High pressure dedicated OD mechanical pipe couplings provide an effective method of connecting pipes of equal or unequal diameters in a high pressure environment

WANG
High Pressure Couplings
Coated Mild Steel – Dedicated OD

- High pressure capability (PN 35)
- Available for similar as well as stepped OD connections
- Available for most pipe types and sizes
- Mild steel construction with fusion bonded epoxy coating to 350 micron thickness
- Supplied with corrosion resistant high grade 316 stainless steel bolts
- Flanges have a captive bolt head receptor for easy field installation
- Supplied with nitrile rubber gaskets approved for potable water application

General applications

Ideal for joining pipes ends with similar as well as varying outer diameters. Supplied as a High Pressure Coupling to a PN 35 pressure rating for small to mid sized pipe application, reducing to PN 21 for pipe sizes above DN 1000.

The product is suitable for application in both repair as well as new pipe installation projects. The nitrile rubber gaskets supplied are approved for potable water applications.

Note: *This product is not suitable for gas application*

Technical data

Size Range:
DN 150 to DN 2000
(for both similar and stepped OD sizes)

Pressure Rating: PN 35
(For sizes indicated within the selection table on page 2)

Sleeve length: 254mm

Maximum Coupling Length:
365mm (bolt length)

Temperature Range:
-10˚C to 60˚C

Pipe OD Tolerance: ±3.0 mm
(see 'Ovality Check' in the 'Typical installation instructions')

Relevant Standards:
FBE coating complies with AS/NZS 4020 for potable water use

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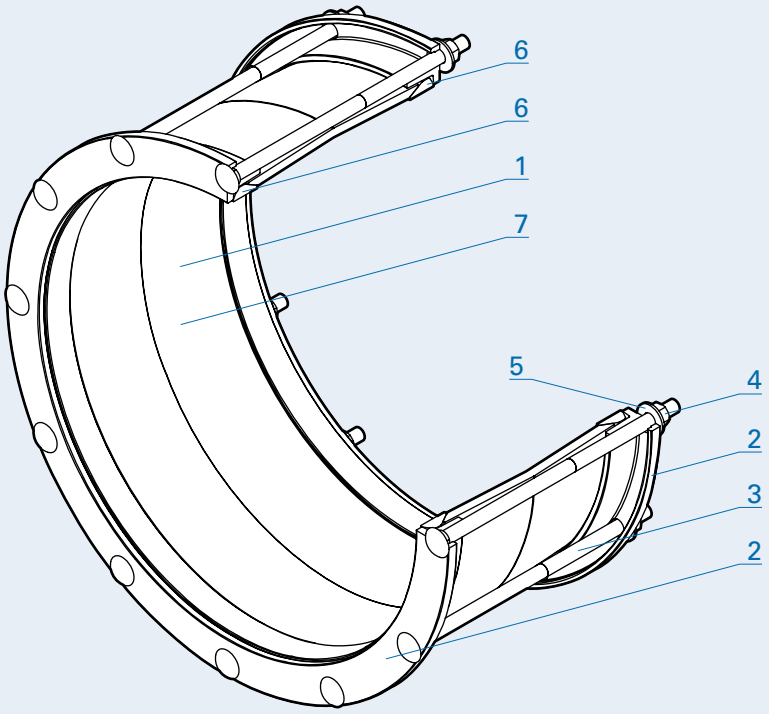
High Pressure Coupling parts list



No.	Description / Material / Standards
1	Barrel FBE Coated Mild Steel
2	Flanges FBE Coated Mild Steel
3	Bolts Grade 316 Stainless Steel ASTM F593
4	Nuts Grade 316 Stainless Steel AS 1112.1
5	Washers Grade 316 Stainless Steel ISO 887/ISO 7089
6	Gasket Nitrile (NBR) Compound
7	Coating (Barrel & Flanges) Fusion Bonded Epoxy to 350 micron thickness AS/NZS 4020

High Pressure Coupling selection chart

Nom. pipe size *DN*	Outside diameter MSCL *AS 1579*	Outside diameter DICL *AS/NZS 2280*	*WANG* product code	Bolt size	Bolt qty	Approx. weight *kg*
300	324	–	KD0324DS	M12	8	32
	–	345	KD0345DS	M12	8	34
	356	–	KD0356DS	M12	8	35
375	406	–	KD0406DS	M12	10	44
	419	–	KD0419DS	M12	10	45
	–	426	KD0426DS	M12	10	46
400	445	–	KD0445DS	M12	10	47
	457	–	KD0457DS	M12	10	48
450	502	–	KD0502DS	M16	10	52
	–	507	KD0507DS	M16	10	53
	508	–	KD0508DS	M16	10	53
500	559	–	KD0559DS	M16	10	57
	–	560	KD0560DS	M16	10	57
525	610	–	KD0610DS	M16	12	67
	648	–	KD0648DS	M16	12	70
600	660	–	KD0660DS	M16	12	71
	–	667	KD0667DS	M16	12	72
700	711	–	KD0711DS	M16	14	91
	762	–	KD0762DS	M16	14	97
750	800	–	KD0800DS	M16	14	101
	813	–	KD0813DS	M16	14	102
	–	826	KD0826DS	M16	14	104

Typical specifying sequence

Example:
KD0342DS

K = WANG delineator

D = Dedicated OD Coupling

0342 = Pipe OD
342mm in this example

D = Pressure rating – PN 35
Note: Larger sized couplings may be specified as:
'A' – PN 16
'B' – PN 21
'C' – PN 25
due to fabrication limitations in relation to the size of the coupling

S = Fastener material
316 stainless steel

NOTE: The pipe chart at left is NOT reflective of the full range of coupling sizes available but is intended to provide a selection of High Pressure Couplings for some of the common sizes of DICL and MS pipe. **Please contact Tyco Water if your size requirements are not displayed on the selection chart.** In most instances, we will be able to supply you with a High Pressure Coupling for both straight and stepped OD connections. We can cater for your requirements in sizes that are both larger and smaller than the adjacent selection range displayed.

Typical installation instructions

Initial Preparation

Clean the pipe surface free of scale and grit over the applicable length of the coupling and extending 100mm beyond. The mechanical ability of the coupling in sealing against the pipe surface is reliant on the cleanliness of the pipe surface

Ovality Check

Ensure that the pipe OD and ovality are within the specified tolerances of the coupling (±3.0 mm).

The High Pressure Coupling IS a *DEDICATED OD* Coupling and therefore its ability to cater for irregularity and ovality in the pipe OD is limited

1

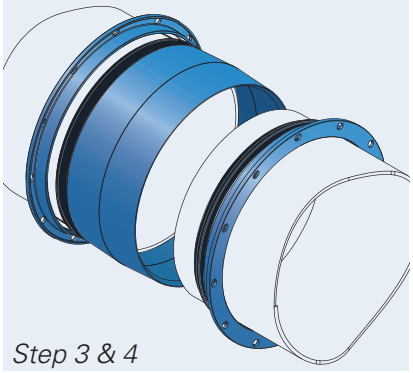
Place reference marks on the pipe ends to ensure the coupling can be located centrally between the pipes being joined. Alow for the recommended *pipe gap (between 20 to 60mm)* required between pipes

2

Lubricate the coupling gaskets *well* with a lubricant approved for use with potable water. Commonly used anti-bacterial pipe jointing lube is a suitable product for this purpose. The Nitrile Rubber gaskets can sometimes be a tight fit on the pipe surface and the lubricant will substantially assist this process as well as enable the gaskets to flow and seal onto the pipe much more efficiently

3

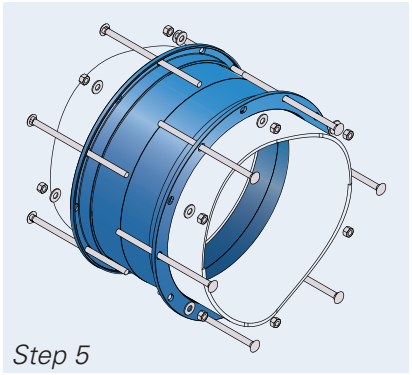
Dismantle the coupling and slide the end flanges onto the two pipes being joined followed by the lubricated gaskets, paying attention to the orientation of the gaskets (flat thick face towards the flange and flat lip towards the barrel)



Step 3 & 4

4

Slide the centre sleeve onto the established pipe and insert the other pipe into the sleeve to a *recommended pipe gap of between 20 to 60mm*. A gap is recommended in order to avoid the build up of longitudinal stresses within the two pipes as a result of thermal expansion

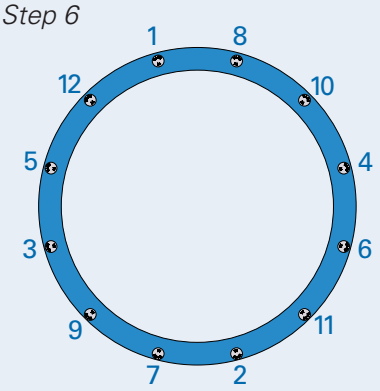


Step 5

5

Bring flanges, gaskets and sleeve into contact and align the coupling centrally over the pipe gap, assisted by the pipe markings (see Step 1). Insert the bolts between the flanges and consecutively alternate between bolt heads and nuts on each flange face (see diagram above)

Step 6



Recommended torque settings

M12 bolts: 50 to 65 Nm
M16 bolts: 95 to 120 Nm

6

Commence tightening nuts in small increments in a diametric pattern (see diagram above). It is very important for the success of the installation that the coupling be tightened in small increments at each bolt, making sure that the two flanges are drawn-in uniformly and that the coupling remains centred and aligned on the pipe. *Use a torque wrench to achieve the final recommended torque indicated above*

7

It is *VERY IMPORTANT* that the bolts be *re-tensioned after 30 minutes* using the torque wrench in order to compensate for relaxation in the rubber gasket

8

Upon completion, visually check that the end flanges are centred and aligned on the pipe and that the rubber gaskets have uniformly extruded into the gap between pipe and flange rim

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Clamps and Couplings

Certified System™
Quality
ISO 9001
SAI GLOBAL

Tyco Water ***Wang Components*** is one of the leading manufacturers and suppliers of Grade 316 Stainless Steel Repair and Tapped Clamps as well as Couplings for reticulated water, sewerage and gas mains including industrial piping systems.

As part of the Tyco Water business, ***Wang Components*** products have become synonymous with quality and reliability. Our product range is widely utilised and relied upon by Water Authorities and Councils throughout Australia in the installation and maintenance of their supply mains and reticulation network.

Wang Components products can be sourced through the Tyco Water national sales and service network of customer centres.

Tyco Water is a specialist in integrated solutions for all your water and wastewater pipeline system requirements.

Flanged Offtake Clamp

A cost effective means of achieving a 'T' connection or under pressure tapping. DN 100 - DN 900

KWIK Clamp

A full circle repair clamp for small bore galvanised steel, copper and PVC pipe. DN 15 - DN 50

Sewer OB Junction Clamp

A quick method of installing a new property service connection on a sewer main. DN 100 - DN 450

Repair Clamp

A fast, permanent and economical repair solution for most pipe types and sizes. DN 50 - DN 1200

Socket Joint Leak Clamp

Provides a permanent and economical seal over a leaking socket-spigot joint. DN 80 - DN 1200

Tapped Clamp

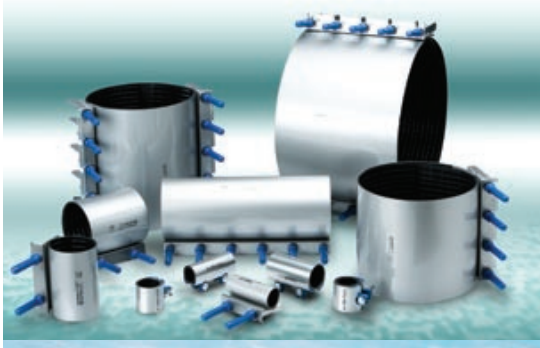
A reliable means of tapping into old, unstable or damaged pipe. DN 50 - DN 1200

Vari-Gib Coupling

Designed to provide a mechanical joint between similar or dissimilar pipes. DN 50 - DN 1200

Tapping Saddle – Rigid pipe

Variable OD stainless steel saddle for tapping into rigid pipe. DN 40 - DN 450



For additional product information visit:
www.tycowater.com.au/pipeline_components2

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