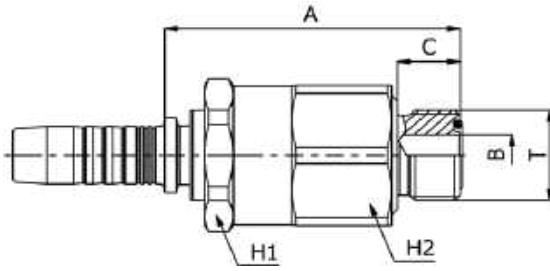
PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	A	B	C	H	H1	H2
MR22711-06-06	10	-06	3/8"	9/16"-18	35	56.0	7.0	9.5	17	27	27	
MR22711-08-08	12	-08	1/2"	3/4"-16	35	59.9	9.3	10.7	22	32	32	
MR22711-08-10	12	-08	1/2"	7/8"-14	35	61.9	11.3	12.5	25	32	32	
MR22711-10-10	16	-10	5/8"	7/8"-14	35	66.8	11.3	12.5	25	36	36	
MR22711-12-12	19	-12	3/4"	1.1/16"-12	35	68.3	15.0	14.1	32	41	41	
MR22711-16-16	25	-16	1"	1.5/16"-12	28	79.8	19.8	15.3	38	50	50	

SAE STANDARD CONNECTIONS

# MR12410

ORFS  
MALE

SAE J516 / ISO 12151-1



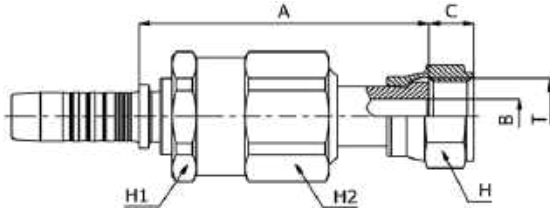
PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	A	B	C	H1	H2	
MR12410-08-08	12	-08	1/2"	13/16"-16	42	60.4	9.5	12.8	32	32		
MR12410-10-10	16	-10	5/8"	1"-14	42	68.8	12.5	15.5	36	36		

SAE STANDARD CONNECTIONS

# MR22411

ORFS  
FEMALE

SAE J516 / ISO 12151-1  
PULL BACK TYPE (CRIMPED BACK-NUT)

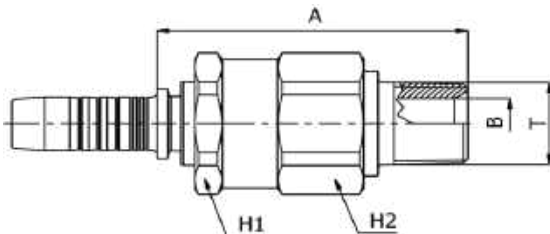


PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	A	B	C	H	H1	H2
MR22411-06-06	10	-06	3/8"	11/16"-16	42	64.5	7.0	9.5	22	27	27	
MR22411-08-08	12	-08	1/2"	13/16"-16	42	70.9	9.3	11.0	24	32	32	
MR22411-10-10	16	-10	5/8"	1"-14	42	77.8	11.5	13.5	30	36	36	
MR22411-12-12	19	-12	3/4"	1.3/16"-12	35	83.8	14.0	14.5	36	41	41	
MR22411-16-16	25	-16	1"	1.7/16"-12	35	93.4	19.8	15.0	41	50	50	

SAE STANDARD CONNECTIONS

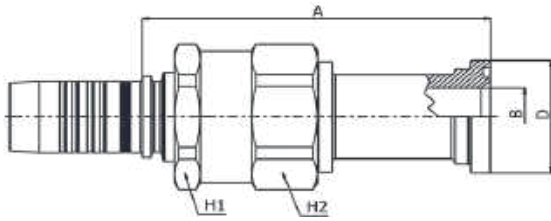
# MR12810

NPTF MALE 60° CONE SEAT - SAE J516/J514



PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	A	B	H1	H2		
MR12810-04-04	6	-04	1/4"	1/4"-18	35	61.2	5.5	24	24			
MR12810-06-06	10	-06	3/8"	3/8"-18	28	60.7	9.3	27	27			
MR12810-08-08	12	-08	1/2"	1/2"-14	24.5	66.8	12.5	32	32			
MR12810-12-12	19	-12	3/4"	3/4"-14	21	74.2	16.0	41	41			
MR12810-16-16	25	-16	1"	1"-11.5	17.5	88.2	19.5	50	50			

SAE STANDARD CONNECTIONS



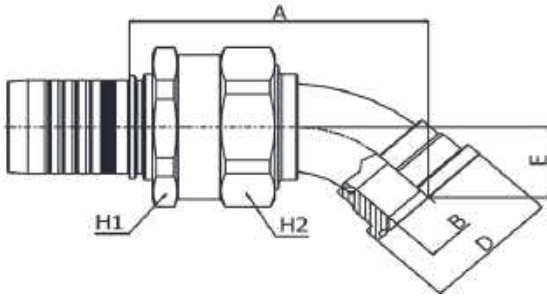
# MR23311FK

ISO / SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3  
(VITON)

PART. REF.	SIZE			FLANGE	W.P.	DIMENSIONS mm						
	DN	Dash	inch			inch	A	B	D	H1	H2	
MR23311-20-20FK	31	-20	1.1/4"	1.1/4"	28	136.7	26.0	51.0	60	60		
MR23311-20-24FK	31	-20	1.1/4"	1.1/2"	21	134.7	32.0	60.5	60	60		
MR23311-24-24FK	38	-24	1.1/2"	1.1/2"	21	147.9	32.0	60.5	70	70		
MR23311-32-32FK	51	-32	2"	2"	21	154.4	42.0	71.6	90	90		

FITTINGS 326

SAE STANDARD CONNECTIONS

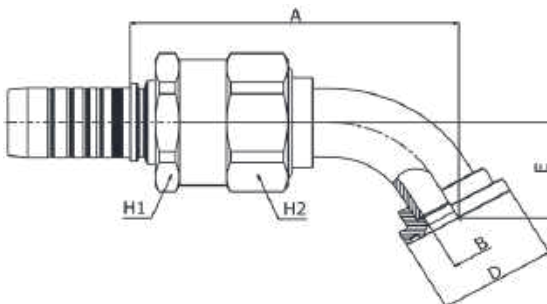


# MR23341FK

45° ISO / SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3  
(VITON)

PART. REF.	SIZE			FLANGE	W.P.	DIMENSIONS mm						
	DN	Dash	inch			inch	A	B	D	E	H1	H2
MR23341-40-40FK	63	-40	2.1/2"	2.1/2"	14	174.5	52.0	84.3	48.5	100	100	

SAE STANDARD CONNECTIONS



# MR23361FK

60° ISO / SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3  
(VITON)

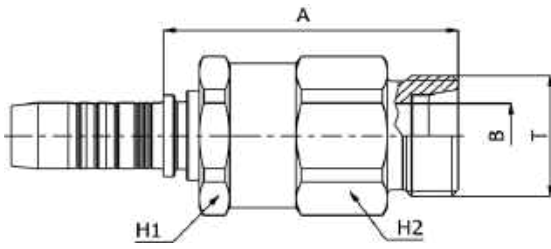
PART. REF.	SIZE			FLANGE	W.P.	DIMENSIONS mm						
	DN	Dash	inch			inch	A	B	D	E	H1	H2
MR23361-24-24FK	38	-24	1.1/2"	1.1/2"	21	166.6	32.0	60.5	52.9	70	70	
MR23361-24-32FK	38	-24	1.1/2"	2"	21	170.1	42.0	71.6	59.0	70	70	



DIN STANDARD CONNECTIONS

# MR11210

**METRIC  
MALE 24° CONE SEAT HEAVY DUTY  
DIN 20066 / ISO 12151-2**

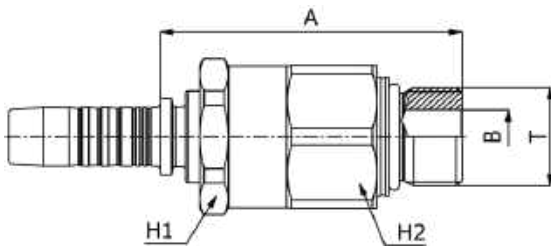


PART. REF.	SIZE			THREAD	PIPE	W.P.	DIMENSIONS mm						
	DN	Dash	inch				T	mm	MPa	A	B	H1	H2
MR11210-10-30	16	-10	5/8"	M30X2	20	42	66.3	16.0	36	36			

DIN STANDARD CONNECTIONS

# MR11910

**METRIC  
MALE HEAVY DUTY SERIES  
ISO 6149-2**

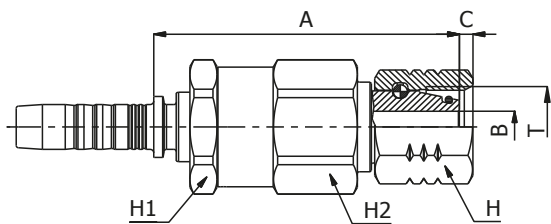


PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	MPa	A	B	H1	H2	
MR11910-06-18	10	-06	3/8"	M18X1.5	42	60.5	9.0	27	27			
MR11910-08-22	12	-8	1/2"	M22X1.5	42	61.9	12.0	32	32			

DIN STANDARD CONNECTIONS

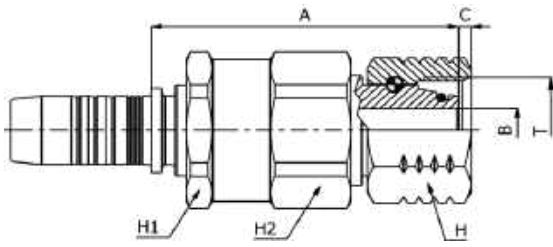
# MR21512

**METRIC  
O-RING FEMALE 24° CONE LIGHT DUTY  
DIN 20066 / ISO 12151-2  
(THRUST-WIRE NUT)**



PART. REF.	SIZE			THREAD	PIPE	W.P.	DIMENSIONS mm					
	DN	Dash	inch				T	mm	MPa	A	B	C
MR21512-04-16	6	-04	1/4"	M16X1.5	10	35	63.2	6.0	3.0	19	24	24
MR21512-06-18	10	-06	3/8"	M18X1.5	12	33	65.3	7.0	2.9	22	27	27
MR21512-10-26	16	-10	5/8"	M26X1.5	18	25	72.3	12.5	2.3	32	36	36

DIN STANDARD CONNECTIONS



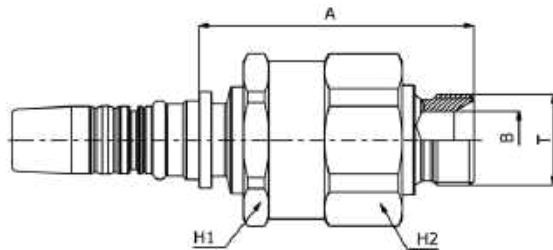
# MR21612

METRIC O-RING FEMALE 24° CONE HEAVY DUTY  
DIN 20066 / ISO 12151-2 (THRUST-WIRE NUT)

PART. REF.	SIZE			THREAD	PIPE	W.P.	DIMENSIONS mm						
	DN	Dash	inch				T	mm	MPa	A	B	C	H
MR21612-12-30	19	-12	3/4"	M30X2	20	35	79.8	12.5	3.2	36	41	41	

FITTINGS 328

BS STANDARD CONNECTIONS

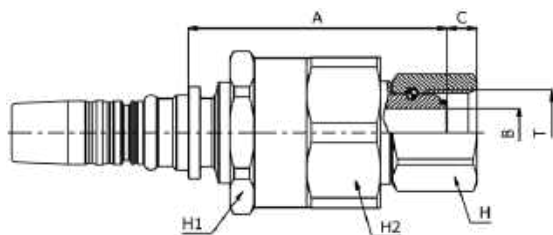


# MR30510

BSP  
MALE 60° CONE SEAT  
BS5200

PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	MPa	A	B	H1	H2	
MR30510-12-12	19	-12	3/4"	3/4"-14	35	73.9	16.7	46	46			
MR30510-16-16	25	-16	1"	1"-11	35	85.7	22.2	55	55			
MR30510-20-20	31	-20	1.1/4"	1.1/4"-11	35	95.8	28.6	65	65			
MR30510-24-24	38	-24	1.1/2"	1.1/2"-11	30	109.6	33.3	75	75			

BS STANDARD CONNECTIONS



# MR40812

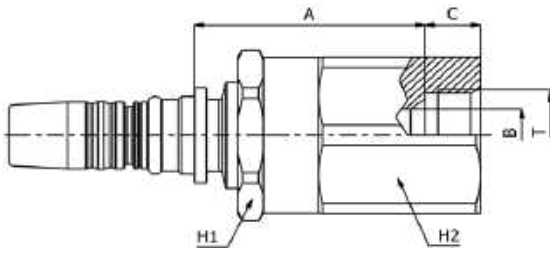
BSP  
O-RING FEMALE 60° CONE  
BS5200/ ISO 8434-6

PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	MPa	A	B	C	H	H1
MR40812-12-12	19	-12	3/4"	3/4"-14	35	73.7	15.0	8.5	32	46	46	
MR40812-16-16	25	-16	1"	1"-11	35	83.7	19.8	10.6	41	55	55	

SAE STANDARD CONNECTIONS

# MR42510

JIC  
FEMALE 37 °CONE SEAT  
SAE J514

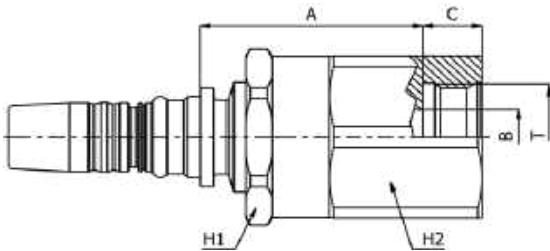


PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	A	B	C	H1	H2	
MR42510-12-12	19	-12	3/4"	1.1/16"-12	35	62.7	15.5	15.0	46	46		
MR42510-16-16	25	-16	1"	1.5/16"-12	28	70.0	21.5	16.5	55	55		

SAE STANDARD CONNECTIONS

# MR42410

ORFS  
FEMALE  
ISO 8434-3 / SAE J1453

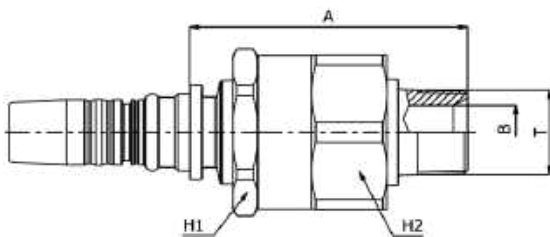


PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm						
	DN	Dash	inch			T	A	B	C	H1	H2	
MR42410-12-12	19	-12	3/4"	1.3/16"-12	42	58.2	15.5	15.5	46	46		
MR42410-16-16	25	-16	1"	1.7/16"-12	42	66.0	20.5	16.0	55	55		

SAE STANDARD CONNECTIONS

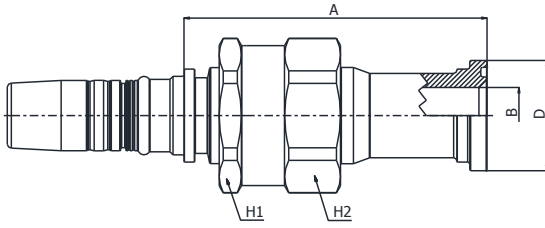
# MR32810

NPTF  
MALE 60° CONE SEAT  
SAE J476A



PART. REF.	SIZE			THREAD	W.P.	DIMENSIONS mm					
	DN	Dash	inch			T	A	B	H1	H2	
MR32810-12-12	19	-12	3/4"	3/4"-14	21	77.1	16.0	46	46		
MR32810-16-16	25	-16	1"	1"-11.5	17.5	90.9	19.5	55	55		

SAE STANDARD CONNECTIONS

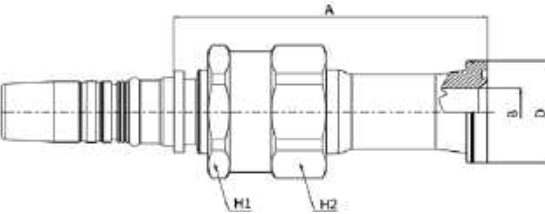


# MR43310

ISO / SAE CODE 61 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	SIZE			FLANGE	W.P.	DIMENSIONS mm						
	DN	Dash	inch			inch	MPa	A	B	D	H1	H2
MR43310-20-20	31	-20	1.1/4"	1.1/4"	28	140.6	26.0	51.0	65	65		

SAE STANDARD CONNECTIONS

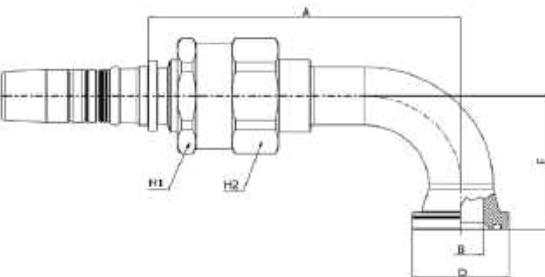


# MR43610

ISO / SAE CODE 62 FLANGE  
SAE J516 / ISO 12151-3

PART. REF.	SIZE			FLANGE	W.P.	DIMENSIONS mm						
	DN	Dash	inch			inch	MPa	A	B	D	H1	H2
MR43610-20-20	31	-20	1.1/4"	1.1/4"	42	149.8	25.0	54.2	65	65		

SAE STANDARD CONNECTIONS



# MR43690

90° ISO / SAE CODE 62 FLANGE  
SAE J516 / ISO 12151-3

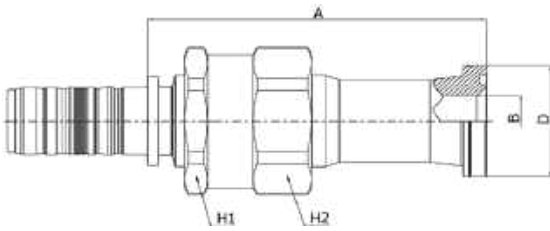
PART. REF.	SIZE			FLANGE	W.P.	DIMENSIONS mm						
	DN	Dash	inch			inch	MPa	A	B	D	E	H1
MR43690-20-20	31	-20	1.1/4"	1.1/4"	42	174.6	25.0	54.2	82.0	65	65	

FITTINGS 330

SAE STANDARD CONNECTIONS

# MR83611

ISO / SAE CODE 62 FLANGE  
SAE J516 / ISO 12151-3

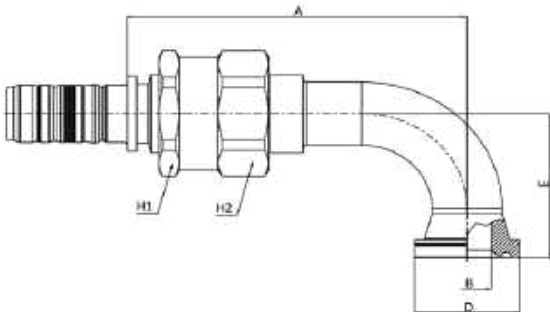


PART. REF.	SIZE			FLANGE	W.P.	DIMENSIONS mm						
	DN	Dash	inch			inch	MPa	A	B	D	H1	H2
MR83611-20-20	31	-20	1.1/4"	1.1/4"	42	149.9	25.0	54.2	65	65		

SAE STANDARD CONNECTIONS

# MR83691

90° ISO / SAE CODE 62 FLANGE  
SAE J516 / ISO 12151-3

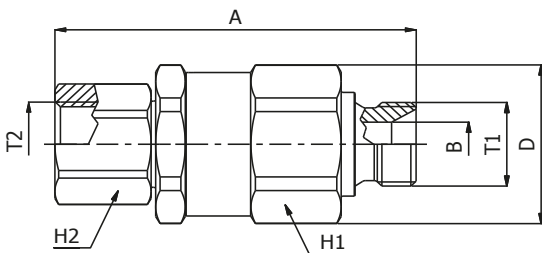


PART. REF.	SIZE			FLANGE	W.P.	DIMENSIONS mm						
	DN	Dash	inch			inch	MPa	A	B	D	E	H1
MR83691-20-20	31	-20	1.1/4"	1.1/4"	42	174.6	25.0	54.2	82.0	65	65	

BS STANDARD CONNECTIONS

# AR520504

SWIVEL JOINT STRAIGHT  
MALE BSP - FEMALE BSP

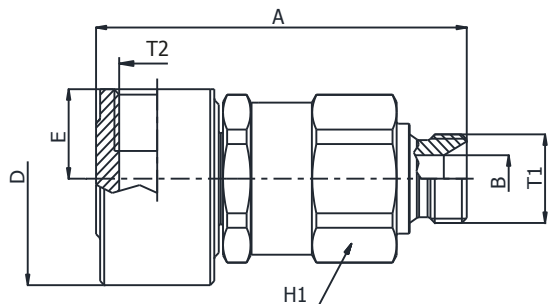


PART. REF.	SIZE			THREAD		W.P.	DIMENSIONS mm					
	DN	Dash	inch	T1	T2		MPa	A	B	D	H1	H2
AR520504-04-04	10	-06	3/8"	1/4"-19	1/4"-19	42	69.9	4.7	30.0	27.0	19.0	
AR520504-06-06	10	-06	3/8"	3/8"-19	3/8"-19	42	69.9	8.0	30.0	27.0	22.0	
AR520504-08-08	16	-10	5/8"	1/2"-14	1/2"-14	35	82.9	11.0	39.5	36.0	27.0	
AR520504-12-12	19	-12	3/4"	3/4"-14	3/4"-14	35	87.6	16.7	45.0	41.0	34.0	
AR520504-16-16	25	-16	1"	1"-11	1"-11	35	101.8	22.2	55.0	50.0	41.0	
AR520504-20-20	31	-20	1.1/4"	1.1/4"-11	1.1/4"-11	35	112.1	28.6	66.0	60.0	55.0	
AR520504-24-24	38	-24	1.1/2"	1.1/2"-11	1.1/2"-11	30	128.3	33.3	77.0	70.0	65.0	

BS STANDARD CONNECTIONS

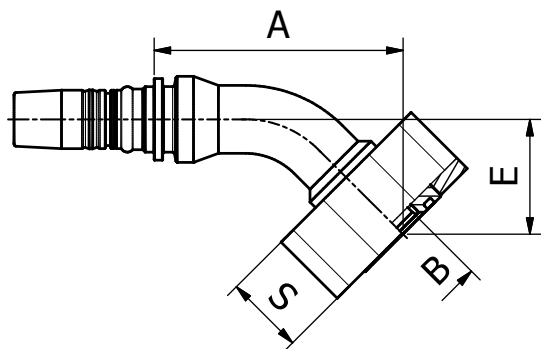
# AR580504

SWIVEL JOINT 90°  
MALE BSP - FEMALE BSP



PART. REF.	SIZE			THREAD		W.P.	DIMENSIONS mm						
	DN	Dash	inch	T1	T2		A	B	D	E	H1		
AR580504-04-04	10	-06	3/8"	1/4"-19	1/4"-19	42	70.4	4.7	36.0	16.0	27.0		
AR580504-06-06	10	-06	3/8"	3/8"-19	3/8"-19	42	75.4	8.0	39.0	16.0	27.0		
AR580504-08-08	16	-10	5/8"	1/2"-14	1/2"-14	35	90.9	11.0	50.0	21.0	36.0		
AR580504-12-12	19	-12	3/4"	3/4"-14	3/4"-14	35	100.1	16.7	60.0	24.0	41.0		
AR580504-16-16	25	-16	1"	1"-11	1"-11	35	117.3	22.2	70.0	28.0	50.0		

FITTINGS 332

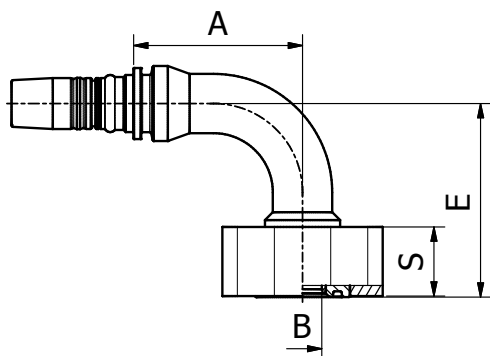


SAE STANDARD CONNECTIONS

# M4364A

45° ADJUSTABLE FLANGE

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS mm						
	DN	Dash	inch	inch	A	B	E	S			
M4364A-12-12	19	- 12	3/4"	3/4"	90.5	14.5	37.5	27.4			
M4364A-16-16	25	- 16	1"	1"	109.5	19.5	50.5	35			
M4364A-20-20	31	- 20	1.1/4"	1.1/4"	136.5	25	56.5	35			



SAE STANDARD CONNECTIONS

# M4369A

90° ADJUSTABLE FLANGE

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS mm						
	DN	Dash	inch	inch	A	B	E	S			
M4369A-12-12	19	- 12	3/4"	3/4"	72.5	14.5	73	27.4			
M4369A-16-16	25	- 16	1"	1"	85.5	19.5	98	35			
M4369A-20-20	31	- 20	1.1/4"	1.1/4"	112	25	111.5	35			

