

## DI GROOVED LIGHT-DUTY MECHANICAL TEE-GROOVED

### OUTLET

Type: 3GS

Doc No: DS-400-3GS-01-E

### 1.0 PRODUCT OVERVIEW

This mechanical tee is one short style which works as a saddle-shaped joint for connecting one side of a pipe in the middle of a straight pipe, the branch pipe is a grooved connection.



#### Dimensions:

3"(DN80) – 8"(DN200)

#### Design Standard:

ISO6182, AWWA C606, GB 5135.11

#### Connection Standard:

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

#### Working Pressure:

175PSI-300PSI

#### Application:

The light-duty grooved outlet mechanical tee is suitable for medium and low pressure pipeline systems with nominal pressure 175-300 PSI, nominal size DN80-DN200, 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

#### Sign Off:

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

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

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

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

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:

##### 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, 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.

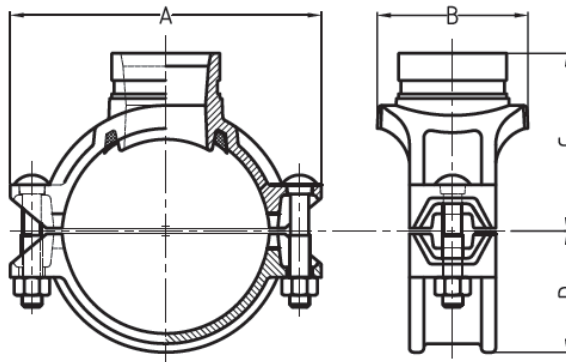
### ANSI Oval Neck Track Bolt

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



#### Sign Off:

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

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



玫德集团有限公司  
JINAN MEIDE CASTING CO., LTD

Nominal Size	Pipe O.D	Working Pressure	Hole Dia mm/in	Dimensions				Bolt Size
				A	B	C	D	
mm/in	mm/in	PSI/Mpa	+1.6,0/+0.063,0	mm/in	mm/in	mm/in	mm/in	mm/in
65x25 76.1x1	76.1x33.7 3.000x1.315	300 2.07	38 1.5	137 5.39	71 2.8	78 3.07	49.5 1.95	1/2x70 M12X70
65x32 76.1x1¼	76.1x42.4 3.000x1.660	300 2.07	51 2	137 5.39	84.5 3.33	78 3.07	49.5 1.95	1/2x70 M12X70
65x40 76.1x1½	76.1x48.3 3.000x1.900	300 2.07	51 2	137 5.39	84.5 3.33	78 3.07	49.5 1.95	1/2x70 M12X70
80x25 3x1	88.9x33.7 3.500x1.315	300 2.07	38 1.5	150 5.91	71 2.8	84 3.31	55.5 2.19	1/2x75 M12X76
80x32 3x1¼	88.9x42.4 3.500x1.660	300 2.07	51 2	150 5.91	84.5 3.33	84 3.31	55.5 2.19	1/2x75 M12X76
80x40 3x1½	88.9x48.3 3.500x1.900	300 2.07	51 2	150 5.91	84.5 3.33	84 3.31	55.5 2.19	1/2x75 M12X76
80x50 3x2	88.9x60.3 3.500x2.375	300 2.07	64 2.5	150 5.91	98 3.86	84 3.31	55.5 2.19	1/2x75 M12X76
100x25 4x1	114.3x33.7 4.500x1.315	300 2.07	38 1.5	178 7.01	77.5 3.05	98 3.86	67.5 2.66	1/2x75 M12X76
100x40 4x1½	114.3x48.3 4.500x1.900	300 2.07	51 2	178 7.01	88 3.46	98 3.86	67.5 2.66	1/2x75 M12X76
100x50 4x2	114.3x60.3 4.500x2.375	300 2.07	64 2.5	178 7.01	103.5 4.07	98 3.86	67.5 2.66	1/2x75 M12X76
100x65 4x2½	114.3x73.0 4.500x2.875	300 2.07	70 2.75	178 7.01	103.5 4.07	98 3.86	67.5 2.66	1/2x75 M12X76
100x65 4x76.1	114.3x76.1 4.500x3.000	300 2.07	70 2.75	178 7.01	103.5 4.07	98 3.86	67.5 2.66	1/2x75 M12X76
100x80 4x3	114.3x88.9 4.500x3.500	300 2.07	89 3.5	178 7.01	124 4.88	98 3.86	67.5 2.66	1/2x75 M12X76
125x80 133.0x3	133.0x88.9 5.250x3.500	300 2.07	89 3.5	203 7.99	132 5.12	110 4.33	77.5 3.05	5/8x85 M16X85
125x32 139.7x11¼	139.7x42.4 5.500x1.660	300 2.07	51 2	210 8.27	91 3.58	113 4.45	82 3.23	5/8x85 M16X85

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

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

Nominal Size	Pipe O.D	Working Pressure	Hole Dia mm/in	Dimensions				Bolt Size
				A	B	C	D	
mm/in	mm/in	PSI/Mpa	+1.6,0/+0.063,0	mm/in	mm/in	mm/in	mm/in	mm/in
125x40	139.7x48.3	300	51	210	91	113	82	5/8x85
139.7x11/2	5.500x1.900	2.07	2	8.27	3.58	4.45	3.23	M16X85
125x50	139.7x60.3	300	64	210	110	113	82	5/8x85
139.7x2	5.500x2.375	2.07	2.5	8.27	4.33	4.45	3.23	M16X85
125x65	139.7x76.1	300	70	210	110	113	82	5/8x85
139.7x76.1	5.500x3.000	2.07	2.75	8.27	4.33	4.45	3.23	M16X85
125x80	139.7x88.9	300	89	210	130	113	82	5/8x85
139.7x3	5.500x3.500	2.07	3.5	8.27	5.12	4.45	3.23	M16X85
125x6	139.7x114.3	175	114	210	153	115	82	5/8x85
139.7x4	5.500x4.500	1.21	4.5	8.27	6.02	4.52	3.23	M16X85
150x65	159.1x76.1	300	70	227	110	122.5	91	5/8x105
159.0x76.1	6.250x3.000	2.07	2.75	8.94	4.33	4.83	3.58	M16X108
150x80	159.1x88.9	300	89	227	130	122.5	91	5/8x105
159.0x88.9	6.250x3.500	2.07	3.5	8.94	5.11	4.83	3.58	M16X108
150x100	159.1x108.0	300	114	227	155	122.5	91	5/8x105
159.0x108.0	6.250x4.250	2.07	4.5	8.94	6.1	4.83	3.58	M16X108
150x100	159.1x114.3	300	114	227	155	122.5	91	5/8x105
159.0x4	6.250x4.500	2.07	4.5	8.94	6.1	4.83	3.58	M16X108
150x32	165.1x42.4	300	51	235	92.5	124.5	94.5	5/8x105
165.1x11/4	6.500x1.900	2.07	2	9.25	3.64	4.9	3.72	M16X108
150x50	165.1x60.3	300	64	235	110	124.5	94.5	5/8x105
165.1x2	6.500x2.375	2.07	2.5	9.25	4.33	4.9	3.72	M16X108
150x65	165.1x76.1	300	70	235	110	124.5	94.5	5/8x105
165.1x76.1	6.500x3.000	2.07	2.75	9.25	4.33	4.9	3.72	M16X108
150x80	165.1x88.9	300	89	235	130	124.5	94.5	5/8x105
165.1x3	6.500x3.500	2.07	3.5	9.25	5.12	4.9	3.72	M16X108
150x100	165.1x108	300	114	235	155	126	94.5	5/8x105
165.1x4	6.500x4.250	2.07	4.5	9.25	6.1	4.96	3.72	M16X108
150x100	165.1x114.3	300	114	235	155	126	94.5	5/8x105
165.1x4	6.500x4.500	2.07	4.5	9.25	6.1	4.96	3.72	M16X108

**Sign Off:**

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

Nominal Size	Pipe O.D	Working Pressure	Hole Dia mm/in	Dimensions				Bolt Size
				A	B	C	D	
mm/in	mm/in	PSI/Mpa	+1.6,0/+0.063,0	mm/in	mm/in	mm/in	mm/in	mm/in
150x32 6x1¼	168.3x42.4 6.500x1.660	300 2.07	51 2	240 9.45	92.5 3.64	126 4.96	96.5 3.8	5/8x105 M16X108
150x40 6x1½	168.3x48.3 6.500x1.900	300 2.07	51 2	240 9.45	92.5 3.64	126 4.96	96.5 3.8	5/8x105 M16X108
150x50 6x2	168.3x60.3 6.625x2.375	300 2.07	64 2.5	240 9.45	110 4.33	126 4.96	96.5 3.8	5/8x105 M16X108
150x65 6x2½	168.3x73.0 6.625x2.875	300 2.07	70 2.75	240 9.45	110 4.33	126 4.96	96.5 3.8	5/8x105 M16X108
150x65 6x76.1	168.3x76.1 6.625x3	300 2.07	70 2.75	240 9.45	110 4.33	126 4.96	96.5 3.8	5/8x105 M16X108
150x80 6x3	168.3x88.9 6.625x3.500	300 2.07	89 3.5	240 9.45	130 5.12	126 4.96	96.5 3.8	5/8x105 M16X108
150x100 6x4	168.3x114.3 6.625x4.500	300 2.07	114 4.5	240 9.45	155 6.1	128 5.04	96.5 3.8	5/8x105 M16X108
200x50 8x2	219.1x60.3 8.625x2.375	300 2.07	64 2.5	300 11.81	117 4.6	155 6.1	123 4.84	5/8x105 M16X108
200x65 8x2½	219.1x73 8.625x2.875	300 2.07	70 2.75	300 11.81	117 4.6	155 6.1	123 4.84	5/8x105 M16X108
200x65 8x76.1	219.1x76.1 8.625x3.000	300 2.07	70 2.75	300 11.81	117 4.6	155 6.1	123 4.84	5/8x105 M16X108
200x80 8x3	219.1x88.9 8.625x3.500	300 2.07	89 3.5	300 11.81	135.5 5.33	155 6.1	123 4.84	5/8x105 M16X108
200x100 8x4	219.1x114.3 8.625x4.500	300 2.07	114 4.5	300 11.81	164 6.46	160 6.3	123 4.84	5/8x105 M16X108

## 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: \_\_\_\_\_