BEN GANG

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本溪北台铸管股份有限公司

BENXI BEITAI DUCTILE CAST IRON PIPES CO.,LTD.

Benxi Beitai Ductile Cast Iron Pipes Co., Ltd.

Address: Benxi Town, Benxi City, Liaoning Province, P. R. China

Post code: 117017

DUCTILE CAST IRON PIPES

BEITAI

【corporate vision】

Dedicating to Be a Powerful Steelmaker Favoring the People's Livelihood & Benefiting Our Society

【corporate mission】

Supporting Happy Life with Steel Power

【corporate values】

Human Oriented, Support of People, Strives for Fine, Strives for Strong

【corporate values】

Human Oriented, Support of People, Strives for Fine, Strives for Strong

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COMPANY PROFILE
企业简介

Benxi Beitai Ductile Cast Iron Pipes Co., Ltd is a share-holding subsidiary company of Benxi steel Group Corporation, which is the largest state owned corporation of Liaoning province. The company was founded in May 1990 and put into operation in October 1994, with fix assets of 1.38 billion Yuan, occupied area of 24 hectares and annual capacity of 700,000tons. Benxi beitai ductile cast iron pipes co., ltd is now one of the leading manufactures for ductile cast iron pipes and fittings in China.

The company's pipe diameter range from DN80mm to DN2600mm.The products can meet the standards of ISO2531, ISO4179, ISO8179, ISO7186, EN545, EN598 AND other equivalent standards according to the requirement of customer.

We offer different joint pipe such as T type joint, K type joint and self-restrained joint pipe for water conveyance, N1 joint and S joint pipe for gas transportation;

We offer different lining pipe such as portland cement mortar lining pipe, sulphate resistant cement mortar lining pipe, high-alumina cement mortar lining pipe, ceramic epoxy lining pipe, Polyurethane lining pipe, epoxy lining pipe etc.

We offer different coating pipe such as bitumen coating pipe, coal tar epoxy coating pipe, HCPE coating pipe, epoxy coating pipe and polyurethane coating pipe etc.

Our pipe and fittings take the advantage of high quality raw material (low phosphorus and low sulfur iron water) from group, first class equipment and technique, are widely used in water conveying projects. Our products have been sold to all over China domestic market and export to more than 70 countries all over the world.

Our company pursues the tenet that" quality is life and customer is first", operate in accordance with ISO9001 quality control system strictly and producing in accordance with standards as requirement.

We sincerely wish to have the opportunity to cooperate with friends and partners all over the world and serve with our high quality products, competitive price, perfect after-sales service and reliable reputation.

COMPANY PROFILE
公司概况

◇ **Company name:** Benxi Beitai Ductile Cast Iron Pipes Co.,Ltd

◇ **Company address:** Beitai Town, Benxi City, Liaoning Province, P.R.China.117017

◇ **Ownership:** State Owned Share-Holding

◇ **Name of product:** Ductile Cast Iron Pipe & Fittings (DN80-2600MM)

◇ **Annual capacity:** 700,000 tons

QUALIFICATION &HONOR
资质与荣誉

In 1997, pass **ISO9002 quality system certificate**

In 1999, pass **production certificate issued by SGS**

In 2002, pass **ISO9001 quality system certificate**

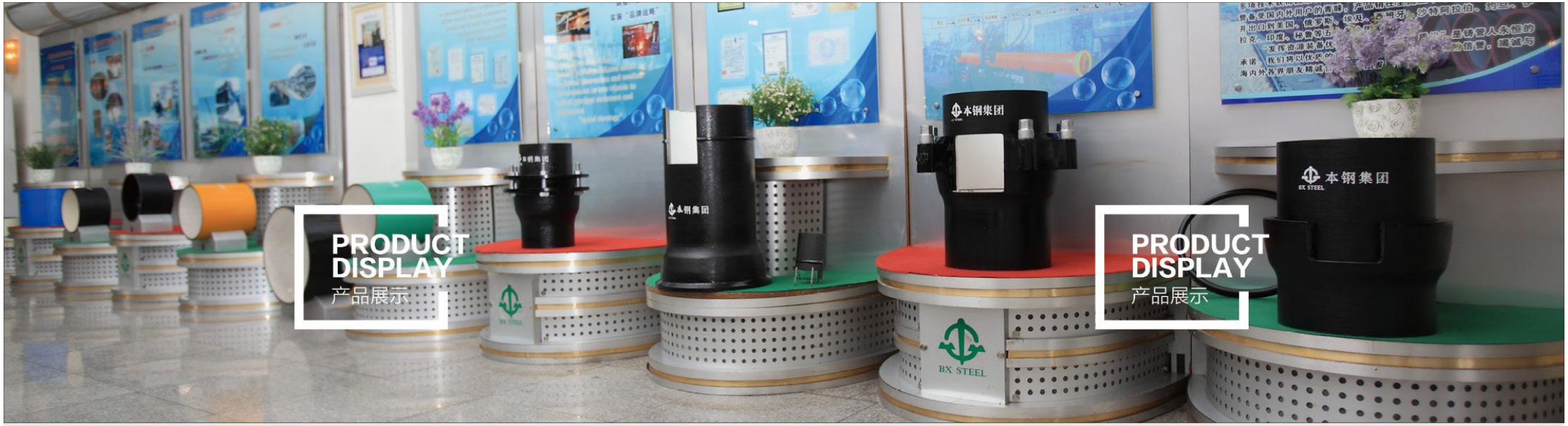
In 2004, pass **ISO14001 environment management system certificate**

In 2010, pass **WRAS certificate issued by water regulations advisory scheme**

In 2010, pass **GB/T28001 healthy and safety management system certificate**

In 2013, pass **EN598 standard certificate**

In 2018, pass **type test certificate issued by SGS**



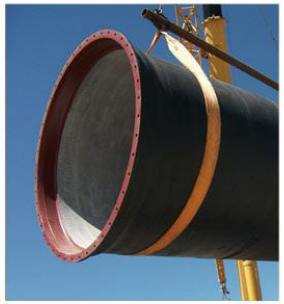
PRODUCT
DISPLAY
产品展示

We produce pipes with water cooling metal mould centrifugal cast technology up to DN1200mm, which is the first manufacture in China for this technology applied on DN1200mm pipe; the pipes with diameter DN1400mm-DN2600mm are producing by sand mould centrifugal cast technology.

The main joint types are T-type, K-type, N1-type and Self-restrained type.

T-type Joint Pipe

The T-type Joint Pipe ranging from DN80mm to DN2600mm, are flexible jointed with sockets and spigots; they are the first choice in urban water pipe network due to their convenient installation, anti- seismic property and sealing property.

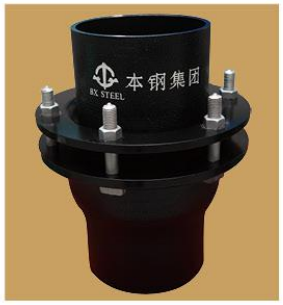


K-type Joint Pipe

The K-type Joint Pipes ranging from DN1200 to DN2600mm are mechanical joint. They play an irreplaceable role in urban water pipe network due to their firm installation and excellent anti-seismic performance.

N1-type& S-type Joint Pipe

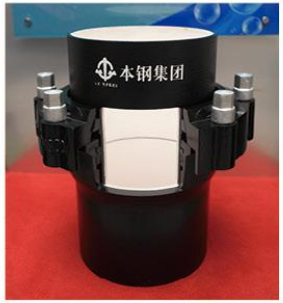
The N1-type& S-type Joint Pipes ranging from DN100mm to DN700mm are mechanically jointed which are widely used in urban gas pipeline projects.



PRODUCT DISPLAY
产品展示

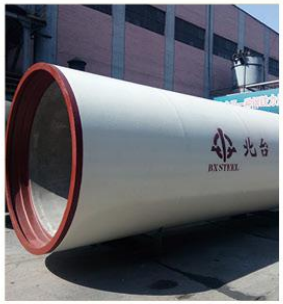
Self-Restrained Joint Pipe

The Self-Restrained Joint Pipes ranging from DN80 to DN1800mm which have anti-pull off property are mainly applied on special landform and geology (such as submerged in water, harsh environment and climate).



Jacking Pipe

The Jacking Pipe is ranging from DN80mm to DN2000mm which is used for trenchless application such as crossing buildings and roads.



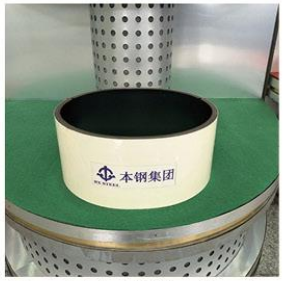
Tapered Pipe

The Tapered Pipe has three types such as B type ,C type and D type, which is mainly used for telegraph pole.

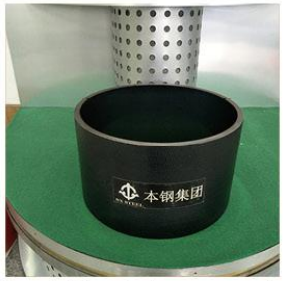
Our company takes the leading position of PU (Polyurethane) coating & lining and ceramic epoxy lining technology.

The PU coating pipe applys to the soil environment with strong acid or alkaline; The ceramic epoxy lining pipe apply to transportation of industrial wastewater and sewage water; PU and ceramic epoxy lining pipe are also suitable for transporting potable water.

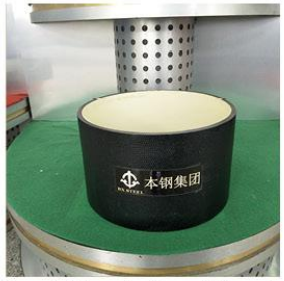
PU coating pipe



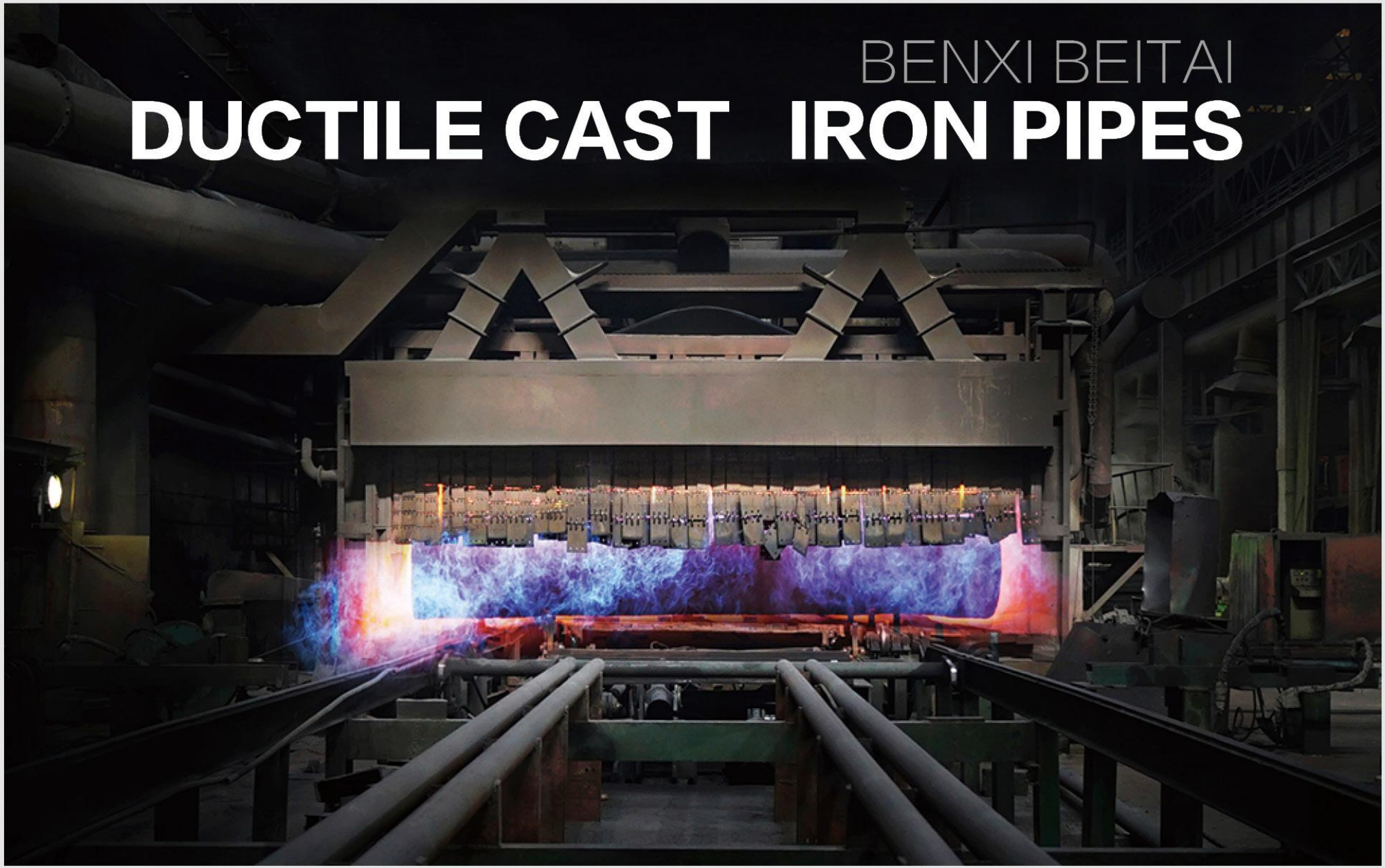
Ceramic lining & PU coating pipe



Ceramic lining pipe for sewage water



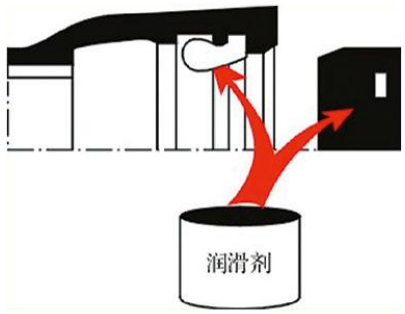
Ceramic lining pipe for potable water


BENXI BEITAI
DUCTILE CAST IRON PIPES

Fitting
Fittings are produced in accordance with ISO253、GB/T13295、EN545 standards.

Rubber gasket
Rubber gaskets are produced in accordance with ISO4633 standards.

Polyethylene sleeve
As per customer's requirment,polyethylene sleeves can be supplied in accordance with ISO8180 standard,in order to protect the surface of pipes.



Lubricant
When assembling pipes with rubber gaskets, Lubricant is needed to reduce friction.It has no effect on water and Should be stored in temperature ranges from-20℃ ~+60℃

DUCTILE IRON PIPE MAIN PERFORMANCE
球墨铸铁管主要性能

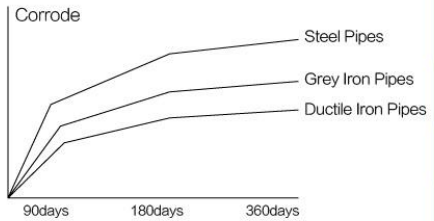
Better Mechanical Properties:
Microstructure comparison for Ductile Iron pipes, Steel pipes and Grey Iron pipes.

Ductile Iron Pipes　Steel Pipes　Grey Iron pipes

Ductile iron pipes have better mechanical properties than steel pipes and grey iron pipes:

Type of pipes	Ductile Iron pipes	Grey Iron pipes	Steel pipes
Tensile strength(N/mm²)	≥420	150-260	≥400
Elongation(%)	DN80-1000≥10 DN1100-2600≥7	Negligible	≥18
Hardness(HBW)	≤230	≤210	140/Approx.140

High corrosion resistance:
Ductile Iron pipe has better corrosion resistance properties than Steel pipe and Grey Iron pipe:



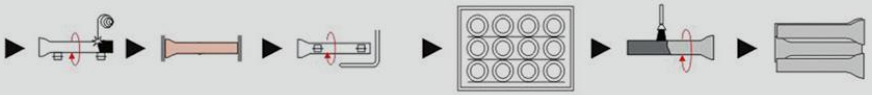
Testing Period

Type of Pipes	Corroded volume when merged into sea water(gr/cm²)	
	After 45 days	After 90 days
Ductile Iron Pipes	0.0060	0.0090
grey Iron Pipes	0.0060	0.0103
Steel Pipes	0.0294	0.0396

Hydrostatic test pressure at works:

DN(mm)	Minimum work test pressure(Bar)		
	ISO2531-1998		ISO2531-2009
	k<9	k≥9	Preferred pressure classes
≥300	0.5(K+1)²	50	40
DN350-600	0.5K²	40	30
DN700-1000	0.5(K-1)²	32	25
DN1100-2000	0.5(K-2)²	25	
DN2200-2600	0.5(K-3)²	18	

PRODUCTION PROCESSES
生产工序



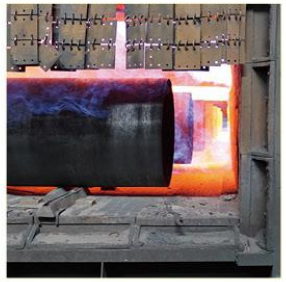
Main equipments list

Main Equipments	Qty.	Place of Made in	Annual Capacity
45-Tons Melted Iron Storing Electric Furnace	3	Changchun City, China	700,000 tons
10-Tons Medium Frequency Electric Furnace	10	PILLAR in USA	500,000 tons
20-Tons Medium Frequency Electric Furnace	3	PILLAR in USA	200,000 tons
Water Cooling Centrifugal Casting Machine	10	ROFI in Germany	500,000 tons
Hot Mould Centrifugal Casting Machine	4	Dalian, China	200,000 tons
Continuous Annealing Furnace	3	IOB in Germany	500,000 tons
Trolley-Style Annealing Furnace	4	Dalian, China	200,000 tons
Finishing Line	5	BRACKER in Germany	700,000 tons
Cement Mortar Lining Machine	5	BRACKER in Germany	700,000 tons
Bitumen Painting Machine	4	BRACKER in Germany	700,000 tons

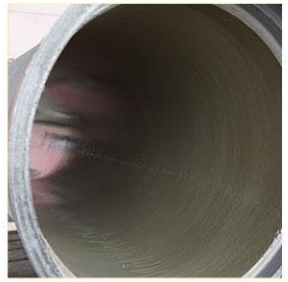

Spheroidizing


Sand mould casting


Water-cooled casting


Annealing


Zinc painting

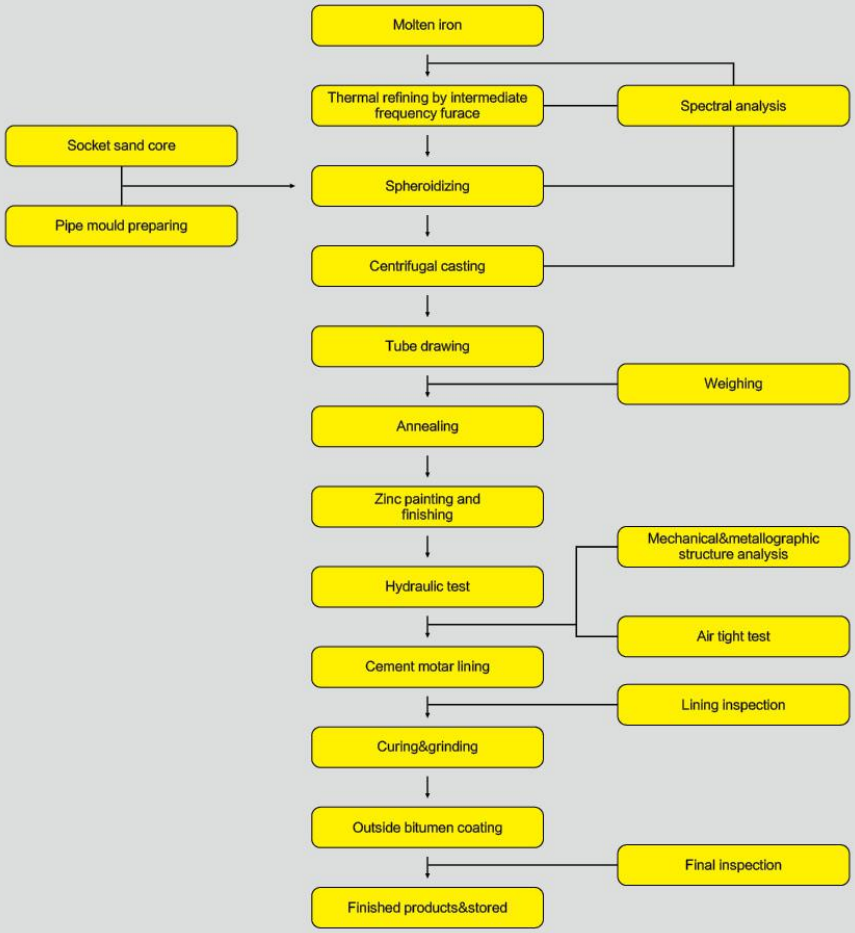

Cement motar lining


Cement lining grinding


Finishing, mark painting


Finished products storage

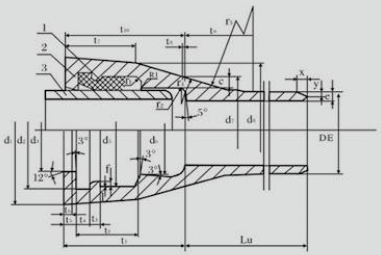
QUALITY CONTROL SYSTEM
质量控制系统



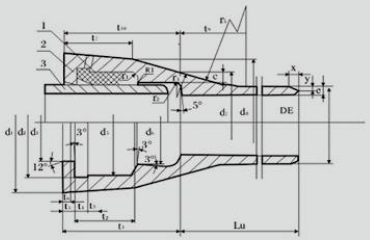
Strict detection

严格检测

TECHNICAL DATA
技术数据



DN80–DN1200 Dimensions of T-type joint pipes



DN1400–DN1800

DN	DE	d1	t1	d3	d5	d6	e
DN80	$98_{-2.8}$	140	85	100.5	119.1	103.2	$6.0_{-1.3}$
DN100	$118_{-2.8}$	163	88	120.5	138.9	123.4	$6.0_{-1.3}$
DN125	$144_{-2.8}$	190	91	146.5	164.8	150	$6.0_{-1.3}$
DN150	$170_{-2.9}$	217	94	172.5	190.6	175.3	$6.0_{-1.3}$
DN200	$222_{-3.0}$	278	100	224.5	245.2	227.8	$6.3_{-1.5}$
DN250	$274_{-3.1}$	336	105	276.5	296.9	279.7	$6.8_{-1.5}$
DN300	$326_{-3.3}$	393	110	328.5	351.7	332.1	$7.2_{-1.6}$
DN350	$378_{-3.4}$	448	110	380.5	403.4	383.8	$7.7_{-1.65}$
DN400	$429_{-3.5}$	540	110	431.5	457.2	435.8	$8.1_{-1.7}$
DN450	$480_{-3.6}$	552	120	482.5	509	487	$8.6_{-1.75}$
DN500	$532_{-3.8}$	604	120	534.5	562.6	539.4	$9.0_{-1.8}$
DN600	$635_{-4.0}$	713	120	637.5	668.0	642.6	$9.9_{-1.9}$
DN700	$738_{-4.2}$	824	150	740.5	779.3	745.8	$10.8_{-2.0}$
DN800	$842_{-4.5}$	943	160	844.5	885.9	850	$11.7_{-2.1}$
DN900	$945_{-4.8}$	1052	175	947.5	991.3	953.2	$12.6_{-2.2}$
DN1000	$1048_{-5.0}$	1158	185	1050.5	1097.1	1056.4	$13.5_{-2.3}$
DN1100	$1152_{-5.2}$	1267	200	1155	1202.5	1160.2	$14.4_{-2.4}$
DN1200	$1255_{-5.5}$	1377	215	1258	1308	1264	$15.3_{-2.4}$
DN1400	$1462_{-6.0}$	1610	239	1465	1509	1471	$17.1_{-2.7}$
DN1500	$1565_{-6.0}$	1695	240	1568.5	1615	1575	$18.0_{-2.8}$
DN1600	$1668_{-6.5}$	1814	240	1672	1717	1682	$18.9_{-2.9}$
DN1800	$1875_{-7.0}$	2040	300	1880	1926	1885	$20.7_{-3.1}$
DN2000	2081^{+1}_{-9}	2252	300	2087^{+9}_{-1}	2134^{+9}_{-1}	2093^{+9}_{-1}	$22.5_{-3.3}$
DN2200	$2288^{+1}_{-7.5}$	2478	325	2296^{+9}_{-1}	2342^{+9}_{-1}	2300 ± 6	$24.3_{-3.5}$
DN2400	$2495^{+1}_{-7.5}$	2706	354	2502^{+9}_{-1}	2552^{+9}_{-1}	2509 ± 6	$26.1_{-3.7}$
DN2600	$2702^{+1}_{-7.5}$	2919	360	2710^{+9}_{-1}	2763^{+9}_{-1}	2718 ± 6	$27.9_{-3.9}$

Weight of T-type joint pipe

DN(mm)	APP.WEIGHT OF SOCKET (KG)	K9 (KG)		K10 (KG)		K11 (KG)		K12 (KG)		K8 (KG)		K7 (KG)	
		6M	5.5M	6M	5.5M	6M	5.5M	6M	5.5M	6M	5.5M	6M	5.5M
80	3.4	77	71	77	71	82	75	88	81	77	71	77	71
100	4.3	95	86	95	87	102	94	110	102	95	86	95	86
125	5.7	119	106	121	111	131	121	142	131	116	107	116	107
150	7.1	144	127	149	137	162	149	175	162	138	127	138	127
200	10.3	194	176	211	194	230	212	249	229	182	168	182	168
250	14.2	255	235	280	258	306	282	331	305	228	210	228	210
300	18.9	323	298	357	329	390	359	422	389	290	268	274	255
350	23.7	403	371	442	407	482	444	522	481	359	331	320	296
400	29.5	482	445	532	490	581	535	629	580	433	399	382	354
450	38.3	575	532	633	583	691	636	748	689	515	476	459	425
500	42.8	669	616	737	679	805	741	872	803	600	554	530	491
600	59.3	882	814	972	896	1061	978	1150	1059	792	731	700	648
700	79.1	1123	1036	1237	1141	1351	1245	1463	1348	1009	931	891	826
800	102.6	1394	1286	1535	1416	1676	1545	1815	1673	1255	1156	1107	1026
900	129.9	1691	1561	1862	1718	2033	1874	2200	2029	1521	1404	1343	1247
1000	161.3	2017	1862	2221	2049	2423	2235	2624	2419	1814	1675	1605	1488
1100	194.7	2372	2190	2611	2409	2848	2627	3086	2845	2133	1971	1893	1752
1200	237.7	2758	2548	3035	2802	3310	3054	3583	3304	2482	2295	2198	2040
1400	385.3	3669	3395	4029	3726	4388	4055	4746	4383	3307	3065	2946	2733
1500	474.5	4175	3867	4581	4239	4986	4610	5390	4980	3768	3494	3361	3120
1600	526.2	4668	4323	5123	4740	5576	5155	6028	5570	4213	3906	3756	3487
1800	702.3	5803	5379	6363	5892	6922	6403	7479	6914	5242	4864	4680	4348
2000	885.1	7043	6530	7719	7149	8392	7767	9065	8383	6366	5909	5687	5287
2200	1233.0	8543	7934	9346	8670	10146	9403	10945	10135	7739	7196	6932	6457
2400	1351.5	9915	9202	10855	10064	11794	10923	12729	11781	8973	8338	8028	7472
2600	1556.0	11471	10644	12559	11642	13646	12638	14729	13632	10379	9644	9285	8641

Weight of K-type joint pipe

DN(mm)	APP.WEIGHT OF SOCKET (KG)	K9 (KG)			K10 (KG)		K11 (KG)		K12 (KG)		K8 (KG)		K7 (KG)	
		8.15M	6M	5.5M	6M	5.5M	6M	5.5M	6M	5.5M	6M	5.5M	6M	5.5M
1200	201	3625	2722	2512	2998	2765	3274	3018	3548	3269	2445	2258	2167	2003
1400	265.8	4725	3549	3275	3910	3606	4269	3935	4627	4263	3189	2945	2827	2613
1500	298.8	5325	3999	3691	4406	4063	4810	4434	5214	4804	3593	3318	3185	2944
1600	375.4	6001	4517	4172	4972	4589	5425	5004	5877	5419	4062	3755	3606	3336
1800	490.6	7419	5591	5166	6152	5680	6710	6192	7267	6702	5031	4652	4468	4137
2000	626.4	8991	6784	6271	7461	6891	8135	7509	8808	8126	6107	5651	5428	5028
2200	784.2	10713	8094	7485	8897	8221	9698	8955	10496	9687	7290	6748	6484	6009
2400	1108	12740	9671	8958	10612	9820	11550	10680	12486	11538	8729	8094	7784	7228
2600	1295	14726	11209	10383	12299	11382	11382	12378	14469	13371	10119	9383	9025	8381

Weight of preferred pressure class and other pressure classes

DN (mm)	DE[a] (mm)	Weight(kg)						
		C20	C25	C30	C40	C50	C64	C100
80	98				58	58	58	63
100	118				71	71	71	87
125	114				89	89	95	125
150	170				106	106	123	167
200	222				146	166	196	271
250	274				210	242	290	402
300	326			236	282	332	394	555
350	378		276	335	374	436	522	738
400	429		339	394	466	548	657	934
450	480		423	472	577	681	821	1167
500	532		497	566	689	818	986	1417
600	635		693	783	963	1142	1383	1992
700	738	788	913	1037	1275	1520	1848	2676
800	842	1000	1165	1328	1643	1965	2394	
900	945	1237	1446	1654	2045	2444	2996	
1000	1048	1513	1759	2004	2504	2987		
1100	1152	1803	2103	2416	3011	3601		
1200	1255	2122	2481	2840	3552			
1400	1462	2908	3403	3877				
1500	1565	3340	3911	4459				
1600	1668	3778	4408	5036				
1800	1875	4753	5559	6363				
2000K	2082	5591	6595	7568				
2200K	2288	6752	7945					
2400K	2495	8149	9580					
2600K	2702	9520	11209					

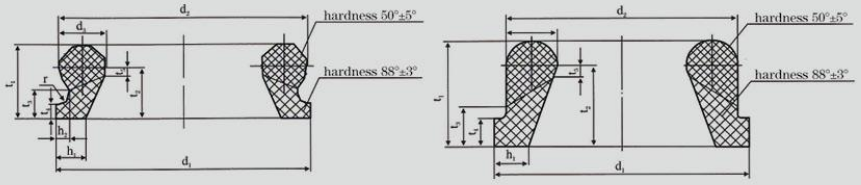
Blue parts are preferred pressure class

Wall thickness of preferred pressure class and other pressure classes

DN(mm)	WEIGHT (K9)	D1	W	DEMENSION OF SPIGOT				DEMENSION OF SOCKET			
				D4	a	b	c	D2	D3	D5	D6
DN80	78	167±1	13±1	$98^{+1}_{-2.7}$	5^{+1}_{0}	4^{+1}_{0}	85^{+1}_{0}	123±1	100.5^{+1}_{-1}	119.1^{+1}_{-1}	103.2±2
DN100	96	188±1	13±1	$118^{+1}_{-2.8}$	5^{+1}_{0}	4^{+1}_{0}	88^{+1}_{0}	143±1	120.5^{+1}_{-1}	138.9^{+1}_{-1}	123.4±2
DN150	146	242±1	13±1	$170^{+1}_{-2.9}$	5^{+1}_{0}	4^{+1}_{0}	94^{+1}_{0}	192±1	172.5^{+1}_{-1}	190.6^{+1}_{-1}	175.3±2
DN200	196	294±1	13±1	222^{+1}_{-3}	5^{+1}_{0}	4^{+1}_{0}	105^{+1}_{0}	$250^{+1.5}_{-1}$	$224.5^{+1.5}_{-1}$	$245.2^{+1.5}_{-1}$	227.8±2
DN250	258	351±1	13±1	$274^{+1}_{-3.1}$	5^{+1}_{0}	4^{+1}_{0}	105^{+1}_{0}	$301.5^{+1.5}_{-1}$	$276.5^{+1.5}_{-1}$	$296.9^{+1.5}_{-1}$	279.7±2
DN300	327	$408.2^{+1.3}_{-1.2}$	13±1	$326^{+1}_{-3.3}$	5^{+1}_{0}	4^{+1}_{0}	110^{+1}_{0}	$356.5^{+1.8}_{-1}$	$328.5^{+1.8}_{-1}$	$351.7^{+1.8}_{-1}$	332.1±2
DN350	408	$464.2^{+1.3}_{-1.2}$	13±1	$378^{+1}_{-3.4}$	5^{+1}_{0}	4^{+1}_{0}	110^{+1}_{0}	$408^{+1.8}_{-1}$	$380.5^{+1.8}_{-1}$	$403.4^{+1.8}_{-1}$	383.8±2
DN400	488	$516.2^{+1.3}_{-1.2}$	13±1	$429^{+1}_{-3.5}$	5^{+1}_{0}	4^{+1}_{0}	110^{+1}_{0}	$462^{+2.1}_{-1}$	$431.5^{+2.1}_{-1}$	$457.2^{+2.1}_{-1}$	435.8±2.5
DN450	582	$576.5^{+1.3}_{-1.2}$	13±1	$480^{+1}_{-3.6}$	7^{+1}_{0}	7^{+1}_{0}	120^{+1}_{0}	$514^{+2.2}_{-1}$	$482.5^{+2.2}_{-1}$	$509^{+2.2}_{-1}$	487±2.5
DN500	676	$629.5^{+1.3}_{-1.2}$	19±1	$532^{+1}_{-3.8}$	7^{+1}_{0}	7^{+1}_{0}	120^{+1}_{0}	$568^{+2.4}_{-1}$	$534.5^{+2.4}_{-1}$	$562.6^{+2.4}_{-1}$	539.4±3
DN600	888	738.5±1	19±1	635^{+1}_{-4}	7^{+1}_{0}	7^{+1}_{0}	120^{+1}_{0}	$673.4^{+2.7}_{-1}$	$637.5^{+2.7}_{-1}$	$668^{+2.7}_{-1}$	642.6±3
DN700	1137	863±2	19±1	$738^{+1}_{-4.2}$	7^{+1}_{0}	7^{+1}_{0}	150^{+1}_{0}	$788^{+3.5}_{-1}$	$740.5^{+3.5}_{-1}$	$779.3^{+3.5}_{-1}$	745.8±3.5
DN800	1416	970±2	19±1	$842^{+1}_{-4.5}$	7^{+1}_{0}	7^{+1}_{0}	160^{+1}_{0}	$894^{+3.8}_{-1}$	$844.5^{+3.8}_{-1}$	$885.9^{+3.8}_{-1}$	850±3.8
DN900	1722	1080±2	19±1	$945^{+1}_{-4.8}$	8^{+1}_{0}	8^{+1}_{0}	175^{+1}_{0}	$1000^{+4.1}_{-1}$	$947.5^{+4.1}_{-1}$	$991.3^{+4.1}_{-1}$	953.2±4.1
DN1000	2050	1189±2	19±1	1048^{+1}_{-5}	8^{+1}_{0}	8^{+1}_{0}	185^{+1}_{0}	$1105^{+4.4}_{-1}$	$1050.5^{+4.4}_{-1}$	$1097.1^{+4.4}_{-1}$	1056.4±4.4
DN1100	2415	1298±2	19±1	$1152^{+1}_{-5.2}$	8^{+1}_{0}	8^{+1}_{0}	200^{+1}_{0}	$1211^{+4.7}_{-1}$	$1155^{+4.7}_{-1}$	$1202.5^{+4.7}_{-1}$	1160.2±4.7
DN1200	2806	1408±2	19±1	$1255^{+1}_{-5.5}$	9^{+1}_{0}	9^{+1}_{0}	215^{+1}_{0}	1317^{+5}_{-1}	1258^{+5}_{-1}	1308^{+5}_{-1}	1264±5
DN1400	3705	1646±2	24±1	1462^{+1}_{-6}	9^{+1}_{0}	9^{+1}_{0}	239^{+2}_{0}	$1529^{+5.6}_{-1}$	$1465^{+5.6}_{-1}$	$1509^{+5.6}_{-1}$	1471±5.6
DN1500	4221	1735±2	26±1	1565^{+1}_{-6}	9^{+1}_{0}	9^{+1}_{0}	240^{+2}_{0}	1635^{+6}_{-1}	1568.5^{+6}_{-1}	1615^{+6}_{-1}	1575±6
DN1600	4788	1844±2	30±1	1668^{+1}_{-8}	10^{+1}_{0}	10^{+1}_{0}	240^{+2}_{0}	1743^{+6}_{-1}	1672^{+6}_{-1}	1719^{+6}_{-1}	1682±6
DN1800	5925	2062±2	40±1	1875^{+1}_{-7}	10^{+1}_{0}	10^{+1}_{0}	300^{+2}_{0}	$1954^{+6.8}_{-1}$	$1880^{+6.8}_{-1}$	$1926^{+6.8}_{-1}$	1885±6.8

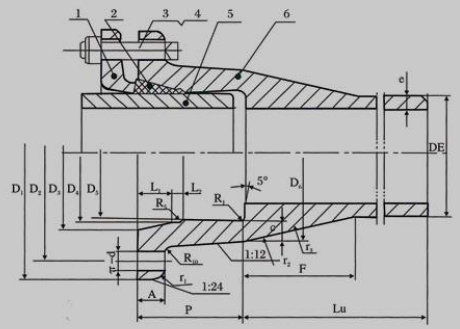
Minimum allowable diameter of lower pressure class pipes:C20 DN700；C25 DN350；C30 DN300
Blue parts are preferred pressure class

Dimensions of T-type joint gasket



DN (mm)	d_1 (mm)	d_2 (mm)	d_3 (mm)	h_1 (mm)	h_2 (mm)	t_1 (mm)	t_2 (mm)	t_3 (mm)	t_4 (mm)	t_5 (mm)	R (mm)
80	126	123	16	10	4.5	26	18	10	5	3	3
100	146	144	16	10	4.5	26	18	10	5	3	3.5
125	172	170	16	10	4.5	26	18	10	5	3	3.5
150	200	198	16	10	4.5	26	18	10	5	3	3.5
200	256	254	18	11	5	30	21	12	6	4	4
250	310	308	18	11	5	32	23	12	6	4	4
300	366	364	20	12	5.5	34	24	14	7	4	4.5
350	420	418	20	12	5.5	34	24	14	7	4	4.5
400	475	473	22	13	6	38	27	16	8	5	5
450	528	526	23	13	6	38	27	16	8	5	5
500	583	581	24	14	6.5	42	30	18	9	6	5.5
600	592	690	26	15	6.5	46	33	20	10	7	6
700	809	803	33.5	20	7	55	39	24	16	8	7
800	919	913	33.5	21	10	60	43	26	16	9	8
900	1026	1020	37.5	22	11	65	47	28	18	10	9
1000	1133	1127	39.5	23	12	70	51	30	18	10	9
1100	1242	1235	40.0	25	13.5	74	54	32	19	10	10
1200	1352	1345	43.5	27	13.5	78	57	34	20	12	10
1400	1569	1549	41.5	27	—	80	58	28	23	22	—
1500	1677	1660	42	30	—	70	49	20	25	22	—
1600	1799	1779	42	32.5	—	70	49	30	23	20	—
1800	2018	1974	42	31	—	85	59.5	28	23	20	—

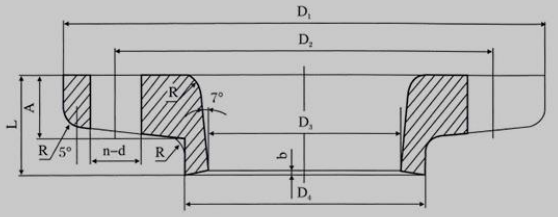
Dimensions of K-type joint pipe



Type	1	2	3
	gland	gasket	bolt
K	4	5	6
	nut	spigot	socket

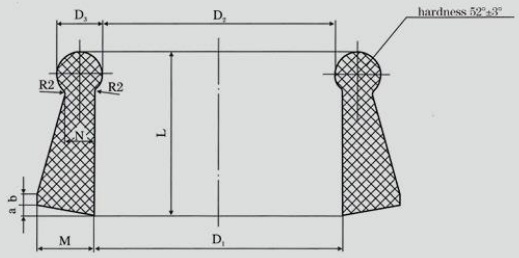
DN	DE	e/mm	D1	D2	D3	D4	D5	D6	A	C	P	F	r1	r2	r3	L1	L2	d	N
1200	1255 $^{+1}_{-5.5}$	15.3	1444	1378	1297	1275 ±2	1261 $^{+3.5}_{-3}$	1314	35	24	130	133	15	85	250	43	15	33	28
1400	1462 +1	17.1	1657	1591	1504	1482	1469 +4	1527	38	27	130	147	15	70	280	43	15	33	28
1500	1565 −6	18	1766	1700	1608	1586 ±2.5	1573 −3	1634	40	28	130	155	15	60	300	43	15	33	28
1600	1668 +1	18.9	1874	1808	1720	1690	1678 +5	1740	41	29	160	163	15	50	354	59	17	33	30
1800	1875	20.7	2089	2023	1927	1897	1883 −4	1954	43	32	170	179	20	60	370	59	17	33	34
2000	2082	22.5	2305	2239	2134	2104	2091	2168	46	35	180	195	20	120	380	59	17	33	36
2200	2288 +1	24.3	2519	2453	2340	2310	2298 +5.5	2381	49	38	190	210	20	150	390	59	17	33	40
2400	2495 −7.5	26.1	2734	2668	2547	2517 ±2.8	2505 −4	2595	52	41	250	226	20	170	402	59	17	33	44
2600	2702	27.9	2949	2883	2754	2724	2713	2809	55	43	260	242	20	185	415	59	17	33	48

Dimensions of K-type joint gland



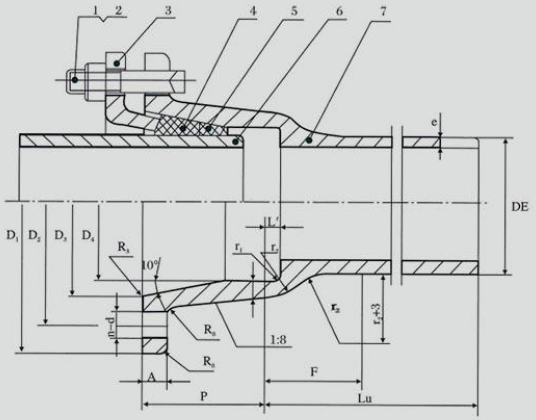
DN	D1	D2	D3	D4	A	L	R	b	N-d (No. −mm)	Weight /kg
1200	1444	1378	1262	1290	32	51	9	2.5	28-33	82.5
1400	1657	1591	1469	1497	34	53	9	3	28-33	104
1500	1766	1700	1573	1601	35	54	9	3	28-33	119
1600	1874	1808	1676	1711	36	55	9	3	30-33	123
1800	2089	2023	1883	1918	38	57	11	3	34-33	162
2000	2305	2239	2090	2125	40	59	11	3	36-33	196
2200	2519	2453	2296	2331	43	62	11	3	40-33	238
2400	2734	2668	2503	2538	46	65	11	3	44-33	318
2600	2949	2883	2710	2745	49	68	11	3	48-33	378

Dimensions of K-type joint gasket



DN	D1	D2	D3	L	M	N	a	b
1200	1230	1223	20	62	21.5	13	4	5
1400	1430	1423	20	62	21.5	13	4	5
1500	1532	1525	20	62	21.5	13	4	5
1600	1635	1628	23	80	27	15	4	5
1800	1833	1825	23	80	27	15	4	5
2000	2035	2027	23	80	27	15	4	5
2200	2235	2227	23	80	27	15	4	5
2400	2440	2432	23	80	27	15	4	5
2600	2645	2637	23	80	27	15	4	5

N_1-type joint pipe



Type	1	2	3	4	5	6	7
N_n	nut	blot	gland	gasket	bracing ring	spigot	socket

Dimensions of N_1-type joint

DN	D_1	D_2	D_3	D_4	DE	A	C	P	L'	F	r1	r2	d	N/NO.
100	262	210	152	136	118 $^{+1}_{-2}$	18	12	105	10	65	8	40	23	4
150	313	262	204	186	169 $^{+1}_{-2}$	18	12	110	10	65				6
200	366	312	256 ±1.5	238 ±1.5	220	18	13	111	11	66	10			
250	418	366	310	292	272	21	13	112	12	71				
300	471	420	362	344	323 $^{+1}_{-3}$	21	14	113	13	72				8
350	524	474	414	396	375.5	21	15	113	13	74	15			10
400	578	526	465 ±2	446.5 ±2	426	24	15	114	14	75				
500	686	632	571	551.5	528	24	16	115	15	82				14
600	794	740	674	654.5	631 $^{+1}_{-4}$	26	16	116	16	85	18	60	24	16
700	898	844	781 ±2.5	758 ±2.5	738	26	17	110	17	106				16

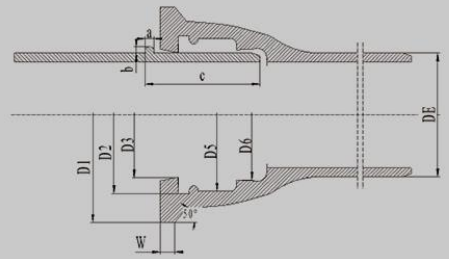
Weight of N_1-type joint pipe (K9)

Diameter DN/mm	Wall thickness e/mm	Approximate weight of socket /kg	Weight of straight pipe /meter(kg)	weight/kg			
				effective length/mm			
				4	5	5.5	6
100	6	10.3	14.9	70	85	92	100
150		13.9	21.8	101	123	134	145
200	6.3	17.9	30.1	138	168	183	199
250	6.8	22.6	40.2	183	224	244	264
300	7.2	27.3	50.8	231	281	307	332
350	7.7	32.3	63.2	285	348	380	412
400	8.1	38	75.5	340	416	453	491
500	9	48.4	104.3	466	570	622	674
600	9.9	59.4	137.3	609	746	815	883
700	10.8	97.2	173.9	774	—	1035	1141

Weight of TF Restrained joint pipe

DN(mm)	K9(KG)		K10(KG)	K11(KG)	K12(KG)	K8(KG)
	6m	5.5m	6m	6m	6m	6m
100	96	89	96	103	111	96
150	146	135	151	164	177	140
200	196	181	213	232	251	184
250	258	238	283	309	334	231
300	327	302	361	394	426	294
400	488	450	538	587	635	439
450	582	537	640	698	755	522
500	676	624	744	812	879	607
600	888	820	978	1067	1156	798
700	1137	1050	1251	1365	1477	1023
800	1416	1309	1557	1698	1837	1277
900	1722	1592	1893	2064	2231	1552
1000	2050	1895	2254	2456	2657	1847
1200	2806	2597	3083	3358	3631	2530
1400	3705	3431	4065	4424	4782	3343
1500	4221	3913	4627	5032	5436	3814
1600	4788	4373	5173	5626	6078	4263

Demension&weight of TF Restrained joint pipe



DN(mm)	WEIGHT (K9)	D1	W	DEMENSION OF SPIGOT				DEMENSION OF SOCKET			
				D4	a	b	c	D2	D3	D5	D6
DN80	78	167±1	13±1	$98^{+1}_{-2.7}$	5^{+1}_{0}	4^{+1}_{0}	85^{+1}_{0}	123±1	100.5^{+1}_{-1}	119.1^{+1}_{-1}	103.2±2
DN100	96	188±1	13±1	$118^{+1}_{-2.8}$	5^{+1}_{0}	4^{+1}_{0}	88^{+1}_{0}	143±1	120.5^{+1}_{-1}	138.9^{+1}_{-1}	123.4±2
DN150	146	242±1	13±1	$170^{+1}_{-2.9}$	5^{+1}_{0}	4^{+1}_{0}	94^{+1}_{0}	192±1	172.5^{+1}_{-1}	190.6^{+1}_{-1}	175.3±2
DN200	196	294±1	13±1	222^{+1}_{-3}	5^{+1}_{0}	4^{+1}_{0}	105^{+1}_{0}	$250^{+1.5}_{-1}$	$224.5^{+1.5}_{-1}$	$245.2^{+1.5}_{-1}$	227.8±2
DN250	258	351±1	13±1	$274^{+1}_{-3.1}$	5^{+1}_{0}	4^{+1}_{0}	105^{+1}_{0}	$301.5^{+1.5}_{-1}$	$276.5^{+1.5}_{-1}$	$296.9^{+1.5}_{-1}$	279.7±2
DN300	327	$408.2^{+1.3}_{-1.2}$	13±1	$326^{+1}_{-3.3}$	5^{+1}_{0}	4^{+1}_{0}	110^{+1}_{0}	$356.5^{+1.8}_{-1}$	$328.5^{+1.8}_{-1}$	$351.7^{+1.8}_{-1}$	332.1±2
DN350	408	$464.2^{+1.3}_{-1.2}$	13±1	$378^{+1}_{-3.4}$	5^{+1}_{0}	4^{+1}_{0}	110^{+1}_{0}	$408^{+1.8}_{-1}$	$380.5^{+1.8}_{-1}$	$403.4^{+1.8}_{-1}$	383.8±2
DN400	488	$516.2^{+1.3}_{-1.2}$	13±1	$429^{+1}_{-3.5}$	5^{+1}_{0}	4^{+1}_{0}	110^{+1}_{0}	$462^{+2.1}_{-1}$	$431.5^{+2.1}_{-1}$	$457.2^{+2.1}_{-1}$	435.8±2.5
DN450	582	$576.5^{+1.3}_{-1.2}$	13±1	$480^{+1}_{-3.6}$	7^{+1}_{0}	7^{+1}_{0}	120^{+1}_{0}	$514^{+2.2}_{-1}$	$482.5^{+2.2}_{-1}$	$509^{+2.2}_{-1}$	487±2.5
DN500	676	$629.5^{+1.3}_{-1.2}$	19±1	$532^{+1}_{-3.8}$	7^{+1}_{0}	7^{+1}_{0}	120^{+1}_{0}	$568^{+2.4}_{-1}$	$534.5^{+2.4}_{-1}$	$562.6^{+2.4}_{-1}$	539.4±3
DN600	888	738.5±1	19±1	635^{+1}_{-4}	7^{+1}_{0}	7^{+1}_{0}	120^{+1}_{0}	$673.4^{+2.7}_{-1}$	$637.5^{+2.7}_{-1}$	$668^{+2.7}_{-1}$	642.6±3
DN700	1137	863±2	19±1	$738^{+1}_{-4.2}$	7^{+1}_{0}	7^{+1}_{0}	150^{+1}_{0}	$788^{+3.5}_{-1}$	$740.5^{+3.5}_{-1}$	$779.3^{+3.5}_{-1}$	745.8±3.5
DN800	1416	970±2	19±1	$842^{+1}_{-4.5}$	7^{+1}_{0}	7^{+1}_{0}	160^{+1}_{0}	$894^{+3.8}_{-1}$	$844.5^{+3.8}_{-1}$	$885.9^{+3.8}_{-1}$	850±3.8
DN900	1722	1080±2	19±1	$945^{+1}_{-4.8}$	8^{+1}_{0}	8^{+1}_{0}	175^{+1}_{0}	$1000^{+4.1}_{-1}$	$947.5^{+4.1}_{-1}$	$991.3^{+4.1}_{-1}$	953.2±4.1
DN1000	2050	1189±2	19±1	1048^{+1}_{-5}	8^{+1}_{0}	8^{+1}_{0}	185^{+1}_{0}	$1105^{+4.4}_{-1}$	$1050.5^{+4.4}_{-1}$	$1097.1^{+4.4}_{-1}$	1056.4±4.4
DN1100	2415	1298±2	19±1	$1152^{+1}_{-5.2}$	8^{+1}_{0}	8^{+1}_{0}	200^{+1}_{0}	$1211^{+4.7}_{-1}$	$1155^{+4.7}_{-1}$	$1202.5^{+4.7}_{-1}$	1160.2±4.7
DN1200	2806	1408±2	19±1	$1255^{+1}_{-5.5}$	9^{+1}_{0}	9^{+1}_{0}	215^{+1}_{0}	1317^{+5}_{-1}	1258^{+5}_{-1}	1308^{+5}_{-1}	1264±5
DN1400	3705	1646±2	24±1	1462^{+1}_{-6}	9^{+1}_{0}	9^{+1}_{0}	239^{+2}_{0}	$1529^{+5.6}_{-1}$	$1465^{+5.6}_{-1}$	$1509^{+5.6}_{-1}$	1471±5.6
DN1500	4221	1735±2	26±1	1565^{+1}_{-6}	9^{+1}_{0}	9^{+1}_{0}	240^{+2}_{0}	1635^{+6}_{-1}	1568.5^{+6}_{-1}	1615^{+6}_{-1}	1575±6
DN1600	4788	1844±2	30±1	1668^{+1}_{-8}	10^{+1}_{0}	10^{+1}_{0}	240^{+2}_{0}	1743^{+6}_{-1}	1672^{+6}_{-1}	1719^{+6}_{-1}	1682±6
DN1800	5925	2062±2	40±1	1875^{+1}_{-7}	10^{+1}_{0}	10^{+1}_{0}	300^{+2}_{0}	$1954^{+6.8}_{-1}$	$1880^{+6.8}_{-1}$	$1926^{+6.8}_{-1}$	1885±6.8

note:
1、The design of our self-restrained joint pipe is based on T-type joint pipe, all the dimensions inside socket are the same with T-type joint. The difference between them is D1 and W.
2、Dimension of welded ring as a, b , c.

TYPICAL PROJECT
典型工程

Ben Gang DI pipes block train
Dalian-Moscow

Saudi Arabia project

Algeria PU coating project

Completion ceremony of SE100

Kuwait SE80 project

Brasil DN1500 project

Kuwait SE100 DN1400 project

Jedddah DN1400 project, Saudi Arabia

Over the years, the national and provincial leaders concerned about the development of Ben Gang, inspected the group and each branch for many times, and put forward valuable suggestions.

During the construction of the factory, Zhu Rongji, then vice premier of the state council, visited our company.

LEADERSHIP CARE
领导关怀

Premier Wen Jiabao of the state council visited our company at that time.

Li Keqiang, then party secretary of Liaoning province, came to our company for inspection.