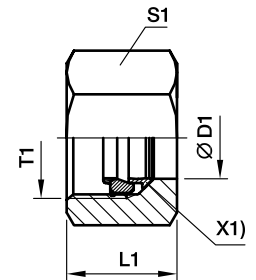


FM EO2-Functional nut

for steel tubes



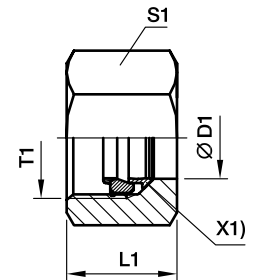
X1) Retaining ring

Series	D1 	T1	L1	S1	Order code				Weight g/1 piece	
					FM...CF Steel, zinc plated Cr(VI) free passiv. +Sealing Sealing NBR	PN (bar)	FM...VITCF Steel, zinc plated Cr(VI) free passiv. +Sealing Sealing FKM	PN (bar)		
LL	04	M 08×1.0	11.0	10	FM04LLCF	100	—	100	5	
	06	M 10×1.0	11.5	12	—	—	—	—	6	
L	06	M 12×1.5	14.5	14	FM06LCF	500	FM06LVITCF	500	12	
	08	M 14×1.5	14.5	17	FM08LCF	500	FM08LVITCF	500	17	
	10	M 16×1.5	15.5	19	FM10LCF	500	FM10LVITCF	500	22	
	12	M 18×1.5	15.5	22	FM12LCF	400	FM12LVITCF	400	30	
	15	M 22×1.5	17.0	27	FM15LCF	400	FM15LVITCF	400	48	
	18	M 26×1.5	18.0	32	FM18LCF	400	FM18LVITCF	400	70	
	22	M 30×2.0	20.0	36	FM22LCF	250	FM22LVITCF	250	94	
	28	M 36×2.0	21.0	41	FM28LCF	250	FM28LVITCF	250	106	
	35	M 45×2.0	24.0	50	FM35LCF	250	FM35LVITCF	250	160	
	42	M 52×2.0	24.0	60	FM42LCF	250	FM42LVITCF	250	244	
	S	06	M 14×1.5	16.5	17	FM06SCF	800	FM06SVITCF	800	20
		08	M 16×1.5	16.5	19	FM08SCF	800	FM08SVITCF	800	23
10		M 18×1.5	17.5	22	FM10SCF	800	FM10SVITCF	800	37	
12		M 20×1.5	17.5	24	FM12SCF	630	FM12SVITCF	630	39	
14		M 22×1.5	20.5	27	FM14SCF	630	FM14SVITCF	630	60	
16		M 24×1.5	20.5	30	FM16SCF	630	FM16SVITCF	630	72	
20		M 30×2.0	24.0	36	FM20SCF	420	FM20SVITCF	420	121	
25		M 36×2.0	27.0	46	FM25SCF	420	FM25SVITCF	420	221	
30		M 42×2.0	29.0	50	FM30SCF	420	FM30SVITCF	420	248	
38		M 52×2.0	32.5	60	FM38SCF	420	FM38SVITCF	420	367	

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

FM EO2-Functional nut

for stainless steel tubes



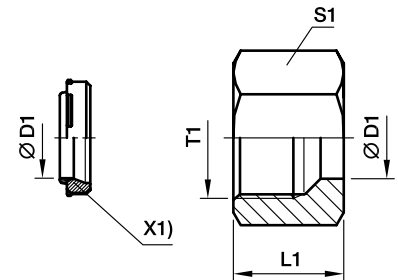
X1) Retaining ring

Series	D1 	T1	L1	S1	Order code								Weight g/1 piece	
					FM...71 Stainless Steel		FM...NBR71 Stainless Steel		FM...SSA Steel, zinc plated Cr(VI) free passiv. +Sealing, Retaining ring: Stainless Steel		FM...VITSSA Steel, zinc plated Cr(VI) free passiv. +Sealing, Retaining ring: Stainless Steel			
					Sealing FKM	PN (bar)	Sealing NBR	PN (bar)	Sealing NBR	PN (bar)	Sealing FKM	PN (bar)		
LL	04	M 08×1.0	11.0	10	—	—	—	—	FM04LLSSA	100	—	—	5	
	06	M 10×1.0	11.5	12	—	—	—	—	FM06LLSSA	100	—	—	6	
L	06	M 12×1.5	14.5	14	FM06L71	315	FM06LNBR71	315	FM06LSSA	315	FM06LVITSSA	315	12	
	08	M 14×1.5	14.5	17	FM08L71	315	FM08LNBR71	315	FM08LSSA	315	FM08LVITSSA	315	17	
	10	M 16×1.5	15.5	19	FM10L71	315	FM10LNBR71	315	FM10LSSA	315	FM10LVITSSA	315	22	
	12	M 18×1.5	15.5	22	FM12L71	315	FM12LNBR71	315	FM12LSSA	315	FM12LVITSSA	315	30	
	15	M 22×1.5	17.0	27	FM15L71	315	FM15LNBR71	315	FM15LSSA	315	FM15LVITSSA	315	48	
	18	M 26×1.5	18.0	32	FM18L71	315	FM18LNBR71	315	FM18LSSA	315	FM18LVITSSA	315	70	
	22	M 30×2.0	20.0	36	FM22L71	160	FM22LNBR71	160	FM22LSSA	160	FM22LVITSSA	160	94	
	28	M 36×2.0	21.0	41	FM28L71	160	FM28LNBR71	160	FM28LSSA	160	FM28LVITSSA	160	106	
	35	M 45×2.0	24.0	50	FM35L71	160	FM35LNBR71	160	FM35LSSA	160	FM35LVITSSA	160	160	
	42	M 52×2.0	24.0	60	FM42L71	160	FM42LNBR71	160	FM42LSSA	160	FM42LVITSSA	160	244	
	S	06	M 14×1.5	16.5	17	FM06S71	630	FM06SNBR71	630	FM06SSSA	630	FM06SVITSSA	630	20
		08	M 16×1.5	16.5	19	FM08S71	630	FM08SNBR71	630	FM08SSSA	630	FM08SVITSSA	630	23
		10	M 18×1.5	17.5	22	FM10S71	630	FM10SNBR71	630	FM10SSSA	630	FM10SVITSSA	630	37
		12	M 20×1.5	17.5	24	FM12S71	630	FM12SNBR71	630	FM12SSSA	630	FM12SVITSSA	630	39
14		M 22×1.5	20.5	27	FM14S71	630	FM14SNBR71	630	FM14SSSA	630	FM14SVITSSA	630	60	
16		M 24×1.5	20.5	30	FM16S71	400	FM16SNBR71	400	FM16SSSA	400	FM16SVITSSA	400	72	
20		M 30×2.0	24.0	36	FM20S71	400	FM20SNBR71	400	FM20SSSA	400	FM20SVITSSA	400	121	
25		M 36×2.0	27.0	46	FM25S71	400	FM25SNBR71	400	FM25SSSA	400	FM25SVITSSA	400	221	
30		M 42×2.0	29.0	50	FM30S71	400	FM30SNBR71	400	FM30SSSA	400	FM30SVITSSA	400	248	
38		M 52×2.0	32.5	60	FM38S71	315	FM38SNBR71	315	FM38SSSA	315	FM38SVITSSA	315	367	

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

EO2-FORM Set

for steel tubes

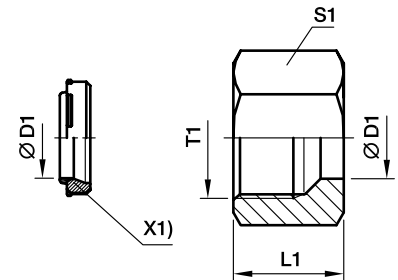


X1) Sealing (DOZ)

Series	D1 	T1	L1	S1	Order code		PN (bar)	Weight g/1 piece
					FORM...CF Steel, zinc plated Cr(VI) free +Seal NBR	FORM...VITCF Steel, zinc plated Cr(VI) free +Seal FKM		
L	06	M 12×1.5	14.5	14	FORM06LCF	FORM06LVITCF	500	11
	08	M 14×1.5	14.5	17	FORM08LCF	FORM08LVITCF	500	16
	10	M 16×1.5	15.5	19	FORM10LCF	FORM10LVITCF	500	20
	12	M 18×1.5	15.5	22	FORM12LCF	FORM12LVITCF	400	27
	15	M 22×1.5	17.0	27	FORM15LCF	FORM15LVITCF	400	45
	18	M 26×1.5	18.0	32	FORM18LCF	FORM18LVITCF	400	67
	22	M 30×2.0	20.0	36	FORM22LCF	FORM22LVITCF	250	88
	28	M 36×2.0	21.0	41	FORM28LCF	FORM28LVITCF	250	99
	35	M 45×2.0	24.0	50	FORM35LCF	FORM35LVITCF	250	162
	42	M 52×2.0	24.0	60	FORM42LCF	FORM42LVITCF	250	233
S	06	M 14×1.5	16.5	17	FORM06SCF	FORM06SVITCF	800	19
	08	M 16×1.5	16.5	19	FORM08SCF	FORM08SVITCF	800	22
	10	M 18×1.5	17.5	22	FORM10SCF	FORM10SVITCF	800	34
	12	M 20×1.5	17.5	24	FORM12SCF	FORM12SVITCF	630	38
	14	M 22×1.5	20.5	27	FORM14SCF	FORM14SVITCF	630	57
	16	M 24×1.5	20.5	30	FORM16SCF	FORM16SVITCF	630	71
	20	M 30×2.0	24.0	36	FORM20SCF	FORM20SVITCF	420	115
	25	M 36×2.0	27.0	46	FORM25SCF	FORM25SVITCF	420	216
	30	M 42×2.0	29.0	50	FORM30SCF	FORM30SVITCF	420	242
	38	M 52×2.0	32.5	60	FORM38SCF	FORM38SVITCF	420	366

EO2-FORM Set

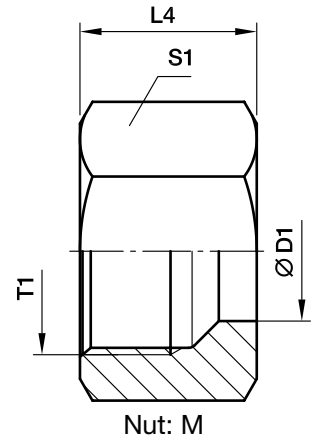
for stainless steel tubes



X1) Sealing (DOZ)

Series	D1 	T1	L1	S1	Order code				PN (bar)	Weight g/1 piece
					FORM...71 Stainless Steel Sealing FKM	FORM...NBR71 Stainless Steel Sealing NBR	FORM...CF Steel, zinc plated Cr(VI) free +Seal NBR	FORM...VITCF Steel, zinc Cr(VI) free +Seal FKM		
L	06	M 12×1.5	14.5	14	FORM06L71	FORM06LNBR71	FORM06LCF	FORM06LVITCF	315	11
	08	M 14×1.5	14.5	17	FORM08L71	FORM08LNBR71	FORM08LCF	FORM08LVITCF	315	16
	10	M 16×1.5	15.5	19	FORM10L71	FORM10LNBR71	FORM10LCF	FORM10LVITCF	315	21
	12	M 18×1.5	15.5	22	FORM12L71	FORM12LNBR71	FORM12LCF	FORM12LVITCF	315	27
	15	M 22×1.5	17.0	27	FORM15L71	FORM15LNBR71	FORM15LCF	FORM15LVITCF	315	46
	18	M 26×1.5	18.0	32	FORM18L71	FORM18LNBR71	FORM18LCF	FORM18LVITCF	315	68
	22	M 30×2.0	20.0	36	FORM22L71	FORM22LNBR71	FORM22LCF	FORM22LVITCF	160	89
	28	M 36×2.0	21.0	41	FORM28L71	FORM28LNBR71	FORM28LCF	FORM28LVITCF	160	101
	35	M 45×2.0	24.0	50	FORM35L71	FORM35LNBR71	FORM35LCF	FORM35LVITCF	160	165
	42	M 52×2.0	24.0	60	FORM42L71	FORM42LNBR71	FORM42LCF	FORM42LVITCF	160	237
S	06	M 14×1.5	16.5	17	FORM06S71	FORM06SNBR71	FORM06SCF	FORM06SVITCF	630	19
	08	M 16×1.5	16.5	19	FORM08S71	FORM08SNBR71	FORM08SCF	FORM08SVITCF	630	22
	10	M 18×1.5	17.5	22	FORM10S71	FORM10SNBR71	FORM10SCF	FORM10SVITCF	630	35
	12	M 20×1.5	17.5	24	FORM12S71	FORM12SNBR71	FORM12SCF	FORM12SVITCF	630	39
	14	M 22×1.5	20.5	27	FORM14S71	FORM14SNBR71	FORM14SCF	FORM14SVITCF	630	58
	16	M 24×1.5	20.5	30	FORM16S71	FORM16SNBR71	FORM16SCF	FORM16SVITCF	400	71
	20	M 30×2.0	24.0	36	FORM20S71	FORM20SNBR71	FORM20SCF	FORM20SVITCF	400	117
	25	M 36×2.0	27.0	46	FORM25S71	FORM25SNBR71	FORM25SCF	FORM25SVITCF	400	219
	30	M 42×2.0	29.0	50	FORM30S71	FORM30SNBR71	FORM30SCF	FORM30SVITCF	400	246
	38	M 52×2.0	32.5	60	FORM38S71	FORM38SNBR71	FORM38SCF	FORM38SVITCF	315	372

M Nut · EO 24° Cone end



Series	D1 	T1	L4	S1	Weight g/1 piece	Order code*	PN (bar) ¹⁾		
							CF	71	MS
LL ²⁾	04	M 08×1.0	11.0	10	4	M04LL	100	100	63
	06	M 10×1.0	11.5	12	6	M06LL	100	100	63
	08	M 12×1.0	12.0	14	7	M08LL	100	100	63
	10	M 14×1.0	12.5	17	11	M10LL	100	100	63
	12	M 16×1.0	13.0	19	13	M12LL	100	100	63
L ³⁾	06	M 12×1.5	14.5	14	10	M06L	500	315	200
	08	M 14×1.5	14.5	17	15	M08L	500	315	200
	10	M 16×1.5	15.5	19	18	M10L	500	315	200
	12	M 18×1.5	15.5	22	25	M12L	400	315	200
	15	M 22×1.5	17.0	27	42	M15L	400	315	200
	18	M 26×1.5	18.0	32	62	M18L	400	315	200
	22	M 30×2.0	20.0	36	82	M22L	250	160	100
	28	M 36×2.0	21.0	41	89	M28L	250	160	100
	35	M 45×2.0	24.0	50	137	M35L	250	160	100
	42	M 52×2.0	24.0	60	216	M42L	250	160	100
S ⁴⁾	06	M 14×1.5	16.5	17	17	M06S	800	630	400
	08	M 16×1.5	16.5	19	20	M08S	800	630	400
	10	M 18×1.5	17.5	22	31	M10S	800	630	400
	12	M 20×1.5	17.5	24	34	M12S	630	630	400
	14	M 22×1.5	20.5	27	53	M14S	630	630	400
	16	M 24×1.5	20.5	30	66	M16S	630	400	250
	20	M 30×2.0	24.0	36	102	M20S	420	400	250
	25	M 36×2.0	27.0	46	202	M25S	420	400	250
	30	M 42×2.0	29.0	50	219	M30S	420	400	250
	38	M 52×2.0	32.5	60	339	M38S	420	315	200

1) Pressure shown = item deliverable

2) LL = very light series; 3) L = light series; 4) S = heavy series

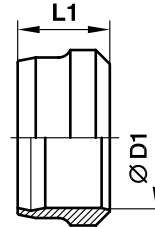
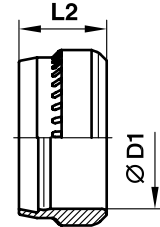
$$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$$

*Please add the **suffixes** below according to the material/surface required.

Order code suffixes		
Material	Suffix surface and material	Example
Steel, zinc plated, Cr(VI)-free	CFX	M16SCFX
Stainless Steel	EODURX	M16SEODURX
Brass	MSX	M16SMSX

D Cutting ring · PSR Progressive stop ring

for EO 24° cone end

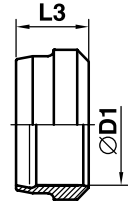

 Cutting ring:
D

 Progressive stop ring:
PSR

Series	D1 	Cutting ring D Order code						Progressive stop ring PSR Order code					Weight g/1 pc.
		L1	Steel, zinc plated Cr(VI) free	PN (bar)	Stainless Steel	PN (bar)	Brass	PN (bar)	L2	Steel, zinc plated Cr(VI) free	PN (bar)		
LL	04	6.0	D04LLX	100	D04LL71X	100	D04LLMSX	63	—	—	—	0.3	
	06	7.0	D06LLX	100	D06LL71X	100	D06LLMSX	63	—	—	—	0.8	
	08	7.0	D08LLX	100	D08LL71X	100	D08LLMSX	63	—	—	—	1.0	
	10	7.0	D10LLX	100	D10LL71X	100	D10LLMSX	63	—	—	—	1.3	
	12	7.5	D12LLX	100	D12LL71X	100	D12LLMSX	63	—	—	—	1.6	
	L	06	9.5	—	—	—	—	D06LMSX	200	9.5	PSR06LX	500	1.7
08		9.0	—	—	—	—	D08LMSX	200	9.5	PSR08LX	500	2.2	
10		10.0	—	—	—	—	D10LMSX	200	10.0	PSR10LX	500	3.1	
12		10.0	—	—	—	—	D12LMSX	200	10.0	PSR12LX	400	3.5	
15		10.0	—	—	—	—	D15LMSX	200	10.0	PSR15LX	400	4.5	
18		10.0	—	—	—	—	D18LMSX	200	10.0	PSR18LX	400	5.5	
22		10.5	—	—	—	—	D22LMSX	100	10.5	PSR22LX	250	7.3	
28		10.5	—	—	—	—	D28LMSX	100	10.5	PSR28LX	250	9.4	
35		13.0	—	—	—	—	D35LMSX	100	13.0	PSR35LX	250	20.0	
42		13.5	—	—	—	—	D42LMSX	100	13.0	PSR42LX	250	23.0	
S		06	9.5	—	—	—	—	D06LMSX	400	9.5	PSR06LX	800	1.7
		08	9.0	—	—	—	—	D08LMSX	400	9.5	PSR08LX	800	3.2
	10	10.0	—	—	—	—	D10LMSX	400	10.0	PSR10LX	800	3.1	
	12	10.0	—	—	—	—	D12LMSX	400	10.0	PSR12LX	630	3.5	
	14	10.0	—	—	—	—	D14SMSX	400	10.0	PSR14SX	630	3.9	
	16	10.5	—	—	—	—	D16SMSX	250	10.0	PSR16SX	630	5.6	
	20	12.5	—	—	—	—	D20SMSX	250	13.0	PSR20SX	420	11.4	
	25	12.5	—	—	—	—	D25SMSX	250	13.0	PSR25SX	420	13.3	
	30	13.0	—	—	—	—	D30SMSX	250	13.0	PSR30SX	420	19.3	
	38	13.5	—	—	—	—	D38SMSX	200	13.0	PSR38SX	420	22.5	

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

DPR Progressive ring

for EO 24° cone end



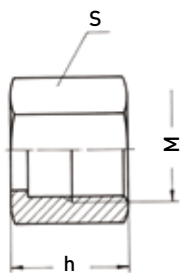
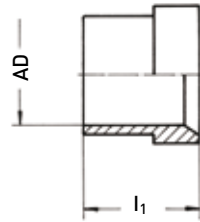
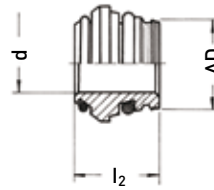
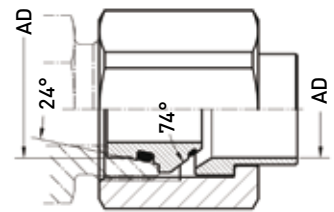
Progressive ring: DPR

Series	D1 	L3	Progressive ring DPR Order code		PN (bar)	Weight g/1 piece	
			Stainless Steel	Stainless Steel SPH			
L	06	9.0	DPR06L71X	DPR06LSPH71X	315	1.7	
	08	9.0	DPR08L71X	DPR08LSPH71X	315	2.2	
	10	9.5	DPR10L71X	DPR10LSPH71X	315	3.1	
	12	9.8	DPR12L71X	DPR12LSPH71X	315	3.5	
	15	9.5	DPR15L71X	DPR15LSPH71X	315	4.5	
	18	9.5	DPR18L71X	DPR18LSPH71X	315	5.5	
	22	10.5	DPR22L71X	DPR22LSPH71X	160	7.3	
	28	11.0	DPR28L71X	DPR28LSPH71X	160	9.4	
	35	13.5	DPR35L71X	DPR35LSPH71X	160	20.0	
	42	13.5	DPR42L71X	DPR42LSPH71X	160	23.0	
	S	06	9.0	DPR06L71X	DPR06LSPH71X	630	1.7
		08	9.0	DPR08L71X	DPR08LSPH71X	630	3.2
		10	9.5	DPR10L71X	DPR10LSPH71X	630	3.1
		12	9.8	DPR12L71X	DPR12LSPH71X	630	3.5
14		9.5	DPR14S71X	DPR14SSPH71X	630	3.9	
16		9.5	DPR16S71X	DPR16SSPH71X	400	5.6	
20		12.5	DPR20S71X	DPR20SSPH71X	400	11.4	
25		12.5	DPR25S71X	DPR25SSPH71X	400	13.3	
30		12.5	DPR30S71X	DPR30SSPH71X	400	19.3	
38		13.0	DPR38S71X	DPR38SSPH71X	315	22.5	

$$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$$

Flare fittings DIN 3949

Individual parts and complete set

BAM

TXA

BAA

BAK


Series	OD	M	h	l ₁	l ₂	d	S	Weight kg/100 pcs.	Union nut	Sleeve	Adapter	Complete- set	PN (bar) ¹⁾	
													CF	71
L	06	M 12×1.5	17	10.5	11.5	3	14	1.6	BAM06L	TXA06LS	BAA06LSOR	BAK06L	500	315
	08	M 14×1.5	18	11	12	5	17	2.4	BAM08L	TXA08LS	BAA08LSOR	BAK08L	500	315
	10	M 16×1.5	19.5	12.5	12.5	6	19	3.1	BAM10L	TXA10LS	BAA10LSOR	BAK10L	500	315
	12	M 18×1.5	20.5	13	12.5	8	22	4.4	BAM12L	TXA12LS	BAA12LSOR	BAK12L	400	315
	15	M 22×1.5	23	14	12.5	11	27	7.6	BAM15L/14S	TXA15L	BAA15LOR	BAK15L	400	315
	18	M 26×1.5	23	14.5	13	14	32	10.2	BAM18L	TXA18L	BAA18LOR	BAK18L	400	315
	22	M 30×2.0	27.5	18	14.2	17	36	14.0	BAM22L/20S	TXA22L	BAA22LOR	BAK22L	250	160
	28	M 36×2.0	27.5	17	14.7	23	41	15.8	BAM28L	TXA28L	BAA28LOR	BAK28L	250	160
	35	M 45×2.0	30.0	19	18.5	28	50	25.5	BAM35L	TXA35L	BAA35LOR	BAK35L	250	160
	42	M 52×2.0	34.0	21	20.5	35	60	42.2	BAM42L	TXA42L	BAA42LOR	BAK42L	250	160
S	06	M 14×1.5	18	10.5	11.5	3	17	2.4	BAM06S	TXA06LS	BAA06LSOR	BAK06S	630	630
	08	M 16×1.5	19	11	12	5	19	3.1	BAM08S	TXA08LS	BAA08LSOR	BAK08S	630	630
	10	M 18×1.5	20.5	12.5	12.5	6	22	4.4	BAM10S	TXA10LS	BAA10LSOR	BAK10S	630	630
	12	M 20×1.5	21	13	12.5	8	24	5.4	BAM12S	TXA12LS	BAA12LSOR	BAK12S	630	630
	16	M 24×1.5	26.5	17	15	11	30	10.4	BAM16S	TXA16S	BAA16SOR	BAK16S	630	400
	20	M 30×2.0	27.5	17.5	18.5	14	36	15.3	BAM22L/20S	TXA20S	BAA20SOR	BAK20S	400	400
	25	M 36×2.0	30.5	20	20	19	46	25.8	BAM25S	TXA25S	BAA25SOR	BAK25S	400	400
	30	M 42×2.0	23	21.5	22	23	50	31.9	BAM30S	TXA30S	BAA30SOR	BAK30S	400	400
	38	M 52×2.0	40	26.5	26	30	60	48.8	BAM38S	TXA38S	BAA38SOR	BAK38S	400	315

¹⁾ The allowable nominal pressures depend on the thickness of the tube wall.

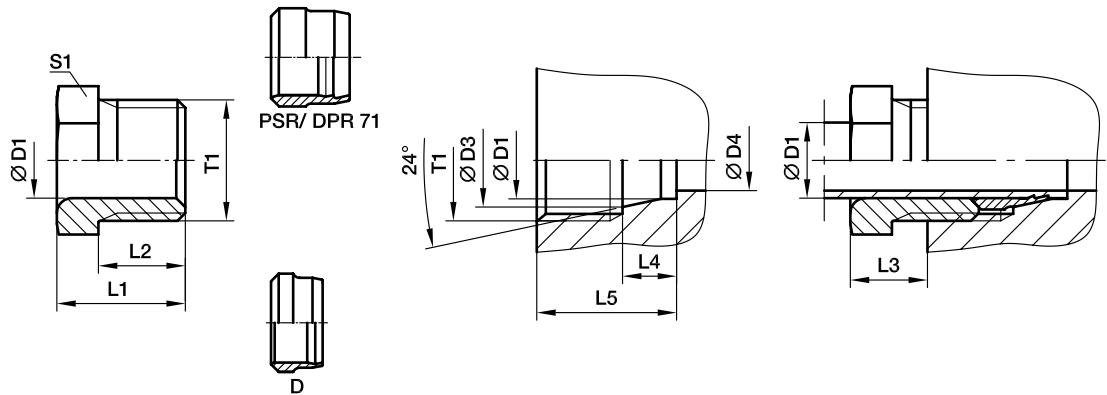
Standard O-ring for steel and stainless steel material, made from elastomer NBR. FKM on request. Replacement O-rings for adapters on request.

Sample order

Component	ID Code Steel	ID Code Stainless steel	Example Steel	Example Stainless steel
Union nut	CFX	NBR71X	BAM16SCFX	BAM16SNBR71X
Sleeve	CFX	NBR71X	TXA16SCFX	TXA16SNBR71X
Adapter	CF	NBR71	BAA16SORCF	BAA16SORNBR71
Complete set	CF	NBR71	BAK16SCF	BAK16SNBR71

S Sleeve screw

for threaded ports according to DIN 3854



Series	D1 	T1	D3	D4	L1	L2	L3	L4	L5	S1	Weight g/1 piece	Order code*	PN (bar) ¹⁾	
													CF	71
LL ²⁾	04	M 08×1.0	5.0	3.0	12	8.0	6	4.0	12.5	8	3	S04LL	100	100
	06	M 10×1.0	7.5	4.5	13	9.0	7	5.5	14.5	10	4	S06LL	100	100
	08	M 12×1.0	9.5	6.0	14	9.5	7	5.5	14.5	12	6	S08LL	100	100
L ³⁾	06	M 12×1.5	8.1	4.0	16	11.5	10	7.0	18.5	12	9	S06L	315	315
	08	M 14×1.5	10.1	6.0	16	11.5	10	7.0	18.5	14	11	S08L	315	315
	10	M 16×1.5	12.3	8.0	17	11.5	10	7.0	18.5	17	15	S10L	315	315
	12	M 18×1.5	14.3	10.0	18	12.0	10	7.0	19.0	19	19	S12L	315	315

¹⁾ Pressure shown = item deliverable

²⁾ LL = very light series; ³⁾ L = light series

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

*Please add the **suffixes** below according to the material/surface required.

Order code suffixes		
Material	Suffix surface and material	Example
Steel, zinc plated, Cr(VI)-free	CFX	S10LCFX
Stainless Steel	71X	S10L71X