

DI GROOVED ANGLE PAD COUPLING

Type: R2 Doc No:DS-400-R2-01-E

1.0 PRODUCT OVERVIEW

Angle pad couplings are for grooved pipeline connection. At the joint part, the adjacent pipe ends are not allowed to have relative angular displacement and corresponding axial rotation. The two mating parts of the product are beveled grooved joints.



Dimensions:

1 1/4"(DN32)-10"(DN250)

Design Standard:

ISO6182, AWWA C606, GB 5135.11

Connection Standard:

ASME B36.10, ASTM A53-A53M, ISO 4200

Working Pressure:

175PSI-500PSI

Application:

Angle pad couplings are mainly suitable for medium and low pressure pipeline systems with nominal pressure 175-500 PSI, nominal size DN32-DN250, temperature range of - 20 °C-+180°C, which are widely applied in water supply and drainage, fire-fighting, air conditioning, etc.

Pipe Material:

Welded and seamless rolled steel pipes according to ASME B36.10, ASTM A53-A53M, ISO 4200, GB/T 21835

Surface Treatment:

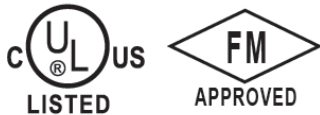
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- ☐ Electrophoretic painting
- ☐ Epoxy power painting
- ☐ Hot-dip galvanizing
- ☐ Black
- ☐ Others would be available upon clients' detailed request

2.0 APPROVALS



3.0 SPECIFICATIONS

Housing:

ASTM A536, Ductile iron 65-45-12

Gasket:

1、EPDM Gasket, code E:

Temperature: $-34^{\circ}\text{C} \sim +110^{\circ}\text{C}$ ($-30 \sim +230^{\circ}\text{F}$) ;

Applicable media: water, gas, diluted acid (base), and other chemicals (excluding hydrocarbons)

Note: Strictly prohibit the use of oil and hydrocarbons.

2、NBR, code D:

Temperature: $-29^{\circ}\text{C} \sim +82^{\circ}\text{C}$ ($-20 \sim +180^{\circ}\text{F}$) ;

Applicable media: Petroleum products, vegetable oils, mineral oils, etc.

Note: strictly prohibit use with high temperature substances.

3、Silicone Rubber, code S:

Temperature: $-40^{\circ}\text{C} \sim +177^{\circ}\text{C}$ ($-40 \sim +350^{\circ}\text{F}$)

Applicable media: High temperature and dry air and some high temperature chemicals, drinking water and so on.

4、Chloroprene Rubber, code LD:

Temperature: $-32^{\circ}\text{C} \sim +82^{\circ}\text{C}$ ($-26 \sim +180^{\circ}\text{F}$)

Applicable media: sea water

5、Fluororubber, code F:

Temperature: $-20^{\circ}\text{C} \sim +180^{\circ}\text{C}$

Applicable media: Hot oil, some chemical products, good oxidation resistance.

Bolts/Nuts:

ANSI Heavy Hex Nut

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1. Material: SAE J995 2.
2. Thread: ANSI B 1.1-1982, class 2B.
3. Surface Treatment: Zinc electroplated per ASTM B633 CLASS FE/ZN5 TYPE III , thickness $\geq 5\mu\text{m}$ per class SC1.

Metric Heavy Hex Nut

1. Material: ISO 898-2:1992 \ GB/T3098.2-2000 Class 8.
2. Thread: ISO 261, tolerance 6h for M10& M12, 7h for M16 and above.
3. Surface Treatment: Zinc Electroplated followed by a yellow chromate dip per ISO 2081 FE/ZN5, ISO4520 CLASS 1A.

Hexagon Flange Nut: Dimension according to DIN6923

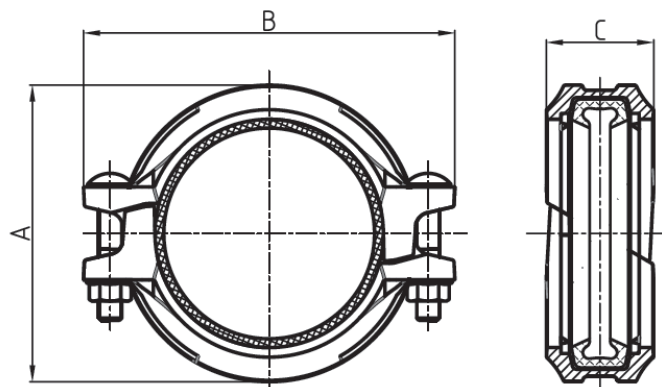
ANSI Oval Neck Track Bolt

1. Material: SAE J429 5.
2. Thread: UNC thread per ANSI B 1.1 Class 2A.
3. Surface Treatment: Silver chromate electroplated per ASTM B633 CLASS FE/ZN5 TYPE III, thickness $\geq 5\mu\text{m}$ per class SC1.

Metric Oval Neck Track Bolt

1. Material: ISO 898-1: 1992 \ GB/T3098.1-2000 Class 8.8.
2. Thread: ISO metric thread per ISO 261, tolerance 6h.
3. Surface Treatment: Yellow chromate electroplated per ISO 2081 FE/ZN5 ISO4520 CLASS 1A.

4.0 DIMENSIONS AND PERFORMANCE



Nominal Size	Pipe O.D	Working Pressure	Dimensions			Bolt Size
mm/in	mm/in	PSI/MPa	A	B	C	No.-Size

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						mm
32 1¼	42.4 1.669	500 3.45	64 2.52	99 3.9	46.5 1.83	2-M10X55
40 1½	48.3 1.9	500 3.45	70 2.76	105 4.13	46.5 1.83	2-M10X55
50 2	60.3 2.375	500 3.45	85 3.35	121 4.76	46.5 1.83	2-M10X55
65 2½	73 2.875	500 3.45	99 3.9	134 5.28	47.5 1.87	2-M10X63
65 2½	76.1 3	500 3.45	102 4.02	137 5.39	47.5 1.87	2-M10X63
80 3	88.9 3.5	500 3.45	115 4.53	150 5.91	47.5 1.87	2-M10X60
100 4	114.3 4.5	500 3.45	142 5.59	180 7.09	48 1.89	2-M10X65
125 5	139.7 5.5	300 2.07	171 6.73	214 8.43	52.5 2.07	2-M12X75
150 6	165.1 6.5	300 2.07	198 7.8	242 9.53	52.5 2.07	2-M12X75
150 6	168.3 6.625	300 2.07	201 7.91	245 9.65	52.5 2.07	2-M12X75
200 8	219.1 8.625	300 2.07	258 10.16	331 13.03	63.5 2.5	2-M20X110
250 10	273 10.75	300 2.07	321 12.64	406 15.98	64.5 2.54	2-M22X140

Pipe	R2			
	Cut Grooved	Roll Grooved	Max. End	Pipe End

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O.D	Max. Work Pressure		Max. Work Pressure			Load	Separation
	Sch.30	Sch.40	Sch.10	Sch.30	Sch.40		
mm/in	Bar/Psi	Bar/Psi	Bar/Psi	Bar/Psi	Bar/Psi	KN/Lbs	mm/in
42.4	35/500	35/500	35/500	35/500	35/500	4.8/1080	0-1.6
1.660							0-0.06
48.3	35/500	35/500	35/500	35/500	35/500	6.3/1420	0-3.2
1.900							0-0.13
60.3	35/500	35/500	35/500	35/500	35/500	9.8/2210	0-3.2
2.375							0-0.13
73	35/500	35/500	35/500	35/500	35/500	14.4/3240	0-3.2
2.875							0-0.13
76.1	35/500	35/500	35/500	35/500	35/500	15.7/3520	0-3.2
3.000							0-0.13
88.9	35/500	35/500	35/500	35/500	35/500	21.4/4810	0-3.2
3.500							0-0.13
114.3	35/500	35/500	35/500	35/500	35/500	35.4/7960	0-3.2
4.500							0-0.13
139.7	20/300	20/300	20/300	20/300	20/300	31.7/7130	0-3.2
5.500							0-0.13
165.1	20/300	20/300	20/300	20/300	20/300	44.3/9960	0-3.2
6.500							0-0.13
168.3	20/300	20/300	20/300	20/300	20/300	46.0/10340	0-3.2
6.625							0-0.13
219.1	20/300	20/300	20/300	20/300	20/300	77.8/17500	0-3.2
8.625							0-0.13
273	20/300	20/300	20/300	20/300	20/300	121.0/27210	0-3.2
10.750							0-0.13

5.0 REFERENCE MATERIALS

Approved certification for Grooved Fittings and Couplings

I-JM-Grooved fitting: Installation Instructions for grooved fittings and couplings

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