

# UPE

## Dismantling Joints

For Flanged Pipework  
50mm to 4,000mm

### Benefits

- Large longitudinal adjustment facilitates future maintenance and modification of installed pipework, valves, pumps and other flanged components
- The life span of the fitting is greatly enhanced by the FBE protective coating
- Products can be supplied in both restrained or un-restrained formats
- The integral tie-bar assembly removes the need for other external restraints
- All necessary components, including tie-bars, are supplied to site fully assembled
- Special configurations and high pressure alternatives are available on request



### Technical help

For further product specifications, technical data and general information please contact the Customer Service Team on the telephone number shown below.

### Safety

As with all industrial products it is important to take adequate safety precautions such as the use of suitable protective clothing like gloves, overalls, eye protection and safety footwear during use, maintenance and installation of these products.

The UPE Dismantling Joint offers benefits for the planning, installation and maintenance of all flanged fittings and flanged pipework with a nominal bore from 50mm up to 4,000mm.

The fitting is designed to be used in pipe networks and allows easy assembly and disassembly of the system. This helps with the maintenance or replacement of pumps, valves or similar items. Each fitting has a standard range of length adjustment of up to 50mm and can accommodate limited lateral and angular misalignment. When used in conjunction with tie bars the fitting can offer a fully end load resistant connection.



### Technical data

Pressures	Working	Test
Water:	16 bar	24 bar
Gas:	7 bar	11 bar

Alternative pressures ratings are available on request up to 63bar. For further information please contact our technical team on the number shown below.

Temperature: Up to 50°C

Higher temperatures will affect the installed life of the product. For further information relating to higher operating temperatures please contact our customer service department at the telephone number shown below.

Sizes: 50mm - 4,000mm

Flange type : PN 10 and PN 16,

Alternative flange drillings and configurations are available up to a working pressure of 63bar (900psi). All flanges are flat faced.

Material:

Body and Gland Ring:

Ductile Iron  
GGG40 or 50 - DIN EN 1563

or:  
Mild Steel  
S235JR or S275JR - EN10025

Body and Gland Ring Coating:

Fusion Bonded Epoxy coating to  
WIS: 4-52-01

Fasteners:

Flange adaptor studs:

Tensile Steel 4.6

Tie Bars:

Tensile Steel 4.6 to 8.8 dependent on application

Fastener Coating:

Galvanised  
Alternative fastener coatings and materials available

Seals: EPDM EN681

or: Nitrile EN682

All materials used with the UPE Dismantling Joint that come into contact with potable water are WRAS listed.

### General application

The UPE dismantling joint is available in two basic forms, un-restrained connections and restrained connections.

Special versions and configurations are available on request. (see page 2 and 3)

#### ● Un-restrained Connections

This type of fitting can be used as final closure of flanged pipework or adjacent to pipeline products that may need future maintenance such as pumps and valves. An un-restrained fitting will allow continuous and frequent axial movement of up to 5mm and also angularity of up to +/- 3°.

#### ● Restrained Connections

When a restrained connection is needed tie bars from flange to flange can be provided. When tie bars are used the fitting loses the flexibility offered in its unrestrained form and becomes completely rigid.

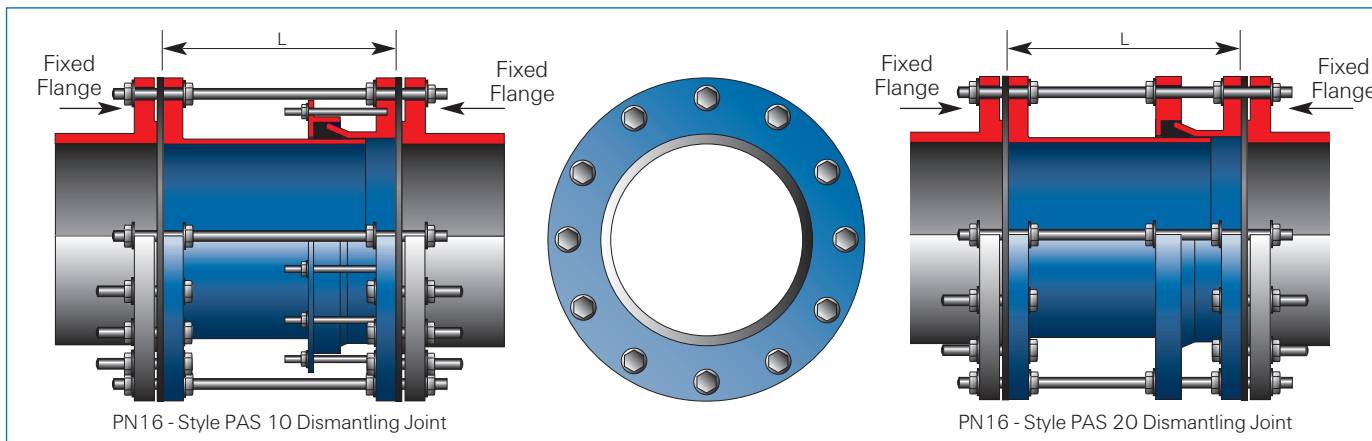
UPE Dismantling joints can be used to:

- Compensate for differences in flange distances
- Simplify the installation of pipelines
- Integrate a valve or pump into a pipe network
- Reduce assembly time
- Simplify the inspection, maintenance and service of pipe networks

UPE Dismantling joints can be used in the following applications:

- Sewage treatment plants
- Water and gas distribution networks
- Hydroelectric power plants
- Industrial cooling systems
- Pumping stations
- Washout chambers
- Air valve chambers

## Dimensions and Details - Dismantling Joints - PN16 - Style PAS 10 and PAS 20



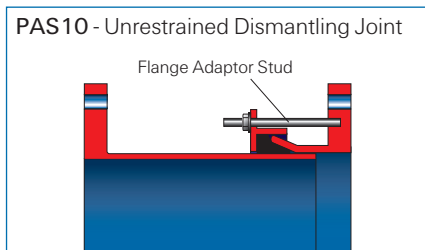
## Dismantling Joints - PN16 - Style PAS 10 and PAS 20

Flange Nominal Bore (mm) (PN16)	Overall length in Mid position (L) (mm)		Tolerance +/- L (mm)	Flange Specification			Diameter	Tie-bars Length (mm)		Number of tie-bars (% restraint)			
	PAS10	PAS20		Flange OD (mm)	Pitch Bolt Circle (mm)	Number of bolt holes (no. x Ømm)		PAS 10	PAS 20	25%	33%	50%	100%
50	180	180	20	165	125	4 x 18	M16	280	280	-	-	2	4
65	180	180	20	185	145	4 x 18	M16	280	280	-	-	2	4
80	200	200	20	200	160	8 x 18	M16	310	310	2	-	4	8
100	200	200	20	220	180	8 x 18	M16	310	310	2	-	4	8
125	200	200	20	250	210	8 x 18	M16	310	310	2	-	4	8
150	200	200	20	285	240	8 x 22	M20	340	340	2	-	4	8
200	220	220	25	340	295	12 x 22	M20	340	340	3	4	6	12
250	230	230	25	405	355	12 x 26	M24	370	370	3	4	6	12
300	250	250	25	460	410	12 x 26	M24	410	410	3	4	6	12
350	260	260	25	520	470	16 x 26	M24	410	410	4	-	8	16
400	270	270	25	580	525	16 x 30	M27	430	430	4	-	8	16
450	270	270	25	640	585	20 x 30	M27	430	430	5	-	10	20
500	280	280	25	715	650	20 x 33	M30	460	460	5	-	10	20
600	300	300	25	840	770	20 x 36	M33	480	480	5	-	10	20
700	300	300	25	910	840	24 x 36	M33	480	480	6	8	12	24
800	320	320	25	1025	950	24 x 39	M36	520	520	6	8	12	24
900	320	320	25	1125	1050	28 x 39	M36	520	520	7	-	14	28
1000	325	325	25	1255	1170	28 x 42	M39	550	550	7	-	14	28
1100	325	325	25	1355	1270	32 x 42	M39	550	550	8	-	16	32
1200	325	325	25	1485	1390	32 x 48	M45	575	575	8	-	16	32
1400	325	325	25	1685	1590	36 x 48	M45	575	575	9	12	18	36
1600	325	325	25	1930	1820	40 x 56	M52	600	600	10	-	20	40

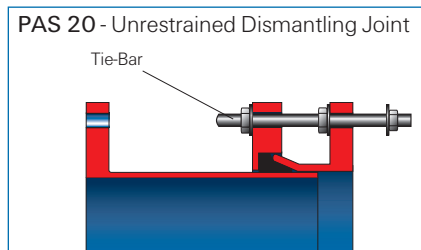
Flanges with PN 6, PN10, PN16, PN40, PN63, BS, ASA and ANSI etc. can be supplied on request. Additional sizes to those stated above can also be supplied on request

## Product Configurations - Style PAS 10 and PAS 20

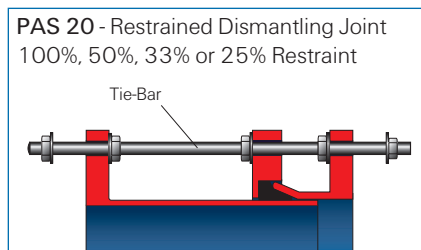
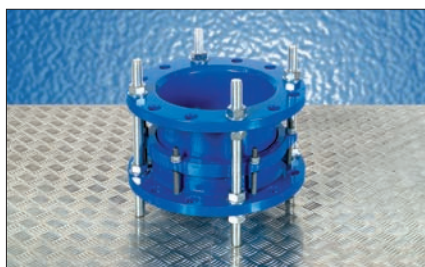
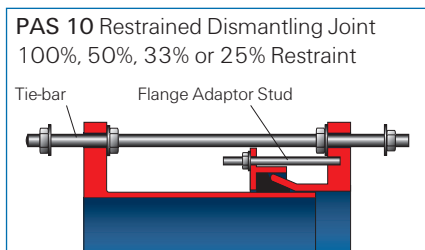
The UPE Dismantling joint can be supplied in a variety of configurations to suit customer requirements. The diagrams below illustrate the four main configurations in which the product can be supplied to suit PAS 10 and PAS 20 applications.



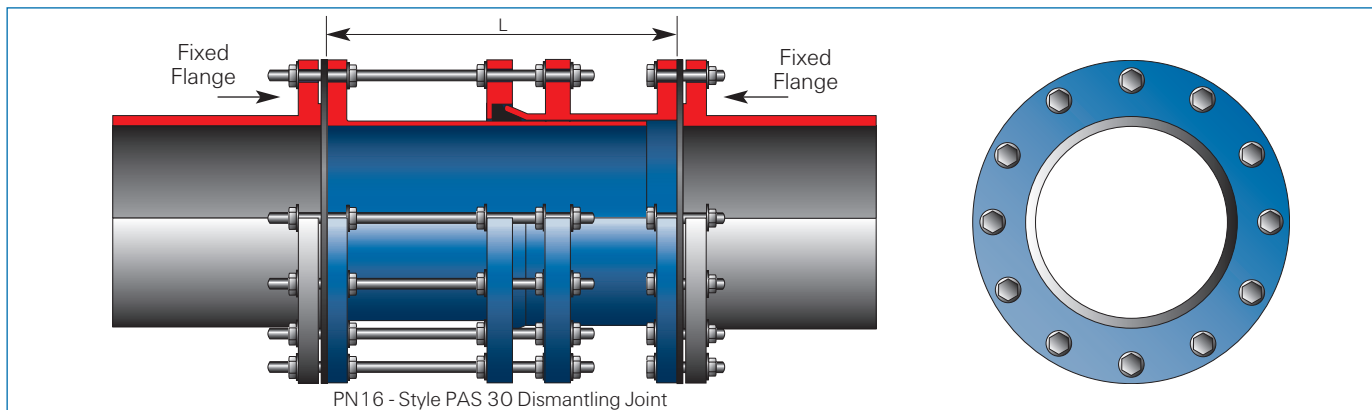
● **PAS 10**  
PAS 10 UPE Dismantling joints seal using the flange adaptor stud bolts. They are suitable for most applications and are rated up to 25 bar.



● **PAS 20**  
PAS 20 UPE Dismantling joints seal using the tie bars. They are suitable for most applications and are rated up to 25 bar.



## Dimensions and Details - Dismantling Joints - PN16 - Style PAS 30



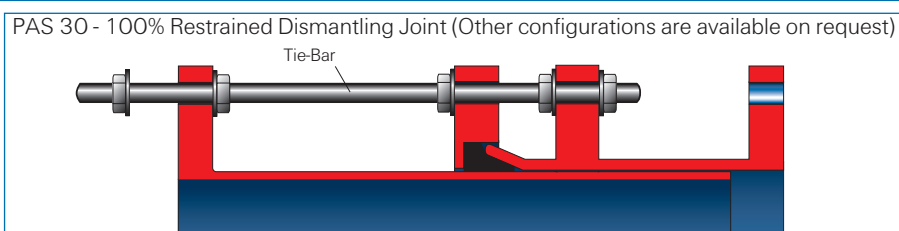
## Dimensions and Details - Dismantling Joints - PN16 - Style PAS 30

Flange Nominal Bore (mm) (PN16)	Overall length in Mid position (L) L (mm)	Tolerance +/- L (mm)	Flange Specification			Tie-bar Dimensions		Tie-bar Number	
			Flange OD (mm)	Pitch Bolt Circle (mm)	Number of bolt holes no. x Ømm)	diameter	length (mm)	% restraint	
50	300	25	165	125	4 x 18	M16	250	2	4
65	300	25	185	145	4 x 18	M16	250	2	4
80	300	25	200	160	8 x 18	M16	250	4	8
100	300	25	220	180	8 x 18	M16	250	4	8
125	300	25	250	210	8 x 18	M16	250	4	8
150	350	25	285	240	8 x 22	M20	290	4	8
200	350	25	340	295	12 x 22	M20	290	6	12
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400	425	25	580	525	16 x 30	M27	350	8	16
450	425	25	640	585	20 x 30	M27	350	10	20
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700	475	25	910	840	24 x 36	M33	400	12	24
800	525	25	1025	950	24 x 39	M36	450	12	24
900	525	25	1125	1050	28 x 39	M36	450	14	28
1000	550	25	1255	1170	28 x 42	M39	450	14	28
1200	600	25	1485	1390	32 x 50	M45	525	16	32
1400	625	25	1685	1590	36 x 50	M45	525	18	36
1600	725	25	1930	1820	40 x 56	M52	625	20	40

Flanges with PN 6, PN10, PN16, PN40, PN63, BS, ASA and ANSI etc. can be supplied on request. Additional sizes to those stated above can also be supplied on request

## Product Configurations - PN16 - Style PAS 30

UPE Dismantling Joints can be supplied in a variety of configurations to suit exact customer needs. The diagram to the left shows a typical PAS 30 configuration suitable for pressures up to 25 bar. This configuration also allows for dissimilar connecting flange drillings to be specified. ie PN16 to ANSI150.

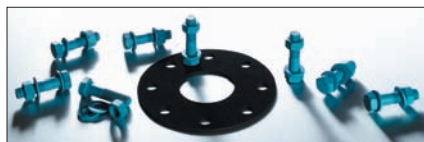


## Fasteners and Flange Gasket Sets

To make the installation of the UPE Dismantling joint easier, UPE offer a range of complete flange gasket sets. These sets consist of a gasket and the appropriate size of bolt set for the size of flange specified.

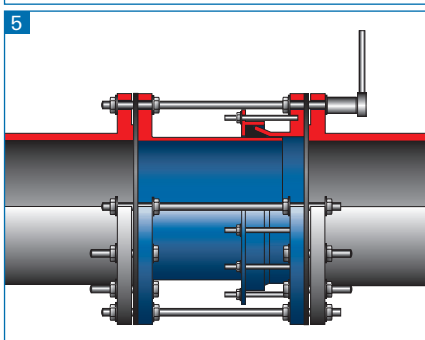
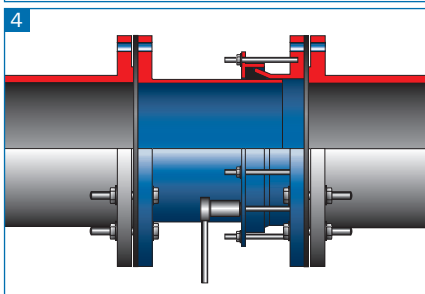
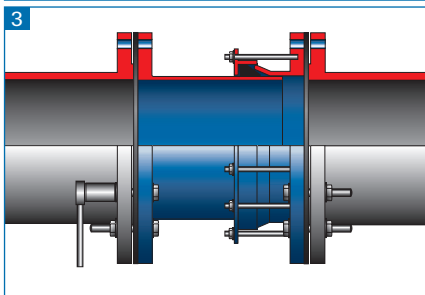
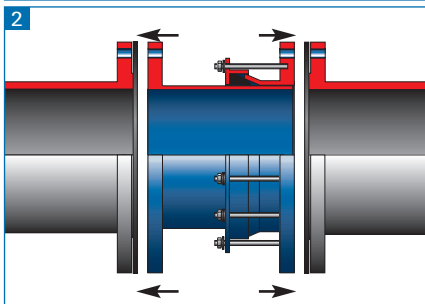
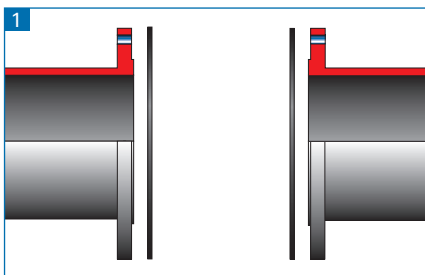
These flange gasket sets are supplied bagged and clearly labelled allowing the correct gasket with the correct number of bolts, nuts and washers to be selected every time a connection is to be made. Bolts are approved to WIS 4-52-03.

For further information on the UPE range of Fasteners and Flange Gasket Sets please refer to Data Sheet 2000.1 'Fasteners and Flange Gasket Sets' or contact the UPE Customer Service Team at the number shown on the back of this data sheet.



## Fitting Instructions

Outlined below are general guidelines for the installation of a typical PAS 10 type product. Installation methods will depend on the size, location and product configuration used. Alternative product configurations will follow similar installation concepts to those shown below.



Before installation ensure that the correct number of flange connecting bolts and flange gaskets are available for the configuration being used.

Grease (use an approved grease) or tape flange gaskets in position on the mating faces of adjacent flanges to aid assembly.

To install the dismantling joint, remove the tie-bars (if a restrained fitting) and loosen the flange adaptor studs. Slide the spigot flange fully into the flange adaptor body and position the dismantling joint between the two mating flanges. Ensure the flange gaskets are still correctly positioned and connect the mating flanges.

### Unrestrained & up to 50% restrained

For unrestrained and up to 50% restrained fittings the following procedure should be used. (See left)

Using flange connecting bolts connect the mating flanges to secure the product into position. Ensure that the correct number and interval of flange fixing holes are left vacant to accept the tie bars if used.

Tighten the flange bolts to the torque specified by the flange drilling.

Tighten the flange adaptor studs evenly in a diametrically opposed sequence to a torque of:

Up to DN150mm with M12 stud bolts: 45 - 50Nm (33 - 37 lb ft)

Above DN150mm up to DN650mm with M12 stud bolts: 60 - 70Nm (45 - 52 lb ft)

Above DN700mm with M16 stud bolts: 100 - 110Nm (75 - 81 lb ft)

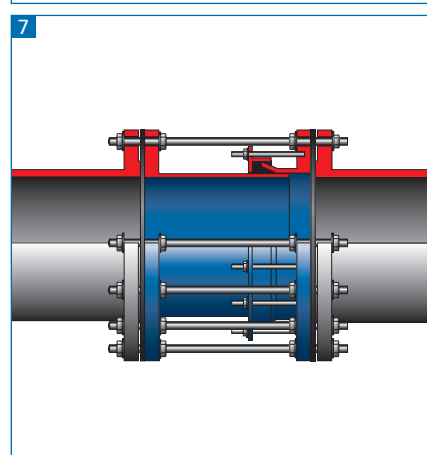
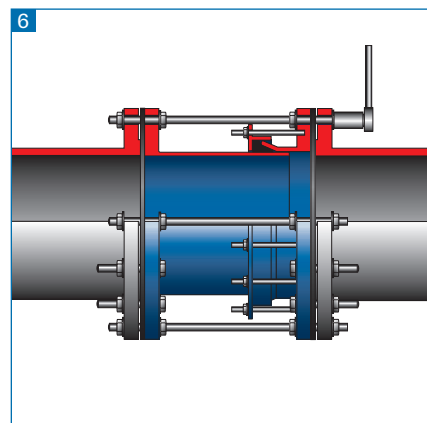
Position the tie bars (if used) and tighten them to the torque specified by the flange drilling. Ensure that any tie-bars used are equally spaced.



### 100% restrained fittings

For 100% restrained fittings the following procedure should be used. (See below)

For ease of fitment we recommend that the guidelines for 50% restraint are followed (using every second flange bolt hole) as detailed to the left, with the additional process of finally removing the flange connecting bolts and replacing them with the remaining tie-bars.



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