



HYDRAULIC VALVES AND COMPONENTS



Hydraulic components

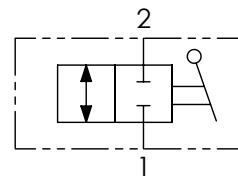
Componenti vari



	01	02	03
Codice ordinazione Ordering code	RAS2		

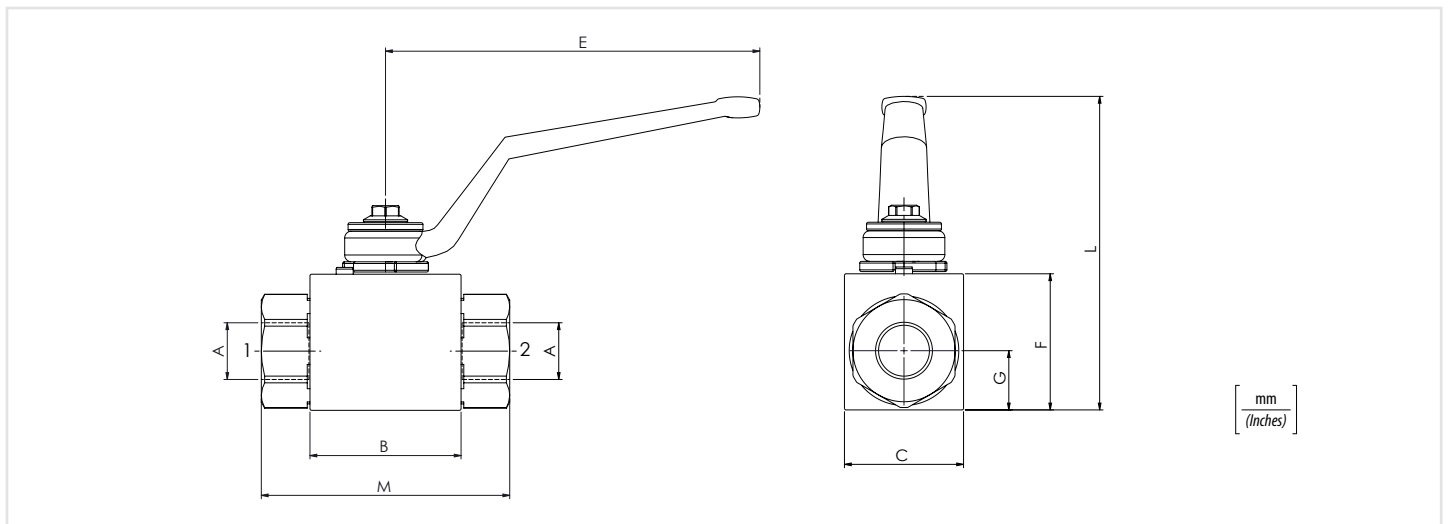
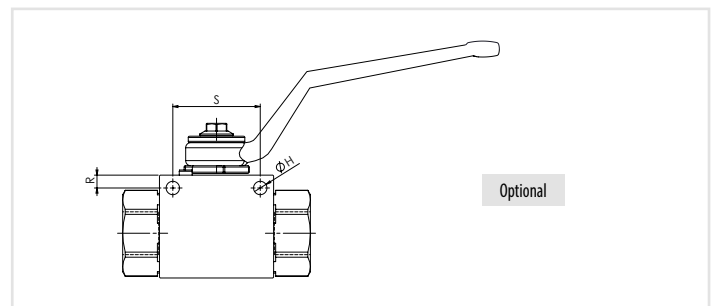
01	Valvole a sfera a 2 vie (2 ways ball valves)	RAS2
02	Dimensione (Size)	BSPP 1/8
		BSPP 1/4
		BSPP 3/8
		BSPP 1/2
		BSPP 3/4
		BSPP 1
		BSPP 1-1/4
		BSPP 1-1/2
03	Optional	Fori di fissaggio (Fixing ports)

Schema idraulico - Hydraulic circuit



Dati tecnici - Technical data

Olio idraulico/Mineral oil	ISO 6743/4 (DIN 51524)	
Viscosità olio/Oil viscosity	15-250 mm ² /s (15 to 250 cSt)	
Classe di contaminazione max con filtro Max contamination index with filter	ISO 4406:1999 Classe 19/17/14	
Temperatura dell'olio/Oil temperature	-20°C +80°C	-4°F + 176°F
Temperatura ambiente/Ambient temperature	-20°C +50°C	-4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)		

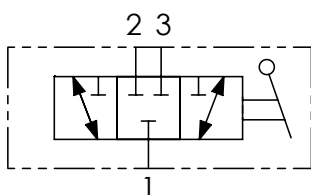


Caratteristiche tecniche - Technical characteristics

Codice Code	A	Portata max Max flow l/min-USgpm	Pressione max Max pressure bar-PSI	B	C	E	F	G	H	L	M	R	S	Peso approssimativo Approx weight kg-lb
RAS2180	BSPP 1/8	15 (4)	500 (7250)	42,4 (1.67)	30 (1.18)	110 (4.33)	35 (1.38)	14,5 (0.57)	5,2 (0.20)	91,5 (3.60)	71 (2.80)	4,5 (0.18)	34 (1.34)	0,5 (1.1)
RAS2140	BSPP 1/4	25 (6.6)		44,4 (1.75)	35 (1.38)		40 (1.57)	17,5 (0.69)		96,5 (3.80)	73 (2.87)			0,7 (1.5)
RAS2380	BSPP 3/8	35 (9.2)		48,4 (1.91)	37 (1.46)		43 (1.69)	18 (0.71)		99,5 (3.92)	83 (3.27)			0,8 (1.8)
RAS2120	BSPP 1/2	60 (15.8)		62,5 (2.46)	45 (1.77)		55 (2.17)	23,5 (0.93)		106,5 (4.19)	95 (3.74)			1,5 (3.3)
RAS2340	BSPP 3/4	100 (26.4)	400 (5800)	66,5 (2.62)	55 (2.17)	180 (7.09)	65 (2.56)	29,5 (1.16)	6,2 (0.24)	112 (4.41)	112 (4.41)	6 (0.24)	50 (1.97)	2,3 (5)
RAS2100	BSPP 1	150 (39.6)	350 (5075)							112 (4.41)	120 (4.72)			2,5 (5.5)
RAS2114	BSPP 1-1/4									116,5 (4.59)	124 (4.88)			
RAS2112	BSPP 1-1/2									124 (4.88)				



Schema idraulico - Hydraulic circuit



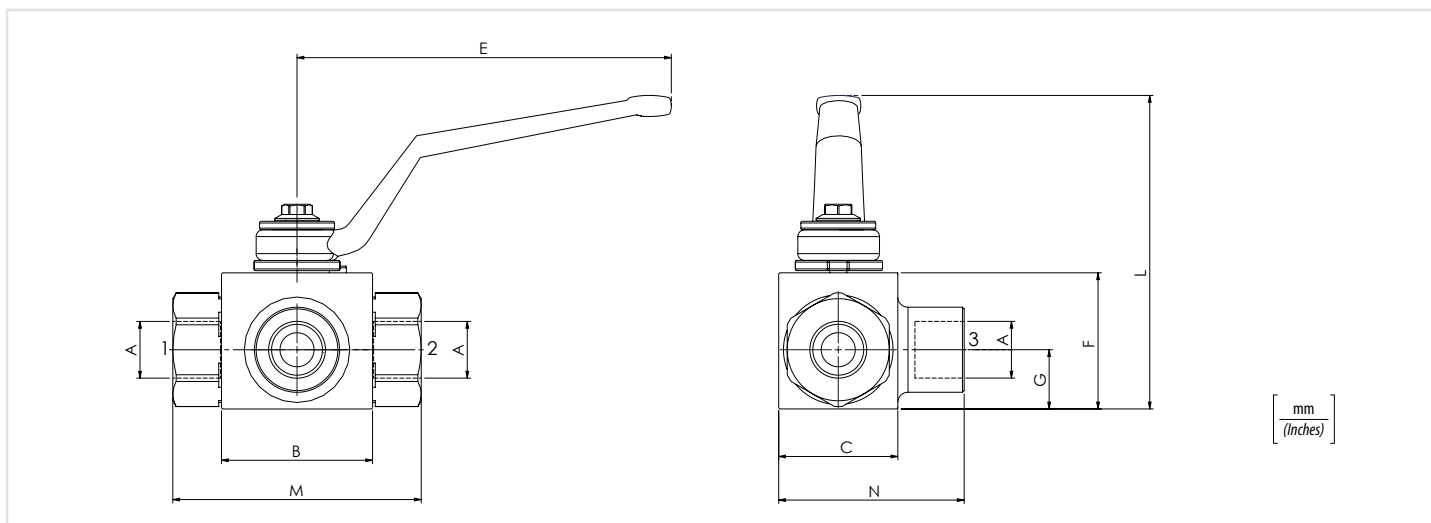
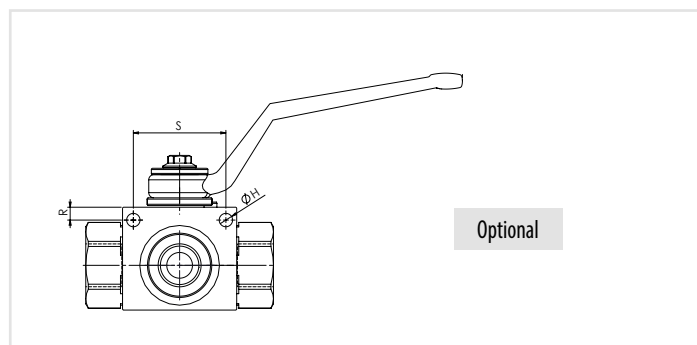
Codice ordinazione
Ordering code

01	02	03
RAS3		

01	Valvole a sfera a 3 vie (3 ways ball valves)	RAS3	
02	Dimensione (Size)	BSPP 1/8	180
		BSPP 1/4	140
		BSPP 3/8	380
		BSPP 1/2	120
		BSPP 3/4	340
		BSPP 1	100
		BSPP 1-1/4	114
03	Optional	Fori di fissaggio (Fixing ports)	P
		BSPP 1-1/2	112

Dati tecnici - Technical data

Olio idraulico/Mineral oil	ISO 6743/4 (DIN 51524)	
Viscosità olio/Oil viscosity	15-250 mm ² /s (15 to 250 cSt)	
Classe di contaminazione max con filtro	ISO 4406:1999 Classe 19/17/14	
Max contamination index with filter		
Temperatura dell'olio/Oil temperature	-20°C +80°C	-4°F + 176°F
Temperatura ambiente/Ambient temperature	-20°C +50°C	-4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)		
It is necessary a filter use to protect the valve (advised filtration 15 µm)		

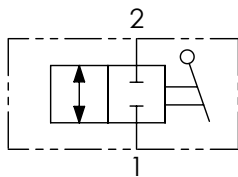


Caratteristiche tecniche - Technical characteristics

Codice Code	A	Portata max Max flow l/min-USgpm	Pressione max Max pressure bar/PSI	B	C	E	F	G	H	L	M	N	R	S	Peso approssimativo Approx weight kg/lb
RAS3180	BSPP 1/8	15 (4)	400 (5800)	42,4 (1.67)	30 (1.18)	110 (4.33)	35 (1.38)	14,5 (0.57)	5,2 (0.20)	91,5 (3.60)	71 (2.80)	48,5 (1.91)	4,5 (0.18)	34 (1.34)	0,6 (1.3)
RAS3140	BSPP 1/4	25 (6.6)		40,4 (1.75)	35 (1.38)		40 (1.57)	17,5 (0.69)		96,5 (3.80)	73 (2.87)	54,5 (2.15)	5 (0.20)	36 (1.42)	0,7 (1.5)
RAS3380	BSPP 3/8	35 (9.2)		44,4 (1.91)	37 (1.46)		43 (1.69)	18 (0.71)		99,5 (3.92)	83 (3.27)	58,5 (2.30)	6 (0.24)	50 (1.97)	0,8 (1.8)
RAS3120	BSPP 1/2	60 (15.8)		48,4 (1.91)	37 (1.46)		43 (1.69)	18 (0.71)		99,5 (3.92)	83 (3.27)	58,5 (2.30)			0,8 (1.8)
RAS3340	BSPP 3/4	100 (26.4)	350 (5075)	62,5 (2.46)	45 (1.77)	180 (7.09)	55 (2.16)	23,5 (0.93)	6,2 (0.24)	106,5 (4.19)	95 (3.74)	75 (2.95)	6 (0.24)	50 (1.97)	1,6 (3.5)
RAS3100	BSPP 1	150 (89.6)		66,5 (2.62)	55 (2.17)		65 (2.56)	29,5 (1.16)		116,5 (4.59)	120 (4.72)	87,5 (3.44)			2,4 (5.3)
RAS3114	BSPP 1-1/4	150 (89.6)		66,5 (2.62)	55 (2.17)		65 (2.56)	29,5 (1.16)		116,5 (4.59)	120 (4.72)	87,5 (3.44)			2,6 (5.7)
RAS3112	BSPP 1-1/2									124 (4.88)					2,8 (6)



Schema idraulico - Hydraulic circuit



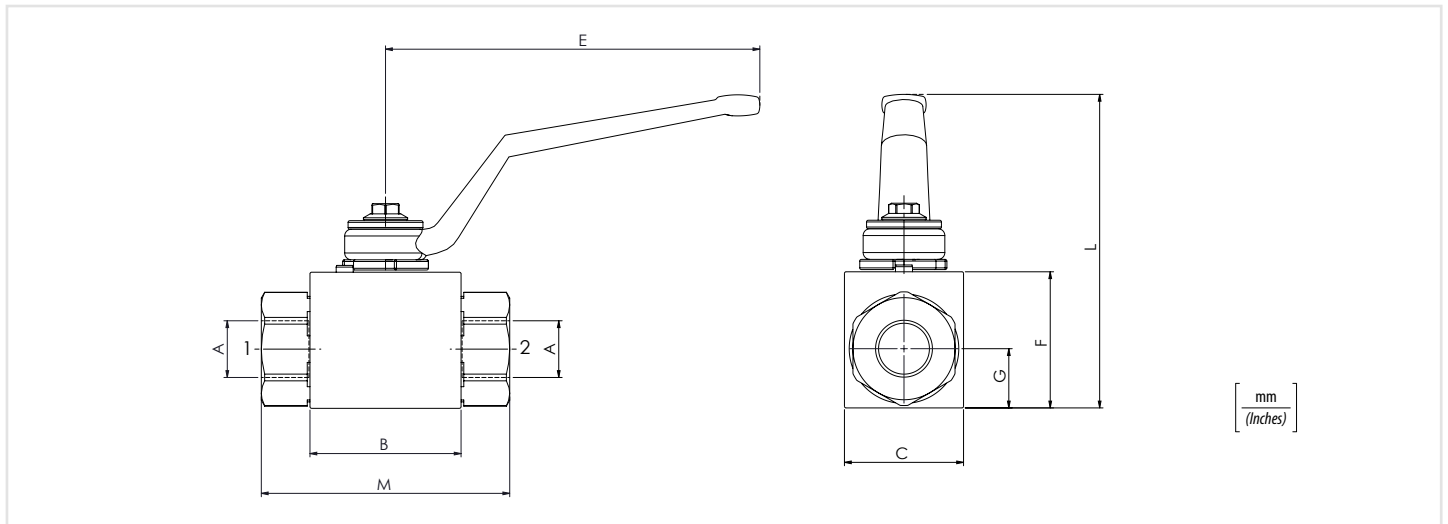
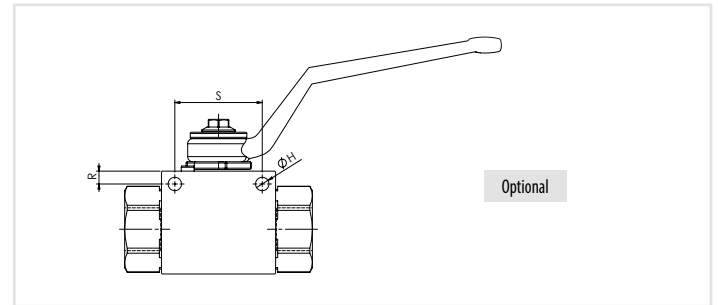
Codice ordinazione
Ordering code

01	02	03	04
RAS2		NPT	

01	Valvole a sfera a 2 vie (2 ways ball valves)	RAS2
02	Dimensione (Size)	NPT 1/8
		NPT 1/4
		NPT 3/8
		NPT 1/2
		NPT 3/4
		NPT 1
		NPT 1-1/4
03	Filettatura (Thread)	NPT
04	Optional	Fori di fissaggio (Fixing ports)

Dati tecnici - Technical data

Olio idraulico/Mineral oil	ISO 6743/4 (DIN 51524)	
Viscosità olio/Oil viscosity	15-250 mm ² /s (15 to 250 cSt)	
Classe di contaminazione max con filtro	ISO 4406:1999 Classe 19/17/14	
Max contamination index with filter		
Temperatura dell'olio/Oil temperature	-20°C +80°C	-4°F + 176°F
Temperatura ambiente/Ambient temperature	-20°C +50°C	-4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)		
It is necessary a filter use to protect the valve (advised filtration 15 µm)		

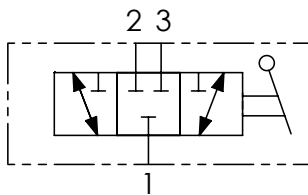


Caratteristiche tecniche - Technical characteristics

Code Code	A	Portata max Max flow l/min-USgpm	Pressione max Max pressure bar-PSI	B	C	E	F	G	H	L	M	R	S	Peso approssimativo Approx weight kg-lb
RAS2180NPT	NPT 1/8	15 (4)	500 (7250)	42,4 (1.67)	30 (1.18)	110 (4.33)	35 (1.38)	14,5 (0.57)	5,2 (0.20)	91,5 (3.60)	71 (2.80)	4,5 (0.18)	34 (1.34)	0,5 (1.1)
RAS2140NPT	NPT 1/4	25 (6.6)		44,4 (1.75)	35 (1.38)		40 (1.57)	17,5 (0.69)		96,5 (3.80)	73 (2.87)			0,7 (1.5)
RAS2380NPT	NPT 3/8	35 (9.2)		48,4 (1.91)	37 (1.46)		43 (1.69)	18 (0.71)		99,5 (3.92)	83 (3.27)			0,8 (1.8)
RAS2120NPT	NPT 1/2	60 (15.8)		45 (1.77)	55 (2.17)		23,5 (0.93)	106,5 (4.19)		95 (3.74)	5 (0.20)			36 (1.42)
RAS2340NPT	NPT 3/4	100 (26.4)	400 (5800)	62,5 (2.46)	45 (1.77)	180 (7.09)	65 (2.56)	29,5 (1.16)	6,2 (0.24)	112 (4.41)	112 (4.41)	6 (0.24)	50 (1.97)	2,3 (5)
RAS2100NPT	NPT 1	150 (39.6)	350 (5075)	66,5 (2.62)	55 (2.17)					116,5 (4.59)	120 (4.72)			2,5 (5.5)
RAS2114NPT	NPT 1-1/4									124 (4.88)	124 (4.88)			
RAS2112NPT	NPT 1-1/2													



Schema idraulico - Hydraulic circuit



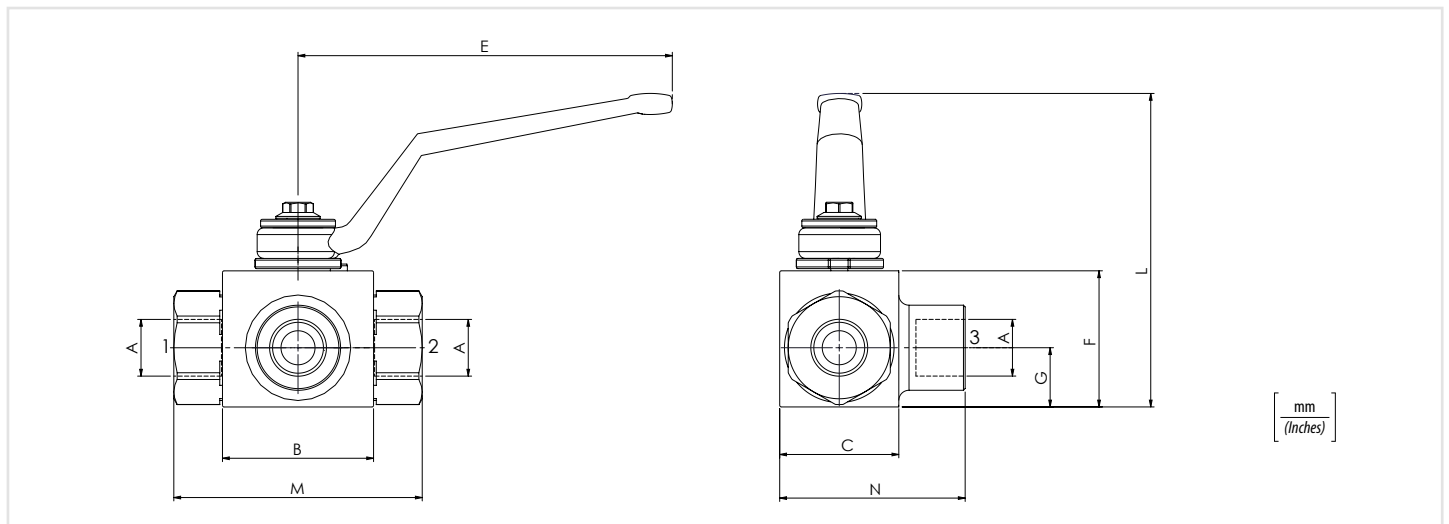
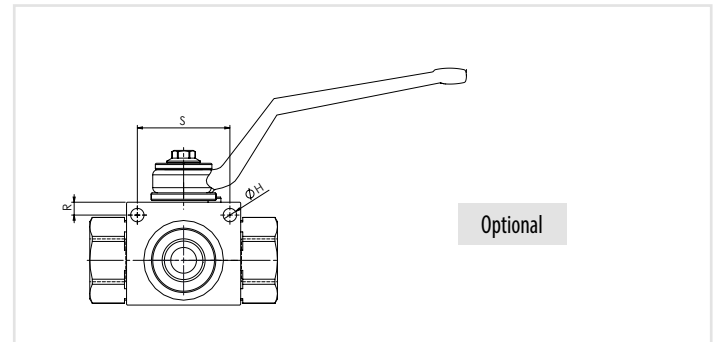
Codice ordinazione
Ordering code

01	02	03	04
RAS3		NPT	

01	Valvole a sfera a 3 vie (3 ways ball valves)		RAS3
02	Dimensione (Size)	NPT 1/8	180
		NPT 1/4	140
		NPT 3/8	380
		NPT 1/2	120
		NPT 3/4	340
		NPT 1	100
		NPT 1-1/4	114
		NPT 1-1/2	112
03	Filettatura (Thread)	NPT	NPT
04	Optional	Fori di fissaggio (Fixing ports)	P

Dati tecnici - Technical data

Olio idraulico/Mineral oil	ISO 6743/4 (DIN 51524)		
Viscosità olio/Oil viscosity	15-250 mm ² /s (15 to 250 cSt)		
Classe di contaminazione max con filtro	ISO 4406:1999 Classe 19/17/14		
Max contamination index with filter			
Temperatura dell'olio/Oil temperature	-20°C +80°C	-4°F + 176°F	
Temperatura ambiente/Ambient temperature	-20°C +50°C	-4°F + 122°F	
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)			
It is necessary a filter use to protect the valve (advised filtration 15 µm)			

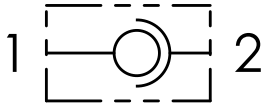


Caratteristiche tecniche - Technical characteristics

Codice Code	A	Portata max Max flow l/min-USgpm	Pressione max Max pressure bar/PSI	B	C	E	F	G	H	L	M	N	R	S	Peso approssimativo Approx weight kg/lb
RAS3180NPT	NPT 1/8	15 (4)	400 (5800)	42,4 (1.67)	30 (1.18)	110 (4.33)	35 (1.38)	14,5 (0.57)	5,2 (0.20)	91,5 (3.60)	71 (2.80)	48,5 (1.91)	4,5 (0.18)	34 (1.34)	0,6 (1.3)
RAS3140NPT	NPT 1/4	25 (6.6)													0,7 (1.5)
RAS3380NPT	NPT 3/8	35 (9.2)													0,7 (1.5)
RAS3120NPT	NPT 1/2	60 (15.8)	350 (5075)	48,4 (1.91)	37 (1.46)	43 (1.69)	18 (0.71)	17,5 (0.69)	6,2 (0.24)	99,5 (3.92)	83 (3.27)	58,5 (2.30)	5 (0.20)	36 (1.42)	0,8 (1.8)
RAS3340NPT	NPT 3/4	100 (26.4)													1,6 (3.5)
RAS3100NPT	NPT 1	150 (89.6)													2,4 (5.3)
RAS3114NPT	NPT 1-1/4	150 (89.6)	350 (5075)	66,5 (2.62)	55 (2.17)	65 (2.56)	29,5 (1.16)	29,5 (1.16)	6,2 (0.24)	116,5 (4.59)	120 (4.72)	87,5 (3.44)	6 (0.24)	50 (1.97)	2,6 (5.7)
RAS3112NPT	NPT 1-1/2														2,8 (6)



Schema idraulico - Hydraulic circuit

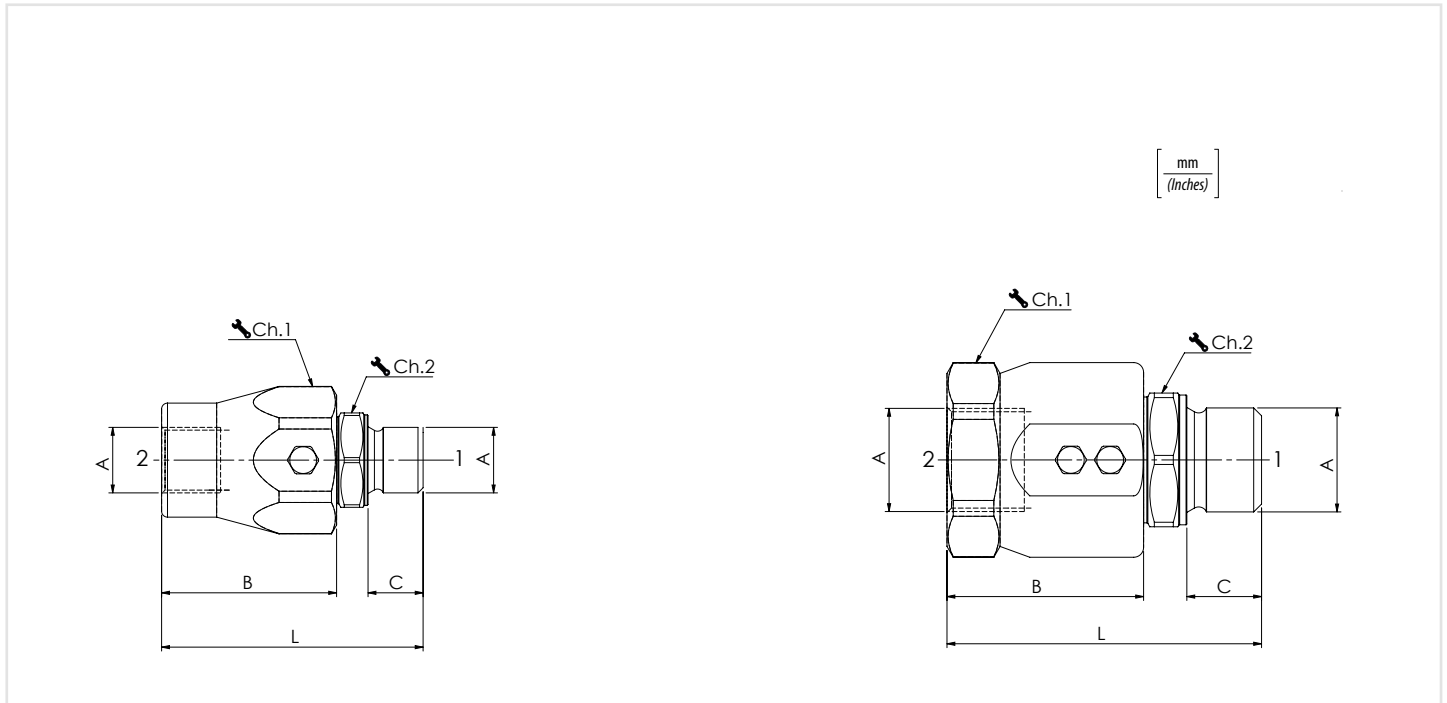


Codice ordinazione Ordering code	01	02
	GGIL	

01	Giunti girevoli in linea (In-line rotating couplings)	GGIL	
02	Dimensione (Size)	BSP1/4	140
		BSP3/8	380
		BSP1/2	120
		BSP3/4	340
		BSP1	100

Dati tecnici - Technical data

olio idraulico/Mineral oil	ISO 6743/4 (DIN 51524)	
Viscosità olio/Oil viscosity	15-250 mm ² /s (15 to 250 cSt)	
Classe di contaminazione max con filtro Max contamination index with filter	ISO 4406:1999 Classe 19/17/14	
Temperatura dell'olio/Oil temperature	-20°C +80°C	-4°F + 176°F
Temperatura ambiente/Ambient temperature	-20°C +50°C	-4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)		

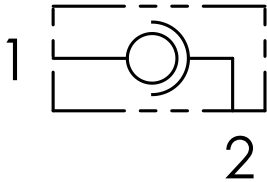


Caratteristiche tecniche - Technical characteristics

Codice Code	A	Portata max Max flow l/min-USgpm	Pressione max Max pressure bar/PSI	Pressione max in rotazione Max rotation pressure bar/PSI	Velocità max di rotazione Max rotation speed rev/min	B	C	Ch. 1	Ch. 2	L	Peso approssimativo Approx weight kg/lb
GGIL140	BSPP1/4	25 (6.6)	400 (5800)	200 (2900)	212	42 (1.65)	11 (0.43)	30	19	61 (2.40)	0,21 (0.46)
GGIL380	BSPP3/8	35 (9.2)			173	44 (1.73)	14 (0.55)	34	24	66 (2.60)	0,27 (0.60)
GGIL120	BSPP1/2	60 (15.8)	300 (4350)	150 (2175)	160	47 (1.85)	15 (0.59)	36	27	71 (2.80)	0,34 (0.75)
GGIL340	BSPP3/4	100 (26.4)			120	50 (1.97)	19 (0.75)	45	34	80 (3.15)	0,66 (1.45)
GGIL100	BSPP1	180 (47.5)			100	57 (2.24)	21 (0.83)	50	41	90 (3.54)	0,90 (1.98)



Schema idraulico - Hydraulic circuit



Codice ordinazione Ordering code	01	02
	GG90	

01	Giunti girevoli a 90° (90° rotating couplings)	GG90	
02	Dimensione (Size)	BSPP1/4	140
		BSPP3/8	380
		BSPP1/2	120
		BSPP3/4	340
		BSPP1	100

Dati tecnici - Technical data

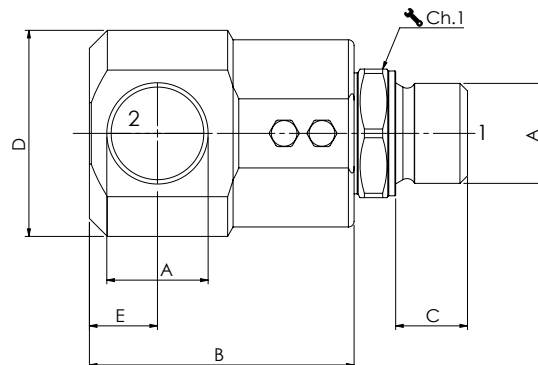
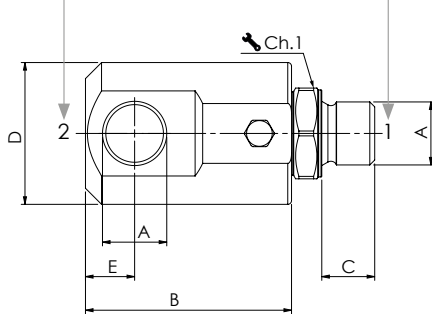
olio idraulico/Mineral oil	ISO 6743/4 (DIN 51524)	
Viscosità olio/Oil viscosity	15-250 mm ² /s (15 to 250 cSt)	
Classe di contaminazione max con filtro Max contamination index with filter	ISO 4406:1999 Classe 19/17/14	
Temperatura dell'olio/Oil temperature	-20°C +80°C	-4°F + 176°F
Temperatura ambiente/Ambient temperature	-20°C +50°C	-4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)		

Coppie di serraggio raccordo Tightening torques for stud

②	Nm
BSPP1/4	40
BSPP3/8	90
BSPP1/2	120
BSPP3/4	210
BSPP1	370

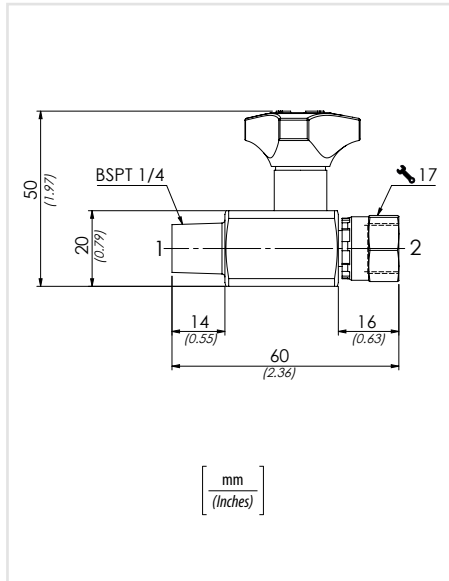
Coppie di serraggio femmina girevole 60° 60° female swivel ends tightening torque values

①	Nm
BSPP1/4	20
BSPP3/8	35
BSPP1/2	60
BSPP3/4	115
BSPP1	140



Caratteristiche tecniche - Technical characteristics

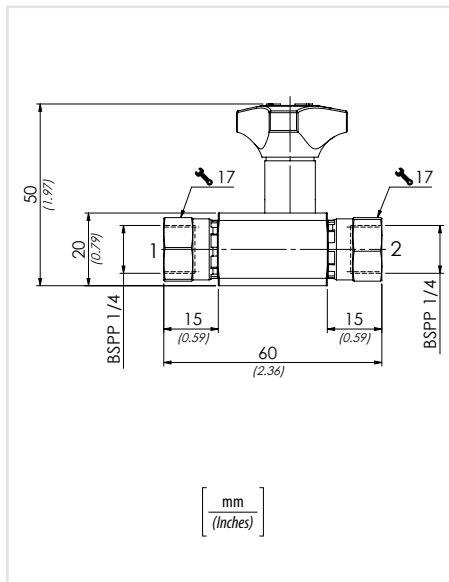
Codice Code	A	Portata max Max flow l/min-USgpm	Pressione max Max pressure bar/PSI	Pressione max in rotazione Max rotation pressure bar/PSI	Velocità max di rotazione Max rotation speed rev/min	B	C	D	E	L	Ch. 1	Peso approssimativo Approx weight kg/lb
GG90140	BSPP1/4	25 (6.6)	400 (5800)	200 (2900)	212	50 (1.97)	11 (0.43)	33,5 (1.32)	11 (0.43)	69 (2.71)	19	0,31 (0.68)
GG90380	BSPP3/8	35 (9.2)			173	54 (2.13)	14 (0.55)	37,5 (1.48)	13 (0.51)	76 (2.99)	24	0,41 (0.90)
GG90120	BSPP1/2	60 (15.8)	300 (4350)	150 (2175)	160	63 (2.48)	15 (0.59)	39,5 (1.56)	14 (0.55)	87 (3.43)	27	0,52 (1.15)
GG90340	BSPP3/4	100 (26.4)			120	70 (2.76)	19 (0.75)	54,5 (2.15)	18 (0.71)	100 (3.94)	34	0,96 (2.11)
GG90100	BSPP1	180 (47.5)			100 (1450)	100	80 (3.15)	21 (0.83)	59 (2.32)	25 (0.98)	113 (4.45)	41



Codice ordinazione - Ordering code **SOV1400**

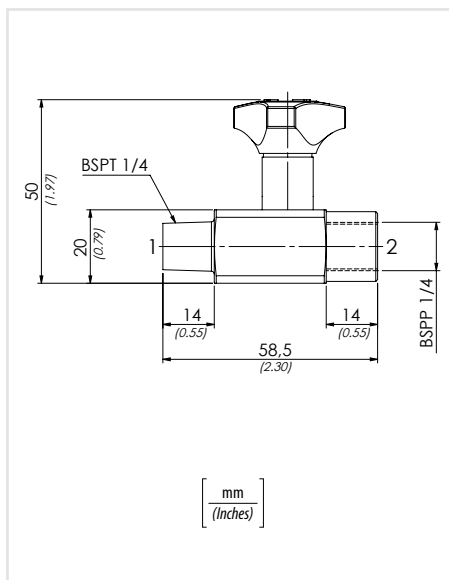
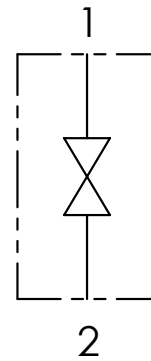
Dati tecnici - Technical data

Olio idraulico Mineral oil	ISO 6743/4 DIN 51524
Viscosità olio Oil viscosity	15-250 mm²/s 45 to 2000 ssu (15 to 250 cSt)
Classe di contaminazione max con filtro Max contamination index with filter	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio Oil temperature	-20°C +80°C -4°F + 176°F
Temperatura ambiente Ambient temperature	-20°C +50°C -4°F + 122°F
Pressione max (bar) Max pressure (PSI)	400 (5800)
Peso approssimativo (Kg) Approx weight (lb)	0,15 (0.33)

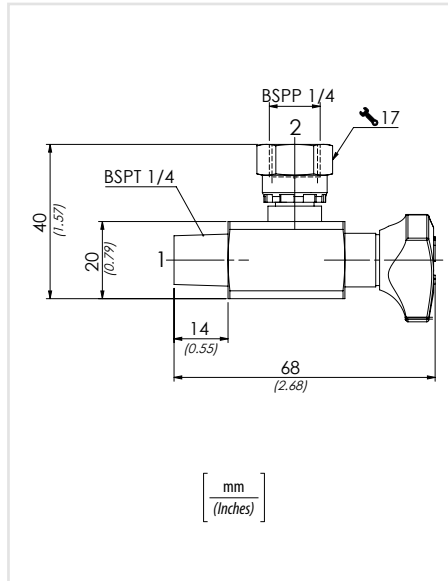
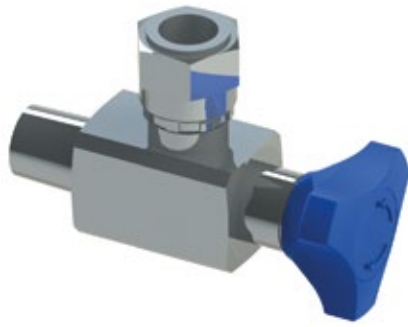


Codice ordinazione - Ordering code **SOV1400FF**

Schema idraulico - Hydraulic circuit



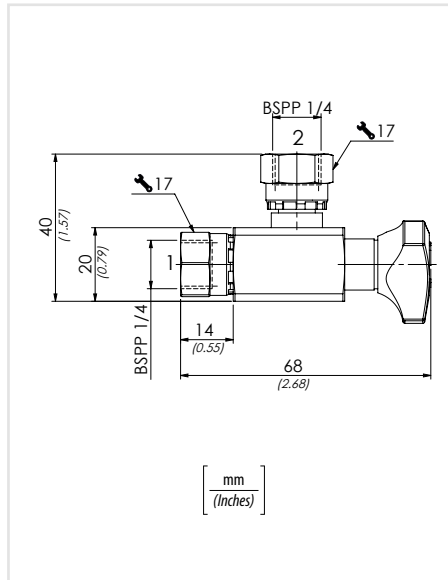
Codice ordinazione - Ordering code **SOV1400MF**



Codice ordinazione - Ordering code **SOV1490**

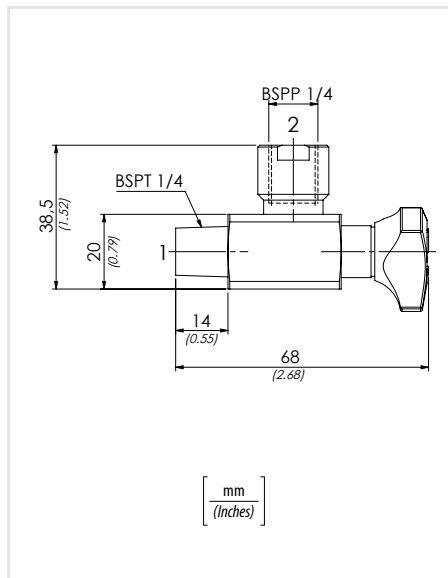
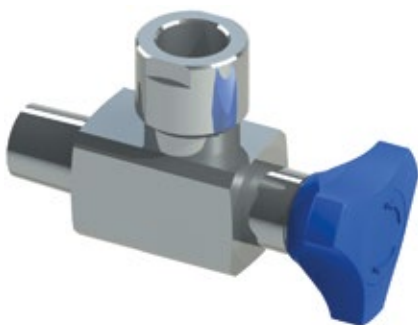
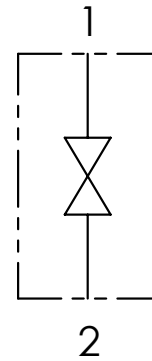
Dati tecnici - Technical data

Olio idraulico Mineral oil	ISO 6743/4 DIN 51524
Viscosità olio Oil viscosity	15-250 mm²/s 45 to 2000 ssu (15 to 250 cSt)
Classe di contaminazione max con filtro Max contamination index with filter	ISO 4406:1999 Classe 19/17/14
Temperatura dell'olio Oil temperature	-20°C +80°C -4°F + 176°F
Temperatura ambiente Ambient temperature	-20°C +50°C -4°F + 122°F
Pressione max (bar) Max pressure (PSI)	400 (5800)
Peso approssimativo (Kg) Approx weight (lb)	0,15 (0.33)



Codice ordinazione - Ordering code **SOV1490FF**

Schema idraulico - Hydraulic circuit



Codice ordinazione - Ordering code **SOV1490MF**



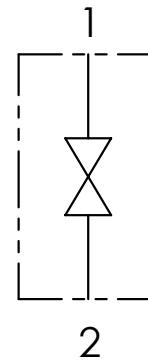
Codice ordinazione Ordering code	01	02
	MNP	

01	Miniprese prova pressione (Test couplings for pressure checking)	MNP
02	Dimensione (Size)	BSPP1/8
		BSPP1/4
		BSPP3/8
		BSPP1/2

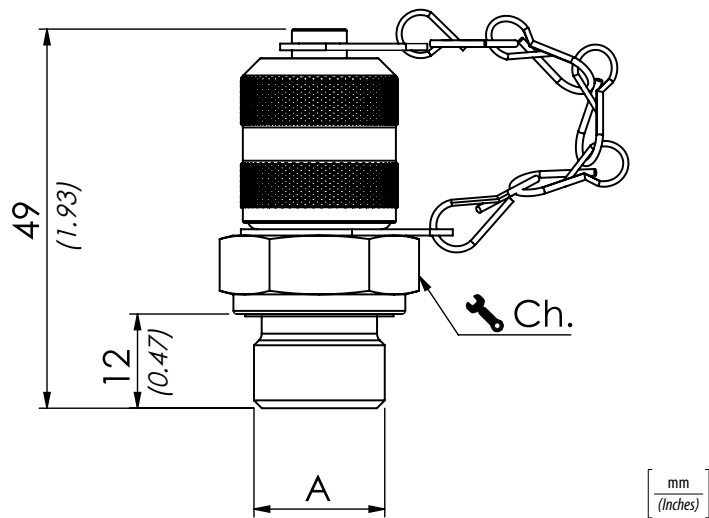
Dati tecnici - Technical data

olio idraulico/Mineral oil	ISO 6743/4 (DIN 51524)	
Viscosità olio/Oil viscosity	15-250 mm ² /s (15 to 250 cSt)	
Classe di contaminazione max con filtro Max contamination index with filter	ISO 4406:1999 Classe 19/17/14	
Temperatura dell'olio/Oil temperature	-20°C +80°C	-4°F + 176°F
Temperatura ambiente/Ambient temperature	-20°C +50°C	-4°F + 122°F
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) It is necessary a filter use to protect the valve (advised filtration 15 µm)		

Schema idraulico - Hydraulic circuit



Miniprese - Test couplings



Caratteristiche tecniche - Technical characteristics

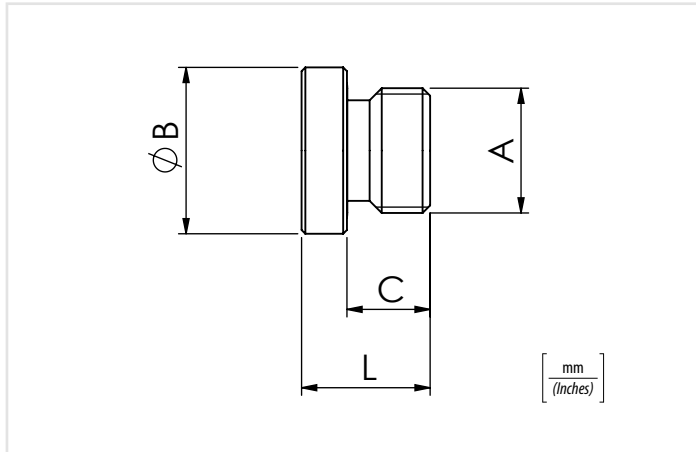
Codice Code	A	Pressione max Max pressure bar/PSI	Ch. mm	Coppia di serraggio Tightening torque Nm/lbf ft	Peso approssimativo Approx weight kg/lb
MNP180	BSPP1/8	630 (9135)	17	20 (14.6)	0,07 (0.16)
MNP140	BSPP1/4		19	30 (22)	0,08 (0.18)
MNP380	BSPP3/8		22	60 (44)	0,10 (0.22)
MNP120	BSPP1/2		27	80 (58.6)	0,13 (0.29)



01

Codice ordinazione
Ordering code

01	TAPPI (Plugs)	83500001	BSPP1/8
		83500002	BSPP1/4
		83500003	BSPP3/8
		83500004	BSPP1/2
		83500005	BSPP3/4



Caratteristiche tecniche - Technical characteristics

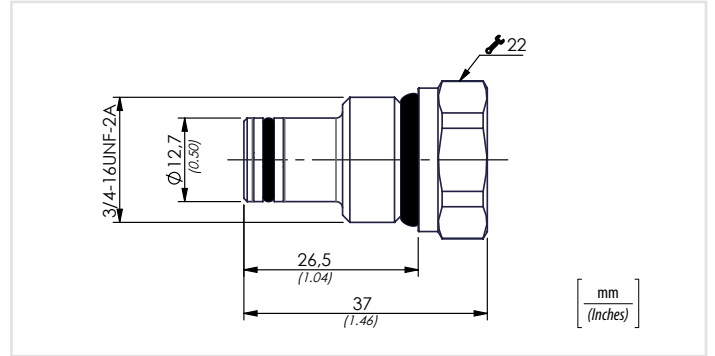
A	B	C	L	Peso approssimativo Approx weight kg/lb
BSPP1/8	15 (0.59)	9 (0.35)	13 (0.51)	0,01 (0.022)
BSPP1/4	19 (0.75)	11 (0.43)	16 (0.63)	0,015 (0.033)
BSPP3/8	22 (0.87)	11 (0.43)	17 (0.67)	0,03 (0.066)
BSPP1/2	27 (1.06)	14 (0.55)	20 (0.79)	0,05 (0.11)
BSPP3/4	32 (1.26)			0,07 (0.15)

Tappo A - A Plug



Peso approssimativo
Approx weight
0,07 kg (0.15 lb)

Codice ordinazione - Ordering code **11200001**

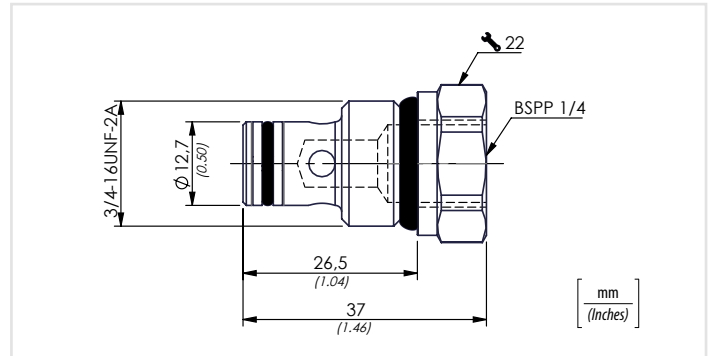


Tappo B - B Plug



Peso approssimativo
Approx weight
0,05 kg (0.11 lb)

Codice ordinazione - Ordering code **12000162**

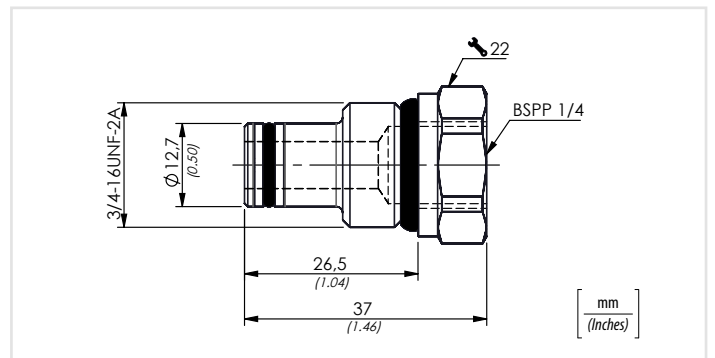


Tappo C - C Plug



Peso approssimativo
Approx weight
0,05 kg (0.11 lb)

Codice ordinazione - Ordering code **12000182**

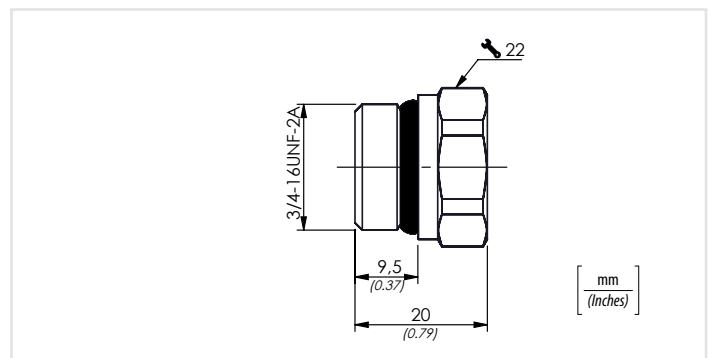


Tappo D - D Plug



Peso approssimativo
Approx weight
0,05 kg (0.11 lb)

Codice ordinazione - Ordering code **12000184**



Tappo E - E Plug



Peso approssimativo
Approx weight
0,04 kg (0.088 lb)

Codice ordinazione - Ordering code **12000183**

