

## DI GROOVED FITTINGS-RIGID COUPLING

Type: 1G

Doc No: DS-400-1G-01-E

### 1.0 PRODUCT OVERVIEW

Rigid 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



#### Dimensions:

1"(DN25)-32"(DN800)

#### Design Standard:

ISO6182, AWWA C606, GB 5135.11

#### Connection Standard:

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

#### Working Pressure:

175PSI-500PSI

#### Application:

Rigid couplings are mainly suitable for medium and low pressure pipeline systems with nominal pressure 175-500 PSI, nominal size DN25-DN800, 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:

#### Sign Off:

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Engineer: \_\_\_\_\_

Approved & Date: \_\_\_\_\_

- 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 according to 65-45-12. The nodularity is more than 90%, ensuring excellent physical and mechanical properties.

### Gasket:

1、EPDM Gasket, code E:

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

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

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

Note: strictly prohibit use with high temperature substances.

3、Silicone Rubber, code S:

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

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

4、Chloroprene Rubber, code LD:

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

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:

#### Sign Off:

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_

Engineer: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Approved & Date: \_\_\_\_\_

### ANSI Heavy Hex Nut

1. Material: SAE J995 2.
2. Thread: ANSI B 1.1-1982.
3. Surface Treatment: Zinc electroplated per ASTM B633 CLASS FE/ZN5 TYPE III , thickness per class SC1.

### Metric Heavy Hex Nut

1. Material: ISO 898-2:1992 \ GB/T3098.2-2000 Class 8.
2. Thread: ISO 261.
3. Surface Treatment: Zinc Electroplated followed by a yellow chromate dip per ISO 2081 FE/ZN5, ISO4520 CLASS 1A.

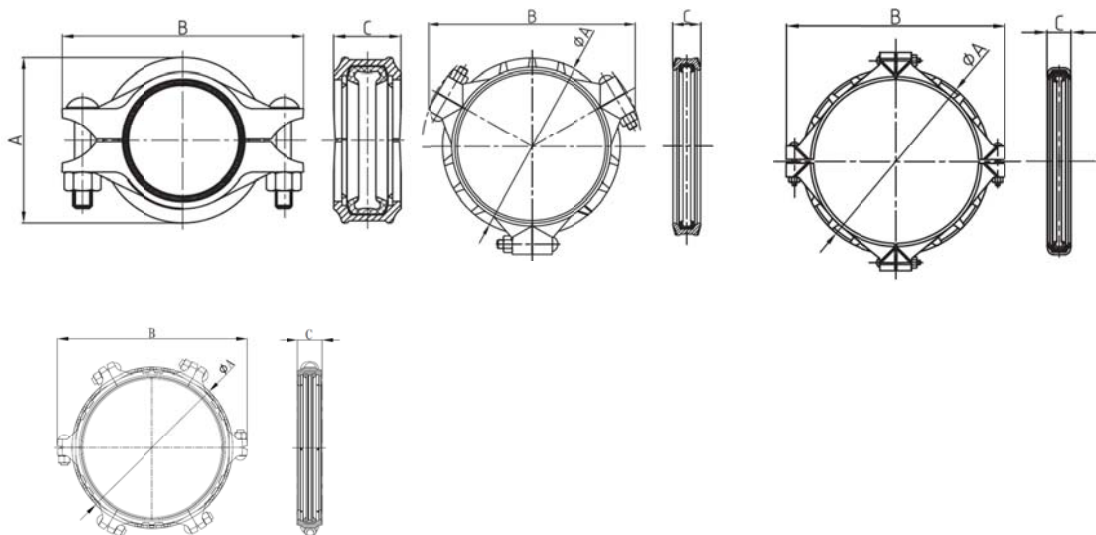
### ANSI Oval Neck Track Bolt

1. Material: SAE J429 5.
2. Thread: UNC thread per ANSI B 1.1 Class.
3. Surface Treatment: Silver chromate electroplated per ASTM B633 CLASS FE/ZN5 TYPE III, thickness 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.
3. Surface Treatment: Yellow chromate electroplated per ISO 2081 FE/ZN5 ISO4520 CLASS 1A.

## 4.0 DIMENSIONS AND PERFORMANCE



**Sign Off:**

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_  
 Location: \_\_\_\_\_ Date: \_\_\_\_\_

Engineer: \_\_\_\_\_  
 Approved & Date: \_\_\_\_\_

Nominal Size	Pipe O.D	Working Pressure	Dimensions			Bolt Size
DN/in	mm/in	PSI/MPa	A mm/in	B mm/in	C mm/in	No.-Size mm
25 1	33.7 1.327	500 3.45	59 2.32	100 3.94	44 1.73	2-3/8X55 2-M10X57
32 1¼	42.4 1.669	500 3.45	66 2.60	109.5 4.31	45 1.77	2-3/8X55 2-M10X57
40 1½	48.3 1.902	500 3.45	72 2.83	115 4.53	45 1.77	2-3/8X55 2-M10X57
50 2	60.3 2.375	500 3.45	85 3.35	131 5.16	45 1.77	2-3/8X55 2-M10X57
65 2½	73 2.875	500 3.45	98 3.86	145 5.71	45 1.77	2-3/8X55 2-M10X57
65 2½	76.1 2.996	500 3.45	101 3.98	147 5.79	45 1.77	2-3/8X55 2-M10X57
80 3	88.9 3.500	500 3.45	115 4.53	170 6.69	46 1.81	2-1/2X70 2-M12X70
100 4	108 4.252	500 3.45	140 5.51	197 7.76	52 2.05	2-1/2X70 2-M12X70
100 4	114.3 4.500	500 3.45	146 5.75	200 7.87	52 2.05	2-1/2X70 2-M12X70
125 5	133 5.236	300 2.07	165 6.50	232 9.13	52 2.05	2-5/8X85 2-M16X85
125 5	139.7 5.500	500 3.45	170 6.69	238 9.37	52 2.05	2-5/8X85 2-M16X85
125 5	141.3 5.563	500 3.45	172 6.77	236.5 9.31	52 2.05	2-5/8X85 2-M16X85
150 6	159 6.260	300 2.07	190 7.48	258 10.16	52 2.05	2-5/8X85 2-M16X85
150 6	165.1 6.500	500 3.45	198 7.80	266 10.47	52 2.05	2-5/8X85 2-M16X85
150 6	168.3 6.626	500 3.45	202 7.95	270 10.63	52 2.05	2-5/8X85 2-M16X85
200 8	219.1 8.626	500 3.45	260 10.24	346 13.62	62 2.44	2-3/4X115 2-M20X115
250A 10	267.4 10.528	300 2.07	318 12.52	396 15.59	63 2.48	2-3/4X120 2-M20X115
250 10	273 10.748	500 3.45	327 12.87	420 16.54	63 2.48	2-7/8X125 2-M22X125

**Sign Off:**

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
 Location: \_\_\_\_\_ Date: \_\_\_\_\_ Approved & Date: \_\_\_\_\_

300A 12	318.5 12.539	300 2.07	364 14.33	456 17.95	62 2.44	2-7/8X140 2-M22X140
300 12	323.9 12.752	500 3.45	378 14.88	466 18.35	63 2.48	2-7/8X140 2-M22X140
350 14	355.6 14.000	300 2.07	415 16.34	510 20.08	72 2.83	3-7/8X140 3-M22X140
350 14	377 14.843	300 2.07	435 17.13	535 21.06	72 2.83	3-7/8X140 3-M22X140
400 16	406.4 16.000	300 2.07	468 18.43	575 22.64	72 2.83	3-7/8X140 3-M22X140
400 16	426 16.772	300 2.07	482.5 19.00	586 23.07	72 2.83	3-7/8X140 3-M22X140
450 18	457.2 18.000	300 2.07	508 20.00	608 23.94	78 3.07	3-7/8X140 3-M22X140
450 18	480 18.898	225 1.6	533 20.98	630 24.80	78 3.07	3-7/8X140 3-M22X140
500 20	508 20.000	300 2.07	563 22.17	660 25.98	78 3.07	4-7/8X140 4-M22X140
500 20	530 20.866	225 1.6	595 23.43	700 27.56	76 2.99	4-7/8X140 4-M22X140
600 24	609.6 24.000	300 2.07	668 26.30	772 30.39	78 3.07	4-1X140
600 24	630 24.803	225 1.6	692 27.24	796 31.34	78 3.07	4-1X140
700 28	711.2 28.000	225 1.6	798 31.42	960 37.80	133 5.24	6-11/2X53/4
800 32	812.8 32.000	225 1.6	900 35.43	1058 41.65	133 5.24	6-11/2X53/4

## 5.0 REFERENCE MATERIALS

Approved certification for Grooved Fittings and Couplings

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

**Sign Off:**

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_

Engineer: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Approved & Date: \_\_\_\_\_