

# Hose Fittings





# Hose Fittings

GSIF2P210

Hose Fittings Catalogue

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## COMPATIBILITY CHART BETWEEN INTERTRACO HOSE FITTINGS AND WIRE BRAIDED HOSES

hose sizes	Intertraco hose type	hose standard	assembling style
-04 / -48	<b>Flexit 1T</b>	EN 853 1SN SAE 100 R1AT	●
			●
			■
-04 / -48	<b>Flexit 2T</b>	EN 853 2SN SAE 100 R2AT	●
			■
-04 / -16	<b>Flexit SC117</b>	EN 857 1SC SAE 100 R17 (sizes -04 / -08)	●
-04 / -16	<b>Flexit SK117</b>	exceeds EN 857 1SC SAE SAE 100 R17 (sizes -04 / -08)	●
-04 / -48	<b>Flexit SC216</b>	EN 857 2SC SAE 100 R16	●
			●
			■
-04 / -20	<b>Flexit SK216</b> (2 wire compact high pressure)	exceeds EN 857 2SC SAE 100 R17 (sizes -10 / -16)	●
			●
			■
-04 / -16	<b>Flexit SK119 - Flexit SK219</b>	exceeds SAE 100 R19	●
			●
			■
-06 / -16	<b>Flexit 3T</b> (3 wire thin cover)	-	●
			■
-03 / -08	<b>Flexit PT</b>	Pilot Hose	●
			●
-04 / -16	<b>Flexit EZ-Lock</b>	SAE 100 R6	●
-12 / -64	<b>Flexit XF R4</b>	SAE 100 R4	●
-03 / -16	<b>Flexit T7</b>	exceeds SAE 100 R7	●
-02 / -16	<b>Flexit T14</b>	SAE 100 R14	●
-04 / -16	<b>BRIDGESTONE R1K</b>	-	●
-04 / -16	<b>BRIDGESTONE R2K</b>	-	●

### NOTES:

The approved Intertraco hose and coupling combinations have been extensively tested and validated according to the relevant industry standard.

Different combinations should be fully tested before being utilized; the above information are guide lines only.

Please refer to our crimping chart for more detailed information. For SAE R8 and EN 854 1TE, 2TE, 3TE, please contact our Technical Dept.

R5 hoses and couplings follow different bore sizes. Please refer to specific catalogues and consult our Technical Dept.

coupling + ferrule combination																	
ø mm	3	5	6	8	10	12	16	19	25	31	38	51	63	76	102		
ø inch	1/8"	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"	4"		
size	-02	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-40	-48	-64		
			B+SN03T														
			B+SCX0T														
			B+S0210														
			B+SN03T														
			B+S0420														
			B+SCX0T														
			B+SCX0T														
			B+SN03T														
			B+SCX0T														
			B+S0210														
			B+SN03T														
			B+SCX0T														
			B+S0210														
			B+SCX0T														
					B+SN03T												
					B+S0210												
					B+S312T												
					B+S0420												
			B+SCX0T														
			B+S00TK														
			B+S00TK														
									B+SN03T	B+S0420		B+SN03T					
			B+S00TK														
			B+S014T														
			B+SCX0T														
			B+SN03T														

**ASSEMBLING STYLE:**

- No skive
- External skive
- Interlock

## COMPATIBILITY CHART BETWEEN INTERTRACO HOSE FITTINGS AND WIRE MULTISPIRAL HOSES

hose sizes	Intertraco hose type	hose standard	assembling style
-04 / -32	<b>Flexit SHP</b>	exceeds EN 856 4SP exceeds SAE 100 R12	● ■
-10 / -32	<b>Flexit H4</b>	EN 856 4SH	● ■ ▲
-10 / -48	<b>Flexit 5000</b>	SAE 100 R13 ISO 18752 - class 350	● ■ ▲
-06 / -32	<b>Flexit 6000</b>	SAE 100 R15 ISO 18752 - class 420	● ■ ▲
-10 / -40	<b>BRIDGESTONE 4ST</b>	exceeds EN 856 4SH	● ■ ▲
-06 / -20	<b>BRIDGESTONE 4ST+</b>	exceeds SAE 100 R15	● ■ ▲
-20 / -40	<b>BRIDGESTONE 6ST</b>	exceeds SAE 100 R15	▲
-12 / -20	<b>BRIDGESTONE HST</b>	Special for hydrostatic transmissions	▲

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R5 hoses and couplings follow different bore sizes. Please refer to specific catalogues and consult our Technical Dept.

coupling + ferrule combination												
ø mm	6	10	12	16	19	25	31	38	51	63	76	
ø inch	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2.1/2"	3"	
size	-04	-06	-08	-10	-12	-16	-20	-24	-32	-40	-48	
		B+S312T										
		B+S0420										
					B+S312T							
					B+S0420							
					I+S004I							
				B+S312T								
				B+S0420								
					I+S004I			I+S006I		I+S007I		
		B+S312T										
		B+S0420										
					I+S004I		I+S006I					
					B+S312T							
					B+S0420							
						I+S004I						
		B+S312T										
		B+S0420										
					I+S004I							
						I+S006I						
					S+S004I		S+S006I					

**ASSEMBLING STYLE:**

- No skive
- External skive
- Interlock

**INSERT+FERRULE APPLICATION CHART AND MATCHING POSSIBILITIES FOR WIRE BRAIDED AND MULTISPIRAL HOSES**

insert series + ferrule combination				EN 853 1SN / SAE 100 R1AT	EN 853 2SN / SAE 100 R2AT	EN 857 1SC	exceeds EN 857 1SC	SAE 100 R17	SAE 100 R17	EN 857 2SC / SAE 100 R16
				<i>Flexit</i> <b>1T</b>	<i>Flexit</i> <b>2T</b>	<i>Flexit</i> <b>SC117</b>	<i>Flexit</i> <b>SK117</b>	<i>Flexit</i> <b>SC117</b>	<i>Flexit</i> <b>SK117</b>	<i>Flexit</i> <b>SC216</b>
FOR WIRE BRAIDED AND 4 SPIRAL HYDRAULIC HOSES	<b>B</b>		<b>S0210</b>	-04 / -32						-04 / -16
	<b>B</b>		<b>S0420</b>		-04 / -32					
	<b>B</b>		<b>SN03T</b>	-04 / -48	-04 / -48					-04 / -48
	<b>B</b>		<b>SCX0T</b>	-04 / -16		-04 / -16	-04 / -16	-04 / -08	-04 / -08	-04 / -16
	<b>B</b>		<b>S312T</b>							
	<b>B</b>		<b>S00TK</b>							
	<b>B</b>		<b>S014T</b>							
FOR 4 AND 6 SPIRAL HOSES	<b>I</b>		<b>S004I</b>							
	<b>I</b>		<b>S006I</b>							
	<b>I</b>		<b>S007I</b>							
	<b>S<sup>(1)</sup></b>		<b>S004I</b>							
	<b>S<sup>(1)</sup></b>		<b>S006I</b>							

<sup>(1)</sup> for more detailed information please make reference to HST range catalogue

exceeds EN 857 2SC	SAE 100 R17	exceeds SAE 100 R19	3 WB Hose	Pilot Hose	SAE 100 R6	SAE 100 R4	exceeds SAE 100 R7	SAE 100 R14	-	-	EN 856 4SP	exceeds SAE 100 R12	EN 856 4SH	SAE 100 R13 / ISO 18752 - class 350	SAE 100 R15 / ISO 18752 - class 420	exceeds EN 856 4SP / SAE 100 R12	exceeds EN 856 4SH	SAE 100 R15	-	
<b>Flexit SK216 *</b>		<b>Flexit SK119 SK219</b>	<b>Flexit 3T **</b>	<b>Flexit PT</b>	<b>Flexit Ez-lock</b>	<b>Flexit XF R4</b>	<b>Flexit T7</b>	<b>Flexit T14</b>	<b>BRIDGESTONE R1K</b>	<b>BRIDGESTONE R2K</b>	<b>Flexit SHP</b>		<b>Flexit H4</b>	<b>Flexit 5000</b>	<b>Flexit 6000</b>	<b>BRIDGESTONE 4ST</b>	<b>BRIDGESTONE 4ST+</b>	<b>BRIDGESTONE 6ST</b>	<b>BRIDGESTONE HST</b>	
-04 / -16	-10 / -16	-06 / -16																		
			-06 / -16			-20 / -32					-04 / -16	-20 / -32	-10 / -32	-10 / -24	-06 / -16	-10 / -16	-20 / -32	-06 / -20		
-04 / -20	-10 / -16	-06 / -16				-12 / -16 -40 / -48				-04 / -16										
-04 / -16	-10 / -16	-04 / -16		-04 / -08					-04 / -16											
			-06 / -16								-06 / -16	-20 / -32	-12 / -32	-10 / -16	-06 / -16	-10 / -16	-20 / -32	-06 / -16		
				-04 / -08	-04 / -12		-03 / -16													
								-02 / -16												
													-12 / -32	-12 / -24	-12 / -16	-16	-20 / -32	-12 / -20		
														-32 / -40	-20 / -32				-20 / -32	
														-48						
																				-12 / -16
																				-20

The numbers identify the coupling size

\*2 wire compact high pressure    \*\*3 wire thin cover

ASSEMBLING STYLE:

● No skive

■ External skive

▲ Interlock

**NOTES:**

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R5 hoses and couplings follow different bore sizes. Please refer to specific catalogues and consult our Technical Dept.

# B

**Two piece fittings -  
Universal series  
for wire braided and 4  
spiral hydraulic hoses.  
No skive / Ext. skive**

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# I

**Interlock fittings for  
4 and 6 spiral hoses**

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# B

**SERIES**

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**Two piece fittings -  
Universal series  
for wire braided and 4  
spiral hydraulic hoses.  
No skive / Ext. skive**



product	standard	code	description	page
Ferrule	-	S0210	Skive ferrule for: EN 853 1SN / SAE 100 R1AT / EN857 2SC / SAE 100 R16 / SAE 100 R17 / SAE 100 R19	17
		S0420	Skive ferrule for: EN 853 2SN / SAE 100 R2AT / EN856 4SP / SAE 100 R12 / EN 856 4SH / ISO 18752 / SAE 100 R15	18
		SN03T	No skive ferrule for: EN 853 1SN / SAE 100 R1AT / EN 853 2SN / SAE 100 R2AT / EN 857 2SC / SAE 100 R16 / SAE 100 R17 / SAE 100 R19 / SAE 100 R4	19
		SCX0T	No skive ferrule for: EN 853 1SN / SAE 100 R1AT / EN 853 2SN / SAE 100 R2AT / EN 857 1SC / SAE 100 R17 / EN 857 2SC / SAE 100 R16 / SAE 100 R19	20
		S312T	No skive ferrule for: EN 856 4SP / SAE 100 R12 / EN 856 4SH / ISO 18752 / SAE 100 R15	21
		S00TK	No skive ferrule for: SAE 100 R6 / SAE 100 R7	22
		S014T	No skive ferrule for Intertraco hose type: FlexIT T14	23
Fitting	BSP BSPT	MT10B	BSPT tapered male 60° cone	24
		MP10B	BSP flat face male	25
		MB10B	BSP male 60° cone	26
		FB13B	BSP female swivel 60° cone	28
		FB43B	BSP female swivel 60° cone - 45° elbow	30
		FB93B	BSP female swivel 60° cone - 90° elbow	32
		KM91B	BSP female swivel 60° cone - 90° compact elbow	34
		FO13B	BSP O-ring female swivel 60° cone	35
		FO43B	BSP O-ring female swivel 60° cone - 45° elbow	36
		FO93B	BSP O-ring female swivel 60° cone - 90° elbow	37
		KO92B	BSP O-ring female swivel 60° cone - 90° compact elbow	38
		FP11B	BSP flat face female swivel	39
	BB10B	BSP banjo	40	
	VB10B	BSP banjo bolt	41	
	METRIC	KW15B	Jet wash female swivel "K" type	42
		FQ13B	Metric female swivel (multiseal 24°/60° cone seat)	43
		FQ93B	Metric female swivel - 90° elbow (multiseal 24°/60° cone seat)	44
		FM13B	Metric female swivel (60° cone seat)	45
		FM93B	Metric female swivel - 90° elbow (60° cone seat)	46
		SM10B	Metric standpipe	47
SM40B		Metric standpipe - 45° elbow	48	
SM90B		Metric standpipe - 90° elbow	49	
BM10B		Metric banjo	50	
VM10B	Metric banjo bolt	51		

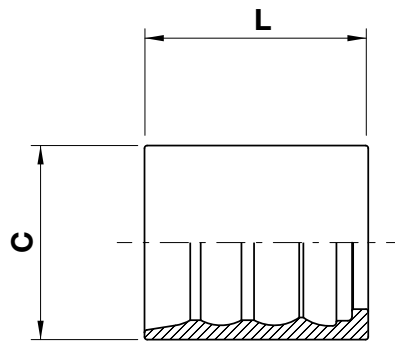
product	standard	code	description	page
Fitting	METRIC	ML10B	Metric light male (24° cone seat)	52
		FL13B	Metric light female swivel (24° cone seat)	53
		FL43B	Metric light female swivel - 45° elbow (24° cone seat)	55
		FL93B	Metric light female swivel - 90° elbow (24° cone seat)	57
		MS10B	Metric heavy male (24° cone seat)	59
		FS13B	Metric heavy female swivel (24° cone seat)	60
		FS43B	Metric heavy female swivel - 45° elbow (24° cone seat)	62
		FS93B	Metric heavy female swivel - 90° elbow (24° cone seat)	64
	JIC	MJ10B	JIC 37° male	66
		FJ11B	JIC 37° female swivel	68
		FJH11B	JIC 37° female swivel (double hex)	70
		FJ41B	JIC 37° female swivel - 45° elbow	72
		FJ91B	JIC 37° female swivel - 90° elbow	74
		FJ91B-M	JIC 37° female swivel - 90° elbow (medium drop)	76
		FJ91B-L	JIC 37° female swivel - 90° elbow (long drop)	77
		KJ91B	JIC 37° female swivel - 90° compact elbow	79
	ORFS	OM19B	ORFS male	80
		OR13B	ORFS female swivel	81
		OR11B	ORFS short female swivel	83
		OR44B	ORFS female swivel - 45° elbow	84
		OR94B	ORFS female swivel - 90° elbow	86
		OR94B-M	ORFS female swivel - 90° elbow (medium drop)	88
		OR94B-L	ORFS female swivel - 90° elbow (long drop)	89
		SAE	MU10B	SAE 45° male
	FU11B		SAE 45° female swivel	91
	FU91B		SAE 45° female swivel - 90° elbow	92
	ME10B		O-ring boss male	93
	MV10B		O-ring boss male swivel	94
	MV40B		O-ring boss male swivel - 45° elbow	95
	MV90B		O-ring boss male swivel - 90° elbow	96
	KV91B		O-ring boss male swivel - 90° compact elbow	97
	MZ10B		SAE inverted flare male swivel	98
	MZ40B		SAE inverted flare male swivel - 45° elbow	99
MZ90B	SAE inverted flare male swivel - 90° elbow		100	

product	standard	code	description	page
Fitting	SAE	MFA10B	SAE flareless male assembly	101
	NPTF NPSM	MN10B	NPTF male (60° cone seat)	102
		MG10B	NPTF male swivel (60° cone seat)	104
		MG90B	NPTF male swivel - 90° elbow (60° cone seat)	105
		KG91B	NPTF male swivel - 90° compact elbow	106
		FN10B	NPTF female rigid	107
		FN11B	NPSM female swivel (60° cone seat)	108
		JIS	FT11B	JIS female swivel japanese "T" style termination 60° cone
	FK11B		Japanese "KOM" style termination female swivel 60° cone	110
	FK41B		Japanese "KOM" style termination female swivel 60° cone - 45° elbow	112
	FK91B		Japanese "KOM" style termination female swivel 60° cone - 90° elbow	113
	AK10B		Japanese "KOM" style termination straight flange (for metric O-ring)	114
	AK40B		Japanese "KOM" style termination - 45° elbow flange (for metric O-ring)	115
	AK90B		Japanese "KOM" style termination - 90° elbow flange (for metric O-ring)	116
	SAE 3000 CODE 61	AX10B	SAE 3000 code 61 straight flange	117
		AX20B	SAE 3000 code 61 - 22,5° elbow flange	118
		AX30B	SAE 3000 code 61 - 30° elbow flange	119
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		AX60B	SAE 3000 code 61 - 60° elbow flange	121
		AX70B	SAE 3000 code 61 - 67,5° elbow flange	122
		AX90B	SAE 3000 code 61 - 90° elbow flange	123
		AX90B-L	SAE 3000 code 61 - 90° elbow flange (long drop)	125
	SAE 6000 CODE 62	AY10B	SAE 6000 code 62 straight flange	126
		AY40B	SAE 6000 code 62 - 45° elbow flange	127
		AY90B	SAE 6000 code 62 - 90° elbow flange	128
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	-	WO10B	Brazing tale	130



# S0210

## Skive ferrule



FERRULE

**S0210**

S0420

SN03T

SCX0T

S312T

S00TK

S014T

FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
S0210-04	6	1/4"	04	19,0	0,75	28,0	1,10
S0210-05	8	5/16"	05	20,0	0,79	28,6	1,13
S0210-06	10	3/8"	06	23,0	0,91	30,0	1,18
S0210-08	12	1/2"	08	27,0	1,06	32,0	1,26
S0210-10	16	5/8"	10	32,0	1,26	38,0	1,50
S0210-12	19	3/4"	12	36,0	1,42	41,5	1,63
S0210-16	25	1"	16	43,0	1,69	47,0	1,85
S0210-20	31	1.1/4"	20	52,0	2,05	57,0	2,24
S0210-24	38	1.1/2"	24	57,0	2,24	76,0	2,99
S0210-32	51	2"	32	70,0	2,76	80,0	3,15

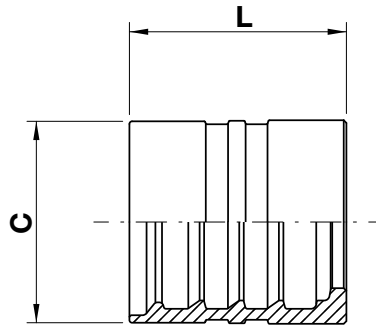
Please refer to our crimping charts for application details of each size

**Skive ferrule for:** EN 853 1SN / SAE 100 R1AT / EN857 2SC / SAE 100 R16 / SAE 100 R17 / SAE 100 R19

**Intertraco hose type:** FlexIT 1T, HT1, SC216, SK216, SK219

# S0420

## Skive ferrule



### FERRULE

S0210

**S0420**

SN03T

SCX0T

S312T

S00TK

S014T

### FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
S0420-04	6	1/4"	04	22,0	0,87	30,0	1,18
S0420-05	8	5/16"	05	24,0	0,94	30,5	1,20
S0420-06	10	3/8"	06	26,0	1,02	32,0	1,26
S0420-08	12	1/2"	08	30,0	1,18	34,5	1,36
S0420-10	16	5/8"	10	33,0	1,30	38,0	1,50
S0420-12	19	3/4"	12	38,0	1,50	40,5	1,59
S0420-16	25	1"	16	46,0	1,81	53,0	2,09
S0420-20	31	1.1/4"	20	55,0	2,17	58,0	2,28
S0420-24	38	1.1/2"	24	62,0	2,44	71,0	2,80
S0420-32	51	2"	32	78,0	3,07	85,0	3,35

Please refer to our crimping charts for application details of each size

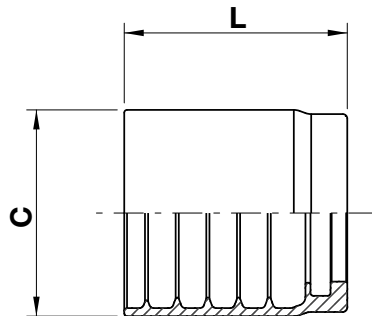
**Skive ferrule for:** EN 853 2SN / SAE 100 R2AT / EN856 4SP / SAE 100 R12 / EN 856 4SH / ISO 18752 / SAE 100 R15

**Intertraco hose type:** FlexIT 2T, HT2, 3T, R4, SHP, H4, F5000, F6000, 4ST, 4ST+

**Bridgestone hose type:** Bridgestone 4ST, 4ST+

# SN03T

## No skive ferrule



FERRULE

- S0210
- S0420
- SN03T**
- SCX0T
- S312T
- S00TK
- S014T

FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
SN03T-03	5	3/16"	03	20,0	0,79	25,7	1,01
SN03T-04	6	1/4"	04	23,0	0,91	30,0	1,18
SN03T-05	8	5/16"	05	24,0	0,94	30,5	1,20
SN03T-06	10	3/8"	06	26,0	1,02	31,5	1,24
SN03T-08	12	1/2"	08	29,0	1,14	33,5	1,32
SN03T-10	16	5/8"	10	33,0	1,30	36,0	1,42
SN03T-12	19	3/4"	12	37,0	1,46	40,0	1,57
SN03T-16	25	1"	16	46,0	1,81	50,0	1,97
SN03T-20	31	1.1/4"	20	59,0	2,32	59,0	2,32
SN03T-24	38	1.1/2"	24	67,0	2,64	67,0	2,64
SN03T-32	51	2"	32	80,0	3,15	82,0	3,23
SN03T-40	63	2.1/2"	40	88,3	3,48	80,0	3,15
SN03T-48	76	3"	48	103,0	4,06	87,5	3,44

Please refer to our crimping charts for application details of each size

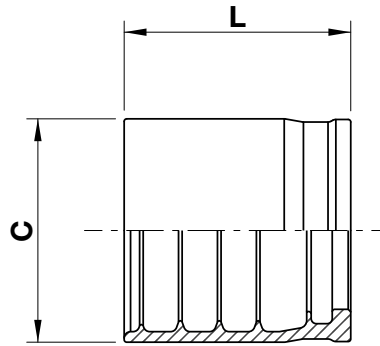
**No skive ferrule for:** EN 853 1SN / SAE 100 R1AT / EN 853 2SN / SAE 100 R2AT / EN 857 2SC / SAE 100 R16 / SAE 100 R17 / SAE 100 R19 / SAE 100 R4

**Intertraco hose type:** FlexIT 1T, 2T, HT1, HT2, SC216, SK216, SK219, JF10K, R4, JW2K

**Bridgestone hose type:** Bridgestone R2K

# SCX0T

## No skive ferrule



### FERRULE

S0210

S0420

SN03T

**SCX0T**

S312T

S00TK

S014T

### FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
SCX0T-04	6	1/4"	04	20,0	0,79	23,5	0,92
SCX0T-05	8	5/16"	05	22,0	0,87	24,3	0,96
SCX0T-06	10	3/8"	06	24,0	0,94	25,0	0,98
SCX0T-08	12	1/2"	08	28,0	1,10	28,0	1,10
SCX0T-10	16	5/8"	10	32,0	1,26	31,0	1,22
SCX0T-12	19	3/4"	12	35,0	1,38	35,5	1,40
SCX0T-16	25	1"	16	44,0	1,73	48,0	1,89

Please refer to our crimping charts for application details of each size

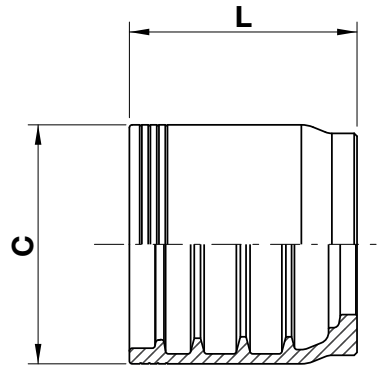
**No skive ferrule for:** EN 853 1SN / SAE 100 R1AT / EN 853 2SN / SAE 100 R2AT / EN 857 1SC / SAE 100 R17 / EN 857 2SC / SAE 100 R16 / SAE 100 R19

**Intertraco hose type:** FlexIT 1T, HT2, SC117, SK117, SC216, SK216, SK119, SK219, PT, JW1K

**Bridgestone hose type:** Bridgestone R1K

# S312T

## No skive ferrule



FERRULE

- S0210
- S0420
- SN03T
- SCX0T
- S312T**
- S00TK
- S014T

FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
S312T-06	10	3/8"	06	29,0	1,14	30,0	1,18
S312T-08	12	1/2"	08	33,0	1,30	33,5	1,32
S312T-10	16	5/8"	10	37,0	1,46	35,5	1,40
S312T-12	19	3/4"	12	42,0	1,65	40,0	1,57
S312T-16	25	1"	16	50,0	1,97	55,0	2,16
S312T-20	31	1.1/4"	20	61,0	2,40	61,0	2,40
S312T-24	38	1.1/2"	24	70,0	2,75	71,0	2,79
S312T-32	51	2"	32	85,0	3,35	88,0	3,46

Please refer to our crimping charts for application details of each size

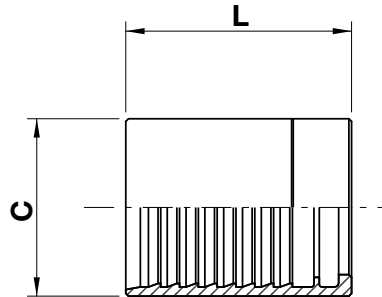
**No skive ferrule for:** EN 856 4SP / SAE 100 R12 / EN 856 4SH / ISO 18752 / SAE 100 R15

**Intertraco hose type:** FlexIT 3T, SHP, H4, F5000, F6000, 4ST, 4ST+

**Bridgestone hose type:** Bridgestone 4ST, 4ST+

# S00TK

## No skive ferrule



### FERRULE

S0210

S0420

SN03T

SCX0T

S312T

**S00TK**

S014T

### FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
S00TK-03	5	3/16"	03	14,0	0,55	25,4	1,00
S00TK-04	6	1/4"	04	16,0	0,63	29,5	1,16
S00TK-05	8	5/16"	05	19,0	0,75	29,5	1,16
S00TK-06	10	3/8"	06	21,0	0,83	32,1	1,26
S00TK-08	12	1/2"	08	26,0	1,02	32,7	1,29
S00TK-10	16	5/8"	10	30,0	1,18	37,0	1,46
S00TK-12	19	3/4"	12	33,0	1,30	42,0	1,65
S00TK-16	25	1"	16	40,0	1,57	52,0	2,05

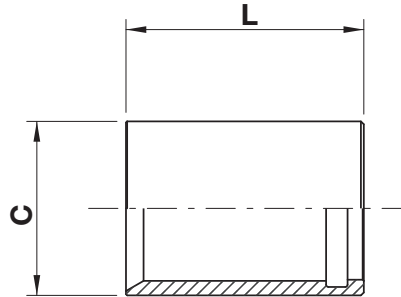
Please refer to our crimping charts for application details of each size

**No skive ferrule for:** SAE 100 R6 / SAE 100 R7

**Intertraco hose type:** FlexIT PT, EZ-LOCK, T7

# S014T

No skive ferrule



**FERRULE**

- S0210
- S0420
- SN03T
- SCX0T
- S312T
- S00TK
- S014T**

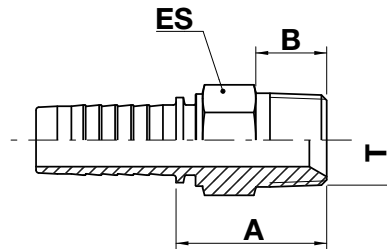
FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
S014T-02	3	1/8"	02	12,0	0,47	18,0	0,71
S014T-03	5	3/16"	03	14,0	0,55	26,0	1,02
S014T-04	6	1/4"	04	15,0	0,59	30,0	1,18
S014T-05	8	5/16"	05	17,0	0,67	30,0	1,18
S014T-06	10	3/8"	06	19,0	0,75	32,0	1,26
S014T-08	12	1/2"	08	24,0	0,94	34,0	1,34
S014T-10	16	5/8"	10	28,0	1,10	37,0	1,46
S014T-12	19	3/4"	12	30,0	1,18	41,0	1,61
S014T-16	25	1"	16	38,0	1,50	45,0	1,77

Please refer to our crimping charts for application details of each size

No skive ferrule for Intertraco hose type: FlexIT T14

# MT10B

**BSPT tapered male 60° cone**
**NO SKIVE / EXTERNAL SKIVE**


FERRULE

**FITTING**
**BSP-BSPT**

METRIC

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

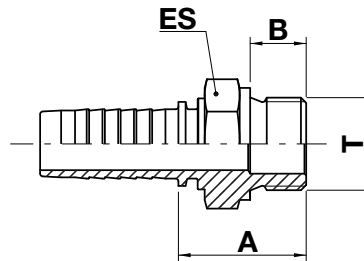
code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	↻ in
MT10B-03-02	5	3/16"	03	1/8"-28	23,0	0,90	12,0	0,47	12,0	0,472	1/2"
MT10B-03-04	5	3/16"	03	1/4"-19	25,5	1,00	14,0	0,55	14,0	0,551	9/16"
MT10B-04-02	6	1/4"	04	1/8"-28	24,5	0,96	12,0	0,47	12,0	0,472	1/2"
MT10B-04-04	6	1/4"	04	1/4"-19	26,5	1,04	14,0	0,55	14,0	0,551	9/16"
MT10B-04-06	6	1/4"	04	3/8"-19	29,0	1,14	15,0	0,59	19,0	0,748	3/4"
MT10B-05-06	8	5/16"	05	3/8"-19	29,0	1,14	15,0	0,59	19,0	0,748	3/4"
MT10B-06-04	10	3/8"	06	1/4"-19	24,5	0,96	14,0	0,55	14,0	0,551	9/16"
MT10B-06-06	10	3/8"	06	3/8"-19	29,0	1,14	15,0	0,59	19,0	0,748	3/4"
MT10B-06-08	10	3/8"	06	1/2"-14	32,0	1,26	18,0	0,71	22,0	0,866	7/8"
MT10B-08-06	12	1/2"	08	3/8"-19	27,5	1,08	15,0	0,59	19,0	0,748	3/4"
MT10B-08-08	12	1/2"	08	1/2"-14	32,5	1,28	18,0	0,71	22,0	0,866	7/8"
MT10B-08-12	12	1/2"	08	3/4"-14	37,0	1,46	20,0	0,79	27,0	1,063	1.1/16"
MT10B-10-10	16	5/8"	10	5/8"-14	36,0	1,42	19,0	0,75	24,0	0,945	15/16"
MT10B-10-12	16	5/8"	10	3/4"-14	42,0	1,65	20,0	0,79	27,0	1,063	1.1/16"
MT10B-12-12	19	3/4"	12	3/4"-14	42,5	1,67	20,0	0,79	27,0	1,063	1.1/16"
MT10B-12-16	19	3/4"	12	1"-11	45,5	1,79	23,0	0,91	36,0	1,417	1.7/16"
MT10B-16-16	25	1"	16	1"-11	47,0	1,85	23,0	0,91	36,0	1,417	1.7/16"
MT10B-20-20	31	1.1/4"	20	1.1/4"-11	50,0	1,97	25,0	0,98	46,0	1,811	1.13/16"
MT10B-24-24	38	1.1/2"	24	1.1/2"-11	53,0	2,10	28,0	1,10	50,0	1,969	2"
MT10B-32-32	51	2"	32	2"-11	60,0	2,36	28,0	1,10	60,0	2,362	2.3/8"

# MP10B

**BSP flat face male**

**NO SKIVE / EXTERNAL SKIVE**

DIN 3852-2



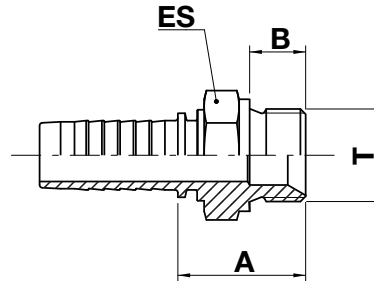
.....  
FERRULE  
.....  
**FITTING**  
**BSP-BSPT**  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	in
MP10B-04-04	6	1/4"	04	1/4"-19	26,5	1,04	11,0	0,43	19,0	0,748	3/4"
MP10B-06-06	10	3/8"	06	3/8"-19	28,5	1,12	12,0	0,47	22,0	0,866	7/8"
MP10B-06-08	10	3/8"	06	1/2"-14	33,5	1,32	14,0	0,55	27,0	1,063	1.1/16"
MP10B-08-06	12	1/2"	08	3/8"-19	28,0	1,10	12,0	0,47	24,0	0,945	15/16"
MP10B-08-08	12	1/2"	08	1/2"-14	32,0	1,26	14,0	0,55	27,0	1,063	1.1/16"
MP10B-08-12	12	1/2"	08	3/4"-14	33,0	1,30	16,0	0,63	32,0	1,260	1.1/4"
MP10B-10-10	16	5/8"	10	5/8"-14	33,5	1,32	14,0	0,55	27,0	1,063	1.1/16"
MP10B-12-12	19	3/4"	12	3/4"-14	36,5	1,44	16,0	0,63	32,0	1,260	1.1/4"
MP10B-16-16	25	1"	16	1"-11	42,0	1,65	19,0	0,74	41,0	1,614	1.1/2"

# MB10B

**BSP male 60° cone****NO SKIVE / EXTERNAL SKIVE**

ISO 8434-6 / BS 5200



FERRULE

FITTING

**BSP-BSPT**

METRIC

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61


SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	in
MB10B-03-02	5	3/16"	03	1/8"-28	21,5	0,85	8,0	0,31	14,0	0,551	9/16"
MB10B-03-04	5	3/16"	03	1/4"-19	30,5	1,20	11,0	0,43	19,0	0,748	3/4"
MB10B-04-02	6	1/4"	04	1/8"-28	22,0	0,87	8,0	0,31	14,0	0,551	9/16"
MB10B-04-04	6	1/4"	04	1/4"-19	26,5	1,04	11,0	0,43	19,0	0,748	3/4"
MB10B-04-06	6	1/4"	04	3/8"-19	28,0	1,10	12,0	0,47	22,0	0,866	7/8"
MB10B-04-08	6	1/4"	04	1/2"-14	35,5	1,40	14,0	0,55	27,0	1,063	1.1/16"
MB10B-05-04	8	5/16"	05	1/4"-19	26,0	1,02	11,0	0,43	19,0	0,748	3/4"
MB10B-05-06	8	5/16"	05	3/8"-19	28,5	1,12	12,0	0,47	22,0	0,866	7/8"
MB10B-05-08	8	5/16"	05	1/2"-14	33,0	1,30	14,0	0,55	27,0	1,063	1.1/16"
MB10B-06-04	10	3/8"	06	1/4"-19	26,5	1,04	11,0	0,43	19,0	0,748	3/4"
MB10B-06-06	10	3/8"	06	3/8"-19	28,5	1,12	12,0	0,47	22,0	0,866	7/8"
MB10B-06-08	10	3/8"	06	1/2"-14	33,5	1,32	14,0	0,55	27,0	1,063	1.1/16"
MB10B-08-06	12	1/2"	08	3/8"-19	29,0	1,14	12,0	0,47	22,0	0,866	7/8"
MB10B-08-08	12	1/2"	08	1/2"-14	34,0	1,34	14,0	0,55	27,0	1,063	1.1/16"
MB10B-08-10	12	1/2"	08	5/8"-14	36,5	1,44	16,0	0,63	30,0	1,181	1.3/16"
MB10B-08-12	12	1/2"	08	3/4"-14	39,0	1,53	16,0	0,63	32,0	1,260	1.1/4"
MB10B-10-08	16	5/8"	10	1/2"-14	33,0	1,30	14,0	0,55	27,0	1,063	1.1/16"
MB10B-10-10	16	5/8"	10	5/8"-14	33,5	1,32	16,0	0,63	30,0	1,181	1.3/16"
MB10B-10-12	16	5/8"	10	3/4"-14	36,0	1,42	16,0	0,63	32,0	1,260	1.1/4"



← **MB10B**

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	 in
MB10B-12-08	19	3/4"	12	1/2"-14	34,5	1,36	14,0	0,55	27,0	1,063	1.1/16"
MB10B-12-12	19	3/4"	12	3/4"-14	36,5	1,44	16,0	0,63	32,0	1,260	1.1/4"
MB10B-12-16	19	3/4"	12	1"-11	40,5	1,59	19,0	0,75	41,0	1,614	1.5/8"
MB10B-16-16	25	1"	16	1"-11	42,0	1,65	19,0	0,75	41,0	1,614	1.5/8"
MB10B-16-20	25	1"	16	1.1/4"-11	47,0	1,85	20,0	0,79	50,0	1,969	2"
MB10B-20-20	31	1.1/4"	20	1.1/4"-11	48,0	1,89	20,0	0,79	50,0	1,969	2"
MB10B-24-24	38	1.1/2"	24	1.1/2"-11	50,0	1,97	22,0	0,87	55,0	2,165	2.3/16"
MB10B-32-32	51	2"	32	2"-11	63,5	2,5	25,0	0,98	70,0	2,756	2.3/4"

- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT**
- METRIC
- JIC
- ORFS
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK



**FB13B** FB11B FB12B**BSP female swivel 60° cone**

NO SKIVE / EXTERNAL SKIVE

ISO 8434-6 / BS 5200

FERRULE

**FITTING****BSP-BSPT**

METRIC

JIC

ORFS

SAE

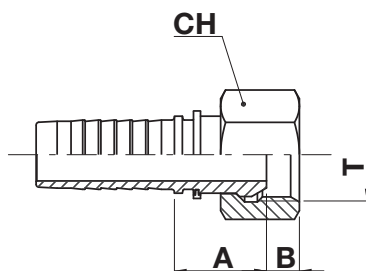
NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK



code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	in
FB11B-03-02	5	3/16"	03	1/8"-28	14,3	0,56	5,5	0,28	14,0	0,551	9/16"
FB13B-03-04	5	3/16"	03	1/4"-19	16,8	0,66	4,2	0,17	19,0	0,748	3/4"
FB11B-04-02	6	1/4"	04	1/8"-28	15,0	0,59	5,5	0,22	14,0	0,551	9/16"
FB11B-04-04	6	1/4"	04	1/4"-19	18,0	0,71	4,2	0,17	19,0	0,748	3/4"
FB13B-04-04	6	1/4"	04	1/4"-19	17,5	0,69	4,2	0,17	19,0	0,748	3/4"
FB11B-04-06	6	1/4"	04	3/8"-19	20,5	0,81	6,0	0,24	22,0	0,866	7/8"
FB13B-04-06	6	1/4"	04	3/8"-19	18,5	0,73	6,0	0,24	22,0	0,866	7/8"
FB11B-05-04	8	5/16"	05	1/4"-19	17,8	0,70	4,2	0,17	19,0	0,748	3/4"
FB13B-05-06	8	5/16"	05	3/8"-19	18,5	0,73	6,0	0,24	22,0	0,866	7/8"
FB11B-05-08	8	5/16"	05	1/2"-14	21,5	0,85	7,0	0,28	27,0	1,063	1.1/16"
FB11B-06-04	10	3/8"	06	1/4"-19	17,5	0,69	4,2	0,17	19,0	0,748	3/4"
FB11B-06-06	10	3/8"	06	3/8"-19	18,5	0,73	6,0	0,24	22,0	0,866	7/8"
FB13B-06-06	10	3/8"	06	3/8"-19	18,5	0,73	6,0	0,24	22,0	0,866	7/8"
FB13B-06-08	10	3/8"	06	1/2"-14	20,5	0,81	6,5	0,26	27,0	1,063	1.1/16"
FB11B-08-06	12	1/2"	08	3/8"-19	19,0	0,75	6,0	0,24	22,0	0,866	7/8"
FB11B-08-08	12	1/2"	08	1/2"-14	20,0	0,79	7,0	0,28	27,0	1,063	1.1/16"
FB13B-08-08	12	1/2"	08	1/2"-14	21,0	0,83	6,5	0,26	27,0	1,063	1.1/16"
FB11B-08-10	12	1/2"	08	5/8"-14	18,0	0,71	9,5	0,37	27,0	1,063	1.1/16"
FB11B-08-12	12	1/2"	08	3/4"-14	23,0	0,91	8,7	0,34	32,0	1,260	1.1/4"

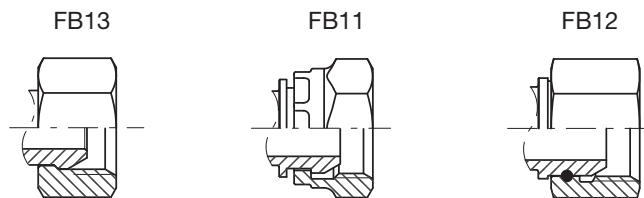


← **FB13B FB11B FB12B**

code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	 in
FB11B-10-10	16	5/8"	10	5/8"-14	18,0	0,71	9,5	0,37	27,0	1,063	1.1/16"
FB11B-10-12	16	5/8"	10	3/4"-14	21,3	0,84	8,7	0,34	32,0	1,260	1.1/4"
FB11B-12-12	19	3/4"	12	3/4"-14	21,8	0,86	8,7	0,34	32,0	1,260	1.1/4"
FB12B-12-16	19	3/4"	12	1"-11	29,0	1,14	10,5	0,41	38,0	1,496	1.1/2"
FB12B-16-16	25	1"	16	1"-11	30,5	1,20	10,5	0,41	38,0	1,496	1.1/2"
FB12B-16-20	25	1"	16	1.1/4"-11	37,0	1,46	10,0	0,39	50,0	1,969	2"
FB12B-20-20	31	1.1/4"	20	1.1/4"-11	36,0	1,42	10,0	0,39	50,0	1,969	2"
FB12B-20-24	31	1.1/4"	20	1.1/2"-11	37,5	1,48	12,0	0,47	55,0	2,165	2.3/16"
FB12B-24-24	38	1.1/2"	24	1.1/2"-11	35,8	1,41	12,0	0,47	55,0	2,165	2.3/16"
FB12B-32-24	51	2"	32	1.1/2"-11	39,0	1,53	12,0	0,47	55,0	2,165	2.3/16"
FB12B-32-32	51	2"	32	2"-11	40,0	1,57	16,0	0,63	70,0	2,756	2.3/4"

.....  
 FERRULE  
 .....  
**FITTING**  
**BSP-BSPT**  
 METRIC  
 JIC  
 ORFS  
 SAE  
 NPTF-NPSM  
 JIS  
 SAE 3000 CODE 61  
 SAE 6000 CODE 62  
 STAPLE LOCK

**Nut type**



# FB43B

FB41B FB42B



## BSP female swivel 60° cone - 45° elbow

NO SKIVE / EXTERNAL SKIVE

ISO 8434-6 / BS 5200

FERRULE

### FITTING

**BSP-BSPT**

METRIC

JIC

ORFS

SAE

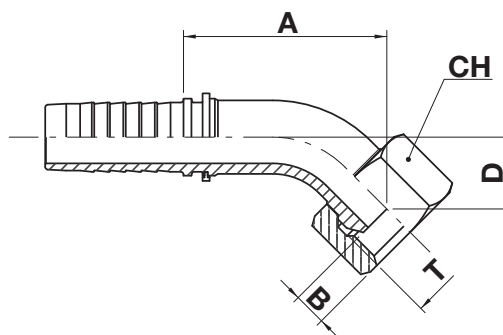
NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK



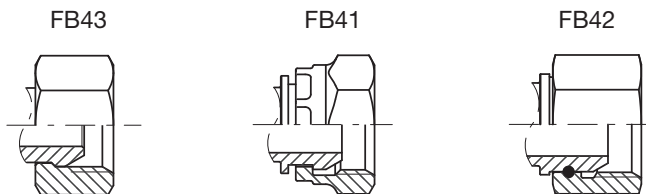
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FB41B-03-02	5	3/16"	03	1/8"-28	33,5	1,32	5,5	0,22	13,7	0,54	14,0	0,551	9/16"
FB41B-04-04	6	1/4"	04	1/4"-19	34,0	1,34	4,2	0,17	15,0	0,59	19,0	0,748	3/4"
FB43B-04-04	6	1/4"	04	1/4"-19	32,5	1,28	4,2	0,17	13,0	0,51	19,0	0,748	3/4"
FB43B-04-06	6	1/4"	04	3/8"-19	34,2	1,34	6,0	0,24	14,4	0,57	22,0	0,866	7/8"
FB41B-05-06	8	5/16"	05	3/8"-19	42,5	1,67	6,0	0,24	19,0	0,75	22,0	0,866	7/8"
FB41B-06-06	10	3/8"	06	3/8"-19	41,0	1,61	6,0	0,24	17,0	0,67	22,0	0,866	7/8"
FB43B-06-06	10	3/8"	06	3/8"-19	37,6	1,48	6,0	0,24	14,6	0,58	22,0	0,866	7/8"
FB43B-06-08	10	3/8"	06	1/2"-14	38,6	1,52	6,5	0,26	15,8	0,62	27,0	1,063	1.1/16"
FB41B-08-08	12	1/2"	08	1/2"-14	48,0	1,89	7,0	0,28	20,0	0,79	27,0	1,063	1.1/16"
FB43B-08-08	12	1/2"	08	1/2"-14	45,9	1,81	6,5	0,26	18,0	0,71	27,0	1,063	1.1/16"
FB41B-10-10	16	5/8"	10	5/8"-14	60,5	2,38	9,5	0,37	23,3	0,92	30,0	1,181	1.3/16"
FB41B-10-12	16	5/8"	10	3/4"-14	64,0	2,52	8,7	0,34	26,9	1,06	32,0	1,260	1.1/4"
FB41B-12-12	19	3/4"	12	3/4"-14	67,4	2,66	8,7	0,34	26,9	1,06	32,0	1,260	1.1/4"
FB42B-12-16	19	3/4"	12	1"-11	75,2	2,96	10,5	0,41	34,6	1,36	38,0	1,496	1.1/2"
FB42B-16-16	25	1"	16	1"-11	85,0	3,35	10,5	0,41	35,2	1,39	38,0	1,496	1.1/2"
FB42B-16-20	25	1"	16	1.1/4"-11	92,3	3,63	10,0	0,39	41,7	1,64	50,0	1,969	2"
FB42B-20-20	31	1.1/4"	20	1.1/4"-11	97,0	3,82	10,0	0,39	37,5	1,48	50,0	1,969	2"
FB42B-20-24	31	1.1/4"	20	1.1/2"-11	102,0	4,02	12,0	0,47	42,1	1,66	55,0	2,165	2.3/16"



← **FB43B FB41B FB42B**

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	 in
FB42B-24-24	38	1.1/2"	24	1.1/2"-11	119,0	4,69	12,0	0,47	49,2	1,94	55,0	2,165	2.3/16"
FB42B-32-32	51	2"	32	2"-11	149,8	5,9	16,0	0,63	60,0	2,36	70,0	2,756	2.3/4"

**Nut type**



- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT**
- METRIC
- JIC
- ORFS
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK



# FB93B

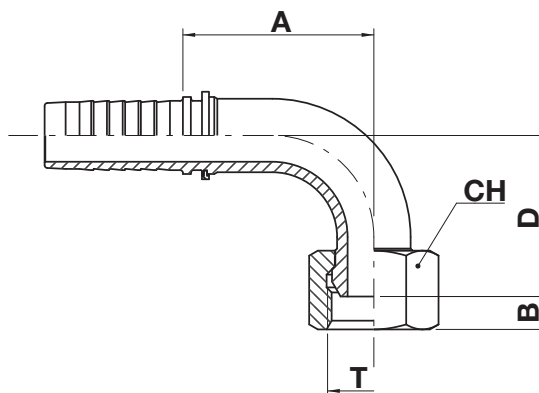
FB91B FB92B



## BSP female swivel 60° cone - 90° elbow

NO SKIVE / EXTERNAL SKIVE

ISO 8434-6 / BS 5200



FERRULE

## FITTING

**BSP-BSPT**

METRIC

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FB91B-03-02	5	3/16"	03	1/8"-28	30,0	1,18	5,5	0,22	28,5	1,12	14,0	0,551	9/16"
FB91B-04-02	6	1/4"	04	1/8"-28	31,5	1,24	5,5	0,22	28,5	1,12	14,0	0,551	9/16"
FB91B-04-04	6	1/4"	04	1/4"-19	25,5	1,00	4,2	0,17	29,0	1,14	19,0	0,748	3/4"
FB93B-04-04	6	1/4"	04	1/4"-19	27,6	1,09	4,2	0,17	27,5	1,08	19,0	0,748	3/4"
FB93B-04-06	6	1/4"	04	3/8"-19	28,0	1,10	6,0	0,24	29,5	1,16	22,0	0,866	7/8"
FB93B-05-06	8	5/16"	05	3/8"-19	32,5	1,28	6,0	0,24	30,0	1,18	22,0	0,866	7/8"
FB91B-06-06	10	3/8"	06	3/8"-19	31,5	1,24	6,0	0,24	33,5	1,32	22,0	0,866	7/8"
FB93B-06-06	10	3/8"	06	3/8"-19	31,5	1,24	6,0	0,24	29,5	1,16	22,0	0,866	7/8"
FB93B-06-08	10	3/8"	06	1/2"-14	30,3	1,19	6,5	0,26	31,2	1,23	27,0	1,063	1.1/16"
FB91B-08-08	12	1/2"	08	1/2"-14	38,5	1,52	7,0	0,28	40,5	1,59	27,0	1,063	1.1/16"
FB93B-08-08	12	1/2"	08	1/2"-14	37,2	1,47	6,5	0,26	36,0	1,42	27,0	1,063	1.1/16"
FB91B-08-10	12	1/2"	08	5/8"-14	45,0	1,77	9,5	0,37	42,3	1,65	30,0	1,181	1.3/16"
FB91B-10-10	16	5/8"	10	5/8"-14	54,0	2,13	9,5	0,37	50,0	1,97	30,0	1,181	1.3/16"
FB91B-10-12	16	5/8"	10	3/4"-14	54,0	2,13	8,7	0,34	55,0	2,17	32,0	1,260	1.1/4"
FB91B-12-12	19	3/4"	12	3/4"-14	55,5	2,19	8,7	0,34	55,0	2,17	32,0	1,260	1.1/4"
FB92B-12-16	19	3/4"	12	1"-11	60,5	2,38	10,5	0,41	66,0	2,60	38,0	1,496	1.1/2"
FB91B-16-12	25	1"	16	3/4"-14	62,5	2,46	8,7	0,34	55,0	2,17	32,0	1,260	1.1/4"
FB92B-16-16	25	1"	16	1"-11	72,0	2,83	10,5	0,41	73,0	2,87	38,0	1,496	1.1/2"
FB92B-16-20	25	1"	16	1.1/4"-11	79,5	3,13	10,0	0,39	83,0	3,27	50,0	1,969	2"

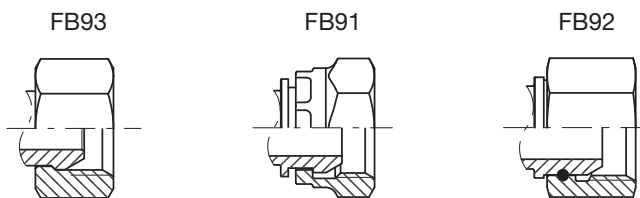


← **FB93B FB91B FB92B**

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FB92B-20-20	31	1.1/4"	20	1.1/4"-11	85,5	3,37	10,0	0,39	77,0	3,03	50,0	1,969	2"
FB92B-24-24	38	1.1/2"	24	1.1/2"-11	102,0	4,02	12,0	0,47	100,0	3,94	55,0	2,165	2.3/16"
FB92B-32-32	51	2"	32	2"-11	132,0	5,20	16,0	0,63	128,0	5,04	70,0	2,756	2.3/4"

- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT**
- METRIC
- JIC
- ORFS
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

**Nut type**



# KM91B

**BSP female swivel 60° cone - 90° compact elbow**

NO SKIVE / EXTERNAL SKIVE

ISO 8434-6 / BS 5200

FERRULE

FITTING

**BSP-BSPT**

METRIC

JIC

ORFS

SAE

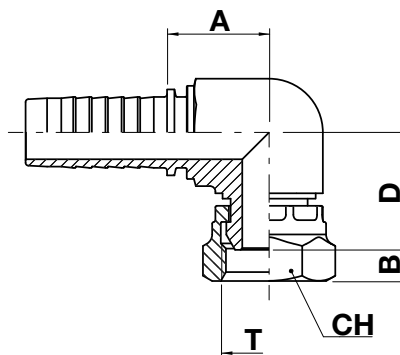
NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK



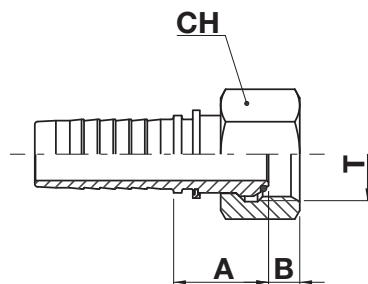
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
KM91B-04-04	6	1/4"	04	1/4"-19	18,5	0,73	6,5	0,26	22,6	0,89	19,0	0,748	3/4"
KM91B-06-06	10	3/8"	06	3/8"-19	21,5	0,85	6,5	0,26	25,5	1,00	22,0	0,866	7/8"
KM91B-08-08	12	1/2"	08	1/2"-14	25,0	0,98	9,0	0,35	28,5	1,12	27,0	1,063	1.1/16"
KM91B-10-10	16	5/8"	10	5/8"-14	27,0	1,06	9,0	0,35	27,5	1,08	30,0	1,181	1.1/8"
KM91B-12-12	19	3/4"	12	3/4"-14	28,5	1,12	8,7	0,34	32,8	1,29	32,0	1,260	1.1/4"
KM91B-16-16	25	1"	16	1"-11	34,0	1,34	10,5	0,41	37,5	1,48	41,0	1,614	1.1/2"

# FO13B FO12B

## BSP O-ring female swivel 60° cone

NO SKIVE / EXTERNAL SKIVE

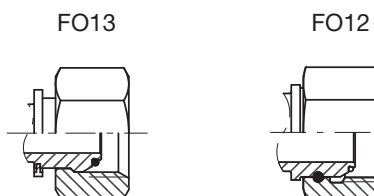
ISO 8434-6 / BS 5200



.....  
FERRULE  
.....  
**FITTING**  
**BSP-BSPT**  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	↻ in
FO13B-04-04	6	1/4"	04	1/4"-19	17,5	0,69	4,2	0,17	19,0	0,748	3/4"
FO13B-04-06	6	1/4"	04	3/8"-19	19,0	0,75	6,1	0,24	22,0	0,866	7/8"
FO13B-06-06	10	3/8"	06	3/8"-19	19,0	0,75	6,1	0,24	22,0	0,866	7/8"
FO13B-08-08	12	1/2"	08	1/2"-14	21,0	0,83	6,5	0,26	27,0	1,063	1.1/16"
FO12B-10-10	16	5/8"	10	5/8"-14	21,5	0,85	9,5	0,37	30,0	1,181	1.3/16"
FO12B-12-12	19	3/4"	12	3/4"-14	24,0	0,94	8,7	0,34	32,0	1,260	1.1/4"
FO12B-12-16	19	3/4"	12	1"-11	29,0	1,14	10,5	0,41	38,0	1,496	1.1/2"
FO12B-16-16	25	1"	16	1"-11	30,5	1,20	10,5	0,41	38,0	1,496	1.1/2"
FO12B-16-20	25	1"	16	1.1/4"-11	36,0	1,42	10,0	0,39	50,0	1,969	2"
FO12B-20-20	31	1.1/4"	20	1.1/4"-11	35,0	1,38	10,0	0,39	50,0	1,969	2"
FO12B-20-24	31	1.1/4"	20	1.1/2"-11	37,8	1,49	12,0	0,47	55,0	2,165	2.3/16"
FO12B-24-24	38	1.1/2"	24	1.1/2"-11	35,8	1,41	12,0	0,47	55,0	2,165	2.3/16"
FO12B-24-32	38	1.1/2"	24	2"-11	37,8	1,49	16,0	0,63	70,0	2,756	2.3/4"
FO12B-32-32	51	2"	32	2"-11	39,8	1,57	16,0	0,63	70,0	2,756	2.3/4"

### Nut type



## FO43B FO42B

### BSP O-ring female swivel 60° cone - 45° elbow

NO SKIVE / EXTERNAL SKIVE

ISO 8434-6 / BS 5200

FERRULE

FITTING

**BSP-BSPT**

METRIC

JIC

ORFS

SAE

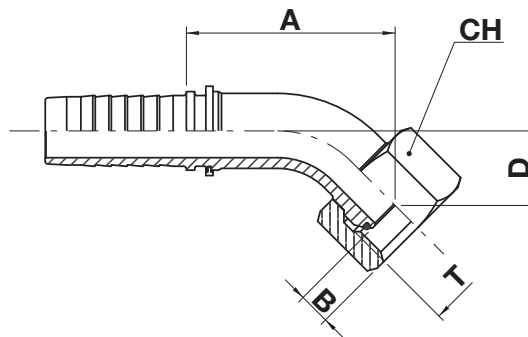
NPTF-NPSM

JIS

SAE 3000 CODE 61

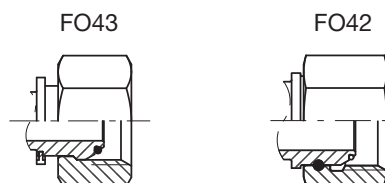
SAE 6000 CODE 62

STAPLE LOCK



code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FO43B-04-04	6	1/4"	04	1/4"-19	32,5	1,28	4,2	0,17	13,0	0,51	19,0	0,748	3/4"
FO43B-06-06	10	3/8"	06	3/8"-19	37,7	1,48	6,1	0,24	15,0	0,59	22,0	0,866	7/8"
FO43B-08-08	12	1/2"	08	1/2"-14	46,0	1,81	6,5	0,26	18,0	0,71	27,0	1,063	1.1/16"
FO42B-10-10	16	5/8"	10	5/8"-14	63,0	2,48	9,5	0,37	26,0	1,02	30,0	1,181	1.3/16"
FO42B-12-12	19	3/4"	12	3/4"-14	68,9	2,71	8,7	0,34	28,3	1,11	32,0	1,260	1.1/4"
FO42B-16-16	25	1"	16	1"-11	85,0	3,35	10,5	0,41	35,2	1,39	38,0	1,496	1.1/2"
FO42B-20-20	31	1.1/4"	20	1.1/4"-11	97,0	3,82	10,0	0,39	37,5	1,48	50,0	1,969	2"
FO42B-24-24	38	1.1/2"	24	1.1/2"-11	119,0	4,69	12,0	0,47	49,2	1,94	55,0	2,165	2.3/16"
FO42B-32-32	51	2"	32	2"-11	142,2	5,60	16,0	0,63	59,6	2,35	70,0	2,756	2.3/4"

### Nut type

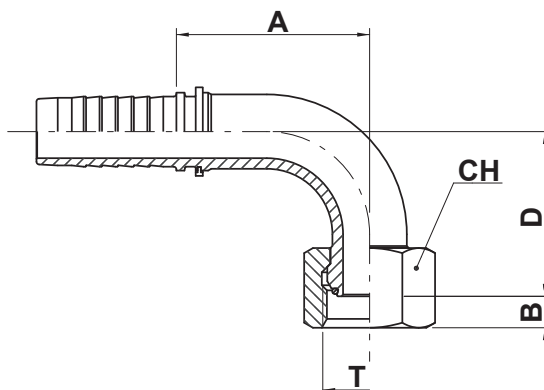


# FO93B FO92B

## BSP O-ring female swivel 60° cone - 90° elbow

NO SKIVE / EXTERNAL SKIVE

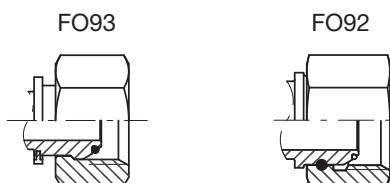
ISO 8434-6 / BS 5200



.....  
FERRULE  
.....  
**FITTING**  
**BSP-BSPT**  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FO93B-04-04	6	1/4"	04	1/4"-19	27,5	1,08	4,2	0,17	27,5	1,08	19,0	0,748	3/4"
FO93B-06-06	10	3/8"	06	3/8"-19	31,5	1,24	6,1	0,24	30,0	1,18	22,0	0,866	7/8"
FO93B-08-08	12	1/2"	08	1/2"-14	37,3	1,47	6,5	0,26	36,0	1,42	27,0	1,063	1.1/16"
FO92B-10-10	16	5/8"	10	5/8"-14	54,0	2,13	9,5	0,37	53,5	2,10	30,0	1,181	1.3/16"
FO92B-12-12	19	3/4"	12	3/4"-14	58,0	2,28	8,7	0,34	56,0	2,20	32,0	1,260	1.1/4"
FO92B-16-16	25	1"	16	1"-11	72,0	2,83	10,5	0,41	73,0	2,87	38,0	1,496	1.1/2"
FO92B-20-20	31	1.1/4"	20	1.1/4"-11	85,5	3,37	10,0	0,39	77,0	3,03	50,0	1,969	2"
FO92B-24-24	38	1.1/2"	24	1.1/2"-11	102,0	4,02	12,0	0,47	100,0	3,94	55,0	2,165	2.3/16"
FO92B-32-32	51	2"	32	2"-11	132,0	5,20	16,0	0,63	128,0	5,04	70,0	2,756	2.3/4"

### Nut type

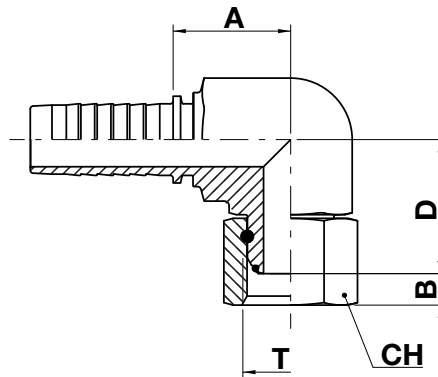


# KO92B

**BSP O-ring female swivel 60° cone - 90° compact elbow**

NO SKIVE / EXTERNAL SKIVE

ISO 8434-6 / BS 5200



FERRULE

**FITTING****BSP-BSPT**

METRIC

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

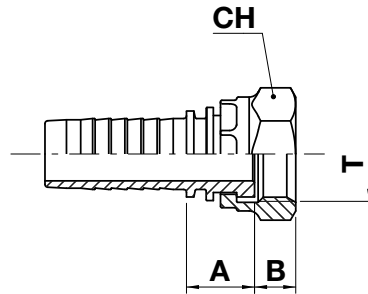
STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
KO92B-04-04	6	1/4"	04	1/4"-19	18,5	0,73	5,2	0,20	22,5	0,89	19,0	0,748	3/4"
KO92B-06-06	10	3/8"	06	3/8"-19	21,5	0,85	6,0	0,24	26,0	1,02	22,0	0,866	7/8"
KO92B-08-08	12	1/2"	08	1/2"-14	25,0	0,98	6,5	0,26	29,0	1,14	27,0	1,063	1.1/16"
KO92B-12-12	19	3/4"	12	3/4"-14	28,5	1,12	8,7	0,34	36,0	1,42	32,0	1,260	1.1/4"
KO92B-16-16	25	1"	16	1"-11	34,0	1,34	10,5	0,41	40,0	1,57	41,0	1,614	1.1/2"

# FP11B

BSP flat face female swivel

NO SKIVE / EXTERNAL SKIVE



.....  
FERRULE  
.....  
**FITTING**  
**BSP-BSPT**  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	↻ in
FP11B-06-06	10	3/8"	06	3/8"-19	15,5	0,61	9,0	0,35	22,0	0,866	7/8"
FP11B-06-08	10	3/8"	06	1/2"-14	16,0	0,63	10,5	0,41	27,0	1,063	1.1/16"
FP11B-08-08	12	1/2"	08	1/2"-14	16,5	0,65	10,5	0,41	27,0	1,063	1.1/16"
FP11B-08-12	12	1/2"	08	3/4"-14	21,5	0,85	11,5	0,45	32,0	1,260	1.1/4"
FP11B-12-12	19	3/4"	12	3/4"-14	26,0	1,02	11,5	0,45	32,0	1,260	1.1/4"

# BB10B

BSP banjo

NO SKIVE / EXTERNAL SKIVE

FERRULE

FITTING

**BSP-BSPT**

METRIC

JIC

ORFS

SAE

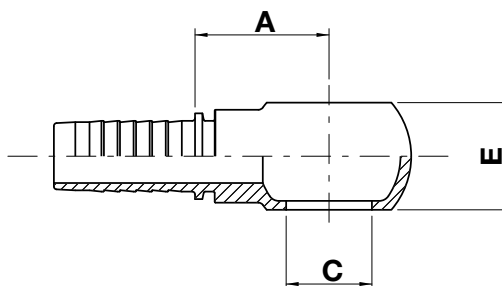
NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

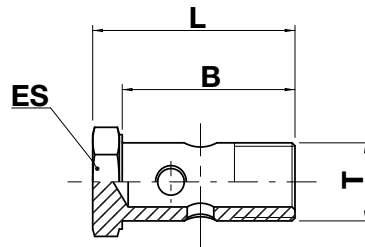


code	ø hose			T	A		C		E	
	dn	inch	size		mm	in	mm	in	mm	in
BB10B-04-02	6	1/4"	04	1/8"-28	22,0	0,87	10,2	0,40	10,0	0,39
BB10B-04-04	6	1/4"	04	1/4"-19	22,0	0,87	13,3	0,52	14,0	0,55
BB10B-04-06	6	1/4"	04	3/8"-19	23,0	0,91	16,8	0,66	18,0	0,71
BB10B-05-06	8	5/16"	05	3/8"-19	23,0	0,91	16,8	0,66	18,0	0,71
BB10B-06-06	10	3/8"	06	3/8"-19	24,0	0,94	16,8	0,66	18,0	0,71
BB10B-06-08	10	3/8"	06	1/2"-14	26,0	1,02	21,0	0,83	22,0	0,87
BB10B-08-08	12	1/2"	08	1/2"-14	27,0	1,06	21,0	0,83	22,0	0,87
BB10B-10-10	16	5/8"	10	5/8"-14	28,0	1,10	23,1	0,91	24,0	0,94
BB10B-12-12	19	3/4"	12	3/4"-14	36,5	1,44	26,5	1,04	29,0	1,14
BB10B-16-16	25	1"	16	1"-11	44,5	1,75	33,5	0,41	37,0	1,46

# VB10B

**BSP banjo bolt**

**NO SKIVE / EXTERNAL SKIVE**



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FERRULE  
.....  
**FITTING**  
**BSP-BSPT**  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	T	B		L		ES		
		mm	in	mm	in	mm	in	↻ in
VB10B-02	1/8"-28	19,0	0,75	24,0	0,94	14,0	0,551	9/16"
VB10B-04	1/4"-19	25,0	0,98	32,0	1,26	19,0	0,748	3/4"
VB10B-06	3/8"-19	31,0	1,22	38,0	1,50	22,0	0,866	7/8"
VB10B-08	1/2"-14	38,0	1,50	46,0	1,81	27,0	1,063	1.1/16"
VB10B-10	5/8"-14	41,0	1,61	49,0	1,93	30,0	1,181	1.3/16"
VB10B-12	3/4"-14	46,0	1,81	56,0	2,20	32,0	1,260	1.1/4"
VB10B-16	1"-11	58,0	2,28	69,0	2,72	41,0	1,614	1.5/8"

# KW15B

**Jet wash female swivel "K" type**

NO SKIVE / EXTERNAL SKIVE

FERRULE

**FITTING**

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

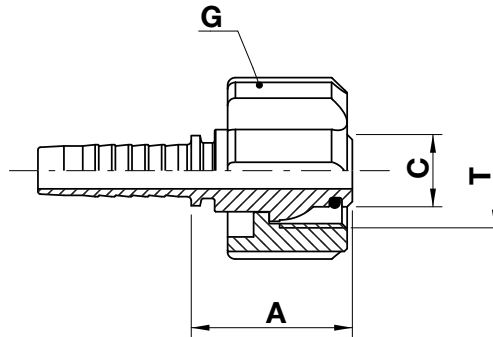
NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

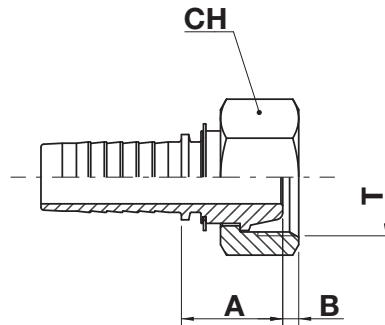


code	ø hose			T	A		C		G	
	dn	inch	size		mm	in	mm	in	mm	in
KW15B-04-22	6	1/4"	04	M22X1,5	31,0	1,22	14,0	0,55	36,0	1,42
KW15B-05-22	8	5/16"	05	M22X1,5	31,0	1,22	14,0	0,55	36,0	1,42
KW15B-06-22	10	3/8"	06	M22X1,5	31,0	1,22	14,0	0,55	36,0	1,42

# FQ13B

Metric female swivel (multiseal 24°/60° cone seat)

NO SKIVE / EXTERNAL SKIVE



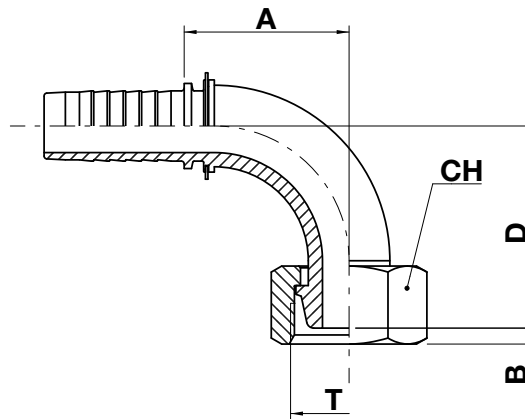
.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	↻ in
FQ13B-04-14	6	1/4"	04	M14X1,5	21,5	0,85	3,5	0,14	17,0	0,669	11/16"
FQ13B-05-16	8	5/16"	05	M16X1,5	21,0	0,83	5,0	0,20	19,0	0,748	3/4"
FQ13B-05-18	8	5/16"	05	M18X1,5	21,0	0,83	5,0	0,20	22,0	0,866	7/8"
FQ13B-06-16	10	3/8"	06	M16X1,5	21,6	0,85	5,0	0,20	22,0	0,866	7/8"
FQ13B-06-18	10	3/8"	06	M18X1,5	21,0	0,83	5,0	0,20	22,0	0,866	7/8"
FQ13B-08-22	12	1/2"	08	M22X1,5	24,5	0,96	5,0	0,20	27,0	1,063	1.1/16"
FQ13B-10-26	16	5/8"	10	M26X1,5	24,5	0,96	6,0	0,24	32,0	1,260	1.1/4"

# FQ93B

Metric female swivel - 90° elbow (multiseal 24°/60° cone seat)

NO SKIVE / EXTERNAL SKIVE



FERRULE

**FITTING**

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

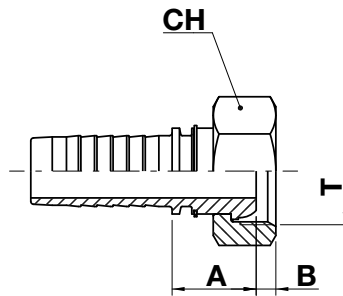
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FQ93B-04-14	6	1/4"	04	M14X1,5	28,0	1,10	3,5	0,14	29,5	1,16	17,0	0,669	11/16"
FQ93B-05-16	8	5/16"	05	M16X1,5	31,5	1,24	5,0	0,20	33,0	1,30	19,0	0,748	3/4"
FQ93B-06-18	10	3/8"	06	M18X1,5	30,5	1,20	5,0	0,20	33,5	1,32	22,0	0,866	7/8"
FQ93B-08-22	12	1/2"	08	M22X1,5	38,2	1,50	5,0	0,20	38,0	1,50	27,0	1,063	1.1/16"
FQ93B-10-26	16	5/8"	10	M26X1,5	54,0	2,13	6,0	0,24	52,5	2,07	32,0	1,260	1.1/4"

# FM13B


Metric female swivel (60° cone seat)

NO SKIVE / EXTERNAL SKIVE

DIN 3863



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

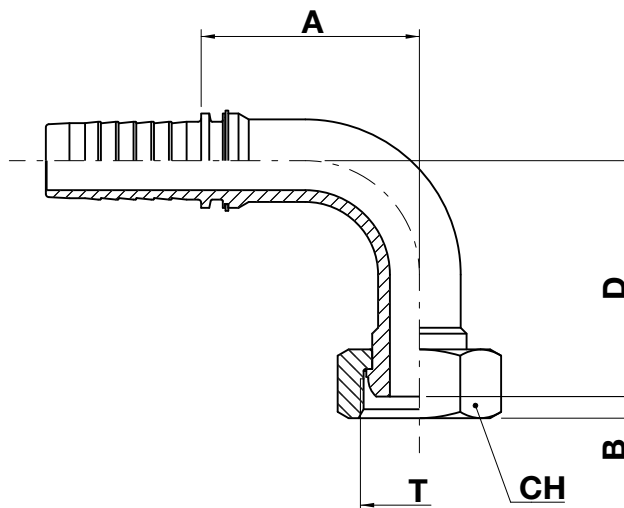
code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	 in
FM13B-12-30	19	3/4"	12	M30X1,5	23,5	0,93	5,0	0,20	36,0	1,417	1.7/16"
FM13B-16-38	25	1"	16	M38X1,5	27,6	1,09	5,0	0,20	46,0	1,811	1.13/16"

## FM93B

Metric female swivel - 90° elbow (60° cone seat)

NO SKIVE / EXTERNAL SKIVE

DIN 3863



FERRULE

FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

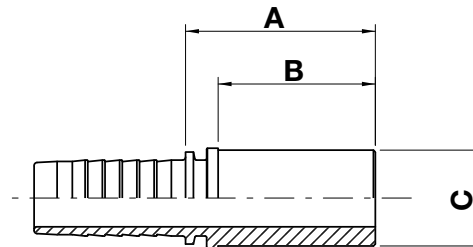
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	in
FM93B-12-30	19	3/4"	12	M30X1,5	65,0	2,56	5,0	0,20	60,0	2,36	36,0	1,417	1.7/16"
FM93B-16-38	25	1"	16	M38X1,5	74,2	2,92	5,0	0,20	69,0	2,72	46,0	1,811	1.13/16"

# SM10B

## Metric standpipe

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / (DIN 2353)

.....  
FERRULE.....  
**FITTING**

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

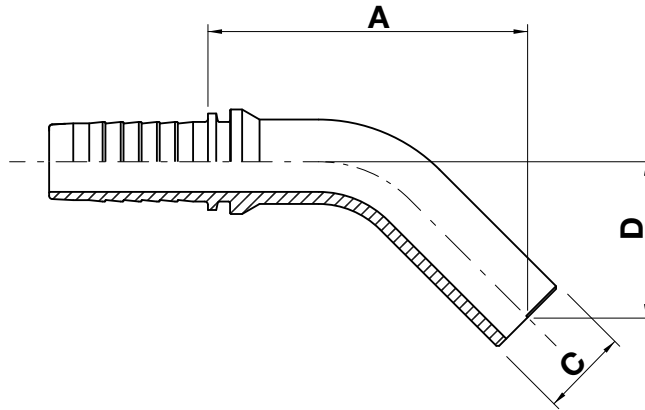
code	ø hose			C		A		B	
	dn	inch	size	mm	in	mm	in	mm	in
SM10B-03-06	5	3/16"	03	6,0	0,24	23,5	0,93	22,0	0,87
SM10B-04-06	6	1/4"	04	6,0	0,24	28,0	1,10	22,0	0,87
SM10B-04-08	6	1/4"	04	8,0	0,31	29,5	1,16	23,0	0,91
SM10B-04-10	6	1/4"	04	10,0	0,39	33,0	1,30	27,0	1,06
SM10B-04-12	6	1/4"	04	12,0	0,47	33,0	1,30	27,0	1,06
SM10B-05-12	8	5/16"	05	12,0	0,47	33,0	1,30	27,0	1,06
SM10B-06-10	10	3/8"	06	10,0	0,39	30,5	1,20	24,0	0,94
SM10B-06-12	10	3/8"	06	12,0	0,47	30,5	1,20	24,0	0,94
SM10B-08-12	12	1/2"	08	12,0	0,47	31,0	1,22	24,0	0,94
SM10B-08-14	12	1/2"	08	14,0	0,55	36,0	1,42	29,0	1,14
SM10B-08-15	12	1/2"	08	15,0	0,59	32,0	1,26	25,0	0,98
SM10B-08-16	12	1/2"	08	16,0	0,63	37,0	1,46	30,0	1,18
SM10B-10-18	16	5/8"	10	18,0	0,71	34,0	1,34	27,0	1,06
SM10B-10-20	16	5/8"	10	20,0	0,79	43,0	1,69	36,0	1,42
SM10B-12-18	19	3/4"	12	18,0	0,71	34,5	1,36	27,0	1,06
SM10B-12-20	19	3/4"	12	20,0	0,79	44,5	1,75	36,0	1,42
SM10B-12-22	19	3/4"	12	22,0	0,87	36,5	1,44	28,0	1,10
SM10B-12-25	19	3/4"	12	25,0	0,98	49,5	1,95	41,0	1,61
SM10B-16-25	25	1"	16	25,0	0,98	51,0	2,01	41,0	1,61
SM10B-16-28	25	1"	16	28,0	1,10	40,0	1,57	30,0	1,18
SM10B-16-30	25	1"	16	30,0	1,18	54,0	2,13	44,0	1,73

# SM40B

## Metric standpipe - 45° elbow

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / (DIN 2353)



FERRULE

## FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

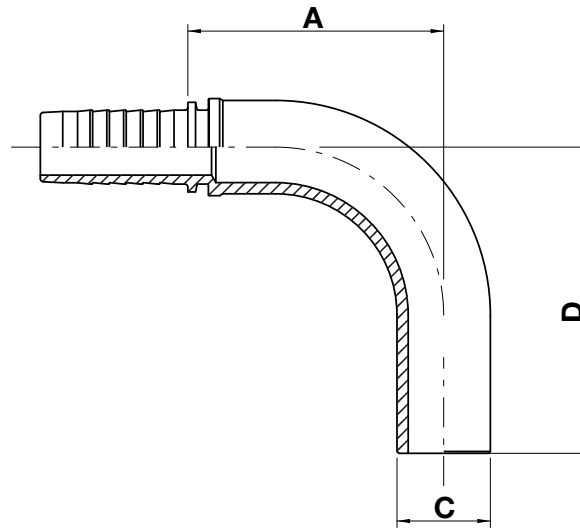
code	ø hose			C		A		D	
	dn	inch	size	mm	in	mm	in	mm	in
SM40B-04-06	6	1/4"	04	6,0	0,24	45,0	1,77	22,0	0,87
SM40B-04-08	6	1/4"	04	8,0	0,31	41,5	1,63	23,3	0,92
SM40B-04-10	6	1/4"	04	10,0	0,39	58,0	2,28	25,8	1,02
SM40B-05-10	8	5/16"	05	10,0	0,39	57,0	2,24	24,5	0,96
SM40B-05-12	8	5/16"	05	12,0	0,47	56,0	2,20	29,0	1,14
SM40B-06-10	10	3/8"	06	10,0	0,39	45,5	1,79	22,0	0,87
SM40B-06-14	10	3/8"	06	14,0	0,55	56,0	2,20	29,0	1,14
SM40B-08-15	12	1/2"	08	15,0	0,59	60,5	2,38	28,0	1,10
SM40B-08-16	12	1/2"	08	16,0	0,63	53,0	2,09	34,0	1,34
SM40B-10-18	16	5/8"	10	18,0	0,71	72,0	2,83	35,4	1,39
SM40B-10-20	16	5/8"	10	20,0	0,79	87,9	3,46	46,0	1,81
SM40B-12-22	19	3/4"	12	22,0	0,87	79,5	3,13	38,7	1,52
SM40B-12-25	19	3/4"	12	25,0	0,98	88,5	3,48	47,0	1,85
SM40B-16-28	25	1"	16	28,0	1,10	95,0	3,74	45,5	1,79
SM40B-16-30	25	1"	16	30,0	1,18	96,0	3,78	47,2	1,86

# SM90B

## Metric standpipe - 90° elbow

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / (DIN 2353)



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FERRULE  
.....  
**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			C		A		D	
	dn	inch	size	mm	in	mm	in	mm	in
SM90B-03-06	5	3/16"	03	6,0	0,24	33,3	1,31	40,0	1,57
SM90B-04-06	6	1/4"	04	6,0	0,24	26,0	1,02	38,5	1,52
SM90B-04-08	6	1/4"	04	8,0	0,31	26,0	1,02	40,0	1,57
SM90B-04-10	6	1/4"	04	10,0	0,39	29,5	1,16	45,5	1,79
SM90B-05-10	8	5/16"	05	10,0	0,39	36,0	1,42	39,0	1,54
SM90B-06-10	10	3/8"	06	10,0	0,39	37,0	1,46	50,0	1,97
SM90B-06-12	10	3/8"	06	12,0	0,47	32,5	1,28	47,0	1,85
SM90B-08-15	12	1/2"	08	15,0	0,59	38,0	1,50	50,0	1,97
SM90B-08-16	12	1/2"	08	16,0	0,63	38,0	1,50	55,0	2,17
SM90B-10-18	16	5/8"	10	18,0	0,71	58,5	2,30	63,0	2,48
SM90B-10-20	16	5/8"	10	20,0	0,79	59,5	2,34	68,0	2,68
SM90B-12-20	19	3/4"	12	20,0	0,79	55,5	2,19	77,0	3,03
SM90B-12-22	19	3/4"	12	22,0	0,87	60,5	2,38	73,5	2,89
SM90B-12-25	19	3/4"	12	25,0	0,98	68,5	2,70	82,0	3,23
SM90B-16-25	25	1"	16	25,0	0,98	68,5	2,70	89,0	3,50
SM90B-16-28	25	1"	16	28,0	1,10	68,0	2,68	89,0	3,50

# BM10B

## Metric banjo

NO SKIVE / EXTERNAL SKIVE

FERRULE

## FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

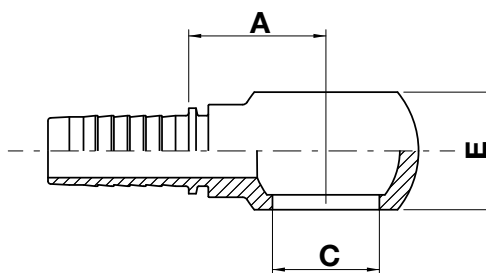
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JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK



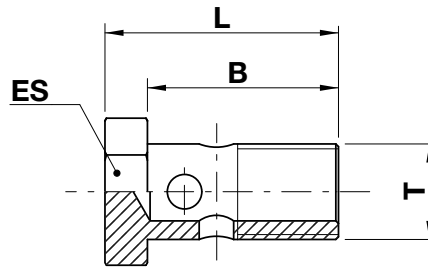
code	ø hose			T	A		C		E	
	dn	inch	size		mm	in	mm	in	mm	in
BM10B-04-10	6	1/4"	04	M10X1	22,0	0,87	10,2	0,40	10,0	0,39
BM10B-04-12	6	1/4"	04	M12X1,5	21,0	0,83	12,2	0,48	12,0	0,47
BM10B-04-14	6	1/4"	04	M14X1,5	21,0	0,83	14,2	0,56	14,0	0,55
BM10B-04-16	6	1/4"	04	M16X1,5	23,0	0,91	16,2	0,63	18,0	0,71
BM10B-05-12	8	5/16"	05	M12X1,5	21,0	0,83	12,2	0,47	12,0	0,47
BM10B-05-14	8	5/16"	05	M14X1,5	23,2	0,91	14,2	0,56	14,0	0,55
BM10B-05-16	8	5/16"	05	M16X1,5	23,0	0,91	16,2	0,64	18,0	0,71
BM10B-06-14	10	3/8"	06	M14X1,5	24,5	0,96	14,2	0,56	14,0	0,55
BM10B-06-16	10	3/8"	06	M16X1,5	24,0	0,94	16,2	0,64	18,0	0,71
BM10B-06-18	10	3/8"	06	M18X1,5	27,5	1,08	18,2	0,72	20,0	0,79
BM10B-06-22	10	3/8"	06	M22X1,5	26,5	1,04	22,2	0,87	22,0	0,87
BM10B-08-16	12	1/2"	08	M16X1,5	24,5	0,96	16,2	0,63	18,0	0,71
BM10B-08-18	12	1/2"	08	M18X1,5	28,1	1,11	18,2	0,72	20,0	0,79
BM10B-08-22	12	1/2"	08	M22X1,5	27,0	1,06	22,2	0,87	22,0	0,87
BM10B-08-24	12	1/2"	08	M24X1,5	29,5	1,16	24,2	0,94	25,0	0,98
BM10B-10-22	16	5/8"	10	M22X1,5	28,0	1,10	22,2	0,87	22,0	0,87
BM10B-12-26	19	3/4"	12	M26X1,5	36,5	1,44	26,2	1,03	29,0	1,14
BM10B-16-30	25	1"	16	M30X1,5	44,5	1,75	30,2	1,19	37,0	1,46

# VM10B

## Metric banjo bolt

NO SKIVE / EXTERNAL SKIVE

DIN 7643



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

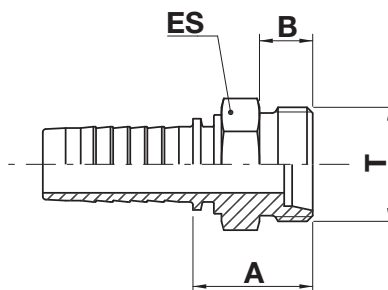
code	T	B		L		ES		
		mm	in	mm	in	mm	in	↻ in
VM10B-08	M8X1	16,0	0,63	21,0	0,83	12,0	0,472	1/2"
VM10B-10	M10X1	19,0	0,75	25,0	0,98	14,0	0,551	9/16"
VM10B-12	M12X1,5	23,0	0,91	28,0	1,10	17,0	0,669	11/16"
VM10B-14	M14X1,5	25,0	0,98	32,0	1,26	19,0	0,748	3/4"
VM10B-16	M16X1,5	31,0	1,22	37,0	1,46	22,0	0,866	7/8"
VM10B-18	M18X1,5	36,0	1,42	44,0	1,73	24,0	0,945	15/16"
VM10B-22	M22X1,5	38,0	1,5	46,0	1,81	27,0	1,063	1.1/16"
VM10B-24	M24X1,5	41,0	1,61	49,0	1,93	30,0	1,181	1.3/16"
VM10B-26	M26X1,5	46,0	1,81	56,0	2,20	32,0	1,260	1.1/4"
VM10B-30	M30X1,5	58,0	2,28	69,0	2,72	38,0	1,496	1.1/2"

# ML10B

Metric light male (24° cone seat)

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / DIN 3865



FERRULE

FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE


NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

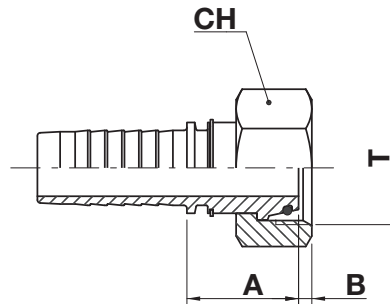
STAPLE LOCK

code	ø hose			T	pipe	A		B		ES		
	dn	inch	size			mm	in	mm	in	mm	in	 in
ML10B-04-12	6	1/4"	04	M12X1,5	L6	22,5	0,89	10,0	0,39	14,0	0,551	9/16"
ML10B-04-14	6	1/4"	04	M14X1,5	L8	22,5	0,89	10,0	0,39	14,0	0,551	9/16"
ML10B-04-16	6	1/4"	04	M16X1,5	L10	24,5	0,96	11,0	0,43	17,0	0,669	11/16"
ML10B-04-18	6	1/4"	04	M18X1,5	L12	27,0	1,06	11,0	0,43	19,0	0,748	3/4"
ML10B-05-16	8	5/16"	05	M16X1,5	L10	24,5	0,96	11,0	0,43	17,0	0,669	11/16"
ML10B-05-18	8	5/16"	05	M18X1,5	L12	25,0	0,98	11,0	0,43	19,0	0,748	3/4"
ML10B-06-16	10	3/8"	06	M16X1,5	L10	24,5	0,96	11,0	0,43	17,0	0,669	11/16"
ML10B-06-18	10	3/8"	06	M18X1,5	L12	25,0	0,98	11,0	0,43	19,0	0,748	3/4"
ML10B-06-22	10	3/8"	06	M22X1,5	L15	26,0	1,02	12,0	0,47	22,0	0,866	7/8"
ML10B-08-18	12	1/2"	08	M18X1,5	L12	25,5	1,00	11,0	0,43	19,0	0,748	3/4"
ML10B-08-22	12	1/2"	08	M22X1,5	L15	26,5	1,04	12,0	0,47	22,0	0,866	7/8"
ML10B-08-26	12	1/2"	08	M26X1,5	L18	29,0	1,14	12,0	0,47	27,0	1,063	1.1/16"
ML10B-10-22	16	5/8"	10	M22X1,5	L15	26,5	1,04	12,0	0,47	22,0	0,866	7/8"
ML10B-10-26	16	5/8"	10	M26X1,5	L18	29,0	1,14	12,0	0,47	27,0	1,063	1.1/16"
ML10B-12-26	19	3/4"	12	M26X1,5	L18	29,5	1,16	12,0	0,47	27,0	1,063	1.1/16"
ML10B-12-30	19	3/4"	12	M30X2	L22	31,5	1,24	14,0	0,55	30,0	1,181	1.3/16"
ML10B-16-36	25	1"	16	M36X2	L28	34,0	1,34	14,0	0,55	36,0	1,417	1.7/16"
ML10B-20-45	31	1.1/4"	20	M45X2	L35	41,0	1,61	16,0	0,63	46,0	1,811	1.13/16"
ML10B-24-52	38	1.1/2"	24	M52X2	L42	40,4	1,59	16,0	0,63	55,0	2,165	2.3/16"

**FL13B** FL11B FL12B**Metric light female swivel (24° cone seat)**

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / DIN 3865



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FERRULE  
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**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	pipe	A		B		CH		
	dn	inch	size			mm	in	mm	in	mm	in	↻ in
FL13B-03-12	5	3/16"	03	M12X1,5	L6	19,5	0,77	2,0	0,08	14,0	0,551	9/16"
FL11B-04-12	6	1/4"	04	M12X1,5	L6	20,9	0,82	2,6	0,10	16,0	0,630	5/8"
FL13B-04-14	6	1/4"	04	M14X1,5	L8	25,0	0,98	1,5	0,06	17,0	0,669	11/16"
FL13B-04-16	6	1/4"	04	M16X1,5	L10	27,5	1,08	1,5	0,06	19,0	0,748	3/4"
FL13B-04-18	6	1/4"	04	M18X1,5	L12	26,0	1,02	1,5	0,06	22,0	0,866	7/8"
FL12B-05-14	8	5/16"	05	M14X1,5	L8	21,5	0,85	1,5	0,06	17,0	0,669	11/16"
FL13B-05-16	8	5/16"	05	M16X1,5	L10	27,5	1,08	1,5	0,06	19,0	0,748	3/4"
FL13B-05-18	8	5/16"	05	M18X1,5	L12	26,0	1,02	1,5	0,06	22,0	0,866	7/8"
FL12B-06-16	10	3/8"	06	M16X1,5	L10	23,0	0,91	3,5	0,14	19,0	0,748	3/4"
FL13B-06-18	10	3/8"	06	M18X1,5	L12	26,0	1,02	1,5	0,06	22,0	0,866	7/8"
FL13B-06-22	10	3/8"	06	M22X1,5	L15	28,5	1,12	2,5	0,01	27,0	1,063	1.1/16"
FL11B-08-18	12	1/2"	08	M18X1,5	L12	28,5	1,12	3,0	0,12	22,0	0,866	7/8"
FL13B-08-22	12	1/2"	08	M22X1,5	L15	28,5	1,12	2,5	0,01	27,0	1,063	1.1/16"
FL13B-08-26	12	1/2"	08	M26X1,5	L18	30,0	1,18	2,0	0,08	32,0	1,260	1.1/4"
FL13B-10-26	16	5/8"	10	M26X1,5	L18	29,0	1,14	2,0	0,08	32,0	1,260	1.1/4"
FL13B-10-27	16	5/8"	10	M27X1,5	L18	29,0	1,14	2,0	0,08	32,0	1,260	1.1/4"
FL13B-10-30	16	5/8"	10	M30X2	L22	29,4	1,16	3,5	0,14	36,0	1,417	1.7/16"
FL12B-12-26	19	3/4"	12	M26X1,5	L18	25,5	1,00	2,0	0,08	32,0	1,260	1.1/4"
FL13B-12-30	19	3/4"	12	M30X2	L22	29,5	1,16	3,5	0,14	36,0	1,417	1.7/16"



← **FL13B FL11B FL12B**

FERRULE

FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

NPTF-NPSM

JIS

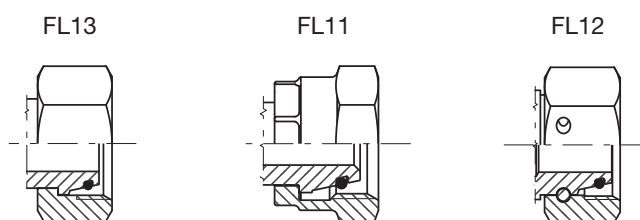
SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	pipe	A		B		CH		
	dn	inch	size			mm	in	mm	in	mm	in	↗ in
FL13B-12-36	19	3/4"	12	M36X2	L28	30,5	1,20	3,5	0,14	41,0	1,614	1.5/8"
FL12B-16-30	25	1"	16	M30X2	L22	29,0	1,14	3,5	0,14	36,0	1,417	1.7/16"
FL13B-16-36	25	1"	16	M36X2	L28	32,0	1,26	3,5	0,14	41,0	1,614	1.5/8"
FL13B-16-45	25	1"	16	M45X2	L35	37,0	1,46	3,0	0,12	50,0	1,969	2"
FL12B-20-36	31	1.1/4"	20	M36X2	L28	36,0	1,42	4,5	0,18	41,0	1,614	1.5/8"
FL13B-20-45	31	1.1/4"	20	M45X2	L35	39,5	1,56	2,0	0,08	50,0	1,969	2"
FL12B-24-45	38	1.1/2"	24	M45X2	L35	38,0	1,50	3,0	0,12	50,0	1,969	2"
FL13B-24-52	38	1.1/2"	24	M52X2	L42	39,5	1,56	3,0	0,12	60,0	2,362	2.3/8"
FL12B-32-52	51	2"	32	M52X2	L42	46,0	1,81	4,0	0,16	60,0	2,362	2.3/8"

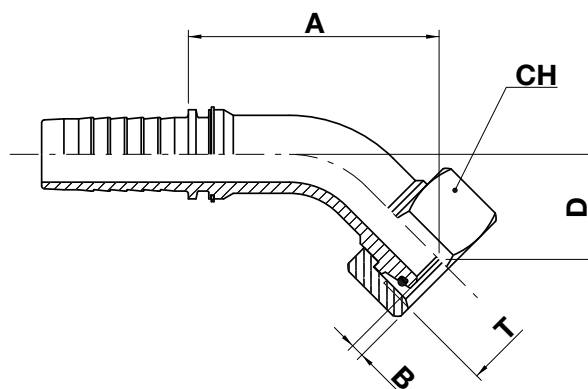
Nut type



**FL43B** FL41B FL42B**Metric light female swivel - 45° elbow (24° cone seat)**

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / DIN 3865



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FERRULE  
.....  
**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	pipe	A		B		D		CH		
	dn	inch	size			mm	in	mm	in	mm	in	mm	in	↻ in
FL41B-04-12	6	1/4"	04	M12X1,5	L6	39,0	1,54	2,6	0,10	14,8	0,58	16,0	0,630	5/8"
FL43B-04-14	6	1/4"	04	M14X1,5	L8	35,2	1,39	1,5	0,06	15,5	0,61	17,0	0,669	11/16"
FL43B-04-16	6	1/4"	04	M16X1,5	L10	36,3	1,43	1,5	0,06	16,6	0,65	19,0	0,748	3/4"
FL43B-04-18	6	1/4"	04	M18X1,5	L12	42,5	1,67	1,5	0,06	18,0	0,71	22,0	0,866	7/8"
FL43B-05-16	8	5/16"	05	M16X1,5	L10	39,0	1,54	1,5	0,06	17,1	0,67	19,0	0,748	3/4"
FL43B-05-18	8	5/16"	05	M18X1,5	L12	41,5	1,63	1,5	0,06	19,2	0,76	22,0	0,866	7/8"
FL42B-06-16	10	3/8"	06	M16X1,5	L10	44,6	1,76	3,5	0,14	21,7	0,85	19,0	0,748	3/4"
FL43B-06-18	10	3/8"	06	M18X1,5	L12	42,6	1,68	1,5	0,06	19,2	0,76	22,0	0,866	7/8"
FL43B-06-22	10	3/8"	06	M22X1,5	L15	45,0	1,77	2,5	0,10	22,1	0,87	27,0	1,063	1.1/16"
FL43B-08-22	12	1/2"	08	M22X1,5	L15	48,2	1,90	2,5	0,10	20,8	0,82	27,0	1,063	1.1/16"
FL42B-10-22	16	5/8"	10	M22X1,5	L15	64,2	2,52	2,5	0,10	27,2	1,07	27,0	1,063	1.1/16"
FL43B-10-26	16	5/8"	10	M26X1,5	L18	62,5	2,46	2,0	0,08	25,5	1,00	32,0	1,260	1.1/4"
FL43B-12-30	19	3/4"	12	M30X2	L22	67,5	2,66	3,5	0,14	28,3	1,11	36,0	1,417	1.7/16"
FL43B-16-36	25	1"	16	M36X2	L28	85,0	3,35	3,5	0,14	33,1	1,30	41,0	1,614	1.5/8"
FL43B-20-45	31	1.1/4"	20	M45X2	L35	102,5	4,04	2,0	0,08	41,7	1,64	50,0	1,969	2"
FL43B-24-52	38	1.1/2"	24	M52X2	L42	121,0	4,76	3,0	0,12	46,0	1,81	60,0	2,362	2.3/8"
FL42B-24-45	38	1.1/2"	24	M45X2	L35	117,5	4,62	3,0	0,12	42,4	1,66	50,0	1,969	2"



Two piece fittings - Universal series for wire braided and 4 spiral hydraulic hoses

← **FL43B FL41B FL42B**

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FERRULE

**Nut type**

FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

NPTF-NPSM

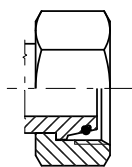
JIS

SAE 3000 CODE 61

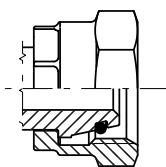
SAE 6000 CODE 62

STAPLE LOCK

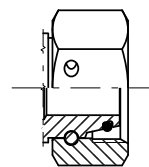
FL43



FL41



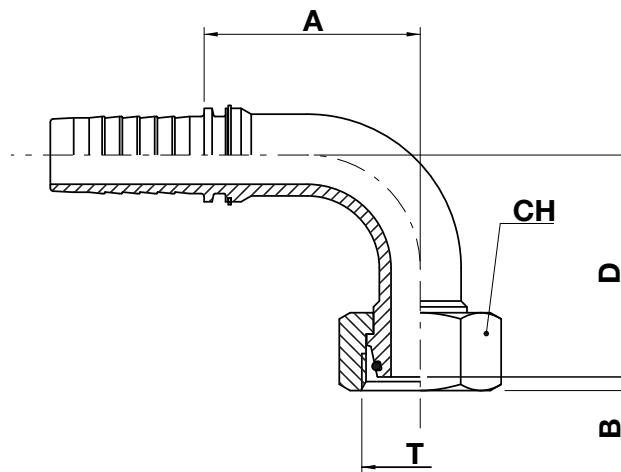
FL42



**FL93B** FL91B FL92B**Metric light female swivel - 90° elbow (24° cone seat)**

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / DIN 3865



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FERRULE  
.....  
**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	pipe	A		B		D		CH		
	dn	inch	size			mm	in	mm	in	mm	in	mm	in	↻ in
FL91B-04-12	6	1/4"	04	M12X1,5	L6	30,7	1,21	2,6	0,10	30,0	1,18	16,0	0,630	5/8"
FL93B-04-14	6	1/4"	04	M14X1,5	L8	28,0	1,10	1,5	0,06	31,0	1,22	17,0	0,669	11/16"
FL93B-04-16	6	1/4"	04	M16X1,5	L10	28,2	1,11	1,5	0,06	32,5	1,28	19,0	0,748	3/4"
FL93B-04-18	6	1/4"	04	M18X1,5	L12	29,5	1,16	1,5	0,06	34,5	1,36	22,0	0,866	7/8"
FL92B-05-14	8	5/16"	05	M14X1,5	L8	30,5	1,20	1,5	0,06	34,0	1,34	17,0	0,669	11/16"
FL93B-05-16	8	5/16"	05	M16X1,5	L10	30,5	1,20	1,5	0,06	33,0	1,30	19,0	0,748	3/4"
FL93B-05-18	8	5/16"	05	M18X1,5	L12	31,5	1,24	1,5	0,06	36,0	1,42	22,0	0,866	7/8"
FL92B-06-16	10	3/8"	06	M16X1,5	L10	34,0	1,34	3,5	0,14	39,5	1,56	19,0	0,748	3/4"
FL93B-06-18	10	3/8"	06	M18X1,5	L12	30,5	1,20	1,5	0,06	36,0	1,42	22,0	0,866	7/8"
FL93B-06-22	10	3/8"	06	M22X1,5	L15	31,5	1,24	2,5	0,10	40,0	1,57	27,0	1,063	1.1/16"
FL93B-08-22	12	1/2"	08	M22X1,5	L15	38,2	1,50	2,5	0,10	40,0	1,57	27,0	1,063	1.1/16"
FL93B-08-26	12	1/2"	08	M26X1,5	L18	39,0	1,53	2,0	0,08	49,0	1,93	32,0	1,260	1.1/4"
FL92B-10-22	16	5/8"	10	M22X1,5	L15	54,0	2,13	2,5	0,10	55,5	2,19	27,0	1,063	1.1/16"
FL93B-10-26	16	5/8"	10	M26X1,5	L18	54,0	2,13	2,0	0,08	53,0	2,09	32,0	1,260	1.1/4"
FL93B-10-27	16	5/8"	10	M27X1,5	L18	54,0	2,13	2,0	0,08	53,0	2,09	32,0	1,260	1.1/4"
FL93B-12-30	19	3/4"	12	M30X2	L22	55,5	2,19	3,5	0,14	57,0	2,24	36,0	1,417	1.7/16"
FL92B-16-30	25	1"	16	M30X2	L22	62,0	2,44	3,5	0,14	58,5	2,30	36,0	1,417	1.7/16"
FL93B-16-36	25	1"	16	M36X2	L28	74,0	2,91	3,5	0,14	69,0	2,72	41,0	1,614	1.5/8"
FL93B-16-45	25	1"	16	M45X2	L35	79,5	3,13	3,0	0,12	76,0	2,99	50,0	1,969	2"



← **FL93B FL91B FL92B**

FERRULE

FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

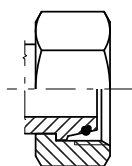
SAE 6000 CODE 62

STAPLE LOCK

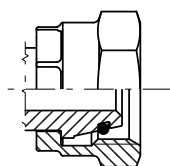
code	ø hose			T	pipe	A		B		D		CH		
	dn	inch	size			mm	in	mm	in	mm	in	mm	in	↗ in
FL92B-20-36	31	1.1/4"	20	M36X2	L28	83,0	3,27	4,5	0,18	72,0	2,83	41,0	1,614	1.5/8"
FL93B-20-45	31	1.1/4"	20	M45X2	L35	85,5	3,37	2,0	0,08	83,0	3,27	50,0	1,969	2"
FL93B-20-52	31	1.1/4"	20	M52X2	L42	85,5	3,37	4,0	0,16	88,0	3,46	60,0	2,362	2.3/8"
FL92B-24-45	38	1.1/2"	24	M45X2	L35	89,6	3,53	3,0	0,12	84,0	3,30	50,0	1,969	2"
FL93B-24-52	38	1.1/2"	24	M52X2	L42	103,0	4,05	3,0	0,12	95,5	3,76	60,0	2,362	2.3/8"

**Nut type**

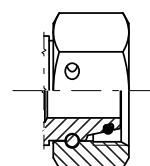
FL93



FL91



FL92

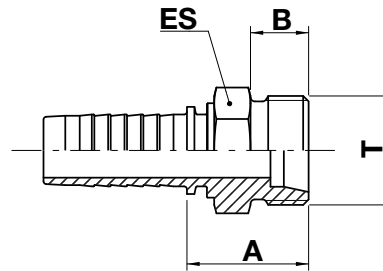


# MS10B

Metric heavy male (24° cone seat)

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / DIN 3865



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FERRULE  
.....  
**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	pipe	A		B		ES		
	dn	inch	size			mm	in	mm	in	mm	in	in
MS10B-04-14	6	1/4"	04	M14X1,5	S6	24,5	0,96	12,0	0,47	14,0	0,551	9/16"
MS10B-04-16	6	1/4"	04	M16X1,5	S8	26,0	1,02	12,0	0,47	17,0	0,669	11/16"
MS10B-04-18	6	1/4"	04	M18X1,5	S10	26,0	1,02	12,0	0,47	19,0	0,748	3/4"
MS10B-04-20	6	1/4"	04	M20X1,5	S12	26,0	1,02	12,0	0,47	22,0	0,866	7/8"
MS10B-05-18	8	5/16"	05	M18X1,5	S10	26,0	1,02	12,0	0,47	19,0	0,748	3/4"
MS10B-05-20	8	5/16"	05	M20X1,5	S12	26,0	1,02	12,0	0,47	22,0	0,866	7/8"
MS10B-05-22	8	5/16"	05	M22X1,5	S14	28,0	1,10	14,0	0,55	22,0	0,866	7/8"
MS10B-06-18	10	3/8"	06	M18X1,5	S10	26,0	1,02	12,0	0,47	19,0	0,748	3/4"
MS10B-06-20	10	3/8"	06	M20X1,5	S12	26,0	1,02	12,0	0,47	22,0	0,866	7/8"
MS10B-06-22	10	3/8"	06	M22X1,5	S14	28,0	1,10	14,0	0,55	22,0	0,866	7/8"
MS10B-06-24	10	3/8"	06	M24X1,5	S16	28,0	1,10	14,0	0,55	24,0	0,945	15/16"
MS10B-08-22	12	1/2"	08	M22X1,5	S14	29,5	1,16	14,0	0,55	22,0	0,866	7/8"
MS10B-08-24	12	1/2"	08	M24X1,5	S16	28,5	1,12	14,0	0,55	24,0	0,945	15/16"
MS10B-10-30	16	5/8"	10	M30X2	S20	33,0	1,30	16,0	0,63	30,0	1,181	1.3/16"
MS10B-12-30	19	3/4"	12	M30X2	S20	33,5	1,32	16,0	0,63	30,0	1,181	1.3/16"
MS10B-12-36	19	3/4"	12	M36X2	S25	36,5	1,44	18,0	0,71	36,0	1,417	1.7/16"
MS10B-16-36	25	1"	16	M36X2	S25	38,0	1,50	18,0	0,71	36,0	1,417	1.7/16"
MS10B-16-42	25	1"	16	M42X2	S30	41,0	1,61	20,0	0,79	46,0	1,811	1.13/16"
MS10B-20-52	31	1.1/4"	20	M52X2	S38	50,0	1,97	22,0	0,87	55,0	2,165	2.3/16"
MS10B-24-52	38	1.1/2"	24	M52X2	S38	50,0	1,97	22,0	0,87	55,0	2,165	2.3/16"

# FS13B FS12B



## Metric heavy female swivel (24° cone seat)

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / DIN 3865

FERRULE

## FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

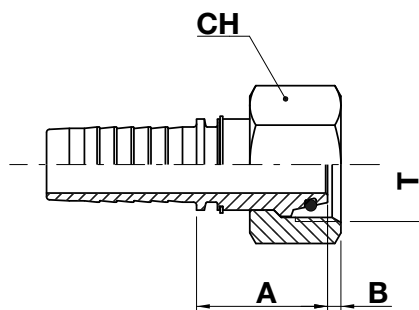
NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62


STAPLE LOCK



code	ø hose			T	pipe	A		B		CH		
	dn	inch	size			mm	in	mm	in	mm	in	↗ in
FS13B-04-14	6	1/4"	04	M14X1,5	S6	22,0	0,87	2,5	0,10	17,0	0,669	11/16"
FS13B-04-16	6	1/4"	04	M16X1,5	S8	26,5	1,04	2,5	0,10	19,0	0,748	3/4"
FS13B-04-18	6	1/4"	04	M18X1,5	S10	33,5	1,32	2,0	0,08	22,0	0,866	7/8"
FS13B-05-18	8	5/16"	05	M18X1,5	S10	24,0	0,94	2,0	0,08	22,0	0,866	7/8"
FS13B-05-20	8	5/16"	05	M20X1,5	S12	26,5	1,04	2,0	0,08	24,0	0,945	15/16"
FS12B-06-16	10	3/8"	06	M16X1,5	S8	24,0	0,94	2,5	0,10	19,0	0,748	3/4"
FS13B-06-18	10	3/8"	06	M18X1,5	S10	24,0	0,94	2,0	0,08	22,0	0,866	7/8"
FS13B-06-20	10	3/8"	06	M20X1,5	S12	26,5	1,04	2,0	0,08	24,0	0,945	15/16"
FS13B-06-22	10	3/8"	06	M22X1,5	S14	29,5	1,16	4,0	0,16	27,0	1,063	1.1/16"
FS13B-06-24	10	3/8"	06	M24X1,5	S16	32,5	1,28	3,0	0,12	30,0	1,181	1.3/16"
FS13B-08-24	12	1/2"	08	M24X1,5	S16	33,0	1,30	3,0	0,12	30,0	1,181	1.3/16"
FS13B-08-30	12	1/2"	08	M30X2	S20	36,0	1,42	3,5	0,14	36,0	1,417	1.7/16"
FS12B-10-24	16	5/8"	10	M24X1,5	S16	27,2	1,07	3,0	0,12	30,0	1,181	1.3/16"
FS13B-10-30	16	5/8"	10	M30X2	S20	34,0	1,34	3,5	0,14	36,0	1,417	1.7/16"
FS12B-12-24	19	3/4"	12	M24X1,5	S16	27,7	1,09	3,0	0,12	30,0	1,181	1.3/16"
FS13B-12-30	19	3/4"	12	M30X2	S20	34,5	1,36	3,5	0,14	36,0	1,417	1.7/16"
FS13B-12-36	19	3/4"	12	M36X2	S25	39,5	1,56	3,0	0,12	46,0	1,811	1.13/16"
FS13B-16-36	25	1"	16	M36X2	S25	42,0	1,65	3,0	0,12	46,0	1,811	1.13/16"
FS13B-16-42	25	1"	16	M42X2	S30	43,0	1,69	6,0	0,24	50,0	1,969	2"

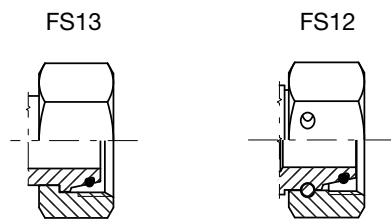


← **FS13B FS12B**

code	ø hose			T	pipe	A		B		CH		
	dn	inch	size			mm	in	mm	in	mm	in	 in
FS13B-20-42	31	1.1/4"	20	M42X2	S30	36,0	1,42	6,0	0,24	50,0	1,969	2"
FS12B-20-52	31	1.1/4"	20	M52X2	S38	48,0	1,89	6,5	0,26	60,0	2,362	2.3/8"
FS13B-24-52	38	1.1/2"	24	M52X2	S38	48,0	1,89	6,5	0,26	60,0	2,362	2.3/8"

- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC**
- JIC
- ORFS
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

**Nut type**



# FS43B FS42B



## Metric heavy female swivel - 45° elbow (24° cone seat)

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / DIN 3865

FERRULE

## FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

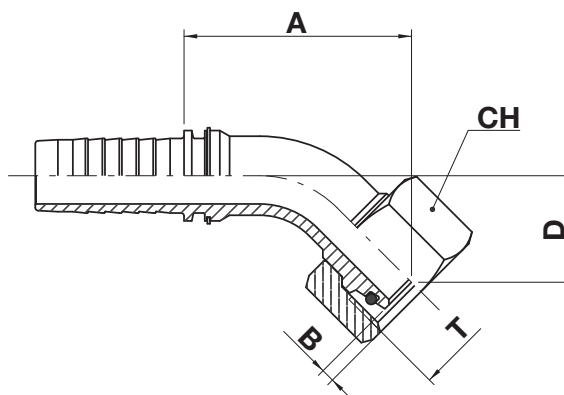
NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK



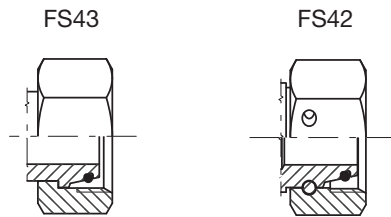
code	ø hose			T	pipe	A		B		D		CH		
	dn	inch	size			mm	in	mm	in	mm	in	mm	in	in
FS43B-04-14	6	1/4"	04	M14X1,5	S6	35,6	1,40	2,5	0,10	16,0	0,63	17,0	0,669	11/16"
FS43B-04-16	6	1/4"	04	M16X1,5	S8	36,3	1,43	2,5	0,10	16,6	0,65	19,0	0,748	3/4"
FS43B-04-18	6	1/4"	04	M18X1,5	S10	37,7	1,48	2,0	0,08	18,0	0,71	22,0	0,866	7/8"
FS43B-05-20	8	5/16"	05	M20X1,5	S12	41,0	1,61	2,0	0,08	19,2	0,76	24,0	0,945	15/16"
FS43B-06-18	10	3/8"	06	M18X1,5	S10	42,2	1,66	1,5	0,06	19,2	0,76	22,0	0,866	7/8"
FS43B-06-20	10	3/8"	06	M20X1,5	S12	42,0	1,65	2,0	0,08	19,2	0,76	24,0	0,945	15/16"
FS43B-06-22	10	3/8"	06	M22X1,5	S14	45,0	1,77	4,0	0,16	22,0	0,87	27,0	1,063	1.1/16"
FS43B-08-24	12	1/2"	08	M24X1,5	S16	50,0	1,97	3,0	0,12	22,6	0,89	30,0	1,181	1.3/16"
FS42B-10-24	16	5/8"	10	M24X1,5	S16	64,5	2,54	3,0	0,12	27,6	1,09	30,0	1,181	1.3/16"
FS43B-10-30	16	5/8"	10	M30X2	S20	64,0	2,52	3,5	0,14	26,9	1,06	36,0	1,417	1.7/16"
FS42B-12-24	19	3/4"	12	M24X1,5	S16	74,0	2,91	3,0	0,12	28,6	1,13	30,0	1,181	1.3/16"
FS43B-12-30	19	3/4"	12	M30X2	S20	67,5	2,66	3,5	0,14	28,3	1,11	36,0	1,417	1.7/16"
FS43B-12-36	19	3/4"	12	M36X2	S25	68,9	2,71	3,0	0,12	30,4	1,20	46,0	1,811	1.13/16"
FS43B-16-36	25	1"	16	M36X2	S25	87,0	3,43	3,0	0,12	34,8	1,37	46,0	1,811	1.13/16"
FS43B-16-42	25	1"	16	M42X2	S30	89,0	3,50	6,0	0,24	37,3	1,47	50,0	1,969	2"
FS42B-20-42	31	1.1/4"	20	M42X2	S30	102,5	4,04	6,0	0,24	41,7	1,64	50,0	1,969	2"
FS43B-20-52	31	1.1/4"	20	M52X2	S38	121,3	4,78	6,5	0,26	45,6	1,80	60,0	2,362	2.3/8"
FS43B-24-52	38	1.1/2"	24	M52X2	S38	121,0	4,76	6,5	0,26	50,2	1,98	60,0	2,362	2.3/8"



← **FS43B FS42B**

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**Nut type**



- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC**
- JIC
- ORFS
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK



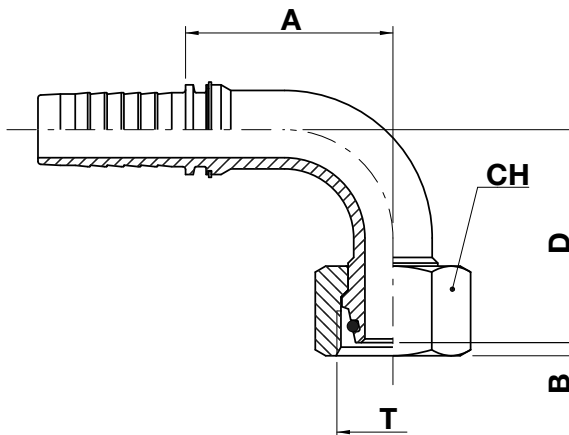
# FS93B FS92B



## Metric heavy female swivel - 90° elbow (24° cone seat)

NO SKIVE / EXTERNAL SKIVE

ISO 8434-1 / DIN 3865



FERRULE

## FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

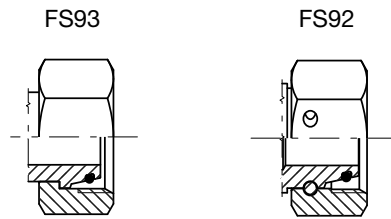
code	ø hose			T	pipe	A		B		D		CH		
	dn	inch	size			mm	in	mm	in	mm	in	mm	in	in
FS93B-04-14	6	1/4"	04	M14X1,5	S6	28,0	1,10	2,5	0,10	31,8	1,25	17,0	0,669	11/16"
FS93B-04-16	6	1/4"	04	M16X1,5	S8	28,2	1,11	2,5	0,10	32,5	1,28	19,0	0,748	3/4"
FS93B-04-18	6	1/4"	04	M18X1,5	S10	28,2	1,11	2,0	0,08	34,5	1,36	22,0	0,866	7/8"
FS93B-05-20	8	5/16"	05	M20X1,5	S12	30,5	1,20	2,0	0,08	36,0	1,42	24,0	0,945	15/16"
FS92B-06-18	10	3/8"	06	M18X1,5	S10	30,5	1,20	2,0	0,08	36,0	1,42	22,0	0,866	7/8"
FS93B-06-20	10	3/8"	06	M20X1,5	S12	30,5	1,20	2,0	0,08	36,0	1,42	24,0	0,945	15/16"
FS93B-06-22	10	3/8"	06	M22X1,5	S14	31,5	1,24	4,0	0,16	40,0	1,57	27,0	1,063	1.1/16"
FS93B-08-24	12	1/2"	08	M24X1,5	S16	38,2	1,50	3,0	0,12	42,5	1,67	30,0	1,181	1.3/16"
FS93B-10-30	16	5/8"	10	M30X2	S20	54,0	2,13	3,5	0,14	55,0	2,17	36,0	1,417	1.7/16"
FS93B-10-36	16	5/8"	10	M36X2	S25	56,0	2,20	3,0	0,12	60,0	2,36	46,0	1,811	1.13/16"
FS92B-12-24	19	3/4"	12	M24X1,5	S16	56,0	2,20	3,0	0,12	57,5	2,26	30,0	1,181	1.3/16"
FS93B-12-30	19	3/4"	12	M30X2	S20	55,5	2,19	3,5	0,14	57,0	2,24	36,0	1,417	1.7/16"
FS93B-12-36	19	3/4"	12	M36X2	S25	55,5	2,19	3,0	0,12	60,0	2,36	46,0	1,811	1.13/16"
FS93B-16-36	25	1"	16	M36X2	S25	74,0	2,91	3,0	0,12	71,5	2,81	46,0	1,811	1.13/16"
FS93B-16-42	25	1"	16	M42X2	S30	74,0	2,91	6,0	0,24	75,0	2,95	50,0	1,969	2"
FS92B-20-42	31	1.1/4"	20	M42X2	S30	85,5	3,37	6,0	0,24	83,0	3,27	50,0	1,969	2"
FS93B-20-52	31	1.1/4"	20	M52X2	S38	102,0	4,02	6,5	0,26	95,6	3,76	60,0	2,362	2.3/8"
FS93B-24-52	38	1.1/2"	24	M52X2	S38	103,0	4,06	6,5	0,26	101,5	4,00	60,0	2,362	2.3/8"



← **FS93B FS92B**

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**Nut type**



.....  
FERRULE  
.....

**FITTING**

BSP-BSPT

**METRIC**

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

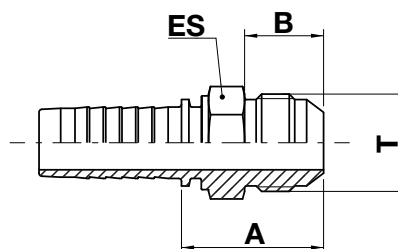
STAPLE LOCK



# MJ10B

**JIC 37° male****NO SKIVE / EXTERNAL SKIVE**

ISO 8434-2 / SAE J514



FERRULE

**FITTING**

BSP-BSPT

METRIC

**JIC**

ORFS

SAE


NPTF-NPSM

JIS

SAE 3000 CODE 61


SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	 in
MJ10B-03-04	5	3/16"	03	7/16"-20	25,8	1,02	14,0	0,55	14,0	0,551	9/16"
MJ10B-04-04	6	1/4"	04	7/16"-20	26,5	1,04	14,0	0,55	14,0	0,551	9/16"
MJ10B-04-05	6	1/4"	04	1/2"-20	26,5	1,04	14,0	0,55	14,0	0,551	9/16"
MJ10B-04-06	6	1/4"	04	9/16"-18	27,5	1,08	14,0	0,55	17,0	0,669	11/16"
MJ10B-05-05	8	5/16"	05	1/2"-20	26,5	1,04	14,0	0,55	14,0	0,551	9/16"
MJ10B-05-06	8	5/16"	05	9/16"-18	27,5	1,08	14,1	0,56	17,0	0,669	11/16"
MJ10B-06-06	10	3/8"	06	9/16"-18	27,5	1,08	14,1	0,56	17,0	0,669	11/16"
MJ10B-06-08	10	3/8"	06	3/4"-16	30,2	1,19	16,7	0,66	19,0	0,748	3/4"
MJ10B-06-10	10	3/8"	06	7/8"-14	34,8	1,37	19,3	0,76	24,0	0,945	15/16"
MJ10B-08-06	12	1/2"	08	9/16"-18	28,1	1,11	14,1	0,56	19,0	0,748	3/4"
MJ10B-08-08	12	1/2"	08	3/4"-16	30,7	1,21	16,7	0,66	19,0	0,748	3/4"
MJ10B-08-10	12	1/2"	08	7/8"-14	35,0	1,38	19,3	0,76	24,0	0,945	15/16"
MJ10B-08-12	12	1/2"	08	1.1/16"-12	39,0	1,54	21,9	0,86	27,0	1,063	1.1/16"
MJ10B-10-08	16	5/8"	10	3/4"-16	33,5	1,32	16,7	0,66	24,0	0,945	15/16"
MJ10B-10-10	16	5/8"	10	7/8"-14	35,0	1,38	19,3	0,76	24,0	0,945	15/16"
MJ10B-10-12	16	5/8"	10	1.1/16"-12	39,0	1,54	21,9	0,86	27,0	1,063	1.1/16"
MJ10B-12-10	19	3/4"	12	7/8"-14	36,5	1,44	19,3	0,76	27,0	1,063	1.1/16"
MJ10B-12-12	19	3/4"	12	1.1/16"-12	39,4	1,55	21,9	0,86	27,0	1,063	1.1/16"
MJ10B-12-14	19	3/4"	12	1.3/16"-12	40,0	1,57	22,6	0,89	32,0	1,260	1.1/4"



## ← MJ10B

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	 in
MJ10B-12-16	19	3/4"	12	1.5/16"-12	45,5	1,79	23,1	0,91	36,0	1,417	1.7/16"
MJ10B-16-16	25	1"	16	1.5/16"-12	47,1	1,85	23,1	0,91	36,0	1,417	1.7/16"
MJ10B-16-20	25	1"	16	1.5/8"-12	58,5	2,30	24,3	0,96	46,0	1,811	1.13/16"
MJ10B-20-20	31	1.1/4"	20	1.5/8"-12	62,8	2,47	24,3	0,96	46,0	1,811	1.13/16"
MJ10B-24-24	38	1.1/2"	24	1.7/8"-12	66,0	2,60	27,5	1,08	50,0	1,969	2"
MJ10B-32-32	51	2"	32	2.1/2"-12	86,5	3,40	33,9	1,33	65,0	2,559	2.9/16"

.....  
FERRULE.....  
**FITTING**

BSP-BSPT

METRIC

**JIC**

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK



# FJ11B FJ13B FJ12B



## JIC 37° female swivel

NO SKIVE / EXTERNAL SKIVE

ISO 8434-2 / SAE J514

FERRULE

## FITTING

BSP-BSPT

METRIC

**JIC**

ORFS

SAE

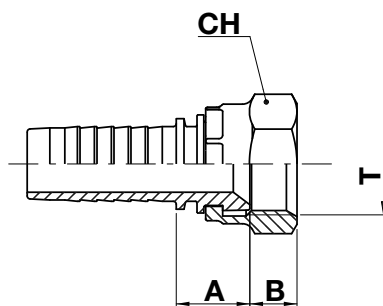
NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62


STAPLE LOCK



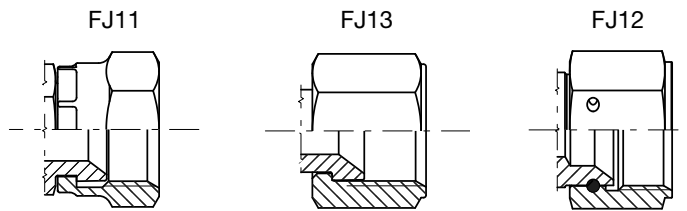
code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	in
FJ11B-04-04	6	1/4"	04	7/16"-20	14,5	0,57	8,7	0,34	14,0	0,551	9/16"
FJ11B-04-05	6	1/4"	04	1/2"-20	15,5	0,61	9,5	0,37	17,0	0,669	11/16"
FJ13B-04-06	6	1/4"	04	9/16"-18	15,5	0,61	9,5	0,37	19,0	0,748	3/4"
FJ13B-04-08	6	1/4"	04	3/4"-16	18,5	0,73	10,7	0,42	22,0	0,866	7/8"
FJ11B-05-05	8	5/16"	05	1/2"-20	15,5	0,61	9,5	0,37	17,0	0,669	11/16"
FJ11B-05-06	8	5/16"	05	9/16"-18	17,0	0,67	9,5	0,37	19,0	0,748	3/4"
FJ11B-06-06	10	3/8"	06	9/16"-18	17,0	0,67	9,5	0,37	19,0	0,748	3/4"
FJ13B-06-08	10	3/8"	06	3/4"-16	18,5	0,73	10,7	0,42	22,0	0,866	7/8"
FJ11B-08-08	12	1/2"	08	3/4"-16	18,5	0,73	10,7	0,42	22,0	0,866	7/8"
FJ13B-08-10	12	1/2"	08	7/8"-14	20,5	0,81	12,5	0,49	27,0	1,063	1.1/16"
FJ11B-08-12	12	1/2"	08	1.1/16"-12	23,0	0,91	14,3	0,56	32,0	1,260	1.1/4"
FJ11B-10-10	16	5/8"	10	7/8"-14	21,0	0,83	12,7	0,50	27,0	1,063	1.1/16"
FJ11B-10-12	16	5/8"	10	1.1/16"-12	22,2	0,87	14,3	0,56	32,0	1,260	1.1/4"
FJ11B-12-12	19	3/4"	12	1.1/16"-12	21,0	0,83	13,8	0,54	32,0	1,260	1.1/4"
FJ11B-12-16	19	3/4"	12	1.5/16"-12	28,5	1,12	15,1	0,59	38,0	1,496	1.1/2"
FJ11B-16-16	25	1"	16	1.5/16"-12	26,5	1,04	15,1	0,59	38,0	1,496	1.1/2"
FJ12B-16-20	25	1"	16	1.5/8"-12	30,0	1,18	16,0	0,63	50,0	1,969	2"
FJ11B-20-16	31	1.1/4"	20	1.5/16"-12	29,5	1,16	15,1	0,59	38,0	1,496	1.1/2"
FJ12B-20-20	31	1.1/4"	20	1.5/8"-12	29,0	1,14	16,0	0,63	50,0	1,969	2"



← **FJ11B FJ13B FJ12B**

code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	 in
FJ12B-20-24	31	1.1/4"	20	1.7/8"-12	31,4	1,24	18,5	0,73	55,0	2,165	2.3/16"
FJ12B-24-24	38	1.1/2"	24	1.7/8"-12	31,4	1,24	18,5	0,73	55,0	2,165	2.3/16"
FJ12B-32-32	51	2"	32	2.1/2"-12	38,0	1,50	24,0	0,94	75,0	2,953	-

**Nut type**



- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC**
- ORFS
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK



# FJH11B

FJH16B FJH12B



## JIC 37° female swivel (double hex)

NO SKIVE / EXTERNAL SKIVE

ISO 8434-2 / SAE J514

FERRULE

## FITTING

BSP-BSPT

METRIC

**JIC**

ORFS

SAE

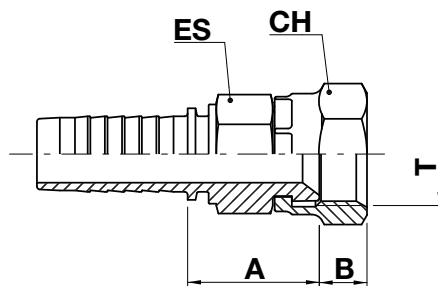
NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62



STAPLE LOCK



code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	↗ in	mm	in	↗ in
FJH11B-03-04	5	3/16"	03	7/16"-20	19,5	0,77	8,7	0,34	11,11	0,437	7/16"	14,0	0,551	9/16"
FJH16B-03-05	5	3/16"	03	1/2"-20	20,8	0,82	9,5	0,37	14,0	0,551	9/16"	17,46	0,687	11/16"
FJH11B-04-04	6	1/4"	04	7/16"-20	20,8	0,82	8,7	0,34	14,0	0,551	9/16"	14,0	0,551	9/16"
FJH11B-04-05	6	1/4"	04	1/2"-20	21,5	0,85	9,5	0,37	14,0	0,551	9/16"	17,0	0,669	11/16"
FJH11B-04-06	6	1/4"	04	9/16"-18	23,0	0,91	9,5	0,37	14,0	0,551	9/16"	19,0	0,748	3/4"
FJH16B-04-06	6	1/4"	04	9/16"-18	23,0	0,91	9,5	0,37	14,0	0,551	9/16"	17,46	0,687	11/16"
FJH11B-05-06	8	5/16"	05	9/16"-18	21,0	0,83	9,5	0,37	14,0	0,551	9/16"	19,0	0,748	3/4"
FJH16B-05-06	8	5/16"	05	9/16"-18	21,0	0,83	9,5	0,37	14,0	0,551	9/16"	17,46	0,687	11/16"
FJH11B-06-04	10	3/8"	06	7/16"-20	22,0	0,87	8,7	0,34	17,0	0,669	11/16"	14,0	0,551	9/16"
FJH11B-06-05	10	3/8"	06	1/2"-20	22,5	0,89	9,5	0,37	17,0	0,669	11/16"	17,0	0,669	11/16"
FJH16B-06-05	10	3/8"	06	1/2"-20	22,5	0,89	9,5	0,37	17,46	0,687	11/16"	17,46	0,687	11/16"
FJH11B-06-06	10	3/8"	06	9/16"-18	24,0	0,94	9,5	0,37	17,0	0,669	11/16"	19,0	0,748	3/4"
FJH16B-06-06	10	3/8"	06	9/16"-18	24,0	0,94	9,5	0,37	17,0	0,669	11/16"	17,46	0,687	11/16"
FJH11B-06-08	10	3/8"	06	3/4"-16	26,0	1,02	10,7	0,42	19,0	0,748	3/4"	22,0	0,866	7/8"
FJH11B-06-10	10	3/8"	06	7/8"-14	28,5	1,12	12,7	0,50	22,0	0,866	7/8"	27,0	1,063	1.1/16"
FJH11B-06-12	10	3/8"	06	1.1/16"-12	33,5	1,32	14,3	0,56	27,0	1,063	1.1/16"	32,0	1,260	1.1/4"
FJH11B-08-06	12	1/2"	08	9/16"-18	26,5	1,04	9,5	0,37	19,0	0,748	3/4"	19,0	0,748	3/4"
FJH16B-08-06	12	1/2"	08	9/16"-18	26,5	1,04	9,5	0,37	19,0	0,748	3/4"	17,46	0,687	11/16"
FJH11B-08-08	12	1/2"	08	3/4"-16	26,5	1,04	10,7	0,42	19,0	0,748	3/4"	22,0	0,866	7/8"

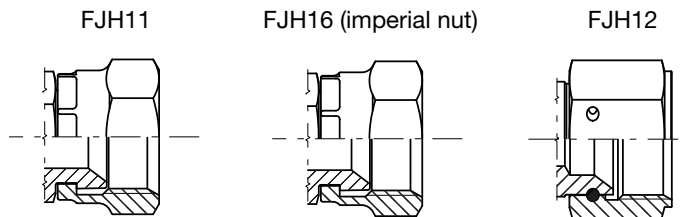


← **FJH11B FJH16B FJH12B**

code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	 in	mm	in	 in
FJH11B-08-10	12	1/2"	08	7/8"-14	28,5	1,12	12,7	0,50	22,0	0,866	7/8"	27,0	1,063	1.1/16"
FJH11B-08-12	12	1/2"	08	1.1/16"-12	34,0	1,34	14,3	0,56	27,0	1,063	1.1/16"	32,0	1,260	1.1/4"
FJH11B-08-16	12	1/2"	08	1.5/16"-12	41,5	1,63	15,1	0,61	32,0	1,216	1.1/4"	38,0	1,496	1.1/2"
FJH11B-10-08	16	5/8"	10	3/4"-16	28,5	1,12	10,7	0,42	22,0	0,866	7/8"	22,0	0,866	7/8"
FJH11B-10-10	16	5/8"	10	7/8"-14	28,5	1,12	12,7	0,50	22,0	0,866	7/8"	27,0	1,063	1.1/16"
FJH11B-10-12	16	5/8"	10	1.1/16"-12	34,0	1,34	14,3	0,56	27,0	1,063	1.1/16"	32,0	1,260	1.1/4"
FJH11B-12-10	19	3/4"	12	7/8"-14	35,0	1,38	12,7	0,50	27,0	1,063	1.1/16"	27,0	1,063	1.1/16"
FJH11B-12-12	19	3/4"	12	1.1/16"-12	34,5	1,36	14,3	0,56	27,0	1,063	1.1/16"	32,0	1,260	1.1/4"
FJH11B-12-14	19	3/4"	12	1.3/16"-12	31,0	1,22	14,5	0,57	30,0	1,181	1.3/16"	36,0	1,417	1.7/16"
FJH11B-12-16	19	3/4"	12	1.5/16"-12	38,5	1,51	15,1	0,61	32,0	1,216	1.1/4"	38,0	1,496	1.1/2"
FJH11B-16-12	25	1"	16	1.1/16"-12	38,0	1,50	14,3	0,56	32,0	1,216	1.1/4"	32,0	1,260	1.1/4"
FJH11B-16-16	25	1"	16	1.5/16"-12	38,0	1,50	15,1	0,59	32,0	1,216	1.1/4"	38,0	1,496	1.1/2"
FJH12B-20-20	31	1.1/4"	20	1.5/8"-12	49,5	1,95	16,0	0,63	41,0	1,614	1.5/8"	50,0	1,969	2"
FJH12B-24-24	38	1.1/2"	24	1.7/8"-12	56,9	2,24	18,5	0,73	50,0	1,969	2"	55,0	2,165	2.3/16"
FJH12B-32-32	51	2"	32	2.1/2"-12	74,0	2,91	24,0	0,94	65,0	2,559	2.9/16"	75,0	2,953	1.1/4"

.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
**JIC**  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

**Nut type**



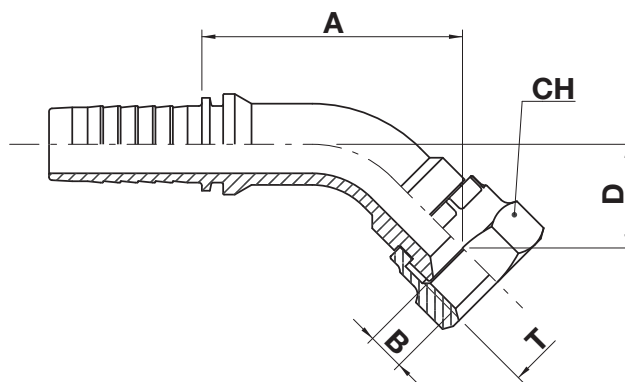
# FJ41B FJ46B FJ43B FJ42B



## JIC 37° female swivel - 45° elbow

NO SKIVE / EXTERNAL SKIVE

ISO 8434-2 / SAE J514



FERRULE

## FITTING

BSP-BSPT

METRIC

**JIC**

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61


SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	in
FJ41B-03-04	5	3/16"	03	7/16"-20	30,3	1,19	8,7	0,34	14,1	0,55	14,0	0,551	9/16"
FJ41B-04-04	6	1/4"	04	7/16"-20	32,0	1,26	8,7	0,34	11,1	0,44	14,0	0,551	9/16"
FJ41B-04-05	6	1/4"	04	1/2"-20	34,5	1,36	9,5	0,37	14,8	0,58	17,0	0,669	11/16"
FJ43B-04-06	6	1/4"	04	9/16"-18	33,1	1,30	9,5	0,37	13,4	0,53	19,0	0,748	3/4"
FJ46B-04-06	6	1/4"	04	9/16"-18	33,1	1,30	9,5	0,37	13,4	0,53	17,46	0,687	11/16"
FJ41B-05-05	8	5/16"	05	1/2"-20	38,5	1,51	9,5	0,37	14,8	0,59	17,0	0,669	11/16"
FJ41B-05-06	8	5/16"	05	9/16"-18	30,9	1,22	9,5	0,37	12,1	0,48	19,0	0,748	3/4"
FJ46B-05-06	8	5/16"	05	9/16"-18	30,9	1,22	9,5	0,37	12,1	0,48	17,46	0,687	11/16"
FJ41B-06-05	10	3/8"	06	1/2"-20	38,5	1,51	9,5	0,37	14,8	0,59	17,0	0,669	11/16"
FJ41B-06-06	10	3/8"	06	9/16"-18	33,9	1,33	9,5	0,37	12,1	0,48	19,0	0,748	3/4"
FJ46B-06-06	10	3/8"	06	9/16"-18	33,9	1,33	9,5	0,37	12,1	0,48	17,46	0,687	11/16"
FJ43B-06-08	10	3/8"	06	3/4"-16	42,5	1,67	10,7	0,42	15,0	0,59	22,0	0,866	7/8"
FJ43B-06-10	10	3/8"	06	7/8"-14	50,5	1,99	12,5	0,49	19,4	0,76	27,0	1,063	1.1/16"
FJ41B-08-08	12	1/2"	08	3/4"-16	40,7	1,60	10,7	0,42	13,8	0,54	22,0	0,866	7/8"
FJ43B-08-10	12	1/2"	08	7/8"-14	44,0	1,73	12,5	0,49	16,0	0,63	27,0	1,063	1.1/16"
FJ41B-08-12	12	1/2"	08	1.1/16"-12	60,5	2,38	14,3	0,56	21,0	0,83	32,0	1,260	1.1/4"
FJ41B-10-10	16	5/8"	10	7/8"-14	54,0	2,13	12,7	0,50	16,0	0,63	27,0	1,063	1.1/16"
FJ41B-10-12	16	5/8"	10	1.1/16"-12	60,5	2,38	14,3	0,56	21,0	0,83	32,0	1,260	1.1/4"
FJ41B-12-12	19	3/4"	12	1.1/16"-12	64,5	2,54	14,3	0,56	21,0	0,83	32,0	1,260	1.1/4"

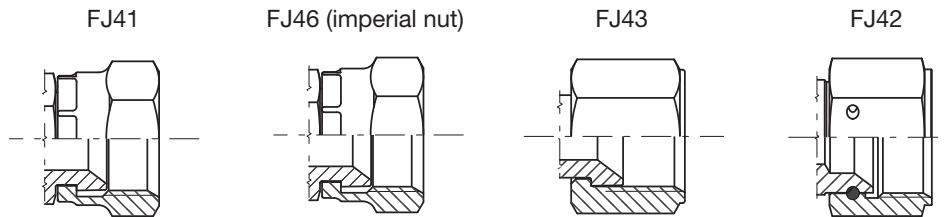


← **FJ41B FJ46B FJ43B FJ42B**

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	 in
FJ41B-12-16	19	3/4"	12	1.5/16"-12	71,5	2,81	15,1	0,61	31,8	1,25	38,0	1,496	1.1/2"
FJ41B-16-16	25	1"	16	1.5/16"-12	86,0	3,38	15,1	0,61	34,5	1,35	38,0	1,496	1.1/2"
FJ41B-20-16	31	1.1/4"	20	1.5/16"-12	97,0	3,81	15,1	0,61	34,5	1,35	38,0	1,496	1.1/2"
FJ42B-20-20	31	1.1/4"	20	1.5/8"-12	97,0	3,82	16,0	0,63	37,5	1,48	50,0	1,969	2"
FJ42B-24-24	38	1.1/2"	24	1.7/8"-12	119,0	4,69	18,5	0,73	49,2	1,94	55,0	2,165	2.3/16"
FJ42B-32-32	51	2"	32	2.1/2"-12	152,6	6,01	24,0	0,94	68,8	2,71	75,0	2,953	1.1/4"

- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC**
- ORFS
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

**Nut type**



# FJ91B

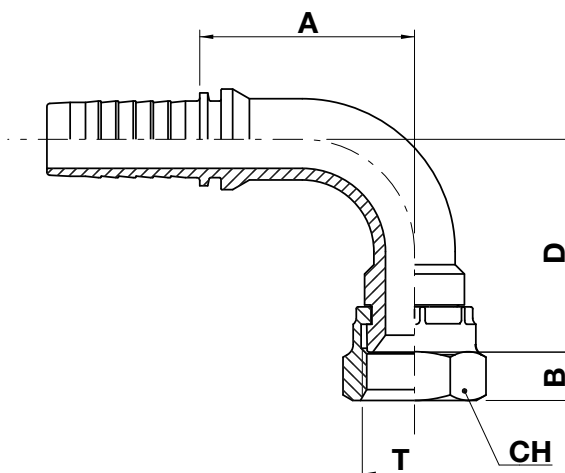
FJ96B FJ93B FJ92B



## JIC 37° female swivel - 90° elbow

NO SKIVE / EXTERNAL SKIVE

ISO 8434-2 / SAE J514



FERRULE

## FITTING

BSP-BSPT

METRIC

**JIC**

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	in
FJ91B-03-04	5	3/16"	03	7/16"-20	26,5	1,04	8,7	0,34	21,0	0,83	14,0	0,551	9/16"
FJ91B-04-04	6	1/4"	04	7/16"-20	27,0	1,06	8,7	0,34	21,0	0,83	14,0	0,551	9/16"
FJ91B-04-05	6	1/4"	04	1/2"-20	30,8	1,21	9,5	0,37	30,0	1,18	17,0	0,669	11/16"
FJ96B-04-05	6	1/4"	04	1/2"-20	30,8	1,21	9,5	0,37	30,0	1,18	17,46	0,687	11/16"
FJ91B-04-06	6	1/4"	04	9/16"-18	28,5	1,12	9,5	0,37	23,0	0,91	19,0	0,748	3/4"
FJ93B-04-06	6	1/4"	04	9/16"-18	28,5	1,12	9,5	0,37	28,0	1,10	19,0	0,748	3/4"
FJ96B-04-06	6	1/4"	04	9/16"-18	28,5	1,12	9,5	0,37	23,0	0,91	17,46	0,687	11/16"
FJ91B-05-05	8	5/16"	05	1/2"-20	32,8	1,26	9,5	0,37	30,0	1,18	17,0	0,669	11/16"
FJ91B-05-06	8	5/16"	05	9/16"-18	26,8	1,06	9,5	0,37	23,0	0,91	19,0	0,748	3/4"
FJ96B-05-06	8	5/16"	05	9/16"-18	26,8	1,06	9,5	0,37	23,0	0,91	17,46	0,687	11/16"
FJ91B-06-05	10	3/8"	06	1/2"-20	33,0	1,30	9,5	0,37	30,0	1,18	17,0	0,669	11/16"
FJ91B-06-06	10	3/8"	06	9/16"-18	27,8	1,09	9,5	0,37	23,0	0,91	19,0	0,748	3/4"
FJ96B-06-06	10	3/8"	06	9/16"-18	27,8	1,09	9,5	0,37	23,0	0,91	17,46	0,687	11/16"
FJ93B-06-08	10	3/8"	06	3/4"-16	35,0	1,38	10,7	0,42	30,0	1,18	22,0	0,866	7/8"
FJ93B-06-10	10	3/8"	06	7/8"-14	37,1	1,46	12,5	0,49	38,0	1,50	27,0	1,063	1.1/16"
FJ91B-08-06	12	1/2"	08	9/16"-18	33,5	1,32	9,5	0,37	23,0	0,91	19,0	0,748	3/4"
FJ96B-08-06	12	1/2"	08	9/16"-18	33,5	1,32	9,5	0,37	23,0	0,91	17,46	0,687	11/16"
FJ91B-08-08	12	1/2"	08	3/4"-16	39,5	1,56	10,7	0,42	30,0	1,18	22,0	0,866	7/8"
FJ93B-08-10	12	1/2"	08	7/8"-14	44,0	1,73	12,5	0,49	32,0	1,26	27,0	1,063	1.1/16"

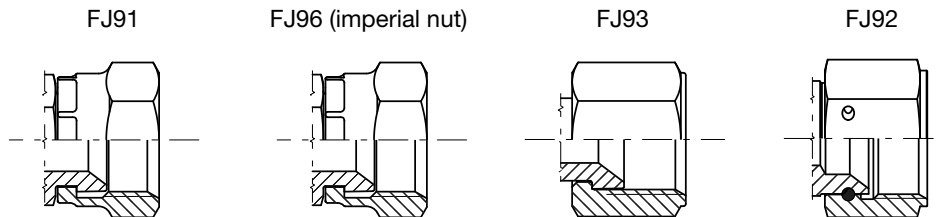


← **FJ91B FJ96B FJ93B FJ92B**

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FJ91B-08-12	12	1/2"	08	1.1/16"-12	44,0	1,73	14,3	0,56	48,0	1,89	32,0	1,260	1.1/4"
FJ91B-10-10	16	5/8"	10	7/8"-14	48,5	1,91	12,5	0,49	32,0	1,26	27,0	1,063	1.1/16"
FJ91B-10-12	16	5/8"	10	1.1/16"-12	56,0	2,20	14,3	0,56	48,0	1,89	32,0	1,260	1.1/4"
FJ91B-12-12	19	3/4"	12	1.1/16"-12	61,0	2,40	14,3	0,56	48,0	1,89	32,0	1,260	1.1/4"
FJ91B-12-16	19	3/4"	12	1.5/16"-12	55,5	2,19	15,1	0,61	62,0	2,44	38,0	1,496	1.1/2"
FJ91B-16-16	25	1"	16	1.5/16"-12	75,5	2,97	15,1	0,61	71,0	2,80	38,0	1,496	1.1/2"
FJ92B-16-20	25	1"	16	1.5/8"-12	79,5	3,13	16,0	0,63	79,5	3,13	50,0	1,969	2"
FJ91B-20-16	31	1.1/4"	20	1.5/16"-12	86,0	3,38	15,1	0,61	71,0	2,80	38,0	1,496	1.1/2"
FJ92B-20-20	31	1.1/4"	20	1.5/8"-12	85,5	3,37	16,0	0,63	77,0	3,03	50,0	1,969	2"
FJ92B-20-24	31	1.1/4"	20	1.7/8"-12	85,5	3,37	18,5	0,73	88,0	3,46	55,0	2,165	2.3/16"
FJ92B-24-24	38	1.1/2"	24	1.7/8"-12	102,0	4,02	18,5	0,73	100,0	3,94	55,0	2,165	2.3/16"
FJ92B-32-32	51	2"	32	2.1/2"-12	130,5	5,14	24,0	0,94	140,0	5,51	75,0	2,953	-

.....  
 FERRULE  
 .....  
**FITTING**  
 BSP-BSPT  
 METRIC  
**JIC**  
 ORFS  
 SAE  
 NPTF-NPSM  
 JIS  
 SAE 3000 CODE 61  
 SAE 6000 CODE 62  
 STAPLE LOCK

**Nut type**

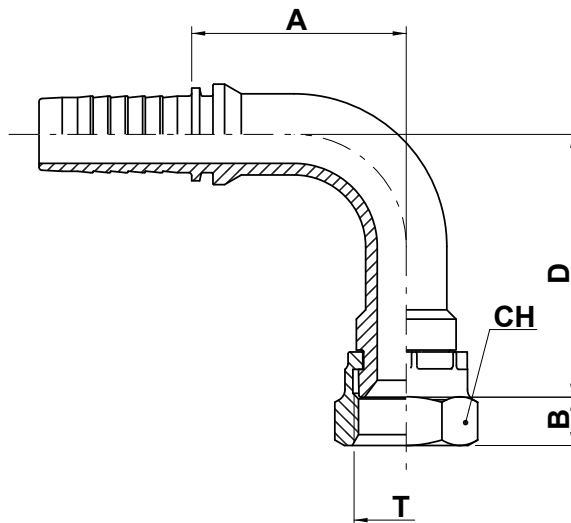


## FJ91B-M FJ93B-M

JIC 37° female swivel - 90° elbow (medium drop)

NO SKIVE / EXTERNAL SKIVE

ISO 8434-2 / SAE J514



FERRULE

**FITTING**

BSP-BSPT

METRIC

**JIC**

ORFS

SAE

NPTF-NPSM

JIS

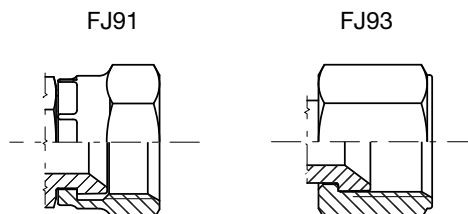
SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↗ in
FJ91B-04-04-M	6	1/4"	04	7/16"-20	27,0	1,06	8,7	0,34	32,0	1,26	14,0	0,551	9/16"
FJ93B-04-06-M	6	1/4"	04	9/16"-18	28,5	1,12	9,5	0,37	38,0	1,50	19,0	0,748	3/4"
FJ91B-06-06-33	10	3/8"	06	9/16"-18	27,8	1,09	9,5	0,37	33,0	1,30	19,0	0,748	3/4"
FJ91B-06-06-M	10	3/8"	06	9/16"-18	27,8	1,09	9,5	0,37	38,0	1,50	19,0	0,748	3/4"
FJ93B-06-08-M	10	3/8"	06	3/4"-16	35,0	1,38	10,7	0,42	41,0	1,73	22,0	0,866	7/8"
FJ91B-08-08-M	12	1/2"	08	3/4"-16	39,5	1,56	10,7	0,42	41,0	1,73	22,0	0,866	7/8"
FJ93B-08-10-M	16	5/8"	10	7/8"-14	44,0	1,73	12,5	0,49	47,0	1,85	27,0	1,062	1.1/16"
FJ91B-08-12-M	12	1/2"	08	1.1/16"-12	46,5	1,83	14,3	0,56	58,0	2,28	32,0	1,260	1.1/4"
FJ91B-10-10-M	16	5/8"	10	7/8"-14	48,5	1,91	12,5	0,49	47,0	1,85	27,0	1,062	1.1/16"
FJ91B-10-12-M	16	5/8"	10	1.1/16"-12	55,0	2,17	14,3	0,56	58,0	2,28	32,0	1,260	1.1/4"
FJ91B-12-12-M	19	3/4"	12	1.1/16"-12	56,0	2,20	14,3	0,56	58,0	2,28	32,0	1,260	1.1/4"

**Nut type**



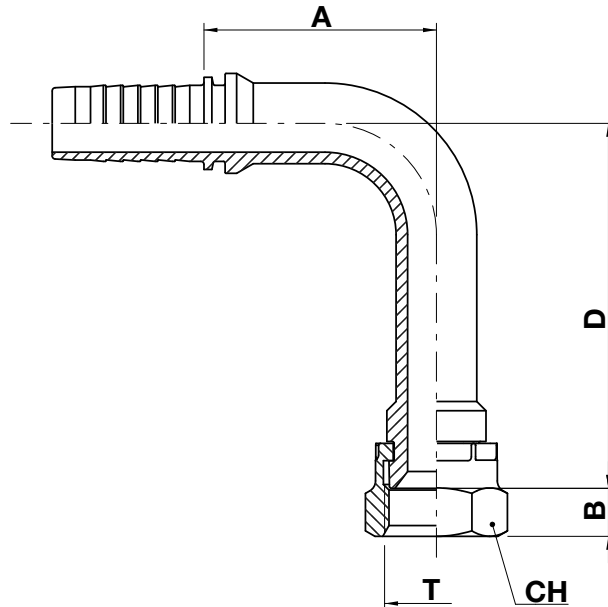
# FJ91B-L FJ96B-L FJ93B-L FJ92B-L



## JIC 37° female swivel - 90° elbow (long drop)

NO SKIVE / EXTERNAL SKIVE

ISO 8434-2 / SAE J514



- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC**
- ORFS
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FJ91B-04-04-L	6	1/4"	04	7/16"-20	27,0	1,06	8,7	0,34	46,0	1,81	14,0	0,551	9/16"
FJ91B-04-05-L	6	1/4"	04	1/2"-20	30,8	1,21	9,5	0,37	46,0	1,81	17,0	0,669	11/16"
FJ96B-04-05-L	6	1/4"	04	1/2"-20	30,8	1,21	9,5	0,37	46,0	1,81	17,46	0,687	11/16"
FJ91B-04-06-L	6	1/4"	04	9/16"-18	28,5	1,12	9,5	0,37	56,0	2,20	19,0	0,748	3/4"
FJ93B-04-06-L	6	1/4"	04	9/16"-18	28,5	1,12	9,5	0,37	56,0	2,20	19,0	0,748	3/4"
FJ96B-04-06-L	6	1/4"	04	9/16"-18	28,5	1,12	9,5	0,37	56,0	2,20	17,46	0,687	11/16"
FJ91B-05-06-L	8	5/16"	05	9/16"-18	26,8	1,06	9,5	0,37	56,0	2,20	19,0	0,748	3/4"
FJ91B-06-06-L	10	3/8"	06	9/16"-18	27,8	1,09	9,5	0,37	56,0	2,20	19,0	0,748	3/4"
FJ93B-06-08-L	10	3/8"	06	3/4"-16	35,0	1,38	10,7	0,42	62,0	2,44	22,0	0,866	7/8"
FJ91B-08-08-L	12	1/2"	08	3/4"-16	39,5	1,56	10,7	0,42	62,0	2,44	22,0	0,866	7/8"
FJ91B-10-10-65	16	5/8"	10	7/8"-14	54,0	2,13	12,5	0,49	65,0	2,56	27,0	1,063	1.1/16"
FJ91B-10-10-L	16	5/8"	10	7/8"-14	54,0	2,13	12,5	0,49	70,0	2,76	27,0	1,063	1.1/16"
FJ91B-10-12-L	16	5/8"	10	1.1/16"-12	55,0	2,16	14,3	0,56	96,0	3,78	32,0	1,260	1.1/4"
FJ91B-12-12-L	19	3/4"	12	1.1/16"-12	55,5	2,19	14,3	0,56	96,0	3,78	32,0	1,260	1.1/4"
FJ91B-16-16-110	25	1"	16	1.5/16"-12	75,5	2,97	15,1	0,61	110,0	4,33	38,0	1,496	1.1/2"
FJ91B-16-16-L	25	1"	16	1.5/16"-12	75,5	2,97	15,1	0,61	114,0	4,33	38,0	1,496	1.1/2"
FJ92B-16-20-L	25	1"	16	1.5/8"-12	79,5	3,13	16,0	0,63	129,0	5,07	50,0	1,969	2"
FJ92B-20-20-95	31	1.1/4"	20	1.5/8"-12	85,5	3,37	16,0	0,63	95,0	3,74	50,0	1,969	2"
FJ92B-20-20-L	31	1.1/4"	20	1.5/8"-12	85,5	3,37	16,0	0,63	129,0	5,07	50,0	1,969	2"



← **FJ91B-L FJ96B-L FJ93B-L FJ92B-L**

FERRULE

**FITTING**

BSP-BSPT

METRIC

**JIC**

ORFS

SAE

NPTF-NPSM

JIS

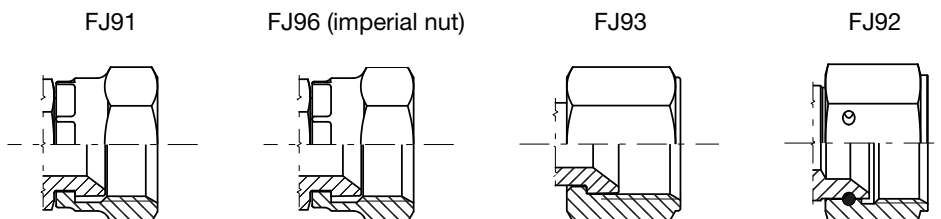
SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FJ92B-20-24-L	31	1.1/4"	20	1.7/8"-12	85,5	3,37	18,5	0,73	141,0	5,55	55,0	2,165	2.3/16"
FJ92B-24-24-L	38	1.1/2"	24	1.7/8"-12	102,0	4,02	18,5	0,73	141,0	5,55	55,0	2,165	2.3/16"
FJ92B-32-32-L	51	2"	32	2.1/2"-12	130,5	5,14	24,0	0,94	222,0	8,74	75,0	2,953	-

**Nut type**

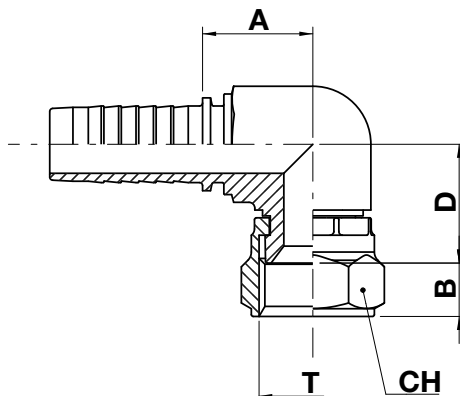


# KJ91B

## JIC 37° female swivel - 90° compact elbow

NO SKIVE / EXTERNAL SKIVE

ISO 8434-2 / SAE J514



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
**JIC**  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

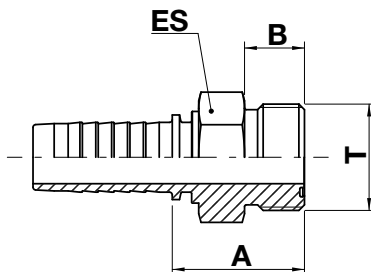
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	 in
KJ91B-04-04	6	1/4"	04	7/16"-20	18,5	0,73	8,7	0,34	19,6	0,77	14,0	0,551	9/16"
KJ91B-04-06	6	1/4"	04	9/16"-18	18,5	0,73	8,5	0,33	21,5	0,85	19,0	0,748	3/4"
KJ91B-06-06	10	3/8"	06	9/16"-18	21,5	0,85	8,5	0,33	23,0	0,91	19,0	0,748	3/4"
KJ91B-06-08	10	3/8"	06	3/4"-16	21,5	0,85	10,5	0,41	24,9	0,98	22,0	0,866	7/8"
KJ91B-08-08	12	1/2"	08	3/4"-16	25,0	0,98	9,5	0,37	26,9	1,06	22,0	0,866	7/8"
KJ91B-08-10	12	1/2"	08	7/8"-14	25,0	0,98	13,0	0,51	28,3	1,11	27,0	1,063	1.1/16"
KJ91B-10-10	16	5/8"	10	7/8"-14	26,0	1,02	13,0	0,51	27,7	1,09	27,0	1,063	1.1/16"
KJ91B-10-12	16	5/8"	10	1.1/16"-12	29,0	1,14	14,5	0,57	30,7	1,21	32,0	1,260	1.1/4"
KJ91B-12-12	19	3/4"	12	1.1/16"-12	28,5	1,12	14,5	0,57	30,7	1,21	32,0	1,260	1.1/4"
KJ91B-16-16	25	1"	16	1.5/16"-12	34,0	1,34	14,5	0,57	32,5	1,28	38,0	1,496	1.1/2"

# OM19B\*

## ORFS male

NO SKIVE / EXTERNAL SKIVE

ISO 8434-3 / SAE J1453



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

**ORFS**

SAE


NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	 in
OM19B-04-04	6	1/4"	04	9/16"-18	25,3	1,00	10,0	0,40	15,0	0,591	5/8"
OM19B-04-06	6	1/4"	04	11/16"-16	26,5	1,04	11,2	0,44	19,0	0,748	3/4"
OM19B-06-06	10	3/8"	06	11/16"-16	26,5	1,04	11,2	0,44	19,0	0,748	3/4"
OM19B-06-08	10	3/8"	06	13/16"-16	29,0	1,14	13,2	0,52	22,0	0,866	7/8"
OM19B-08-08	12	1/2"	08	13/16"-16	29,5	1,16	13,2	0,52	22,0	0,866	7/8"
OM19B-08-10	12	1/2"	08	1"-14	34,0	1,34	15,7	0,62	27,0	1,063	1.1/16"
OM19B-08-12	12	1/2"	08	1.3/16"-12	37,0	1,46	17,0	0,67	32,0	1,260	1.1/4"
OM19B-10-08	16	5/8"	10	13/16"-16	29,5	1,16	13,2	0,52	22,0	0,866	7/8"
OM19B-10-10	16	5/8"	10	1"-14	34,0	1,34	15,7	0,62	27,0	1,063	1.1/16"
OM19B-10-12	16	5/8"	10	1.3/16"-12	37,0	1,46	17,0	0,67	32,0	1,260	1.1/4"
OM19B-12-10	19	3/4"	12	1"-14	34,5	1,36	15,7	0,62	27,0	1,063	1.1/16"
OM19B-12-12	19	3/4"	12	1.3/16"-12	37,5	1,48	17,0	0,67	32,0	1,260	1.1/4"
OM19B-12-16	19	3/4"	12	1.7/16"-12	40,0	1,57	17,5	0,69	41,0	1,614	1.5/8"
OM19B-16-16	25	1"	16	1.7/16"-12	41,5	1,63	17,5	0,69	41,0	1,614	1.5/8"
OM19B-16-20	25	1"	16	1.11/16"-12	41,5	1,63	17,5	0,69	46,0	1,811	1.13/16"
OM19B-20-16	31	1.1/4"	20	1.7/16"-12	43,5	1,71	17,5	0,69	41,0	1,614	1.5/8"
OM19B-20-20	31	1.1/4"	20	1.11/16"-12	43,5	1,71	17,5	0,69	46,0	1,811	1.13/16"
OM19B-20-24	31	1.1/4"	20	2"-12	42,5	1,67	17,5	0,69	55,0	2,165	2.3/16"
OM19B-24-24	38	1.1/2"	24	2"-12	42,5	1,67	17,5	0,69	55,0	2,165	2.3/16"

\* OM13B complete with O-ring

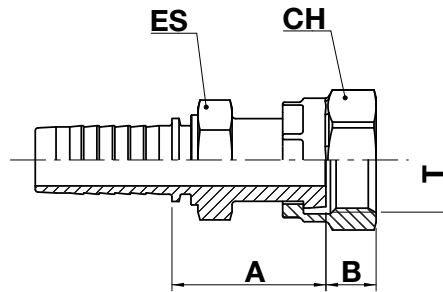
# OR13B OR12B



## ORFS female swivel

NO SKIVE / EXTERNAL SKIVE

ISO 8434-3 / SAE J1453



- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC
- ORFS**
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	↻in	mm	in	↻in
OR13B-04-04	6	1/4"	04	9/16"-18	28,0	1,10	8,0	0,31	14,0	0,551	9/16"	17,0	0,669	11/16"
OR13B-04-06	6	1/4"	04	11/16"-16	31,5	1,24	9,5	0,37	17,0	0,669	11/16"	22,0	0,866	7/8"
OR13B-05-06	8	5/16"	05	11/16"-16	32,0	1,26	9,5	0,37	17,0	0,669	11/16"	22,0	0,866	7/8"
OR13B-06-04	10	3/8"	06	9/16"-18	30,5	1,20	8,0	0,31	17,0	0,669	11/16"	17,0	0,669	11/16"
OR13B-06-06	10	3/8"	06	11/16"-16	32,0	1,26	9,5	0,37	17,0	0,669	11/16"	22,0	0,866	7/8"
OR13B-06-08	10	3/8"	06	13/16"-16	36,5	1,44	11,0	0,43	19,0	0,748	3/4"	24,0	0,945	15/16"
OR13B-08-06	12	1/2"	08	11/16"-16	33,5	1,32	9,5	0,37	19,0	0,748	3/4"	22,0	0,866	7/8"
OR13B-08-08	12	1/2"	08	13/16"-16	37,0	1,46	11,0	0,43	19,0	0,748	3/4"	24,0	0,945	15/16"
OR13B-08-10	12	1/2"	08	1"-14	39,0	1,54	13,5	0,53	24,0	0,945	15/16"	30,0	1,181	1.3/16"
OR13B-08-12	12	1/2"	08	1.3/16"-12	47,0	1,85	14,5	0,57	30,0	1,181	1.3/16"	36,0	1,417	1.7/16"
OR13B-10-10	16	5/8"	10	1"-14	39,0	1,54	13,5	0,53	24,0	0,945	15/16"	30,0	1,181	1.3/16"
OR13B-10-12	16	5/8"	10	1.3/16"-12	44,0	1,73	14,5	0,57	30,0	1,181	1.3/16"	36,0	1,417	1.7/16"
OR13B-12-10	19	3/4"	12	1"-14	42,0	1,65	13,5	0,53	27,0	1,063	1.1/16"	30,0	1,181	1.3/16"
OR13B-12-12	19	3/4"	12	1.3/16"-12	44,6	1,76	14,5	0,57	30,0	1,181	1.3/16"	36,0	1,417	1.7/16"
OR13B-12-16	19	3/4"	12	1.7/16"-12	51,5	2,03	14,8	0,58	36,0	1,417	1.7/16"	41,0	1,614	1.5/8"
OR13B-16-12	25	1"	16	1.3/16"-12	51,0	2,01	14,5	0,57	36,0	1,417	1.7/16"	36,0	1,417	1.7/16"
OR13B-16-16	25	1"	16	1.7/16"-12	53,0	2,08	14,8	0,58	36,0	1,417	1.7/16"	41,0	1,614	1.5/8"
OR12B-16-20	25	1"	16	1.11/16"-12	55,0	2,17	14,8	0,58	41,0	1,614	1.5/8"	50,0	1,969	2"
OR12B-20-20	31	1.1/4"	20	1.11/16"-12	56,0	2,20	14,8	0,58	41,0	1,614	1.5/8"	50,0	1,969	2"



← **OR13B OR12B**

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

**ORFS**

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

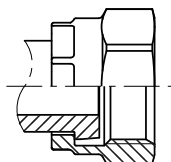
SAE 6000 CODE 62

STAPLE LOCK

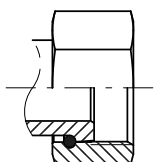
code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	↗ in	mm	in	↗ in
OR12B-20-24	31	1.1/4"	20	2"-12	60,0	2,36	14,8	0,58	50,0	1,969	2"	60,0	2,362	2.3/8"
OR12B-24-24	38	1.1/2"	24	2"-12	61,0	2,40	14,8	0,58	50,0	1,969	2"	60,0	2,362	2.3/8"

**Nut type**

OR13



OR12

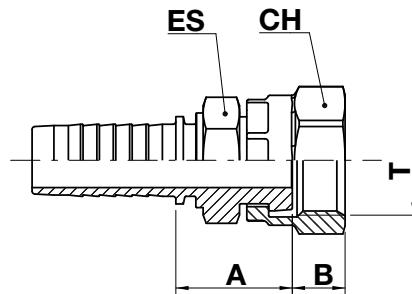


# OR11B

## ORFS short female swivel

NO SKIVE / EXTERNAL SKIVE

ISO 8434-3 / SAE J1453



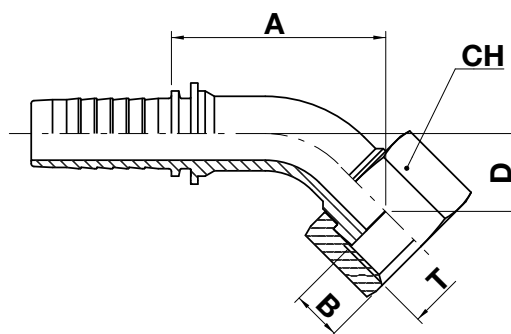
.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
**ORFS**  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	↻in	mm	in	↻in
OR11B-04-04	6	1/4"	04	9/16"-18	22,0	0,87	8,0	0,31	14,0	0,551	9/16"	17,0	0,669	11/16"
OR11B-04-06	6	1/4"	04	11/16"-16	23,5	0,92	9,5	0,37	17,0	0,669	11/16"	22,0	0,866	7/8"
OR11B-06-04	10	3/8"	06	9/16"-18	23,0	0,90	8,0	0,31	17,0	0,669	11/16"	17,0	0,669	11/16"
OR11B-06-06	10	3/8"	06	11/16"-16	23,5	0,92	9,5	0,37	17,0	0,669	11/16"	22,0	0,866	7/8"
OR11B-06-08	10	3/8"	06	13/16"-16	27,0	1,06	11,0	0,43	19,0	0,748	3/4"	24,0	0,945	15/16"
OR11B-08-06	12	1/2"	08	11/16"-16	25,0	0,98	9,5	0,37	19,0	0,748	3/4"	22,0	0,866	7/8"
OR11B-08-08	12	1/2"	08	13/16"-16	27,5	1,08	11,0	0,43	19,0	0,748	3/4"	24,0	0,945	15/16"
OR11B-08-10	12	1/2"	08	1"-14	29,0	1,14	13,5	0,53	24,0	0,945	15/16"	30,0	1,181	1.3/16"
OR11B-10-08	16	5/8"	10	13/16"-16	28,5	1,12	11,0	0,43	24,0	0,945	15/16"	24,0	0,945	15/16"
OR11B-10-10	16	5/8"	10	1"-14	29,0	1,14	13,5	0,53	24,0	0,945	15/16"	30,0	1,181	1.3/16"
OR11B-10-12	16	5/8"	10	1.3/16"-12	31,5	1,24	14,5	0,57	30,0	1,181	1.3/16"	36,0	1,417	1.7/16"
OR11B-12-12	19	3/4"	12	1.3/16"-12	32,0	1,26	14,5	0,57	30,0	1,181	1.3/16"	36,0	1,417	1.7/16"
OR11B-12-16	19	3/4"	12	1.7/16"-12	38,5	1,52	14,8	0,58	36,0	1,417	1.7/16"	41,0	1,614	1.5/8"
OR11B-16-16	25	1"	16	1.7/16"-12	40,0	1,57	14,8	0,58	36,0	1,417	1.7/16"	41,0	1,614	1.5/8"

**OR44B** OR43B OR42B**ORFS female swivel - 45° elbow**

NO SKIVE / EXTERNAL SKIVE

ISO 8434-3 / SAE J1453



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

**ORFS**

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61


SAE 6000 CODE 62

STAPLE LOCK

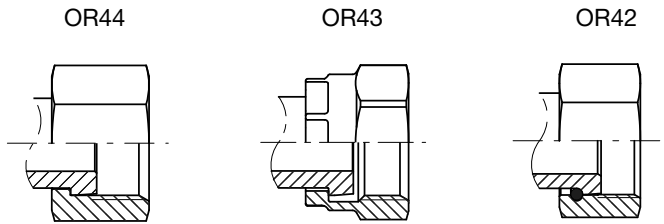
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	in
OR44B-04-04	6	1/4"	04	9/16"-18	29,5	1,16	8,0	0,31	10,0	0,39	17,0	0,669	11/16"
OR44B-04-06	6	1/4"	04	11/16"-16	29,0	1,14	9,5	0,37	11,0	0,43	22,0	0,866	7/8"
OR44B-05-06	8	5/16"	05	11/16"-16	35,5	1,40	9,5	0,37	11,0	0,43	22,0	0,866	7/8"
OR43B-06-04	10	3/8"	06	9/16"-18	32,5	1,28	8,0	0,31	10,0	0,39	17,0	0,669	11/16"
OR44B-06-06	10	3/8"	06	11/16"-16	35,5	1,40	9,5	0,37	11,0	0,43	22,0	0,866	7/8"
OR44B-06-08	10	3/8"	06	13/16"-16	38,5	1,51	11,0	0,43	15,0	0,59	24,0	0,945	15/16"
OR43B-08-06	12	1/2"	08	11/16"-16	38,5	1,51	9,5	0,37	11,0	0,43	22,0	0,866	7/8"
OR44B-08-08	12	1/2"	08	13/16"-16	43,0	1,69	11,0	0,43	15,0	0,59	24,0	0,945	15/16"
OR44B-08-10	12	1/2"	08	1"-14	43,5	1,71	13,5	0,53	16,0	0,63	30,0	1,181	1.3/16"
OR43B-08-12	12	1/2"	08	1.3/16"-12	56,5	2,22	14,5	0,57	18,9	0,74	36,0	1,417	1.7/16"
OR44B-10-10	16	5/8"	10	1"-14	51,5	2,03	13,5	0,53	14,3	0,56	30,0	1,181	1.3/16"
OR44B-10-12	16	5/8"	10	1.3/16"-12	60,5	2,38	14,5	0,57	21,0	0,83	36,0	1,417	1.7/16"
OR43B-12-10	19	3/4"	12	1"-14	67,5	2,65	13,5	0,53	15,0	0,59	30,0	1,181	1.3/16"
OR44B-12-12	19	3/4"	12	1.3/16"-12	62,0	2,44	14,5	0,57	21,0	0,83	36,0	1,417	1.7/16"
OR44B-12-16	19	3/4"	12	1.7/16"-12	63,0	2,48	14,8	0,58	24,0	0,94	41,0	1,614	1.5/8"
OR43B-16-12	25	1"	16	1.3/16"-12	71,0	2,79	14,5	0,57	22,0	0,87	36,0	1,417	1.7/16"
OR44B-16-16	25	1"	16	1.7/16"-12	73,0	2,87	14,8	0,58	24,0	0,94	41,0	1,614	1.5/8"
OR42B-16-20	25	1"	16	1.11/16"-12	91,5	3,60	14,8	0,58	37,0	1,45	50,0	1,969	2"



← **OR44B OR43B OR42B**

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	 in
OR42B-20-20	31	1.1/4"	20	1.11/16"-12	97,0	3,82	14,8	0,58	37,0	1,45	50,0	1,969	2"
OR42B-24-24	38	1.1/2"	24	2"-12	120,5	4,74	14,8	0,58	44,0	1,73	60,0	2,362	2.3/8"

**Nut type**



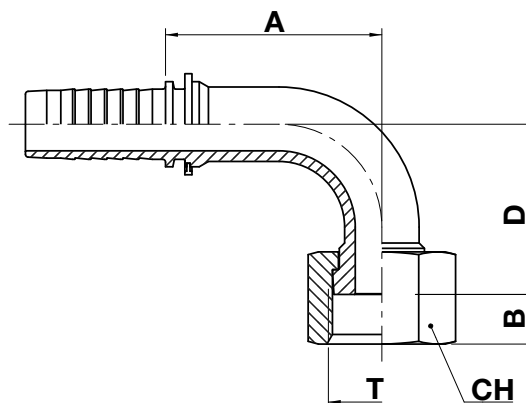
- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC
- ORFS**
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK



**OR94B** OR93B OR92B**ORFS female swivel - 90° elbow**

NO SKIVE / EXTERNAL SKIVE

ISO 8434-3 / SAE J1453



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

**ORFS**

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

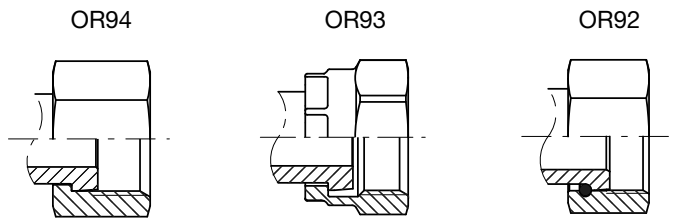
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
OR94B-04-04	6	1/4"	04	9/16"-18	27,5	1,08	8,0	0,31	22,0	0,87	17,0	0,669	11/16"
OR94B-04-06	6	1/4"	04	11/16"-16	27,5	1,08	9,5	0,37	23,0	0,90	22,0	0,866	7/8"
OR94B-05-06	8	5/16"	05	11/16"-16	31,5	1,24	9,5	0,37	24,0	0,94	22,0	0,866	7/8"
OR93B-06-04	10	3/8"	06	9/16"-18	27,8	1,09	8,0	0,31	21,0	0,83	17,0	0,669	11/16"
OR94B-06-06	10	3/8"	06	11/16"-16	31,5	1,24	9,5	0,37	24,0	0,94	22,0	0,866	7/8"
OR94B-06-08	10	3/8"	06	13/16"-16	31,5	1,24	11,0	0,43	30,0	1,18	24,0	0,945	15/16"
OR93B-08-06	12	1/2"	08	11/16"-16	37,0	1,46	11,0	0,43	23,0	0,91	22,0	0,866	7/8"
OR94B-08-08	12	1/2"	08	13/16"-16	44,5	1,75	11,0	0,43	29,0	1,14	24,0	0,945	15/16"
OR94B-08-10	12	1/2"	08	1"-14	37,5	1,48	13,5	0,53	33,0	1,30	30,0	1,181	1.3/16"
OR94B-08-12	12	1/2"	08	1.3/16"-12	42,5	1,67	14,5	0,57	48,0	1,61	36,0	1,417	1.7/16"
OR93B-10-08	16	5/8"	10	13/16"-16	42,5	1,67	11,0	0,43	29,0	1,14	24,0	0,945	15/16"
OR94B-10-10	16	5/8"	10	1"-14	46,5	1,83	13,5	0,53	32,0	1,26	30,0	1,181	1.3/16"
OR94B-10-12	16	5/8"	10	1.3/16"-12	53,5	2,11	14,5	0,57	48,0	1,89	36,0	1,417	1.7/16"
OR93B-12-10	19	3/4"	12	1"-14	50,5	2,00	13,5	0,53	32,0	1,26	30,0	1,181	1.3/16"
OR94B-12-12	19	3/4"	12	1.3/16"-12	61,0	2,40	14,5	0,57	48,0	1,89	36,0	1,417	1.7/16"
OR94B-12-16	19	3/4"	12	1.7/16"-12	57,0	2,24	13,8	0,54	56,0	2,20	41,0	1,614	1.5/8"
OR93B-16-12	25	1"	16	1.3/16"-12	63,0	2,48	14,5	0,57	48,0	1,89	36,0	1,417	1.7/16"
OR94B-16-16	25	1"	16	1.7/16"-12	71,0	2,80	13,8	0,54	56,0	2,20	41,0	1,614	1.5/8"



← **OR94B OR93B OR92B**

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	 in
OR93B-20-16	31	1.1/4"	20	1.7/16"-12	79,0	3,11	14,5	0,57	56,0	2,16	41,0	1,614	1.5/8"
OR92B-20-20	31	1.1/4"	20	1.11/16"-12	82,0	3,22	14,8	0,58	66,0	2,60	50,0	1,969	2"
OR92B-24-24	38	1.1/2"	24	2"-12	105,0	4,13	14,8	0,58	94,0	3,70	60,0	2,362	2.3/8"

**Nut type**



.....  
FERRULE

.....  
**FITTING**

BSP-BSPT

METRIC

JIC

**ORFS**

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

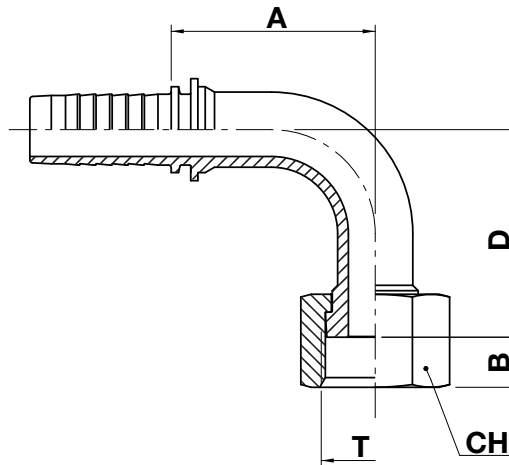


## OR94B-M OR92B-M

### ORFS female swivel - 90° elbow (medium drop)

NO SKIVE / EXTERNAL SKIVE

ISO 8434-3 / SAE J1453



FERRULE

#### FITTING

BSP-BSPT

METRIC

JIC

**ORFS**

SAE

NPTF-NPSM

JIS

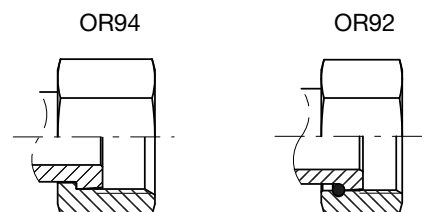
SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
OR94B-04-04-M	6	1/4"	04	9/16"-18	29,5	1,16	8,0	0,31	33,0	1,30	17,0	0,669	11/16"
OR94B-04-06-M	6	1/4"	04	11/16"-16	31,5	1,24	9,5	0,37	38,0	1,50	22,0	0,866	7/8"
OR94B-06-06-M	10	3/8"	06	11/16"-16	31,5	1,24	9,5	0,37	38,0	1,50	22,0	0,866	7/8"
OR94B-06-08-M	10	3/8"	06	13/16"-16	34,0	1,34	11,0	0,43	41,0	1,61	24,0	0,945	15/16"
OR94B-08-08-M	12	1/2"	08	13/16"-16	40,0	1,57	11,0	0,43	41,0	1,61	24,0	0,945	15/16"
OR94B-10-10-M	16	5/8"	10	1"-14	53,5	2,10	13,5	0,53	47,0	1,85	30,0	1,181	1.3/16"
OR94B-12-12-M	19	3/4"	12	1.3/16"-12	61,0	2,40	14,5	0,57	58,0	2,28	36,0	1,417	1.7/16"
OR94B-16-16-M	25	1"	16	1.7/16"-12	74,0	2,91	13,8	0,54	71,0	2,79	41,0	1,614	1.5/8"
OR92B-20-20-M	31	1.1/4"	20	1.11/16"-12	85,5	3,36	14,8	0,58	78,0	3,07	50,0	1,969	2"

#### Nut type

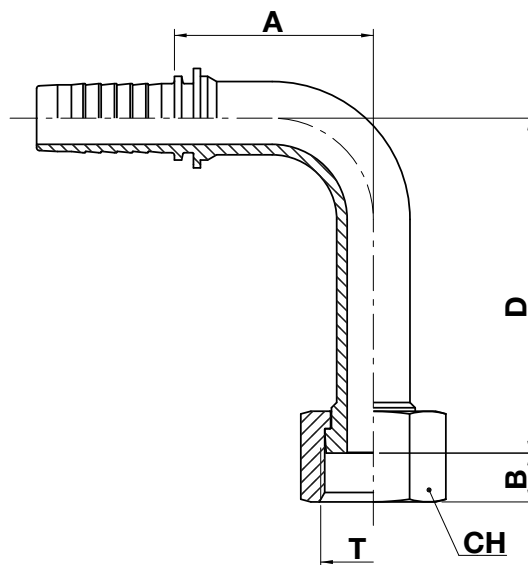


# OR94B-L OR92B-L

## ORFS female swivel - 90° elbow (long drop)

NO SKIVE / EXTERNAL SKIVE

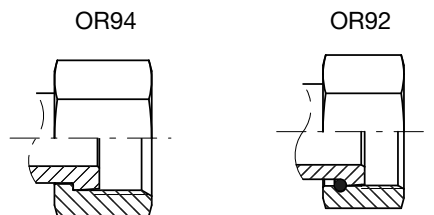
ISO 8434-3 / SAE J1453



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
**ORFS**  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
OR94B-04-04-L	6	1/4"	04	9/16"-18	29,5	1,16	8,0	0,31	46,0	1,81	17,0	0,669	11/16"
OR94B-04-06-L	6	1/4"	04	11/16"-16	31,5	1,24	9,5	0,37	54,0	2,12	22,0	0,866	7/8"
OR94B-06-06-L	10	3/8"	06	11/16"-16	31,5	1,24	9,5	0,37	54,0	2,12	22,0	0,866	7/8"
OR94B-06-08-L	10	3/8"	06	13/16"-16	31,5	1,24	11,0	0,43	64,0	2,52	24,0	0,945	15/16"
OR94B-08-08-L	12	1/2"	08	13/16"-16	40,0	1,57	11,0	0,43	64,0	2,52	24,0	0,945	15/16"
OR94B-10-10-L	16	5/8"	10	1"-14	53,5	2,10	13,5	0,53	70,0	2,75	30,0	1,181	1.3/16"
OR94B-12-12-L	19	3/4"	12	1.3/16"-12	61,0	2,40	14,5	0,57	96,0	3,78	36,0	1,417	1.7/16"
OR94B-16-16-L	25	1"	16	1.7/16"-12	70,3	2,77	13,8	0,54	114,0	4,49	41,0	1,614	1.5/8"
OR92B-20-20-L	31	1.1/4"	20	1.11/16"-12	85,5	3,36	14,8	0,58	129,0	5,08	50,0	1,969	2"
OR92B-24-24-L	38	1.1/2"	24	2"-12	112,5	4,43	14,8	0,58	141,0	5,55	60,0	2,362	2.3/8"

### Nut type

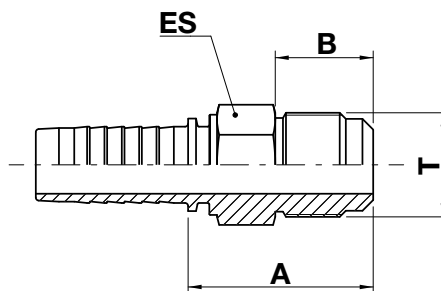


# MU10B

SAE 45° male

NO SKIVE / EXTERNAL SKIVE

SAE J512



FERRULE

## FITTING

BSP-BSPT

METRIC

JIC

ORFS

**SAE**


NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

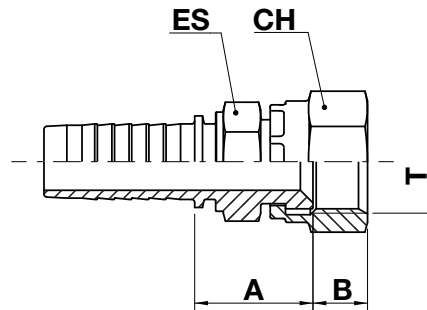
code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	 in
MU10B-04-04	6	1/4"	04	7/16"-20	25,0	0,98	12,7	0,50	14,0	0,551	9/16"
MU10B-06-06	10	3/8"	06	5/8"-18	29,0	1,14	15,7	0,62	17,0	0,669	11/16"
MU10B-08-08	12	1/2"	08	3/4"-16	33,5	1,32	19,0	0,75	19,0	0,748	3/4"
MU10B-08-10	12	1/2"	08	7/8"-14	38,5	1,52	22,4	0,88	24,0	0,945	15/16"
MU10B-10-10	16	5/8"	10	7/8"-14	39,5	1,55	22,4	0,88	24,0	0,945	15/16"
MU10B-12-12	19	3/4"	12	1.1/16"-14	48,0	1,89	25,4	1,00	27,0	1,063	1.1/16"

# FU11B

## SAE 45° female swivel

NO SKIVE / EXTERNAL SKIVE

SAE J512



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
**SAE**  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

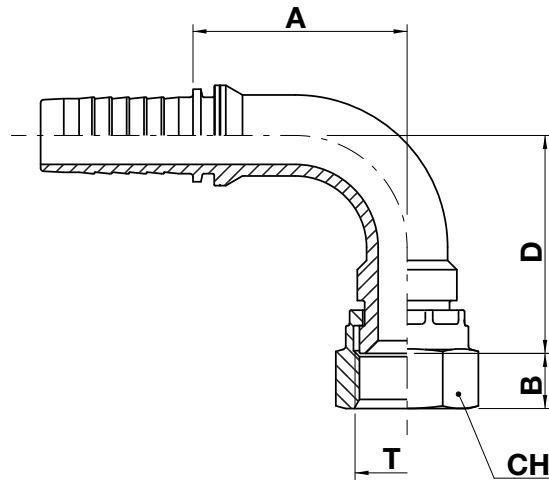
code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	↗ in	mm	in	↗ in
FU11B-04-04	6	1/4"	04	7/16"-20	20,5	0,80	8,7	0,34	14,0	0,551	9/16"	14,0	0,551	9/16"
FU11B-04-05	6	1/4"	04	1/2"-20	21,5	0,85	9,5	0,37	14,0	0,551	9/16"	17,0	0,669	11/16"
FU11B-04-06	6	1/4"	04	5/8"-18	24,0	0,94	10,8	0,43	19,0	0,748	3/4"	22,0	0,866	7/8"
FU11B-05-06	8	5/16"	05	5/8"-18	24,0	0,94	10,8	0,43	19,0	0,748	3/4"	22,0	0,866	7/8"
FU11B-06-06	10	3/8"	06	5/8"-18	24,0	0,94	10,8	0,43	19,0	0,748	3/4"	22,0	0,866	7/8"
FU11B-06-08	10	3/8"	06	3/4"-16	26,5	1,04	10,8	0,43	19,0	0,748	3/4"	22,0	0,866	15/16"
FU11B-08-08	12	1/2"	08	3/4"-16	28,0	1,10	10,8	0,43	19,0	0,748	3/4"	22,0	0,866	15/16"
FU11B-08-10	12	1/2"	08	7/8"-14	28,5	1,12	12,7	0,5	22,0	0,866	7/8"	27,0	1,063	1.1/16"
FU11B-10-10	16	5/8"	10	7/8"-14	29,5	1,16	12,7	0,5	22,0	0,866	7/8"	27,0	1,063	1.1/16"
FU11B-10-12	16	5/8"	10	1.1/16"-14	30,5	1,20	14,4	0,57	27,0	1,063	1.1/16"	32,0	1,260	1.1/4"
FU11B-12-12	19	3/4"	12	1.1/16"-14	31,0	1,22	14,4	0,57	27,0	1,063	1.1/16"	32,0	1,260	1.1/4"

# FU91B

SAE 45° female swivel - 90° elbow

NO SKIVE / EXTERNAL SKIVE

SAE J512



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

**SAE**

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

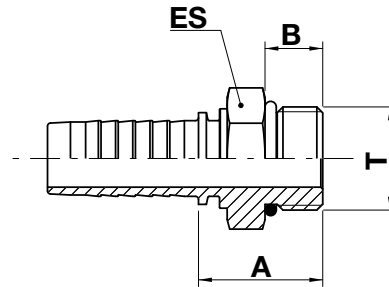
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FU91B-05-06	8	5/16"	05	5/8"-18	30,5	1,20	10,8	0,43	32,0	1,26	22,0	0,866	7/8"
FU91B-06-06	10	3/8"	06	5/8"-18	37,0	1,46	10,8	0,43	37,0	1,46	22,0	0,866	7/8"
FU91B-12-12	19	3/4"	12	1.1/16"-14	55,5	2,19	14,4	0,57	56,5	2,22	32,0	1,260	1.1/4"

# ME10B\*

## O-ring boss male

NO SKIVE / EXTERNAL SKIVE

SAE J1926



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
**SAE**  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	↗ in
ME10B-04-04	6	1/4"	04	7/16"-20	22,0	0,87	9,2	0,36	14,0	0,551	9/16"
ME10B-04-05	6	1/4"	04	1/2"-20	23,5	0,93	9,2	0,36	17,0	0,669	11/16"
ME10B-04-06	6	1/4"	04	9/16"-18	24,5	0,96	10,0	0,39	17,0	0,669	11/16"
ME10B-05-05	8	5/16"	05	1/2"-20	23,5	0,93	9,2	0,36	17,0	0,669	11/16"
ME10B-06-05	10	3/8"	06	1/2"-20	23,5	0,93	9,2	0,36	17,0	0,669	11/16"
ME10B-06-06	10	3/8"	06	9/16"-18	24,5	0,96	9,9	0,39	17,0	0,669	11/16"
ME10B-06-08	10	3/8"	06	3/4"-16	26,5	1,04	11,1	0,44	22,0	0,866	7/8"
ME10B-06-10	10	3/8"	06	7/8"-14	28,5	1,12	12,7	0,50	27,0	1,063	1.1/16"
ME10B-08-08	12	1/2"	08	3/4"-16	27,0	1,06	11,1	0,44	22,0	0,866	7/8"
ME10B-08-10	12	1/2"	08	7/8"-14	29,0	1,14	12,7	0,50	27,0	1,063	1.1/16"
ME10B-08-12	12	1/2"	08	1.1/16"-12	32,0	1,26	15,1	0,59	32,0	1,260	1.1/4"
ME10B-10-08	16	5/8"	10	3/4"-16	27,5	1,08	11,1	0,44	24,0	0,945	15/16"
ME10B-10-10	16	5/8"	10	7/8"-14	29,0	1,14	12,7	0,50	27,0	1,063	1.1/16"
ME10B-10-12	16	5/8"	10	1.1/16"-12	32,0	1,26	15,1	0,59	32,0	1,260	1.1/4"
ME10B-12-10	19	3/4"	12	7/8"-14	29,5	1,16	12,7	0,50	27,0	1,063	1.1/16"
ME10B-12-12	19	3/4"	12	1.1/16"-12	32,5	1,28	15,1	0,59	32,0	1,260	1.1/4"
ME10B-12-14	19	3/4"	12	1.3/16"-12	37,5	1,48	15,1	0,59	36,0	1,417	1.7/16"
ME10B-12-16	19	3/4"	12	1.5/16"-12	38,5	1,52	15,1	0,59	38,0	1,496	1.1/2"
ME10B-16-16	25	1"	16	1.5/16"-12	39,1	1,54	15,1	0,59	38,0	1,496	1.1/2"

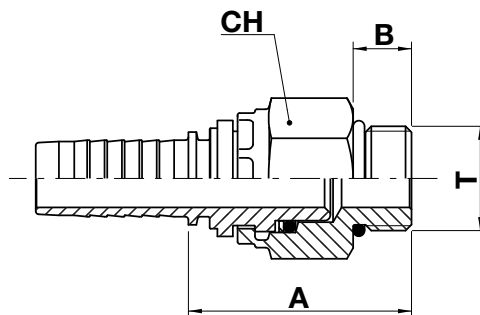
\* Complete with O-ring

## MV10B MV16B

### O-ring boss male swivel

NO SKIVE / EXTERNAL SKIVE

SAE J1926



FERRULE

#### FITTING

BSP-BSPT

METRIC

JIC

ORFS

**SAE**

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

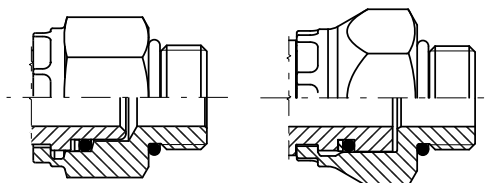
STAPLE LOCK

code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	in
MV10B-04-04	6	1/4"	04	7/16"-20	36,5	1,44	9,1	0,36	17,0	0,669	11/16"
MV16B-04-06	6	1/4"	04	9/16"-18	44,5	1,75	9,9	0,39	19,0	0,750	3/4"
MV16B-05-06	8	5/16"	05	3/8"-18	44,5	1,75	9,9	0,39	19,0	0,750	3/4"
MV16B-06-06	10	3/8"	06	9/16"-18	42,5	1,67	9,9	0,39	19,0	0,750	3/4"
MV10B-06-08	10	3/8"	06	3/4"-16	47,5	1,87	11,1	0,44	27,0	1,063	1.1/16"
MV10B-08-08	12	1/2"	08	3/4"-16	48,0	1,89	11,1	0,44	27,0	1,063	1.1/16"
MV10B-08-10	12	1/2"	08	7/8"-14	51,0	2,01	12,7	0,50	27,0	1,063	1.1/16"
MV10B-08-12	12	1/2"	08	1.1/16"-12	57,5	2,26	15,1	0,59	36,0	1,417	1.7/16"
MV10B-10-10	16	5/8"	10	7/8"-14	51,0	2,01	12,7	0,50	27,0	1,063	1.1/16"
MV10B-12-12	19	3/4"	12	1.1/16"-12	57,5	2,26	15,1	0,59	36,0	1,417	1.7/16"

#### Nut type

MV10

MV16

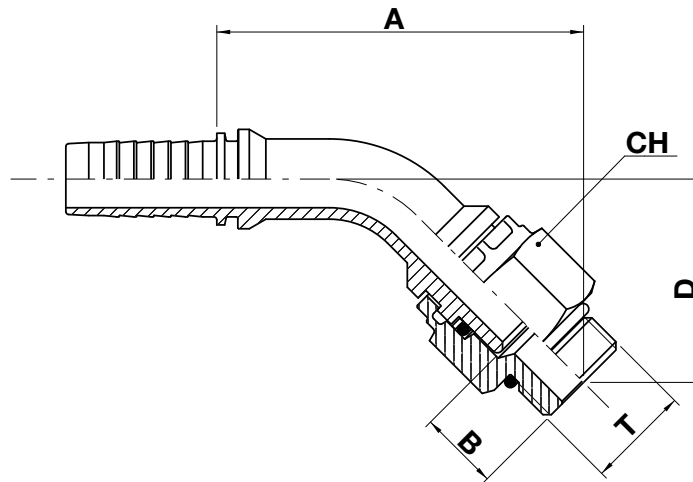


# MV40B MV46B

## O-ring boss male swivel - 45° elbow

NO SKIVE / EXTERNAL SKIVE

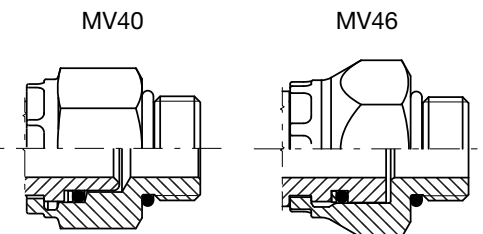
SAE J1926



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
**SAE**  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
MV40B-04-04	6	1/4"	04	7/16"-20	58,5	2,30	9,1	0,36	27,5	1,08	17,0	0,67	11/16"
MV46B-04-06	6	1/4"	04	9/16"-18	65,8	2,59	9,9	0,39	35,2	1,38	19,0	0,750	3/4"
MV46B-06-06	10	3/8"	06	9/16"-18	72,5	2,85	9,9	0,39	35,2	1,38	19,0	0,750	3/4"
MV40B-06-08	10	3/8"	6	3/4"-16	73,0	2,87	11,1	0,44	38,5	1,52	27,0	1,06	1.1/16"
MV40B-06-10	10	3/8"	6	7/8"-14	74,0	2,91	12,7	0,50	39,5	1,56	27,0	1,06	1.1/16"
MV40B-08-08	12	1/2"	8	3/4"-16	81,8	3,22	11,1	0,44	40,7	1,60	27,0	1,06	1.1/16"
MV40B-08-10	12	1/2"	8	7/8"-14	83,0	3,27	12,7	0,50	42,0	1,65	27,0	1,06	1.1/16"
MV40B-08-12	12	1/2"	8	1.1/16"-12	103,0	4,06	15,1	0,59	51,7	2,04	36,0	1,42	1.7/16"
MV40B-12-12	19	3/4"	12	1.1/16"-12	117,0	4,61	15,1	0,59	49,0	1,93	36,0	1,42	1.7/16"

### Nut type

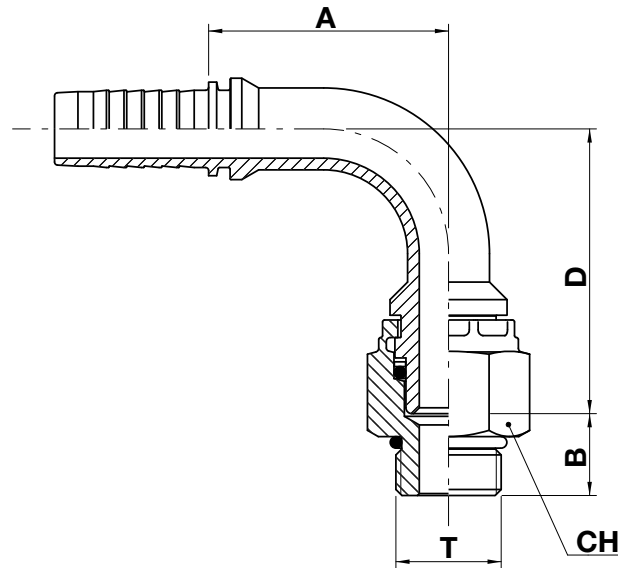


## MV90B MV96B

### O-ring boss male swivel - 90° elbow

NO SKIVE / EXTERNAL SKIVE

SAE J1926



FERRULE

#### FITTING

BSP-BSPT

METRIC

JIC

ORFS

**SAE**

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

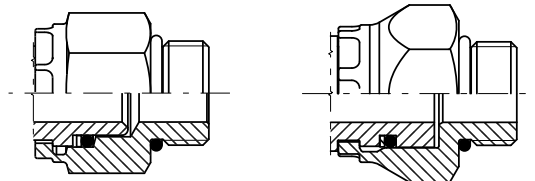
STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
MV90B-04-04	6	1/4"	04	7/16"-20	28,0	1,10	9,1	0,36	38,5	1,52	17,0	0,669	11/16"
MV96B-04-06	6	1/4"	04	9/16"-18	28,0	1,10	9,9	0,39	48,3	1,90	19,0	0,750	3/4"
MV96B-06-06	10	3/8"	06	9/16"-18	34,5	1,36	9,9	0,39	49,3	1,94	19,0	0,750	3/4"
MV90B-06-08	10	3/8"	06	3/4"-16	31,5	1,24	11,1	0,44	52,0	2,05	27,0	1,063	1.1/16"
MV90B-06-10	10	3/8"	06	7/8"-14	31,5	1,24	12,7	0,50	52,0	2,05	27,0	1,063	1.1/16"
MV90B-08-08	12	1/2"	08	3/4"-16	37,5	1,48	11,1	0,44	57,0	2,24	27,0	1,063	1.1/16"
MV90B-08-10	12	1/2"	08	7/8"-14	37,5	1,48	12,7	0,50	57,0	2,24	27,0	1,063	1.1/16"
MV90B-08-12	12	1/2"	08	1.1/16"-12	46,5	1,83	15,1	0,59	72,0	2,83	36,0	1,417	1.7/16"
MV90B-12-12	19	3/4"	12	1.1/16"-12	61,5	2,42	15,1	0,59	73,0	2,88	36,0	1,417	1.7/16"

#### Nut type

MV90

MV96

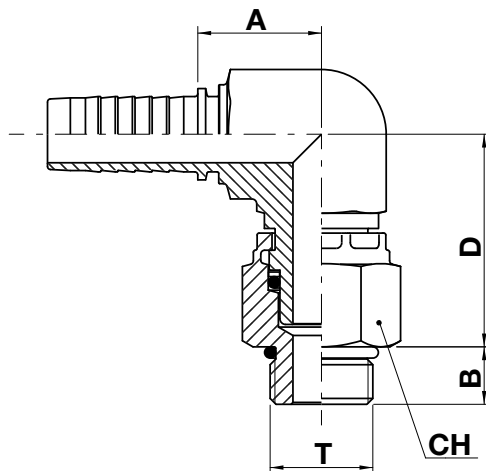


# KV91B KV96B

## O-ring boss male swivel - 90° compact elbow

NO SKIVE / EXTERNAL SKIVE

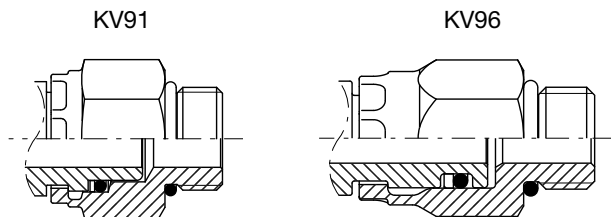
SAE J1926



- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC
- ORFS
- SAE**
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
KV91B-04-04	6	1/4"	4	7/16"-20	18,5	0,73	9,15	0,36	32,8	1,29	17,0	0,669	11/16"
KV96B-04-06	6	1/4"	4	9/16"-18	19,5	0,77	9,95	0,39	39,0	1,54	19,0	0,748	3/4"
KV96B-06-06	10	3/8"	6	9/16"-18	21,5	0,85	9,95	0,39	42,0	1,65	19,0	0,748	3/4"
KV91B-06-08	10	3/8"	6	3/4"-16	25,0	0,98	11,1	0,44	47,4	1,87	27,0	1,063	1.1/16"
KV91B-06-10	10	3/8"	6	7/8"-14	25,0	0,98	12,7	0,50	48,8	1,92	27,0	1,063	1.1/16"
KV91B-08-08	12	1/2"	8	3/4"-16	26,5	1,04	11,1	0,44	47,4	1,87	27,0	1,063	1.1/16"
KV91B-08-10	12	1/2"	8	7/8"-14	26,5	1,04	12,7	0,50	48,8	1,92	27,0	1,063	1.1/16"
KV91B-12-12	19	3/4"	12	1.1/16"-12	32,5	1,28	15,1	0,59	55,9	2,20	36,0	1,417	1.7/16"

### Nut type



# MZ10B

## SAE inverted flare male swivel

NO SKIVE / EXTERNAL SKIVE

SAE J512

FERRULE

## FITTING

BSP-BSPT

METRIC

JIC

ORFS

**SAE**

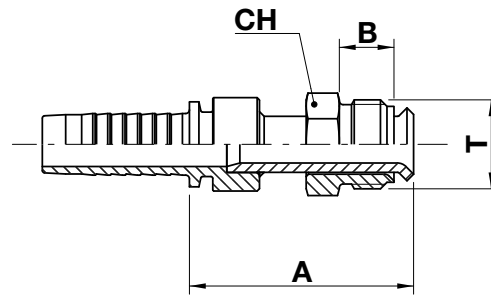
NPTF-NPSM


JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK



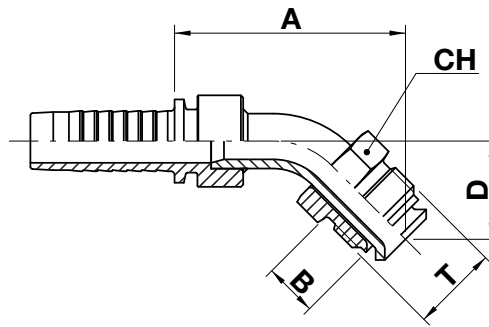
code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	 in
MZ10B-04-04	6	1/4"	04	7/16"-24	48,0	1,89	9,1	0,36	11,0	0,433	7/16"
MZ10B-04-05	6	1/4"	04	1/2"-20	48,0	1,89	10,2	0,40	16,0	0,630	5/8"
MZ10B-06-05	10	3/8"	06	1/2"-20	48,0	1,89	10,2	0,40	16,0	0,630	5/8"
MZ10B-06-06	10	3/8"	06	5/8"-18	48,0	1,89	10,2	0,40	16,0	0,630	5/8"
MZ10B-08-08	12	1/2"	08	3/4"-18	48,0	1,89	11,7	0,46	19,0	0,748	3/4"

# MZ40B

SAE inverted flare male swivel - 45° elbow

NO SKIVE / EXTERNAL SKIVE

SAE J512



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
**SAE**  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

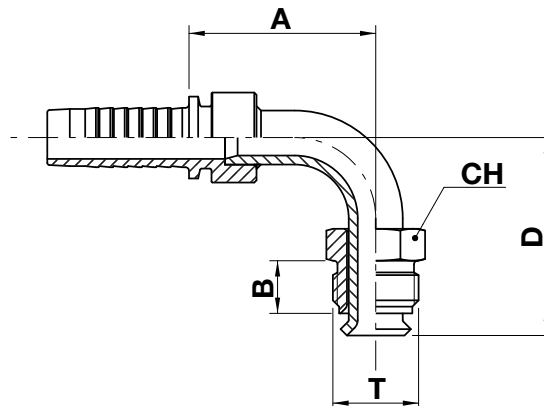
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
MZ40B-04-04	6	1/4"	04	7/16"-24	40,1	1,58	9,1	0,36	14,7	0,58	11,0	0,433	7/16"
MZ40B-04-05	6	1/4"	04	1/2"-20	44,0	1,73	10,2	0,40	18,0	0,71	16,0	0,630	5/8"
MZ40B-06-05	10	3/8"	06	1/2"-20	44,0	1,73	10,2	0,40	18,0	0,71	16,0	0,630	5/8"
MZ40B-06-06	10	3/8"	06	5/8"-18	47,5	1,87	10,2	0,40	19,0	0,75	16,0	0,630	5/8"
MZ40B-08-08	12	1/2"	08	3/4"-18	50,5	1,99	11,7	0,46	21,5	0,85	19,0	0,748	3/4"

# MZ90B

SAE inverted flare male swivel - 90° elbow

NO SKIVE / EXTERNAL SKIVE

SAE J512



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

**SAE**

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

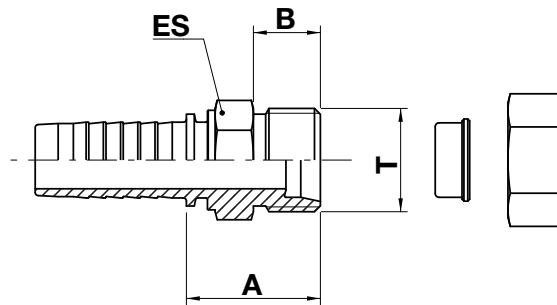
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↗ in
MZ90B-04-04	6	1/4"	04	7/16"-24	30,0	1,18	9,1	0,36	26,0	1,02	11,0	0,433	7/16"
MZ90B-04-05	6	1/4"	04	1/2"-20	31,0	1,22	10,2	0,40	32,0	1,26	16,0	0,630	5/8"
MZ90B-06-05	10	3/8"	06	1/2"-20	31,0	1,22	10,2	0,40	32,0	1,26	16,0	0,630	5/8"
MZ90B-06-06	10	3/8"	06	5/8"-18	36,0	1,42	10,2	0,40	35,0	1,38	16,0	0,630	5/8"
MZ90B-08-08	12	1/2"	08	3/4"-18	41,5	1,63	11,7	0,46	44,0	1,73	19,0	0,748	3/4"

# MFA10B

## SAE flareless male assembly

NO SKIVE / EXTERNAL SKIVE

SAE J514

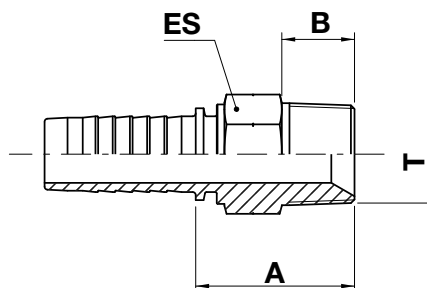


- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC
- ORFS
- SAE**
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	 in
MFA10B-04-04	6	1/4"	04	7/16"-20	24,0	0,94	11,5	0,45	14,0	0,551	9/16"
MFA10B-04-05	6	1/4"	04	1/2"-20	25,0	0,98	11,5	0,45	17,0	0,669	11/16"
MFA10B-06-05	10	3/8"	06	1/2"-20	25,0	0,98	11,5	0,45	17,0	0,669	11/16"
MFA10B-06-06	10	3/8"	06	9/16"-18	25,5	1,00	11,9	0,47	17,0	0,669	11/16"
MFA10B-06-08	10	3/8"	06	3/4"-16	27,8	1,09	14,3	0,56	19,0	0,748	3/4"
MFA10B-08-08	12	1/2"	08	3/4"-16	28,5	1,12	14,3	0,56	19,0	0,748	3/4"
MFA10B-08-10	12	1/2"	08	7/8"-14	32,0	1,26	15,9	0,63	24,0	0,945	15/16"
MFA10B-12-12	19	3/4"	12	1.1/16"-12	35,0	1,38	17,5	0,69	27,0	1,063	1.1/16"
MFA10B-16-16	25	1"	16	1.5/16"-12	41,5	1,63	17,5	0,69	36,0	1,417	1.7/16"

**MN10B** MNA10B**NPTF male (60° cone seat)****NO SKIVE / EXTERNAL SKIVE**

SAE J514



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

**NPTF-NPSM**

JIS

SAE 3000 CODE 61


SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	in
MN10B-02-02	3	1/8"	02	1/8"-27	20,8	0,82	9,5	0,37	11,11	0,437	7/16"
MN10B-03-02	5	3/16"	03	1/8"-27	20,5	0,81	9,5	0,37	11,11	0,437	7/16"
MN10B-03-04	5	3/16"	03	1/4"-18	25,5	1,00	14,0	0,55	14,0	0,551	9/16"
MN10B-04-02	6	1/4"	04	1/8"-27	22,0	0,87	9,6	0,38	14,0	0,551	9/16"
MN10B-04-04	6	1/4"	04	1/4"-18	26,5	1,04	14,0	0,55	14,0	0,551	9/16"
MN10B-04-06	6	1/4"	04	3/8"-18	28,0	1,10	14,0	0,55	19,0	0,748	3/4"
MN10B-04-08	6	1/4"	04	1/2"-14	33,0	1,30	19,0	0,75	22,0	0,866	7/8"
MN10B-05-04	8	5/16"	05	1/4"-18	26,5	1,04	14,0	0,55	14,0	0,551	9/16"
MN10B-05-06	8	5/16"	05	3/8"-18	28,0	1,10	14,0	0,55	19,0	0,748	3/4"
MN10B-06-04	10	3/8"	06	1/4"-18	26,5	1,04	14,0	0,55	17,0	0,669	11/16"
MN10B-06-06	10	3/8"	06	3/8"-18	28,0	1,10	14,0	0,55	19,0	0,748	3/4"
MN10B-06-08	10	3/8"	06	1/2"-14	33,0	1,30	19,0	0,75	22,0	0,866	7/8"
MN10B-08-04	12	1/2"	08	1/4"-18	28,5	1,12	14,0	0,55	22,0	0,866	7/8"
MN10B-08-06	12	1/2"	08	3/8"-18	28,5	1,12	14,0	0,55	19,0	0,748	3/4"
MN10B-08-08	12	1/2"	08	1/2"-14	33,5	1,32	19,0	0,75	22,0	0,866	7/8"
MN10B-08-12	12	1/2"	08	3/4"-14	34,0	1,34	19,0	0,75	27,0	1,063	1.1/16"
MN10B-10-08	16	5/8"	10	1/2"-14	33,5	1,32	19,0	0,75	24,0	0,945	15/16"
MN10B-10-12	16	5/8"	10	3/4"-14	41,0	1,61	19,0	0,75	27,0	1,063	1.1/16"
MN10B-12-08	19	3/4"	12	1/2"-14	34,5	1,36	19,0	0,75	27,0	1,063	1.1/16"

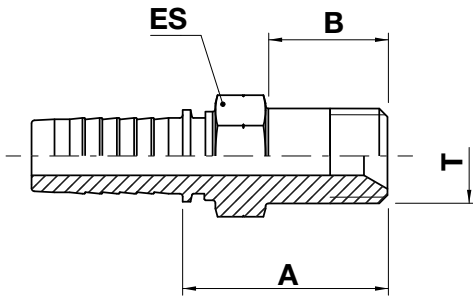


← **MN10B MNA10B**

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	 in
MN10B-12-12	19	3/4"	12	3/4"-14	41,5	1,63	19,0	0,75	27,0	1,063	1.1/16"
MN10B-12-16	19	3/4"	12	1"-11.1/2	46,5	1,83	24,0	0,94	36,0	1,417	1.7/16"
MN10B-16-12	25	1"	16	3/4"	43,0	1,69	19,0	0,75	32,0	1,260	1.1/4"
MN10B-16-16	25	1"	16	1"-11.1/2	48,0	1,89	24,0	0,94	36,0	1,417	1.7/16"
MN10B-20-20	31	1.1/4"	20	1 1/4"-11.1/2	63,0	2,48	24,5	0,96	46,0	1,811	1.13/16"
MN10B-24-24	38	1.1/2"	24	1 1/2"-11.1/2	64,0	2,52	25,5	1,00	50,0	1,969	2"
MN10B-32-32	51	2"	32	2"-11.1/2	79,0	3,11	26,0	1,02	65,0	2,559	2.9/16"
MNA10B-32-32*	51	2"	32	2"-11.1/2	111,0	4,37	51,0	2,01	65,0	2,559	2.9/16"

- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC
- ORFS
- SAE
- NPTF-NPSM**
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

\* MNA10B long nose "API" style version

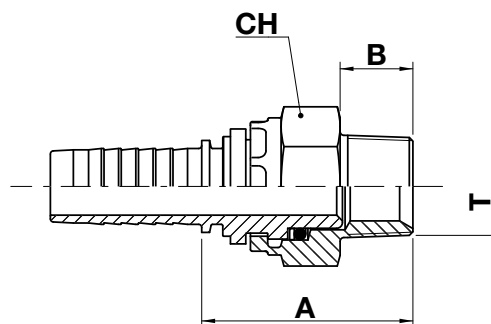


## MG10B MG16B

**NPTF male swivel (60° cone seat)**

NO SKIVE / EXTERNAL SKIVE

SAE J514



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

**NPTF-NPSM**

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

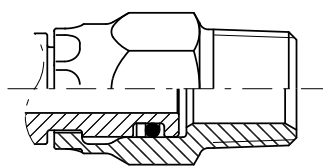
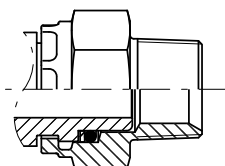
STAPLE LOCK

code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	↻ in
MG10B-04-02	6	1/4"	04	1/8"-27	36,5	1,44	9,5	0,37	17,0	0,669	11/16"
MG10B-04-04	6	1/4"	04	1/4"-18	36,5	1,44	14,0	0,55	17,0	0,669	11/16"
MG16B-04-06	6	1/4"	04	3/8"-18	46,5	1,83	14,0	0,55	19,0	0,750	3/4"
MG16B-05-06	8	5/16"	05	3/8"-18	46,5	1,83	14,0	0,55	19,0	0,750	3/4"
MG10B-06-04	10	3/8"	06	1/4"-18	36,5	1,44	14,0	0,55	17,0	0,669	11/16"
MG16B-06-06	10	3/8"	06	3/8"-18	46,5	1,83	14,0	0,55	19,0	0,750	3/4"
MG10B-06-08	10	3/8"	06	1/2"-14	53,5	2,11	19,0	0,75	27,0	1,063	1.1/16"
MG10B-08-06	12	1/2"	08	3/8"-18	41,7	1,64	14,0	0,55	22,0	0,866	7/8"
MG16B-08-06	12	1/2"	08	3/8"-18	48,0	1,89	14,0	0,55	19,0	0,750	3/4"
MG10B-08-08	12	1/2"	08	1/2"-14	54,0	2,13	19,0	0,75	27,0	1,063	1.1/16"
MG10B-10-12	16	5/8"	10	3/4"-14	55,4	2,18	19,0	0,75	36,0	1,417	1.7/16"
MG10B-12-08	19	3/4"	12	1/2"-14	56,5	2,22	19,0	0,75	27,0	1,063	1.1/16"
MG10B-12-12	19	3/4"	12	3/4"-14	55,1	2,17	19,0	0,75	36,0	1,417	1.7/16"
MG10B-16-16	25	1"	16	1"-11 1/2	62,9	2,48	24,0	0,94	38,0	1,496	1.1/2"

**Nut type**

MG10

MG16

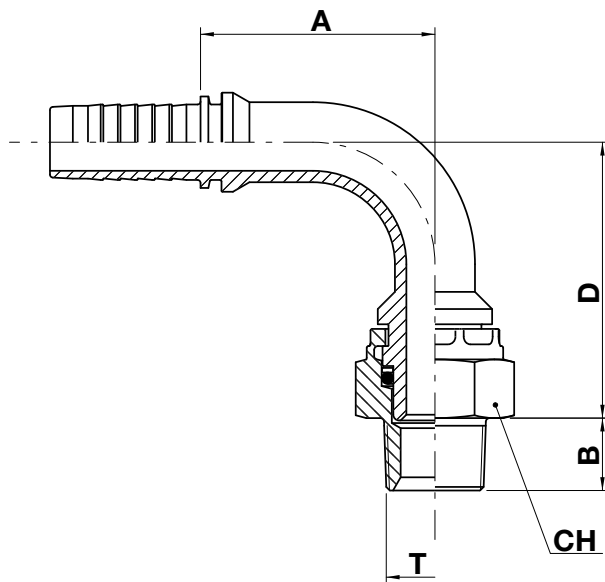


# MG90B MG96B

**NPTF male swivel - 90° elbow (60° cone seat)**

**NO SKIVE / EXTERNAL SKIVE**

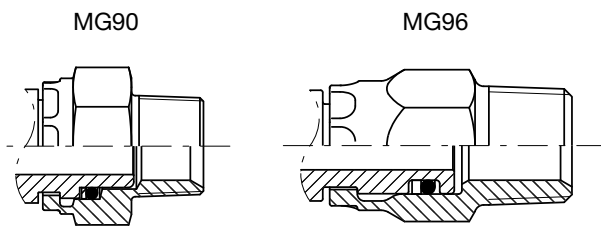
SAE J514



- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC
- ORFS
- SAE
- NPTF-NPSM**
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
MG90B-04-04	6	1/4"	04	1/4"-18	28,0	1,10	14,0	0,55	51,0	2,01	17,0	0,669	11/16"
MG96B-04-06	6	1/4"	04	3/8"-18	28,0	1,10	14,0	0,55	46,2	1,82	19,0	0,750	3/4"
MG96B-06-06	10	3/8"	06	3/8"-18	34,5	1,36	14,0	0,55	47,7	1,88	19,0	0,750	3/4"
MG90B-06-08	10	3/8"	06	1/2"-14	34,5	1,36	19,0	0,75	73,5	2,89	27,0	1,063	1.1/16"
MG90B-08-08	12	1/2"	08	1/2"-14	44,5	1,75	19,0	0,75	78,5	3,09	27,0	1,063	1.1/16"
MG90B-12-12	19	3/4"	12	3/4"-14	61,5	2,42	19,4	0,76	91,4	3,60	36,0	1,417	1.7/16"

**Nut type**

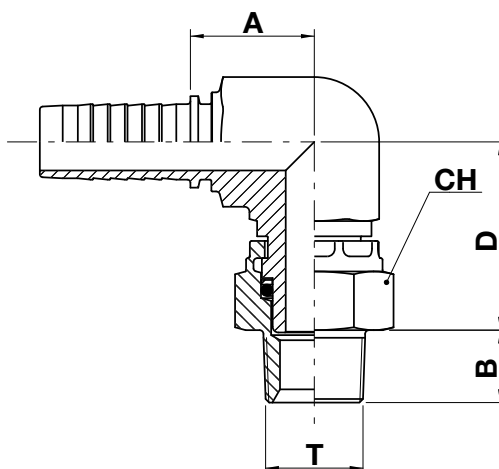


## KG91B KG96B

NPTF male swivel - 90° compact elbow

NO SKIVE / EXTERNAL SKIVE

SAE J514



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

**NPTF-NPSM**

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

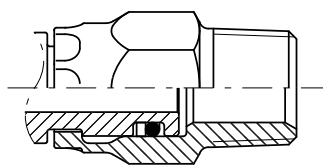
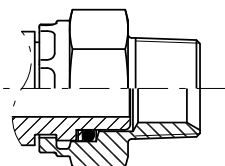
STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
KG91B-04-04	6	1/4"	4	1/4"-18	18,5	0,73	14,0	0,55	28,0	11,0	17,0	0,669	11/16"
KG96B-04-06	6	1/4"	4	3/8"-18	19,5	0,77	14,0	0,55	37,0	14,6	19,0	0,748	3/4"
KG96B-06-06	10	3/8"	6	3/8"-18	21,5	0,85	14,0	0,55	40,0	15,7	19,0	0,748	3/4"
KG91B-06-08	10	3/8"	6	1/2"-14	25,0	0,98	19,0	0,75	45,5	17,9	27,0	1,063	1.1/16"
KG91B-08-08	12	1/2"	8	1/2"-14	26,5	1,04	19,0	0,75	45,5	17,9	27,0	1,063	1.1/16"
KG91B-12-12	19	3/4"	12	3/4"-14	32,5	1,28	19,0	0,75	49,5	19,5	36,0	1,417	1.7/16"

**Nut type**

KG91

KG96

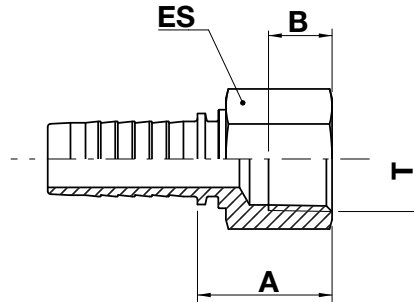


# FN10B

**NPTF female rigid**

**NO SKIVE / EXTERNAL SKIVE**

SAE J514



- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC
- ORFS
- SAE
- NPTF-NPSM**
- JIS
- SAE 3000 CODE 61
- SAE 6000 CODE 62
- STAPLE LOCK

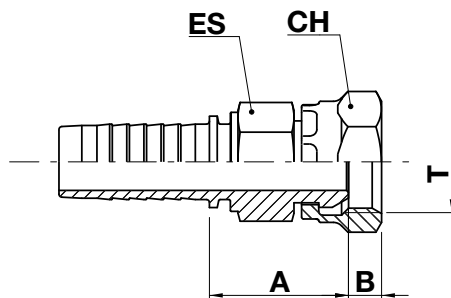
code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	in
FN10B-04-02	6	1/4"	04	1/8"-27	21,5	0,85	7,9	0,31	17,0	0,669	11/16"
FN10B-04-04	6	1/4"	04	1/4"-18	26,5	1,04	12,0	0,47	19,0	0,748	3/4"
FN10B-04-06	6	1/4"	04	3/8"-18	28,0	1,10	12,7	0,50	22,0	0,866	7/8"
FN10B-06-04	10	3/8"	06	1/4"-18	26,5	1,04	12,0	0,47	19,0	0,748	3/4"
FN10B-06-06	10	3/8"	06	3/8"-18	28,0	1,10	12,7	0,50	22,0	0,866	7/8"
FN10B-06-08	10	3/8"	06	1/2"-14	33,0	1,30	16,8	0,66	27,0	1,063	1.1/16"
FN10B-08-06	12	1/2"	08	3/8"-18	28,5	1,12	12,7	0,50	22,0	0,866	7/8"
FN10B-08-08	12	1/2"	08	1/2"-14	33,5	1,32	17,0	0,67	27,0	1,063	1.1/16"
FN10B-12-12	19	3/4"	12	3/4"-14	35,5	1,40	16,8	0,66	32,0	1,260	1.1/4"

## FN11B FN12B

### NPSM female swivel (60° cone seat)

NO SKIVE / EXTERNAL SKIVE

SAE J514



FERRULE

#### FITTING

BSP-BSPT

METRIC

JIC

ORFS

SAE

**NPTF-NPSM**

JIS

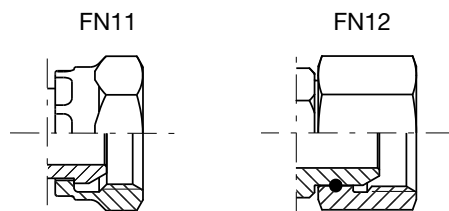
SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	↻ in	mm	in	↻ in
FN11B-04-04	6	1/4"	04	1/4"-18	24,0	0,94	4,2	0,17	14,0	0,551	9/16"	19,0	0,748	3/4"
FN11B-04-06	6	1/4"	04	3/8"-18	26,5	1,04	5,7	0,22	22,0	0,866	7/8"	22,0	0,866	7/8"
FN11B-05-04	8	5/16"	05	1/4"-18	24,0	0,94	4,2	0,17	19,0	0,748	3/4"	19,0	0,748	3/4"
FN11B-06-06	10	3/8"	06	3/8"-18	26,5	1,04	5,7	0,22	22,0	0,866	7/8"	22,0	0,866	7/8"
FN11B-06-08	10	3/8"	06	1/2"-14	28,5	1,12	6,9	0,27	22,0	0,866	7/8"	27,0	1,063	1.1/16"
FN11B-08-08	12	1/2"	08	1/2"-14	29,0	1,14	6,9	0,27	22,0	0,866	7/8"	27,0	1,063	1.1/16"
FN11B-08-12	12	1/2"	08	3/4"-14	37,0	1,46	8,7	0,34	27,0	1,063	1.1/16"	32,0	1,260	1.1/4"
FN11B-12-12	19	3/4"	12	3/4"-14	36,8	1,45	8,7	0,34	27,0	1,063	1.1/16"	32,0	1,260	1.1/4"
FN12B-16-16	25	1"	16	1"-11.1/2	40,5	1,59	10,5	0,41	32,0	1,260	1.1/4"	38,0	1,496	1.1/2"

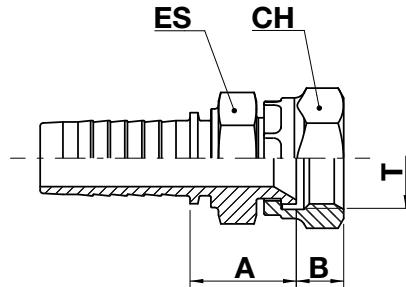
#### Nut type



# FT11B

JIS female swivel japanese "T" style termination 60° cone

NO SKIVE / EXTERNAL SKIVE



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
**JIS**  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	↗ in	mm	in	↗ in
FT11B-04-04	6	1/4"	04	1/4"-19	21,0	0,83	8,0	0,31	19,0	0,748	3/4"	19,0	0,748	3/4"
FT11B-06-06	10	3/8"	06	3/8"-19	22,0	0,87	9,5	0,37	19,0	0,748	3/4"	22,0	0,866	7/8"
FT11B-08-08	12	1/2"	08	1/2"-14	25,0	0,98	11,0	0,43	22,0	0,866	7/8"	27,0	1,063	1.1/16"
FT11B-10-10	16	5/8"	10	5/8"-14	28,5	1,12	9,5	0,37	24,0	0,945	15/16"	27,0	1,063	1.1/16"
FT11B-12-12	19	3/4"	12	3/4"-14	28,0	1,10	12,5	0,49	30,0	1,181	1.3/16"	32,0	1,260	1.1/4"
FT11B-16-16	25	1"	16	1"-11	33,0	1,30	14,0	0,55	32,0	1,260	1.1/4"	38,0	1,496	1.1/2"

**FK11B** FK12B

Japanese "KOM" style termination female swivel 60° cone

NO SKIVE / EXTERNAL SKIVE

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

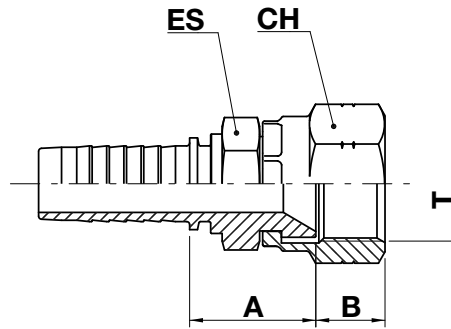
NPTF-NPSM

**JIS**

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

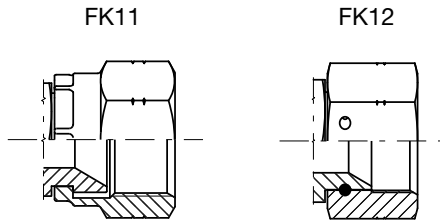


code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	↻ in	mm	in	↻ in
FK11B-04-12	6	1/4"	04	M12X1,5	23,0	0,91	8,7	0,34	14,0	0,551	9/16"	17,0	0,669	11/16"
FK11B-04-14	6	1/4"	04	M14X1,5	24,0	0,94	10,0	0,39	19,0	0,748	3/4"	19,0	0,748	3/4"
FK11B-04-18	6	1/4"	04	M18X1,5	24,0	0,94	11,5	0,45	19,0	0,748	3/4"	24,0	0,944	15/16"
FK11B-06-14	10	3/8"	06	M14X1,5	25,0	0,98	10,0	0,39	19,0	0,748	3/4"	19,0	0,748	3/4"
FK11B-06-16	10	3/8"	06	M16X1,5	23,0	0,91	9,3	0,37	19,0	0,748	3/4"	22,0	0,866	7/8"
FK11B-06-18	10	3/8"	06	M18X1,5	24,0	0,94	11,5	0,45	19,0	0,748	3/4"	24,0	0,945	15/16"
FK11B-06-20	10	3/8"	06	M20X1,5	25,5	1,00	11,2	0,44	19,0	0,748	3/4"	27,0	1,063	1.1/16"
FK11B-06-22	10	3/8"	06	M22X1,5	25,5	1,00	14,0	0,55	19,0	0,748	3/4"	27,0	1,063	1.1/16"
FK11B-08-18	12	1/2"	08	M18X1,5	22,5	0,89	11,5	0,45	19,0	0,748	3/4"	24,0	0,945	15/16"
FK11B-08-22	12	1/2"	08	M22X1,5	27,0	1,06	14,0	0,55	22,0	0,866	7/8"	27,0	1,063	1.1/16"
FK11B-08-24	12	1/2"	08	M24X1,5	28,5	1,12	15,1	0,59	24,0	0,944	15/16"	32,0	1,260	1.1/4"
FK11B-10-24	16	5/8"	10	M24X1,5	28,5	1,12	15,1	0,59	24,0	0,944	15/16"	32,0	1,260	1.1/4"
FK11B-12-30	19	3/4"	12	M30X1,5	33,0	1,30	18,3	0,72	30,0	1,181	1.3/16"	36,0	1,417	1.7/16"
FK11B-12-33	19	3/4"	12	M33X1,5	32,0	1,26	21,3	0,84	32,0	1,260	1.1/4"	41,0	1,614	1.5/8"
FK11B-16-33	25	1"	16	M33X1,5	34,7	1,37	21,3	0,84	32,0	1,260	1.1/4"	41,0	1,614	1.5/8"
FK11B-16-36	25	1"	16	M36X1,5	36,0	1,42	16,0	0,63	41,0	1,614	1.5/8"	46,0	1,811	1.13/16"
FK12B-24-42	38	1.1/2"	24	M42X1,5	44,0	1,73	18,8	0,74	50,0	1,969	2"	55,0	2,165	2.3/16"



← FK11B FK12B

Nut type



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FERRULE

.....  
**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

NPTF-NPSM

**JIS**

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK



# FK41B

Japanese "KOM" style termination female swivel 60° cone - 45° elbow

NO SKIVE / EXTERNAL SKIVE

FERRULE

FITTING

BSP-BSPT

METRIC

JIC

ORFS

SAE

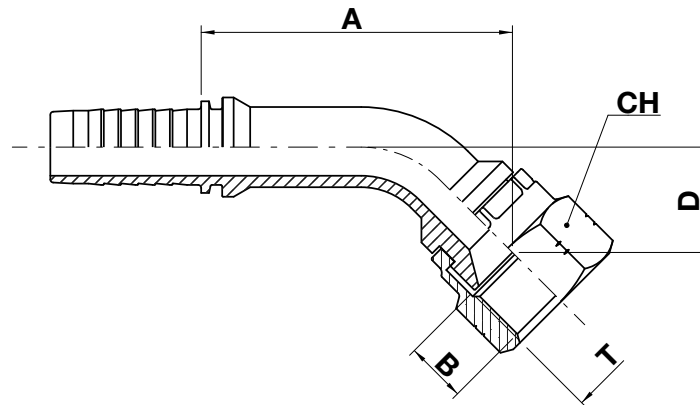
NPTF-NPSM

**JIS**

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

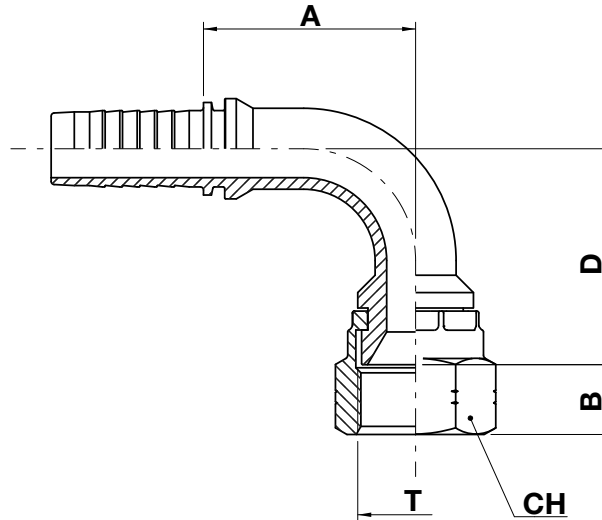


code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FK41B-04-14	06	1/4"	4	M14X1,5	42,5	1,67	10,0	0,39	16,1	0,63	19,0	0,748	3/4"
FK41B-06-18	10	3/8"	6	M18X1,5	51,5	2,03	11,5	0,45	19,5	0,77	24,0	0,945	15/16"
FK41B-08-22	12	1/2"	8	M22X1,5	54,0	2,13	14,0	0,55	20,0	0,79	27,0	1,063	1.1/16"
FK41B-10-24	16	5/8"	10	M24X1,5	70,5	2,78	15,1	0,59	27,0	1,06	32,0	1,260	1.1/4"
FK41B-12-30	19	3/4"	12	M30X1,5	81,5	3,21	18,3	0,72	27,6	1,09	36,0	1,417	1.7/16"

# FK91B

Japanese "KOM" style termination female swivel 60° cone - 90° elbow

NO SKIVE / EXTERNAL SKIVE



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FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
**JIS**  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FK91B-04-14	6	1/4"	04	M14X1,5	29,0	1,14	10,0	0,39	31,5	1,24	19,0	0,748	3/4"
FK91B-04-16	6	1/4"	04	M16X1,5	29,5	1,16	9,30	0,37	37,0	1,46	22,0	0,866	7/8"
FK91B-06-18	10	3/8"	06	M18X1,5	35,5	1,40	11,5	0,45	38,0	1,50	24,0	0,945	15/16"
FK91B-08-22	12	1/2"	08	M22X1,5	47,5	1,87	14,0	0,55	43,0	1,69	27,0	1,063	1.1/16"
FK91B-10-24	16	5/8"	10	M24X1.5	55,5	2,19	15,1	0,59	55,0	2,17	32,0	1,260	1.1/4"
FK91B-12-30	19	3/4"	12	M30X1,5	55,0	2,17	18,3	0,72	56,0	2,20	36,0	1,417	1.7/16"

# AK10B

Japanese "KOM" style termination straight flange (for metric O-ring)

NO SKIVE / EXTERNAL SKIVE

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

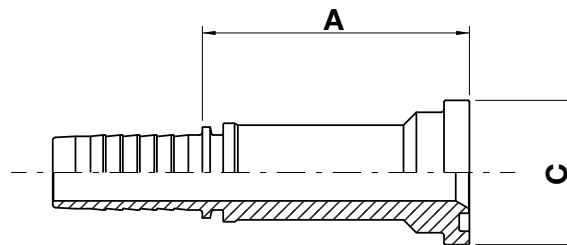
NPTF-NPSM

**JIS**

SAE 3000 CODE 61

SAE 6000 CODE 62

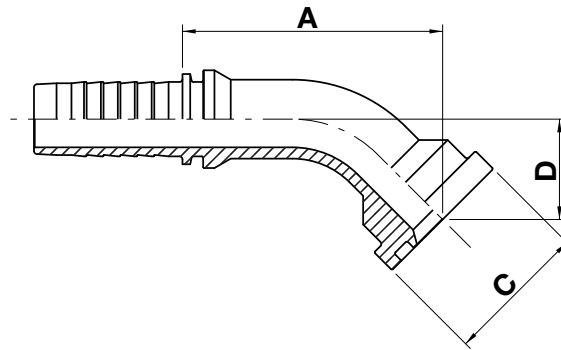
STAPLE LOCK



code	ø hose			flange	A		C	
	dn	inch	size		mm	in	mm	in
AK10B-10-10	16	5/8"	10	5/8"	65,0	2,56	34,2	1,35
AK10B-12-12	19	3/4"	12	3/4"	70,5	2,78	38,1	1,50
AK10B-16-16	25	1"	16	1"	73,0	2,87	44,5	1,75
AK10B-24-24	38	1.1/2"	24	1.1/2"	91,0	3,58	60,3	2,37
AK10B-32-32	51	2"	32	2"	125,0	4,92	71,4	2,81

# AK40B

Japanese "KOM" style termination - 45° elbow flange (for metric O-ring) NO SKIVE / EXTERNAL SKIVE

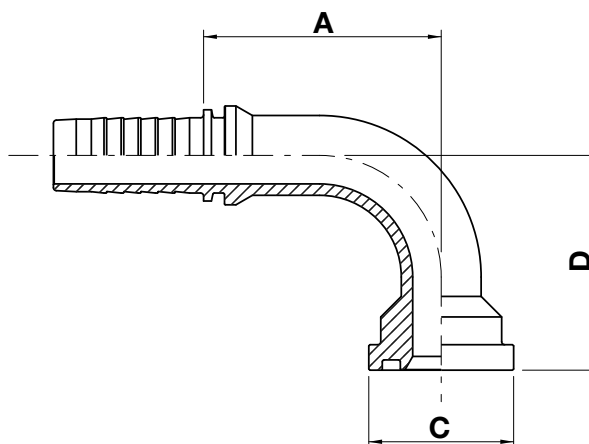


.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
**JIS**  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AK40B-10-10	16	5/8"	10	5/8"	66,5	2,62	34,2	1,35	25,0	0,98
AK40B-12-12	19	3/4"	12	3/4"	69,2	2,72	38,0	1,50	26,7	1,05
AK40B-16-16	25	1"	16	1"	83,0	3,27	44,5	1,75	29,0	1,14
AK40B-24-24	38	1.1/2"	24	1.1/2"	105,0	4,13	60,3	2,37	39,4	1,55
AK40B-32-32	51	2"	32	2"	164,0	6,46	71,4	2,81	52,5	2,07

# AK90B

Japanese "KOM" style termination - 90° elbow flange (for metric O-ring) NO SKIVE / EXTERNAL SKIVE



FERRULE

## FITTING

BSP-BSPT

METRIC

JIC

ORFS

SAE

NPTF-NPSM

**JIS**

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK

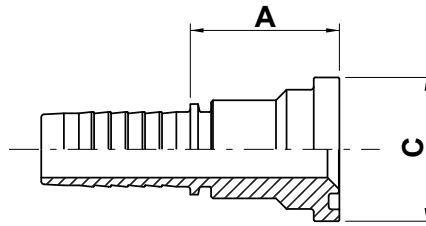
code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AK90B-10-10	16	5/8"	10	5/8"	60,5	2,38	34,2	1,35	55,0	2,17
AK90B-12-12	19	3/4"	12	3/4"	62,5	2,46	38,0	1,50	56,5	2,22
AK90B-16-16	25	1"	16	1"	70,6	2,78	44,4	1,75	70,0	2,76
AK90B-24-24	38	1.1/2"	24	1.1/2"	118,0	4,65	60,3	2,37	110,0	4,33
AK90B-32-32	51	2"	32	2"	154,0	6,06	71,4	2,81	140,0	5,51

# AX10B

## SAE 3000 code 61 straight flange

NO SKIVE / EXTERNAL SKIVE

ISO 6162-1 / SAE J518-1

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FERRULE.....  
**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

NPTF-NPSM

JIS

**SAE 3000 CODE 61**

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			flange	A		C	
	dn	inch	size		mm	in	mm	in
AX10B-08-08	12	1/2"	08	1/2"	38,0	1,50	30,2	1,19
AX10B-08-12	12	1/2"	08	3/4"	39,0	1,54	38,1	1,50
AX10B-10-12	16	5/8"	10	3/4"	39,0	1,54	38,1	1,50
AX10B-12-12	19	3/4"	12	3/4"	39,5	1,56	38,1	1,50
AX10B-12-16	19	3/4"	12	1"	46,0	1,81	44,5	1,75
AX10B-12-20	19	3/4"	12	1.1/4"	47,0	1,85	50,8	2,00
AX10B-16-16	25	1"	16	1"	47,6	1,87	44,5	1,75
AX10B-16-20	25	1"	16	1.1/4"	48,5	1,91	50,8	2,00
AX10B-20-16	31	1.1/4"	20	1"	58,5	2,30	44,5	1,75
AX10B-20-20	31	1.1/4"	20	1.1/4"	49,5	1,95	50,8	2,00
AX10B-20-24	31	1.1/4"	20	1.1/2"	53,0	2,09	60,3	2,37
AX10B-24-20	38	1.1/2"	24	1.1/4"	57,5	2,26	50,8	2,00
AX10B-24-24	38	1.1/2"	24	1.1/2"	53,1	2,09	60,3	2,37
AX10B-24-32	38	1.1/2"	24	2"	74,5	2,93	71,4	2,81
AX10B-32-24	51	2"	32	1.1/2"	89,0	3,50	60,3	2,37
AX10B-32-32	51	2"	32	2"	78,5	3,09	71,4	2,81
AX10B-32-40	51	2"	32	2.1/2"	78,5	3,09	84,1	3,31
AX10B-40-40	63	2.1/2"	40	2.1/2"	90,0	3,54	84,1	3,31
AX10B-40-48	63	2.1/2"	40	3"	90,0	3,54	101,6	4,00
AX10B-48-48	76	3"	48	3"	64,5	2,54	101,6	4,00

# AX20B

**SAE 3000 code 61 - 22,5° elbow flange**

NO SKIVE / EXTERNAL SKIVE

ISO 6162-1 / SAE J518-1

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

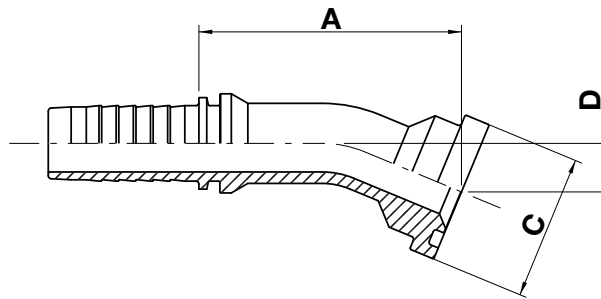
NPTF-NPSM

JIS

**SAE 3000 CODE 61**

SAE 6000 CODE 62

STAPLE LOCK



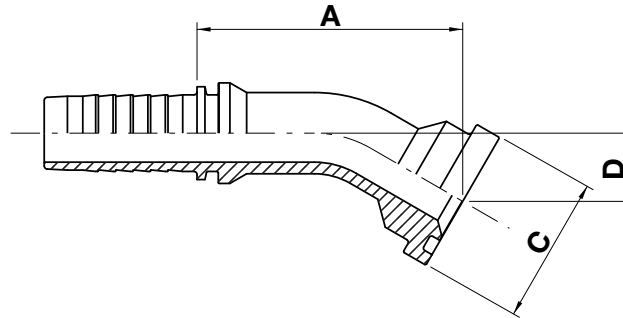
code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX20B-12-12	19	3/4"	12	3/4"	68,9	2,71	38,1	1,50	12,7	0,50
AX20B-16-16	25	1"	16	1"	72,0	2,83	44,5	1,75	11,5	0,45
AX20B-20-20	31	1.1/4"	20	1.1/4"	96,5	3,80	50,8	2,00	13,5	0,53
AX20B-24-24	38	1.1/2"	24	1.1/2"	99,0	3,90	60,3	2,37	17,2	0,68
AX20B-24-32	38	1.1/2"	24	2"	99,0	3,90	71,4	2,81	17,2	0,68
AX20B-32-32	51	2"	32	2"	133,3	5,25	71,4	2,81	23,0	0,91
AX20B-40-40	63	2.1/2"	40	2.1/2"	105,0	4,13	84,1	3,31	18,6	0,73
AX20B-40-48	63	2.1/2"	40	3"	105,0	4,13	101,6	4,00	18,6	0,73

# AX30B

SAE 3000 code 61 - 30° elbow flange

NO SKIVE / EXTERNAL SKIVE

ISO 6162-1 / SAE J518-1



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FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS

**SAE 3000 CODE 61**  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX30B-12-12	19	3/4"	12	3/4"	68,7	2,70	38,1	1,50	17,6	0,69
AX30B-16-16	25	1"	16	1"	77,0	3,03	44,5	1,75	16,5	0,65
AX30B-20-20	31	1.1/4"	20	1.1/4"	94,5	3,72	50,8	2,00	19,0	0,75
AX30B-24-24	38	1.1/2"	24	1.1/2"	103,0	4,06	60,3	2,37	24,2	0,95
AX30B-24-32	38	1.1/2"	24	2"	103,0	4,06	71,4	2,81	24,2	0,95
AX30B-32-32	51	2"	32	2"	140,3	5,52	71,4	2,81	32,0	1,26
AX30B-40-40	63	2.1/2"	40	2.1/2"	114,4	4,50	84,1	3,31	27,7	1,09
AX30B-40-48	63	2.1/2"	40	3"	114,4	4,50	101,6	4,00	27,7	1,09

# AX40B

## SAE 3000 code 61 - 45° elbow flange

NO SKIVE / EXTERNAL SKIVE

ISO 6162-1 / SAE J518-1

FERRULE

## FITTING

BSP-BSPT

METRIC

JIC

ORFS

SAE

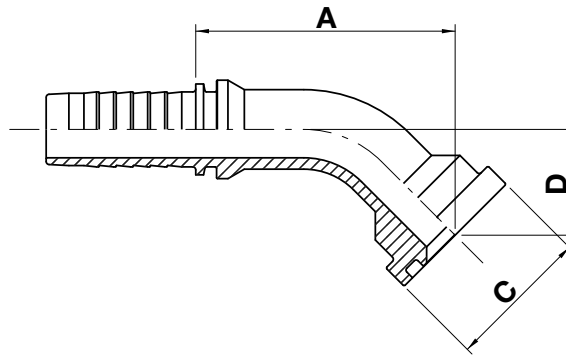
NPTF-NPSM

JIS

**SAE 3000 CODE 61**

SAE 6000 CODE 62

STAPLE LOCK



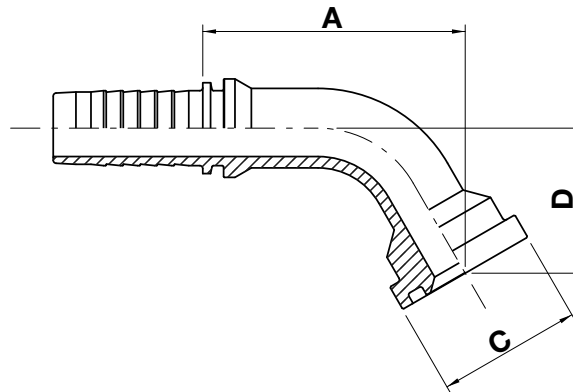
code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX40B-08-08	12	1/2"	08	1/2"	55,2	2,17	30,2	1,19	21,9	0,86
AX40B-08-12	12	1/2"	08	3/4"	60,1	2,37	38,1	1,50	24,3	0,96
AX40B-10-12	16	5/8"	10	3/4"	66,0	2,60	38,1	1,50	26,9	1,06
AX40B-12-12	19	3/4"	12	3/4"	68,5	2,70	38,1	1,50	27,9	1,10
AX40B-12-16	19	3/4"	12	1"	70,5	2,77	44,5	1,75	29,0	1,14
AX40B-16-16	25	1"	16	1"	74,4	2,93	44,5	1,75	27,0	1,06
AX40B-16-20	25	1"	16	1.1/4"	76,2	3,00	50,8	2,00	29,0	1,14
AX40B-20-20	31	1.1/4"	20	1.1/4"	88,0	3,46	50,8	2,00	31,1	1,22
AX40B-20-24	31	1.1/4"	20	1.1/2"	90,0	3,54	60,3	2,37	31,0	1,22
AX40B-24-24	38	1.1/2"	24	1.1/2"	100,0	3,94	60,3	2,37	39,4	1,55
AX40B-24-32	38	1.1/2"	24	2"	105,0	4,13	71,4	2,81	39,4	1,55
AX40B-32-24	51	2"	32	1.1/2"	122,3	4,81	60,3	2,37	39,4	1,55
AX40B-32-32	51	2"	32	2"	142,3	5,60	71,4	2,81	53,0	2,09
AX40B-32-40	51	2"	32	2.1/2"	164,0	6,46	84,1	3,31	61,0	2,40
AX40B-40-40	63	2.1/2"	40	2.1/2"	134,4	5,29	84,1	3,31	49,0	1,93
AX40B-40-48	63	2.1/2"	40	3"	137,9	5,43	101,6	4,00	52,5	2,07
AX40B-48-48	76	3"	48	3"	123,2	4,85	101,6	4,00	41,3	1,63

# AX60B

SAE 3000 code 61 - 60° elbow flange

NO SKIVE / EXTERNAL SKIVE

ISO 6162-1 / SAE J518-1



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FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS

**SAE 3000 CODE 61**  
SAE 6000 CODE 62  
STAPLE LOCK

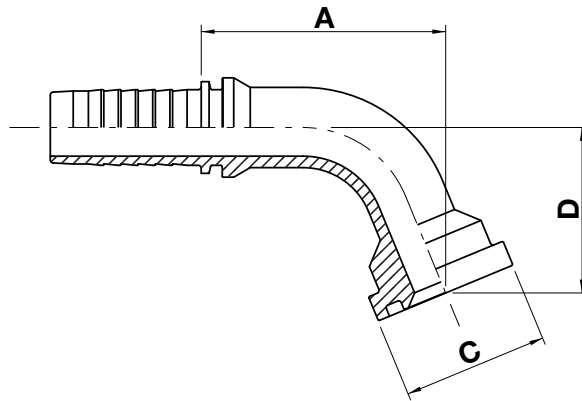
code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX60B-12-12	19	3/4"	12	3/4"	69,3	2,73	38,1	1,50	38,3	1,51
AX60B-16-16	25	1"	16	1"	78,7	3,10	44,5	1,75	40,0	1,58
AX60B-20-20	31	1.1/4"	20	1.1/4"	94,6	3,72	50,8	2,00	43,9	1,73
AX60B-24-24	38	1.1/2"	24	1.1/2"	114,0	4,49	60,3	2,37	52,0	2,05
AX60B-24-32	38	1.1/2"	24	2"	114,0	4,49	71,4	2,81	55,3	2,18
AX60B-32-32	51	2"	32	2"	157,3	6,19	71,4	2,81	76,0	2,99
AX60B-40-40	63	2.1/2"	40	2.1/2"	138,3	5,44	84,1	3,31	73,4	2,89
AX60B-40-48	63	2.1/2"	40	3"	138,3	5,44	101,6	4,00	73,4	2,89

# AX70B

**SAE 3000 code 61 - 67,5° elbow flange**

NO SKIVE / EXTERNAL SKIVE

ISO 6162-1 / SAE J518-1



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

NPTF-NPSM

JIS

**SAE 3000 CODE 61**

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX70B-12-12	19	3/4"	12	3/4"	64,0	2,52	38,1	1,50	43,3	1,70
AX70B-16-16	25	1"	16	1"	76,0	2,99	44,5	1,75	46,0	1,81
AX70B-20-20	31	1.1/4"	20	1.1/4"	93,5	3,68	50,8	2,00	50,3	1,98
AX70B-24-24	38	1.1/2"	24	1.1/2"	108,5	4,27	60,3	2,37	59,5	2,34
AX70B-24-32	38	1.1/2"	24	2"	111,0	4,37	71,4	2,81	63,0	2,48
AX70B-32-32	51	2"	32	2"	155,3	6,11	71,4	2,81	87,5	3,44
AX70B-40-40	63	2.1/2"	40	2.1/2"	140,4	5,53	84,1	3,31	86,3	3,40
AX70B-40-48	63	2.1/2"	40	3"	140,4	5,53	101,6	4,00	86,3	3,40

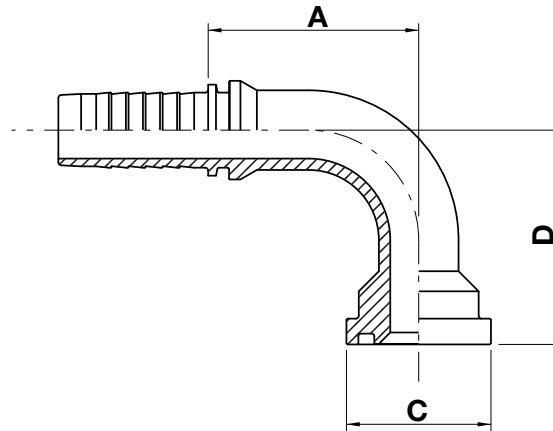
# AX90B



## SAE 3000 code 61 - 90° elbow flange

NO SKIVE / EXTERNAL SKIVE

ISO 6162-1 / SAE J518-1



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FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS

**SAE 3000 CODE 61**  
SAE 6000 CODE 62  
STAPLE LOCK

code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX90B-06-08	10	3/8"	06	1/2"	52,0	2,05	30,2	1,19	45,0	1,77
AX90B-08-08	12	1/2"	08	1/2"	46,5	1,83	30,2	1,19	45,0	1,77
AX90B-08-12	12	1/2"	08	3/4"	49,0	1,93	38,1	1,50	49,5	1,95
AX90B-10-12	16	5/8"	10	3/4"	55,5	2,19	38,1	1,50	55,0	2,17
AX90B-12-12	19	3/4"	12	3/4"	55,5	2,19	38,1	1,50	56,5	2,22
AX90B-12-16	19	3/4"	12	1"	55,5	2,19	44,5	1,75	58,0	2,28
AX90B-12-20	19	3/4"	12	1.1/4"	62,2	2,45	50,8	2,00	62,0	2,44
AX90B-16-12	25	1"	16	3/4"	63,0	2,48	38,0	1,50	56,5	2,22
AX90B-16-16	25	1"	16	1"	70,0	2,76	44,5	1,75	61,0	2,40
AX90B-16-20	25	1"	16	1.1/4"	69,9	2,75	50,8	2,00	61,0	2,40
AX90B-16-24	25	1"	16	1.1/2"	79,0	3,01	60,3	2,37	73,0	2,87
AX90B-20-16	31	1.1/4"	20	1"	102,0	4,02	44,5	1,75	93,0	3,66
AX90B-20-20	31	1.1/4"	20	1.1/4"	86,8	3,42	50,8	2,00	69,2	2,72
AX90B-20-24	31	1.1/4"	20	1.1/2"	85,0	3,35	60,3	2,37	69,2	2,72
AX90B-24-20	38	1.1/2"	24	1.1/4"	91,5	3,60	50,8	2,00	69,2	2,72
AX90B-24-24	38	1.1/2"	24	1.1/2"	104,0	4,09	60,3	2,37	81,0	3,19
AX90B-24-32	38	1.1/2"	24	2"	102,0	4,02	71,4	2,81	85,0	3,35
AX90B-32-24	51	2"	32	1.1/2"	115,0	4,53	60,3	2,37	81,0	3,19
AX90B-32-32	51	2"	32	2"	132,3	5,21	71,4	2,81	123,0	4,84



← AX90B

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

NPTF-NPSM

JIS

**SAE 3000 CODE 61**

SAE 6000 CODE 62

STAPLE LOCK

code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX90B-32-40	51	2"	32	2.1/2"	151,0	5,94	84,1	3,31	132,0	5,20
AX90B-40-40	63	2.1/2"	40	2.1/2"	136,2	5,36	84,1	3,31	125,0	4,92
AX90B-40-48	63	2.1/2"	40	3"	136,2	5,36	101,6	4,00	125,0	4,92
AX90B-48-48	76	3"	48	3"	132,7	5,22	101,6	4,00	114,2	4,50

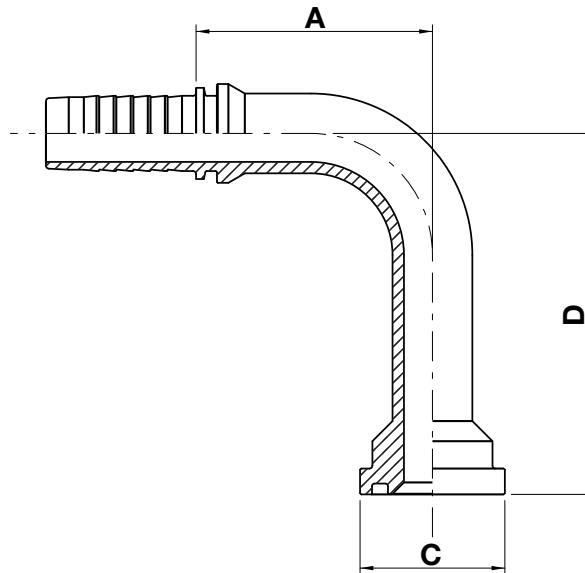


# AX90B-L

SAE 3000 code 61 - 90° elbow flange (long drop)

NO SKIVE / EXTERNAL SKIVE

ISO 6162-1 / SAE J518-1



- .....
- FERRULE
- .....
- FITTING**
- BSP-BSPT
- METRIC
- JIC
- ORFS
- SAE
- NPTF-NPSM
- JIS
- SAE 3000 CODE 61**
- SAE 6000 CODE 62
- STAPLE LOCK

code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX90B-12-12-95	19	3/4"	12	3/4"	62,2	2,45	38,0	1,50	95,0	3,74
AX90B-12-16-100	19	3/4"	12	1"	61,2	2,41	44,5	1,75	100,0	3,94
AX90B-16-16-80	25	1"	16	1"	67,0	2,64	44,5	1,75	80,0	3,15
AX90B-16-16-115	25	1"	16	1"	79,0	3,11	44,5	1,75	115,0	4,53
AX90B-24-24-150	38	1.1/2"	24	1.1/2"	104,0	4,09	60,3	2,37	150,0	5,91
AX90B-32-32-100	51	2"	32	2"	137,0	5,39	71,4	2,81	105,0	4,13
AX90B-32-32-203	51	2"	32	2"	132,3	5,21	71,4	2,81	203,0	7,99

# AY10B

SAE 6000 code 62 straight flange

NO SKIVE / EXTERNAL SKIVE

ISO 6162-2 / SAE J518-2

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

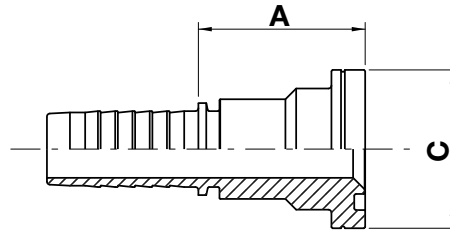
NPTF-NPSM

JIS

SAE 3000 CODE 61

**SAE 6000 CODE 62**

STAPLE LOCK



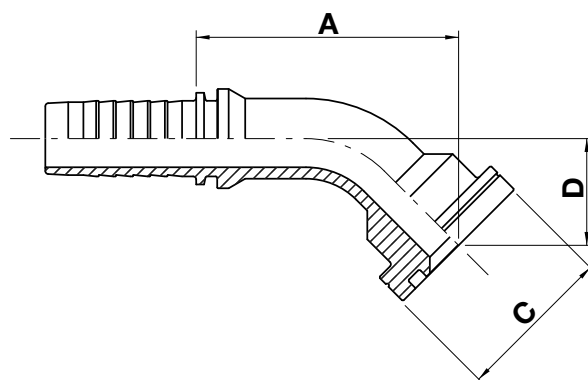
code	ø hose			flange	A		C	
	dn	inch	size		mm	in	mm	in
AY10B-08-08	12	1/2"	08	1/2"	46,0	1,81	31,7	1,25
AY10B-08-12	12	1/2"	08	3/4"	43,0	1,69	41,3	1,63
AY10B-10-08	16	5/8"	10	1/2"	42,5	1,67	31,7	1,25
AY10B-10-12	16	5/8"	10	3/4"	43,0	1,69	41,3	1,63
AY10B-12-12	19	3/4"	12	3/4"	43,5	1,71	41,3	1,63
AY10B-12-16	19	3/4"	12	1"	59,0	2,32	47,6	1,88
AY10B-16-12	25	1"	16	3/4"	56,0	2,20	41,3	1,63
AY10B-16-16	25	1"	16	1"	60,5	2,38	47,6	1,88
AY10B-16-20	25	1"	16	1.1/4"	67,5	2,66	54,0	2,13
AY10B-20-16	31	1.1/4"	20	1"	67,0	2,64	47,6	1,88
AY10B-20-20	31	1.1/4"	20	1.1/4"	70,0	2,76	54,0	2,13
AY10B-20-24	31	1.1/4"	20	1.1/2"	76,0	2,99	63,5	2,50
AY10B-24-24	38	1.1/2"	24	1.1/2"	76,0	2,99	63,5	2,50
AY10B-24-32	38	1.1/2"	24	2"	78,0	3,07	79,4	3,13
AY10B-32-24	51	2"	32	1.1/2"	130,0	5,12	63,5	2,50
AY10B-32-32	51	2"	32	2"	88,5	3,48	79,4	3,13

# AY40B

SAE 6000 code 62 - 45° elbow flange

NO SKIVE / EXTERNAL SKIVE

ISO 6162-2 / SAE J518-2



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
SAE  
NPTF-NPSM  
JIS  
SAE 3000 CODE 61  
**SAE 6000 CODE 62**  
STAPLE LOCK

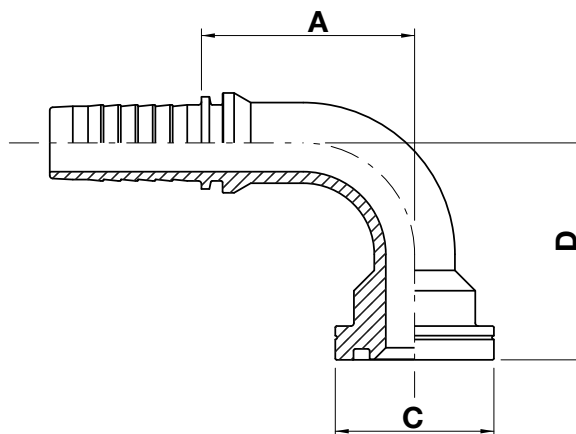
code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AY40B-08-08	12	1/2"	08	1/2"	56,0	2,20	31,7	1,25	23,3	0,92
AY40B-08-12	12	1/2"	08	3/4"	66,5	2,62	41,3	1,63	30,0	1,18
AY40B-10-08	16	5/8"	10	1/2"	70,0	2,76	31,7	1,25	24,8	0,98
AY40B-10-12	16	5/8"	10	3/4"	68,0	2,68	41,3	1,63	29,0	1,14
AY40B-12-12	19	3/4"	12	3/4"	68,7	2,70	41,3	1,63	27,9	1,10
AY40B-12-16	19	3/4"	12	1"	74,7	2,94	47,6	1,88	33,9	1,34
AY40B-16-16	25	1"	16	1"	78,9	3,11	47,6	1,88	30,8	1,21
AY40B-16-20	25	1"	16	1.1/4"	92,0	3,62	54,0	2,13	39,9	1,57
AY40B-20-16	31	1.1/4"	20	1"	106,0	4,18	47,6	1,88	38,0	1,50
AY40B-20-20	31	1.1/4"	20	1.1/4"	111,3	4,38	54,0	2,13	43,8	1,72
AY40B-20-24	31	1.1/4"	20	1.1/2"	115,0	4,53	63,5	2,50	48,0	1,89
AY40B-24-20	38	1.1/2"	24	1.1/4"	114,2	4,50	54,0	2,13	43,8	1,72
AY40B-24-24	38	1.1/2"	24	1.1/2"	126,0	4,96	63,5	2,50	47,4	1,87
AY40B-24-32	38	1.1/2"	24	2"	133,8	5,27	79,4	3,13	57,7	2,27
AY40B-32-24	51	2"	32	1.1/2"	150,4	5,92	63,5	2,50	47,4	1,87
AY40B-32-32	51	2"	32	2"	169,0	6,65	79,4	3,13	63,9	2,52

# AY90B

**SAE 6000 code 62 - 90° elbow flange**

NO SKIVE / EXTERNAL SKIVE

ISO 6162-2 / SAE J518-2



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

**SAE 6000 CODE 62**

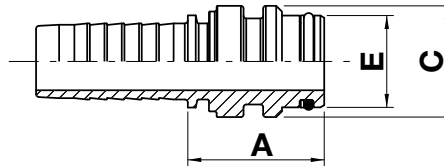
STAPLE LOCK

code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AY90B-08-08	12	1/2"	08	1/2"	46,5	1,83	31,7	1,25	47,0	1,85
AY90B-08-12	12	1/2"	08	3/4"	50,5	1,99	41,3	1,63	56,0	2,20
AY90B-10-08	16	5/8"	10	1/2"	55,0	2,17	31,7	1,25	52,0	2,05
AY90B-10-12	16	5/8"	10	3/4"	53,5	2,11	41,3	1,63	58,0	2,28
AY90B-10-16	16	5/8"	10	1/2"	57,5	2,26	47,6	1,88	66,0	2,60
AY90B-12-12	19	3/4"	12	3/4"	55,5	2,19	41,3	1,63	56,5	2,22
AY90B-12-16	19	3/4"	12	1"	55,5	2,19	47,6	1,88	65,0	2,56
AY90B-16-16	25	1"	16	1"	76,0	2,99	47,6	1,88	66,0	2,60
AY90B-16-20	25	1"	16	1.1/4"	78,0	3,07	54,0	2,13	80,5	3,17
AY90B-20-16	31	1.1/4"	20	1"	96,0	3,78	47,6	1,88	85,0	3,35
AY90B-20-20	31	1.1/4"	20	1.1/4"	101,7	4,00	54,0	2,13	86,0	3,39
AY90B-20-24	31	1.1/4"	20	1.1/2"	102,3	4,03	63,5	2,50	98,0	3,86
AY90B-24-24	38	1.1/2"	24	1.1/2"	111,0	4,37	63,5	2,50	104,0	4,09
AY90B-24-32	38	1.1/2"	24	2"	113,0	4,45	79,4	3,13	119,5	4,70
AY90B-32-32	51	2"	32	2"	149,3	5,88	79,4	3,13	134,0	5,28

# ST11B

## Staple lock male

NO SKIVE / EXTERNAL SKIVE



FERRULE

FITTING

BSP-BSPT

METRIC

JIC

ORFS

SAE

NPTF-NPSM

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

**STAPLE LOCK**

code	ø hose			A		C		E	
	dn	inch	size	mm	in	mm	in	mm	in
ST11B-04-04	6	1/4"	04	35,5	1,40	14,9	0,59	9,9	0,39
ST11B-04-06	6	1/4"	04	34,5	1,36	19,9	0,78	13,9	0,55
ST11B-06-06	10	3/8"	06	34,5	1,36	19,9	0,79	13,9	0,55
ST11B-08-08	12	1/2"	08	35,0	1,38	23,9	0,94	17,9	0,70
ST11B-10-10	16	5/8"	10	36,0	1,42	25,9	1,02	20,9	0,82
ST11B-12-12	19	3/4"	12	35,5	1,40	28,9	1,14	23,9	0,94
ST11B-16-16	25	1"	16	44,0	1,73	38,9	1,53	30,9	1,22
ST11B-20-20	31	1.1/4"	20	47,0	1,85	45,9	1,81	37,9	1,49
ST11B-24-24	38	1.1/2"	24	51,0	2,01	54,9	2,16	46,9	1,85
ST11B-32-32	51	2"	32	57,0	2,24	63,9	2,52	55,9	2,20
ST11B-40-40	63	2.1/2"	40	100,5	3,96	80,9	3,19	79,0	3,11

# WO10B

## Brazing tail

.....  
FERRULE

.....  
**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

SAE

NPTF-NPSM

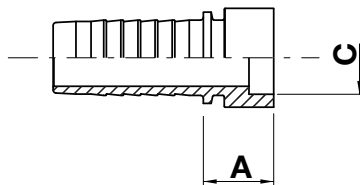
GREASE

JIS

SAE 3000 CODE 61

SAE 6000 CODE 62

STAPLE LOCK



code	ø hose			A		C	
	dn	inch	size	mm	in	mm	in
WO10B-04-04	6	1/4"	04	14,5	0,57	6,5	0,26
WO10B-06-06	10	3/8"	06	16,5	0,65	9,5	0,38
WO10B-08-08	12	1/2"	08	17,0	0,67	12,8	0,51
WO10B-10-10	16	5/8"	10	17,0	0,67	16,0	0,63
WO10B-12-12	19	3/4"	12	18,5	0,73	19,2	0,76
WO10B-16-16	25	1"	16	23,0	0,91	25,6	1,01







**SERIES**

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**Interlock fittings for  
4 and 6 spiral hoses**

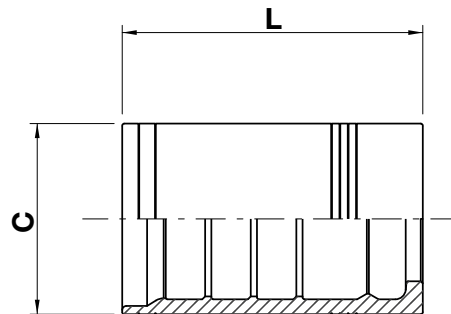


product	standard	code	description	page
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product	standard	code	description	page
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# S004I

## Interlock ferrule



.....  
**FERRULE**

**S004I**

S006I

S007I

.....  
FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
S004I-06	10	3/8"	06	27,0	1,06	49,0	1,93
S004I-08	12	1/2"	08	30,0	1,18	52,5	2,07
S004I-10	16	5/8"	10	34,0	1,34	57,5	2,26
S004I-12	19	3/4"	12	38,0	1,50	60,0	2,36
S004I-16	25	1"	16	46,0	1,81	72,5	2,85
S004I-20	31	1.1/4"	20	55,0	2,17	88,0	3,46
S004I-24	38	1.1/2"	24	62,0	2,44	94,0	3,70
S004I-32	51	2"	32	78,0	3,07	99,0	3,90

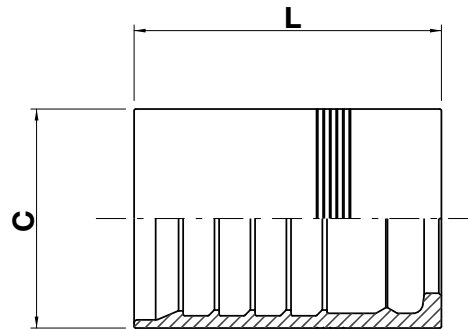
Please refer to our crimping charts for application details of each size

Interlock ferrule for: EN 856 4SH / ISO 18752 / SAE 100 R15

Intertraco/Bridgestone hose type: FlexIT H4, F5000, F6000, 4ST, 4ST+

# S006I

## Interlock ferrule



### FERRULE

S004I

**S006I**

S007I

### FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
S006I-20	31	1.1/4"	20	60,0	2,36	88,0	3,46
S006I-24	38	1.1/2"	24	67,0	2,64	94,0	3,70
S006I-32	51	2"	32	84,5	3,33	99,0	3,90
S006I-40	63	2.1/2"	40	103,0	4,06	133,0	5,24

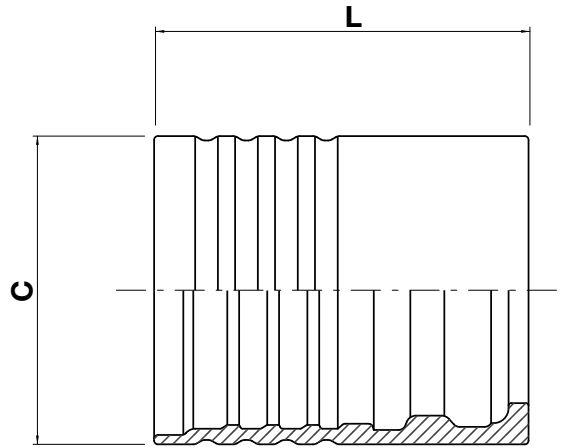
Please refer to our crimping charts for application details of each size

**Interlock ferrule for:** ISO 18752 / SAE 100 R15

**Intertraco/Bridgestone hose type:** FlexIT F5000, F6000, 6ST

# S007I

## Interlock ferrule



.....  
**FERRULE**  
 S004I  
 S006I  
**S007I**  
 .....  
 FITTING

code	ø hose			C		L	
	dn	inch	size	mm	in	mm	in
S007I-48	76	3"	48	123,5	4,86	150,0	5,90

Please refer to our crimping charts for application details of each size

Interlock ferrule for: ISO 18752

Intertraco hose type: FlexIT F5000

# MT10I

BSPT tapered male 60° cone

INTERLOCK

FERRULE

FITTING

**BSP-BSPT**

METRIC

JIC

ORFS

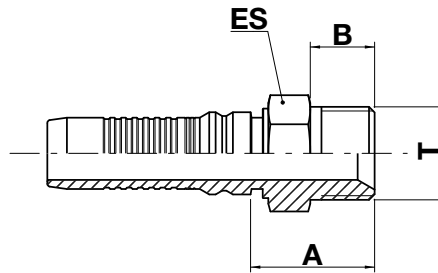
NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE



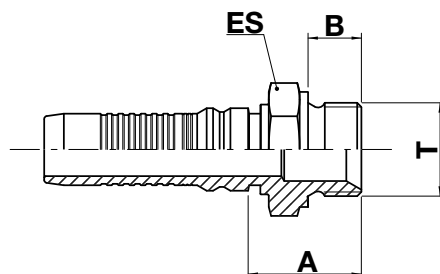
code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	in
MT10I-12-12	19	3/4"	12	3/4"-14	41,0	1,61	20,0	0,79	27,0	1,063	1.1/16"
MT10I-16-16	25	1"	16	1"-11	44,0	1,73	23,0	0,91	36,0	1,417	1.7/16"
MT10I-20-20	31	1.1/4"	20	1.1/4"-11	47,2	1,86	25,0	0,98	46,0	1,811	1.13/16"
MT10I-24-24	38	1.1/2"	24	1.1/2"-11	50,5	1,99	28,0	1,10	50,0	1,969	2"
MT10I-32-32	51	2"	32	2"-11	55,0	2,17	28,0	1,10	60,0	2,362	2.3/8"

# MB10I

BSP male 60° cone

INTERLOCK

ISO 8434-6 / BS 5200



.....  
FERRULE  
.....  
**FITTING**  
**BSP-BSPT**  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	in
MB10I-12-12	19	3/4"	12	3/4"-14	35,0	1,38	16,0	0,63	32,0	1,260	1.1/4"
MB10I-12-16	19	3/4"	12	1"-11	39,0	1,53	19,0	0,75	41,0	1,614	1.5/8"
MB10I-16-16	25	1"	16	1"-11	40,0	1,57	19,0	0,75	41,0	1,614	1.5/8"
MB10I-16-20	25	1"	16	1.1/4"-11	43,0	1,69	20,0	0,79	50,0	1,969	2"
MB10I-20-16	31	1.1/4"	20	1"-11	47,2	1,86	19,0	0,75	41,0	1,614	1.5/8"
MB10I-20-20	31	1.1/4"	20	1.1/4"-11	45,2	1,78	20,0	0,79	50,0	1,969	2"
MB10I-24-16	38	1.1/2"	24	1"-11	47,5	1,87	19,0	0,75	50,0	1,969	2"
MB10I-24-24	38	1.1/2"	24	1.1/2"-11	48,5	1,91	22,0	0,87	55,0	2,165	2.3/16"
MB10I-32-32	51	2"	32	2"-11	58,5	2,30	25,0	0,98	70,0	2,756	2.3/4"

# FO12I

## BSP O-ring female swivel 60° cone

INTERLOCK

ISO 8434-6 / BS 5200

FERRULE

### FITTING

**BSP-BSPT**

METRIC

JIC

ORFS

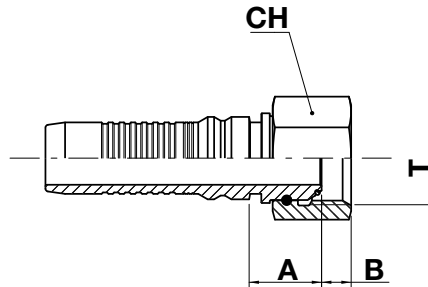
NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE



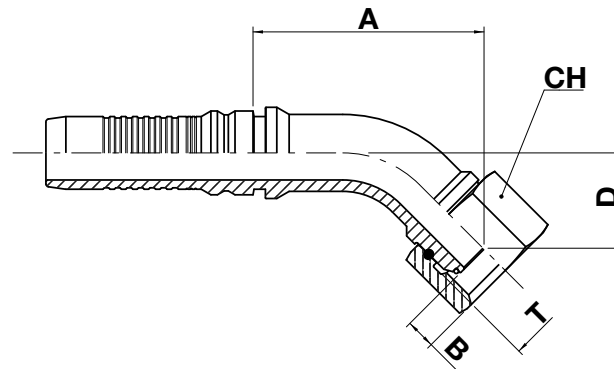
code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	↻ in
FO12I-12-12	19	3/4"	12	3/4"-14	23,3	0,92	9,0	0,35	32,0	1,260	1.1/4"
FO12I-12-16	19	3/4"	12	1"-11	27,5	1,08	10,5	0,41	38,0	1,496	1.1/2"
FO12I-16-16	25	1"	16	1"-11	26,5	1,04	10,5	0,41	38,0	1,496	1.1/2"
FO12I-20-20	31	1.1/4"	20	1.1/4"-11	33,7	1,33	10,0	0,39	50,0	1,969	2"
FO12I-24-24	38	1.1/2"	24	1.1/2"-11	32,5	1,28	12,0	0,47	55,0	2,165	2.3/16"
FO12I-32-32	51	2"	32	2"-11	34,9	1,37	16,0	0,63	70,0	2,756	2.3/4"

# FO42I

## BSP O-ring female swivel 60° cone - 45° elbow

INTERLOCK

ISO 8434-6 / BS 5200



.....  
FERRULE  
.....  
**FITTING**  
**BSP-BSPT**  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

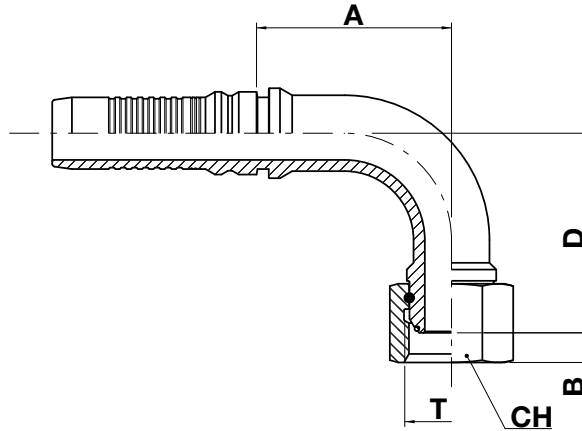
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	in
FO42I-12-12	19	3/4"	12	3/4"-14	66,4	2,61	9,0	0,35	28,3	1,11	32,0	1,260	1.1/4"
FO42I-16-16	25	1"	16	1"-11	80,7	3,18	10,5	0,41	33,8	1,33	38,0	1,496	1.1/2"
FO42I-20-20	31	1.1/4"	20	1.1/4"-11	94,7	3,73	10,0	0,39	37,5	1,48	50,0	1,969	2"
FO42I-24-24	38	1.1/2"	24	1.1/2"-11	116,5	4,59	12,0	0,47	49,2	1,94	55,0	2,165	2.3/16"
FO42I-32-32	51	2"	32	2"-11	137,3	5,41	16,0	0,63	60,3	2,37	70,0	2,756	2.3/4"

# FO92I

## BSP O-ring female swivel 60° cone - 90° elbow

INTERLOCK

ISO 8434-6 / BS 5200



FERRULE

**FITTING****BSP-BSPT**

METRIC

JIC

ORFS

NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE

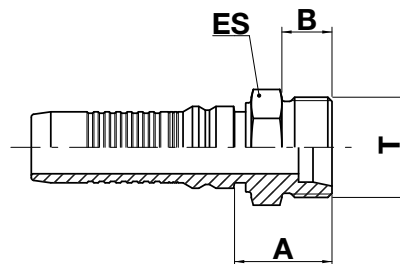
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FO92I-12-12	19	3/4"	12	3/4"-14	53,0	2,09	9,0	0,35	57,0	2,24	32,0	1,260	1.1/4"
FO92I-16-16	25	1"	16	1"-11	69,0	2,72	10,5	0,41	71,0	2,80	38,0	1,496	1.1/2"
FO92I-20-20	31	1.1/4"	20	1.1/4"-11	83,2	3,27	10,0	0,39	77,0	3,03	50,0	1,969	2"
FO92I-20-24	31	1.1/4"	20	1.1/2"-11	79,7	3,14	12,0	0,47	89,0	3,50	55,0	2,165	2.3/16"
FO92I-24-24	38	1.1/2"	24	1.1/2"-11	99,5	3,92	12,0	0,47	100,0	3,94	55,0	2,165	2.3/16"
FO92I-32-32	51	2"	32	2"-11	127,0	5,00	16,0	0,63	128,0	5,04	70,0	2,756	2.3/4"

# MS10I

Metric heavy male (24° cone seat)

INTERLOCK

ISO 8434-1 / DIN 3865



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

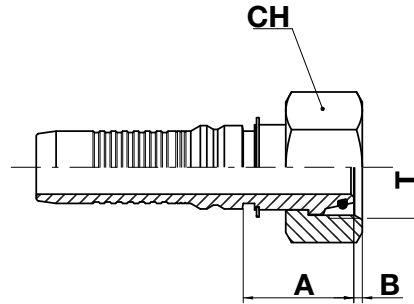
code	ø hose			T	pipe	A		B		ES		
	dn	inch	size			mm	in	mm	in	mm	in	in
MS10I-10-30	16	5/8"	10	M30X2	S20	32,0	1,26	16,0	0,63	30,0	1,181	1.3/16"
MS10I-12-36	19	3/4"	12	M36X2	S25	35,0	1,38	18,0	0,71	36,0	1,417	1.7/16"
MS10I-16-36	25	1"	16	M36X2	S25	35,0	1,38	18,0	0,71	36,0	1,417	1.7/16"
MS10I-16-42	25	1"	16	M42X2	S30	38,0	1,50	20,0	0,79	46,0	1,811	1.13/16"
MS10I-20-52	31	1.1/4"	20	M52X2	S38	47,2	1,86	22,0	0,87	55,0	2,165	2.3/16"
MS10I-24-52	38	1.1/2"	24	M52X2	S38	47,5	1,87	22,0	0,87	55,0	2,165	2.3/16"

# FS13I FS12I

## Metric heavy female swivel (24° cone seat)

INTERLOCK

ISO 8434-1 / DIN 3865



FERRULE

### FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

NPTF

SAE 3000 CODE 61

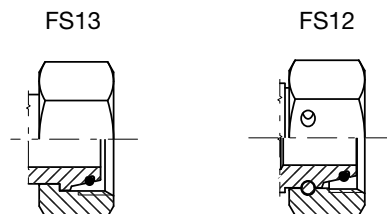
SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE

code	ø hose			T	pipe	A		B		CH		
	dn	inch	size			mm	in	mm	in	mm	in	↗ in
FS13I-10-30	16	5/8"	10	M30X2	S20	34,0	1,34	3,5	0,14	36,0	1,417	1.7/16"
FS13-12-30	19	3/4"	12	M30X2	S20	32,0	1,26	3,5	0,14	36,0	1,417	1.7/16"
FS13I-12-36	19	3/4"	12	M36X2	S25	39,5	1,56	3,0	0,12	46,0	1,811	1.13/16"
FS13I-16-36	25	1"	16	M36X2	S25	39,0	1,54	3,0	0,12	46,0	1,811	1.13/16"
FS13I-16-42	25	1"	16	M42X2	S30	41,5	1,63	6,0	0,24	50,0	1,969	2"
FS12I-20-42	31	1.1/4"	20	M42X2	S30	33,2	1,31	6,0	0,24	50,0	1,969	2"
FS13I-20-52	31	1.1/4"	20	M52X2	S38	45,2	1,78	6,5	0,26	60,0	2,362	2.3/8"
FS13I-24-52	38	1.1/2"	24	M52X2	S38	45,5	1,79	6,5	0,26	60,0	2,362	2.3/8"
FS13I-32-68	51	2"	32	M68X2	S54	67,0	2,64	6,0	0,24	80,0	3,150	3.3/16"
FS13I-40-82	63	2.1/2"	40	M82X2	S63	85,0	3,35	13,0	0,51	95,0	3,740	3.5/8"
FS13I-48-100	76	3"	48	M100X2	S80	104,0	4,09	14,9	0,59	125,0	4,921	5"

### Nut type

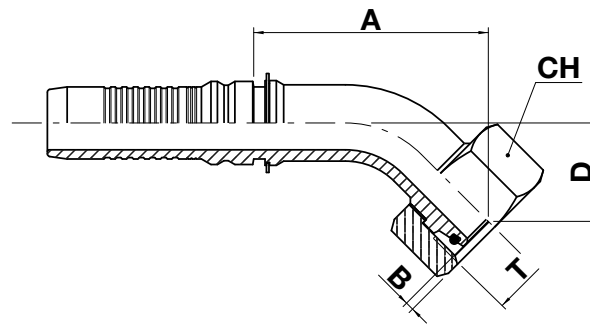


# FS43I


## Metric heavy female swivel - 45° elbow (24° cone seat)

INTERLOCK

ISO 8434-1 / DIN 3865



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
**METRIC**  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

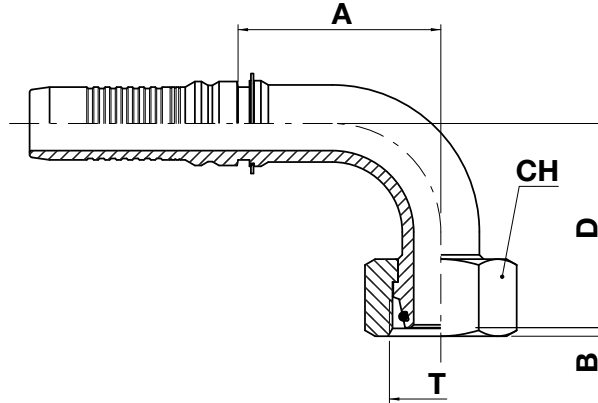
code	ø hose			T	pipe	A		B		D		CH		
	dn	inch	size			mm	in	mm	in	mm	in	mm	in	 in
FS43I-10-30	16	5/8"	10	M30X2	S20	63,6	2,50	3,5	0,14	28,6	1,13	36,0	1,417	1.7/16"
FS43I-12-36	19	3/4"	12	M36X2	S25	67,4	2,65	3,0	0,12	30,4	1,20	46,0	1,811	1.13/16"
FS43I-16-42	25	1"	16	M42X2	S30	86,0	3,39	6,0	0,24	37,3	1,47	50,0	1,969	2"
FS43I-20-52	31	1.1/4"	20	M52X2	S38	115,1	4,53	6,5	0,26	45,7	1,80	60,0	2,362	2.3/8"
FS43I-24-52	38	1.1/2"	24	M52X2	S38	134,5	5,30	6,5	0,26	58,8	2,31	60,0	2,362	2.3/8"

# FS93I

## Metric heavy female swivel - 90° elbow (24° cone seat)

INTERLOCK

ISO 8434-1 / DIN 3865



FERRULE

### FITTING

BSP-BSPT

**METRIC**

JIC

ORFS

NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE

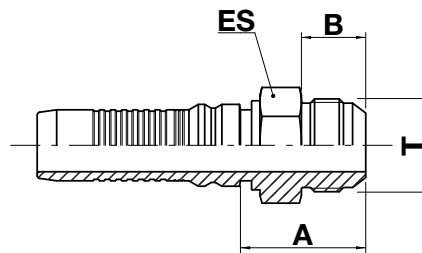
code	ø hose			T	pipe	A		B		D		CH		
	dn	inch	size			mm	in	mm	in	mm	in	mm	in	↗ in
FS93I-10-30	16	5/8"	10	M30X2	S20	52,5	2,07	3,5	0,14	55,0	2,16	36,0	1,417	1.7/16"
FS93I-12-36	19	3/4"	12	M36X2	S25	53,0	2,09	3,0	0,12	60,0	2,36	46,0	1,811	1.13/16"
FS93I-16-36	25	1"	16	M36X2	S25	71,0	2,80	3,0	0,12	71,5	2,81	46,0	1,811	1.13/16"
FS93I-16-42	25	1"	16	M42X2	S30	71,0	2,80	6,0	0,24	75,0	2,95	50,0	1,969	2"
FS93I-20-52	31	1.1/4"	20	M52X2	S38	88,3	3,48	6,5	0,26	95,7	3,77	60,0	2,362	2.3/8"
FS93I-24-52	38	1.1/2"	24	M52X2	S38	109,5	4,31	6,5	0,26	120,0	4,72	60,0	2,362	2.3/8"

# MJ10I

JIC 37° male

INTERLOCK

ISO 8434-2 / SAE J514



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FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
**JIC**  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

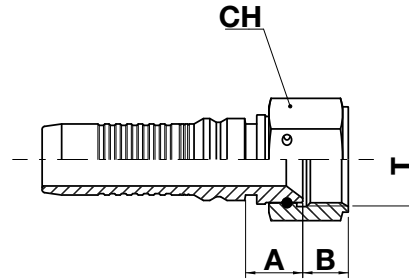
code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	in
MJ10I-12-12	19	3/4"	12	1.1/16"-12	35,5	1,40	21,9	0,86	32,0	1,260	1.1/4"
MJ10I-16-16	25	1"	16	1.5/16"-12	45,0	1,77	23,1	0,91	36,0	1,417	1.7/16"
MJ10I-16-20	25	1"	16	1.5/8"-12	56,8	2,24	24,3	0,96	46,0	1,811	1.13/16"
MJ10I-20-20	31	1.1/4"	20	1.5/8"-12	59,7	2,35	24,3	0,96	46,0	1,811	1.13/16"
MJ10I-20-24	31	1.1/4"	20	1.7/8"-12	63,2	2,49	27,5	1,08	50,0	1,969	2"
MJ10I-24-24	38	1.1/2"	24	1.7/8"-12	63,5	2,50	27,5	1,08	50,0	1,969	2"
MJ10I-32-32	51	2"	32	2.1/2"-12	61,0	2,40	33,9	1,33	65,0	2,559	2.9/16"

# FJ12I

## JIC 37° female swivel

INTERLOCK

ISO 8434-2 / SAE J514



FERRULE

### FITTING

BSP-BSPT

METRIC

**JIC**

ORFS

NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE

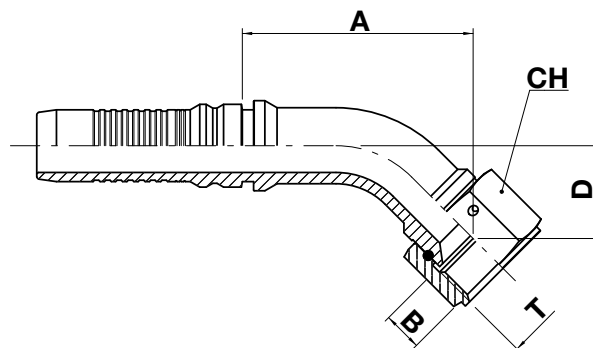
code	ø hose			T	A		B		CH		
	dn	inch	size		mm	in	mm	in	mm	in	in
FJ12I-10-10	16	5/8"	10	7/8"-14	21,0	0,83	13,8	0,54	27,0	1,063	1.1/16"
FJ12I-12-12	19	3/4"	12	1.1/16"-12	19,5	0,77	13,8	0,54	32,0	1,260	1.1/4"
FJ12I-12-16	19	3/4"	12	1.5/16"-12	19,5	0,77	16,0	0,63	38,0	1,496	1.1/2"
FJ12I-16-16	25	1"	16	1.5/16"-12	20,5	0,81	16,0	0,63	38,0	1,496	1.1/2"
FJ12I-16-20	25	1"	16	1.5/8"-12	27,0	1,06	16,0	0,63	50,0	1,969	2"
FJ12I-20-20	31	1.1/4"	20	1.5/8"-12	25,2	0,99	16,0	0,63	50,0	1,969	2"
FJ12I-24-24	38	1.1/2"	24	1.7/8"-12	28,9	1,14	18,5	0,73	55,0	2,165	2.3/16"
FJ12I-32-32	51	2"	32	2.1/2"-12	33,0	1,30	24,0	0,94	75,0	2,953	-

# FJ42I

## JIC 37° female swivel - 45° elbow

INTERLOCK

ISO 8434-2 / SAE J514



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
**JIC**  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

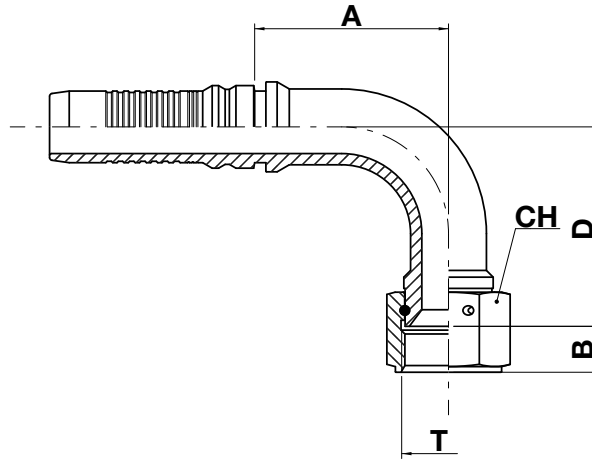
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
FJ42I-10-10	16	5/8"	10	7/8"-14	59,5	2,34	13,5	0,53	25,8	1,02	27,0	1,063	1.1/16"
FJ42I-12-12	19	3/4"	12	1.1/16"-12	65,3	2,57	13,8	0,54	26,9	1,06	32,0	1,260	1.1/4"
FJ42I-16-16	25	1"	16	1.5/16"-12	81,0	3,19	16,0	0,63	32,0	1,26	38,0	1,496	1.1/2"
FJ42I-16-20	25	1"	16	1.5/8"-12	89,2	3,51	16,0	0,63	39,2	1,54	50,0	1,969	2"
FJ42I-20-20	31	1.1/4"	20	1.5/8"-12	94,7	3,73	16,0	0,63	37,5	1,48	50,0	1,969	2"
FJ42I-24-24	38	1.1/2"	24	1.7/8"-12	116,5	4,59	18,5	0,73	49,2	1,94	55,0	2,165	2.3/16"
FJ42I-32-32	51	2"	32	2.1/2"-12	147,6	5,81	24,0	0,94	68,8	2,71	75,0	2,953	-

# FJ92I

## JIC 37° female swivel - 90° elbow

INTERLOCK

ISO 8434-2 / SAE J514



FERRULE

**FITTING**

BSP-BSPT

METRIC

**JIC**

ORFS

NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE

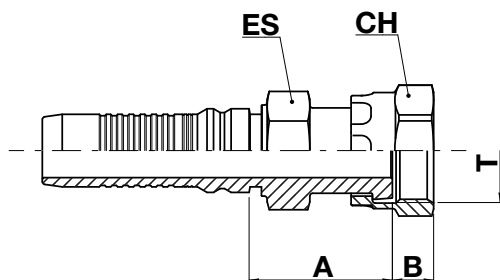
code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↗ in
FJ92I-10-10	16	5/8"	10	7/8"-14	53,7	2,11	13,8	0,54	53,5	2,11	27,0	1,063	1.1/16"
FJ92I-12-12	19	3/4"	12	1.1/16"-12	59,2	2,33	13,8	0,54	55,0	2,17	32,0	1,260	1.1/4"
FJ92I-12-16	19	3/4"	12	1.5/16"-12	53,5	2,11	16,0	0,63	60,0	2,36	38,0	1,496	1.1/2"
FJ92I-16-16	25	1"	16	1.5/16"-12	69,0	2,72	16,0	0,63	71,0	2,80	38,0	1,496	1.1/2"
FJ92I-20-20	31	1.1/4"	20	1.5/8"-12	83,2	3,27	16,0	0,63	77,0	3,03	50,0	1,969	2"
FJ92I-24-24	38	1.1/2"	24	1.7/8"-12	102,0	4,02	18,5	0,73	100,0	3,94	55,0	2,165	2.3/16"
FJ92I-32-32	51	2"	32	2.1/2"-12	122,0	4,80	24,0	0,94	140,0	5,51	75,0	2,953	-

# OR13I OR12I

## ORFS female swivel

INTERLOCK

ISO 8434-3 / SAE J1453



.....  
FERRULE

.....  
**FITTING**

BSP-BSPT

METRIC

JIC

**ORFS**

NPTF

SAE 3000 CODE 61

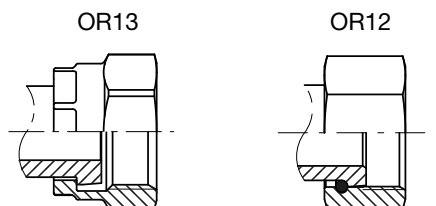
SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE

code	ø hose			T	A		B		ES			CH		
	dn	inch	size		mm	in	mm	in	mm	in	↗ in	mm	in	↗ in
OR13I-12-12	19	3/4"	12	1.3/16"-12	42,0	1,65	14,5	0,57	30,0	1,180	1.3/16"	36,0	1,417	1.7/16"
OR13I-16-16	25	1"	16	1.7/16"-12	50,0	1,97	14,8	0,58	36,0	1,420	1.7/16"	41,0	1,614	1.5/8"
OR12I-16-20	25	1"	16	1.11/16"-12	52,0	2,05	14,8	0,58	41,0	1,610	1.5/8"	50,0	1,969	2"
OR12I-20-20	31	1.1/4"	20	1.11/16"-12	51,2	2,02	14,8	0,58	41,0	1,610	1.5/8"	50,0	1,969	2"
OR12I-20-24	31	1.1/4"	20	2"-12	57,4	2,26	14,8	0,58	50,0	1,970	2"	60,0	2,362	2.3/8"
OR12I-24-24	38	1.1/2"	24	2"-12	58,7	2,31	14,8	0,58	50,0	1,969	2"	60,0	2,362	2.3/8"

### Nut type



# OR44I OR42I

## ORFS female swivel - 45° elbow

INTERLOCK

ISO 8434-3 / SAE J1453

FERRULE

### FITTING

BSP-BSPT

METRIC

JIC

**ORFS**

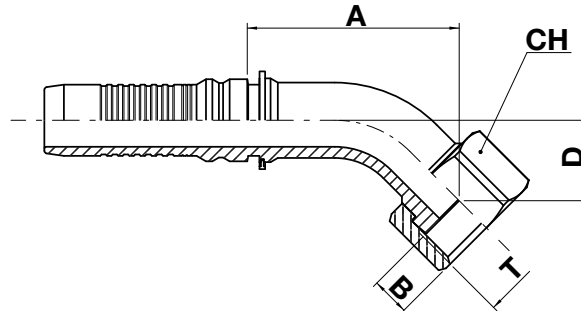
NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE

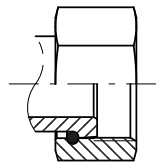
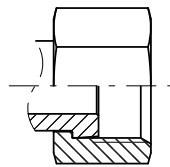


code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
OR44I-12-12	19	3/4"	12	1.3/16"-12	57,4	2,26	14,5	0,57	21,9	0,86	36,0	1,417	1.7/16"
OR44I-16-16	25	1"	16	1.7/16"-12	75,5	2,97	14,8	0,58	29,0	1,14	41,0	1,614	1.5/8"
OR42I-16-20	25	1"	16	1.11/16"-12	85,6	3,37	14,8	0,58	38,7	1,52	50,0	1,969	2"
OR42I-20-20	31	1.1/4"	20	1.11/16"-12	95,1	3,74	14,8	0,58	37,5	1,48	50,0	1,969	2"

### Nut type

OR44

OR42

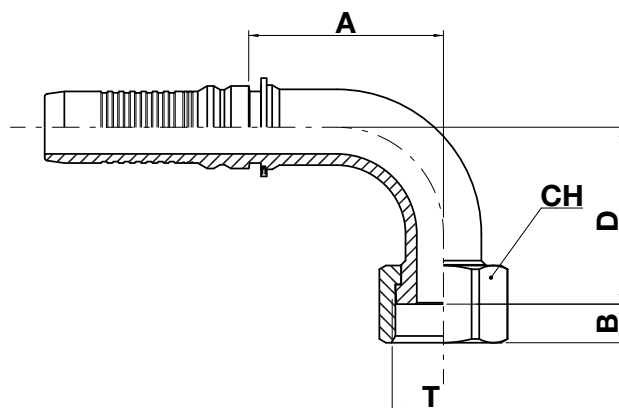


# OR94I OR92I

## ORFS female swivel - 90° elbow

INTERLOCK

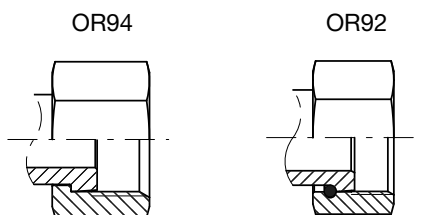
ISO 8434-3 / SAE J1453



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
**ORFS**  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

code	ø hose			T	A		B		D		CH		
	dn	inch	size		mm	in	mm	in	mm	in	mm	in	↻ in
OR94I-12-12	19	3/4"	12	1.3/16"-12	54,5	2,15	14,5	0,57	48,0	1,89	36,0	1,417	1.7/16"
OR94I-16-16	25	1"	16	1.7/16"-12	69,0	2,72	14,8	0,58	63,0	2,48	41,0	1,614	1.5/8"
OR92I-16-20	25	1"	16	1.11/16"-12	69,0	2,72	14,8	0,58	77,0	3,03	50,0	1,969	2"
OR92I-20-20	31	1.1/4"	20	1.11/16"-12	83,6	3,29	14,8	0,58	77,0	3,03	50,0	1,969	2"

### Nut type



# MN10I

**NPTF male (60° cone seat)**

INTERLOCK

SAE J514

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

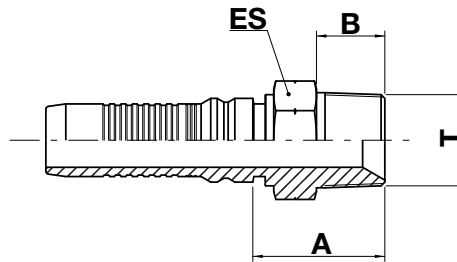
**NPTF**

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE



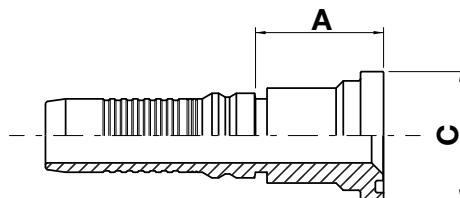
code	ø hose			T	A		B		ES		
	dn	inch	size		mm	in	mm	in	mm	in	in
MN10I-12-12	19	3/4"	12	3/4"-14	40,0	1,57	19,0	0,75	30,0	1,181	1.3/16"
MN10I-16-16	25	1"	16	1"-11.1/2	46,0	1,81	24,0	0,94	36,0	1,417	1.7/16"
MN10I-20-20	31	1.1/4"	20	1 1/4"-11.1/2	60,2	2,37	24,5	0,96	46,0	1,811	1.13/16"
MN10I-24-24	38	1.1/2"	24	1 1/2"-11.1/2	61,5	2,42	25,5	1,00	50,0	1,969	2"
MN10I-32-32	51	2"	32	2"-11.1/2	76,0	2,99	26,0	1,02	65,0	2,559	2.9/16"

# AX10I

## SAE 3000 code 61 straight flange

INTERLOCK

ISO 6162-1 / SAE J518-1



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
**SAE 3000 CODE 61**  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

code	ø hose			flange	A		C	
	dn	inch	size		mm	in	mm	in
AX10I-12-12	19	3/4"	12	3/4"	37,0	1,46	38,1	1,50
AX10I-12-16	19	3/4"	12	1"	43,5	1,71	44,5	1,75
AX10I-16-12	25	1"	16	3/4"	47,0	1,85	38,1	1,50
AX10I-16-16	25	1"	16	1"	44,5	1,75	44,5	1,75
AX10I-16-20	25	1"	16	1.1/4"	44,0	1,73	50,8	2,00
AX10I-20-16	31	1.1/4"	20	1"	59,2	2,33	44,5	1,75
AX10I-20-20	31	1.1/4"	20	1.1/4"	46,7	1,84	50,8	2,00
AX10I-20-24	31	1.1/4"	20	1.1/2"	50,2	1,98	60,3	2,37
AX10I-24-24	38	1.1/2"	24	1.1/2"	50,5	1,99	60,3	2,37
AX10I-24-32	38	1.1/2"	24	2"	72,0	2,83	71,4	2,81
AX10I-32-32	51	2"	32	2"	73,5	2,89	71,4	2,81

# AX30I

SAE 3000 code 61 - 30° elbow flange

INTERLOCK

ISO 6162-1 / SAE J518-1

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

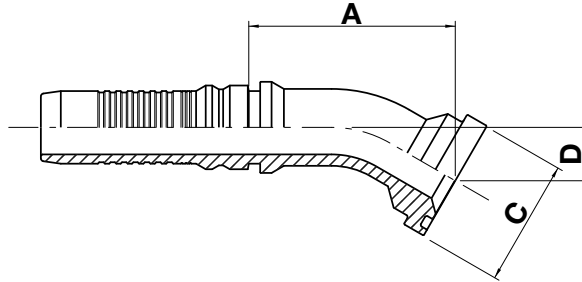
NPTF

**SAE 3000 CODE 61**

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE



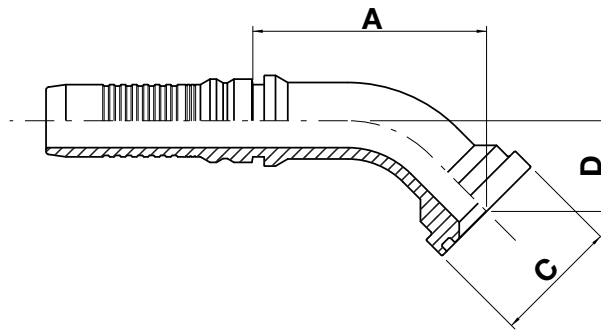
code	ø hose			T	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX30I-16-16	25	1"	16	1"	78,9	3,10	44,5	1,75	19,6	0,77
AX30I-20-20	31	1.1/4"	20	1.1/4"	83,7	3,30	50,8	2,00	19,0	0,75
AX30I-20-24	31	1.1/4"	20	1.1/2"	85,3	3,36	60,3	2,37	19,0	0,75
AX30I-24-24	38	1.1/2"	24	1.1/2"	116,0	4,57	60,3	2,37	28,3	1,11
AX30I-24-32	38	1.1/2"	24	2"	121,5	4,78	71,4	2,81	28,9	1,14
AX30I-32-32	51	2"	32	2"	135,1	5,32	71,4	2,81	32,3	1,27

# AX40I

SAE 3000 code 61 - 45° elbow flange

INTERLOCK

ISO 6162-1 / SAE J518-1



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
**SAE 3000 CODE 61**  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

code	ø hose			T	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX40I-12-12	19	3/4"	12	3/4"	64,0	2,52	38,1	1,50	27,9	1,10
AX40I-12-16	19	3/4"	12	1"	68,0	2,68	44,5	1,75	29,0	1,14
AX40I-16-16	25	1"	16	1"	82,8	3,26	44,5	1,75	32,0	1,26
AX40I-16-20	25	1"	16	1.1/4"	83,0	3,27	50,8	2,00	33,2	1,31
AX40I-20-20	31	1.1/4"	20	1.1/4"	87,9	3,46	50,8	2,00	31,1	1,22
AX40I-20-24	31	1.1/4"	20	1.1/2"	87,1	3,43	60,3	2,37	31,1	1,22
AX40I-24-24	38	1.1/2"	24	1.1/2"	123,0	4,84	60,3	2,37	46,5	1,83
AX40I-24-32	38	1.1/2"	24	2"	128,0	5,04	71,4	2,81	47,4	1,87
AX40I-32-32	51	2"	32	2"	140,0	5,51	71,4	2,81	53,2	2,09

# AX60I

SAE 3000 code 61 - 60° elbow flange

INTERLOCK

ISO 6162-1 / SAE J518-1

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

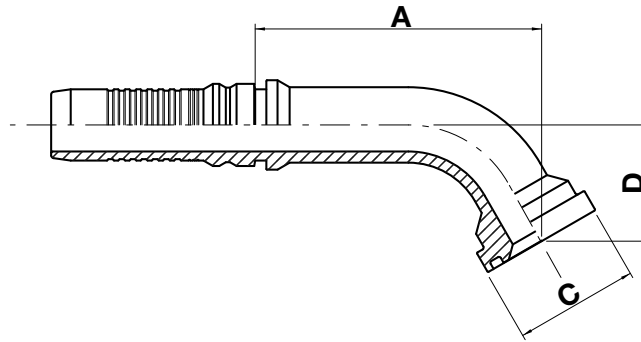
NPTF

**SAE 3000 CODE 61**

SAE 6000 CODE 62

TAPERED SAE

SUPERCAT STYLE



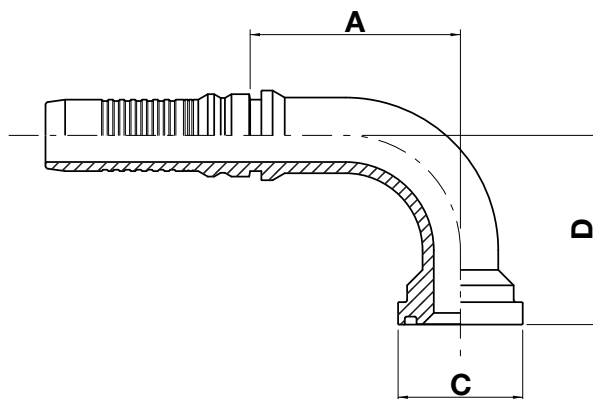
code	ø hose			T	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX60I-16-16	25	1"	16	1"	102,5	4,04	44,5	1,75	41,6	1,64
AX60I-20-20	31	1.1/4"	20	1.1/4"	93,7	3,69	50,8	2,00	43,9	1,73
AX60I-20-24	31	1.1/4"	20	1.1/2"	93,1	3,67	60,3	2,37	44,0	1,73
AX60I-24-24	38	1.1/2"	24	1.1/2"	149,9	5,90	60,3	2,37	66,1	2,60
AX60I-32-32	51	2"	32	2"	198,5	7,81	71,4	2,81	76,3	3,00

# AX90I

## SAE 3000 code 61 - 90° elbow flange

INTERLOCK

ISO 6162-1 / SAE J518-1



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
**SAE 3000 CODE 61**  
SAE 6000 CODE 62  
TAPERED SAE  
SUPERCAT STYLE

code	ø hose			T	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AX90I-12-12	19	3/4"	12	3/4"	53,0	2,09	38,1	1,50	56,5	2,22
AX90I-12-16	19	3/4"	12	1"	53,0	2,09	44,5	1,75	58,0	2,28
AX90I-16-16	25	1"	16	1"	75,0	2,95	44,5	1,75	67,5	2,66
AX90I-16-20	25	1"	16	1.1/4"	76,0	2,99	50,8	2,00	71,0	2,80
AX90I-20-16	31	1.1/4"	20	1"	99,2	3,91	44,5	1,75	93,0	3,66
AX90I-20-20	31	1.1/4"	20	1.1/4"	83,7	3,30	50,8	2,00	69,2	2,72
AX90I-20-24	31	1.1/4"	20	1.1/2"	82,7	3,26	60,3	2,37	69,2	2,72
AX90I-24-24	38	1.1/2"	24	1.1/2"	109,5	4,31	60,3	2,37	103,0	4,06
AX90I-24-32	38	1.1/2"	24	2"	109,5	4,31	71,4	2,81	104,0	4,09
AX90I-32-32	51	2"	32	2"	145,0	5,71	71,4	2,81	123,0	4,84

# AY10I

## SAE 6000 code 62 straight flange

INTERLOCK

ISO 6162-2 / SAE J518-2

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

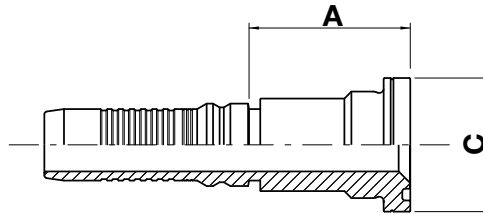
NPTF

SAE 3000 CODE 61

**SAE 6000 CODE 62**

TAPERED SAE

SUPERCAT STYLE



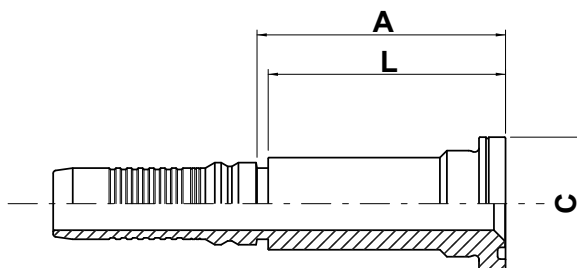
code	ø hose			flange	A		C	
	dn	inch	size		mm	in	mm	in
AY10I-10-08	16	5/8"	10	1/2"	36,0	1,42	31,8	1,25
AY10I-10-12	16	5/8"	10	3/4"	41,0	1,61	41,3	1,63
AY10I-12-12	19	3/4"	12	3/4"	41,0	1,61	41,3	1,63
AY10I-12-16	19	3/4"	12	1"	56,5	2,22	47,6	1,87
AY10I-16-12	25	1"	16	3/4"	53,0	2,09	41,3	1,63
AY10I-16-16	25	1"	16	1"	57,5	2,26	47,6	1,87
AY10I-16-20	25	1"	16	1.1/4"	64,5	2,54	54,0	2,13
AY10I-20-16	31	1.1/4"	20	1"	64,2	2,53	47,6	1,87
AY10I-20-20	31	1.1/4"	20	1.1/4"	67,2	2,65	54,0	2,13
AY10I-20-24	31	1.1/4"	20	1.1/2"	73,2	2,88	63,5	2,50
AY10I-24-20	38	1.1/2"	24	1.1/4"	67,5	2,66	54,0	2,13
AY10I-24-24	38	1.1/2"	24	1.1/2"	73,0	2,87	63,5	2,50
AY10I-24-32	38	1.1/2"	24	2"	83,0	3,27	79,4	3,13
AY10I-32-24	51	2"	32	1.1/2"	82,3	3,24	63,5	2,50
AY10I-32-32	51	2"	32	2"	83,5	3,29	79,4	3,13
AY10I-32-40	51	2"	32	2.1/2"	119,0	4,69	107,7	4,24
AY10I-40-40	63	2.1/2"	40	2.1/2"	136,5	5,37	107,7	4,24
AY10I-48-48	76	3"	48	3"	219,5	8,64	131,7	5,18

# AY10I-L

SAE 6000 code 62 straight flange (long reach version)

INTERLOCK

ISO 6162-2 / SAE J518-2



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
**SAE 6000 CODE 62**  
TAPERED SAE  
SUPERCAT STYLE

code	ø hose			flange	A		C		L	
	dn	inch	size		mm	in	mm	in	mm	in
AY10I-16-16-85	25	1"	16	1"	89,0	3,50	47,6	1,88	85,0	3,35
AY10I-16-20-90	25	1"	16	1.1/4"	94,0	3,70	54,0	2,13	90,0	3,54
AY10I-20-20-90	31	1.1/4"	20	1.1/4"	95,2	3,75	54,0	2,13	90,0	3,54
AY10I-24-24-100	38	1.1/2"	24	1.1/2"	105,5	4,15	63,5	2,50	100,0	3,94
AY10I-32-32-120	51	2"	32	2"	127,0	5,00	79,4	3,13	120,0	4,72

# AY30I

## SAE 6000 code 62 - 30° elbow flange

INTERLOCK

ISO 6162-2 / SAE J518-2

FERRULE

### FITTING

BSP-BSPT

METRIC

JIC

ORFS

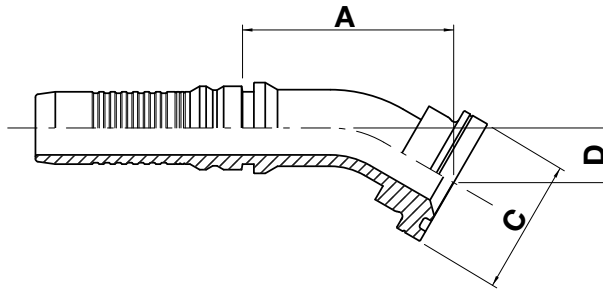
NPTF

SAE 3000 CODE 61

**SAE 6000 CODE 62**

TAPERED SAE

SUPERCAT STYLE



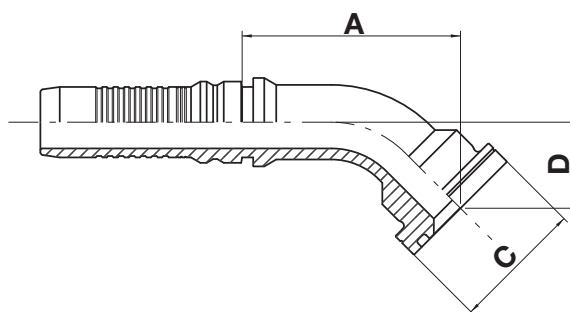
code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AY30I-16-16	25	1"	16	1"	78,9	3,11	44,5	1,75	19,6	0,77
AY30I-16-20	25	1"	16	1.1/4"	92,5	3,64	54,0	2,13	25,2	0,99
AY30I-20-20	25	1"	16	1"	107,0	4,21	54,0	2,13	26,8	1,06
AY30I-24-24	38	1.1/2"	24	1.1/2"	116,0	4,57	63,5	2,50	28,9	1,14

# AY40I

## SAE 6000 code 62 - 45° elbow flange

INTERLOCK

ISO 6162-2 / SAE J518-2



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
**SAE 6000 CODE 62**  
TAPERED SAE  
SUPERCAT STYLE

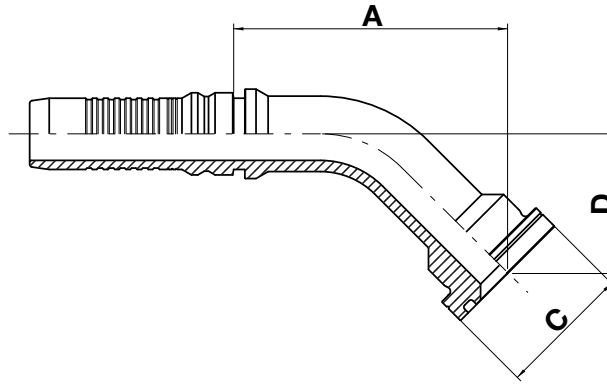
code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AY40I-10-12	16	5/8"	10	3/4"	72,5	2,85	41,3	1,60	29,0	1,14
AY40I-12-12	19	3/4"	12	3/4"	63,7	2,51	41,3	1,60	27,9	1,10
AY40I-12-16	19	3/4"	12	1"	72,0	2,83	47,6	1,88	33,9	1,33
AY40I-16-12	25	1"	16	3/4"	78,9	3,11	41,3	1,60	31,8	1,25
AY40I-16-16	25	1"	16	1"	79,0	3,11	47,6	1,90	31,1	1,22
AY40I-16-20	25	1"	16	1.1/4"	93,0	3,66	54,0	2,13	39,9	1,57
AY40I-20-16	31	1.1/4"	20	1"	110,8	4,36	47,6	1,90	38,1	1,50
AY40I-20-20	31	1.1/4"	20	1"	111,7	4,40	54,0	2,10	43,5	1,71
AY40I-20-24	31	1.1/4"	20	1.1/2"	116,6	4,59	63,5	2,50	47,3	1,86
AY40I-24-20	38	1.1/2"	24	1.1/4"	129,5	5,10	54,0	2,13	53,8	2,12
AY40I-24-24	38	1.1/2"	24	1.1/2"	122,0	4,80	63,5	2,50	47,4	1,87
AY40I-24-32	38	1.1/2"	24	2"	131,3	5,17	79,4	3,10	57,7	2,27
AY40I-32-24	51	2"	32	1.1/2"	148,0	5,82	63,5	2,50	47,4	1,87
AY40I-32-32	51	2"	32	2"	164,6	6,48	79,4	3,13	63,9	2,52
AY40I-32-40	51	2"	32	2.1/2"	174,4	6,87	107,7	4,24	75,9	2,99
AY40I-40-40	63	2.1/2"	40	2.1/2"	265,5	10,4	107,7	4,24	113,5	4,46

# AY40I-L

SAE 6000 code 62 - 45° elbow flange (long drop)

INTERLOCK

ISO 6162-2 / SAE J518-2



FERRULE

**FITTING**

- BSP-BSPT
- METRIC
- JIC
- ORFS
- NPTF
- SAE 3000 CODE 61
- SAE 6000 CODE 62**
- TAPERED SAE
- SUPERCAT STYLE

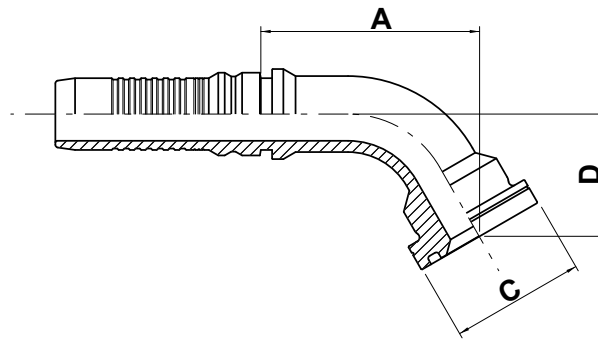
code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AY40I-12-12-45	19	3/4"	12	3/4"	82,3	3,24	41,3	1,63	45,0	1,77
AY40I-12-16-45	19	3/4"	12	1"	83,2	3,28	47,6	1,87	45,0	1,77
AY40I-16-16-50	25	1"	16	1"	98,0	3,86	47,6	1,87	50,0	1,97
AY40I-16-16-100	25	1"	16	1"	149,3	5,88	47,6	1,87	100,0	3,94
AY40I-16-20-105	25	1"	16	1.1/4"	155,0	6,10	54,0	2,13	105,0	4,13
AY40I-20-20-130	31	1.1/4"	20	1.1/4"	195,0	7,68	54,0	2,13	130,0	5,12

# AY60I

SAE 6000 code 62 - 60° elbow flange

INTERLOCK

ISO 6162-2 / SAE J518-2



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
**SAE 6000 CODE 62**  
TAPERED SAE  
SUPERCAT STYLE

code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AY60I-16-16	25	1"	16	1"	79,0	3,11	47,6	1,87	43,4	1,71
AY60I-20-20	31	1.1/4"	20	1.1/4"	107,7	4,24	54,0	2,13	55,1	2,17
AY60I-24-24	38	1.1/2"	24	1.1/2"	136,0	5,35	63,5	2,50	67,0	2,64
AY60I-32-32	51	2"	32	2"	166,1	6,54	79,4	3,13	90,0	3,54

# AY90I

## SAE 6000 code 62 - 90° elbow flange

INTERLOCK

ISO 6162-2 / SAE J518-2

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

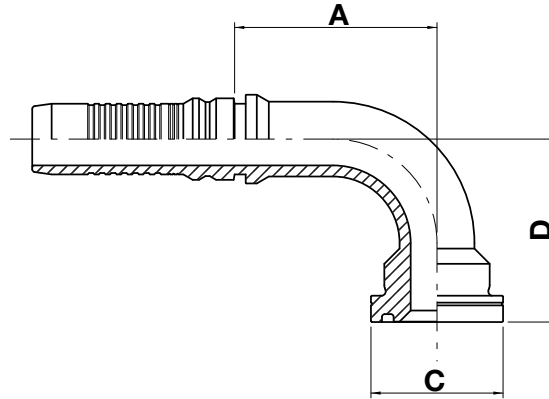
NPTF

SAE 3000 CODE 61

**SAE 6000 CODE 62**

TAPERED SAE

SUPERCAT STYLE



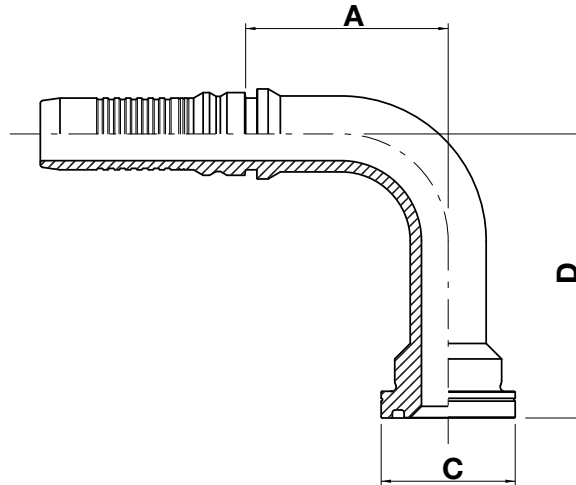
code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AY90I-10-12	16	5/8"	10	3/4"	51,5	2,03	41,3	1,63	58,0	2,28
AY90I-12-12	19	3/4"	12	3/4"	53,0	2,09	41,3	1,63	56,5	2,22
AY90I-12-16	19	3/4"	12	1"	53,0	2,09	47,6	1,88	65,0	2,56
AY90I-16-12	25	1"	16	3/4"	77,0	3,03	41,3	1,63	69,0	2,72
AY90I-16-16	25	1"	16	1"	73,0	2,87	47,6	1,88	66,0	2,60
AY90I-16-20	25	1"	16	1.1/4"	75,0	2,95	54,0	2,13	80,5	3,17
AY90I-16-24	25	1"	16	1.1/2"	76,0	2,99	63,5	2,50	89,0	3,50
AY90I-20-16	31	1.1/4"	20	1"	91,7	3,61	47,6	1,87	85,0	3,35
AY90I-20-20	31	1.1/4"	20	1.1/4"	97,2	3,83	54,0	2,13	86,0	3,39
AY90I-20-24	31	1.1/4"	20	1.1/2"	100,3	3,95	63,5	2,50	98,0	3,86
AY90I-24-20	38	1.1/2"	24	1.1/4"	116,5	4,59	54,0	2,13	113,0	4,45
AY90I-24-24	38	1.1/2"	24	1.1/2"	108,0	4,25	63,5	2,50	104,0	4,09
AY90I-24-32	38	1.1/2"	24	2"	107,5	4,23	79,4	3,13	119,5	4,70
AY90I-32-24	51	2"	32	1.1/2"	117,0	4,61	63,5	2,50	104,0	4,09
AY90I-32-32	51	2"	32	2"	145,0	5,71	79,4	3,13	134,0	5,28
AY90I-40-40	63	2.1/2"	40	2.1/2"	225,5	8,87	107,7	4,24	225,0	8,85
AY90I-48-48	76	3"	48	3"	276,0	10,87	131,7	5,18	250,0	9,84

# AY90I-L

SAE 6000 code 62 - 90° elbow flange (long drop)

INTERLOCK

ISO 6162-2 / SAE J518-2



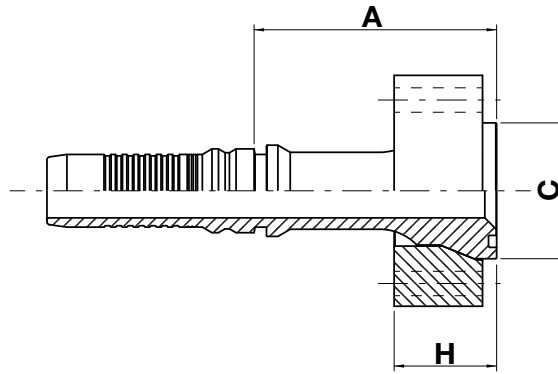
.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
**SAE 6000 CODE 62**  
TAPERED SAE  
SUPERCAT STYLE

code	ø hose			flange	A		C		D	
	dn	inch	size		mm	in	mm	in	mm	in
AY90I-12-12-80	19	3/4"	12	3/4"	62,5	2,46	41,3	1,63	80,0	3,15
AY90I-12-12-100	19	3/4"	12	3/4"	60,0	2,36	41,3	1,63	100,0	3,94
AY90I-12-12-150	19	3/4"	12	3/4"	60,0	2,36	41,3	1,63	150,0	5,90
AY90I-12-16-80	19	3/4"	12	1"	60,0	2,36	47,6	1,88	80,0	3,15
AY90I-12-16-100	19	3/4"	12	1"	60,0	2,36	47,6	1,88	100,0	3,94
AY90I-16-12-108	25	1"	16	3/4"	79,0	3,11	41,3	1,63	108,0	4,25
AY90I-16-16-80	25	1"	16	1"	76,0	3,00	47,6	1,88	80,0	3,15
AY90I-16-16-100	25	1"	16	1"	72,0	2,83	47,6	1,88	100,0	3,94
AY90I-16-16-130	25	1"	16	1"	72,0	2,83	47,6	1,88	130,0	5,12
AY90I-16-16-150	25	1"	16	1"	72,0	2,83	47,6	1,88	150,0	5,90
AY90I-16-20-100	25	1"	16	1.1/4"	76,0	3,00	54,0	2,13	100,0	3,94
AY90I-20-16-150	31	1.1/4"	20	1"	98,7	3,88	47,6	1,88	150,0	5,90
AY90I-20-20-120	31	1.1/4"	20	1.1/4"	97,7	3,84	54,0	2,13	120,0	4,72
AY90I-20-20-150	31	1.1/4"	20	1.1/4"	97,7	3,84	54,0	2,13	150,0	5,90
AY90I-24-24-140	38	1.1/2"	24	1.1/2"	108,0	4,25	63,5	2,50	140,0	5,51
AY90I-32-32-145	50	2"	32	2"	145,0	5,70	79,4	3,13	145,0	5,71

# AL13I

## Tapered SAE straight flange

INTERLOCK



FERRULE

### FITTING

BSP-BSPT

METRIC

JIC

ORFS

NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

**TAPERED SAE**

SUPERCAT STYLE

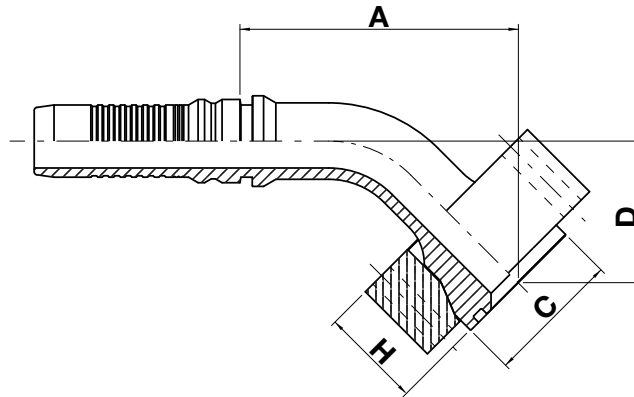
code	ø hose			flange	A		C		H	
	dn	inch	size		mm	in	mm	in	mm	in
AL13I-16-16	25	1"	16	1"	77,0	3,03	47,6	1,87	36,0	1,42
AL13I-20-20	32	1.1/4"	20	1.1/4"	77,2	3,04	54,0	2,12	43,0	1,69
AL13I-24-24	38	1.1/2"	24	1.1/2"	109,0	4,29	63,5	2,50	52,6	2,07
AL13I-32-32	51	2"	32	2"	124,0	4,89	79,4	3,12	63,0	2,48

Heavy duty fitting compatible with ports according to SAE J518 code 62

# AL43I

## Tapered SAE - 45° elbow flange

INTERLOCK



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
**TAPERED SAE**  
SUPERCAT STYLE

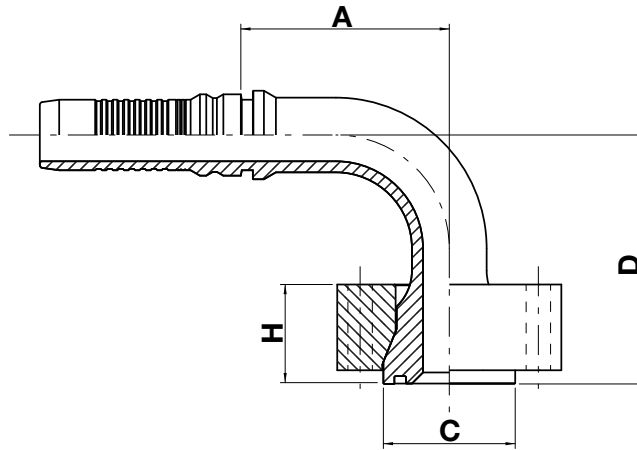
code	ø hose			flange	A		D		C		H	
	dn	inch	size		mm	in	mm	in	mm	in	mm	in
AL43I-16-16	25	1"	16	1"	98,0	3,86	50,0	1,97	47,6	1,87	36,0	1,42
AL43I-20-20	32	1.1/4"	20	1.1/4"	125,0	4,92	60,0	2,36	54,0	2,12	43,0	1,69
AL43I-24-24	38	1.1/2"	24	1.1/2"	157,0	6,18	80,0	3,15	63,5	2,50	52,6	2,07
AL43I-32-32	51	2"	32	2"	186,5	7,34	90,0	3,12	79,4	3,12	63,0	2,48

Heavy duty fitting compatible with ports according to SAE J518 code 62

# AL93I

## Tapered SAE - 90° elbow flange

INTERLOCK



FERRULE

### FITTING

BSP-BSPT

METRIC

JIC

ORFS

NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

**TAPERED SAE**

SUPERCAT STYLE

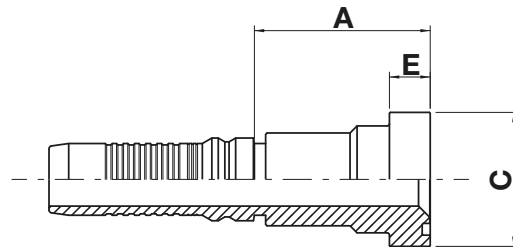
code	ø hose			flange	A		D		C		H	
	dn	inch	size		mm	in	mm	in	mm	in	mm	in
AL93I-16-16	25	1"	16	1"	75,0	2,95	90,0	3,54	47,6	1,87	36,0	1,42
AL93I-20-20	32	1.1/4"	20	1.1/4"	100,0	3,94	120,0	4,72	54,0	2,12	43,0	1,69
AL93I-24-24	38	1.1/2"	24	1.1/2"	117,5	4,62	140,0	5,51	63,5	2,50	52,6	2,07
AL93I-32-32	51	2"	32	2"	149,0	5,87	180,0	7,09	79,4	3,12	63,0	2,48

Heavy duty fitting compatible with ports according to SAE J518 code 62

# AY1CI

“SUPERCAT” style straight flange

INTERLOCK



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
**SUPERCAT STYLE**

code	ø hose			flange	A		C		E	
	dn	inch	size		mm	in	mm	in	mm	in
AY1CI-12-12	19	3/4"	12	3/4"	46,8	1,84	41,3	1,63	14,5	0,57
AY1CI-12-16	19	3/4"	12	1"	61,5	2,42	47,6	1,87	14,5	0,57
AY1CI-16-16	25	1"	16	1"	62,5	2,46	47,6	1,87	14,5	0,57
AY1CI-16-20	25	1"	16	1.1/4"	68,7	2,70	54,0	2,13	14,5	0,57
AY1CI-20-20	31	1.1/4"	20	1.1/4"	71,4	2,81	54,0	2,13	14,5	0,57
AY1CI-20-24	31	1.1/4"	20	1.1/2"	75,2	2,96	63,5	2,50	14,5	0,57
AY1CI-24-24	38	1.1/2"	24	1.1/2"	75,0	2,95	63,5	2,50	14,5	0,57

# AY2CI

“SUPERCAT” style - 22,5° elbow flange

INTERLOCK

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

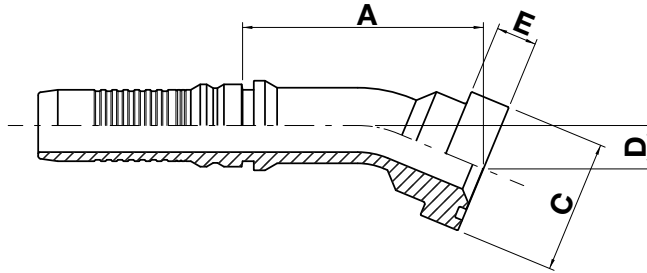
NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

**SUPERCAT STYLE**

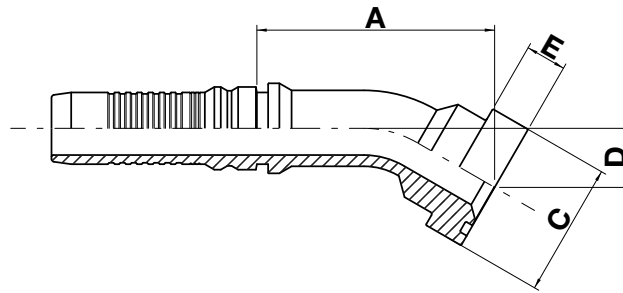


code	ø hose			flange	A		C		D		E	
	dn	inch	size		mm	in	mm	in	mm	in	mm	in
AY2CI-16-16	25	1"	16	1"	86,0	3,39	47,6	1,87	15,5	0,61	14,5	0,57
AY2CI-16-20	25	1"	16	1.1/4"	88,9	3,50	54,0	2,13	19,8	0,78	14,5	0,57
AY2CI-20-20	31	1.1/4"	20	1.1/4"	126,7	4,99	54,0	2,13	20,7	0,81	14,5	0,57
AY2CI-20-24	31	1.1/4"	20	1.1/2"	119,2	4,69	63,5	2,50	22,0	0,87	14,5	0,57
AY2CI-24-24	38	1.1/2"	24	1.1/2"	128,0	5,04	63,5	2,50	21,2	0,83	14,5	0,57

# AY3CI

“SUPERCAT” style - 30° elbow flange

INTERLOCK



.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
**SUPERCAT STYLE**

code	ø hose			flange	A		C		D		E	
	dn	inch	size		mm	in	mm	in	mm	in	mm	in
AY3CI-12-12	19	3/4"	12	3/4"	78,3	3,08	41,3	1,63	20,9	0,82	14,5	0,57
AY3CI-12-16	19	3/4"	12	1"	84,3	3,32	47,6	1,87	24,4	0,96	14,5	0,57
AY3CI-16-16	25	1"	16	1"	84,5	3,33	47,6	1,87	21,0	0,83	14,5	0,57
AY3CI-16-20	25	1"	16	1.1/4"	95,0	3,74	54,0	2,13	27,2	1,07	14,5	0,57
AY3CI-20-20	31	1.1/4"	20	1.1/4"	123,5	4,86	54,0	2,13	28,9	1,14	14,5	0,57
AY3CI-20-24	31	1.1/4"	20	1.1/2"	122,7	4,83	63,5	2,50	30,6	1,20	14,5	0,57
AY3CI-24-24	38	1.1/2"	24	1.1/2"	133,0	5,24	63,5	2,50	29,9	1,18	14,5	0,57

# AY4CI

**“SUPERCAT” style - 45° elbow flange**

INTERLOCK

FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

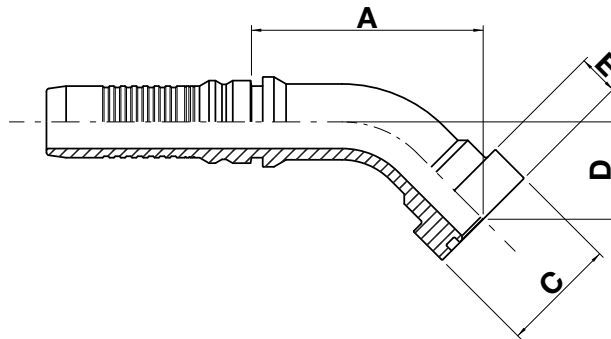
ORFS

NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

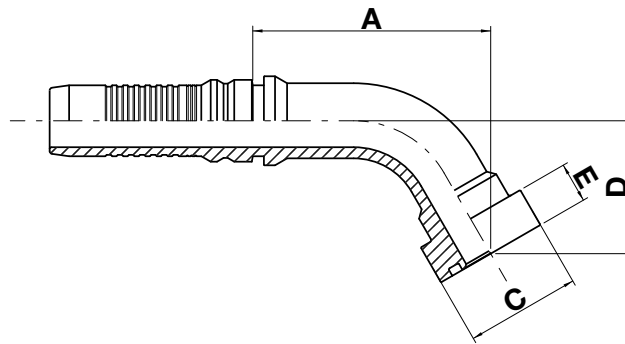
**SUPERCAT STYLE**

code	ø hose			flange	A		C		D		E	
	dn	inch	size		mm	in	mm	in	mm	in	mm	in
AY4CI-12-12	19	3/4"	12	3/4"	69,1	2,72	41,3	1,63	32,5	1,28	14,5	0,57
AY4CI-12-16	19	3/4"	12	1"	75,7	2,98	47,6	1,87	37,5	1,48	14,5	0,57
AY4CI-16-16	25	1"	16	1"	82,5	3,25	47,6	1,87	34,7	1,37	14,5	0,57
AY4CI-16-20	25	1"	16	1.1/4"	92,0	3,62	54,0	2,13	42,8	1,69	14,5	0,57
AY4CI-20-20	31	1.1/4"	20	1.1/4"	113,7	4,48	54,0	2,13	46,3	1,82	14,5	0,57
AY4CI-20-24	31	1.1/4"	20	1.1/2"	115,1	4,53	63,5	2,50	48,8	1,92	14,5	0,57
AY4CI-24-24	38	1.1/2"	24	1.1/2"	123,0	4,84	63,5	2,50	48,9	1,93	14,5	0,57

# AY6CI

“SUPERCAT” style - 60° elbow flange

INTERLOCK



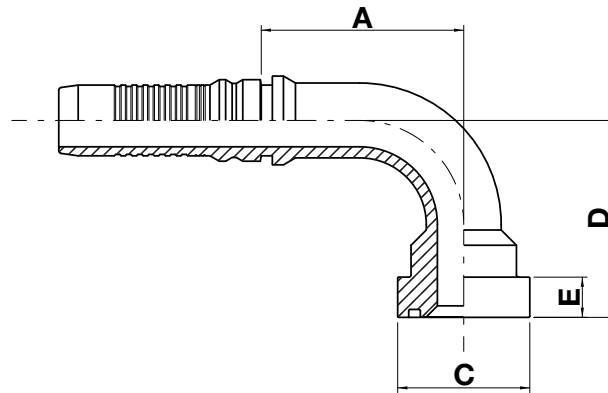
.....  
FERRULE  
.....  
**FITTING**  
BSP-BSPT  
METRIC  
JIC  
ORFS  
NPTF  
SAE 3000 CODE 61  
SAE 6000 CODE 62  
TAPERED SAE  
**SUPERCAT STYLE**

code	ø hose			flange	A		C		D		E	
	dn	inch	size		mm	in	mm	in	mm	in	mm	in
AY6CI-12-12	19	3/4"	12	3/4"	68,8	2,71	41,3	1,63	43,1	1,70	14,5	0,57
AY6CI-12-16	19	3/4"	12	1"	72,8	2,87	47,6	1,88	50,0	1,97	14,5	0,57
AY6CI-16-16	25	1"	16	1"	85,5	3,37	47,6	1,87	47,8	1,88	14,5	0,57
AY6CI-16-20	25	1"	16	1.1/4"	98,6	3,88	54,0	2,13	58,2	2,29	14,5	0,57
AY6CI-20-20	31	1.1/4"	20	1.1/4"	136,3	5,37	54,0	2,13	58,5	2,30	14,5	0,57
AY6CI-20-24	31	1.1/4"	20	1.1/2"	123,1	4,85	63,5	2,50	67,2	2,64	14,5	0,57
AY6CI-24-24	38	1.1/2"	24	1.1/2"	136,0	5,35	63,5	2,50	68,7	2,70	14,5	0,57

# AY9CI

"SUPERCAT" style - 90° elbow flange

INTERLOCK



FERRULE

**FITTING**

BSP-BSPT

METRIC

JIC

ORFS

NPTF

SAE 3000 CODE 61

SAE 6000 CODE 62

TAPERED SAE

**SUPERCAT STYLE**

code	ø hose			flange	A		C		D		E	
	dn	inch	size		mm	in	mm	in	mm	in	mm	in
AY9CI-12-12	19	3/4"	12	3/4"	53,0	2,09	41,3	1,63	62,0	2,44	14,5	0,57
AY9CI-12-16	19	3/4"	12	1"	53,0	2,09	47,6	1,88	70,0	2,76	14,5	0,57
AY9CI-16-16	25	1"	16	1"	73,0	2,87	47,6	1,87	71,0	2,80	14,5	0,57
AY9CI-16-20	25	1"	16	1.1/4"	75,0	2,95	54,0	2,13	84,5	3,33	14,5	0,57
AY9CI-20-20	31	1.1/4"	20	1.1/4"	97,2	3,83	54,0	2,13	90,0	3,54	14,5	0,57
AY9CI-20-24	31	1.1/4"	20	1.1/2"	99,9	3,93	63,5	2,50	100,0	3,94	14,5	0,57
AY9CI-24-24	38	1.1/2"	24	1.1/2"	108,8	4,28	63,5	2,50	106,0	4,17	14,5	0,57



## GENERAL SALES CONDITIONS

### Art. 1 - SCOPE

**1.1** - These General Conditions govern all present and future sales contracts entered into by the Seller with regard to its Products, except for any exceptions specifically agreed upon in writing. These General Conditions apply both to contracts with Parties established in Italy and to contracts with Parties established in different States. Any reference to the terms of trade shall be understood to be made to the INCOTERMS 2020 of the International Chamber of Commerce.

**1.2** - These General Conditions cancel and replace any other clause and/or General Purchase Conditions attached or otherwise indicated in the orders and/or in the different documentation sent by the Buyer, unless expressly accepted in writing by the Seller. In the latter case as well, unless expressly waived in writing between the Parties, the other clause and/or General Purchase Conditions shall be coordinated with these General Conditions that, insofar as they are compatible, shall remain valid and effective between the Parties.

### Art. 2 - FORMATION OF SALES CONTRACT

**2.1** - The acceptance by the Buyer of the Seller's offer or order confirmation, howsoever made, entails the application of these General Conditions to the sales contract, even when acceptance takes place by means of execution of the contract. The Seller's offer shall be deemed firm and irrevocable only when it is qualified as such in writing by the Seller and a term of validity is specified therein. The Buyer's reply containing supplements or amendments, even if such as not to substantially alter the terms of the Supplier's proposal shall be deemed as a counterproposal, notwithstanding the Seller's silence. Any offers made by agents, representatives and/or sales assistants of the Seller shall not be binding for the Seller until confirmed by it.

### Art. 3 - SAMPLES, DRAWINGS AND TECHNICAL DOCUMENTS - SUBCONTRACTING - CONFIDENTIALITY

**3.1** - The weights, dimensions, thicknesses, capacities, prices, yields, colours and other data contained in the Seller's catalogues, brochures, advertisements, illustrations, price lists or other documents, as well as the characteristics of the samples and models sent by the latter to the Buyer, are to be considered purely indicative and, therefore, they are not binding, unless expressly mentioned as such in the Seller's offer or order confirmation.

**3.2** - Any drawing, document, technical information or software which permits the manufacture or assembly of the sold Products or parts thereof which are delivered to the Buyer, both before and after the conclusion of the contract, remain the sole property of the Seller. The above-mentioned drawings, documents, technical information or software may not be used by the Buyer for non-contractual purposes as well as copied, reproduced, sent or communicated to third parties without the prior written consent of the Seller. The Buyer, in particular, may not entrust to third parties, nor carry out directly, the manufacture of Products which are a total or partial reproduction of the Products or which in any case use intellectual property rights, know-how or technology of the Seller.

**3.3** - The Buyer's drawings, documents, technical information or software delivered to the Seller before or after the conclusion of the contract, shall remain the sole property of the Buyer and shall not be used by the Seller, or copied, reproduced, sent or communicated to third parties without the written consent of the Buyer to the extent that they are:

- a) covered by a patent or other industrial or intellectual property right of the Buyer; or
- b) secret, i.e. they do not refer to knowledge made public by

the Buyer or otherwise known to the generality of the operators in the sector, and are not trivial; provided, however, that the Buyer has expressly made known to the Seller in writing its desire to reserve for itself the exclusive right of exploitation.

**3.4** - The Seller reserves the right, under its own responsibility, to subcontract part of the Products ordered by the Buyer.

**3.5** - The Buyer undertakes not to disclose to third parties or to use for non-contractual purposes, even after the termination of any agreement with the Seller, any commercial or business secrets, as well as any confidential information of the Seller, that it became aware during the contractual relationship.

### Art. 4 - PRODUCT DELIVERY

**4.1** - Unless otherwise agreed, the delivery of Products shall take place Ex works (INCOTERMS 2020), even when the Parties have agreed that shipment and/or assembly shall be carried out by the Seller. In this case, the Seller shall act as the Buyer's agent, it being understood that transport shall be carried out by the Buyer at its own expense and risk.

**4.2** - The risks shall pass to the Buyer according to the applicable INCOTERMS. In no case, the Seller shall be liable for the deterioration or damage of the Products occur after the passing of risks and the Buyer shall in any case be obliged to pay the agreed price.

**4.3** - The Seller shall make its best efforts to comply with the delivery terms indicated in the offer or in the order confirmation, which, unless otherwise agreed in writing between the Parties, cannot be regarded as essential.

**4.4** - Should the Parties have agreed to the payment of a penalty by the Seller in case of delay in the delivery of the Products, the Buyer shall not be entitled to claim, as compensation for damages caused by the delay, the payment of amounts in addition to those agreed as a penalty.

**4.5** - The delivery terms shall be understood as extended by a period equal to the duration of the impediment if the Buyer does not provide - in due time - the data or materials necessary for the supply, requests variations in progress or is late in responding to requests for approval of the drawings or the executive diagrams.

**4.6** - The Buyer shall always held to take delivery of the Products, even in the case of partial deliveries, early deliveries, or deliveries carry out after the date agreed by the Parties. Under no circumstances, the Seller shall be liable for direct and/or indirect damage deriving from early or delayed delivery of the Products. Should the Buyer not take delivery of the Products for reasons not attributable to the Seller or for force majeure reasons, the Buyer shall support all the expenses that may derive therefrom, and any sum due to the Seller, at any time, will become immediately due.

In this case the Seller may:

- a) put in stock the Products at the risk, danger and expense of the Buyer; or
- b) send the Products in the name, on the behalf of and at the Buyer's expense to the Buyer's premises; or
- c) sell the Products by any means on behalf of the Buyer, withholding from the proceeds the whole sum due, as well as the expenses incurred.

Eventual further damages not excluded.

### Art. 5 - WARRANTY

**5.1** - The Seller warrants that the supplied Products comply in terms of quantity, quality, type as well as to technical specifications expressly agreed in the contract, excluding any warranty regarding the specific use which the Buyer, or its sub-buyer, makes of the purchased product. Moreover, the Seller warrants that the Products are free from defects that may make them unsuitable for their intended use.

**5.2** - The warranty shall be limited to defects of the Products

resulting from defects in material or manufacturing attributable to the Seller and shall not be valid if:

- a) he Buyer fails to prove that the Products have been properly used, maintained, stored and looked after;
- b) the Buyer has made changes or repairs to the Products without the prior written consent of the Seller;
- c) the Products have been assembled or used incorrectly;
- d) Product defects are due to normal wear and tear of those parts which, by their nature, are subject to rapid and continuous wear and tear;
- e) the conformity defects were caused by an event subsequent to the transfer of risks to the Buyer.

**5.3** - The warranty lasts for 12 (twelve) months starting from the date of delivery of the Products to the Buyer. The warranty is subject to regular and timely notification of defects and nonconformities by the Buyer according to the provisions of the following paragraph, as well as express written warranty service request. The warranty for replaced or repaired Products shall become effective from the day of any replacement or repair. The warranty for the replaced or repaired components of the Product shall begin on the day of replacement or repair, and in any case applies only to the repaired or replaced component.

**5.4** - The Buyer shall notify Products defects or nonconformities in writing, indicating in detail the detected defects and nonconformities, the date of delivery and the quantity of defective Products. The notification must be made, under penalty of forfeiture, within and not later than 15 days from the date of delivery in the case of obvious defects or from the date of discovery, provided that it is made within the warranty period, in the case of hidden faults, defects or nonconformities.

**5.5** - The Buyer shall forfeit the warranty if it fails to agree any reasonable check requested by the Seller or if, the Seller offers to replace the fault part at its own expense, the Buyer fails to return the defective Products within 15 days from the request.

**5.6** - Should the Buyer's complaint is unfounded, the Buyer shall be obliged to reimburse the Seller for all expenses incurred by the latter for the inspection. Instead, should the Buyer's complaint, made in accordance with the provisions of this article, is well-founded, the Seller shall, in its sole discretion and within a reasonable time (having regard to the seriousness of the complaint), repair or replace free of charge defective or nonconforming Products at the Seller's premises. The Buyer shall be responsible for returning the Products. Should the Parties agree that the repair or replacement operations are best carried out directly at the Buyer's premises or elsewhere, the travel expenses - including travel, board and lodging of the Seller's personnel - shall be to the charge of the Buyer, who shall also provide all means and auxiliary personnel required to do the job in the fastest and safest way.

**5.7** - Once the warranty period has elapsed, no claim may be made against the Seller.

### Art. 6 - LIMITED LIABILITY OF SELLER

**6.1** - Except in case of fraud or gross negligence on the part of the Seller, any compensation for any damage to the Buyer shall not in any case exceed the invoice value of the defective Product. The warranty referred to in the previous Article includes and supersedes all legal warranties for defects and conformity, excluding any other possible liability of the Seller, howsoever deriving from the supplied Products. The Buyer shall therefore not be entitled to lodge any other claims for damages, price reduction or contract termination.

**6.2** - The Seller's liability is contained within the limits set forth in the previous Article and relates only to the Products supplied by the Seller itself. The latter therefore disclaims all liability for any failure or malfunction of systems or machines manufactured by the Buyer or by third parties using the Prod-

ucts supplied by the Seller, even in the event of these having been assembled or connected according to diagrams or drawings suggested by the Seller, unless such diagrams and drawings have been the subject of separate remuneration: in the latter case, the Seller's liability shall in any case be limited to what is included in the diagrams or drawings in question.

**6.3** - Under no circumstances shall the Seller be deemed liable for indirect or consequential damages, loss of production or lost profits.

#### **Art. 7 - TECHNICAL STANDARDS AND CIVIL LIABILITY**

**7.1** - The Seller warrants the performance of the Products only and exclusively in relation to the uses, purposes, applications, tolerances, capacities expressly indicated by it and the Buyer is not therefore authorised to make use of them in a different way. If the Buyer's intention is to resell the Products, the Buyer shall be required to bring and shall be responsible for bringing to the knowledge of its buyers the indications set forth in the previous paragraph.

**7.2** - The compensation for any personal injury or property damage, caused by defects in the supplied Products and directly attributable to the Seller, shall be limited to the maximum amount indicated in the policy for third party liability and is subject to the terms and conditions of application of said policy.

#### **Art. 8 - PRICES - PAYMENTS**

**8.1** - Unless otherwise specified in the offer or order confirmation, prices should be understood as Ex Works and, do not include: packaging costs, taxes, duties, and any other additional charges. Likewise, unless otherwise agreed by the Parties, the following are not included in the price: any design and installation of the supplied Products, tests, manuals and training courses, start-up assistance, and all services and charges not mentioned in the offer or order confirmation.

**8.2** - Payments, and any other sum due to the Seller for any reason whatsoever, shall be deemed to be net at the Seller's registered office and shall be made in accordance with the agreed terms and conditions. The Buyer, in case of delay in payment, shall be required to pay default interest, without the need for notice of default.

**8.3** - Any delay in payment shall also give the Seller the right to invalidate, for the entire duration of the delay, the warranty referred to in Art. 5 above. The Buyer shall be obliged to pay

the full price even in case of dispute or complaint. No offsetting shall be allowed against any amounts owed, howsoever arising, by the Seller.

#### **Art. 9 - RETENTION OF TITLE**

**9.1** - In the event of payment being made - in whole or in part - after delivery, the delivered Products remain the Seller's property until the moment of the complete payment of the price according to the measure allowed by the law of the country where the Products are located. The Buyer undertakes to do whatever necessary to constitute in the country above mentioned a valid retention of title in the most extensive form permitted, or to provide a similar form of guarantee in favour of the Seller.

#### **Art. 10 - WITHDRAWAL FROM SALES CONTRACT - SUSPENSION**

**10.1** - The Seller reserves the right to withdraw from the sales contract and cancel, in whole or in part, the Buyer's order in the event of a significant change in the Buyer's economic conditions and solvency, as well as in the case of any payment delay or irregularity on the part of the Buyer, including if related to a different supply.

**10.2** - The Seller shall be entitled at any time to suspend the execution of the contract, giving written notice of at least 30 (thirty) working days to the Buyer for a maximum of 3 (three) months without incurring any liability. Within 3 (three) months from the relative notice of suspension, the Seller shall be required to communicate to the Buyer the continuation of the contract execution with prior written notice of at least 30 (thirty) working days. In the event of the Seller not asking for the contract to be continued within the established time limit of 3 (three) months, the Buyer shall be entitled to terminate the contract immediately by giving prompt written notice to the Seller.

#### **Art. 11 - FORCE MAJEURE**

**11.1** - Should the manufacture and/or delivery of the Products by the Seller become impossible, excessively onerous or delayed due to a Force Majeure Event as defined in paragraph 11.2 below, the Seller may, at its option: (i) suspend deliveries of the Products until the Force Majeure Event has ceased; (ii) deliver a smaller quantity of Products, if the Products in its warehouse are insufficient and intended proportionately to

satisfy other customers of the Seller; (iii) withdraw from the contract, giving prompt written notice to the Buyer. Following the withdrawal, the Seller shall complete the execution of the delivery of the Products purchased by the Buyer for the part not affected by the Force Majeure Event, it being understood that the Buyer shall not make any further claim against the Seller, deriving directly or indirectly from the early termination of the contractual agreement.

If the impediment caused by the Force Majeure Event persists for a period of more than 90 (ninety) days, each party shall be entitled to withdraw from the relevant contract, without its acquiring any right to compensation for damages with respect to the other party.

Should any Force Majeure Event occur, the Seller shall not in any case be liable for any damages suffered by the Buyer as a result of the delay in delivery of the Products.

**11.2** - "Force Majeure Event" means any event beyond the Seller's control that affects the production or delivery capacity of the Products - including without limitation strikes, non-delivery or delayed delivery, including partial, of raw materials by the Seller's suppliers, partial or total breakdowns of machinery and plants to be used in the production of the Products, fires, floods, riots, government decisions, regulatory changes, epidemics, pandemics or other health emergencies.

#### **Art. 12 - APPLICABLE LAW - DISPUTES**

**12.1** - For everything not provided for, these general conditions shall be governed by Italian law. Any dispute arising out or in connection with the contracts to which these General Conditions apply shall be subject to the exclusive jurisdiction of the Seller's Court of Law. However, the Seller shall be entitled to act before Court of Law where the Buyer's registered office is located.

According to and for the effects of articles 1341 and 1342 of the Italian Civil Code, the following articles are deemed expressly approved: Art. 4.6 - Buyer's obligation to take over the Products - Limitation of the Seller's liability in case of delayed or early delivery of the Products; Art. 5.5 - Forfeiture of the right of warranty; Art. 6 - Limited liability of Seller; Art. 7.2 - Civil Liability; Art. 8.3 - Invalidation of warranty due to late payment - Obligation to pay disputed amounts - No set-off; Art. 10 - Withdrawal from sales contract - Suspension; Art. 12 - Applicable law - Disputes.

## CONDIZIONI GENERALI DI VENDITA

### Art. 1 - AMBITO DI APPLICAZIONE

**1.1** - Le presenti Condizioni Generali disciplinano tutti gli attuali e futuri contratti di vendita stipulati dal Venditore relativamente ai suoi Prodotti salvo eventuali deroghe specificamente concordate per iscritto e si applicano sia ai contratti con Parti aventi sede in Italia sia a contratti con Parti che abbiano sede in Stati diversi. Il riferimento ad eventuali termini di resa si intenderà fatto agli INCOTERMS ed. 2020 della Camera di Commercio Internazionale.

**1.2** - Le presenti Condizioni Generali annullano e sostituiscono ogni eventuale altra clausola e/o Condizione Generale di Acquisto allegata o altrimenti indicata negli ordini e/o nella diversa documentazione trasmessa dal Compratore, a meno che espressamente accettata per iscritto dal Venditore. Anche in quest'ultimo caso però, salvo espressa deroga scritta tra le Parti, le stesse dovranno essere coordinate con le presenti Condizioni Generali che, in quanto compatibili, rimarranno comunque efficaci tra le Parti.

### Art. 2 - FORMAZIONE DEL CONTRATTO DI VENDITA

**2.1** - L'accettazione, da parte del Compratore, dell'offerta o della conferma d'ordine del Venditore, comunque effettuata, comporta l'applicazione al contratto di vendita delle presenti Condizioni Generali, e ciò anche quando l'accettazione avvenga mediante la semplice esecuzione del contratto. L'offerta del Venditore si considera ferma ed è irrevocabile soltanto se viene dallo stesso qualificata tale per iscritto ed è in essa specificato un termine di validità. Si considera controproposta, nonostante il silenzio del Venditore, la risposta del Compratore che contenga aggiunte o modifiche, anche se tali da non alterare sostanzialmente i termini della proposta. Eventuali offerte fatte da agenti, rappresentanti e/o ausiliari di commercio del Venditore non saranno impegnative per quest'ultimo fino alla conferma da parte del Venditore stesso.

### Art. 3 - CAMPIONI, DISEGNI E DOCUMENTI TECNICI - SUBFORNITURA - RISERVATEZZA

**3.1** - I pesi, le dimensioni, gli spessori, le capacità, i prezzi, i rendimenti, i colori e gli altri dati figuranti nei cataloghi, prospetti, annunci pubblicitari, illustrazioni, listini prezzi o altri documenti del Venditore, così come le caratteristiche dei campioni e dei modelli da quest'ultimo inviati al Compratore, hanno carattere di indicazioni approssimative e, pertanto, non hanno valore impegnativo se non nella misura in cui espressamente menzionati come tali nell'offerta o nella conferma d'ordine del Venditore.

**3.2** - Qualsiasi disegno, documento, informazione tecnica o software che permetta la fabbricazione o il montaggio dei Prodotti venduti o di loro parti del Venditore che siano rimessi al Compratore, tanto prima che dopo la stipulazione del contratto, rimangono di esclusiva proprietà del Venditore. I suddetti disegni, documenti, informazioni tecniche o software non potranno essere utilizzati dal Compratore per fini extracontrattuali o copiati, riprodotti, trasmessi o comunicati a terzi senza il previo consenso scritto del Venditore. Il Compratore, in particolare, non potrà affidare a terzi, né effettuare direttamente, la realizzazione di Prodotti che siano una riproduzione, totale o parziale, dei Prodotti o che comunque impieghino diritti di proprietà intellettuale, know-how o tecnologia del Venditore.

**3.3** - I disegni, documenti, informazione tecnica o software del Compratore rimesse al Venditore prima o dopo la stipula del contratto, rimangono di esclusiva titolarità del Compratore e non potranno essere utilizzati dal Venditore, o copiati, riprodotti, trasmessi o comunicati a terzi senza il consenso scritto del Compratore nei limiti in cui essi:

a) siano coperti da brevetto o ad un altro diritto di proprietà

industriale o intellettuale del Compratore; ovvero

b) abbiano carattere segreto, e cioè non si riferiscano a cognizioni rese pubbliche dal Compratore o altrimenti note alla generalità degli operatori del settore, e non siano banali; purché, tuttavia, il Compratore abbia espressamente manifestato al Venditore per iscritto la propria volontà di riservarsi il diritto di sfruttamento esclusivo.

**3.4** - Il Venditore si riserva il diritto, sotto la propria responsabilità, di affidare in subfornitura parte dei Prodotti commissionatigli dal Compratore.

**3.5** - Il Compratore si impegna a non rivelare a terzi né ad utilizzare a fini extracontrattuali, anche dopo la cessazione di ogni rapporto con il Venditore, i segreti commerciali od aziendali, nonché ogni notizia riservata del Venditore di cui sia venuto a conoscenza in occasione dei rapporti contrattuali instaurati con quest'ultimo.

### Art. 4 - CONSEGNA DEI PRODOTTI

**4.1** - Salvo patto contrario, la consegna dei Prodotti ha luogo Ex works (INCOTERMS 2020), anche quando le Parti abbiano convenuto che la spedizione e/o il montaggio avvengano a cura dal Venditore: in tal caso, infatti, il Venditore agirà come mandatario del Compratore, essendo inteso che il trasporto verrà effettuato a spese e a rischio di quest'ultimo.

**4.2** - I rischi passano al Compratore secondo quanto stabilito negli INCOTERMS applicabili. Il Venditore non risponde in nessun caso del perimento o del danneggiamento dei Prodotti avvenuto dopo il passaggio dei rischi ed il Compratore sarà comunque tenuto al pagamento del prezzo pattuito.

**4.3** - Il Venditore farà del suo meglio per rispettare i termini di consegna indicati nell'offerta ovvero nella conferma d'ordine che comunque, salvo diverso accordo scritto tra le Parti, non potranno essere considerati essenziali.

**4.4** - Laddove le Parti abbiano convenuto il pagamento di una penale da parte del Venditore per il caso di ritardo nella consegna dei Prodotti, il Compratore non potrà esigere, a titolo di risarcimento dei danni causati dal ritardo, il pagamento di somme ulteriori rispetto a quelle pattuite a titolo di penale.

**4.5** - I termini di consegna dovranno intendersi prorogati di un periodo pari a quello di durata dell'impedimento qualora il Compratore non fornisca in tempo utile i dati o i materiali necessari alla fornitura, richieda delle varianti in corso di esecuzione ovvero ritardi nel rispondere alle richieste di approvazione dei disegni o degli schemi esecutivi.

**4.6** - Il Compratore è sempre tenuto a prendere in consegna i Prodotti anche in caso di consegne parziali, anticipate o successive alla data concordata dalle Parti. In nessun caso il Venditore potrà essere ritenuto responsabile per i danni diretti e/o indiretti derivanti da anticipata o ritardata consegna dei Prodotti. Nel caso in cui il Compratore non abbia preso in consegna i Prodotti per cause non imputabili al Venditore o per cause di forza maggiore, il Compratore sopporterà tutte le spese, e ogni somma dovuta al Venditore, a qualsiasi titolo, diventerà immediatamente esigibile.

In tal caso il Venditore potrà:

a) immagazzinare i Prodotti a rischio, pericolo e spese del Compratore;

b) spedire i Prodotti in nome, per conto e a spese del Compratore presso la sede di quest'ultimo;

c) vendere con qualsiasi mezzo i Prodotti per conto del Compratore, trattenendo dal ricavato l'intero importo dovuto nonché le spese sostenute.

Sono fatti salvi gli ulteriori danni.

### Art. 5 - GARANZIA

**5.1** - Il Venditore garantisce che i Prodotti forniti sono conformi per quantità, qualità, tipo nonché alle specifiche tecniche espressamente concordate in contratto, con esclusione di qualunque garanzia circa l'impiego specifico al quale il Compratore, o il suo sub-acquirente, destina il prodotto acquista-

to, e che sono esenti da vizi che possano renderli non idonei all'uso cui sono destinati.

**5.2** - La garanzia per vizi è limitata ai soli difetti dei Prodotti conseguenti a difetti di materiale o di fabbricazione riconducibili al Venditore e non opera nel caso in cui:

a) il Compratore non provi di aver effettuato un corretto uso, manutenzione, stoccaggio e conservazione dei Prodotti;

b) il Compratore abbia apportato delle modifiche o riparazioni ai Prodotti, senza il previo consenso scritto del Venditore;

c) i Prodotti siano stati montati o utilizzati non correttamente;

d) i difetti dei Prodotti siano dovuti alla normale usura di quelle parti che, per loro natura, sono soggette ad usura rapida e continua;

e) i difetti di conformità abbiano la loro causa in un fatto successivo al passaggio dei rischi al Compratore.

**5.3** - La garanzia ha una durata di 12 (dodici) mesi decorrenti dalla data della consegna dei Prodotti al Compratore ed è subordinata alla regolare e tempestiva denuncia dei vizi e delle difformità da parte di quest'ultimo secondo quanto disposto al successivo comma, accompagnata dall'espressa richiesta scritta al Venditore di effettuare un intervento in garanzia. La garanzia per i Prodotti sostituiti o riparati decorre dal giorno dell'eventuale sostituzione o riparazione. La garanzia per i componenti del Prodotto sostituiti o riparati decorre dal giorno dell'eventuale sostituzione o riparazione, e comunque vale per il solo componente riparato o sostituito.

**5.4** - La denuncia dei vizi o difetti di conformità dei Prodotti deve essere effettuata dal Compratore per iscritto e indicare dettagliatamente i vizi e le non conformità contestate, la data della consegna e la quantità di Prodotti difettosi. La denuncia deve essere effettuata, a pena di decadenza entro e non oltre 15 giorni decorrenti dalla data di consegna, nel caso di vizi palesi ovvero dalla data della scoperta, purché entro il periodo di durata della garanzia, laddove si tratti di vizi, difetti o non conformità occulti.

**5.5** - Il Compratore decade dal diritto di garanzia laddove non consenta ogni ragionevole controllo richiesto dal Venditore o se, avendo il Venditore fatto richiesta di restituzione del Prodotto difettoso a proprie spese, il Compratore ometta di restituire i Prodotti difettosi entro 15 giorni dalla richiesta.

**5.6** - Nel caso in cui la denuncia effettuata dal Compratore risulti infondata, quest'ultimo sarà tenuto a risarcire al Venditore tutte le spese da quest'ultimo sostenute per l'accertamento. Qualora invece la denuncia del Compratore, effettuata in conformità a quanto statuito nel presente articolo, risulti fondata, il Venditore provvederà - a sua esclusiva e discrezionale scelta ed entro un termine ragionevole (avuto riguardo all'entità della contestazione) - a riparare o sostituire gratuitamente EXW-sede del Venditore i Prodotti difettosi o non conformi, effettuando le suddette operazioni presso i propri stabilimenti. La resa dei Prodotti è a carico del Compratore. Laddove le Parti concordino sull'opportunità di effettuare le operazioni di riparazione o sostituzione direttamente presso gli stabilimenti del Compratore o in altro luogo, le spese di trasferta - comprendenti viaggio, vitto e alloggio del personale del Venditore - saranno a carico del Compratore, il quale fornirà inoltre tutti i mezzi e il personale ausiliario richiesti per eseguire l'intervento nel modo più rapido e sicuro.

**5.7** - Decorsa la durata della garanzia, nessuna pretesa potrà essere fatta valere nei confronti del Venditore.

### Art. 6 - LIMITAZIONE DI RESPONSABILITÀ DEL VENDITORE

**6.1** - Salvo dolo o colpa grave del Venditore, l'eventuale risarcimento di qualsiasi danno al Compratore non potrà comunque superare il valore di fattura del Prodotto difettoso. La garanzia di cui al precedente Articolo è assorbente e sostitutiva delle garanzie legali per vizi e conformità ed esclude ogni altra possibile responsabilità del Venditore, comunque originata dai Prodotti forniti. Il Compratore non potrà pertan-

to avanzare altre richieste di risarcimento del danno, di riduzione del prezzo o di risoluzione del contratto.

**6.2** - La responsabilità del Venditore è contenuta nei limiti di cui al precedente Articolo ed è relativa ai soli Prodotti forniti dal Venditore medesimo. Quest'ultimo non assume pertanto alcuna responsabilità per l'eventuale difettoso funzionamento di sistemi o macchine realizzati dal Compratore o da terzi con i Prodotti forniti dal Venditore, anche nel caso gli stessi siano stati montati o collegati secondo schemi o disegni suggeriti dal Venditore, a meno che tali schemi e disegni non siano stati oggetto di distinta remunerazione: in tale ultimo caso, la responsabilità del Venditore sarà comunque circoscritta a quanto compreso negli schemi o disegni in oggetto.

**6.3** - In nessun caso il Venditore potrà essere ritenuto responsabile per danni indiretti o consequenziali, perdite di produzione o mancati profitti.

#### **Art. 7 - NORME TECNICHE E RESPONSABILITÀ CIVILE**

**7.1** - Il Venditore garantisce le prestazioni dei Prodotti solo ed esclusivamente in relazione ad usi, destinazioni, applicazioni, tolleranze, capacità da lui espressamente indicati e il Compratore non è dunque autorizzato a disporre in modo difforme. Qualora il Compratore destini i Prodotti alla rivendita, sarà suo onere e responsabilità portare a conoscenza dei suoi acquirenti le indicazioni di cui al precedente comma.

**7.2** - Il risarcimento per eventuali danni a persone o cose, derivanti dalla difettosità dei Prodotti forniti e direttamente riconducibile al Venditore, è limitato al massimale indicato nella polizza per responsabilità civile della medesima ed è subordinato ai termini ed alle condizioni di applicazione di detta polizza.

#### **Art. 8 - PREZZI - PAGAMENTI**

**8.1** - Salvo sia altrimenti specificato nell'offerta o nella conferma d'ordine, i prezzi si intendono sempre Ex Works e non comprendono: i costi di imballaggio, le imposte, i dazi e ogni altro onere aggiuntivo. Del pari, a meno che le Parti abbiano diversamente convenuto, non sono compresi nel prezzo: l'eventuale progettazione e l'installazione dei Prodotti forniti, i collaudi, manuali e corsi di addestramento, l'assistenza all'avviamento e tutte le prestazioni e gli oneri non menzionati nell'offerta o nella conferma d'ordine.

**8.2** - I pagamenti, e ogni altra somma dovuta a qualsiasi titolo al Venditore, si intendono netti alla sede del Venditore e dovranno essere effettuati conformemente alle modalità convenute. Il Compratore, in caso di ritardo nel pagamento, sarà tenuto a corrispondere, senza necessità di messa in mora, gli interessi moratori.

**8.3** - Eventuali ritardi nei pagamenti attribuiranno altresì al Venditore il diritto di escludere, per tutto il periodo di perduranza del ritardo, la garanzia di cui al precedente Art. 5. Il Compratore è tenuto al pagamento integrale del prezzo anche in caso di contestazione o controversia. Non è ammessa compensazione con eventuali crediti, comunque insorti, nei confronti del Venditore.

#### **Art. 9 - RISERVA DI PROPRIETÀ**

**9.1** - Nel caso in cui il pagamento debba essere effettuato - in tutto o in parte - dopo la consegna, i Prodotti consegnati restano di proprietà del Venditore sino al momento del completo pagamento del prezzo nella misura permessa dalla legge del Paese dove i prodotti si trovano. Il Compratore s'impegna a fare quanto necessario per costituire nel suddetto Paese una valida riserva di proprietà nella forma più estesa consentita, o per porre in essere un'analogia forma di garanzia a favore del Venditore.

#### **Art. 10 - RECESSO DAL CONTRATTO DI VENDITA - SOSPENSIONE**

**10.1** - Il Venditore si riserva il diritto di recedere dal contratto di vendita e annullare, in tutto od in parte, l'ordine del Compratore in caso di sensibile modifica delle condizioni economiche del Compratore e della sua solvibilità nonché qualsiasi ritardo o irregolarità nel pagamento da parte del Compratore, anche se relativo a una diversa fornitura.

**10.2** - Il Venditore potrà in ogni momento sospendere l'esecuzione del contratto, dandone preavviso scritto di almeno 30 (trenta) giorni lavorativi al Compratore per un massimo di 3 (tre) mesi senza incorrere in alcuna responsabilità. Entro 3 (tre) mesi dalla relativa comunicazione di sospensione il Venditore dovrà comunicare al Compratore la ripresa dell'esecuzione del contratto dandone preavviso scritto di almeno 30 (trenta) giorni lavorativi. Qualora il Venditore non richieda la prosecuzione del contratto entro il termine stabilito di 3 (tre) mesi, il Compratore avrà la facoltà di risolvere immediatamente il contratto dandone tempestiva comunicazione scritta al Venditore.

#### **Art. 11 - FORZA MAGGIORE**

**11.1** - Ove la produzione e/o la consegna dei Prodotti da parte del Venditore sia resa impossibile, eccessivamente onerosa o ritardata a causa di un Evento di Forza Maggiore come definito dal successivo Art. 11.2, il Venditore potrà, a propria scelta: (i) sospendere le consegne dei Prodotti fintantoché non sia cessato l'Evento di Forza Maggiore; (ii) consegnare una quanti-

tà minore di Prodotti, qualora i Prodotti presenti nel proprio magazzino siano insufficienti e vengano destinati in proporzione a soddisfare altri clienti del Venditore; (iii) recedere dal contratto, dandone tempestiva notifica per iscritto al Compratore. A seguito del recesso, il Venditore completerà l'esecuzione della consegna dei Prodotti acquistati dal Compratore per la parte non inficiata dall'Evento di Forza Maggiore, restando inteso che il Compratore non avanzerà qualsivoglia ulteriore pretesa nei confronti del Venditore, derivante direttamente o indirettamente dall'anticipato scioglimento del rapporto contrattuale.

Ove l'impedimento dovuto all'Evento di Forza Maggiore persista per un periodo superiore a 90 (novanta) giorni, ciascuna parte avrà diritto di recedere dal relativo contratto, senza che sorga in capo ad essa alcun diritto nei confronti dell'altra parte al risarcimento di danni.

Ove ricorrano Eventi di Forza Maggiore, il Venditore non risponderà in alcun caso di eventuali danni derivanti per il Compratore dal ritardo nella consegna dei Prodotti.

**11.2** - Per "Evento di Forza Maggiore" si intende qualsiasi evento al di fuori del controllo del Venditore che incida sulla capacità produttiva o di consegna dei Prodotti - ivi inclusi, a titolo esemplificativo, scioperi, mancata o ritardata consegna, anche parziale, delle materie prime da parte dei fornitori del Venditore, rotture parziali o totali di macchinari e impianti da impiegarsi nella realizzazione dei Prodotti, incendi, inondazioni, rivolte, decisioni delle autorità, modifiche normative, epidemie, pandemie o altre emergenze sanitarie.

#### **Art. 12 - LEGGE APPLICABILE - CONTROVERSIE**

**12.1** - Per tutto quanto non previsto le presenti Condizioni Generali sono regolate dalla legge italiana. Per ogni controversia relativa o comunque collegata ai contratti cui si applicano le presenti Condizioni Generali è esclusivamente competente il Foro del Venditore. Quest'ultimo avrà tuttavia facoltà di agire dinanzi al foro della sede del Compratore.

Ai sensi e per gli effetti degli articoli 1341 e 1342 del Codice Civile si intendono espressamente approvati i seguenti articoli: Art. 4.6 - Obbligo del compratore di prendere in consegna i Prodotti - Limitazione di responsabilità del Venditore in caso di consegna ritardata o anticipata dei Prodotti; Art. 5.5 - Decadenza dal diritto di garanzia; Art. 6 - Limitazione di responsabilità del Venditore; Art. 7.2 - Responsabilità Civile; Art. 8.3 - Esclusione di garanzia per ritardo nel pagamento - Obbligo di pagamento somme contestate - Divieto di Compensazione; Art. 10 - Recesso dal contratto di vendita - Sospensione; Art. 12 - Legge applicabile - Controversie.

## **POLICY ON THE USE OF INDUSTRIAL AND INTELLECTUAL PROPERTY RIGHTS OF INTERTRACO (ITALIA) S.P.A.**

Intertraco (Italia) S.p.A. (hereinafter simply "INTERTRACO") owns and/or holds full and exclusive rights on its trademarks, trade names, logos, distinctive signs, designs, models, patents and all technical, commercial and promotional material, including catalogues, brochures, product sheets, texts, publications, images, photographs, graphics and any other content created by it (hereinafter collectively referred to as "IP Rights"). These IP Rights are protected by industrial and intellectual property laws, such as Legislative Decree No. 30 of 10 February 2005 (Industrial Property Code), Law No. 633 of 22 April 1941 (Protection of copyright and other rights related to its exercise) and by the Italian Civil Code, as well as by the corresponding international regulations. The protections cover all trademarks, trade names, logos, distinctive signs, designs, models, patents and all technical, commercial and promotional material, including catalogues, brochures, product sheets, texts, publications, images, photographs, graphics and any other content created and registered by INTERTRACO.

Is strictly prohibited the use as well as the application, of IP Rights owned by INTERTRACO, and registered by the latter, in relation to and/or in application to products not belonging to and/or originating by INTERTRACO, or that can be anyway attributable to the latter, as well as to images of products and/or to any other representations of products not belonging to and/or originating by INTERTRACO or attributable to the latter.

The promotion of IP Rights and/or of products owned by and/or registered by INTERTRACO (hereinafter simply "Products") must always and only keep the target to reach and then maintain high standards of quality for both INTERTRACO as well as for its IP Rights and/or for the Products, which involves the presentation, the way and type of channels used, the images, the wording and anything else that may influence this.

In order to maintain and/or to increase the value of the IP Rights and in compliance with these same, a third-party eventually duly authorized by INTERTRACO to use the IP Rights, must necessarily and mandatorily comply with the following rules, which are considered integral and binding part, subject to the explicit agreement between INTERTRACO and each third-party user singularly considered:

**1** - Each IP Right may not be used in any way without the express written consent from INTERTRACO;

**2** - Authorization to use the IP Rights shall not grant to the third-party user any rights other than those contained in the agreement entered in writing by INTERTRACO with the third-party user. The authorization does not grant the third-party user any additional property rights, ownership rights and/or licences. The authorization will never confer to the third-party user any additional license and/or further rights;

**3** - This authorization binds the third-party user to the destination and use of such IP Rights, documents, promotional materials provided by INTERTRACO, solely and exclusively in the manner and version provided by INTERTRACO. The information provided by INTERTRACO must be considered as definitive; therefore, any unauthorized amendment will be considered to the detriment of INTERTRACO, which will therefore have the right to take appropriate legal action to recover any damages suffered;

**4** - No material relating to Products and/or to their written and/or figurative representation, as well as the related and associated IP Rights, provided by INTERTRACO to the third-party user may undergo any alteration or modification by the user without the prior written consent of INTERTRACO;

**5** - Under no circumstances does the authorization grant a license and/or allow the user to make changes to names, technical specifications, logos, trademarks or other IP Rights, or to descriptions of INTERTRACO Products contained in websites, catalogues, brochures, product sheets or any other official material;

**6** - Under no circumstances does the authorization grant to the third-party user a license and/or allow the third-party user to present INTERTRACO Products on the third-party user websites, catalogues, brochures, product sheets or on any other official material in a manner that differs from what originally authorized and/or provided by INTERTRACO to the third-party user; the appearance, packaging and visual presentation of the Products and/or of the promotional materials created by and/or prepared by the third-party user must remain unchanged from what originally provided by INTERTRACO. The use and promotion of IP Rights and/or related Products via websites and/or e-commerce and/or social media channels and/or digital platforms is subject to specific authorization provided by INTERTRACO for each individual link;

**7** - Under no circumstances does the authorization allow the use of IP Rights outside the previously agreed IP addresses and/or the online sites, as well as outside the previously agreed social media channels, digital platforms and/or other areas and/or channels (e.g. trade fairs, markets, exhibitions, etc.) agreed in advance by INTERTRACO and third-party user, all the above in any case subjected to prior reviews, analysis and authorization in writing by INTERTRACO and the third-party user;

**8** - Under no circumstances does the authorization permit the creation and dissemination of information, notes or any information material and/or publications relating to the IP Rights and/or Products (e.g. newsletters) without prior review and written consent by INTERTRACO;

**9** - The use of IP Rights, including the use of images and/or photographs of the Products into promotional material not initially supplied by and/or directly provided by INTERTRACO to the third-party user, but autonomously realized by the latter such as catalogues or any other material, must be reviewed and approved in writing by INTERTRACO in advance. Under no circumstances is the publication and use of such representations, photographs, images and descriptions of the Products at trade fairs, markets, exhibitions or elsewhere permitted without the prior written approval of INTERTRACO;

**10** - Any use and/or distribution and/or public offering performed outside the established Territory or of the agreed sales channels concerning Products containing INTERTRACO's IP Rights, must be approved in writing by INTERTRACO.

The following is understood and binding on the user:

**a)** The use of INTERTRACO's IP Rights in relation to products and/or images of products not originating by INTERTRACO and/or attributable to the latter is strictly prohibited;

**b)** any use of INTERTRACO's IP Rights and/or material provided by INTERTRACO that differs from what is contained herein and previously agreed by the latter for its intended use shall be considered a violation of INTERTRACO's rights and will be prosecuted;

**c)** it is strictly forbidden to make misleading, distorted or otherwise non-compliant use of IP Rights and/or Products and/or any material owned by, originating from and/or connected to INTERTRACO, in such a way as to mislead the consumer about the origin of the products or their quality or technical and economic characteristics, their intended use or anything else not expressly provided for in the documentation supplied by INTERTRACO to the user.

*For any clarification or request for authorization, please directly contact Intertraco (Italia) S.p.A.*

## **POLICY SULL'USO DEI DIRITTI DI PROPRIETÀ INDUSTRIALE ED INTELLETTUALE DI INTERTRACO (ITALIA) S.P.A.**

Intertraco (Italia) S.p.A. (di seguito semplicemente "INTERTRACO") è proprietaria e/o ha titolarità dei diritti pieni ed esclusivi sui propri marchi, nomi commerciali, loghi, segni distintivi, design, modelli, brevetti e su tutto il materiale tecnico, commerciale e promozionale, inclusi cataloghi, brochure, schede prodotto, testi, pubblicazioni, immagini, fotografie, grafiche e qualsiasi altro contenuto da essa creato (di seguito congiuntamente "Diritti IP"). Tali Diritti IP sono protetti dalle normative sul diritto di proprietà industriale e intellettuale, quali il Decreto Legislativo 10 febbraio 2005, n. 30 (Codice della Proprietà Industriale), la Legge 22 aprile 1941, n. 633 (Protezione del diritto d'autore e di altri diritti connessi al suo esercizio) e il Codice Civile, nonché dalle corrispondenti normative internazionali. Le protezioni coprono tutti i marchi, nomi commerciali, loghi, segni distintivi, design, modelli, brevetti e tutto il materiale tecnico, commerciale e promozionale, inclusi cataloghi, brochure, schede prodotto, testi, pubblicazioni, immagini, fotografie, grafiche e qualsiasi altro contenuto creato e registrato da INTERTRACO.

È sempre vietato l'utilizzo e l'applicazione dei Diritti IP di proprietà di INTERTRACO, e da questa ultima registrati, in relazione e/o in applicazione ai prodotti non appartenenti e/o provenienti da INTERTRACO o a questo riconducibili, così come alle immagini di prodotti o altra rappresentazione di prodotti non appartenenti e/o provenienti da INTERTRACO o a questo riconducibili.

La promozione dei Diritti IP e/o dei prodotti nella proprietà e/o nella titolarità di INTERTRACO (di seguito semplicemente "Prodotti") dovrà avvenire sempre e solo nell'ottica del raggiungimento e quindi del mantenimento di un elevato standard qualitativo per INTERTRACO e per i suoi Diritti IP e/o Prodotti, che coinvolge la presentazione, i canali utilizzati, le immagini, le diciture e tutto quanto possa influire in tal senso.

Al fine del mantenimento e/o dell'accrescimento del valore dei Diritti IP e nel rispetto degli stessi, i soggetti che verranno eventualmente autorizzati da INTERTRACO ad utilizzare i Diritti IP di cui al primo paragrafo di questo documento, dovranno necessariamente ed obbligatoriamente sottostare alle seguenti norme, che si considerano parte integrante e inderogabile dell'accordo esplicito tra INTERTRACO e ciascun singolo utilizzatore:

**1** - Ciascun Diritto IP non può in alcun modo essere utilizzato se non a fronte di consenso scritto ed esplicito da parte di INTERTRACO;

**2** - L' autorizzazione all'utilizzo dei Diritti IP non fornirà alle Parti che ne richiedono l'utilizzo alcun diritto ulteriore e diverso rispetto a quanto contenuto nell'accordo stipulato per iscritto da INTERTRACO con queste ultime. In nessun caso l'autorizzazione conferirà al terzo utilizzatore alcun diritto di proprietà, titolarità e/o licenza aggiuntiva;

**3** - L'autorizzazione vincola l'utente alla destinazione e all'utilizzo dei Diritti di Proprietà Intellettuale, della documentazione e del materiale promozionale forniti da INTERTRACO, solo ed esclusivamente nella modalità e nella versione consegnata e/o fornita da INTERTRACO. Le informazioni fornite da INTERTRACO devono essere considerate come definitive; qualsiasi modifica non autorizzata verrà quindi considerata un'alterazione a danno di INTERTRACO, che avrà

pertanto il diritto di intraprendere le opportune azioni legali per il risarcimento dei danni subiti;

**4** - Nessun materiale relativo a Prodotti e/o alla loro rappresentazione scritta e/o figurativa, così come i relativi e correlati Diritti IP, consegnati da INTERTRACO all'utilizzatore potrà subire qualsivoglia alterazione o modifica da parte dell'utilizzatore senza il previo consenso scritto di INTERTRACO;

**5** - L'autorizzazione in nessun caso fornisce licenza e/o permette all'utilizzatore di apportare modifiche a nomi, specifiche tecniche, loghi, marchi o altri Diritti IP, o a descrizioni dei Prodotti di INTERTRACO riportate nei siti web cataloghi, brochure, schede prodotto o in qualsiasi altro materiale ufficiale;

**6** - L'autorizzazione in nessun caso dà licenza e/o permette all'utilizzatore di presentare i Prodotti di INTERTRACO su siti web, cataloghi, brochure dell'utilizzatore, così come su schede prodotto o qualsiasi altro materiale ufficiale, in modo difforme da come originariamente autorizzato d/o fornito da INTERTRACO: l'aspetto, la confezione e la presentazione visiva dei Prodotti e/o del materiale promozionale da parte dell'utilizzatore devono rimanere invariati rispetto a quanto originariamente fornito da INTERTRACO. L'uso e la promozione dei Diritti IP e/o dei Prodotti ad essi collegati, tramite sito internet e/o e-commerce e/o canali social e/o piattaforme digitali è oggetto a specifica autorizzazione da parte di INTERTRACO per ogni singolo link;

**7** - L'autorizzazione in nessun caso permette l'utilizzo dei Diritti IP al di fuori dell'indirizzo IP e/o del sito online precedentemente concordati, dei canali social concordati, delle piattaforme digitali concordati o di altre aree o canali (esempio: fiere, mercati, esposizioni, ecc.) preventivamente concordati, tutti in ogni caso sottoposti a visione, analisi e autorizzazione preventiva per iscritto da INTERTRACO;

**8** - L'autorizzazione in nessun caso permette la creazione e la circolazione di note informative o materiale informativo o altre pubblicazioni inerenti i Diritti IP e/o i Prodotti (ad esempio "newsletter") salvo preventiva visione ed approvazione per iscritto da parte di INTERTRACO;

**9** - L'utilizzo di Diritti IP, incluse le applicazioni di immagini e/o fotografie dei Prodotti all'interno di materiale promozionale non fornito e/o consegnato direttamente da INTERTRACO alla Parte utilizzatrice ma direttamente realizzato da questa ultima come ad esempio cataloghi o altro, devono essere obbligatoriamente e preventivamente visionati ed approvati per iscritto da INTERTRACO. In nessun caso è autorizzata la pubblicazione e l'utilizzo di tali rappresentazioni, fotografie, immagini e descrizioni dei Prodotti in fiere, mercati, esposizioni o altro, senza l'approvazione preventiva scritta da parte di INTERTRACO;

**10** - Ogni utilizzo e/o commercializzazione e/o proposta al pubblico al di fuori del Territorio stabilito o dei canali di vendita concordati di Prodotti contenenti Diritti IP di proprietà di INTERTRACO dovrà essere approvato per iscritto da INTERTRACO.

Resta inteso e vincolante all'utilizzatore quanto segue:

**a)** È severamente vietato l'utilizzo dei Diritti IP di INTERTRACO in relazione a prodotti o a immagini di prodotti non provenienti da INTERTRACO e/o a questo riconducibili;

**b)** Ogni utilizzo dei Diritti IP di INTERTRACO e/o del materiale fornito da INTERTRACO difforme rispetto a quanto ivi contenuto e preventivamente da questa ultima accordato per destinazione d'uso, sarà da considerarsi in lesione dei diritti di INTERTRACO e sarà perseguito legalmente;

**c)** È severamente vietato fare uso in modo ingannevole, distorto, o comunque difforme, dei Diritti IP e/o dei Prodotti e/o di qualsiasi materiale di proprietà di, proveniente da e/o collegato a INTERTRACO, in modo da trarre in inganno il consumatore circa la provenienza dei prodotti o la qualità degli stessi o le loro caratteristiche tecniche ed economiche, la loro destinazione di utilizzo o altro non espressamente previsto nella documentazione fornita da INTERTRACO all'utilizzatore.

*Per qualsiasi chiarimento o richiesta di autorizzazione, si prega di contattare direttamente Intertraco (Italia) S.p.A.*

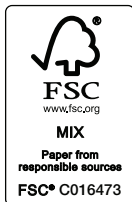
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**Intertraco (Italia) S.p.A.**

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