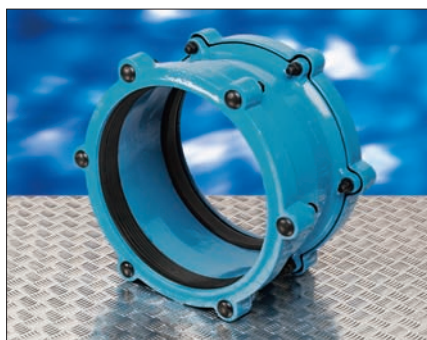
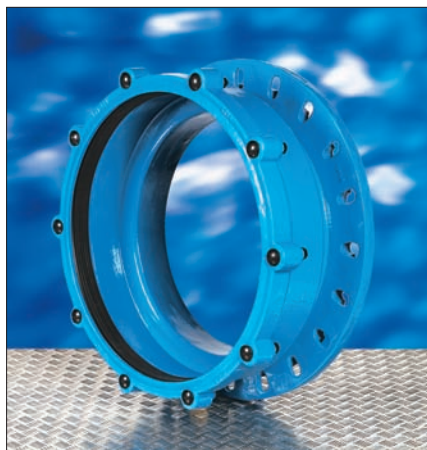


## UPE MultiDiameter

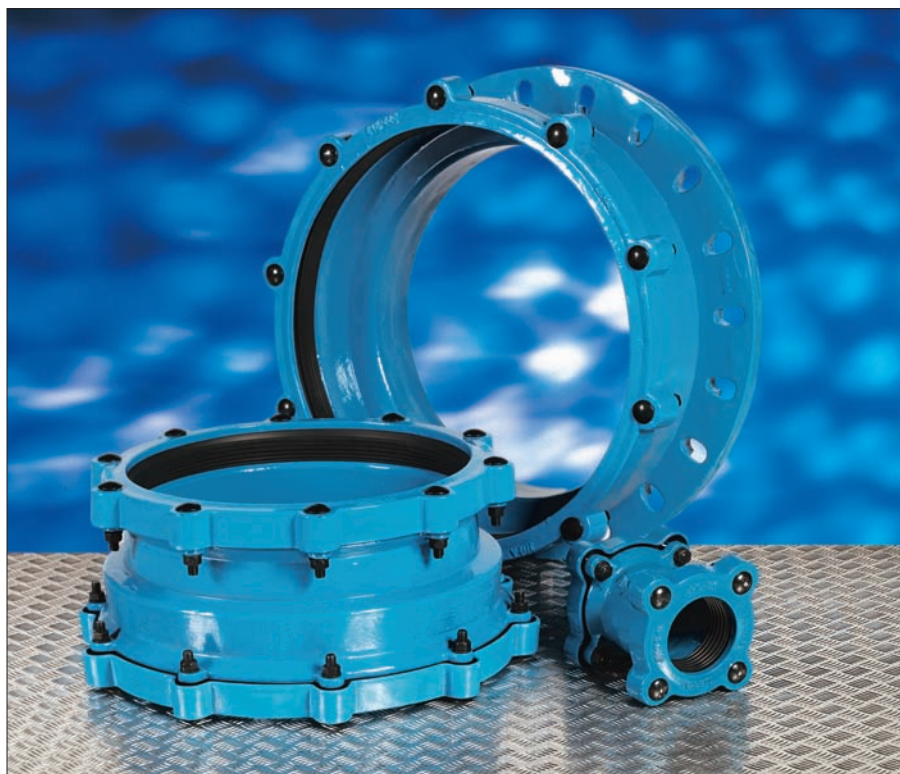
### Wide tolerance couplings and Flange Adaptors

#### Benefits

- Available in a range of stepped and equal couplings and flange adaptors from 32mm - 800mm (1½" - 32")
- A wide tolerance of up to 43mm means extreme versatility of fitment
- Wide tolerances allow for reduced stock holdings
- Quick and efficient installation without disassembly or any loose components
- Suits all common rigid pipe materials
- Prolonged life of fitting due to the high quality corrosion protective coating used
- Independent bolting on couplings allows for torque loadings in accordance with the mechanical properties of the pipe used.



The UPE MultiDiameter range of wide tolerance couplings and flange adaptors can be used for almost any plain-ended rigid pipe material from 32mm to 800mm pipe nominals. This flexibility combined with each fittings ability to accommodate a wide variety of pipe sizes makes the UPE MultiDiameter fitting a versatile and economical product to use.



#### Technical data

Pressures	Working	Test
Water:	16 bar	24 bar
Gas:	4 bar	6 bar

Higher pressure alternatives are available on request. For further details please contact our customer service department at the telephone number shown below.

Temperature: Up to 50°C

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

Flange type :  
PN10/16 BS4504 (EN 1902-2)

Max angular deflection:

Flange Adaptors:	+/- 5°
Couplings:	+/- 10°

Material:

Body and Gland Rings:	Ductile Iron
Fasteners:	Mild Steel to BS 4190
	Dichromate zinc plated with cathophoretic coating
	Stainless steel and sheraplex coated mild steel fasteners are available on request

Sealing Gaskets:

Water	EPDM (EN 681)
Gas	Nitrile (EN 682)

Coating Material:

Blue Fusion bonded epoxy to WIS 4-52-01  
(Alternative coatings are available on request)

#### General application

Tolerances between the minimum and maximum sizes of each fitting are up to 43mm, typically 35mm. This wide range makes the UPE MultiDiameter product exceedingly versatile and particularly suitable for connecting pipes of different rigid materials such as Asbestos Cement, PVC or Cast Iron.

Flange Adaptor dimensions are to PN10 and PN16 and the inner diameter of the body coincides with the nominal diameter of the flange adaptor so providing a stop. MultiDiameter flange adaptors can be used in conjunction with any type of flanged valve including butterfly and gate valves.

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

#### Safety

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

#### Technical help

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

# Mains Connections - MultiDiameter

2

## Installation Instructions

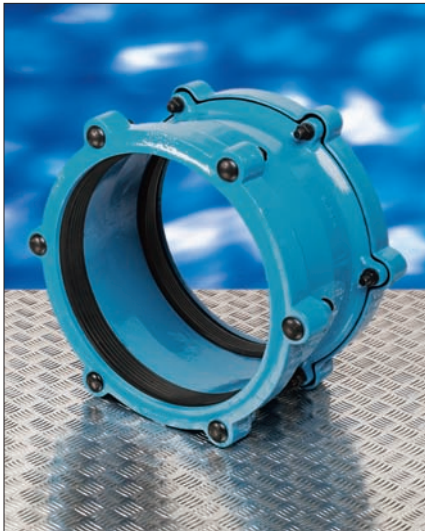
All UPE fittings are supplied ready assembled for efficient installation on site.

### Couplings

#### Preparation

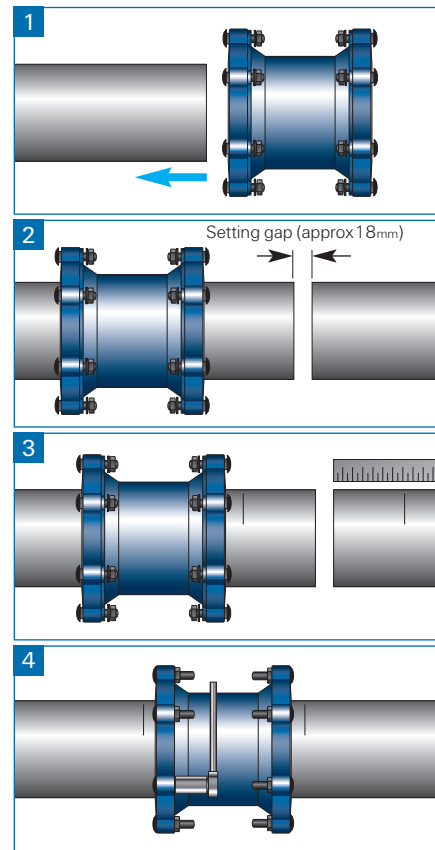
Select the correct type and size of fitting for the situation and ensure that the pipe to be connected to is clean, round and free from deep scratches, scores or general imperfections that may prevent an effective seal.

Also ensure that the relative angle of the two pipes conforms to suggested maximum angular deflection for couplings of  $\pm 10^\circ$ .



#### Assembly

- 1 Loosen the fasteners and slide the fitting over one of the pipe ends to be connected
- 2 Line up the other pipe end (ensuring that a setting gap of approximately 18mm is maintained).
- 3 Mark both pipe ends to ensure accurate location of the fitting over the setting gap.
- 4 Locate the fitting over the pipe ends and setting gap and, using the marks on the pipe to ensure the fittings accurate location, evenly tighten the end ring fasteners in a diametrically opposed sequence to a torque of:  
68 - 78Nm (50 - 58lb.ft)



### Flange Adaptors

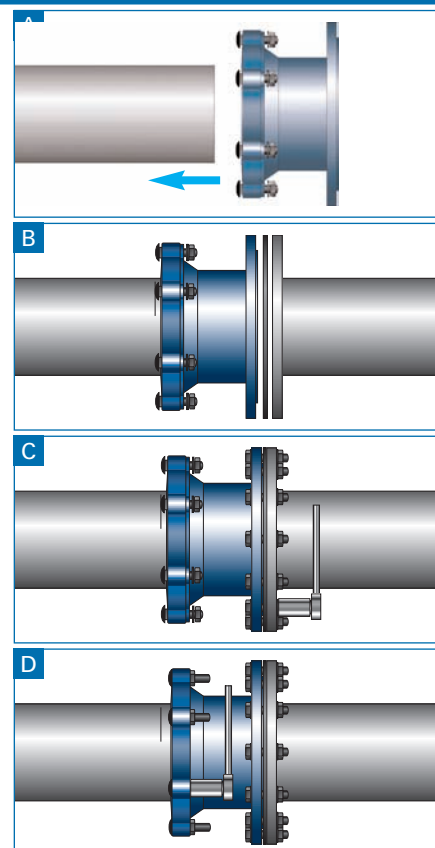
#### Preparation

Select the correct type and size of fitting for the situation and ensure that the pipe to be connected to is clean, round and free from deep scratches, scores or general imperfections that may prevent an effective seal. Also ensure that the relative angle of the pipe to the flange conforms to suggested maximum angular deflection for flange adaptors of  $\pm 5^\circ$ .



#### Assembly

- A Slide the fitting over the plain ended pipe to be connected.
- B Mark the pipe to ensure the fittings accurate location over the setting gap and line the pipe end up with the flanged pipe. Insert a suitable gasket between the mating flanges ensuring that a setting gap of approximately 18mm is maintained.
- C Bolt the flanges together evenly using a diametrically opposed tightening sequence ensuring that the gasket remains in place. Check to ensure that the fitting is still correctly positioned in relation to the mark on the pipe and adjust the fitting if needed.
- D Tighten the flange adaptor retaining fasteners evenly in a diametrically opposed sequence to a torque of:  
68 - 78Nm (50 - 58lb.ft)



### NB

UPE MultiDiameter couplings and flange adaptors are not fully end load restrained, please ensure adequate restraint is provided. These fittings are not suitable for use on PE pipe.

To improve installation access bolts can be reversed if needed

Suitability of thin walled pipe such as Stainless Steel, GRP and modified PVC should be checked prior to installation. For further information please contact the customer service team on the telephone number shown on the back of this data sheet.

## Mains Connections for Rigid Pipes - 32mm - 800mm

### UPE MultiDiameter Range

## Range - Couplings (Straight)

Tolerance range	Bolt length	No. of bolts	Weight (kg)
40 - 75mm	M14 x 80mm	3/3	8.5
60 - 95mm	M14 x 80mm	4/4	7.9
80 - 115mm	M14 x 80mm	4/4	10.5
105 - 135mm	M14 x 80mm	4/4	12.0
130 - 165mm	M14 x 100mm	4/4	15.7
155 - 195mm	M14 x 100mm	4/4	18.2
190 - 230mm	M14 x 100mm	4/4	20.5
215 - 258mm	M14 x 100mm	6/6	22.7
240 - 280mm	M16 x 100mm	6/6	27.2
235 - 275mm	M16 x 100mm	6/6	26.1
270 - 310mm	M16 x 100mm	6/6	29.3
* 310 - 350mm	M16 x 100mm	6/6	32.9
* 350 - 390mm	M16 x 100mm	6/6	36.1
* 395 - 435mm	M16 x 100mm	6/6	39.1
* 435 - 470mm	M16 x 100mm	6/6	42.4
* 470 - 505mm	M16 x 100mm	6/6	45.2
* 505 - 540mm	M16 x 100mm	10/10	50.2
* 540 - 575mm	M16 x 100mm	10/10	70.5
575 - 610mm	M16 x 100mm	10/10	73.6
* 610 - 645mm	M16 x 100mm	10/10	57.8
645 - 680mm	M16 x 100mm	10/10	81.6
680 - 715mm	M16 x 100mm	10/10	82.0
* 710 - 745mm	M16 x 100mm	12/12	85.6
* 810 - 845mm	M16 x 100mm	12/12	94.6

## Notes

- Items shown in bold on this page are all available from stock.
- Items indicated (\*) will provide total coverage for all repairs between 300mm - 800mm nominal bore.
- The remaining items are available to order but may be on longer manufacturing lead times. For further information on lead times please contact the UPE customer services team on the telephone number shown on the back of this data sheet.
- Stock items are EPDM water services only.
- For sizes not covered by the MultiDiameter product range listed here the UPE Engineered range of Couplings and Flange Adaptors is available. These products cover sizes up to 2,200mm. Further details are available from the UPE Customer Service Team on the number shown on the back of this data sheet.

## Range - Flange Adaptors

Nominal Bore	Tolerance range	Bolt length	No. of bolts	Weight (kg)
50mm	40 - 75mm	M14 x 80mm	3	7.7
60/65mm	60 - 95mm	M14 x 80mm	4	9.3
80mm	80 - 115mm	M14 x 80mm	4	12.9
100mm	105 - 135mm	M14 x 80mm	4	15.4
125mm	130 - 165mm	M14 x 100mm	4	19.5
150mm	155 - 195mm	M14 x 100mm	4	23.8
175mm	190 - 230mm	M14 x 100mm	4	28.3
200mm	215 - 258mm	M14 x 100mm	6	30.9
225mm	240 - 280mm	M16 x 100mm	6	37.6
250mm	235 - 275mm	M16 x 100mm	6	39.0
250mm	270 - 310mm	M16 x 100mm	6	42.0
* 300mm	310 - 350mm	M16 x 100mm	6	49.5
* 300mm	350 - 390mm	M16 x 100mm	6	55.2
* 350mm	350 - 390mm	M16 x 100mm	6	58.4
* 350mm	395 - 435mm	M16 x 100mm	6	65.5
* 400mm	400 - 435mm	M16 x 100mm	6	69.4
* 400mm	435 - 470mm	M16 x 100mm	6	76.1
* 400mm	470 - 505mm	M16 x 100mm	6	80.7
* 450mm	455 - 490mm	M16 x 100mm	6	79.9
* 450mm	490 - 525mm	M16 x 100mm	6	83.2
* 500mm	505 - 540mm	M16 x 100mm	10	81.8
* 500mm	540 - 575mm	M16 x 100mm	10	89.8
* 500mm	575 - 610mm	M16 x 100mm	10	93.6
* 600mm	610 - 645mm	M16 x 100mm	10	102.3
* 600mm	645 - 680mm	M16 x 100mm	10	113.9
* 600mm	680 - 715mm	M16 x 100mm	10	116.8
* 700mm	710 - 745mm	M16 x 100mm	12	85.2
* 800mm	810 - 845mm	M16 x 100mm	12	98.8

## Range - Couplings (Stepped)

Tolerance range	Bolt length	No. of bolts	Weight (kg)
40 - 75mm x 60 - 95mm	M14 x 80mm	3/4	10.0
40 - 75mm x 80 - 115mm	M14 x 80mm	3/4	10.9
40 - 75mm x 105 - 135mm	M14 x 80mm	3/4	11.7
40 - 75mm x 130 - 165mm	M14 x 80mm	3/4	13.5
60 - 95mm x 80 - 115mm	M14 x 80mm	4/4	12.6
60 - 95mm x 105 - 135mm	M14 x 80mm	4/4	13.3
60 - 95mm x 130 - 165mm	M14 x 80mm/100mm	4/4	15.3
60 - 95mm x 155 - 195mm	M14 x 80mm/100mm	4/4	16.9
80 - 115mm x 105 - 135mm	M14 x 80mm/100mm	4/4	14.2
80 - 115mm x 130 - 165mm	M14 x 80mm/100mm	4/4	16.3
80 - 115mm x 150 - 195mm	M14 x 80mm/100mm	4/4	17.7
80 - 115mm x 190 - 230mm	M14 x 80mm/100mm	4/4	19.2
105 - 135mm x 130 - 165mm	M14 x 80mm/100mm	4/4	17.0
105 - 135mm x 155 - 195mm	M14 x 80mm/100mm	4/4	18.4
105 - 135mm x 190 - 230mm	M14 x 80mm/100mm	4/4	20.0
105 - 135mm x 215 - 258mm	M14 x 80mm/100mm	4/6	22.0
130 - 165mm x 155 - 195mm	M14 x 100mm	4/4	19.4
130 - 165mm x 190 - 230mm	M14 x 100mm	4/4	20.9
130 - 165mm x 215 - 258mm	M14 x 100mm	4/6	23.0
130 - 165mm x 240 - 280mm	M14/16 x 100mm	4/6	24.2
155 - 195mm x 190 - 230mm	M14 x 100mm	4/4	22.3
155 - 195mm x 215 - 258mm	M14 x 100mm	4/6	23.9
155 - 195mm x 240 - 280mm	M14/16 x 100mm	4/6	25.9
155 - 195mm x 270 - 310mm	M14/16 x 100mm	4/6	27.3
190 - 230mm x 215 - 258mm	M14 x 100mm	4/6	26.5
190 - 230mm x 240 - 280mm	M14/16 x 100mm	4/6	28.8
190 - 230mm x 270 - 310mm	M14/16 x 100mm	4/6	30.4
190 - 230mm x 310 - 350mm	M14/16 x 100mm	4/6	33.9
215 - 258mm x 240 - 280mm	M14/16 x 100mm	6/6	30.2
215 - 258mm x 270 - 310mm	M14/16 x 100mm	6/6	31.8
215 - 258mm x 310 - 350mm	M14/16 x 100mm	6/6	35.3
215 - 258mm x 350 - 390mm	M14/16 x 100mm	6/6	37.9
240 - 280mm x 270 - 310mm	M16 x 100mm	6/6	33.3
240 - 280mm x 310 - 350mm	M16 x 100mm	6/6	35.8
240 - 280mm x 350 - 390mm	M16 x 100mm	6/6	38.4
240 - 280mm x 395 - 435mm	M16 x 100mm	6/6	41.3
270 - 310mm x 310 - 350mm	M16 x 100mm	6/6	36.2
270 - 310mm x 350 - 390mm	M16 x 100mm	6/6	38.8
270 - 310mm x 395 - 435mm	M16 x 100mm	6/6	41.8
270 - 310mm x 435 - 470mm	M16 x 100mm	6/6	44.1
<b>*310 - 350mm x 350 - 390mm</b>	<b>M16 x 100mm</b>	<b>6/6</b>	<b>40.6</b>
310 - 350mm x 395 - 435mm	M16 x 100mm	6/6	43.6
310 - 350mm x 435 - 470mm	M16 x 100mm	6/6	45.9
310 - 350mm x 470 - 505mm	M16 x 100mm	6/6	48.4
<b>*350 - 390mm x 395 - 435mm</b>	<b>M16 x 100mm</b>	<b>6/6</b>	<b>44.7</b>
350 - 390mm x 435 - 470mm	M16 x 100mm	6/6	47.1
350 - 390mm x 470 - 505mm	M16 x 100mm	6/6	49.6
350 - 390mm x 505 - 540mm	M16 x 100mm	6/10	53.5
<b>*395 - 435mm x 435 - 470mm</b>	<b>M16 x 100mm</b>	<b>6/6</b>	<b>47.6</b>
<b>*395 - 435mm x 470 - 505mm</b>	<b>M16 x 100mm</b>	<b>6/6</b>	<b>50.1</b>
395 - 435mm x 505 - 540mm	M16 x 100mm	6/10	54.0
395 - 435mm x 540 - 575mm	M16 x 100mm	6/10	55.3
395 - 435mm x 575 - 610mm	M16 x 100mm	6/10	58.0
<b>*435 - 470mm x 470 - 505mm</b>	<b>M16 x 100mm</b>	<b>6/6</b>	<b>50.9</b>
435 - 470mm x 505 - 540mm	M16 x 100mm	6/10	54.8
435 - 470mm x 540 - 575mm	M16 x 100mm	6/10	56.1
435 - 470mm x 575 - 610mm	M16 x 100mm	6/10	58.8
435 - 470mm x 610 - 645mm	M16 x 100mm	6/10	63.0
<b>*470 - 505mm x 505 - 540mm</b>	<b>M16 x 100mm</b>	<b>6/10</b>	<b>55.6</b>
470 - 505mm x 540 - 575mm	M16 x 100mm	6/10	56.9
470 - 505mm x 575 - 610mm	M16 x 100mm	6/10	59.8
470 - 505mm x 610 - 645mm	M16 x 100mm	6/10	63.8
<b>*505 - 540mm x 540 - 575mm</b>	<b>M16 x 100mm</b>	<b>10/10</b>	<b>59.4</b>
<b>505 - 540mm x 575 - 610mm</b>	<b>M16 x 100mm</b>	<b>10/10</b>	<b>62.2</b>
505 - 540mm x 610 - 645mm	M16 x 100mm	10/10	66.4
505 - 540mm x 645 - 680mm	M16 x 100mm	10/10	68.6
540 - 575mm x 575 - 610mm	M16 x 100mm	10/10	68.1
<b>*540 - 575mm x 610 - 645mm</b>	<b>M16 x 100mm</b>	<b>10/10</b>	<b>72.1</b>
540 - 575mm x 645 - 680mm	M16 x 100mm	10/10	74.8
540 - 575mm x 680 - 715mm	M16 x 100mm	10/10	77.1
<b>*575 - 610mm x 610 - 645mm</b>	<b>M16 x 100mm</b>	<b>10/10</b>	<b>73.0</b>
575 - 610mm x 645 - 680mm	M16 x 100mm	10/10	74.7
575 - 610mm x 680 - 715mm	M16 x 100mm	10/10	76.7
575 - 610mm x 710 - 745mm	M16 x 100mm	10/12	79.2
<b>*610 - 645mm x 645 - 680mm</b>	<b>M16 x 100mm</b>	<b>10/10</b>	<b>76.7</b>
<b>*610 - 645mm x 680 - 715mm</b>	<b>M16 x 100mm</b>	<b>10/10</b>	<b>78.0</b>
610 - 645mm x 710 - 745mm	M16 x 100mm	10/12	81.0
610 - 645mm x 810 - 845mm	M16 x 100mm	10/12	91.8
645 - 680mm x 680 - 715mm	M16 x 100mm	10/10	78.1
<b>*645 - 680mm x 710 - 745mm</b>	<b>M16 x 100mm</b>	<b>10/12</b>	<b>80.9</b>
645 - 680mm x 810 - 845mm	M16 x 100mm	10/12	91.6
<b>*680 - 715mm x 710 - 745mm</b>	<b>M16 x 100mm</b>	<b>10/12</b>	<b>80.4</b>
680 - 715mm x 810 - 845mm	M16 x 100mm	10/12	88.5
710 - 745mm x 810 - 845mm	M16 x 100mm	12/12	89.9

## Associated Products

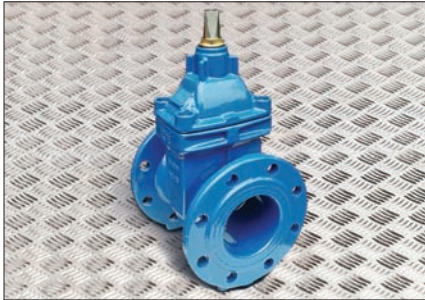


*UPE Engineered fittings offer an effective method of connecting any rigid pipe material from 80mm to 2,200mm. Engineered Couplings connect pipe materials of the same or different outside diameter in any combination. Engineered Flange Adaptors connect pipes to a wide range of flange specifications.*

*All Engineered fittings are made to the customers exact requirements and have a fitting tolerance of up to 11mm.*



*The UPE Universal range of wide tolerance couplings, stepped couplings, flange adaptors and end caps can be used on almost any plain-ended rigid pipe material from 40mm to 300mm pipe nominals. This flexibility combined with each fittings ability to accommodate a wide variety of pipe sizes makes the UPE Universal fitting a versatile and economical product to use.*



*The Soft Sealing, Resilient Seated Gate Valve is manufactured to BS 5163 and EN1074 and is one of the lightest valves of its class on the market today. It has been specifically designed and developed with ease of use and length of installed service life in mind. Selection of robust, quality materials combined with engineering experience has enabled the development of a valve that solves many of the problems encountered when installing, operating and servicing gate valves.*



*The UPE Converter Slide Valve is an effective, full bore construction valve that will allow underpressure drilling operations to be performed on either water distribution systems under pressures of up to 10 bar or gas distribution systems under pressures of up to 7 bar.*

*Optimum space and weight savings have been made in the valve's design so providing a robust valve that is simple to install and use.*



*UPE offer complete flange gasket sets consisting of a gasket and the appropriate number of bolt sets for the size of flange. These flange gasket sets are supplied bagged and clearly labelled enabling 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.*

## Tyco Waterworks

Edison Road  
Hams Hall Distribution Park  
Coleshill, Birmingham  
B46 1AB United Kingdom

Telephone: +44 (0)1675 437 900

Facsimile: +44 (0)1675 437 909

e-mail: [wwinfo@tyco-valves.com](mailto:wwinfo@tyco-valves.com)

web: [www.tycowaterworks.com](http://www.tycowaterworks.com)

**tyco** / Flow Control / **Tyco Waterworks**

UPE MultiDiameter couplings and flange adaptors are not fully end load restrained, please ensure adequate restraint is provided. These fittings are not suitable for use on PE pipe.

We reserve the right to change the design and specification without notice.

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