

DI GROOVED LIGHT-DUTY MECHANICAL CROSS-THREADED OUTLET

Type: 4JS

Doc No: DS-400-4JS-01-E

1.0 PRODUCT OVERVIEW

Light-duty grooved cross is mainly used for the saddle-shaped joint connecting the branch pipes on both sides of the middle of the straight pipe, and the two branch pipes are threaded connections.



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:

Light-duty mechanical cross with threaded outlet 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

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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: _____

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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.

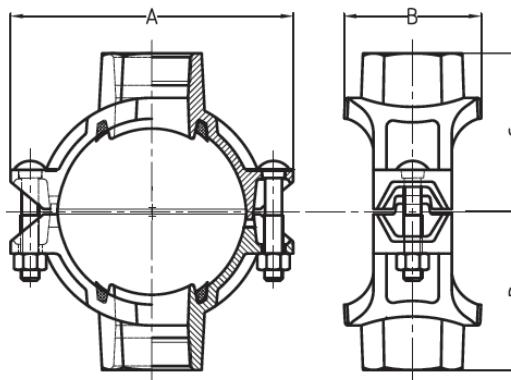
ANSI Oval Neck Track Bolt

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



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Engineer: _____
Approved & Date: _____



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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
80x15 3x½	88.9x21.3 3.500x0.825	300 2.07	38 1.5	150 5.91	71 2.8	68 2.68	68 2.68	1/2x75 M12X76
80x20 3x¾	88.9x26.9 3.500x1.050	300 2.07	38 1.5	150 5.91	71 2.8	68 2.68	68 2.68	1/2x75 M12X76
80x25 3x1	88.9x33.7 3.500x1.315	300 2.07	38 1.5	150 5.91	71 2.8	71 2.8	71 2.8	1/2x75 M12X76
80x32 3x1¼	88.9x42.4 3.500x1.660	300 2.07	51 2	150 5.91	84.5 3.33	74 2.91	74 2.91	1/2x75 M12X76
80x40 3x1½	88.9x48.3 3.500x1.900	300 2.07	51 2	150 5.91	84.5 3.33	74 2.91	74 2.91	1/2x75 M12X76
100x25 108.0x1	108.1x33.7 4.250x1.315	300 2.07	38 1.5	172 6.77	77.5 3.05	85 3.35	85 3.35	1/2x75 M12X76
100x32 108.0x1¼	108.1x42.4 4.250x1.660	300 2.07	51 2	172 6.77	88 3.46	85 3.35	85 3.35	1/2x75 M12X76
100x40 108.0x1½	108.0x48.3 4.250x1.900	300 2.07	51 2	172 6.77	88 3.46	85 3.35	85 3.35	1/2x75 M12X76
100x50 108.0x2	108.0x60.3 4.250x2.375	300 2.07	64 2.5	172 6.77	103.5 4.19	89 3.5	89 3.5	1/2x75 M12X76
100x15 4x½	114.3x21.3 4.500x0.825	300 2.07	38 1.5	178 7.01	77.5 3.05	82 3.23	82 3.23	1/2x75 M12X76
100x20 4x¾	114.3x26.9 4.500x1.050	300 2.07	38 1.5	178 7.01	77.5 3.05	82 3.23	82 3.23	1/2x75 M12X76
100x25 4x1	114.3x33.7 4.500x1.315	300 2.07	38 1.5	178 7.01	77.5 3.05	82 3.23	82 3.23	1/2x75 M12X76
100x32 4x1¼	114.3x42.4 4.500x1.660	300 2.07	51 2	178 7.01	88 3.46	89.5 3.53	89.5 3.53	1/2x75 M12X76
100x40 4x1½	114.3x48.3 4.500x1.900	300 2.07	51 2	178 7.01	88 3.46	89.5 3.53	89.5 3.53	1/2x75 M12X76
100x50 4x2	114.3x60.3 4.500x2.375	300 2.07	64 2.5	178 7.01	103.5 4.07	92 3.62	92 3.62	1/2x75 M12X76
125x25 133.0x1	133.0x33.7 5.250x1.315	300 2.07	38 1.5	203 7.99	77 3.03	98 3.86	98 3.86	5/8x85 M16X85
125x32 133.0x1.25	133.0x42.4 5.250x1.660	300 2.07	51 2	203 7.99	91 3.58	102 4.01	102 4.01	5/8x85 M16X85
125x40 133.0x1½	133.0x48.3 5.250x1.900	300 2.07	51 2	203 7.99	91 3.58	102 4.01	102 4.01	5/8x85 M16X85
125x50 133.0x2	133.0x60.3 5.250x2.375	300 2.07	64 2.5	203 7.99	110 4.33	105 4.13	105 4.13	5/8x85 M16X85

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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
125x65 133.0x76.1	133.0x76.1 5.250x3.000	300 2.07	70 2.75	203 7.99	110 4.33	110 4.33	110 4.33	5/8x85 M16X85
125x25 139.7x1	139.7x33.7 5.500x1.315	300 2.07	38 1.5	210 8.27	77 3.03	100 3.94	100 3.94	5/8x85 M16X85
125x32 139.7x1¼	139.7x42.4 5.500x1.660	300 2.07	51 2	210 8.27	91 3.58	105 4.13	105 4.13	5/8x85 M16X85
125x40 139.7x1½	139.7x48.3 5.500x1.900	300 2.07	51 2	210 8.27	91 3.58	105 4.13	105 4.13	5/8x85 M16X85
125x50 139.7x2	139.7x60.3 5.500x2.375	300 2.07	64 2.5	210 8.27	110 4.33	108 4.25	108 4.25	5/8x85 M16X85
125x65 139.7x76.1	139.7x76.1 5.500x3.000	300 2.07	70 2.75	210 8.27	110 4.33	115 4.53	115 4.53	5/8x85 M16X85
150x25 159.0x1	159.0x33.7 6.250x1.315	300 2.07	38 1.5	227 8.94	77 3.03	110 4.33	110 4.33	5/8x85 M16X85
150x32 159.0x1¼	159.0x42.4 6.250x1.660	300 2.07	51 2	227 8.94	92.5 3.64	112 4.41	112 4.41	5/8x85 M16X85
150x40 159.0x1½	159.0x48.3 6.250x1.900	300 2.07	51 2	227 8.94	92.5 3.64	112 4.41	112 4.41	5/8x105 M16X108
150x50 159.0x2	159.0x60.3 6.250x2.375	300 2.07	64 2.5	227 8.94	110 4.33	116.5 4.59	116.5 4.59	5/8x105 M16X108
150x65 159.0x76.1	159.0x76.1 6.250x3.000	300 2.07	70 2.75	227 8.94	110 4.33	121.5 4.78	121.5 4.78	5/8x105 M16X108
150x80 159.0x3	159.0x88.9 6.250x3.500	300 2.07	89 3.5	227 8.94	130 5.12	123.5 4.86	123.5 4.86	5/8x105 M16X108
150x15 165.1x½	165.1x21.3 6.500x0.825	300 2.07	38 1.5	235 9.25	77 3.03	115 4.53	115 4.53	5/8x105 M16X108
125x20 165.1x¾	165.1x26.9 6.500x1.050	300 2.07	38 1.5	235 9.25	77 3.03	115 4.53	115 4.53	5/8x105 M16X108
150x25 165.1x1	165.1x33.7 6.500x1.315	300 2.07	38 1.5	235 9.25	77 3.03	115 4.53	115 4.53	5/8x105 M16X108
150x32 165.1x1¼	165.1x42.4 6.500x1.660	300 2.07	51 2	235 9.25	92.5 3.64	115 4.53	115 4.53	5/8x105 M16X108
150x40 165.1x1½	165.1x48.3 6.500x1.900	300 2.07	51 2	235 9.25	92.5 3.64	115 4.53	115 4.53	5/8x105 M16X108
150x50 165.1x2	165.1x60.3 6.500x2.375	300 2.07	64 2.5	235 9.25	110 4.33	120 4.72	120 4.72	5/8x105 M16X108
150x65 165.1x76.1	165.1x76.1 6.500x3.000	300 2.07	70 2.75	235 9.25	110 4.33	125 4.92	125 4.92	5/8x105 M16X108

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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
150x80	165.1x88.9	300	89	235	130	125	125	5/8x105
165.1x3	6.500x3.500	2.07	3.5	9.25	5.12	4.92	4.92	M16X108
150x25	168.3x33.7	300	38	240	77	115	115	5/8x105
6x1	6.500x1.315	2.07	1.5	9.45	3.03	4.53	4.53	M16X108
150x32	168.3x42.4	300	51	240	92.5	115	115	5/8x105
6x1¼	6.500x1.660	2.07	2	9.45	3.64	4.53	4.53	M16X108
150x40	168.3x48.3	300	51	240	92.5	115	115	5/8x105
6x1½	6.500x1.900	2.07	2	9.45	3.64	4.53	4.53	M16X108
150x50	168.3x60.3	300	64	240	110	121	121	5/8x105
6x2	6.625x2.375	2.07	2.5	9.45	4.33	4.76	4.76	M16X108
150x65	168.3x73.0	300	70	240	110	127	127	5/8x105
6x2½	6.625x2.875	2.07	2.75	9.45	4.33	5	5	M16X108
150x80	168.3x88.9	300	89	240	130	127	127	5/8x105
6x3	6.625x3.500	2.07	3.5	9.45	5.12	5	5	M16X108
200x25	219.0x33.7	300	38	300	78	140	140	5/8x105
8x1	8.625x1.315	2.07	1.5	11.81	3.07	5.51	5.51	M16X108
200x32	219.1x42.4	300	51	300	93	140	140	5/8x105
8x1¼	8.625x1.660	2.07	2	11.81	3.66	5.51	5.51	M16X108
200x40	219.1x48.3	300	51	300	93	143	143	5/8x105
8x1½	8.625x1.900	2.07	2	11.81	3.66	5.63	5.63	M16X108
200x50	219.1x60.3	300	64	300	115	149	149	5/8x105
8x2	8.625x2.375	2.07	2.5	11.81	4.53	5.87	5.87	M16X108
200x65	219.1x76.1	300	70	300	115	155	155	5/8x105
8x76.1	8.625x3.000	2.07	2.75	11.81	4.53	6.1	6.1	M16X108
200x80	219.1x88.9	300	89	300	133.5	155	155	5/8x105
8x3	8.625x3.500	2.07	3.5	11.81	5.25	6.1	6.1	M16X108
200x100	219.1x114.3	300	114	300	159.5	160	160	5/8x105
8x4	8.625x4.500	2.07	4.5	11.81	6.29	6.3	6.3	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:

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Engineer: _____

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Approved & Date: _____