



# Fittings Handbook



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# Fittings Handbook

Fittings Handbook is a new tool that resumes all FIP fittings range.

All types and versions available in a glance as well as their main technical details.

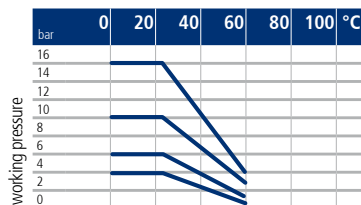
This handbook is intended as practical quick reference. It does not substitute FIP catalogues which are the official reference for the products data.



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## LEGENDA

<b>d</b>	Nominal outside diameter of the pipe in mm
<b>R</b>	Thread size
<b>DN</b>	Nominal internal diameter in mm
<b>PN</b>	Nominal pressure (max working pressure at 20°C - water)
<b>PMA</b>	Maximum allowable operating pressure
<b>SDR</b>	Standard Dimension Ratio (pipe outside diam./pipe thickness)
<b>PVC-U</b>	Unplasticized polyvinylchloride
<b>PP-H</b>	Homopolymer polypropylene MRS-10
<b>FRP</b>	Fiberglass Reinforced Plastic
<b>PVC-C</b>	Chlorinated polyvinylchloride
<b>PVDF</b>	Polyvinylidene fluoride MRS-25
<b>n.a.</b>	Not available
<b>Pressure conversion</b>	16 bar = 232 psi 10 bar = 150 psi 6 bar = 87 psi 4 bar = 58 psi class E = 15 bar class D = 12 bar



working temperature

Pressure / Temperature rating for water and harmless fluids to which the material is resistant.

In the other cases a reduction of the rated PN is required.

## PVC-U Fittings

### Material Specifications and Technical Data

<b>MATERIAL</b>	PVC-U Unplasticized Polyvinyl Chloride
<b>COLOUR</b>	ISO METRIC SERIES: Grey - RAL 7011 ASTM SERIES: Grey (SCH 80); White (SCH 40)
<b>STANDARDS</b>	<ul style="list-style-type: none"> <li>• Solvent welding ISO METRIC size according to: ISO 727, EN 1452, DIN 8063, EN ISO 15493, ISO 4422, BRL-K504, BRL-K502</li> <li>• Solvent welding plain inch according to: BS 4346/1, coupling to pipes complying with BS 3505-3506,</li> <li>• Solvent welding ASTM INCH size according to: ASTM D 2466 D 2467 coupling to pipes complying with ASTM D 1785</li> <li>• Parallel threads according to: UNI ISO 228/1, DIN 2999, BS 21, ISO R7</li> <li>• Flanging according to: ISO 7005, DIN 8063, DIN 2501, EN ISO 1452, UNI EN 1092-1</li> </ul>
<b>RANGE</b>	<ul style="list-style-type: none"> <li>• Fittings for Solvent Welding: ISO METRIC sizes: from d12 mm to d315 mm BS sizes: from d½" up to d8" ASTM sizes: d10" and d12"</li> <li>• Threaded Fittings: from R3/8" up to R4"</li> </ul>
<b>MAXIMUM WORKING PRESSURE</b>	16 bar (232 psi) with water at 20 °C (68 °F) In case of different working conditions see technical catalogue
<b>WORKING TEMPERATURE RANGE</b>	From 0 °C (32 °F) to 60 °C (140 °F)

Unplasticized PVC-U is suitable to be used in contact with foodstuff and drinking water conforming to national D.M. n.174 - 06/04/2004 Italian Department of Health and international rules and regulations in force.

For technical details, please, see FIP catalogues or visit our web site [www.fipnet.it](http://www.fipnet.it).








## Approvals and Quality Marks

FIP Fittings  
IIP n. 122



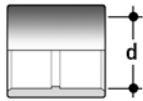
Type UNI	from Ø up to Ø mm	PN	Commercial name
Socket-union B	16 ÷ 63	16	BIV
Tee 90°	20 ÷ 160	16	TIV
Elbow G 90°	16 ÷ 160	16	GIV
Elbow 45°	20 ÷ 160	16	HIV
Socket M	16 ÷ 160	16	MIV
Bend C 90°	20 ÷ 110	16	SIV
Bend C 90°	160	10	SIV
Reducer R	16 x 12 ÷ 110 x 90	16	RIV
Reducer RC	20 x 16 ÷ 160 x 140	16	DIV
End cap CL	20 ÷ 110	16	CIV
Backing Rings	20 ÷ 160	16	ODV
Stub Flange	20 ÷ 160	16	QPV

## Approvals and Quality Marks

	<p>FIP PVC-U fittings are acknowledged by KIWA (Keurings Institut voor Waterleiding Artikelen Holland). Certificate No. K 5034/01</p>
	<p>FIP PVC-U fittings are acknowledged by NF-CSTB / AFNOR. Certificate No. 04-1-P-27</p>
	<p>FIP PVC-U fittings are acknowledged by IRH for ACS Certificate N. 05 MAT NY 006</p>
	<p>FIP PVC-U fittings are acknowledged by WRAS (Water Regulation Advisory Scheme - UK) Certificate N. M103019</p>
	<p>FIP PVC-U valves and fittings are acknowledged by Bureau Veritas - Marine Division, to be used for the following service on board: domestic water systems (cold sea and fresh water), scupper and sanitary discharges and non-essential systems. Certificate No 07123/CO BV</p>
	<p>FIP PVC-U valves are certified in accordance with Ukrainian hygienic, safety and quality regulation. Certificate No UA1.094.0052575-04</p>
	<p>FIP PVC-U fittings ASTM size are acknowledged by NSF (National Sanitation Foundation) Certificate N. 11370/11370A</p>

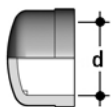


# Fittings for solvent welding - Equal



**Double socket**

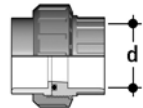
d [mm]		12	16	20	25	32	40	50	63	75	90	110	140	160	180	200	225	250	280	315	
SIZE [inch]				1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"		8"		10"	12"		Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16*	PN16*	PN10	PN10	PN10	<b>MIV</b>
BS-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	class E	class E	class E	class D	class E	class E	class D	class E	class E	n.a.	class D	n.a.	n.a.	class D	n.a.	n.a.	n.a.	<b>MLV</b>
SIZE [inch]				20x1/2"	25x3/4"	32x1"	40x1 1/4"	50x1 1/2"	63x2"	75x2 1/2"	90x3"	110x4"									
ISO-METRIC/ BS-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	class E	class E	class E	class E	class E	class E	class E	class E	class E	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>MILV</b>



**End Cap**

\* reduced safety factor

d [mm]		12	16	20	25	32	40	50	63	75	90	110	140	160	180	200	225	250	280	315		
SIZE [inch]				1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"				8"						Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	PN10	n.a.	n.a.	n.a.	n.a.	<b>ClV</b>
BS-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	class E	class E	class E	class E	class E	class E	class E	class E	class E	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>CLV</b>



**Socket union**

d [mm]		12	16	20	25	32	40	50	63	75	90	110	140	160	180	200	225	250	280	315		
SIZE [inch]				1/2"	3/4"	1"	1 1/4"	1 1/2"	2"													Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN10	PN6	PN6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>BIV</b>
BS-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	class E	class E	class E	class E	class E	class E	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>BLV</b>

Note: O-Rings available: see FIP Price lists and catalogues

## Fittings for solvent welding - Equal



Elbow 90°

d [mm]		12	16	20	25	32	40	50	63	75	90	110	140	160	180	200	225	250	280	315	
SIZE [inch]				1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"		8"		10"	12"		Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16*	PN16*	PN16*	PN10	PN10	PN10	<b>GIV</b>
BS-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	class E	class E	class E	class D	class E	class E	class D	class E	class E	class E	class D	n.a.	n.a.	class D	n.a.	n.a.	n.a.	<b>GLV</b>
ASTM-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	SCH40	SCH40	<b>GAV</b>
		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	SCH80	SCH80	



Bend 90°

\* reduced safety factor

d [mm]		12	16	20	25	32	40	50	63	75	90	110	140	160	180	200	225	250	280	315	
SIZE [inch]				1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"		8"		10"	12"		Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	n.a.	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>SIV</b>
BS-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	class E	class E	class E	class E	class E	class E	class E	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>SLV</b>



Elbow 45°

\* reduced safety factor

d [mm]		12	16	20	25	32	40	50	63	75	90	110	140	160	180	200	225	250	280	315	
SIZE [inch]				1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"		8"		10"	12"		Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN4	PN10	PN10	PN10	PN10	PN10	<b>HIV</b>
BS-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	class E	class E	class E	class D	class E	class E	class D	class E	class E	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>HLV</b>
ASTM-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	SCH40	SCH40	<b>HAV</b>
		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	SCH80	SCH80	

# Fittings for solvent welding - Equal



Tee 90°

d [mm]		12	16	20	25	32	40	50	63	75	90	110	140	160	180	200	225	250	280	315		
SIZE [inch]				1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"			8"		10"	12"	Type	
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN10	PN10	PN10	<b>TIV</b>
BS-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	class E	class E	class E	class D	class E	class E	class D	class E	class E	n.a.	class D	n.a.	n.a.	class D	n.a.	n.a.	n.a.	n.a.	<b>TLV</b>
ASTM-INCH for solvent welding	<b>PVC-U</b>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	SCH40	SCH40	<b>TAV</b>
		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	SCH80	SCH80	



Tee 45°

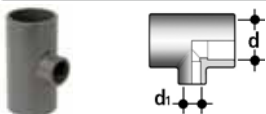
d [mm]		12	16	20	25	32	40	50	63	75	90	110	140	160	180	200	225	250	280	315	Type	
ISO-METRIC for solvent welding	<b>PVC-U</b>	n.a.	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	n.a.	PN4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>YIV</b>



Cross 90°

d [mm]		12	16	20	25	32	40	50	63	75	90	110	140	160	180	200	225	250	280	315	Type	
ISO-METRIC for solvent welding	<b>PVC-U</b>	n.a.	n.a.	n.a.	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>XIV</b>

## Fittings for solvent welding - Reducers



Tee 90° reducing

d [mm]		25	32	32	40	40	40	50	50	50	50	63	63	63	63	75	75	
d1 [mm]		20	20	25	20	25	32	20	25	32	40	25	32	40	50	25	32	Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	PN16	<b>TRIV</b>
d [mm]		75	75	75	90	90	90	90	90	90	110	110	110	110	110	110	160	
d1 [mm]		40	50	63	25	32	40	50	63	75	25	32	50	63	75	90	110	Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	n.a.	n.a.	PN16	PN16	PN16	PN16	PN16	n.a.	PN16	PN16	PN16	PN16	PN16	<b>TRIV</b>
d [mm]		250	250	250	280	280	315	315	315									
d1 [mm]		110	160	200	160	225	160	200	250									Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*									<b>TRIV</b>



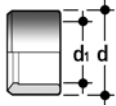
Reducer

\* resale product

d [mm]		16	20	25	25	32	32	32	40	40	40	50	50	50	50	63	63	
d2 [mm]				20	20	25	25	25	32	32	32	40	40	40	40	50	50	
d1 [mm]		12	16	16	20	16	20	25	20	25	32	20	25	32	40	25	32	Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>RIV</b>
d [mm]		63	63	75	75	90	90	90	90	110	110	110	110		160	200		
d2 [mm]		50	50	63	63	75	75	75	75	90	90	90	90	110				
d1 [mm]		40	50	50	63	40	50	63	75	50	63	75	90	90	110	160		
d3 [mm]						50	63	75	90									Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16**	PN16	PN10		<b>RIV</b>

\*\* double socket reducing MRIV 110x90

## Fittings for solvent welding - Reducers



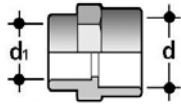
Reducing bush

d [mm]		16	20	25	32	32	40	40	40	50	50	63	63	63	75	75	90	
d1 [mm]		12	16	20	20	25	20	25	32	32	40	32	40	50	50	63	50	Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>DIV</b>
d [mm]		90	90	110	110	110	125	140	140	140	160	160	160	180	200	200	225	
d1 [mm]		63	75	63	75	90	110	90	110	125	90	110	140	160	160	180	160	Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN4*	PN16*	PN4*	PN16**	<b>DIV</b>
d [mm]		225	180	200	200	250	250	250	250	280	280	280	315	315	315	315		
d1 [mm]		200	160	160	180	160	180	200	225	200	225	250	200	225	250	280		Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16**	PN4*	PN16	PN4*	PN10	PN4*	PN10	PN10	PN4*	PN10	PN4*	PN10	PN10	PN10	PN10		<b>DIV</b>
d [inch]		1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2 1/2"	3"	3"	3"	4"	
d1 [inch]		3/8"	1/2"	1/2"	3/4"	1"	3/4"	1"	1 1/4"	3/4"	1"	1 1/2"	2"	1 1/2"	2"	2 1/2"	2"	Type
BS-INCH for solvent welding	<b>PVC-U</b>	class E	class E	class E	class E	class E	class E	class E	class E	class E	class E	class E	class E	class E	class E	class E	class E	<b>DIV</b>
d [inch]		4"	6"	8"														
d1 [inch]		3"	4"	6"														Type
BS-INCH for solvent welding	<b>PVC-U</b>	class E	class D	class D														<b>DIV</b>

\* resale product

\*\* reduced safety factor

## Fittings for solvent welding - Reducers



Double socket reducer

d [mm]		110	180	180	180	200	200	200	200	200	225	225	225	225	225	250	250	
d1 [mm]		90	125	140	160	110	125	140	160	180	110	140	160	180	200	110	125	Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	<b>MRIV</b>
d [mm]		250	250	250	250	250	280	280	280	280	280	280	280	315	315	315	315	
d1 [mm]		140	160	180	200	225	110	125	140	160	180	225	250	160	180	200	225	Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	PN4*	<b>MRIV</b>
d [mm]		315	315	355	400	400												
d1 [mm]		250	280	315	315	355												Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN4*	PN4*	PN4*	PN4*	PN4*												<b>MRIV</b>

\* resale product

## Threaded fittings - Equal



Double socket

R [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>MFV</b>



Barrel nipple

R [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16*	PN16*	PN16*	<b>NFV</b>

\* reduced safety factor



End Cap

R [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	<b>CFV</b>



Plug

R [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>PFV</b>

# Threaded fittings - Equal



Socket union

R [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	<b>BFV</b>



Elbow 90°

R [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>GFV</b>



Elbow 45°

R [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
Threaded BSP	<b>PVC-U</b>		PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	<b>HFV</b>

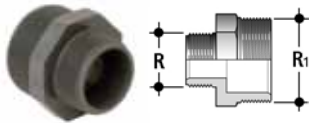


Tee 90°

R [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>TFV</b>

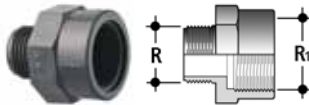


## Threaded fittings - Reducers



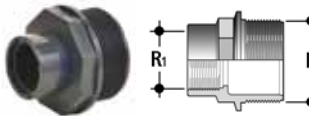
Barrel nipple reduced

R1 [inch]		3/4"	1"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	
R [inch]		1/2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	Type
Threaded BSP	<b>PVC-U</b>	PN16	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>NRFV</b>



Reducer socket/spigot

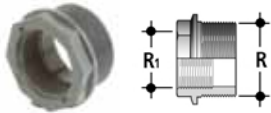
R1 [inch]		3/4"	1"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	
R [inch]		1/2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>IFFV</b>



Reducer spigot/ socket

R [inch]		1/2"	3/4"	3/4"	1"	1"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	
R1 [inch]		3/8"	3/8"	1/2"	3/8"	3/4"	2"	1/2"	3/4"	1"	1/2"	3/4"	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>RFV</b>
R [inch]		1 1/2"	1 1/2"	2"	2"	2"	2"	2 1/2"	3"	3"	4"		
R1 [inch]		1"	1 1/4"	3/4"	1"	1 1/4"	1 1/2"	2"	2"	2 1/2"	3"		Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16		<b>RFV</b>

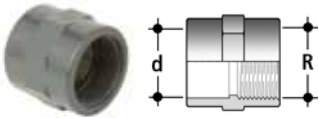
# Threaded fittings - Reducers



Reducing bush

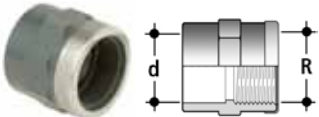
R [inch]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"		
R1 [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"		Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.		<b>DFV</b>

## Adaptor fittings



Double socket

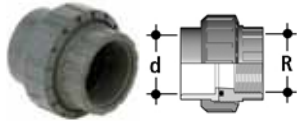
d [mm]		16	20	25	32	40	50	63	75	90	110	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>MIFV</b>
d [inch]			1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"		
R [BSP]			1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"		
BS-BSP	<b>PVC-U</b>		class E	class E	class E	class E	class E	class E	class D	class D		<b>MLFV</b>



Double socket with reinforcing Stainless Steel ring

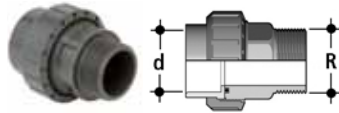
d [mm]		16	20	25	32	40	50	63	75	90	110	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	<b>MIMV</b>

# Adaptor fittings



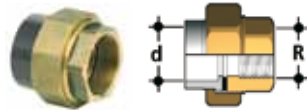
Socket union

d [mm]		16	20	25	32	40	50	63	75	90	110	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN10	PN6	PN6	<b>BIFV</b>



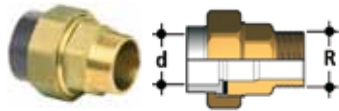
Socket union

d [mm]							50	50	63			
R [BSP]							1 1/2"	2"	2"			Type
ISO-BSP (male thread)	<b>PVC-U</b>						PN16	PN16	PN16			<b>BIRV</b>



Socket union plastic/brass

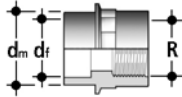
d [mm]		16	20	25	32	40	50	63	75	90	110	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	<b>BIFVO</b>



d [mm]		16	20	25	32	40	50	63	75	90	110	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ISO-BSP (male thread)	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	<b>BIRVO</b>

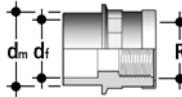
Note: O-Rings and flat gaskets available: see FIP Price lists and catalogues.

## Adaptor fittings



Double adaptor socket/spigot female thread

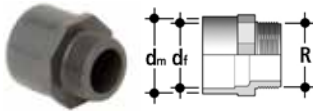
dm [mm]		20	20	25	25	32	32	40	50	50	63	63	75	75	90	90	110	110	125		
df [mm]		16	16	20	20	25	25	32	40	40	50	50	63	63	75	75	90	90	110		
R [BSP]		3/8"	1/2"	1/2"	3/4"	3/4"	1"	1"	1 1/4"	1 1/2"	1 1/2"	2"	2"	2 1/2"	2 1/2"	3"	3"	4"	4"	Type	
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>DIFV</b>



Double adaptor socket/spigot with reinforcing Stainless Steel ring

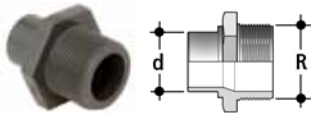
dm [mm]		20	20	25	25	32	32	40	50	50	63	63	75	75	90	90	110	110	125		
df [mm]		16	16	20	20	25	25	32	40	40	50	50	63	63	75	75	90	90	110		
R [BSP]		3/8"	1/2"	1/2"	3/4"	3/4"	1"	1"	1 1/4"	1 1/2"	1 1/2"	2"	2"	2 1/2"	2 1/2"	3"	3"	4"	4"	Type	
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	<b>DIMV</b>

## Adaptor fittings



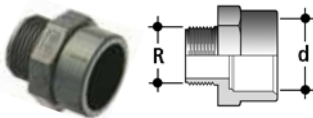
Double adaptor socket/spigot male thread

dm [mm]		16	20	20	25	25	32	32	32	40	40	40	50	50	50	
df [mm]		12	16	16	20	20	25	25	25	32	32	32	40	40	40	
R [BSP]		3/8"	3/8"	1/2"	1/2"	3/4"	1/2"	3/4"	1"	3/4"	1"	1 1/4"	1"	1 1/4"	1 1/2"	Type
ISO-BSP (male thread)	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>KIFV</b>
dm [mm]		63	63	63	75	75	75	90	90	90	110	110	110	125	125	
df [mm]		50	50	50	63	63	63	75	75	75	90	90	90	110	110	
R [BSP]		1 1/4"	1 1/2"	2"	1 1/2"	2"	2 1/2"	2"	2 1/2"	3"	2 1/2"	3"	4"	3"	4"	Type
ISO-BSP (male thread)	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>KIFV</b>



Barrel nipple reduced

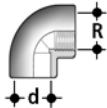
d [mm]			25	32												
R [BSP]			1"	1 1/4"												Type
ISO-BSP	<b>PVC-U</b>		PN16	PN16												<b>NRIV</b>



Adaptor socket/spigot

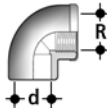
d [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"					
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"					Type
BS-BSP	<b>PVC-U</b>	n.a.	class E	class E	class E	class E	class E	class E	n.a.	n.a.	n.a.					<b>ILFV</b>

## Adaptor fittings



Elbow 90°

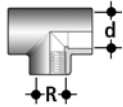
d [mm]		16	20	25	32	40	50	63	75	90	110	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>GIFV</b>
d [inch]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
BS-BSP	<b>PVC-U</b>	n.a.	class E	class E	class E	class E	class E	class E	class D	class D	class D	<b>GLFV</b>



Elbow 90° with reinforcing Stainless Steel ring

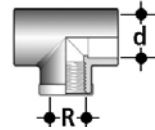
d [mm]		16	20	25	32	40	50	63	75	90	110	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	<b>GIMV</b>

## Adaptor fittings



Tee 90°

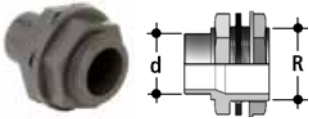
d [mm]		16	20	25	32	40	50	63	75	90	110	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>TIFV</b>



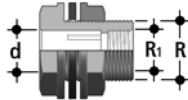
Tee 90° with reinforcing Stainless Steel ring

d [mm]		16	20	25	32	40	50	63	75	90	110	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	<b>TIMV</b>

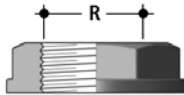
## Tank connectors



d [mm]			25	32			
R [BSP]			1"	1 1/4"			Type
ISO-BSP	<b>PVC-U</b>		PN16	PN16			<b>LIV</b>



d [mm]		16	20	25	32	40	
R [BSP]		3/4"	1"	1 1/4"	1 1/2"	2"	
R1 [BSP]		1/2"	3/4"	1"	1"	1 1/2"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	<b>LIFV</b>

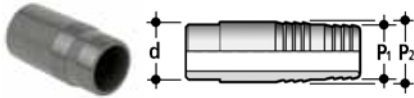


R [BSP]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	<b>JFV</b>

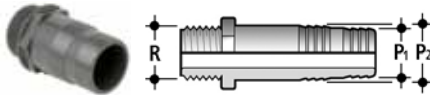
Flat gaskets available: see FIP Price lists and catalogues.



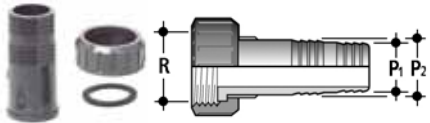
## Hose adaptors



d [mm]		12	16	20	25	32	40	50	63			
P1 [mm]		12	16	20	25	30	40	50	60			
P2 [mm]		14	18	22	27	32	42	52	64			Type
ISO-METRIC	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16			<b>AIV</b>



R [inch]		1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"			
P1 [mm]		12	16	20	25	30	40	50	60			
P2 [mm]		14	18	22	27	32	42	52	64			Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16			<b>AFV</b>



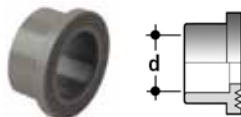
R [inch]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2"	2 1/4"	2 1/2"	2 3/4"	
P1 [mm]		12	16	20	25	30	40	50	50	60	60	
P2 [mm]		14	18	22	27	32	42	52	52	64	64	Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>ADV</b>

# Stubs



Flat face stub

d [mm]		20	25	32	40	50	63	75	90	110	125	140	
DN [mm]		15	20	25	32	40	50	65	80	100	110	125	Type
DIN8063 PN10/16 socket ISO-Metric for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>QPV</b>
d [mm]		160	200	225	250	280	315	355	400	450	500		
DN [mm]		150	200	200	250	250	300	350	400	450	500		Type
DIN8063 PN10/16 socket ISO-Metric for solvent welding	<b>PVC-U</b>	PN16	PN16**	n.a.	n.a.	n.a.	n.a.	PN4*	PN4*	PN4*	PN4*		<b>QPV</b>
SIZE [inch]		2"	2 1/2"	3"	4"	6"	8"						Type
BS-INCH for solvent welding	<b>PVC-U</b>	class E	class E	class E	class E	class D	class D						<b>QLV</b>



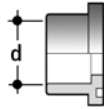
Serrated face stub (for use with flat gaskets)

d [mm]		20	25	32	40	50	63	75	90	110	125	140	
DN [mm]		15	20	25	32	40	50	65	80	100	110	125	Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	n.a.	n.a.	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>QRV</b>
d [mm]		160	200	225	250	280	315	355	400	450	500		
DN [mm]		150	200	200	250	250	300	350	400	450	500		Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16**	PN16**	PN16**	PN10	PN10	n.a.	n.a.	n.a.	n.a.		<b>QRV</b>

\* resale product

\*\* reduced safety factor

# Stubs

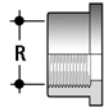


## O-ring stub (with seat for o-ring)

d [mm]		20	25	32	40	50	63	75	90	110	125	
DN [mm]		15	20	25	32	40	50	65	80	100	110	Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>QGV</b>
d [mm]		140	160	200	225							
DN [mm]		125	150	200	200							Type
ISO-METRIC for solvent welding	<b>PVC-U</b>	PN16	PN16	PN16**	n.a.							<b>QGV</b>

## Flat face stub

\*\*reduced safety factor



R [inch]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"		Type
Threaded BSP	<b>PVC-U</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16		<b>QFV</b>

Note: O-Rings and flat gaskets available: see FIP Price lists and catalogues.

# Flanges



## Backing ring

d [mm]		20	25	32	40	50	63	75	90	110	125	140	
DN [mm]		15	20	25	32	40	50	65	80	100	110	125	Type
DIN8063-DIN2501 drilled PN10/16	<b>PVC-U</b>	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	<b>ODV</b>
d [mm]		160	200*	225*	250	280	315	355	400	450	500		
DN [mm]		150	200	200	250	250	300	350	400	450	500		Type
DIN8063-DIN2501 drilled PN10/16	<b>PVC-U</b>	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA4	PMA4	PMA4	PMA4		<b>ODV</b>



## Blind flange

Note: for use with Stubs QPV-QRV-QGV  
\* drilled PN10

d [mm]		25	32	40	50	63	75	90	110	180	200	225	
DN [mm]		20	25	32	40	50	65	80	100	175	200	200	Type
DIN8063-DIN2501 drilled PN10/16	<b>PVC-U</b>	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA4	PMA4	PMA4	<b>FCV</b>



## Socket flange

Note: serrated face for flat gasket

d [mm]			25	32	40	50	63	75	90	110		
DN [mm]			20	25	32	40	50	65	80	100		
Size [inch]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"		3"	4"		Type
DIN8063-DIN2501 drilled PN10/16, socket for solvent welding	<b>PVC-U</b>	n.a.	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	<b>FDV</b>

Note: serrated face for flat gasket

BS 10 Table E, socket for solvent welding	<b>PVC-U</b>	Class E	Class E	Class E	Class E	Class E	Class E	Class E	n.a.	Class E	Class E	<b>FLV</b>
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Note: flat face

## Steel Core Flanges for PVC-U



### Backing ring for use with stubs QRV, QPV, QGV, QFV

d [mm]		20	25	32	40	50	63	75	90	125 (1)	140	180 (2)	200	225	280	315	
DN [mm]		15	20	25	32	40	50	65	80	100	125	150	200	200	250	300	Type
DIN2501-EN1092	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	ODB

\* with steel core

drilled PN10/16 up to DN150, drilled PN10 for DN>150

(1) for use with Stubs QPV 110 - QRV 110 - QGV 110

(2) for use with Stubs QPV 160 - QRV 160 - QGV 160



### Blind flange for use with stubs QRV, QPV, QGV, QFV

d [mm]		20	25	32	40	50	63	75	90	110/125	140	160/180	200/225	250/280	315		
DN [mm]		15	20	25	32	40	50	65	80	100	125	150	200	250	300		Type
DIN2501-EN1092	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16		ODBC

\* with steel core

drilled PN10/16 up to DN150, drilled PN10 for DN>150



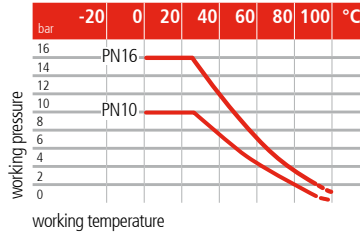
### Backing ring ANSI for use with stubs QRV, QPV, QGV, QFV

d [mm]		20	25	32	40	50	63	75	90	110							
Size [inch]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"							Type
ANSI 150	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16							OAB

\* with steel core

drilled PN10/16 up to DN150, drilled PN10 for DN>150

Note: PMA= maximum allowable operating pressure, to be considered when choosing the gaskets



Pressure / Temperature rating for water and harmless fluids to which the material is resistant. In the other cases a reduction of the rated PN is required.

## PVC-C Fittings

### Material Specifications and Technical Data

<b>MATERIAL</b>	PVC-C Chlorinated Polyvinylchloride (Corzan®)
<b>COLOUR</b>	Light Grey - RAL 215
<b>STANDARDS</b>	<ul style="list-style-type: none"> <li>• Solvent welding metric size according to: ISO 727, EN ISO 15493 for coupling to pipes complying with DIN 8079/8080</li> <li>• Solvent welding plain tapered according to: ASTM F439 for coupling to pipes complying with ASTM D 1785/76</li> <li>• Parallel threads according to: UNI ISO 228/1, DIN 2999, BS 21</li> <li>• Flanging according to: ISO 7005, DIN 8063, DIN 2501, EN ISO 1452, ANSI B16.5 150</li> </ul>
<b>RANGE</b>	<ul style="list-style-type: none"> <li>• Fittings for Solvent Welding: from d16 mm to d160 mm</li> <li>• Threaded Fittings: from R3/8" up to R2"</li> </ul>
<b>MAXIMUM WORKING PRESSURE</b>	16 bar (232 psi) with water at 20 °C (68 °F) In case of different working conditions see technical catalogue
<b>WORKING TEMPERATURE RANGE</b>	From 0 °C (32 °F) to 100 °C (212 °F)





Corzan® PVC-C is suitable to be used in contact with drinking water conforming to the following standards:

- WRAS (Water Regulation Advisory Scheme) - UK

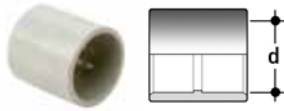
- NSF (National Sanitation Foundation) - USA

For technical details, please, see FIP catalogues or visit our web site [www.fipnet.it](http://www.fipnet.it).

## Approvals and Quality Marks

 <p>environment</p>	FIP PVC-C pipes are acknowledged by IRH for ACS Certificate N. 02 MAT NY 128; FIP PVC-C fittings are acknowledged by IRH for ACS Certificate N. 01 MAT NY 064
 <p>WRAS</p>	FIP PVC-C fittings are acknowledged by WRAS (Water Regulation Advisory Scheme - UK) Certificate N. M103019
 <p>BUREAU VERITAS</p>	FIP PVC-C valves and fittings are acknowledged by Bureau Veritas - Marine Division, to be used for the following service on board: domestic water systems (cold sea and fresh water), scupper and sanitary discharges and non-essential systems. Certificate No 07124/C1BV
 <p>NSF</p>	FIP PVC-C fittings are acknowledged by NSF (National Sanitation Foundation) Certificate N. 11370/11371A

## Fittings for solvent welding - Equal



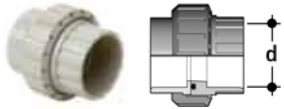
Double socket

d [mm]		16	20	25	32	40	50	63	75	90	110	160	
DN [mm]		10	15	20	25	32	40	50	65	80	100	150	Type
ISO-METRIC for solvent welding	PVC-C	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	MIC



End Cap

d [mm]		16	20	25	32	40	50	63	75	90	110	160	
DN [mm]		10	15	20	25	32	40	50	65	80	100	150	Type
ISO-METRIC for solvent welding	PVC-C	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16		CIC



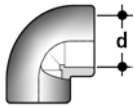
Socket union

d [mm]		16	20	25	32	40	50	63	75	90	110	160	
DN [mm]		10	15	20	25	32	40	50	65	80	100	150	Type
ISO-METRIC for solvent welding	PVC-C	PN16	PN16	PN16	PN16	PN16	PN16	PN16					BIC

Note: O-Rings available: see FIP Price lists and catalogues.

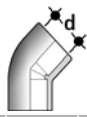


## Fittings for solvent welding - Equal



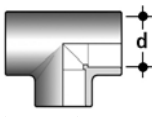
Elbow 90°

d [mm]		16	20	25	32	40	50	63	75	90	110	160	
DN [mm]		10	15	20	25	32	40	50	65	80	100	150	Type
ISO-METRIC for solvent welding	PVC-C	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	GIC



Elbow 45°

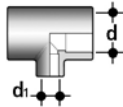
d [mm]		16	20	25	32	40	50	63	75	90	110	160	
DN [mm]		10	15	20	25	32	40	50	65	80	100	150	Type
ISO-METRIC for solvent welding	PVC-C	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	HIC



Tee 90°

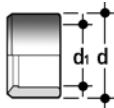
d [mm]		16	20	25	32	40	50	63	75	90	110	160	
DN [mm]		10	15	20	25	32	40	50	65	80	100	150	Type
ISO-METRIC for solvent welding	PVC-C	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	TIC

## Fittings for solvent welding - Reducers



Tee 90° reducing

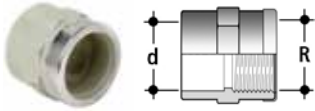
d [mm]		20	25	32	32	40	40	50	50	63	63	75	90	110				
d1 [mm]		16	20	20	25	20	25	25	32	25	32	25	25	25				Type
ISO-METRIC for solvent welding	PVC-C	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16				TRIC



Reducing bush

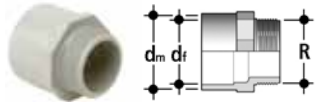
d [mm]		20	25	32	32	40	40	40	50	50	63	63	63	75	75	90	90	
d1 [mm]		16	20	20	25	20	25	32	32	40	32	40	50	50	63	50	63	Type
ISO-METRIC for solvent welding	PVC-C	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	DIC
d [mm]		90	110	110	110	160												
d1 [mm]		75	63	75	90	110												Type
ISO-METRIC for solvent welding	PVC-C	PN16	PN16	PN16	PN16	PN16												DIC

## Adaptor fittings



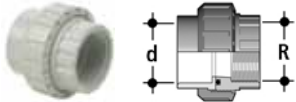
Double socket with reinforcing Stainless Steel ring

d [mm]		16	20	25	32	40	50	63	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	<b>PVC-C</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>MIMC</b>



Double adaptor socket/spigot male thread

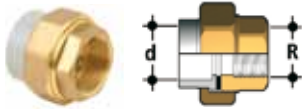
dm [mm]		20	25	32	40	50	63	75	
df [mm]		16	20	25	32	40	50	63	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	<b>PVC-C</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>KIFC</b>



Socket union

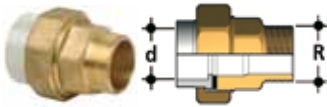
d [mm]		16	20	25	32	40	50	63	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	<b>PVC-C</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>BIFC</b>

## Adaptor fittings



Socket union plastic/brass

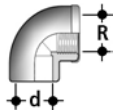
d [mm]		16	20	25	32	40	50	63	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	<b>PVC-C</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>BIRCO</b>



d [mm]		16	20	25	32	40	50	63	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP (male thread)	<b>PVC-C</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>BIRCO</b>

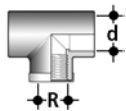
Note: O-Rings and flat gaskets available: see FIP Price lists and catalogues

## Adaptor fittings



Elbow 90° with reinforcing Stainless Steel ring

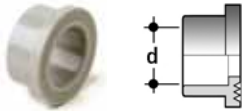
d [mm]		16	20	25	32	40	50	63	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	<b>PVC-C</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>GIMC</b>



Tee 90° with reinforcing Stainless Steel ring

d [mm]		16	20	25	32	40	50	63	
R [BSP]		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	<b>PVC-C</b>	PN16	PN16	PN16	PN16	PN16	PN16	PN16	<b>TIMC</b>

## Stubs



Serrated face stub (for use with flat gaskets)

d [mm]		20	25	32	40	50	63	75	90	110	125	140	160	
DN [mm]		15	20	25	32	40	50	65	80	100	110	125	150	Type
ISO-METRIC for solvent welding	PVC-C	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	QRC

## Flanges



Backing ring

d [mm]		20	25	32	40	50	63	75	90	110	125	140	160	
DN [mm]		15	20	25	32	40	50	65	80	100	110	125	150	Type
DIN8063-DIN2501 drilled PN10/16	PVC-C	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	n.a.	n.a.	n.a.	ODC

## Steel Core Flanges for PVC-C



### Backing ring for use with stubs QRC

d [mm]		20	25	32	40	50	63	75	90	125 (1)	140	180 (2)	
DN [mm]		15	20	25	32	40	50	65	80	100	125	150	Type
DIN2501-EN1092 drilled PN10/16	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	ODB

\* with steel core

(1) for use with Stubs QRC 110

(2) for use with Stubs QRC 160



### Blind flange for use with stubs QRC

d [mm]		20	25	32	40	50	63	75	90	110/125	160/180		
DN [mm]		15	20	25	32	40	50	65	80	100	150		Type
DIN2501-EN1092 drilled PN10/16	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16		ODBC

\* with steel core

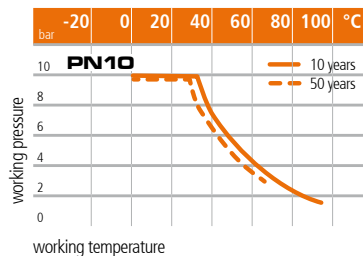


### Backing ring ANSI for use with stubs QRC

d [mm]		20	25	32	40	50	63	75	90	110			
Size [inch]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"			Type
ANSI 150	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16			OAB

\* with steel core

Note: PMA= maximum allowable operating pressure, to be considered when choosing the gaskets



Pressure / Temperature rating for water and harmless fluids to which the material is resistant. In the other cases a reduction of the rated PN is required.

## PP-H Fittings - Socket Fusion

### Material Specifications and Technical Data

<b>MATERIAL</b>	PP-H Polypropylene homopolymer
<b>COLOUR</b>	Beige - RAL 7032
<b>STANDARDS</b>	<ul style="list-style-type: none"> <li>• Socket Fusion according to: DIN 16962 for coupling to pipes complying with DIN 8077/8078, EN ISO 15494, BS 4991</li> <li>• Parallel threads according to: UNI ISO 228/1 - DIN 2999 - BS 21</li> <li>• Flanging according to: ISO 7005, DIN 8063, DIN 2501, ANSI B16.5 150</li> </ul>
<b>RANGE</b>	<ul style="list-style-type: none"> <li>• Fittings for Socket Fusion: from d20 mm to d110 mm,</li> <li>• Threaded fittings: from R½" up to R2"</li> </ul>
<b>MAXIMUM WORKING PRESSURE</b>	10 bar (145 psi) with water at 20 °C (68 °F) In case of different working conditions see technical catalogue
<b>WORKING TEMPERATURE RANGE</b>	From 0 °C (32 °F) to 100 °C (212 °F)

For technical details, please, see FIP catalogues or visit our web site [www.fipnet.it](http://www.fipnet.it).



## Fittings for socket fusion - Equal



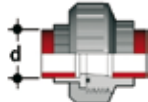
Double socket

d [mm]		20	25	32	40	50	63	75	90	110	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	MIM



End Cap

d [mm]		20	25	32	40	50	63	75	90	110	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	CIM



Socket union

d [mm]		20	25	32	40	50	63	75	90	110	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	n.a.	n.a.	n.a.	BIM
		PN10	PN10	PN10	PN10	PN10	PN10	n.a.	n.a.	n.a.	BIMG

Notes:

BIM union threads trapezoidal

BIMG union threads BSP

## Fittings for socket fusion - Equal



Elbow 90°

d [mm]		20	25	32	40	50	63	75	90	110	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	GIM



Elbow 45°

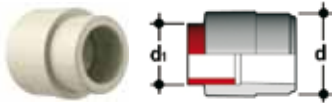
d [mm]		20	25	32	40	50	63	75	90	110	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	HIM



Tee 90°

d [mm]		20	25	32	40	50	63	75	90	110	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	TIM

## Fittings for socket fusion - Reducers



Reducer

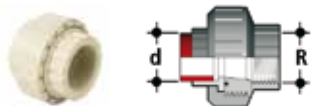
d [mm]		25	32	32	40	40	50	50	63	63	75	
d1 [mm]		20	20	25	25	32	32	40	32	50	50	Type
ISO-METRIC for socket fusion	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	RIM
d [mm]		75	90	90	110	110						
d1 [mm]		63	63	75	63	90						Type
ISO-METRIC for socket fusion	PP-H	PN10	PN10	PN10	PN10	PN10						RIM

## Fittings for socket fusion - Adaptors



Double socket with reinforcing Stainless Steel ring

d [mm]		20	25	32	40	50	63	
R [BSP]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	MIMM

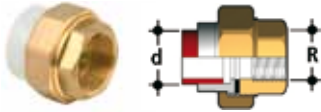


Socket union

d [mm]		20	25	32	40	50	63	
R [BSP]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	BIFM

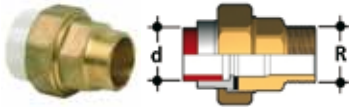
Note: union thread trapezoidal

## Fittings for socket fusion - Adaptors



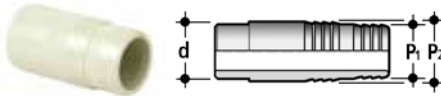
Socket union plastic/brass

d [mm]		20	25	32	40	50	63	
R [BSP]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	BIFMO



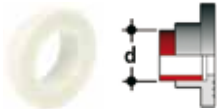
d [mm]		20	25	32	40	50	63	
R [BSP]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	Type
ISO-BSP (male thread)	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	BIRMO

## Fittings for socket fusion - Hose adaptors



d [mm]		20	25	32	40	50	63	
P1 [mm]		20	25	30	40	50	60	
P2 [mm]		22	27	32	42	52	64	Type
ISO-METRIC	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	AIM

## Fittings for socket fusion - Stubs



Serrated face stub (for use with flat gaskets)

d [mm]		20	25	32	40	50	63	75	90	110	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PP-H	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	PN10	QRNM
Size [inch]			3/4"	1"	1 1/4"	1 1/2"			3"		
DN [mm]			20	25	32	40			80		Type
for use with ANSI 150 backing ring OAB	PP-H		PN10	PN10	PN10	PN10			PN10		QRAM (*)

(\*) for the missing sizes QRNM can fit

Note: Flat gaskets available: see FIP Price lists and catalogues.

# Steel Core Flanges for PP-H



## Backing ring for use with stubs QRRM

d [mm]		20	25	32	40	50	63	75	90 (1)	125 (2)			
DN [mm]		15	20	25	32	40	50	65	80	100			Type
DIN2501-EN1092 drilled PN10/16	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16			ODB

\* with steel core

(1) for use with Stubs FIP QRNM d90 only

(2) for use with Stubs FIP QRNM d110 only



## Blind flange for use with stubs QRRM

d [mm]		20	25	32	40	50	63	75	90	110/125			
DN [mm]		15	20	25	32	40	50	65	80	100			Type
DIN2501-EN1092 drilled PN10/16	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16			ODBC

\* with steel core



## Backing ring ANSI for use with stubs QRAM

d [mm]		20	25	32	40	50	63	75	90	110			
Size [inch]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"			Type
ANSI 150	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16			OAB

\* with steel core

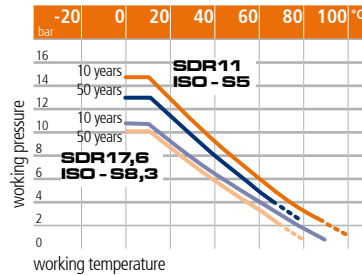
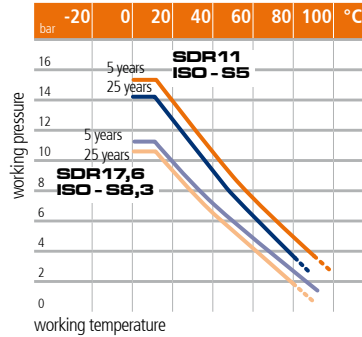
(1) to be used with stubs QRNM

(2) to be used with stubs QRAM

Note: PMA = maximum allowable operating pressure, to be considered when choosing the gaskets

## PP-H Fittings - Butt Welding

### Material Specifications and Technical Data

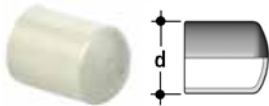


Pressure / Temperature rating for water and harmless fluids to which the material is resistant.  
In the other cases a reduction of the rated PN is required.

<b>MATERIAL</b>	PP-H Polypropylene homopolymer
<b>COLOUR</b>	Beige - RAL 7032
<b>STANDARDS</b>	<ul style="list-style-type: none"> <li>• Butt Welding according to: DIN 16962 for coupling to pipes complying with DIN 8077/8078, EN ISO 15494, BS 4991</li> <li>• Flanging according to: ISO 7005, DIN 8063, DIN 2501, ANSI B16.5 150</li> <li>• Parallel threads according to: UNI ISO 228/1 - DIN 2999 - BS 2</li> </ul>
<b>RANGE</b>	<ul style="list-style-type: none"> <li>• Fittings for Butt Welding: from d20 mm to d400 mm</li> <li>• Threaded Fittings: from R½ " up to R2"</li> </ul>
<b>MAXIMUM WORKING PRESSURE</b>	<ul style="list-style-type: none"> <li>• SDR11: 12,5 bar (181 psi) with water at 20 °C (68 °F)</li> <li>• SDR17,6: 7,5 bar (109 psi) with water at 20 °C (68 °F)</li> </ul> <p>In case of different working conditions see technical catalogue</p>
<b>WORKING TEMPERATURE RANGE</b>	From 0 °C (32 °F) to 100 °C (212 °F)

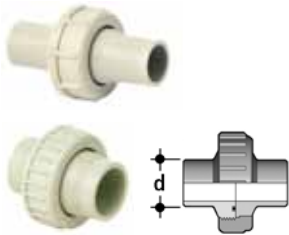
For technical details, please, see FIP catalogues or visit our web site [www.fipnet.it](http://www.fipnet.it).

## Fittings for butt welding - Equal



End Cap

d [mm]		20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	
DN [mm]		15	20	25	32	40	50	65	80	100	100	125	150	150	200	200	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 SDR17,6 - S8,3	SDR11-S5 SDR17,6 - S8,3	SDR11-S5 SDR17,6 - S8,3	SDR11-S5 SDR17,6 - S8,3	SDR11-S5 SDR17,6 - S8,3	SDR11-S5 SDR17,6 - S8,3	SDR11-S5 SDR17,6 - S8,3	SDR11-S5 SDR17,6 - S8,3	SDR11-S5 SDR17,6 - S8,3	SDR11-S5 SDR17,6 - S8,3	CBM



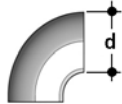
Union

d [mm]		20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	
DN [mm]		15	20	25	32	40	50	65	80	100	100	125	150	150	200	200	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	BBM/L
ISO-METRIC for butt welding	PP-H	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	BBM/C

Notes  
BBM/L long spigot  
BBM/C short spigot

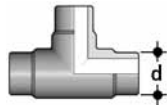


## Fittings for butt welding - Equal



Bend 90°

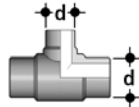
d [mm]		20	25	32	40	50	63	75	90	110	125	
DN [mm]		15	20	25	32	40	50	65	80	100	100	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	GBM
d [mm]		140	160	180	200	225	250	280	315	355	400	
DN [mm]		125	150	150	200	200	250	250	300	350	400	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	GBM



Tee 90°

d [mm]		20	25	32	40	50	63	75	90	110	125	
DN [mm]		15	20	25	32	40	50	65	80	100	100	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	TBM
d [mm]		140	160	180	200	225	250	280	315	355	400	
DN [mm]		125	150	150	200	200	250	250	300	350	400	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	TBM

## Fittings for butt welding - Reducers

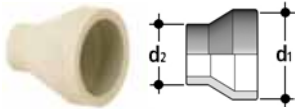


T 90° reducing

d [mm]		63	75	75	75	90	90	90	90	110	110	
d1 [mm]		50	32	50	63	32	50	63	75	32	50	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5*	SDR11-S5*	SDR11-S5*	SDR11-S5*	SDR11-S5	SDR11-S5	SDR11-S5*	SDR11-S5*	SDR11-S5	SDR11-S5	TRBM
		SDR17,6-S8,3*	n.a.	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3	SDR17,6-S8,3	
d [mm]		110	110	110	160	125	125	125	140	140	140	
d1 [mm]		63	75	90	110	63	90	110	63	75	90	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5*	SDR11-S5*	SDR11-S5*	SDR11-S5*	SDR11-S5	SDR11-S5*	SDR11-S5*	SDR11-S5	SDR11-S5	SDR11-S5	TRBM
		SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	
d [mm]		140	160	160	160	160	160	180	180	180	180	
d1 [mm]		110	63	75	90	110	125	63	75	90	110	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5	SDR11-S5*	SDR11-S5*	SDR11-S5*	SDR11-S5*	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5*	SDR11-S5*	TRBM
		SDR17,6-S8,3	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3*	SDR17,6-S8,3*	
d [mm]		180	180	200	200	200	200	200	225	225	225	
d1 [mm]		125	160	63	90	110	125	160	75	90	110	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5	SDR11-S5*	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5*	SDR11-S5*	SDR11-S5*	TRBM
		SDR17,6-S8,3	SDR17,6-S8,3*	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3*	
d [mm]		225	225	225	250	250						
d1 [mm]		125	160	180	110	160						Type
ISO-METRIC for butt welding	PP-H	SDR11-S5	SDR11-S5*	SDR11-S5*	SDR11-S5	SDR11-S5						TRBM
		SDR17,6-S8,3	SDR17,6-S8,3*	SDR17,6-S8,3*	SDR17,6-S8,3	SDR17,6-S8,3						

\* long spigot

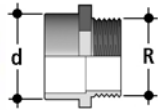
# Fittings for butt welding - Reducers



Reducer

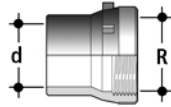
d1 [mm]		25	32	32	40	40	40	50	50	50	63	
d2 [mm]		20	20	25	20	25	32	25	32	40	32	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 n.a.	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	RBM
d1 [mm]		63	63	75	75	75	75	90	90	90	110	
d2 [mm]		40	50	32	40	50	63	50	63	75	50	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	RBM
d1 [mm]		110	110	110	125	125	125	125	140	140	140	
d2 [mm]		63	75	90	63	75	90	110	75	90	110	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	RBM
d1 [mm]		140	160	160	160	160	180	180	180	180	180	
d2 [mm]		125	90	110	125	140	90	110	125	140	160	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	RBM
d1 [mm]		200	200	200	225	225	225	225	250	250	250	
d2 [mm]		140	160	180	140	160	180	200	160	180	200	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	RBM
d1 [mm]		250	280	280	280	315	315	315	315	355	355	
d2 [mm]		225	200	225	250	200	225	250	280	200	225	Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	RBM
d1 [mm]		355	355	355	400	400	400	400	400			
d2 [mm]		250	280	315	225	250	280	315	355			Type
ISO-METRIC for butt welding	PP-H	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3	SDR11-S5 SDR17,6-S8,3			RBM

## Fittings for butt welding - Adaptors



Adaptor with spigot threaded and short spigot

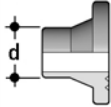
d [mm]		20	25	25	32	32	32	40	40	40	50	50	50	50	63	75	
R [BSP]		1/2"	1/2"	3/4"	1/2"	3/4"	1"	3/4"	1"	1 1/4"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	Type
ISO Butt welding - BSP	PP-H	SDR11-S5 PN10		SDR11-S5 PN10			SDR11-S5 PN10			SDR11-S5 PN10				SDR11-S5 PN10	SDR11-S5 PN10		KBFM



Adaptor with female thread and short spigot

d [mm]		20	25	25	32	32	32	40	40	40	50	50	50	50	63	75	
R [BSP]		1/2"	1/2"	3/4"	1/2"	3/4"	1"	3/4"	1"	1 1/4"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	Type
ISO Butt welding - BSP	PP-H	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	SDR11-S5 PN10	DBMM

## Fittings for butt welding - Stubs



Serrated face stub (for use with flat gaskets)

d [mm]		20	25	32	40	50	63	75	90	110	125	
DN [mm]		15	20	25	32	40	50	65	80	100	100	Type
ISO-METRIC butt welding	for	PP-H	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	
					SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	QBM
d [mm]		140	160	180	200	225	250	280	315	355	400	
DN [mm]		125	150	150	200	200	250	250	300	350	400	Type
ISO-METRIC butt welding	for	PP-H	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	SDR11-S5	
			SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	SDR17,6-S8,3	QBM
Size [inch]			3/4"	1"	1 1/4"	1 1/2"			3"			
DN [mm]			20	25	32	40			80			Type
for use with ANSI 150 backing ring OAB	PP-H		SDR 11	SDR 11	SDR 11	SDR 11			SDR 11			QBM (*)
					SDR 17,6	SDR 17,6			SDR 17,6			

(\*) for the missing sizes QBM can fit

# Flanges



## Backing ring

d [mm]		20	25	32	40	50	63	75	90	110	125	
DN [mm]		15	20	25	32	40	50	65	80	100	100	Type
DIN2501 drilled PN10/16 up to d180, PN10 from d200 up to d400	PP/FRP*	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	ODB
d [mm]		140	160	180	200	225	250	280	315	355	400	
DN [mm]		125	150	150	200	200	250	250	300	350	400	Type
DIN2501 drilled PN10/16 up to d180, PN10 from d200 up to d400	PP/FRP*	PMA16	PMA16	PMA16	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	ODB
d [mm]		20	25	32	40	50	63	75	90	110	125	
DN [mm]		15	20	25	32	40	50	65	80	100	110	
Size [inch]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"		Type
ANSI 150 drilled ANSI B16.5	PP/FRP*	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	n.a.	OAB
d [mm]		140	160	200	250	315						
DN [mm]		125	150	200	250	300						
Size [inch]			6"	8"	10"	12"						Type
ANSI 150 drilled ANSI B16.5	PP/FRP*	n.a.	PMA16	PMA10	PMA10	PMA10						OAB

\* with steel core

Note: PMA =maximum allowable operating pressure, to be considered when choosing the gaskets

# Flanges

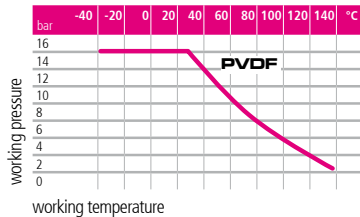


## Blind flange

d [mm]		20	25	32	40	50	63	75	90	110	125	
DN [mm]		15	20	25	32	40	50	65	80	100	100	Type
DIN2501 drilled PN10/16 up to d180, PN10 from d200 up to d400	PP/FRP*	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	PMA16	ODBC
d [mm]		140	160	180	200	225	250	280	315	355	400	
DN [mm]		125	150	150	200	200	250	250	300	350	400	Type
DIN2501 drilled PN10/16 up to d180, PN10 from d200 up to d400	PP/FRP*	PMA16	PMA16	PMA16	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	PMA10	ODBC

\* with steel core

Note: PMA =maximum allowable operating pressure, to be considered when choosing the gaskets



Pressure / Temperature rating for water and harmless fluids to which the material is resistant.

In the other cases a reduction of the rated PN is required.

## PVDF Fittings

### Material Specifications and Technical Data

<b>MATERIAL</b>	PVDF Polyvinylidene Fluoride - Compound SOLEF® 1008 Solvay
<b>COLOUR</b>	Translucent white - Natural
<b>STANDARDS</b>	<ul style="list-style-type: none"> <li>• Socket Fusion according to: ISO 10931 for coupling to pipes complying with ISO 10931</li> <li>• Flanging according to: ISO 7005, DIN 8063, DIN 2501, ANSI B16.5 150</li> </ul>
<b>RANGE</b>	<ul style="list-style-type: none"> <li>• Fittings for Socket Fusion: from d16 mm to d110 mm</li> </ul>
<b>MAXIMUM WORKING PRESSURE</b>	16 bar (232 psi) with water at 20 °C (68 °F) In case of different working conditions see technical catalogue
<b>WORKING TEMPERATURE RANGE</b>	From -40 °C (-40 °F) to 140 °C (284 °F)

Solef® PVDF compound is suitable to be used in contact with foodstuff and drinking water conforming to the following standards:

- F.D.A. n. 21 CFR 177.2510 (Food and Drugs Administration) - USA
- Thames Water Services - UK
- KTW Institut Kunststoff fuer Trinkwasser - Germany

For technical details, please, see FIP catalogues or visit our web site [www.fipnet.it](http://www.fipnet.it).



## Fittings for socket fusion



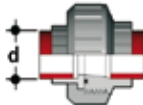
Double socket

d [mm]		16	20	25	32	40	50	63	75	90	110	
DN [mm]		10	15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PVDF	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	MIF



End Cap

d [mm]		16	20	25	32	40	50	63	75	90	110	
DN [mm]		10	15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PVDF	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	CIF



Socket union

d [mm]		16	20	25	32	40	50	63	75	90	110	
DN [mm]		10	15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PVDF	PN16	PN16	PN16	PN16	PN16	PN16	PN16	n.a.	n.a.	n.a.	BIF

Note: union thread trapezoidal

## Fittings for socket fusion



### Elbow 90°

d [mm]		16	20	25	32	40	50	63	75	90	110	
DN [mm]		10	15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PVDF	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	GIF



### Elbow 45°

d [mm]		16	20	25	32	40	50	63	75	90	110	
DN [mm]		10	15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PVDF	n.a.	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	HIF



### Tee 90°

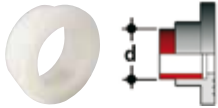
d [mm]		16	20	25	32	40	50	63	75	90	110	
DN [mm]		10	15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PVDF	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	TIF



### Reducer

d [mm]		20	25	32	40	40	50	50	63	63	75	90	90	110	
d1 [mm]		16	20	25	25	32	32	40	32	50	63	63	75	90	Type
ISO-METRIC for socket fusion	PVDF	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	RIF

## Stubs



### Serrated face stub (for use with flat gaskets)

d [mm]		20	25	32	40	50	63	75	90	110	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
ISO-METRIC for socket fusion	PVDF	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	PN16	QRNF
Size [inch]			3/4"	1"	1 1/4"	1 1/2"			3"		
DN [mm]			20	25	32	40			80		Type
for use with ANSI 150 backing ring OAB	PVDF		PN16	PN16	PN16	PN16			PN16		QRAF (*)

(\*) for the missing sizes QRNF can fit

Note: Flat gaskets available: see FIP Price lists and catalogues.

# Steel Core Flanges for PVDF



## Backing ring for use with stubs QRNF

d [mm]		20	25	32	40	50	63	75	90 (1)	125 (2)	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
DIN2501-EN1092 drilled PN10/16	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	ODB

\* with steel core

(1) for use with Stubs FIP QRNF d90 only

(2) for use with Stubs FIP QRNF d110 only



## Blind flange for use with stubs QRNF

d [mm]		20	25	32	40	50	63	75	90	110	
DN [mm]		15	20	25	32	40	50	65	80	100	Type
DIN2501-EN1092 drilled PN10/16	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	ODBC

\* with steel core

## Backing ring ANSI



d [mm]		20 (1)	25 (2)	32 (2)	40 (2)	50 (2)	63 (1)	75 (1)	90 (2)	110 (1)	
DN [mm]		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	Type
ANSI 150	PP/FRP*	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	PMA 16	OAB

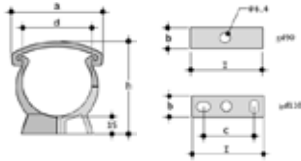
\* with steel core

(1) to be used with stubs QRNF

(2) to be used with stubs QRAF

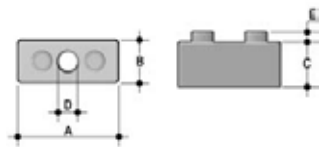
Note: PMA = maximum allowable operating pressure, to be considered when choosing the gaskets

# Pipe Clips



Clip

d [mm]	16	20	25	32	40	50	63	75	90	110	125	140	160	180	Type <b>ZIKM</b>
a [mm]	26	33	41	49	58	68	83	96	113	139	158	177	210	237	
b [mm]	18	14	14	15	16	17	18	19	20	23	25	27	30	33	
h [mm]	33	38	44	51	60	71	84	97	113	134	151	167	190	211	
l [mm]	16	20	25	32	40	50	63	75	90	125	140	155	180	200	



Distance plate

d [mm]	32	40	50	63	75	Type <b>DSM</b>
A [mm]	33	41	51	64	76	
B [mm]	16	17	18	19	20	
C [mm]	14	17	17	22,5	34,5	
D [mm]	8	8	8	8	8	
E [mm]	4	4	4	4	4	

Note: Pipe clips and distance plates are in PP







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Since 1954 FIP produces injection moulded valves and fittings in thermoplastic materials for pressure pipeline systems thus becoming nowadays the largest European valves manufacturer.

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