



## 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:

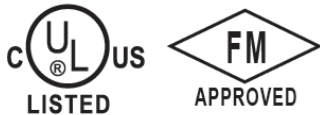
Welded and seamless rolled steel pipes according to ASME B36.10, ASTM A53-A53M, ISO 4200, GB/T 21835

#### Surface Treatment:



- 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



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

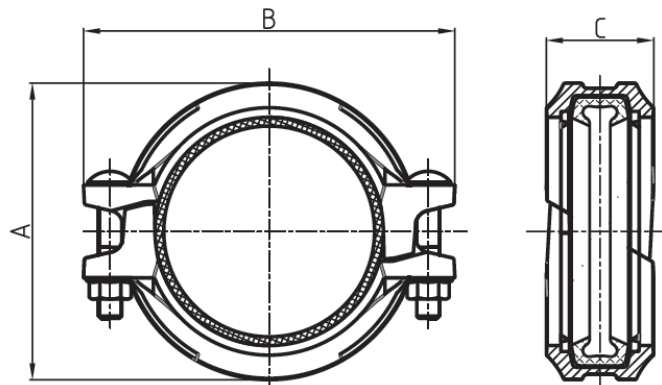
### ANSI Oval Neck Track Bolt

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
			A	B	C	
mm/in	mm/in	PSI/MPa				No.-Size



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

Pipe	R2			
	Cut Grooved	Roll Grooved	Max. End	Pipe End



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 1.660	35/500	35/500	35/500	35/500	35/500	4.8/1080	0-1.6 0-0.06
48.3 1.900	35/500	35/500	35/500	35/500	35/500	6.3/1420	0-3.2 0-0.13
60.3 2.375	35/500	35/500	35/500	35/500	35/500	9.8/2210	0-3.2 0-0.13
73 2.875	35/500	35/500	35/500	35/500	35/500	14.4/3240	0-3.2 0-0.13
76.1 3.000	35/500	35/500	35/500	35/500	35/500	15.7/3520	0-3.2 0-0.13
88.9 3.500	35/500	35/500	35/500	35/500	35/500	21.4/4810	0-3.2 0-0.13
114.3 4.500	35/500	35/500	35/500	35/500	35/500	35.4/7960	0-3.2 0-0.13
139.7 5.500	20/300	20/300	20/300	20/300	20/300	31.7/7130	0-3.2 0-0.13
165.1 6.500	20/300	20/300	20/300	20/300	20/300	44.3/9960	0-3.2 0-0.13
168.3 6.625	20/300	20/300	20/300	20/300	20/300	46.0/10340	0-3.2 0-0.13
219.1 8.625	20/300	20/300	20/300	20/300	20/300	77.8/17500	0-3.2 0-0.13
273 10.750	20/300	20/300	20/300	20/300	20/300	121.0/27210	0-3.2 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