



it's cool to be safe
explosion proof solution for the global market



BMF - BFF - BMM RMF - RFF - RMM

The three-piece unions are normally used in the chemical and petrochemical plants, off-shore platforms, refineries and any other industry where hazardous atmospheres (gas and combustible dust) are potentially present.



Use

The three-piece unions are designed to allow the connection between conduit equipment and enclosures thanks to the independent rotation of their ends, available with a male or female threads.

The three-piece unions are available in the following configurations:

- female - female:	BFF (IIB gas group) and RFF (IIC gas group)
- male - female:	BMF (IIB gas group) and RMF (IIC gas group)
- male - male:	BMM (IIB gas group) and RMM (IIC gas group)

Construction

The materials used to manufacture the cable glands have been studied to grant the maximum protection against the highly corrosive agents present in these industries.

They are available in:

- galvanized steel
- stainless steel AISI 316

The O-ring and internal gaskets are made of EPDM (-20°C / +80°C) and, for low and high temperature environment, of silicone (-45°C / +125°C).

The three-piece unions are available, as standard, with NPT or Metric threads. Other thread types can be available upon request.

Ordering Codes

The material code, as per side table, has to be added at the end of the code of the three-piece unions.

Upon request, there are available other types of thread for any special purposes.

Ordering tables with all possible combinations are listed on pages 54 and 55 of this catalogue.

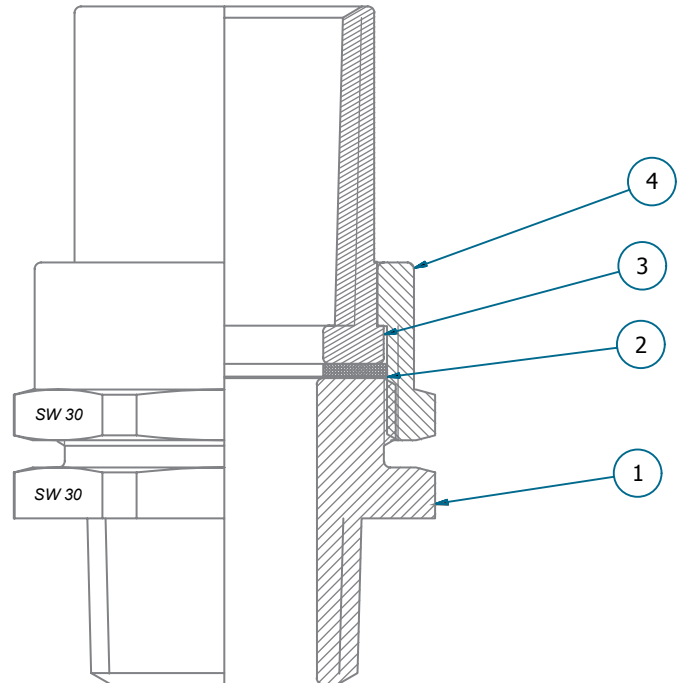
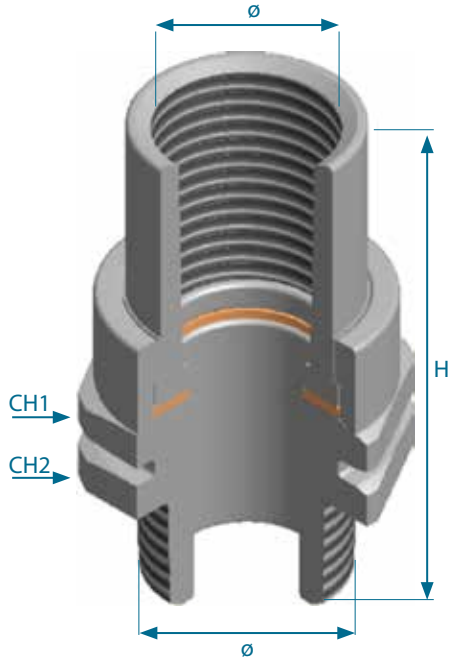
Material	
Code	Description
G	Galvanized Steel
S	Stainless Steel

Protection

certificate number:	IECEX IMQ 16.0010X	IMQ 16 ATEX 007 U	TC RU C-IT.AA87.B.00509
marking:	⊕ II 2GD Ex d IIB Gb - Ex d IIC Gb - Ex tb IIIC Db		
	⊕ II 2GD Ex d e [ia/ib] mb IIC T6-T5-T4 Gb Ex tb IIIC T85-100-135°C Db (станции управления)		
ambient temperature:	-45°C +125°C (silicone gasket) -20°C +80°C (EPDM gasket)		
degree of protection:	IP66 / IP68		
conformity:	Directive ATEX 2014/34/EU		TP TC 012/2011
standards:	IEC-EN60079-0	IEC-EN60079-1	IEC-EN60079-31
	ГОСТ 31610.0	ГОСТ IEC 60079-1	ГОСТ Р МЭК 60079-31
category:	suitable for Zone 1 - 21 (gas) and Zone 2 - 22 (dust)		



BMF - RMF series
male - female three-piece unions



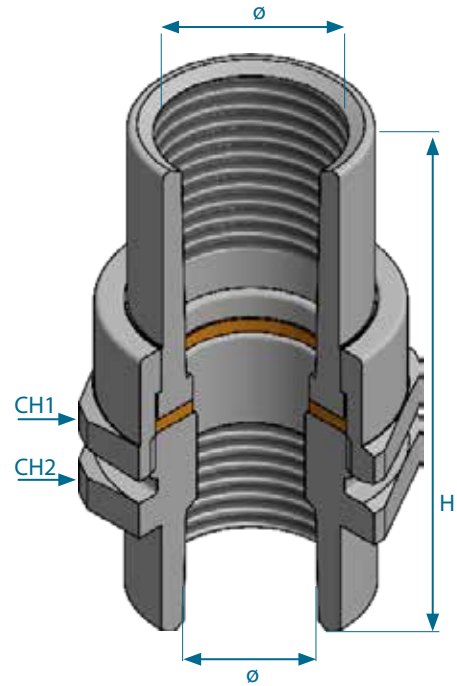
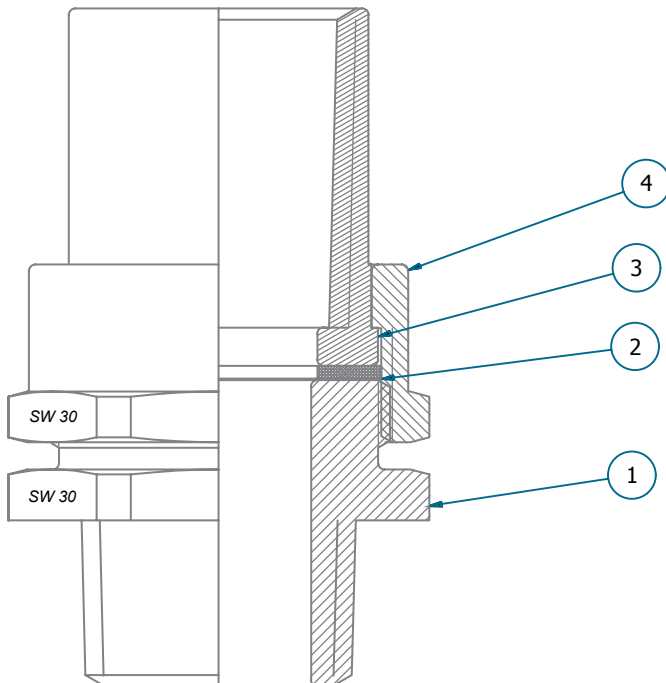
ITEM	DESCRIPTION
1	MALE BODY
2	SEALING RING
3	CONNECTING BODY
4	FEMALE BODY

Code	ø		H	CH1	CH2
	NPT	Metric			
BMF 1	1/2"	M20 x 1.5	62	34	30
BMF 2	3/4"	M25 x 1.5	63	40	36
BMF 3	1"	M32 x 1.5	70	50	45
BMF 4	1 1/4"	M40 x 1.5	70	60	55
BMF 5	1 1/2"	M50 x 1.5	82	72	65
BMF 6	2"	M63 x 1.5	86	83	76
BMF 7	2 1/2"	M75 x 1.5	97	110	100
BMF 8	3"	M90 x 1.5	100	122	108
BMF 10	4"	M110 x 1.5	110	-	-

Code	ø		H	CH1	CH2
	NPT	Metric			
RMF 1	1/2"	M20 x 1.5	75	34	30
RMF 2	3/4"	M25 x 1.5	76	40	36
RMF 3	1"	M32 x 1.5	83	50	45
RMF 4	1 1/4"	M40 x 1.5	83	60	55
RMF 5	1 1/2"	M50 x 1.5	95	72	65
RMF 6	2"	M63 x 1.5	99	83	76
RMF 7	2 1/2"	M75 x 1.5	110	110	100
RMF 8	3"	M90 x 1.5	113	122	108
RMF 10	4"	M110 x 1.5	123	-	-



BFF - RFF series
female - female three-piece unions



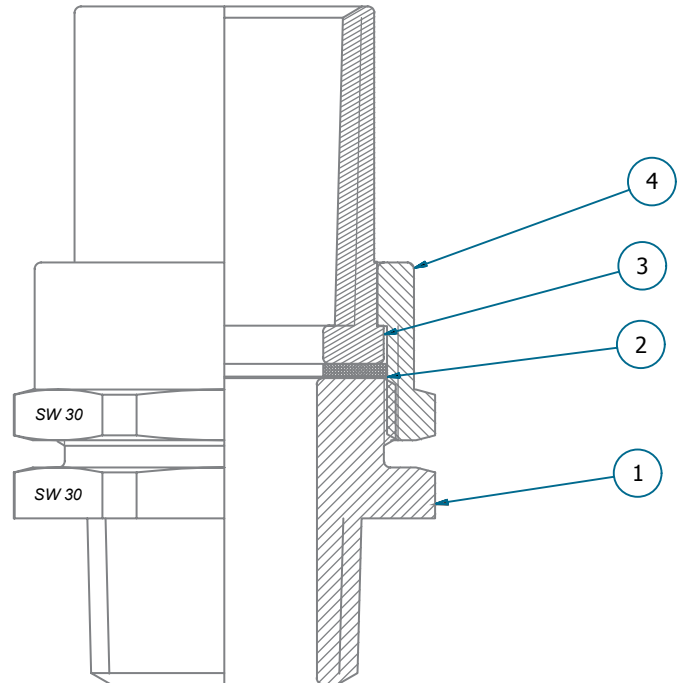
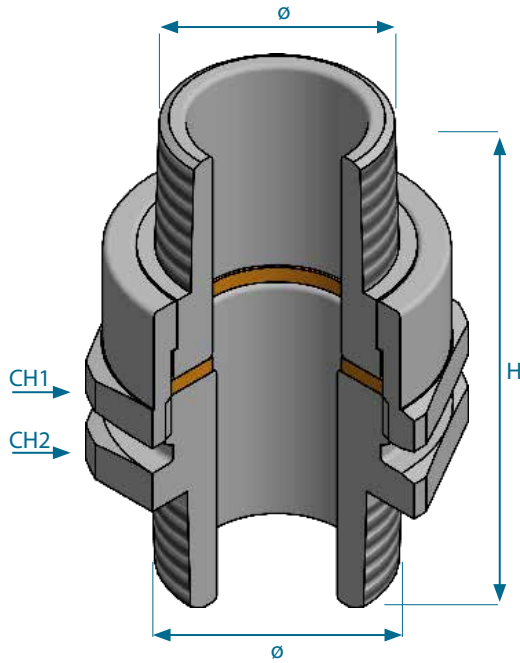
ITEM	DESCRIPTION
1	FEMALE BODY
2	SEALING RING
3	CONNECTING BODY
4	FEMALE BODY

Code	Ø		H	CH1	CH2
	NPT	Metric			
BFF 1	1/2"	M20 x 1.5	48	34	30
BFF 2	3/4"	M25 x 1.5	48	40	36
BFF 3	1"	M32 x 1.5	51	50	45
BFF 4	1 1/4"	M40x 1.5	51	60	55
BFF 5	1 1/2"	M50 x 1.5	63	72	65
BFF 6	2"	M63 x 1.5	65	83	76
BFF 7	2 1/2"	M75 x 1.5	72	110	100
BFF 8	3"	M90 x 1.5	72	122	108
BFF 10	4"	M110 x 1.5	70	-	-

Code	Ø		H	CH1	CH2
	NPT	Metric			
RFF 1	1/2"	M20 x 1.5	61	34	30
RFF 2	3/4"	M25 x 1.5	61	40	36
RFF 3	1"	M32 x 1.5	64	50	45
RFF 4	1 1/4"	M40x 1.5	64	60	55
RFF 5	1 1/2"	M50 x 1.5	76	72	65
RFF 6	2"	M63 x 1.5	78	83	76
RFF 7	2 1/2"	M75 x 1.5	85	110	100
RFF 8	3"	M90 x 1.5	85	122	108
RFF 10	4"	M110 x 1.5	83	-	-



BMM - RMM series
male - male three-piece unions



ITEM	DESCRIPTION
1	MALE BODY
2	SEALING RING
3	CONNECTING BODY
4	FEMALE BODY

Code	\varnothing		H	CH1	CH2
	NPT	Metric			
BMM 1	1/2"	M20 x 1.5	81	34	30
BMM 2	3/4"	M25 x 1.5	81	40	36
BMM 3	1"	M32 x 1.5	94	50	45
BMM 4	1 1/4"	M40 x 1.5	94	60	55
BMM 5	1 1/2"	M50 x 1.5	102	72	65
BMM 6	2"	M63 x 1.5	103	83	76
BMM 7	2 1/2"	M75 x 1.5	130	110	100
BMM 8	3"	M90 x 1.5	130	122	108
BMM 10	4"	M110 x 1.5	135	-	-

Code	\varnothing		H	CH1	CH2
	NPT	Metric			
RMM 1	1/2"	M20 x 1.5	94	34	30
RMM 2	3/4"	M25 x 1.5	94	40	36
RMM 3	1"	M32 x 1.5	107	50	45
RMM 4	1 1/4"	M40 x 1.5	107	60	55
RMM 5	1 1/2"	M50 x 1.5	115	72	65
RMM 6	2"	M63 x 1.5	116	83	76
RMM 7	2 1/2"	M75 x 1.5	143	110	100
RMM 8	3"	M90 x 1.5	143	122	108
RMM 10	4"	M110 x 1.5	148	-	-



Ordering Tables

Thread Type	N	M	P	BP	BT	G
02	1/4"	12	-	1/4"	1/4"	1/4"
01	3/8"	16	-	3/8"	3/8"	3/8"
1	1/2"	20	7	1/2"	1/2"	1/2"
2	3/4"	25	9	3/4"	3/4"	3/4"
Thread Size	3	1"	32	11	1"	1"
	4	1"1/4	40	13,5	1"1/4	1"1/4
	5	1"1/2	50	16	1"1/2	1"1/2
	6	2"	63	21	2"	2"
	7	2"1/2	75	29	2"1/2	2"1/2
	8	3"	90	36	3"	3"
	9	-	-	42	-	-
10	4"	110	48	4"	4"	

Thread Type	Code	Description
Thread Type	N	NPT - ANSI ASME B1.20.1
	M	Metric Pitch 1.5 - ISO 262
	P	PG - DIN 40430
	BP	BSPP - ISO 228/1
	BT	BSPT - ISO 228/1
	G	GAS ISO 7/1

Material	Code	Description
Material	B	Brass
	N	Nickel-Plated Brass
	P	Polyamide
	G	Galvanized Steel
	S	Stainless Steel

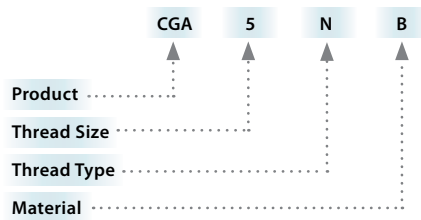




Ordering Codes

How to order :

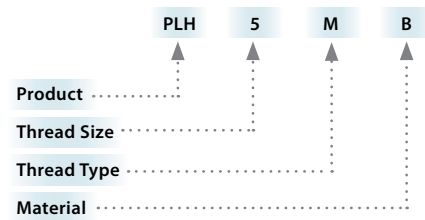
CABLE GLANDS :



Example above code:

- Product: Cable Gland for Armoured Cable
- Thread Size and Type: 1" 1/2 NPT
- Material: Brass

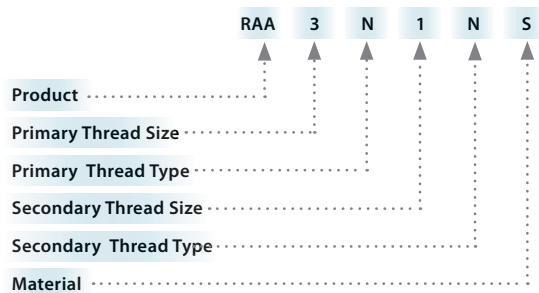
PLUGS :



Example above code:

- Product: Plugs with external hexagon
- Thread Size and Type: M50 x 1.5
- Material: Brass

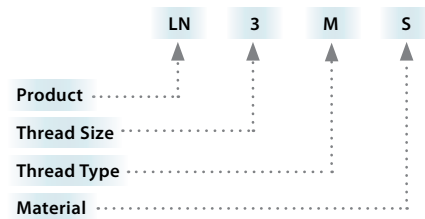
ADAPTORS / REDUCERS :



Example above code:

- Product: Adaptor (reducer) MALE - FEMALE
- MALE Thread Size and Type: 1" NPT
- FEMALE Thread Size and Type: 1/2" NPT
- Material: Stainless Steel

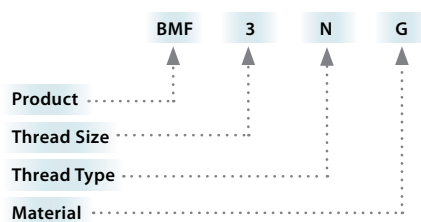
ACCESSORIES :



Example above code:

- Product: Locknut
- Thread Size and Type: M32 x 1.5
- Material: Stainless Steel

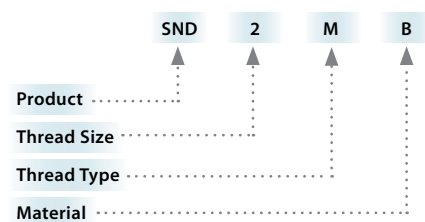
THREE-PIECES UNIONS :



Example above code:

- Product: Male - female three pieces union
- Thread Size and Type: 1" NPT
- Material: Galvanized steel

SEALED NIPPLES :



Example above code:

- Product: Sealed Nipple
- Thread Size and Type: M25 x 1.5
- Material: Brass