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 ℃-+180℃, 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℃～+110℃ （-30～+230℉）；
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℃～+82℃ （-20～+180℉）；
Applicable media: Petroleum products, vegetable oils, mineral oils, etc.
Note: strictly prohibit use with high temperature substances.
3、Silicone Rubber, code S：
Temperature: -40℃～+177℃ （-40～+350℉）
Applicable media: High temperature and dry air and some high temperature chemicals, drinking water and so on.
4、Chloroprene Rubber，code LD：
Temperature：-32℃～+82℃ （-26～+180℉）
Applicable media: sea water
5、Fluororubber, code F：
Temperature: -20℃～+180℃
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 ≥ 5μm 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.

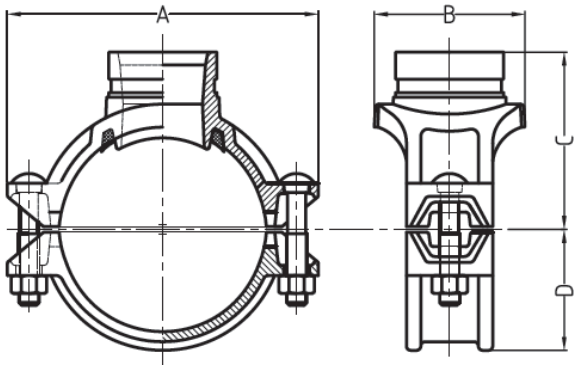
ANSI Oval Neck Track Bolt

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 ≥ 5μm 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	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
65×25	76.1×33.7	300	38	137	71	78	49.5	1/2×70
76.1×1	3.000×1.315	2.07	1.5	5.39	2.8	3.07	1.95	M12X70
65×32	76.1×42.4	300	51	137	84.5	78	49.5	1/2×70
76.1×1¼	3.000×1.660	2.07	2	5.39	3.33	3.07	1.95	M12X70
65×40	76.1×48.3	300	51	137	84.5	78	49.5	1/2×70
76.1×1½	3.000×1.900	2.07	2	5.39	3.33	3.07	1.95	M12X70
80×25	88.9×33.7	300	38	150	71	84	55.5	1/2×75
3×1	3.500×1.315	2.07	1.5	5.91	2.8	3.31	2.19	M12X76
80×32	88.9×42.4	300	51	150	84.5	84	55.5	1/2×75
3×1¼	3.500×1.660	2.07	2	5.91	3.33	3.31	2.19	M12X76
80×40	88.9×48.3	300	51	150	84.5	84	55.5	1/2×75
3×1½	3.500×1.900	2.07	2	5.91	3.33	3.31	2.19	M12X76
80×50	88.9×60.3	300	64	150	98	84	55.5	1/2×75

3×2	3.500×2.375	2.07	2.5	5.91	3.86	3.31	2.19	M12X76
100×25	114.3×33.7	300	38	178	77.5	98	67.5	1/2×75
4×1	4.500×1.315	2.07	1.5	7.01	3.05	3.86	2.66	M12X76
100×40	114.3×48.3	300	51	178	88	98	67.5	1/2×75
4×1½	4.500×1.900	2.07	2	7.01	3.46	3.86	2.66	M12X76
100×50	114.3×60.3	300	64	178	103.5	98	67.5	1/2×75
4×2	4.500×2.375	2.07	2.5	7.01	4.07	3.86	2.66	M12X76
100×65	114.3×73.0	300	70	178	103.5	98	67.5	1/2×75
4×2½	4.500×2.875	2.07	2.75	7.01	4.07	3.86	2.66	M12X76
100×65	114.3×76.1	300	70	178	103.5	98	67.5	1/2×75
4×76.1	4.500×3.000	2.07	2.75	7.01	4.07	3.86	2.66	M12X76
100×80	114.3×88.9	300	89	178	124	98	67.5	1/2×75
4×3	4.500×3.500	2.07	3.5	7.01	4.88	3.86	2.66	M12X76
125×80	133.0×88.9	300	89	203	132	110	77.5	5/8×85
133.0×3	5.250×3.500	2.07	3.5	7.99	5.12	4.33	3.05	M16X85
125×32	139.7×42.4	300	51	210	91	113	82	5/8×85
139.7×11/4	5.500×1.660	2.07	2	8.27	3.58	4.45	3.23	M16X85

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**
125×40	139.7×48.3	300	51	210	91	113	82	5/8×85
139.7×11/2	5.500×1.900	2.07	2	8.27	3.58	4.45	3.23	M16X85
125×50	139.7×60.3	300	64	210	110	113	82	5/8×85
139.7×2	5.500×2.375	2.07	2.5	8.27	4.33	4.45	3.23	M16X85
125×65	139.7×76.1	300	70	210	110	113	82	5/8×85
139.7×76.1	5.500×3.000	2.07	2.75	8.27	4.33	4.45	3.23	M16X85
125×80	139.7×88.9	300	89	210	130	113	82	5/8×85
139.7×3	5.500×3.500	2.07	3.5	8.27	5.12	4.45	3.23	M16X85
125×6	139.7×114.3	175	114	210	153	115	82	5/8×85
139.7×4	5.500×4.500	1.21	4.5	8.27	6.02	4.52	3.23	M16X85
150×65	159.1×76.1	300	70	227	110	122.5	91	5/8×105
159.0×76.1	6.250×3.000	2.07	2.75	8.94	4.33	4.83	3.58	M16X108
150×80	159.1×88.9	300	89	227	130	122.5	91	5/8×105
159.0×88.9	6.250×3.500	2.07	3.5	8.94	5.11	4.83	3.58	M16X108
150×100	159.1×108.0	300	114	227	155	122.5	91	5/8×105
159.0×108.0	6.250×4.250	2.07	4.5	8.94	6.1	4.83	3.58	M16X108
150×100	159.1×114.3	300	114	227	155	122.5	91	5/8×105

159.0×4	6.250×4.500	2.07	4.5	8.94	6.1	4.83	3.58	M16X108
150×32 165.1×11/4	165.1×42.4 6.500×1.900	300 2.07	51 2	235 9.25	92.5 3.64	124.5 4.9	94.5 3.72	5/8×105 M16X108
150×50 165.1×2	165.1×60.3 6.500×2.375	300 2.07	64 2.5	235 9.25	110 4.33	124.5 4.9	94.5 3.72	5/8×105 M16X108
150×65 165.1×76.1	165.1×76.1 6.500×3.000	300 2.07	70 2.75	235 9.25	110 4.33	124.5 4.9	94.5 3.72	5/8×105 M16X108
150×80 165.1×3	165.1×88.9 6.500×3.500	300 2.07	89 3.5	235 9.25	130 5.12	124.5 4.9	94.5 3.72	5/8×105 M16X108
150×100 165.1×4	165.1×108 6.500×4.250	300 2.07	114 4.5	235 9.25	155 6.1	126 4.96	94.5 3.72	5/8×105 M16X108
150×100 165.1×4	165.1×114.3 6.500×4.500	300 2.07	114 4.5	235 9.25	155 6.1	126 4.96	94.5 3.72	5/8×105 M16X108

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**
150×32 6×1¼	168.3×42.4 6.500×1.660	300 2.07	51 2	240 9.45	92.5 3.64	126 4.96	96.5 3.8	5/8×105 M16X108
150×40 6×1½	168.3×48.3 6.500×1.900	300 2.07	51 2	240 9.45	92.5 3.64	126 4.96	96.5 3.8	5/8×105 M16X108
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	64 2.5	240 9.45	110 4.33	126 4.96	96.5 3.8	5/8×105 M16X108
150×65 6×2½	168.3×73.0 6.625×2.875	300 2.07	70 2.75	240 9.45	110 4.33	126 4.96	96.5 3.8	5/8×105 M16X108
150×65 6×76.1	168.3×76.1 6.625×3	300 2.07	70 2.75	240 9.45	110 4.33	126 4.96	96.5 3.8	5/8×105 M16X108
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	89 3.5	240 9.45	130 5.12	126 4.96	96.5 3.8	5/8×105 M16X108
150×100 6×4	168.3×114.3 6.625×4.500	300 2.07	114 4.5	240 9.45	155 6.1	128 5.04	96.5 3.8	5/8×105 M16X108
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	64 2.5	300 11.81	117 4.6	155 6.1	123 4.84	5/8×105 M16X108
200×65 8×2½	219.1×73 8.625×2.875	300 2.07	70 2.75	300 11.81	117 4.6	155 6.1	123 4.84	5/8×105 M16X108
200×65 8×76.1	219.1×76.1 8.625×3.000	300 2.07	70 2.75	300 11.81	117 4.6	155 6.1	123 4.84	5/8×105 M16X108
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.5	300 11.81	135.5 5.33	155 6.1	123 4.84	5/8×105 M16X108

200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.5	300 11.81	164 6.46	160 6.3	123 4.84	5/8×105 M16X108

5.0 REFERENCE MATERIALS

Approved certification for Grooved Fittings and Couplings

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