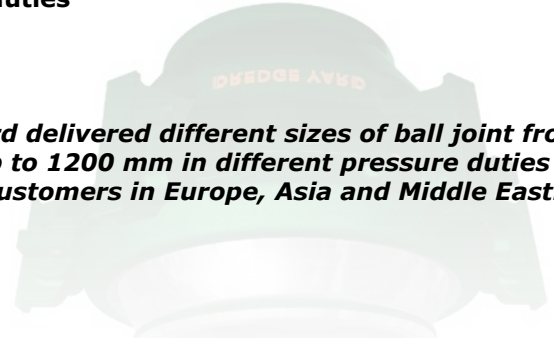


Dredge ball joint

DREDGE YARD ball joints are designed by using the latest CAD technologies, production methods and testing facilities.

To provide customer with the best suitable solution & lowest cost, DREDGE YARD ball joints are designed in **6 different types**, giving variations of **tilting angle from 15 to 18 degrees** and **duties from 10 bar to 30 bar**.



Dredge Yard delivered different sizes of ball joint from 450 mm up to 1200 mm in different pressure duties to various customers in Europe, Asia and Middle East.

Dredge Yard ball joint are designed, produced and tested **under strict ISO and ASTM standards** and tested at third party for verification.

Dredge ball joint Types

Titling angle of 15 degrees

- Low duty for operating pressure of 10 bar
- Medium duty for operating pressure of 20 bar
- Heavy duty for operating pressure of 30 bar

Titling angle of 18 degrees

- Low duty for operating pressure of 10 bar
- Medium duty for operating pressure of 20 bar
- Heavy duty for operating pressure of 30 bar



Dredge ball joint Features

- Grease grooves provided in the gland
- Stiffened dredge ball joint case lugs
- Quick fix and release locking using a pin & chain connection
- Pipe welded through the ball
- Maximum thickness provided at the neck of the ball joint
- Case liner made from wear resistant material

Dredge ball joint Benefits

- Easy assembly & dis-assembly
- Low maintenance required
- Low friction between ball and gland due to grease grooves and polished ball & gland face
- Replaceable liners made from wear resistant materials
- Quick fix and release of locking
- Different operating duties

Dredge ball joint Materials

Case: carbon steel providing high elongation and impact value

Ball: carbon steel providing high elongation and impact value

Gland: chromium, nickel and molybdenum alloy providing a high tensile, high yield and high hardness values

Liner: ductile manganese iron or hard chromium iron for wear resistant properties

Seal: NBR 70

Dredge ball joint Production

- Production of dredge ball joints is done at high quality and experienced foundry with the latest production facilities to ensure **high quality** casting and **quick delivery time**
- Patterns are **made from aluminum or hard wood** to ensure that all parts are identical and interchangeable



- All castings of dredge ball joint are heat treated **according ISO and ASTM**
- All casting are measured and **tested before machining**
- All products are measured and **tested after machining and before releasing for transport**
- Cast areas are **painted** and machined surfaces are **greased** after machining
- All measurements and tests are recorded at Dredge Yard database



Dredge ball joint Quality Control

The following testing is done during and after production:

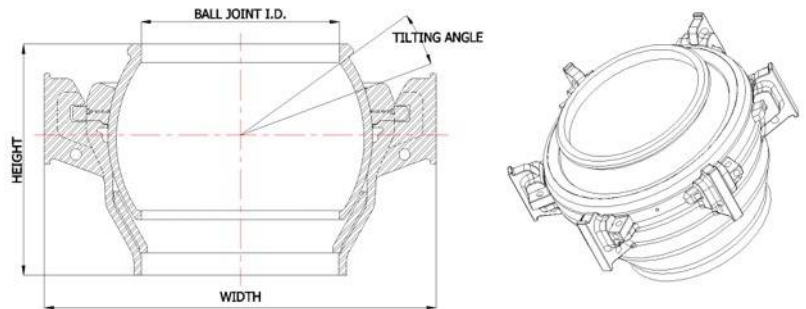
- Chemical composition test at third party
- Mechanical properties test at third party
- Measurement test of all dimensions after casting
- Ultra sonic testing for 20% of all surfaces
- Magnetic particle tests for critical parts
- Dye penetrant inspection for critical parts
- Measurement test of all dimensions after machining
- Surface roughness test for critical surfaces
- Hardness test for all parts
- Assembly test and interchangeability for all parts
- Locking fix and release test for all dredge ball joints
- Visual inspection for all parts

Dredge ball joint Additional Options

- Welded pipe & Flange execution
- Gland liner
- Ball liner
- Extra or special lifting lugs
- Different type of locking
- Tilting angle up to 22.5 degrees
- Case with 4 - 8 claws



Dredge ball joint Sizes



15 Degrees tilting angle										
Pipe ID mm	Ball J. ID mm	10 Bar			20 Bar			30 Bar		
		Height mm	Width mm	Weight kg	Height mm	Width mm	Weight kg	Height mm	Width mm	Weight kg
400	428	416	796	233	504	851	330	562	900	423
450	478	469	893	338	564	960	470	645	1017	625
500	536	524	1000	471	624	1065	644	712	1130	856
550	586	561	1088	602	681	1168	855	774	1237	1120
600	644	621	1192	798	744	1277	1117	842	1350	1452
650	694	663	1285	1001	798	1379	1408	904	1457	1828
700	744	711	1379	1264	853	1479	1742	966	1560	2243
750	804	768	1486	1566	928	1593	2257	1049	1687	2848
800	854	812	1576	1846	970	1690	2590	1091	1780	3339
850	904	852	1666	2189	1022	1787	3110	1174	1898	4058
900	954	900	1766	2611	1088	1891	3659	1237	2000	4788
1000	1066	1004	1964	3583	1207	2106	5039	1362	2220	6480
1100	1166	1094	2154	4756	1324	2296	6622	1500	2441	8663
1200	1266	1167	2328	5943	1426	2496	8548	1644	2680	11584

18 Degrees tilting angle										
Pipe ID mm	Ball J. ID mm	10 Bar			20 Bar			30 Bar		
		Height mm	Width mm	Weight kg	Height mm	Width mm	Weight kg	Height mm	Width mm	Weight kg
400	428	500	892	353	593	966	513	670	1022	658
450	478	557	998	495	664	1080	733	752	1148	942
500	536	616	1112	677	743	1210	1011	840	1284	1313
550	586	677	1218	913	807	1326	1342	921	1402	1717
600	644	732	1330	1168	876	1444	1719	991	1528	2222
650	694	786	1432	1463	944	1562	2193	1074	1652	2814
700	744	849	1542	1849	1009	1672	2682	1157	1780	3509
750	804	913	1660	2316	1094	1806	3411	1239	1908	4365
800	854	973	1768	2782	1149	1912	4007	1304	2024	5173
850	904	1021	1870	3274	1217	2030	4817	1387	2144	6204
900	954	1076	1974	3839	1282	2134	5610	1465	2264	7308
1000	1066	1200	2200	5319	1428	2384	7775	1625	2524	10037
1100	1166	1303	2406	7026	1557	2620	10306	1776	2764	13215
1200	1266	1405	2612	8944	1688	2832	13158	1904	2924	16458