HL PIPE FITTING CO.,LTD

企业简介

Brief introduction

HL PIPE FITTING CO.,LTD. which located in YanShan County(the hometown of pipefitting in China), is a professional manufacturer of all series of Butt Welding Pipe Fittings. Product covers long and short elbows, straight and reducing tees, concentric and eccentric reducers, caps in ASTM, DIN, and EN materials.

Our factory capable of producing reaches 8000Ton per year. Since 2006, there are 2 set 1500T universal hydraulic machine and 5 set Double Beveling Machine have been put into use, these new machine are able to guarantee high efficiency and high quality.

Strong technical strength, advanced production facilities and test equipment, the sense of refined products growing with each passing day and continued improvement in productive technology, makes products sell well in North and South America Italy, South Korea, East Europe and the Middle East etc.

Welcome your visit to our factory and we will try our best to meet your different requirements with our qualified products, favorable price and considerate service.

HENGLI Fittings

HL PIPE FITTING CO.,LTD.

恒力管件有限公司

质量管理体系认证证书

兹证明

沧州恒力管件制造有限公司

建立的质量管理体系符合标准:

GB/T19001-2000 (idt ISO9001:2000)

认证范围: 中低压管件的生产及服务

删减条款: 7.3&7.5.4

发证日期: 2007 年 12 月 28 日　　有效日期: 2010 年 12 月 27 日

首次发证日期: ******　　换证日期: ******

总裁:

鹏程国际认证

QUALITY MANAGEMENT SYSTEM CERTIFICATE

This is to certify that

Cangzhou Hengli Pipe
Fitting Manufacturing Co.,Ltd.

at

East of Midi Yanta Road,Yanshan,Hebei,China

by reason of its

Quality Management System:

Has been awarded this certificate for compliance with the standard

GB/T19001-2000 (idt ISO9001:2000)

Certification Scope: Manufacture and Supply Butt Welding Pipe Fittings

Exclusions: 7.3&7.5.4

Date of Issue: 28-Dec-07　　Valid Until: 27-Dec-10

Date of The First Issue: ******　　Date of Recertification: ******

The continued effectiveness of the certificate shall be verified by the surveillance audit conformity logo as granted below.

Lead Auditor: Majun

President: An Weizhou

EXCEL INTERNATIONAL CERTIFICATION

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

生产设备

Production equipment

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产品展示
Products

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HL PIPE FITTING CO.,LTD

先进的生产设备，
良好的制造环境是优质产品的保证！

Fittings
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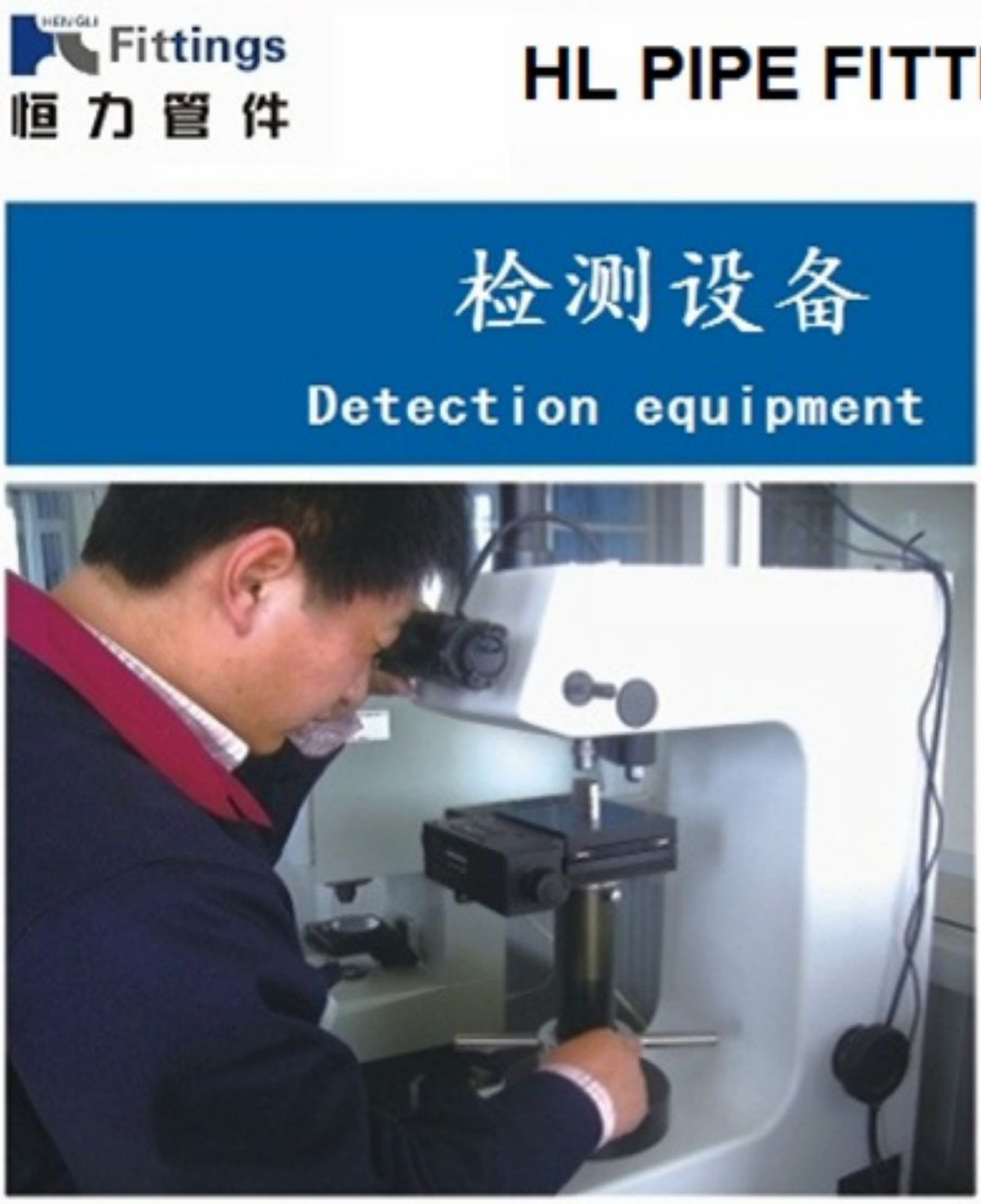
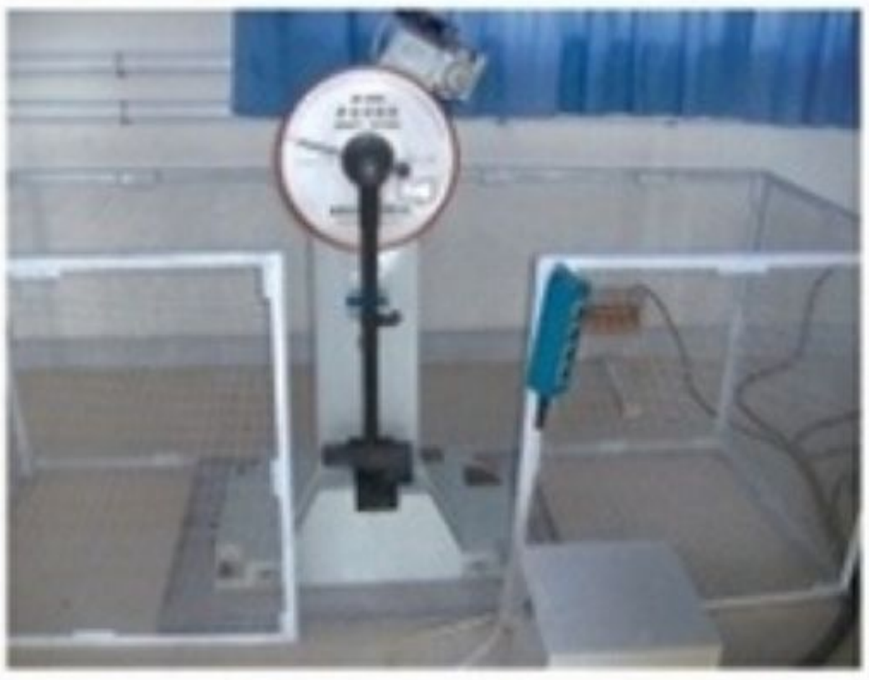
检测设备

Detection equipment





Fittings
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Fittings
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HL PIPE FITTING CO.,LTD

ASTM L/R90° ELBOW

ASTM S/R90° ELBOW

ASTM L/R45° ELBOW

ASTM S/R45° ELBOW

ASTM STRAIGHT TEE

ASTM REDUCING TEE

ASTM CON REDUCER

ASTM ECC REDUCER

ASTM L/R180° ELBOW

ASTM S/R180° ELBOW

ASTM CAP

ASTM BLACK MATT ELBOW

JIS B2311
L/R90° ELBOW

JIS B2311
S/R90° ELBOW

JIS B2311
CON REDUCER

JIS B2311
STRAIGHT TEE

DIN 2605
TYPE 5–5D

DIN 2605
TYPE 3–3D

DIN 2615

DIN 2617

DIN 2615

DIN 2616

DIN 2616

L/R 90° ELBOW
GALVANIZED PIPE–FITTINGS

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wall Thickness Schedules(ASME)

ASME B36.10 ASME B36.19

Nominal Pipe Size(NPS)		Outside Diameter		Nominal Wall Thickness									
				Sch5s		Sch 10s		Sch 40s		Sch80s		Sch5	
A	B	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
8	1/4	13.7	0.540	-	-	1.65	0.065	2.24	0.088	3.02	0.119	-	-
10	3/8	17.1	0.675	-	-	1.65	0.065	2.31	0.091	3.20	0.126	-	-
15	1/2	21.3	0.840	1.65	0.065	2.11	0.083	2.77	0.109	3.73	0.147	1.65	0.065
20	3/4	26.7	1.05	1.65	0.065	2.11	0.083	2.87	0.113	3.91	0.154	1.65	0.065
25	1	33.4	1.32	1.65	0.065	2.77	0.109	3.38	0.133	4.55	0.179	1.65	0.065
32	1¼	42.2	1.66	1.65	0.065	2.77	0.109	3.56	0.140	4.85	0.191	1.65	0.065
40	1½	48.3	1.9	1.65	0.065	2.77	0.109	3.68	0.145	5.08	0.200	1.65	0.065
50	2	60.3	2.38	1.65	0.065	2.77	0.109	3.91	0.154	5.54	0.218	1.65	0.065
65	2½	73.0	2.88	2.11	0.083	3.05	0.120	5.16	0.203	7.01	0.276	2.11	0.083
80	3	88.9	3.5	2.11	0.083	3.05	0.120	5.49	0.216	7.62	0.300	2.11	0.083
90	3½	101.6	4	2.11	0.083	3.05	0.120	5.74	0.226	8.08	0.318	2.11	0.083
100	4	114.3	4.5	2.11	0.083	3.05	0.120	6.02	0.237	8.56	0.337	2.11	0.083
125	5	141.3	5.56	2.77	0.109	3.40	0.134	6.55	0.258	9.53	0.375	2.77	0.109
150	6	168.3	6.62	2.77	0.109	3.40	0.134	7.11	0.280	10.97	0.432	2.77	0.109
200	8	219.1	8.62	2.77	0.109	3.76	0.148	8.18	0.322	12.70	0.500	2.77	0.109
250	10	273.0	10.75	3.40	0.134	4.19	0.165	9.27	0.365	12.70	0.500	3.40	0.134
300	12	323.8	12.75	3.96	0.156	4.57	0.180	9.53	0.375	12.70	0.500	3.96	0.156
350	14	355.6	14	3.96	0.156	4.78	0.188	9.53	0.375	12.70	0.500	3.96	0.156
400	16	406.4	16	4.19	0.165	4.78	0.188	9.53	0.375	12.70	0.500	4.19	0.165
450	18	457	18	4.19	0.165	4.78	0.188	9.53	0.375	12.70	0.500	4.19	0.165
500	20	508	20	4.78	0.188	5.54	0.218	9.53	0.375	12.70	0.500	4.78	0.188
550	22	559	22	4.78	0.188	5.54	0.218	9.53	0.375	12.70	0.500	4.78	0.188
600	24	610	24	5.54	0.218	6.35	0.250	9.53	0.375	12.70	0.500	5.54	0.218
650	26	660	26	-	-	-	-	-	-	-	-	-	-
700	28	711	28	-	-	-	-	-	-	-	-	-	-
750	30	762	30	6.35	0.250	7.92	0.312	9.53	0.375	12.70	0.500	6.35	0.250
800	32	813	32	-	-	-	-	-	-	-	-	-	-
850	34	864	34	-	-	-	-	-	-	-	-	-	-
900	36	914	36	-	-	-	-	-	-	-	-	-	-
950	38	965	38	-	-	-	-	-	-	-	-	-	-
1000	40	1016	40	-	-	-	-	-	-	-	-	-	-
1050	42	1067	42	-	-	-	-	-	-	-	-	-	-
1100	44	1118	44	-	-	-	-	-	-	-	-	-	-
1150	46	1168	46	-	-	-	-	-	-	-	-	-	-
1200	48	1219	48	-	-	-	-	-	-	-	-	-	-

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wall Thickness Schedules(ASME)

ASME B36.10 ASME B36.19

Nominal Pipe Size (NPS)		Outside Diameter		Nominal Wall Thickness									
				Sch 10		Sch20		Sch 30		STD		Sch 40	
A	B	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
8	1/4	13.7	0.540	1.65	0.065	-	-	1.85	0.073	2.24	0.088	2.24	0.088
10	3/8	17.1	0.675	1.65	0.065	-	-	1.85	0.073	2.31	0.091	2.31	0.091
15	1/2	21.3	0.840	2.11	0.083	-	-	2.41	0.095	2.77	0.109	2.77	0.109
20	3/4	26.7	1.05	2.11	0.083	-	-	2.41	0.095	2.87	0.113	2.87	0.113
25	1	33.4	1.32	2.77	0.109	-	-	2.90	0.114	3.38	0.133	3.38	0.133
32	1 1/4	42.2	1.66	2.77	0.109	-	-	2.97	0.117	3.56	0.140	3.56	0.140
40	1 1/2	48.3	1.9	2.77	0.109	-	-	3.18	0.125	3.68	0.145	3.68	0.145
50	2	60.3	2.38	2.77	0.109	-	-	3.18	0.125	3.91	0.154	3.91	0.154
65	2 1/2	73.0	2.88	3.05	0.120	-	-	4.78	0.188	5.16	0.203	5.16	0.203
80	3	88.9	3.5	3.05	0.120	-	-	4.78	0.188	5.49	0.216	5.49	0.216
90	3 1/2	101.6	4	3.05	0.120	-	-	4.78	0.188	5.74	0.226	5.74	0.226
100	4	114.3	4.5	3.05	0.120	-	-	4.78	0.188	6.02	0.237	6.02	0.237
125	5	141.3	5.56	3.40	0.134	-	-	-	-	6.55	0.258	6.55	0.258
150	6	168.3	6.62	3.40	0.134	-	-	-	-	7.11	0.280	7.11	0.280
200	8	219.1	8.62	3.76	0.148	6.35	0.250	7.04	0.277	8.18	0.322	8.18	0.322
250	10	273.0	10.75	4.19	0.165	6.35	0.250	7.80	0.307	9.27	0.365	9.27	0.365
300	12	323.8	12.75	4.57	0.180	6.35	0.250	8.38	0.330	9.53	0.375	10.31	0.406
350	14	355.6	14	6.35	0.250	7.92	0.312	9.53	0.375	9.53	0.375	11.13	0.438
400	16	406.4	16	6.35	0.250	7.92	0.312	9.53	0.375	9.53	0.375	12.70	0.500
450	18	457	18	6.35	0.250	7.92	0.312	11.13	0.438	9.53	0.375	14.27	0.562
500	20	508	20	6.35	0.250	9.53	0.375	12.70	0.500	9.53	0.375	15.09	0.594
550	22	559	22	6.35	0.250	9.53	0.375	12.70	0.500	9.53	0.375	-	-
600	24	610	24	6.35	0.250	9.53	0.375	14.27	0.562	9.53	0.375	17.48	0.688
650	26	660	26	7.92	0.312	12.70	0.500	-	-	9.53	0.375	-	-
700	28	711	28	7.92	0.312	12.70	0.500	15.88	0.625	9.53	0.375	-	-
750	30	762	30	7.92	0.312	12.70	0.500	15.88	0.625	9.53	0.375	-	-
800	32	813	32	7.92	0.312	12.70	0.500	15.88	0.625	9.53	0.375	17.48	0.688
850	34	864	34	7.92	0.312	12.70	0.500	15.88	0.625	9.53	0.375	17.48	0.688
900	36	914	36	7.92	0.312	12.70	0.500	15.88	0.625	9.53	0.375	19.05	0.750
950	38	965	38	-	-	-	-	-	-	9.53	0.375	-	-
1000	40	1016	40	-	-	-	-	-	-	9.53	0.375	-	-
1050	42	1067	42	-	-	-	-	-	-	9.53	0.375	-	-
1100	44	1118	44	-	-	-	-	-	-	9.53	0.375	-	-
1150	46	1168	46	-	-	-	-	-	-	9.53	0.375	-	-
1200	48	1219	48	-	-	-	-	-	-	9.53	0.375	-	-

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wall Thickness Schedules(ASME)

ASME B36.10 ASME B36.19

Nominal Pipe Size(NPS)		Outside Diameter		Nominal Wall Thickness							
				Sch60		XS		Sch80		Sch100	
A	B	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
8	1/4	13.7	0.540	-	-	3.02	0.119	3.02	0.119	-	-
10	3/8	17.1	0.675	-	-	3.20	0.126	3.20	0.126	-	-
15	1/2	21.3	0.840	-	-	3.73	0.147	3.73	0.147	-	-
20	3/4	26.7	1.05	-	-	3.91	0.154	3.91	0.154	-	-
25	1	33.4	1.32	-	-	4.55	0.179	4.55	0.179	-	-
32	1¼	42.2	1.66	-	-	4.85	0.191	4.85	0.191	-	-
40	1½	48.3	1.9	-	-	5.08	0.200	5.08	0.200	-	-
50	2	60.3	2.38	-	-	5.54	0.218	5.54	0.218	-	-
65	2½	73.0	2.88	-	-	7.01	0.276	7.01	0.276	--	--
80	3	88.9	3.5	-	-	7.62	0.300	7.62	0.300	-	-
90	3½	101.6	4	-	-	8.08	0.318	8.08	0.318	-	-
100	4	114.3	4.5	-	-	8.56	0.337	8.56	0.337	-	-
125	5	141.3	5.56	-	-	9.53	0.375	9.53	0.375	-	-
150	6	168.3	6.62	-	-	10.97	0.432	10.97	0.432	-	-
200	8	219.1	8.62	10.31	0.406	12.70	0.500	12.70	0.500	15.09	0.594
250	10	273.0	10.75	12.70	0.500	12.70	0.500	15.09	0.594	18.26	0.719
300	12	323.8	12.75	14.27	0.562	12.70	0.500	17.48	0.688	21.44	0.844
350	14	355.6	14	15.09	0.594	12.70	0.500	19.05	0.750	23.83	0.938
400	16	406.4	16	16.66	0.656	12.70	0.500	21.44	0.844	26.19	1.031
450	18	457	18	19.05	0.750	12.70	0.500	23.83	0.938	29.36	1.156
500	20	508	20	20.62	0.812	12.70	0.500	26.19	1.031	32.54	1.281
550	22	559	22	22.23	0.875	12.70	0.500	28.58	1.125	34.93	1.375
600	24	610	24	24.61	0.969	12.70	0.500	30.96	1.219	38.89	1.531
650	26	660	26	-	-	12.70	0.500	-	-	-	-
700	28	711	28	-	-	12.70	0.500	-	-	-	-
750	30	762	30	-	-	12.70	0.500	-	-	-	-
800	32	813	32	-	-	12.70	0.500	-	-	-	-
850	34	864	34	-	-	12.70	0.500	-	-	-	-
900	36	914	36	-	-	12.70	0.500	-	-	-	-
950	38	965	38	-	-	12.70	0.500	-	-	-	-
1000	40	1016	40	-	-	12.70	0.500	-	-	-	-
1050	42	1067	42	-	-	12.70	0.500	-	-	-	-
1100	44	1118	44	-	-	12.70	0.500	-	-	-	-
1150	46	1168	46	-	-	12.70	0.500	-	-	-	-
1200	48	1219	48	-	-	12.70	0.500	-	-	-	-

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

Wall Thickness Schedules(ASME)

ASME B36.10 ASME B36.19

Nominal Pipe Size (NPS)		Outside Diameter		Nominal Wall Thickness							
				Sch 120		Sch 140		Sch 160		XXS	
A	B	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
8	1/4	13.7	0.540	-	-	-	-	-	-	-	-
10	3/8	17.1	0.675	-	-	-	-	-	-	-	-
15	1/2	21.3	0.840	-	-	-	-	4.78	0.188	7.47	0.294
20	3/4	26.7	1.05	-	-	-	-	5.56	0.219	7.82	0.308
25	1	33.4	1.32	-	-	-	-	6.35	0.250	9.09	0.358
32	1 1/4	42.2	1.66	-	-	-	-	6.35	0.250	9.70	0.382
40	1 1/2	48.3	1.9	-	-	-	-	7.14	0.281	10.15	0.400
50	2	60.3	2.38	-	-	-	-	8.74	0.344	11.07	0.436
65	2 1/2	73.0	2.88	-	-	-	-	9.53	0.375	14.02	0.552
80	3	88.9	3.5	-	-	-	-	11.13	0.438	15.24	0.600
90	3 1/2	101.6	4	-	-	-	-	-	-	-	-
100	4	114.3	4.5	11.13	0.438	-	-	13.49	0.531	17.12	0.674
125	5	141.3	5.56	12.70	0.500	-	-	15.88	0.625	19.05	0.750
150	6	168.3	6.62	14.27	0.562	-	-	18.26	0.719	21.95	0.864
200	8	219.1	8.62	18.26	0.719	20.62	0.812	23.01	0.906	22.23	0.875
250	10	273.0	10.75	21.44	0.844	25.40	1.000	28.58	1.125	25.40	1.000
300	12	323.8	12.75	25.40	1.000	28.58	1.125	33.32	1.312	25.40	1.000
350	14	355.6	14	27.79	1.094	31.75	1.250	35.71	1.406	-	-
400	16	406.4	16	30.96	1.219	36.53	1.438	40.49	1.594	-	-
450	18	457	18	34.93	1.375	39.67	1.562	45.24	1.781	-	-
500	20	508	20	38.10	1.500	44.45	1.750	50.01	1.969	-	-
550	22	559	22	41.28	1.625	47.63	1.875	53.98	2.125	-	-
600	24	610	24	46.02	1.812	52.37	2.062	59.54	2.344	-	-
650	26	660	26	-	-	-	-	-	-	-	-
700	28	711	28	-	-	-	-	-	-	-	-
750	30	762	30	-	-	-	-	-	-	-	-
800	32	813	32	-	-	-	-	-	-	-	-
850	34	864	34	-	-	-	-	-	-	-	-
900	36	914	36	-	-	-	-	-	-	-	-
950	38	965	38	-	-	-	-	-	-	-	-
1000	40	1016	40	-	-	-	-	-	-	-	-
1050	42	1067	42	-	-	-	-	-	-	-	-
1100	44	1118	44	-	-	-	-	-	-	-	-
1150	46	1168	46	-	-	-	-	-	-	-	-
1200	48	1219	48	-	-	-	-	-	-	-	-

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wall Thickness Schedules(JIS)

JIS G 3452 JIS G 3454 JIS G 3457

Nominal Pipe Size (NPS)		Outside Diameter	SGP		LG		STD		XS	
A	B	JIS	W.T	I.D	W.T	I.D	W.T	I.D	W.T	I.D
15	1/2	21.7	2.8	16.1	-	-	2.8	-	3.7	-
20	3/4	27.2	2.8	21.6	-	-	2.9	-	3.9	-
25	1	34	3.2	27.6	-	-	3.4	-	4.5	-
32	1 1/4	42.7	3.5	35.7	-	-	3.6	-	4.9	-
40	1 1/2	48.6	3.5	41.6	-	-	3.7	-	5.1	-
50	2	60.5	3.8	52.9	-	-	3.9	-	5.5	-
65	2 1/2	76.3	4.2	67.9	-	-	5.2	-	7.0	-
80	3	89.1	4.2	80.7	-	-	5.5	-	7.6	-
90	3 1/2	101.6	4.2	93.2	-	-	5.7	-	8.1	-
100	4	114.3	4.5	105.3	-	-	6.0	-	8.6	-
125	5	139.8	4.5	130.8	-	-	6.6	-	9.5	-
150	6	165.2	5	155.2	5	155.2	7.1	-	11.0	-
200	8	216.3	5.8	204.7	5.8	204.7	8.2	-	12.7	-
250	10	267.4	6.6	254.2	6.6	254.2	9.3	-	12.7	-
300	12	318.5	6.9	304.7	6.9	304.7	9.5	-	12.7	-
350	14	355.6	7.9	339.8	7.9	339.8	9.5	336.6	12.7	330.2
400	16	406.4	7.9	390.6	7.9	390.6	9.5	387.4	12.7	381
450	18	457.2	7.9	441.4	7.9	441.4	9.5	438.2	12.7	431.8
500	20	508	7.9	492.2	7.9	492.2	9.5	489	12.7	482.6
550	22	558.8	-	-	7.9	543	9.5	539.8	12.7	533.4
600	24	609.6	-	-	7.9	593.8	9.5	590.6	12.7	584.2
650	26	660.4	-	-	7.9	644.6	9.5	641.4	12.7	635
700	28	711.2	-	-	7.9	695.4	9.5	692.2	12.7	685.8
750	30	762	-	-	7.9	746.2	9.5	743	12.7	736.6
800	32	812.8	-	-	7.9	797	9.5	793.8	12.7	787.4
850	34	863.6	-	-	7.9	847.8	9.5	844.6	12.7	838.2
900	36	914.4	-	-	7.9	898.6	9.5	895.4	12.7	889
950	38	965.2	-	-	7.9	949.4	9.5	946.2	12.7	939.8
1000	40	1016	-	-	7.9	1000.2	9.5	997	12.7	990.6
1050	42	1066.8	-	-	-	-	9.5	1047.8	12.7	1041.4
1100	44	1117.6	-	-	-	-	9.5	1098.6	12.7	1092.2
1150	46	1168.4	-	-	-	-	9.5	1149.4	12.7	1143
1200	48	1219.2	-	-	-	-	9.5	1200.2	12.7	1193.8

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wall Thickness Schedules(DIN)

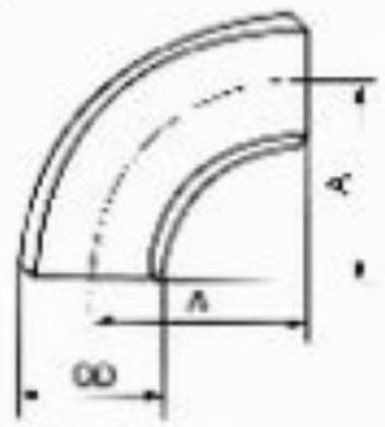
DIN 2448 DIN 2458

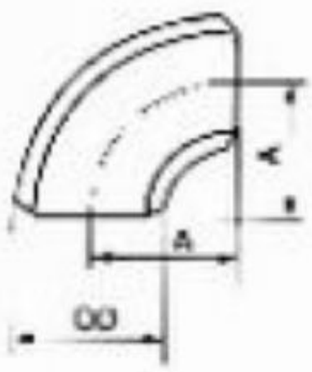
Nominal Pipe Size (NPS)		Outside Diameter	Wall thickness, s, for series				
A	B		1	2	3	4	5
1/2	15	21.3	1.6	-	2.0	3.2	4.0
3/4	20	26.9	1.6	-	2.3	3.2	4.0
1	25	33.7	2.0	-	2.6	3.2	4.0
1 1/4	32	42.4	2.0	-	2.6	3.6	4.0
1 1/2	40	48.3	2.0	-	2.6	4.0	5.0
2	50	60.3	2.0	-	2.9	4.5	5.6
2 1/2	65	76.1	2.3	-	2.9	5.0	7.1
3	80	88.9	2.3	-	3.2	5.6	8.0
4	100	114.3	2.6	-	3.6	6.3	8.8
5	125	139.7	2.6	-	4.0	6.3	10.0
6	150	168.3	2.6	4.0	4.5	7.1	11.0
8	200	219.1	2.9	4.5	6.3	8.0	12.5
10	250	273	2.9	5.0	6.3	8.8	-
12	300	323.9	2.9	5.6	7.1	10.0	-
14	350	355.6	3.2	5.6	8.0	11.0	-
16	400	406.4	3.2	6.3	8.8	12.5	-
18	450	457	4.0	6.3	10.0	-	-
20	500	508	4.0	6.3	11.0	-	-
24	600	610	5.0	6.3	12.5	-	-
28	700	711	5.0	7.1	12.5	-	-
32	800	813	5.6	8.0	12.5	-	-
36	900	914	6.3	10.0	12.5	-	-
40	1000	1016	6.3	10.0	12.5	-	-
48	1200	1220	6.3	12.5	-	-	-

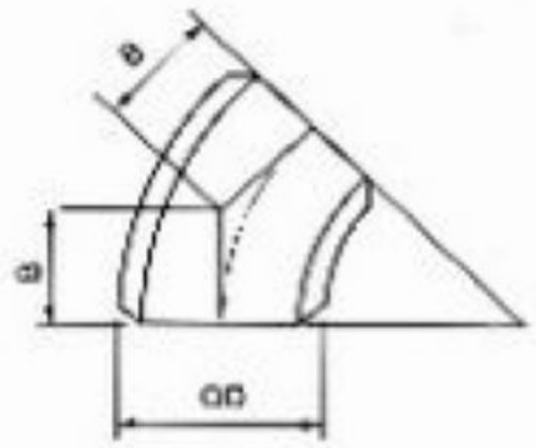
Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

Wrought Steel Buttwelding Fittings(ASME)
Long and Short Radius Elbows







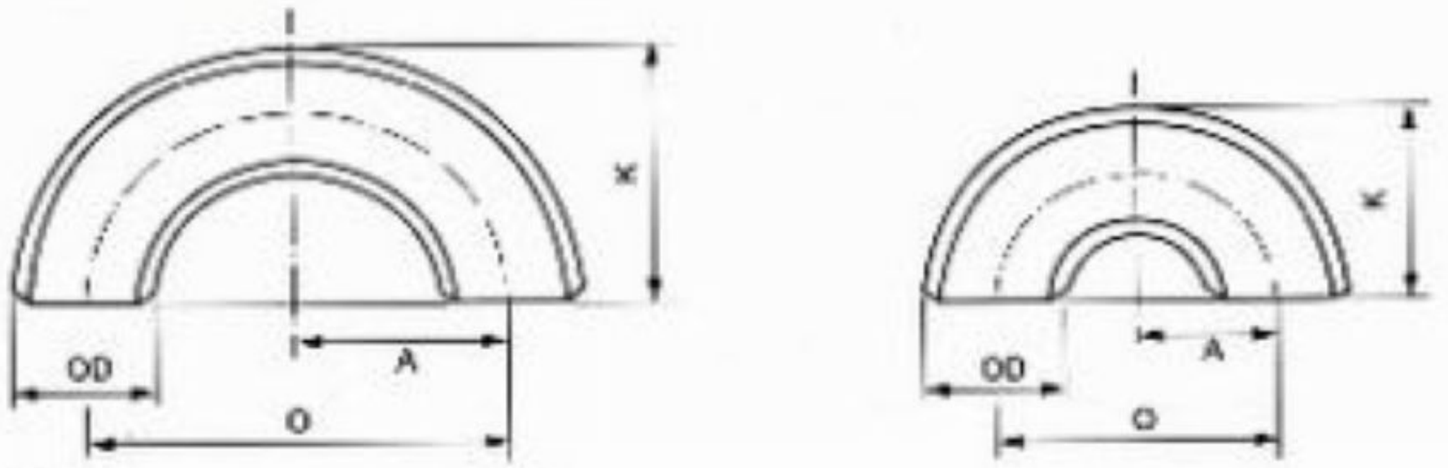
ASME B 16.9, B16.28

Nominal Pipe Size (NPS)	Outside Diameter at Bevel OD		Center-to-End							
			90° Elbows A				45° Elbows B			
			Long Radius		Short Radius		Long Radius		Short Radius	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/2	0.84	21.3	1.5	38	-	-	0.62	16	-	-
3/4	1.05	26.7	1.5	38	-	-	0.75	19	-	-
1	1.32	33.4	1.5	38	1	25	0.88	22	0.41	10
1 1/4	1.66	42.2	1.88	48	1.25	32	1	25	0.52	13
1 1/2	1.9	48.3	2.25	57	1.5	38	1.12	29	0.62	16
2	2.38	60.3	3	76	2	51	1.38	35	0.83	21
2 1/2	2.88	73.0	3.75	95	2.5	64	1.75	44	1.04	26
3	3.5	88.9	4.5	114	3	76	2	51	1.24	32
3 1/2	4	101.6	5.25	133	3.5	89	2.25	57	1.45	37
4	4.5	114.3	6	152	4	102	2.5	64	1.66	42
5	5.56	141.3	7.5	190	5	127	3.12	79	2.07	53
6	6.62	168.3	9	229	6	152	3.75	95	2.50	63
8	8.62	219.1	12	305	8	203	5	127	3.31	84
10	10.75	273.0	15	381	10	254	6.25	159	4.14	105
12	12.75	323.8	18	457	12	305	7.5	190	4.97	126
14	14	355.6	21	533	14	356	8.75	222	5.80	147
16	16	406.4	24	610	16	406	10	254	6.63	168
18	18	457	27	686	18	457	11.25	286	7.46	189
20	20	508	30	762	20	508	12.5	318	8.28	210
22	22	559	33	838	22	559	13.5	343	9.11	232
24	24	610	36	914	24	610	15	381	9.94	253
26	26	660	39	991	26	660	16	406	10.77	274
28	28	711	42	1067	28	711	17.25	438	11.60	295
30	30	762	45	1143	30	762	18.5	470	12.43	316
32	32	813	48	1219	32	813	19.75	502	14.89	378
34	34	864	51	1295	34	864	21	533	14.08	358
36	36	914	54	1372	36	914	22.25	565	14.91	379
38	38	965	57	1448	38	965	23.62	600	15.74	400
40	40	1016	60	1524	40	1016	24.88	632	16.57	421
42	42	1067	63	1600	42	1067	26	660	17.40	442
44	44	1118	66	1676	44	1118	27.38	696	18.23	463
46	46	1168	69	1753	46	1168	28.62	727	19.05	484
48	48	1219	72	1829	48	1219	29.88	759	19.88	505

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

Wrought Steel Buttwelding Fittings(ASME)
Long and Short Radius Returns



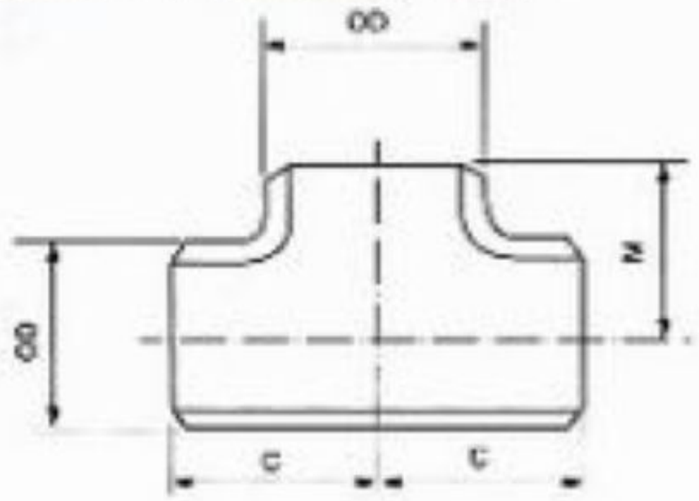
ASME B16.9, B16.28

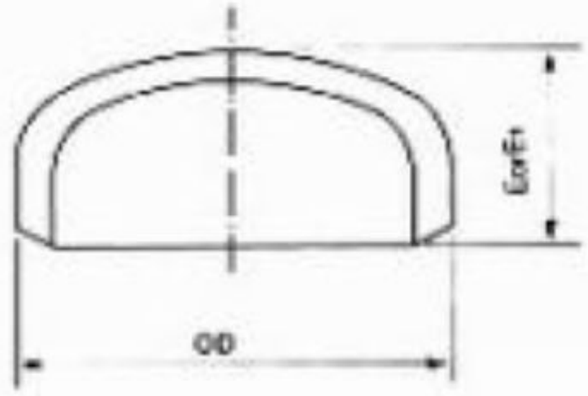
Nominal Pipe Size (NPS)	Outside Diameter at Bevel OD		Center-to-End 180 Returns O				End-to-End 180 Returns K			
			Long Radius		Short Radius		Long Radius		Short Radius	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/2	0.84	21.3	3	76	-	-	1.88	48	-	-
3/4	1.05	26.7	3	76	-	-	2.0	43	-	-
1	1.32	33.4	3	76	2	51	2.19	56	1.62	41
1 1/4	1.66	42.2	3.75	95	2.5	64	2.75	70	2.06	52
1 1/2	1.9	48.3	4.5	114	3	76	3.25	83	2.44	62
2	2.38	60.3	6	152	4	102	4.19	106	3.19	81
2 1/2	2.88	73.0	7.5	190	5	127	5.19	132	3.94	100
3	3.5	88.9	9	229	6	152	6.25	159	4.75	121
3 1/2	4	101.6	10.5	267	7	178	7.25	184	5.5	140
4	4.5	1143	12	305	8	203	8.25	210	6.25	159
5	5.56	141.3	15	381	10	254	10.31	262	7.75	197
6	6.62	168.3	18	457	12	305	12.31	313	9.31	237
8	8.62	219.1	24	610	16	406	16.31	414	12.31	313
10	10.75	273.0	30	762	20	508	20.38	518	15.38	391
12	12.75	323.8	36	914	24	610	24.38	619	18.38	467
14	14	355.6	42	1067	28	711	28	711	21	533
16	16	406.4	48	1219	32	813	32	813	24	610
18	18	457	54	1372	36	914	36	914	27	686
20	20	508	60	1524	40	1016	40	1016	30	762
22	22	559	66	1676	44	1118	44	1118	33	838
24	24	610	72	1829	48	1219	48	1219	36	914

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wrought Steel Buttwelding Fittings(ASME)
Straight Tees and Caps





ASME B 16.9

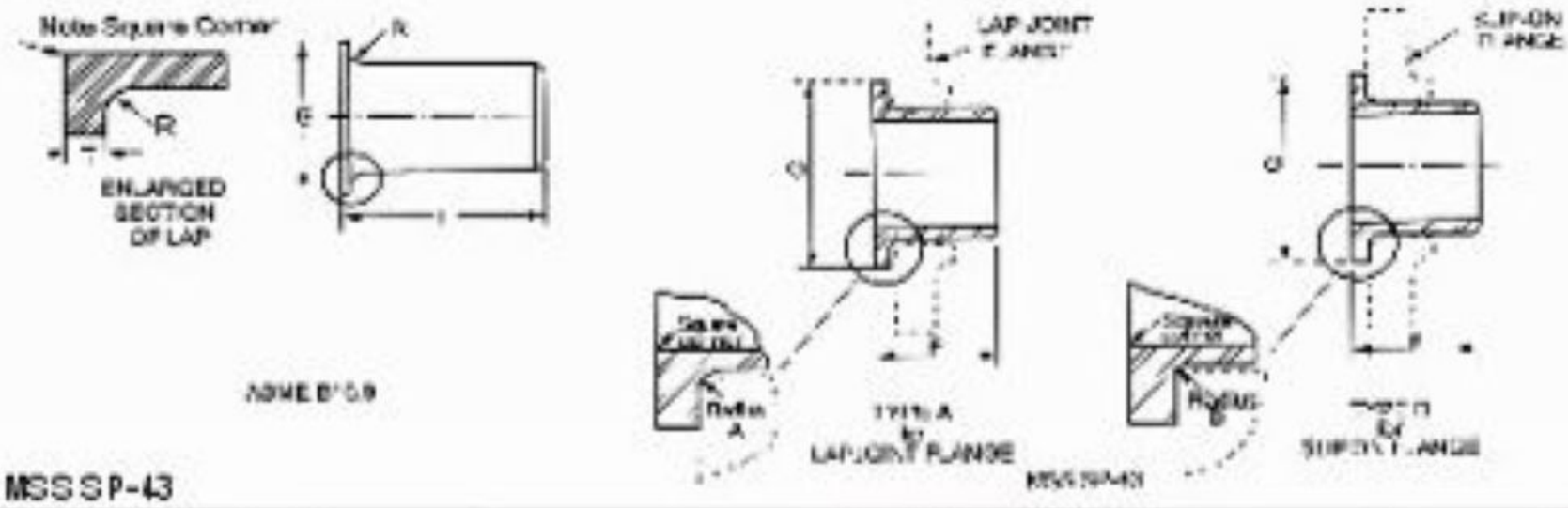
Nominal Pipe Size (NPS)	Outside Diameter at Bevel O D		Center-to-End				End-to-End					
			Straight Tees				Caps					
			C		M(1)		Length (2) E		Limiting Wall Thickness for Length "E"		Length (3) E	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/2	0.84	21.3	1	25	1	25	1	25	0.18	4.57	1	25
3/4	1.05	26.7	1.12	29	1.12	29	1	25	0.15	3.81	1	25
1	1.32	33.4	1.5	38	1.5	38	1.5	38	0.18	4.57	1.5	38
1 1/4	1.66	42.2	1.88	48	1.88	48	1.5	38	0.19	4.83	1.5	38
1 1/2	1.9	48.3	2.25	57	2.25	57	1.5	38	0.2	5.08	1.5	38
2	2.38	60.3	2.5	64	2.5	64	1.5	38	0.22	5.59	1.75	44
2 1/2	2.88	73.0	3	76	3	76	1.5	38	0.28	7.11	2	51
3	3.5	88.9	3.38	86	3.38	86	2	51	0.3	7.62	2.5	64
3 1/2	4	101.6	3.75	95	3.75	95	2.5	64	0.32	8.13	3	76
4	4.5	114.3	4.12	105	4.12	105	2.5	64	0.34	8.64	3	76
5	5.56	141.3	4.88	124	4.88	124	3	76	0.38	9.65	3.5	89
6	6.62	168.3	5.62	143	5.62	143	3.5	89	0.43	10.92	4	102
8	8.62	219.1	7	178	7	178	4	102	0.5	12.7	5	127
10	10.75	273.0	8.5	216	8.5	216	5	127	0.5	12.7	6	152
12	12.75	323.8	10	254	10	254	6	152	0.5	12.7	7	178
14	14	355.6	11	279	11	279	6.5	165	0.5	12.7	7.5	191
16	16	406.4	12	305	12	305	7	178	0.5	12.7	8	203
18	18	457.2	13.5	343	13.5	343	8	203	0.5	12.7	9	229
20	20	508	15	381	15	381	9	229	0.5	12.7	10	254
22	22	558.8	16.5	419	16.5	419	10	254	0.5	12.7	10	254
24	24	609.6	17	432	17	432	10.5	267	0.5	12.7	12	305
26	26	660.4	19.5	495	19.5	495	10.5	267	-	-	-	-
28	28	711.2	20.2	521	20.2	521	10.5	267	-	-	-	-
30	30	762	22	559	22	559	10.5	267	-	-	-	-
32	32	812.8	23.5	597	23.5	597	10.5	267	-	-	-	-
34	34	863.6	25	635	25	635	10.5	267	-	-	-	-
36	36	914.4	26.5	673	26.5	673	10.5	267	-	-	-	-
38	38	965.2	28	711	28	711	12	305	-	-	-	-
40	40	1016	29.5	749	29.5	749	12	305	-	-	-	-
42	42	1066.8	30	762	28	711	12	305	-	-	-	-
44	44	1117.6	32	813	30	762	13.5	343	-	-	-	-
46	46	1168.4	33.5	851	31.5	800	13.5	343	-	-	-	-
48	48	1219.2	35	889	33	838	13.5	343	-	-	-	-

NOTES:
(1) Outlet dimension M for NPS 26 and larger is recommended but not required.
(2) Length E applies for thickness not exceeding that given in column "Limiting Wall Thickness for Length E".
(3) Length E1 applies for thickness greater than that given in column "Limiting Wall Thickness for Length E" for NPS 24 and smaller.

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wrought Steel Buttwelding Fittings(ASME)
Lap Joint Stub Ends



ASME B16.9 , MSS SP-43

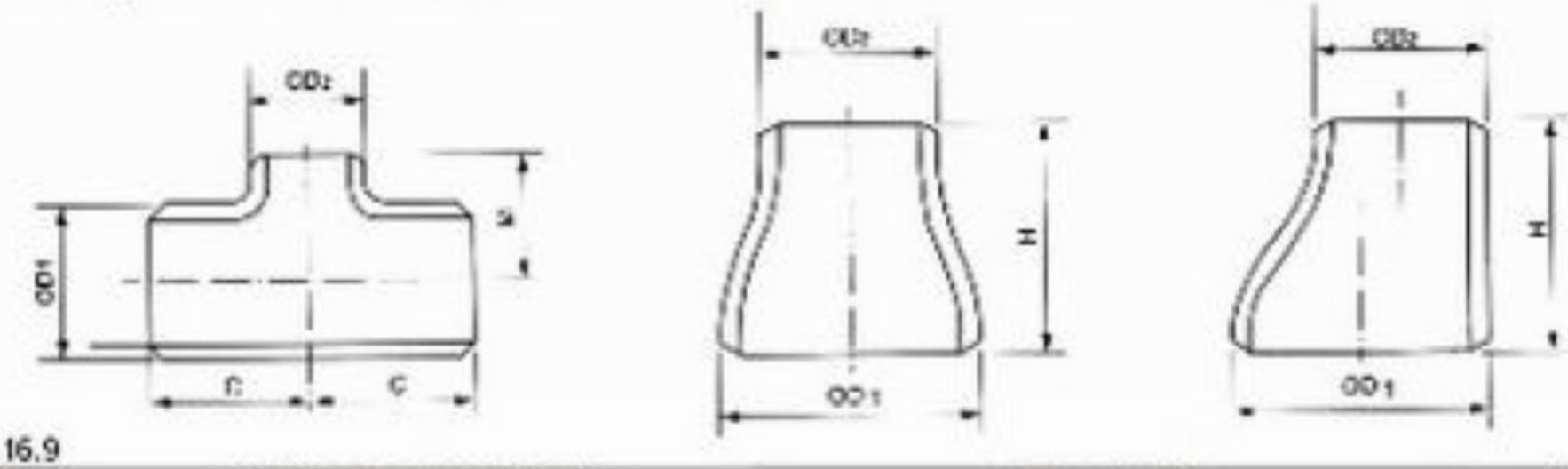
Nominal Pipe Size (NPS)	Outside Diameter at Bevel OD		Outside Diameter of barrel				Diameter of Lap G (Nominal & Max)	
			Max		Min			
	IN	MM	IN	MM	IN	MM	IN	MM
1/2	0.84	21.3	0.896	22.8	0.809	20.5	1.38	35
3/4	1.05	26.7	1.106	28.1	1.019	25.9	1.69	43
1	1.32	33.4	1.376	35	1.284	32.6	2	51
1¼	1.66	42.2	1.716	43.6	1.629	41.4	2.5	64
1½	1.9	48.3	1.965	49.9	1.869	47.5	2.88	73
2	2.38	60.3	2.456	62.4	2.344	59.5	3.62	92
2½	2.88	73.0	2.966	75.3	2.844	72.2	4.12	105
3	3.5	88.9	3.596	91.3	3.469	88.1	5	127
3½	4	101.6	4.096	104	3.969	100.8	5.5	140
4	4.5	114.3	4.593	116.7	4.469	113.5	6.19	157
5	5.56	141.3	5.683	144.3	5.532	140.5	7.31	186
6	6.62	168.3	6.743	171.3	6.594	167.5	8.5	216
8	8.62	219.1	8.743	222.1	8.594	218.3	10.62	270
10	10.75	273.0	10.913	277.2	10.719	272.3	12.75	324
12	12.75	323.8	12.913	328	12.719	323.1	15	381
14	14	355.6	14.17	359.9	13.969	354.8	16.25	413
16	16	406.4	16.18	411	15.969	405.6	18.5	470
18	18	457	18.19	462	17.969	456	21	533
20	20	508	20.24	514	19.969	507	23	584
22	22	559	22.24	565	21.969	558	25.25	641
24	24	610	24.24	616	23.969	609	27.25	692

Nominal Pipe Size (NPS)	Length F				Radius R			
	ASME Long		ASME Short & MSS		MSS Type A & ASME (Nominal & Max)		MSS Type B (Max)	
	IN	MM	IN	MM	IN	MM	IN	MM
1/2	3	76	2	51	0.12	3	0.03	0.8
3/4	3	76	2	51	0.12	3	0.03	0.8
1	4	102	2	51	0.12	3	0.03	0.8
1¼	4	102	2	51	0.19	5	0.03	0.8
1½	4	102	2	51	0.25	6	0.03	0.8
2	6	152	2.5	64	0.31	8	0.03	0.8
2½	6	152	2.5	64	0.31	8	0.03	0.8
3	6	152	2.5	64	0.38	10	0.03	0.8
3½	6	152	3	76	0.38	10	0.03	0.8
4	6	152	3	76	0.44	11	0.03	0.8
5	8	203	3	76	0.44	11	0.06	1.5
6	8	203	3.5	89	0.5	13	0.06	1.5
8	8	203	4	102	0.5	13	0.06	1.5
10	10	254	5	127	0.5	13	0.06	1.5
12	10	254	6	152	0.5	13	0.06	1.5
14	12	305	6	152	0.5	13	0.06	1.5
16	12	305	6	152	0.5	13	0.06	1.5
18	12	305	6	152	0.5	13	0.06	1.5
20	12	305	6	152	0.5	13	0.06	1.5
22	12	305	6	152	0.5	13	0.06	1.5
24	12	305	6	152	0.5	13	0.06	1.5

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

Wrought Steel Buttwelding Fittings(ASME)
Reducing Tees and Concentric & Eccentric Reducers



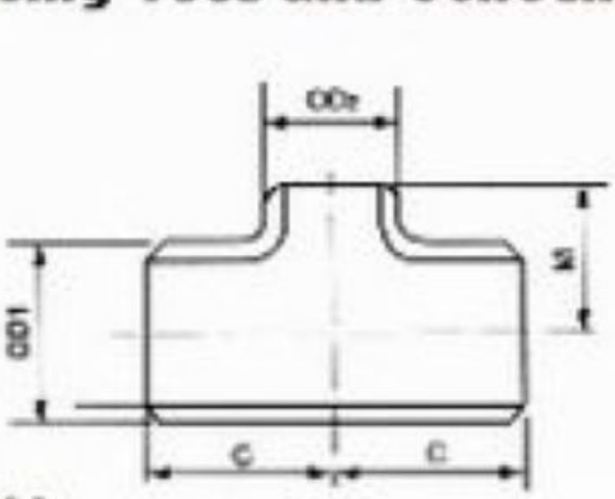
ASME B 16.9

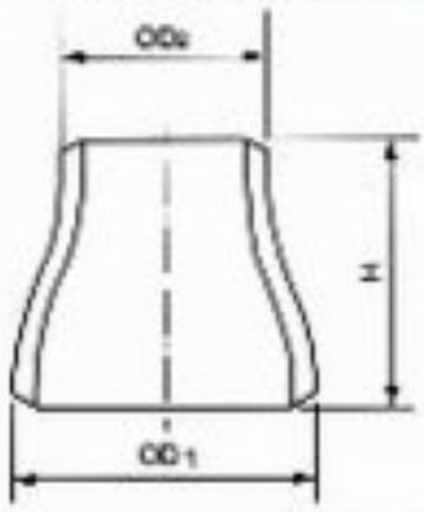
Nominal Pipe Size(NPS)	Outside Diameter at Bevel				Center-to-End				End-to-End	
	O D 1		O D 2		C		M		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/2 × 3/8	1.05	26.7	0.84	21.3	1.12	29	1.12	29	1.5	38
1 × 3/4	1.32	33.4	1.05	26.7	1.5	38	1.5	38	2	51
1 × 1/2	1.32	33.4	0.84	21.3	1.5	38	1.5	38	2	51
1 1/4 × 1	1.66	42.2	1.32	33.4	1.88	48	1.88	48	2	51
1 1/4 × 3/4	1.66	42.2	1.05	26.7	1.88	48	1.88	48	2	51
1 1/4 × 1/2	1.66	42.2	0.84	21.3	1.88	48	1.88	48	2	51
1 1/2 × 1 1/4	1.9	48.3	1.66	42.2	2.25	57	2.25	57	2.5	64
1 1/2 × 1	1.9	48.3	1.32	33.4	2.25	57	2.25	57	2.5	64
1 1/2 × 3/4	1.9	48.3	1.05	26.7	2.25	57	2.25	57	2.5	64
1 1/2 × 1/2	1.9	48.3	0.84	21.3	2.25	57	2.25	57	2.5	64
2 × 1 1/2	2.38	60.3	1.9	48.3	2.5	64	2.38	60	3	76
2 × 1 1/4	2.38	60.3	1.66	42.2	2.5	64	2.25	57	3	76
2 × 1	2.38	60.3	1.32	33.4	2.5	64	2	51	3	76
2 × 3/4	2.38	60.3	1.05	26.7	2.5	64	1.75	44	3	76
2 × 1/2	2.38	60.3	0.84	21.3	2.5	64	-	-	3	76
2 1/2 × 2	2.88	73	2.38	60.3	3	76	2.75	70	3.5	89
2 1/2 × 1 1/2	2.88	73	1.9	48.3	3	76	2.62	67	3.5	89
2 1/2 × 1 1/4	2.88	73	1.66	42.2	3	76	2.5	64	3.5	89
2 1/2 × 1	2.88	73	1.32	33.4	3	76	2.25	57	3.5	89
2 1/2 × 3/4	2.88	73	1.05	26.7	3	76	-	-	3.5	89
2 1/2 × 1/2	2.88	73	0.84	21.3	3	76	-	-	3.5	89
3 × 2 1/2	3.5	88.9	2.88	73	3.38	86	3.25	83	3.5	89
3 × 2	3.5	88.9	2.38	60.3	3.38	86	3	76	3.5	89
3 × 1 1/2	3.5	88.9	1.9	48.3	3.38	86	2.88	73	3.5	89
3 × 1 1/4	3.5	88.9	1.66	42.2	3.38	86	2.75	70	3.5	89
3 × 1	3.5	88.9	1.32	33.4	3.38	86	-	-	3.5	89
3 × 3/4	3.5	88.9	1.05	26.7	3.38	86	-	-	3.5	89
3 1/2 × 3	4	101.6	3.5	88.9	3.75	95	3.62	92	4	102
3 1/2 × 2 1/2	4	101.6	2.88	73	3.75	95	3.5	89	4	102
3 1/2 × 2	4	101.6	2.38	60.3	3.75	95	3.25	83	4	102
3 1/2 × 1 1/2	4	101.6	1.9	48.3	3.75	95	3.12	79	4	102
3 1/2 × 1 1/4	4	101.6	1.66	42.2	3.75	95	-	-	4	102
4 × 3 1/2	4.5	114.3	4	101.6	4.12	105	4	102	4	102
4 × 3	4.5	114.3	3.5	88.9	4.12	105	3.88	98	4	102
4 × 2 1/2	4.5	114.3	2.88	73	4.12	105	3.75	95	4	102
4 × 2	4.5	114.3	2.38	60.3	4.12	105	3.5	89	4	102
4 × 1 1/2	4.5	114.3	1.9	48.3	4.12	105	3.38	86	4	102
4 × 1 1/4	4.5	114.3	1.66	42.2	4.12	105	-	-	4	102
4 × 1	4.5	114.3	1.32	33.4	4.12	105	-	-	4	102

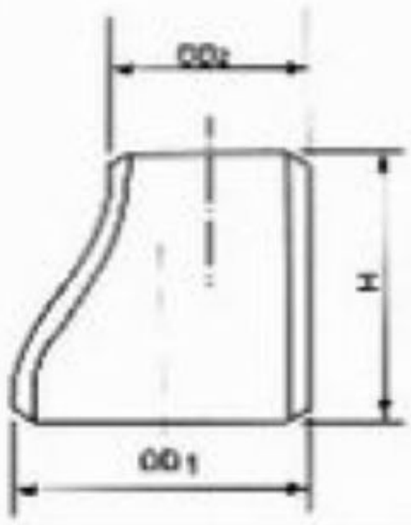
Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wrought Steel Buttwelding Fittings(ASME)
Reducing Tees and Concentric & Eccentric Reducers







ASME B16.9

Nominal Pipe Size (NPS)	Outside Diameter at Bevel				Center-to-End				End-to-End	
	OD1		OD2		C		M(1)		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
5 × 4	5.56	141.3	4.5	114.3	4.88	124	4.62	117	5	127
5 × 3½	5.56	141.3	4	101.6	4.88	124	4.5	114	5	127
5 × 3	5.56	141.3	3.5	88.9	4.88	124	4.38	111	5	127
5 × 2½	5.56	141.3	2.88	73	4.88	124	4.25	108	5	127
5 × 2	5.56	141.3	2.38	60.3	4.88	124	4.12	105	5	127
5 × 1½	5.56	141.3	1.9	48.3	4.88	124	"	"	5	127
5 × 1¼	5.56	141.3	1.66	42.2	4.88	124	"	"	5	127
6 × 5	6.62	168.3	4.56	141.3	5.62	143	5.38	137	5.5	140
6 × 4	6.62	168.3	4.5	114.3	5.62	143	5.12	130	5.5	140
6 × 3½	6.62	168.3	4	101.6	5.62	143	5	127	5.5	140
6 × 3	6.62	168.3	3.5	88.9	5.62	143	4.88	124	5.5	140
6 × 2½	6.62	168.3	2.88	73	5.62	143	4.75	121	5.5	140
6 × 2	6.62	168.3	2.38	60.3	5.62	143	"	"	5.5	140
8 × 6	8.62	219.1	6.62	168.3	7	178	6.62	168	6	152
8 × 5	8.62	219.1	5.56	141.3	7	178	6.38	162	6	152
8 × 4	8.62	219.1	4.5	114.3	7	178	6.12	156	6	152
8 × 3½	8.62	219.1	4	101.6	7	178	6	152	6	152
8 × 3	8.62	219.1	3.5	88.9	7	178	"	"	6	152
10 × 8	10.75	273	8.62	219.1	8.5	216	8	203	7	178
10 × 6	10.75	273	6.62	168.3	8.5	216	7.62	194	7	178
10 × 5	10.75	273	5.56	141.3	8.5	216	7.5	191	7	178
10 × 4	10.75	273	4.5	114.3	8.5	216	7.25	184	7	178
10 × 3	10.75	273	3.5	88.9	8.5	216	"	"	7	178
12 × 10	12.75	323.8	10.75	273	10	254	9.5	241	8	203
12 × 8	12.75	323.8	8.62	219.1	10	254	9	229	8	203
12 × 6	12.75	323.8	6.62	168.3	10	254	8.62	219	8	203
12 × 5	12.75	323.8	5.56	141.3	10	254	8.5	216	8	203
12 × 4	12.75	323.8	4.5	114.3	10	254	"	"	8	203
14 × 12	14	355.6	12.75	323.8	11	279	10.62	270	13	330
14 × 10	14	355.6	10.75	273	11	279	10.12	257	13	330
14 × 8	14	355.6	8.62	219.1	11	279	9.75	248	13	330
14 × 6	14	355.6	6.62	168.3	11	279	9.38	238	13	330
14 × 5	14	355.6	5.56	141.3	11	279	"	"	13	330
16 × 14	16	406.4	14	355.6	12	305	12	305	14	356
16 × 12	16	406.4	12.75	323.8	12	305	11.62	295	14	356
16 × 10	16	406.4	10.75	273	12	305	11.12	283	14	356
16 × 8	16	406.4	8.62	219.1	12	305	10.75	273	14	356
16 × 6	16	406.4	6.62	168.3	12	305	10.38	264	14	356
18 × 16	18	457	16	406.4	13.5	343	13	330	15	381

NOTE:
(1) Outlet dimensions for reducing sizes NPS 14 and larger is recommended but not required.

Fittings
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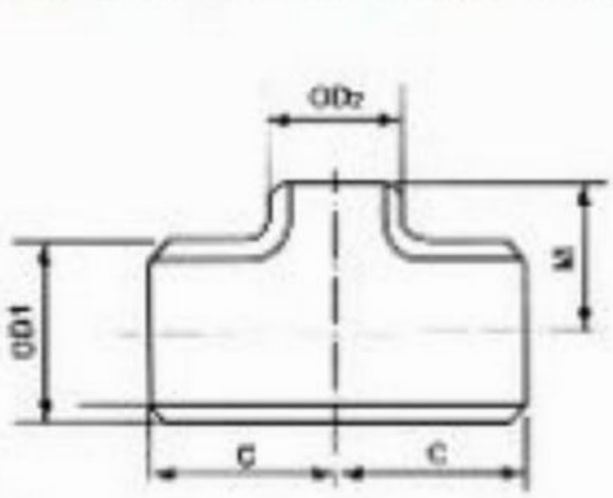
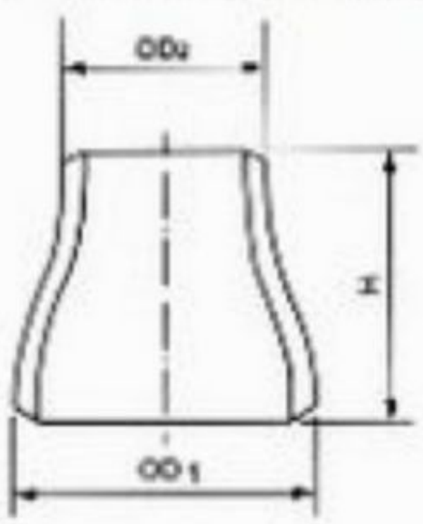
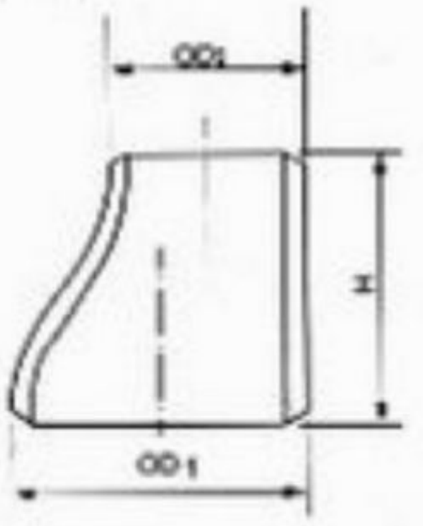
HL PIPE FITTING CO.,LTD

Wrought Steel Buttwelding Fittings(ASME)
Reducing Tees and Concentric & Eccentric Reducers







ASME B 16.9

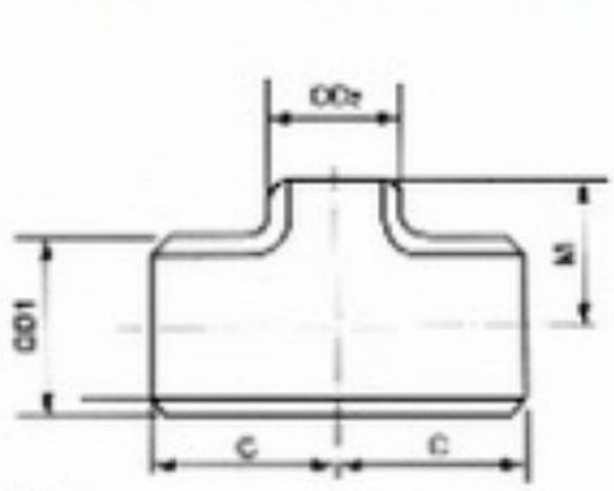
Nominal Pipe Size (NPS)	Outside Diameter at Bevel				Center-to-End				End-to-End	
	OD1		OD2		C		M(1)		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
18 × 14	18	457	14	355.6	13.5	343	13	330	15	381
18 × 12	18	457	12.75	323.8	13.5	343	12.62	321	15	381
18 × 10	18	457	10.75	273	13.5	343	12.12	308	15	381
18 × 8	18	457	8.62	219.1	13.5	343	11.75	298	15	381
20 × 18	20	508	18	457.2	15	381	14.5	368	20	508
20 × 16	20	508	16	406.4	15	381	14	356	20	508
20 × 14	20	508	14	355.6	15	381	14	356	20	508
20 × 12	20	508	12.75	323.8	15	381	13.62	346	20	508
20 × 10	20	508	10.75	273	15	381	13.12	333	20	508
20 × 8	20	508	8.62	219.1	15	381	12.75	324	20	508
22 × 20	22	559	20	508	16.5	419	16	406	20	508
22 × 18	22	559	18	457.2	16.5	419	15.5	394	20	508
22 × 16	22	559	16	406.4	16.5	419	15	381	20	508
22 × 14	22	559	14	355.6	16.5	419	15	381	20	508
22 × 12	22	559	12.75	323.8	16.5	419	14.62	371	20	508
22 × 10	22	559	10.75	273	16.5	419	14.12	359	20	508
24 × 22	24	610	22	558.8	17	432	17	432	20	508
24 × 20	24	610	20	508	17	432	17	432	20	508
24 × 18	24	610	18	457.2	17	432	16.5	419	20	508
24 × 16	24	610	16	406.4	17	432	16	406	20	508
24 × 14	24	610	14	355.6	17	432	16	406	20	508
24 × 12	24	610	12.75	323.8	17	432	15.62	397	20	508
24 × 10	24	610	10.75	273	17	432	15.12	384	20	508
26 × 24	26	660	24	609.6	19.5	495	19	483	24	610
26 × 22	26	660	22	558.6	19.5	495	18.5	470	24	610
26 × 20	26	660	20	508	19.5	495	18	457	24	610
26 × 18	26	660	18	457.2	19.5	495	17.5	444	24	610
26 × 16	26	660	16	406.4	19.5	495	17	432	24	610
26 × 14	26	660	14	355.6	19.5	495	17	432	24	610
26 × 12	26	660	12.75	323.8	19.5	495	16.62	422	24	610
28 × 26	28	711	26	660.4	20.5	521	20.5	521	24	610
28 × 24	28	711	24	609.6	20.5	521	20	508	24	610
28 × 22	28	711	22	558.8	20.5	521	19.5	495	24	610
28 × 20	28	711	20	508	20.5	521	19	483	24	610
28 × 18	28	711	18	457.2	20.5	521	18.5	470	24	610
28 × 16	28	711	16	406.4	20.5	521	18	457	24	610
28 × 14	28	711	14	355.6	20.5	521	18	457	24	610
28 × 12	28	711	12.75	323.8	20.5	521	17.62	448	24	610
30 × 28	30	762	28	711.2	22	559	21.5	546	24	610

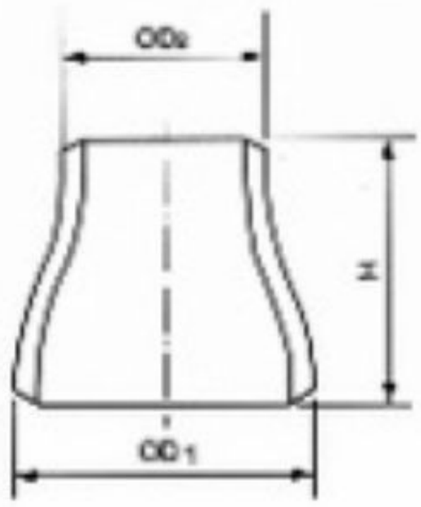
NOTE:
(1) Outlet dimension M for run sizes NPS 14 and larger is recommended but not required.

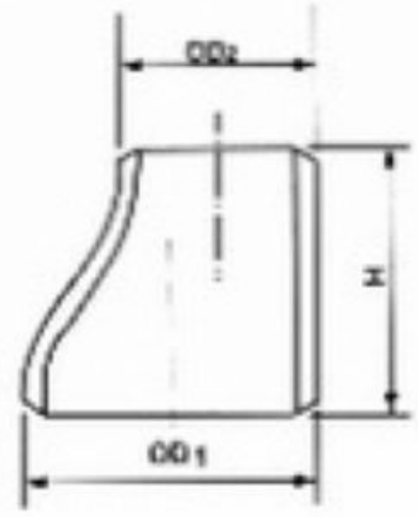
Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wrought Steel Buttwelding Fittings(ASME)
Reducing Tees and Concentric & Eccentric Reducers







ASME B16.9

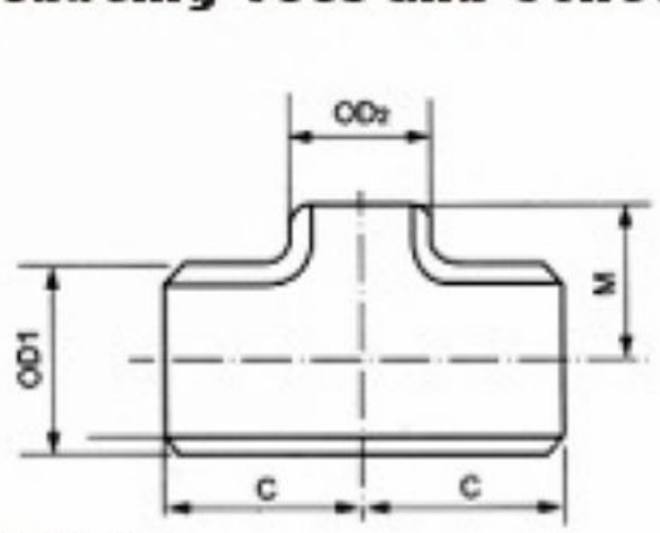
Nominal Pipe Size(NPS)	Outside Diameter at Bevel				Center-to-End				End-to-End	
	OD1		OD2		C		M(1)		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
30× 26	30	762	26	660.4	22	559	21.5	546	24	610
30× 24	30	762	24	609.6	22	559	21	533	24	610
30× 22	30	762	22	558.8	22	559	20.5	521	24	610
30× 20	30	762	20	508	22	559	20	508	24	610
30× 18	30	762	18	457.2	22	559	19.5	495	24	610
30× 16	30	762	16	406.4	22	559	19	483	24	610
30× 14	30	762	14	355.6	22	559	19	483	24	610
30× 12	30	762	12.75	323.8	22	559	18.62	473	24	610
30× 10	30	762	10.75	273	22	559	18.12	460	24	610
32× 30	32	813	30	762	23.5	597	23	584	24	610
32× 28	32	813	28	711.2	23.5	597	22.5	572	24	610
32× 26	32	813	26	660.4	23.5	597	22.5	572	24	610
32× 24	32	813	24	609.6	23.5	597	22	559	24	610
32× 22	32	813	22	558.8	23.5	597	21.5	546	24	610
32× 20	32	813	20	508	23.5	597	21	533	24	610
32× 18	32	813	18	457.2	23.5	597	20.5	521	24	610
32× 16	32	813	16	406.4	23.5	597	20	508	24	610
32× 14	32	813	14	355.6	23.5	597	20	508	24	610
34× 32	34	864	32	812.8	25	635	24.5	622	24	610
34× 30	34	864	30	762	25	635	24	610	24	610
34× 28	34	864	28	711.2	25	635	23.5	597	24	610
34× 26	34	864	26	660.4	25	635	23.5	597	24	610
34× 24	34	864	24	609.6	25	635	23	584	24	610
34× 22	34	864	22	558.8	25	635	22.5	572	24	610
34× 20	34	864	20	508	25	635	22	559	24	610
34× 18	34	864	18	457.2	25	635	21.5	546	24	610
34× 16	34	864	16	406.4	25	635	21	533	24	610
36× 34	36	914	34	863.6	26.5	673	26	660	24	610
36× 32	36	914	32	812.8	26.5	673	25.5	648	24	610
36× 30	36	914	30	762	26.5	673	25	635	24	610
36× 28	36	914	28	711.2	26.5	673	24.5	622	24	610
36× 26	36	914	26	660.4	26.5	673	24.5	622	24	610
36× 24	36	914	24	609.6	26.5	673	24	610	24	610
36× 22	36	914	22	558.8	26.5	673	23.5	597	24	610
36× 20	36	914	20	508	26.5	673	23	584	24	610
36× 18	36	914	18	457.2	26.5	673	22.5	572	24	610
36× 16	36	914	16	406.4	26.5	673	22	559	24	610
38× 36	38	965	36	914.4	28	711	28	711	24	610
38× 34	38	965	34	863.6	28	711	27.5	698	24	610

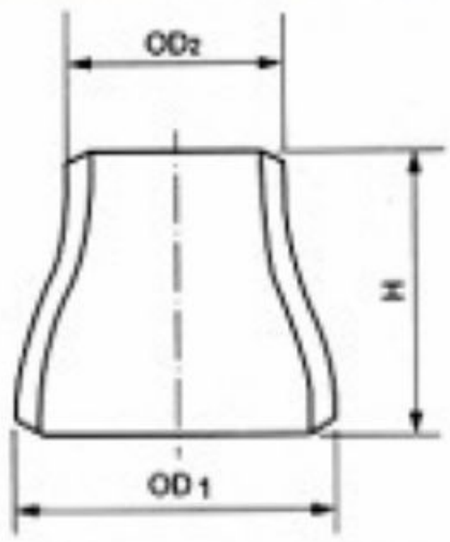
NOTE:
(1) Outlet dimensions M for run sizes NPS 14 and larger is recommended but not required.

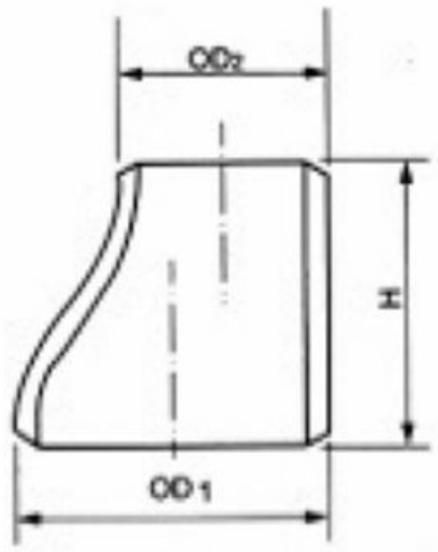
Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Wrought Steel Buttwelding Fittings (ASME)
Reducing Tees and Concentric & Eccentric Reducers







ASME B16.9

Nominal Pipe Size (NPS)	Outside Diameter at Bevel				Center-to-End				End-to-End	
	OD1		OD2		C		M(1)		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
44 x 28	44	1118	28	711.2	32	813	27.5	698	24	610
44 x 26	44	1118	26	660.4	32	813	27.5	698	24	610
44 x 24	44	1118	24	609.6	32	813	27.5	698	24	610
44 x 22	44	1118	22	558.8	32	813	27	686	24	610
44 x 20	44	1118	20	508	32	813	27	686	24	610
46 x 44	46	1168	44	1117.6	33.5	851	31.5	800	28	711
46 x 42	46	1168	42	1066.8	33.5	851	31	787	28	711
46 x 40	46	1168	40	1016	33.5	851	30.5	775	28	711
46 x 38	46	1168	38	965.2	33.5	851	30	762	28	711
46 x 36	46	1168	36	914.4	33.5	851	30	762	28	711
46 x 34	46	1168	34	863.6	33.5	851	29.5	749	28	711
46 x 32	46	1168	32	812.8	33.5	851	29.5	749	28	711
46 x 30	46	1168	30	762	33.5	851	29	737	28	711
46 x 28	46	1168	28	711.2	33.5	851	29	737	28	711
46 x 26	46	1168	26	660.4	33.5	851	29	737	28	711
46 x 24	46	1168	24	609.6	33.5	851	28.5	724	28	711
46 x 22	46	1168	22	558.8	33.5	851	28.5	724	28	711
48 x 46	48	1219	46	1168.4	35	889	33	838	28	711
48 x 44	48	1219	44	1117.6	35	889	33	838	28	711
48 x 42	48	1219	42	1066.8	35	889	32	813	28	711
48 x 40	48	1219	40	1016	35	889	32	813	28	711
48 x 38	48	1219	38	965.2	35	889	32	813	28	711
48 x 36	48	1219	36	914.4	35	889	31	787	28	711
48 x 34	48	1219	34	863.6	35	889	31	787	28	711
48 x 32	48	1219	32	812.8	35	889	31	787	28	711
48 x 30	48	1219	30	762	35	889	30	762	28	711
48 x 28	48	1219	28	711.2	35	889	30	762	28	711
48 x 26	48	1219	26	660.4	35	889	30	762	28	711
48 x 24	48	1219	24	609.6	35	889	29	737	28	711
48 x 22	48	1219	22	558.8	35	889	29	737	28	711

NOTE:
(1) Outlet dimensions M for run sizes NPS 14 and larger is recommended but not required.

Fittings
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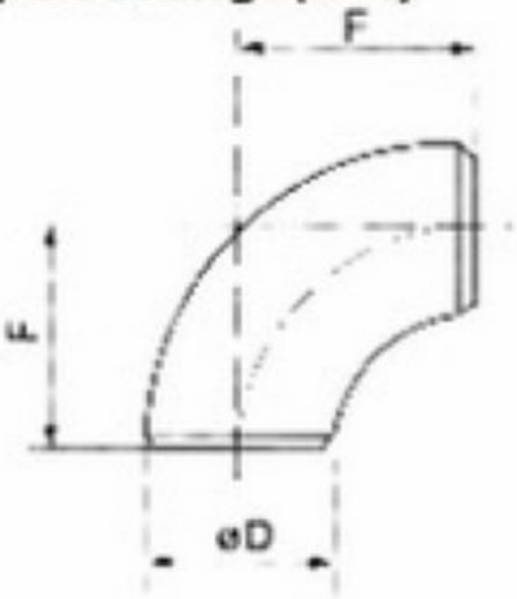
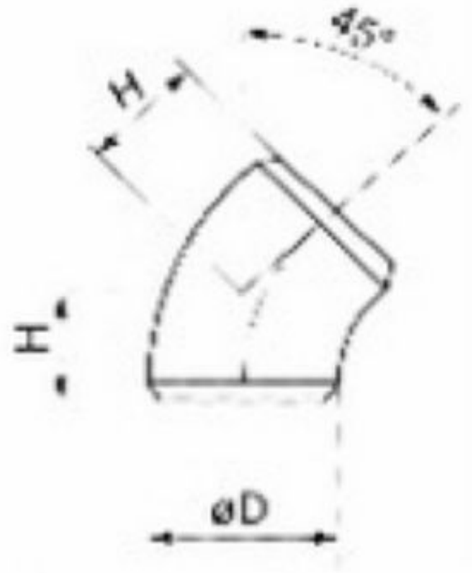
HL PIPE FITTING CO.,LTD

Steel Butt-Welding Pipe Fittings(JIS)
90° & 45° Elbows





JIS B2311

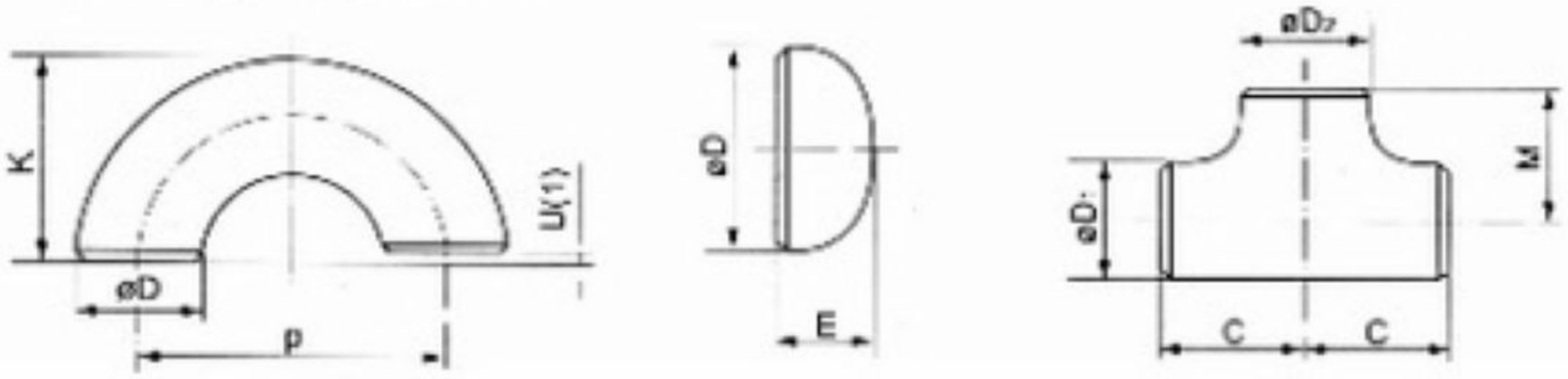
Unit:mm

Nominal Pipe Size (NPS)		Outside Diameter D	Center-to End		Center-to-End	
			90° Elbows (F)		45° Elbows (H)	
A	B		Long	Short	Long	Short*
15	1/2	21.7	38.1	-	15.8	-
20	3/4	27.2	38.1	-	15.8	-
25	1	34.0	38.1	25.4	15.8	10.5
32	1 1/4	42.7	47.6	31.8	19.7	13.2
40	1 1/2	48.6	57.2	38.1	23.7	15.8
50	2	60.5	76.2	50.8	31.6	21.0
65	2 1/2	76.3	95.3	63.5	39.5	26.3
80	3	89.1	114.3	76.2	47.3	31.6
90	3 1/2	101.6	133.4	88.9	55.3	36.8
100	4	114.3	152.4	101.6	63.1	42.1
125	5	139.8	190.5	127.0	78.9	52.6
150	6	165.2	228.6	152.4	94.7	63.1
200	8	216.3	304.8	203.2	126.3	84.2
250	10	267.4	381.0	254.0	157.8	105.2
300	12	318.5	457.2	304.8	189.4	126.3
350	14	355.6	533.4	355.6	220.9	147.3
400	16	406.4	609.6	406.4	252.5	168.4
450	18	457.2	685.8	457.2	284.1	189.4
500	20	508.0	762.0	508.0	315.6	210.4
550	22	558.8	838.2	558.8	347.2	231.5
600	24	609.6	914.4	609.6	378.7	252.5
650	26	660.4	990.6	660.4	410.3	273.6
700	28	711.2	1066.8	711.2	441.9	294.6
750	30	762.0	1143.0	762.0	473.4	315.7
800	32	812.8	1219.2	812.8	505.0	336.7
850	34	863.6	1295.4	863.6	536.6	357.7
900	36	914.4	1371.6	914.4	568.1	378.8
950	38	965.2	1447.8	965.2	599.7	399.8
1000	40	1016.0	1524.0	1016.0	631.2	420.9
1050	42	1066.8	1600.2	1066.8	662.8	441.9
1100	44	1117.6	1676.4	1117.6	694.4	463.0
1150	46	1168.4	1752.6	1168.4	725.9	484.0
2000	48	1219.2	1828.8	1219.2	757.5	505.1

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

Steel Butt-Welding Pipe Fittings(JIS)
180° Elbows,Caps,&Tees



JIS B2311 Unit:mm

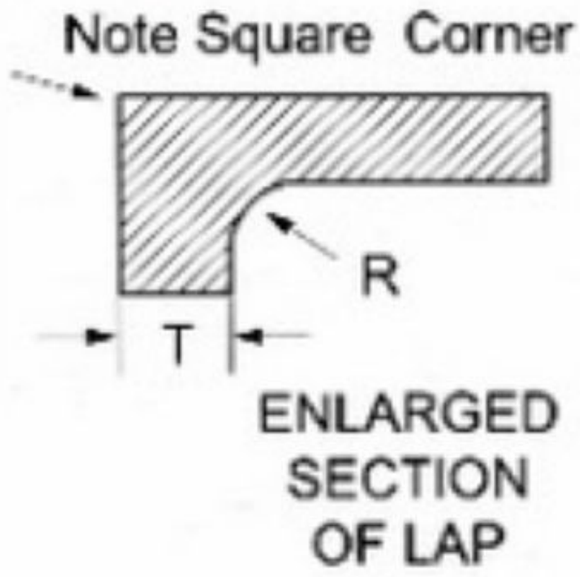
Nominal Pipe Size (NPS)		Outside Diameter D	Center to Center		End-to-End			Center-to-End	
			180° Elbows(P)		180° Elbows(K)		Caps	Tees	
A	B		Long	Short	Long	Short	E(2)	C	M
15	1/2	21.7	76.2	-	49.0	-	25.4	25.4	25.4
20	1/4	27.2	76.2	-	51.7	-	25.4	28.6	28.6
25	1	34.0	76.2	50.8	55.1	42.4	38.1	38.1	38.1
32	1 1/4	42.7	95.2	63.6	69.0	53.2	38.1	47.6	47.6
40	1 1/2	48.6	114.4	76.2	81.5	62.4	38.1	57.2	57.2
50	2	60.5	152.4	101.6	106.5	81.1	38.1	63.5	63.5
65	2 1/2	76.3	190.6	127.0	133.5	101.7	38.1	76.2	76.2
80	3	89.1	228.6	152.4	158.9	120.8	50.8	85.7	85.7
90	3 1/2	101.6	266.8	177.8	184.2	139.7	63.5	95.3	95.3
100	4	114.3	304.8	203.2	209.6	158.8	63.5	104.8	104.8
125	5	139.8	381.0	254.0	260.4	196.9	76.2	123.8	123.8
150	6	165.2	457.2	304.8	311.2	235.0	88.9	142.9	142.9
200	8	216.3	609.6	406.4	413.0	311.4	101.6	177.8	177.8
250	10	267.4	762.0	508.0	514.7	387.7	127.0	215.9	215.9
300	12	318.5	914.4	609.6	616.5	464.1	152.4	254.0	254.0
350	14	355.6	1066.8	711.2	711.2	533.4	165.1	279.4	279.4
400	16	406.4	1219.2	812.8	812.8	609.6	177.8	304.8	304.8
450	18	457.2	1371.6	914.4	914.4	685.8	203.2	342.9	342.9
500	20	508.0	1524.0	1016.0	1016.0	762.0	228.6	381.0	381.0
550	22	558.8	-	-	-	-	-	419.1	419.1
600	24	609.6	-	-	-	-	-	431.8	431.8
650	26	660.4	-	-	-	-	-	495.3	495.3
700	28	711.2	-	-	-	-	-	520.7	520.7
750	30	762.0	-	-	-	-	-	558.8	558.8
800	32	812.8	-	-	-	-	-	596.9	596.9
850	34	863.6	-	-	-	-	-	635.0	635.0
900	36	914.4	-	-	-	-	-	673.1	673.1
950	38	965.2	-	-	-	-	-	711.2	711.2
1000	40	1016.0	-	-	-	-	-	749.3	749.3
1050	42	1066.8	-	-	-	-	-	762.0	711.2
1100	44	1117.6	-	-	-	-	-	812.8	762.0
1150	46	1168.4	-	-	-	-	-	850.9	800.1
1200	48	1219.2	-	-	-	-	-	889.0	838.2

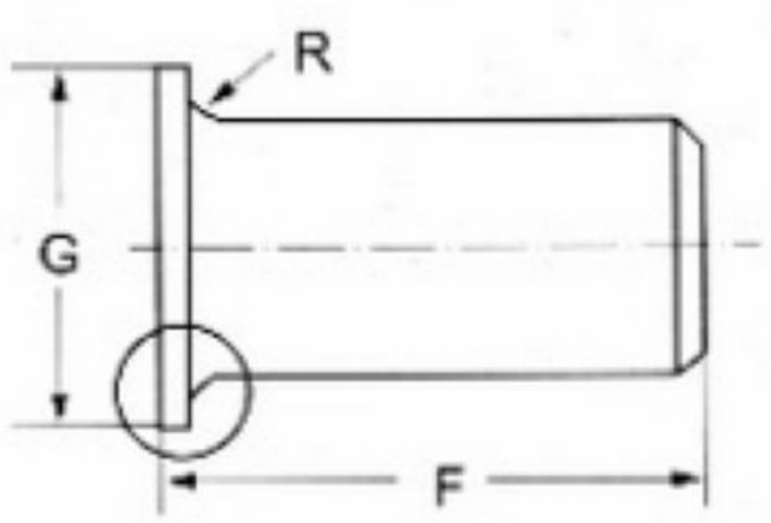
NOTE:
(1) For alignment of the end faces U see the table on page 38.
(2) Only SGP is applicable to the dimension E.

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Steel Butt-Welding Pipe Fittings(JIS)
Lap Joint Stub Ends





JIS B2220
JPI-7S-15

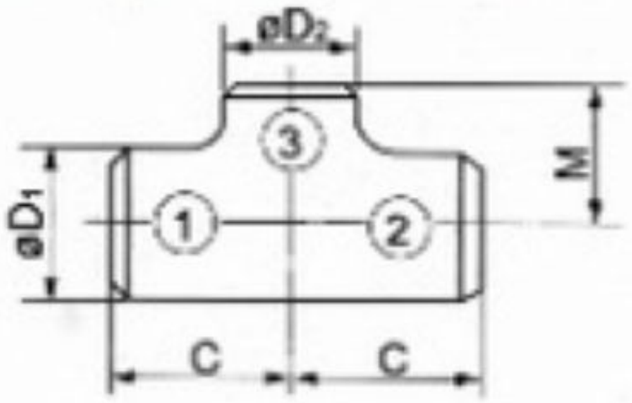
Unit:mm

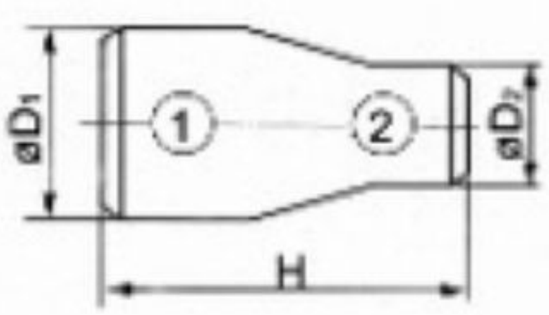
Nominal Pipe Size (NPS)		Outside Diameter D	Diameter of Lap(G)			Length(F)		Radius of Fillet(R)	
			JIS		JPI	JIS	JPI	JIS	JPI
A	B		5K	10K					
15	1/2	21.7	44	51	35	30	50	3	3.2
20	1/4	27.2	49	56	43	30	50	3	3.2
25	1	34	59	67	51	50	50	3	3.2
32	1 1/4	42.7	70	76	64	50	50	4	4.8
40	1 1/2	48.6	75	81	73	50	50	4	6.4
50	2	60.5	85	96	92	50	65	4	7.9
65	2 1/2	76.3	110	116	105	50	65	5	7.9
80	3	89.1	121	126	127	50	65	5	9.5
90	3 1/2	-	-	-	-	-	-	-	-
100	4	114.3	141	151	157	50	75	5	11.1
125	5	139.8	176	182	186	50	75	6	11.1
150	6	165.2	206	212	216	50	90	6	12.7
200	8	216.3	252	262	270	65	100	6	12.7
250	10	267.4	317	324	324	65	125	6	12.7
300	12	318.5	360	368	381	65	150	8	12.7
350	14	355.6	403	413	-	150	-	8	-
400	16	406.4	463	475	-	150	-	8	-
450	18	457.2	523	530	-	150	-	8	-
500	20	508	573	585	-	150	-	8	-
550	22	558.8	630	640	-	150	-	8	-
600	24	609.6	680	690	-	150	-	8	-

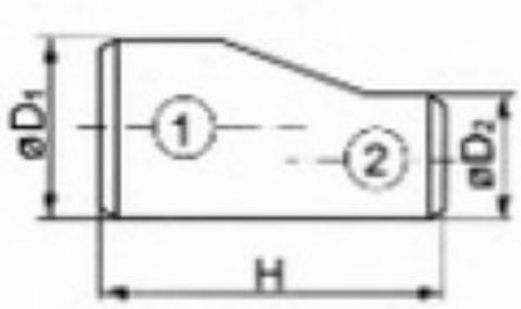
Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Steel Butt-Welding Pipe Fittings(JIS)
Reducing Tees and Concentric & Eccentric Reducers







JIS B2311

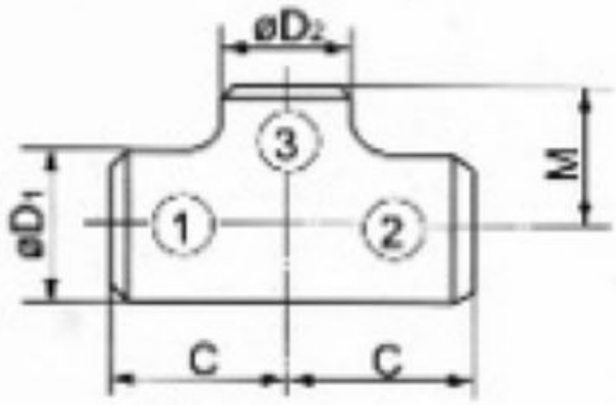
Unit:mm

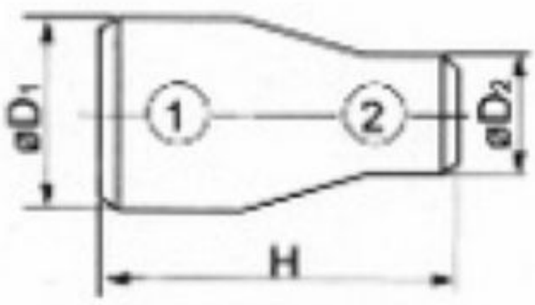
Nominal Pipe Size (NPS)		Outside Diameter		Reducing Tees Center-to-End		Reducers End-to-End
A	B	D_1	D_2	C	M	H
20×15	¾×½	27.2	21.7	28.6	28.6	38.1
25×20	1×¾	34.0	27.2	38.1	38.1	50.8
25×15	1×½	34.0	21.7	38.1	38.1	50.8
32×25	1¼×1	42.7	34.0	47.6	47.6	50.8
32×20	1¼×¾	42.7	27.2	47.6	47.6	50.8
32×15	1¼×½	42.7	21.7	47.6	47.6	50.8
40×32	1½×1¼	48.6	42.7	57.2	57.2	63.5
40×25	1½×1	48.6	34.0	57.2	57.2	63.5
40×20	1½×¾	48.6	27.2	57.2	57.2	63.5
40×15	1½×½	48.6	21.7	57.2	57.2	63.5
50×40	2×1½	60.5	48.6	63.5	60.3	76.2
50×32	2×1¼	60.5	42.7	63.5	57.2	76.2
50×25	2×1	60.5	34.0	63.5	50.8	76.2
50×20	2×¾	60.5	27.2	63.5	44.5	76.2
50×15	2×½	60.5	21.7	63.5	"	76.2
65×50	2½×2	76.3	60.5	76.2	69.9	88.9
65×40	2½×1½	76.3	48.6	76.2	66.7	88.9
65×32	2½×1¼	76.3	42.7	76.2	63.5	88.9
65×25	2½×1	76.3	34.0	76.2	57.2	88.9
65×20	2½×¾	76.3	27.2	76.2	"	88.9
65×15	2½×½	76.3	21.7	76.2	"	88.9
80×65	3×2½	89.1	76.3	85.7	82.6	88.9
80×50	3×2	89.1	60.5	85.7	76.2	88.9
80×40	3×1½	89.1	48.6	85.7	73.0	88.9
80×32	3×1¼	89.1	42.7	85.7	69.9	88.9
80×25	3×1	89.1	34.0	85.7	"	88.9
80×20	3×¾	89.1	27.2	85.7	"	88.9
80×15	3×½	89.1	21.7	85.7	"	88.9
90×80	3½×3	101.6	89.1	95.3	92.1	101.6
90×65	3½×2½	101.6	76.3	95.3	88.9	101.6
90×50	3½×2	101.6	60.5	95.3	82.9	101.6
90×40	3½×1½	101.6	48.6	95.3	79.4	101.6
90×32	3½×1¼	101.6	42.7	95.3	"	101.6
100×90	4×3½	114.3	101.6	104.8	101.6	101.6
100×80	4×3	114.3	89.1	104.8	98.4	101.6
100×65	4×2½	114.3	76.3	104.8	95.3	101.6
100×50	4×2	114.3	60.5	104.8	88.9	101.6
100×40	4×1½	114.3	48.6	104.8	85.7	101.6
100×32	4×1¼	114.3	42.7	104.8	"	101.6
100×25	4×1	114.3	34.0	104.8	"	101.6

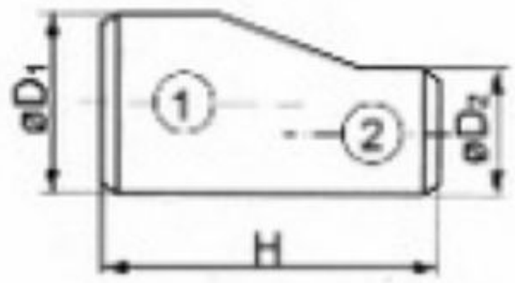
Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Steel Butt-Welding Pipe Fittings(JIS)
Reducing Tees and Concentric & Eccentric Reducers







JIS B2311

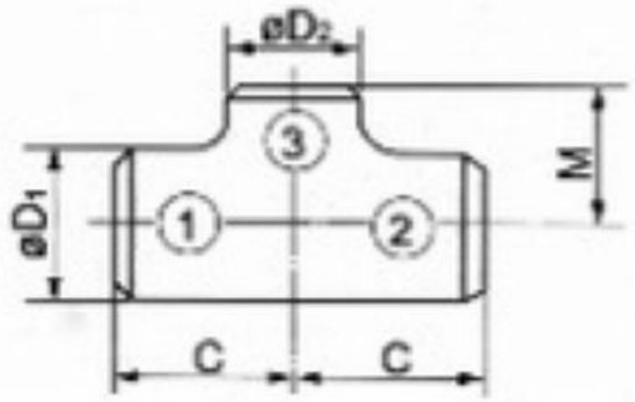
Unit:mm

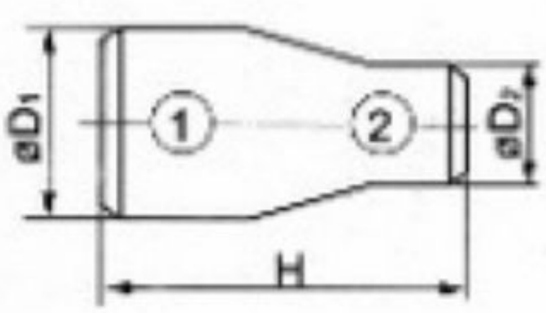
Nominal Pipe Size (NPS)		Outside Diameter		Reducing Tees Center-to-End		Reducers End-to-End
A	B	D_1	D_2	C	M	H
125×100	5×4	139.8	114.3	123.8	117.5	127.0
125×90	5×3½	139.8	101.6	123.8	114.3	127.0
125×80	5×3	139.8	89.1	123.8	111.1	127.0
125×65	5×2½	139.8	76.3	123.8	108.0	127.0
125×50	5×2	139.8	60.5	123.8	104.8	127.0
125×40	5×1½	139.8	48.6	123.8	*	127.0
125×32	5×1¼	139.8	42.7	123.8	*	127.0
150×125	6×5	165.2	139.8	142.9	136.5	139.7
150×100	6×4	165.2	114.3	142.9	130.2	139.7
150×90	6×3½	165.2	101.6	142.9	127.0	139.7
150×80	6×3	165.2	89.1	142.9	123.8	139.7
150×65	6×2½	165.2	76.3	142.9	120.7	139.7
150×50	6×2	165.2	60.5	142.9	*	139.7
200×150	6×6	216.3	165.2	177.8	168.3	152.4
200×125	8×5	216.3	139.8	177.8	161.9	152.4
200×100	8×4	216.3	114.3	177.8	155.6	152.4
200×90	8×3½	216.3	101.6	177.8	152.4	152.4
200×80	8×3	216.3	89.1	177.8	152.4	152.4
250×200	10×8	267.4	216.3	215.9	203.2	177.8
250×150	10×6	267.4	165.2	215.9	193.7	177.8
250×125	10×5	267.4	139.8	215.9	190.5	177.8
250×100	10×4	267.4	114.3	215.9	184.2	177.8
250×80	10×3	267.4	89.1	215.9	*	177.8
300×250	12×10	318.5	267.4	254.0	241.3	203.2
300×200	12×8	318.5	216.3	254.0	228.6	203.2
300×150	12×6	318.5	165.2	254.0	29.1	203.2
300×125	12×5	318.5	139.8	254.0	215.9	203.2
300×100	12×4	318.5	114.3	254.0	*	203.2
350×300	14×12	355.6	318.5	279.4	269.9	330.2
350×250	14×10	355.6	267.4	279.4	257.2	330.2
350×200	14×8	355.6	216.3	279.4	247.7	330.2
350×150	14×6	355.6	165.2	279.4	238.1	330.2
350×125	14×5	355.6	139.8	279.4	*	330.2
400×350	16×14	406.4	355.6	304.8	304.8	355.6
400×300	16×12	406.4	318.5	304.8	295.3	355.6
400×250	16×10	406.4	267.4	304.8	282.6	355.6
400×200	16×8	406.4	216.3	304.8	273.1	355.6
400×150	16×6	406.4	165.2	304.8	263.5	355.6

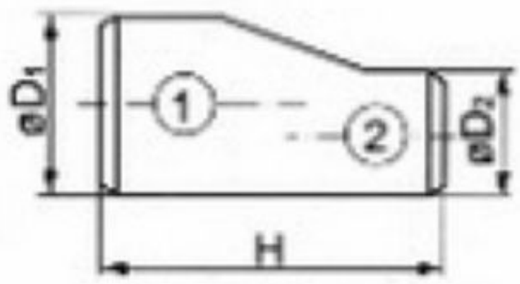
Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Steel Butt-Welding Pipe Fittings(JIS)
Reducing Tees and Concentric & Eccentric Reducers







JIS B2311

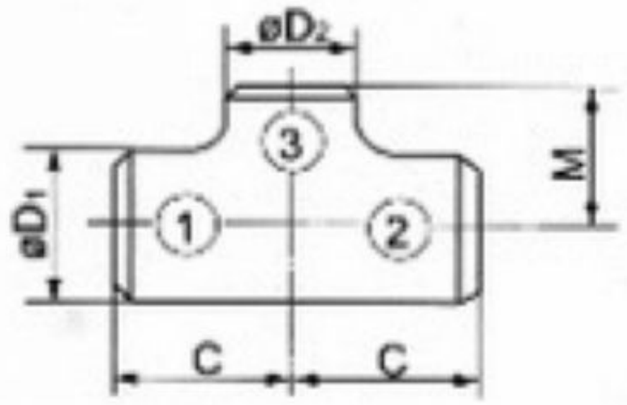
Unit:mm

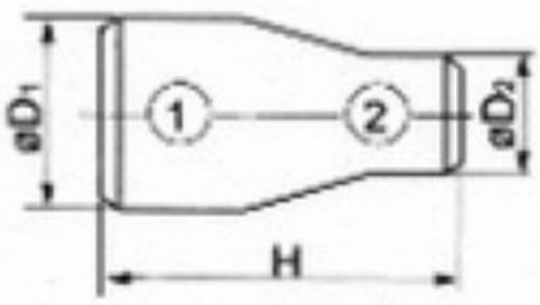
Nominal Pipe Size (NPS)		Outside Diameter		Reducing Tees		Reducer
				Center-to-End		End-to-End
A	B	D_1	D_2	C	M	H
450×400	18×16	457.2	406.4	342.9	330.2	381.0
450×350	18×14	457.2	355.6	342.9	330.2	381.0
450×300	18×12	457.2	318.5	342.9	320.7	381.0
450×250	18×10	457.2	267.4	342.9	308.0	381.0
450×200	18×8	457.2	216.3	342.9	298.0	381.0
500×450	20×18	508.0	457.2	381.0	368.3	508.0
500×400	20×16	508.0	406.4	381.0	355.6	508.0
500×350	20×14	508.0	355.6	381.0	355.6	508.0
500×300	20×12	508.0	318.5	381.0	346.1	508.0
500×250	20×10	508.0	267.4	381.0	333.4	508.0
500×200	20×8	508.0	216.3	381.0	523.9	508.0
550×500	22×20	558.8	508.0	419.1	406.4	508.0
550×450	22×18	558.8	457.2	419.1	393.7	508.0
550×400	22×16	558.8	406.4	419.1	381.0	508.0
550×350	22×14	558.8	355.6	419.1	381.0	508.0
600×550	24×22	609.6	558.8	431.8	431.8	508.0
600×500	24×20	609.6	508.0	431.8	431.8	508.0
600×450	24×18	609.6	457.2	431.8	419.1	508.0
600×400	24×16	609.6	406.4	431.8	406.4	508.0
600×350	24×14	609.6	355.6	431.8	406.4	508.0
600×300	24×12	609.6	318.5	431.8	397.0	508.0
650×600	26×24	660.4	609.6	495.3	482.6	609.6
650×550	26×22	660.4	558.8	495.3	469.9	609.6
650×500	26×20	660.4	508.0	495.3	457.2	609.6
650×450	26×18	660.4	457.2	495.3	440.0	609.6
700×650	28×26	711.2	660.4	520.7	520.7	609.6
700×600	28×24	711.2	609.6	520.7	508.0	609.6
700×550	28×22	711.2	558.8	520.7	495.3	609.6
700×500	28×20	711.2	508.0	520.7	483.0	609.6
750×700	30×28	762.0	711.2	558.8	546.1	609.6
750×650	30×26	762.0	660.4	558.8	546.1	609.6
750×600	30×24	762.0	609.4	558.8	533.4	609.6
750×550	30×22	762.0	558.8	558.8	520.7	609.6
800×750	32×30	812.8	762.0	596.9	584.2	609.6
800×700	32×28	812.8	711.2	596.9	571.5	609.6
800×650	32×26	812.8	660.4	596.9	571.5	609.6
800×600	32×24	812.8	609.6	596.9	559.0	609.6

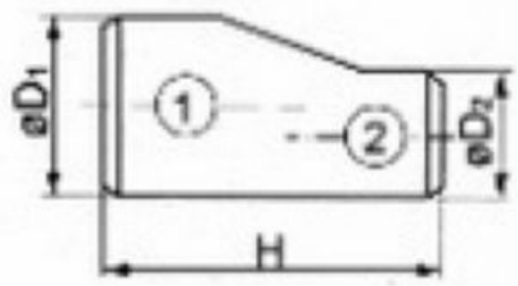
Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Steel Butt-Welding Pipe Fittings(JIS)
Reducing Tees and Concentric & Eccentric Reducers







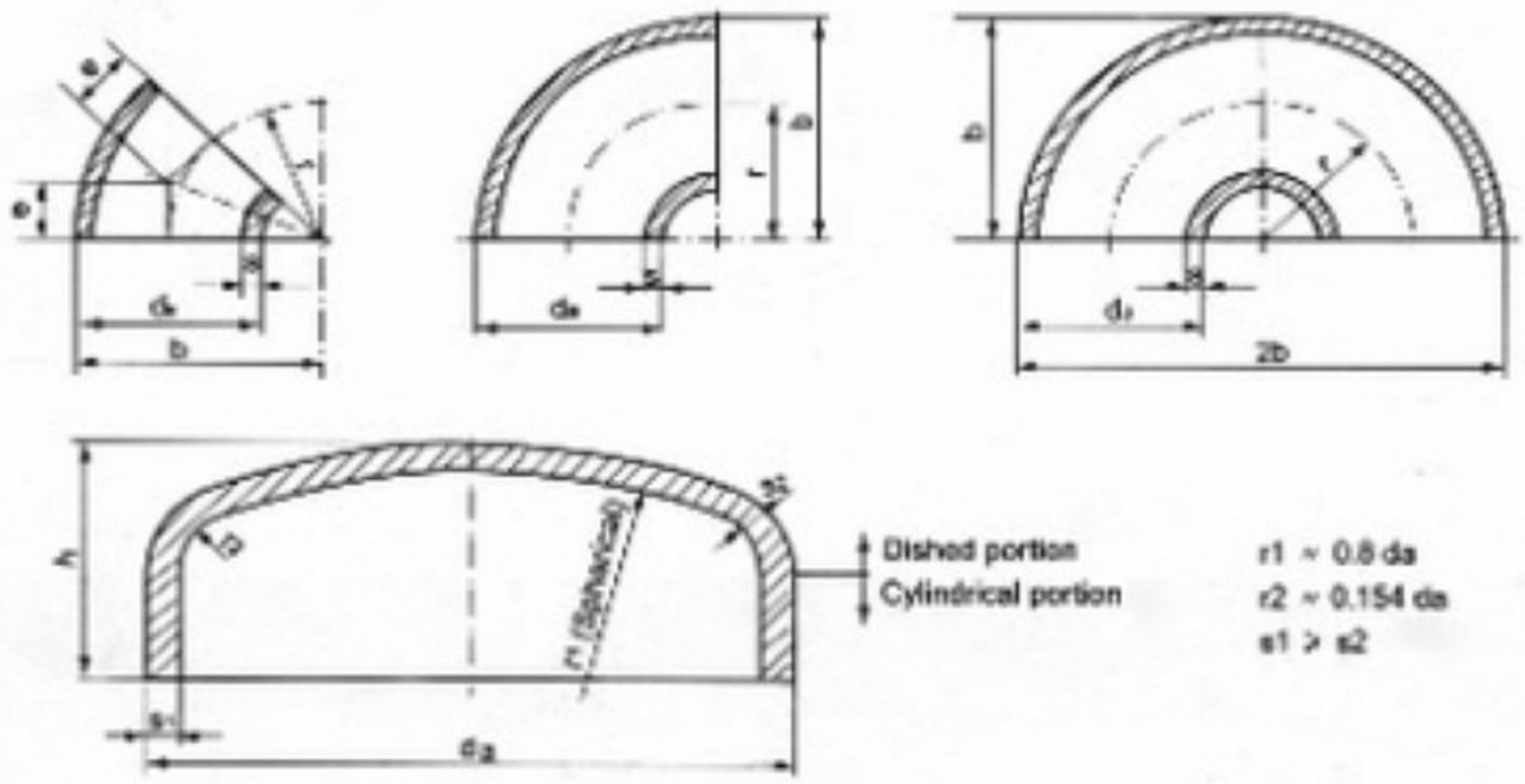
JIS B2311 Unit:mm

Nominal Pipe Size(NPS)		Outside Diameter		Reducing Tees Center-to-End		Reducers End-to-End
A	B	D_1	D_2	C	M	H
850×800	34×32	863.6	812.8	635.0	622.3	609.6
850×750	34×30	863.6	762.0	635.0	609.6	609.6
850×700	34×28	863.6	711.2	635.0	596.9	609.6
850×650	34×26	863.6	660.4	635.0	596.9	609.6
900×850	36×34	914.4	863.6	673.1	660.4	609.6
900×800	36×32	914.4	812.8	673.1	647.7	609.6
900×750	36×30	914.4	762.0	673.1	635.0	609.6
900×700	36×28	914.4	711.2	673.1	622.3	609.6
950×900	38×36	965.2	914.4	711.2	711.2	609.6
950×850	38×34	965.2	863.6	711.2	698.5	609.6
950×800	38×32	965.2	812.8	711.2	685.8	609.6
950×750	38×30	965.2	762.0	711.2	673.0	609.6
1000×950	40×38	1016.0	965.2	749.3	749.3	609.6
1000×900	40×36	1016.0	914.4	749.3	736.6	609.6
1000×850	40×34	1016.0	863.6	749.3	723.9	609.6
1000×800	40×32	1016.0	812.8	749.3	711.2	609.6
1050×1000	42×40	1066.8	1016.0	762.0	711.2	609.6
1050×950	42×38	1066.8	965.2	762.0	711.2	609.6
1050×900	42×36	1066.8	914.4	762.0	711.2	609.6
1050×850	42×34	1066.8	863.6	762.0	711.2	609.6
1100×1050	44×42	1117.6	1066.8	812.8	762.0	609.6
1100×1000	44×40	1117.6	1016.0	812.8	749.3	609.6
1100×950	44×38	1117.6	965.2	812.8	736.6	609.6
1100×900	44×36	1117.6	914.4	812.8	723.9	609.6
1150×1100	46×44	1168.4	1117.6	850.9	811.1	711.2
1150×1050	46×42	1168.4	1066.8	850.9	787.4	711.2
1150×1000	46×40	1168.4	1016.0	850.9	774.7	711.2
1150×950	46×38	1168.4	965.2	850.9	762.0	711.2
1200×1150	48×46	1219.2	1168.4	889.0	838.2	711.2
1200×1100	48×44	1219.2	1117.6	889.0	838.2	711.2
1200×1050	48×42	1219.2	1066.8	889.0	812.8	711.2
1200×1000	48×40	1219.2	1016.0	889.0	812.8	711.2

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

Steel Butt-Welding Pipe Fittings(DIN)
Elbows, Bends, and Caps



DIN 2605 DIN 2617

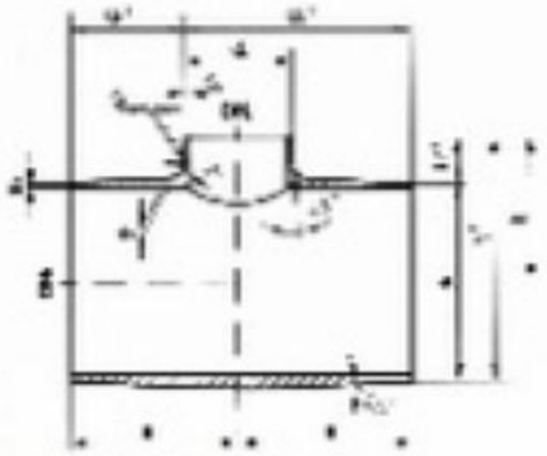
Unit:mm

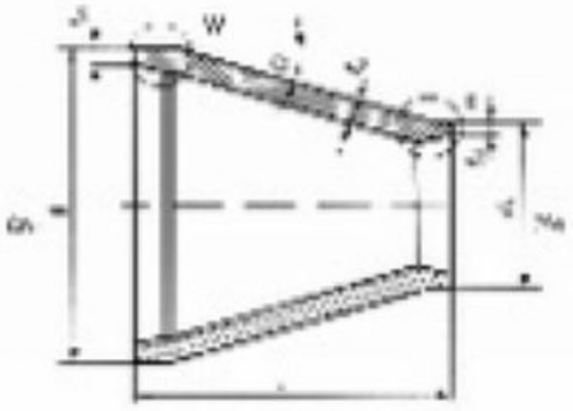
Nominal Size DN	Outside Diameter da	Elbows and Bends						Caps
		Type 3–3D			Type5–5D			
		r	b	e	r	b	e	
15	21.3	28.0	38	12	42.5	53	18	25
20	26.9	29.0	43	12	57.5	71	24	25
25	33.7	38.0	56	16	72.5	90	30	38
32	42.4	48.0	69	20	92.5	114	38	38
40	48.3	57.0	82	24	107.5	132	45	38
50	60.3	76	106	32	135	165	56	38
65	76.1	95	133	39	175	213	73	38
80	88.9	114	159	47	205	250	85	51
100	114.3	152	210	63	270	327	112	64
125	139.7	190	260	79	330	400	137	76
150	168.3	229	313	95	390	474	162	89
200	219.1	305	414	126	510	620	211	102
250	273	381	518	158	650	787	269	127
300	323.9	457	619	189	775	937	321	152
350	355.6	533	711	221	850	1028	352	165
400	406.4	610	813	253	970	1173	402	178
450	457	686	914	284	1122	1350	465	203
500	508	762	1016	316	1245	1500	516	229
600	610	914	1219	379	1525	1830	632	267
700	711	1067	1422	442	1778	2133	737	290
800	813	1219	1626	505	2033	2439	842	330
900	914	1372	1829	568	2285	2742	947	370
1000	1016	1524	2032	631	2540	3048	1052	420
1200	1220	1830	2440	758	3050	3660	1263	360

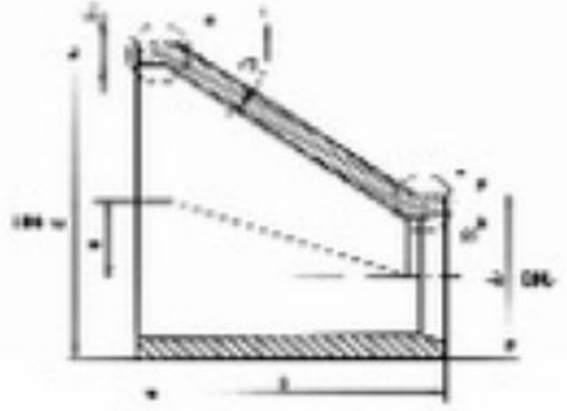
Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Steel Butt-welding Pipe Fittings (DIN)
Tees and Concentric & Eccentric Reducers







DIN 2615 DIN2616

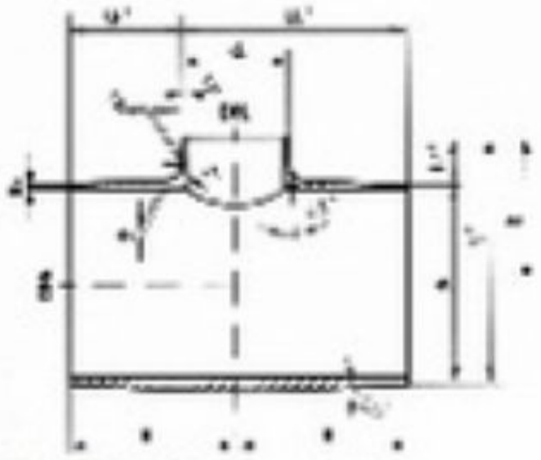
Unit:mm

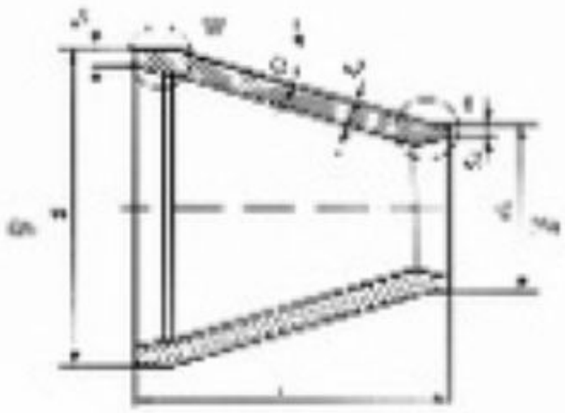
Nominal Size DN1	Outside Diameter d1	Nominal Size DN2	Outside Diameter d2	Tees		Reducers
				a	b	l1
15	21.3	15	21.3	25	25	38
20	26.9	20	26.9	29	29	38
20	26.9	15	21.3	29	29	38
25	33.7	25	33.7	38	38	50
25	33.7	20	26.9	38	38	50
25	33.7	15	21.3	38	38	50
32	42.4	32	42.4	48	48	50
32	42.4	25	33.7	48	48	50
32	42.4	20	26.9	48	48	50
32	42.4	15	21.3	48	48	50
40	48.3	40	48.3	57	57	64
40	48.3	32	42.4	57	57	64
40	48.3	25	33.7	57	57	64
40	48.3	20	26.9	57	57	64
50	60.3	50	60.3	64	64	76
50	60.3	40	48.3	64	60	76
50	60.3	32	42.4	64	57	76
50	60.3	25	33.7	64	51	76
50	60.3	20	26.9	64	44	76
65	76.1	65	76.1	76	76	90
65	76.1	50	60.3	76	70	90
65	76.1	40	48.3	76	67	90
65	76.1	32	42.4	76	64	90
65	76.1	25	33.7	76	57	90
80	88.9	80	88.9	86	86	90
80	88.9	65	76.1	86	83	90
80	88.9	50	60.3	86	76	90
80	88.9	40	48.3	86	73	90
80	88.9	32	42.4	86	70	90
100	114.3	100	114.3	105	105	100
100	114.3	80	88.9	105	98	100
100	114.3	65	76.1	105	95	100
100	114.3	50	60.3	105	89	100
100	114.3	40	48.3	105	86	100
125	139.7	125	139.7	124	124	127
125	139.7	100	114.3	124	117	127
125	139.7	80	88.9	124	111	127
125	139.7	65	76.1	124	108	127
125	139.7	50	60.3	124	105	127
150	168.3	150	168.3	143	143	140
150	168.3	125	139.7	143	137	140

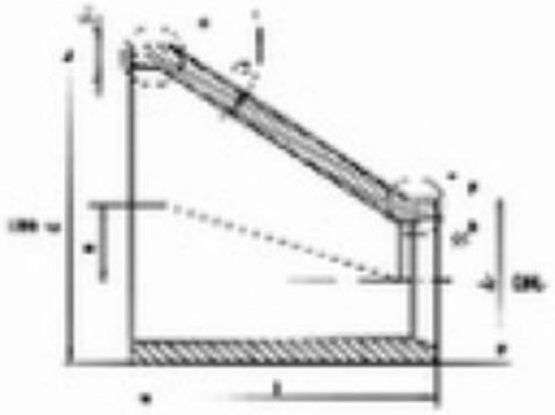
Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Steel Butt-welding Pipe Fittings (DIN)
Tees and Concentric & Eccentric Reducers







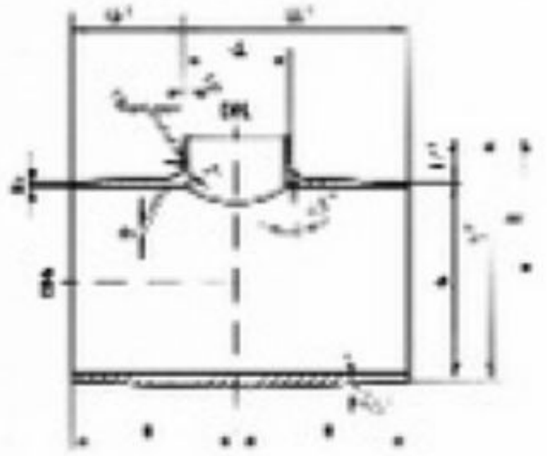
DIN 2615 DIN2616

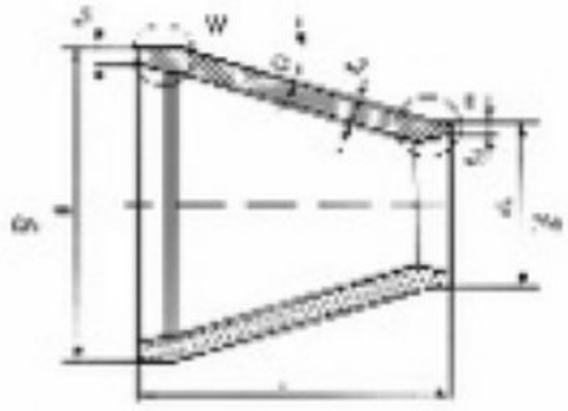
Unit:mm

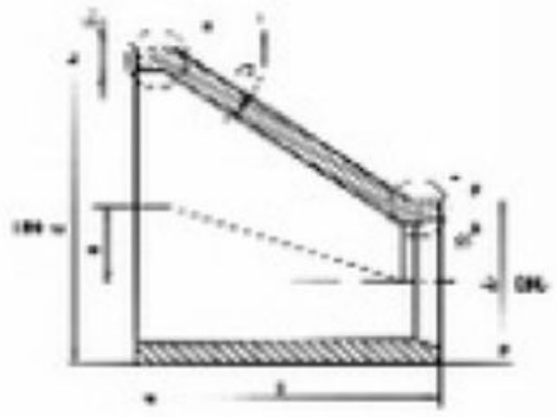
Nominal Size DN1	Outside Diameter d1	Nominal Size DN2	Outside Diameter d2	Tees		Reducers
				a	b	l1
150	168.3	100	114.3	143	130	140
150	168.3	80	88.9	143	124	140
150	168.3	65	76.1	143	121	140
200	219.1	200	219.1	178	178	152
200	219.1	150	168.3	178	168	152
200	219.1	125	139.7	178	162	152
200	219.1	100	114.3	178	156	152
200	219.1	80	88.9	178	152	152
250	273	250	273	216	216	178
250	273	200	219.1	216	203	178
250	273	150	168.3	216	194	178
250	273	125	139.7	216	191	178
250	273	100	114.3	216	184	178
300	323.9	300	323.9	254	254	203
300	323.9	250	273	254	241	203
300	323.9	200	219.1	254	229	203
300	323.9	150	168.3	254	219	203
300	323.9	125	139.7	254	216	203
350	355.6	350	355.6	279	279	330
350	355.6	300	323.9	279	270	330
350	355.6	250	273	279	257	330
350	355.6	200	219.1	279	248	330
350	355.6	150	168.3	279	238	330
400	406.4	400	406.4	305	305	355
400	406.4	350	355.6	305	305	355
400	406.4	300	323.9	305	295	355
400	406.4	250	273	305	283	355
400	406.4	200	219.1	305	273	355
400	406.4	150	168.3	305	264	355
450	457	450	457	343	343	381
450	457	400	406.4	343	330	381
450	457	350	355.6	343	330	381
450	457	300	323.9	343	321	381
450	457	250	273	343	308	381
450	457	200	219.1	343	298	381
500	508	500	508	381	381	508
500	508	450	457	381	368	508
500	508	400	406.4	381	356	508
500	508	350	355.6	381	356	508
500	508	300	323.9	381	346	508
500	508	250	273	381	333	508

HL PIPE FITTING CO.,LTD

Steel Butt-welding Pipe Fittings (DIN)
Tees and Concentric & Eccentric Reducers







DIN 2615 DIN2616

Unit:mm

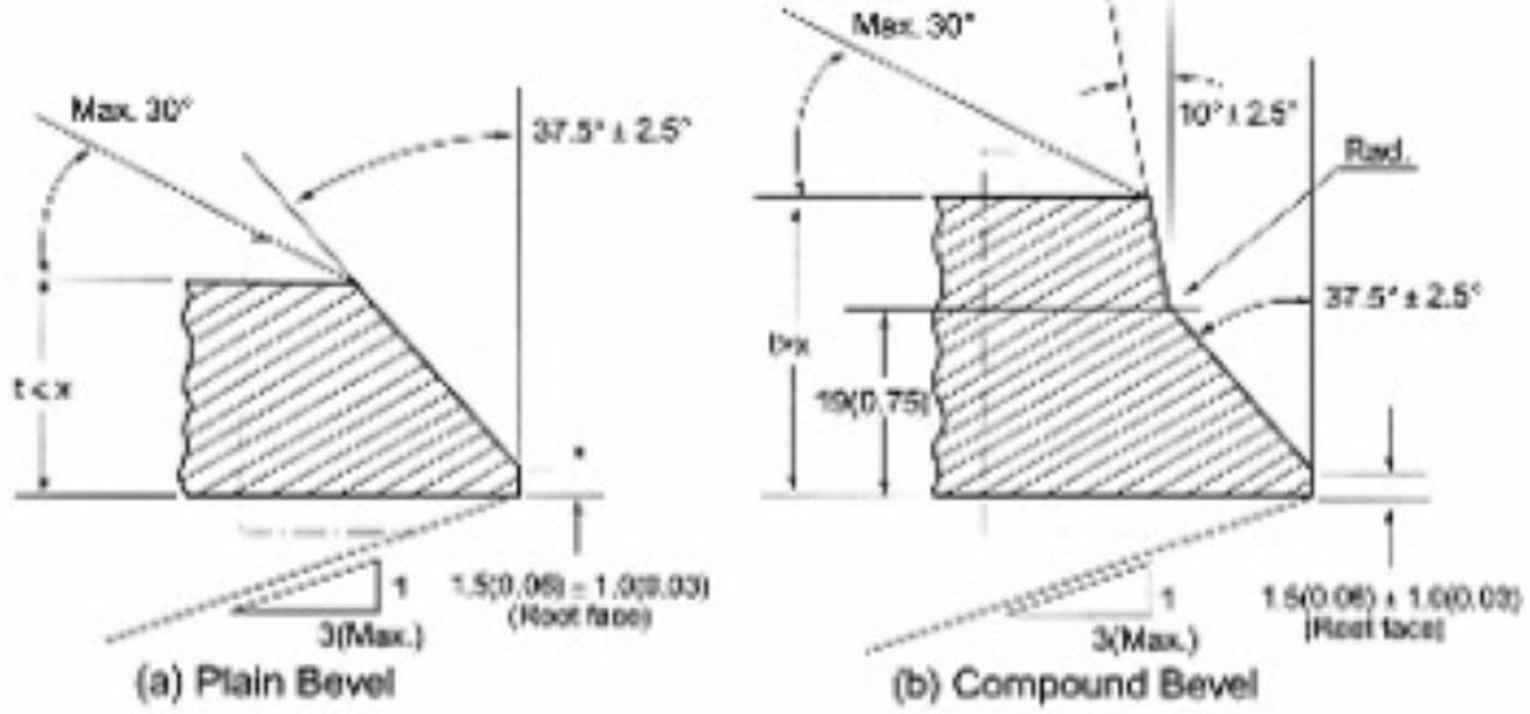
Nominal Size DN1	Outside Diameter d1	Nominal Size DN2	Outside Diameter d2	Tees		Reducers
				a	b	H
500	508	200	219.1	381	324	508
600	610	600	610	432	432	508
600	610	500	508	432	432	508
600	610	450	457	432	419	508
600	610	400	406.4	432	406	508
600	610	350	355.6	432	406	508
600	610	300	323.9	432	397	508
600	610	250	273	432	384	508
700	711	700	711	521	521	610
700	711	600	610	521	508	610
700	711	500	508	521	483	610
700	711	450	457	521	470	610
700	711	400	406.4	521	457	610
700	711	350	355.6	521	457	610
700	711	300	323.9	521	448	610
800	813	800	813	597	597	610
800	813	700	711	597	572	610
800	813	600	610	597	559	610
800	813	500	508	597	533	610
800	813	450	457	597	521	610
800	813	400	406.4	597	508	610
800	813	350	355.6	597	508	610
900	914	900	914	673	673	610
900	914	800	813	673	648	610
900	914	700	711	673	622	610
900	914	600	610	673	610	610
900	914	500	508	673	584	610
900	914	450	457	673	572	610
900	914	400	406.4	673	559	610
1000	1016	1000	1016	749	749	610
1000	1016	900	914	749	737	610
1000	1016	800	813	749	711	610
1000	1016	700	711	749	673	610
1000	1016	600	610	749	660	610
1000	1016	500	508	749	635	610
1000	1016	450	457	749	622	610
1200	1220	1200	1220	889	838	711
1200	1220	1000	1016	889	813	711
1200	1220	900	914	889	787	711
1200	1220	800	813	889	787	711
1200	1220	700	711	889	762	711
1200	1220	600	610	889	737	711

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Welding End Preparation

ASME B16.9, B16.25



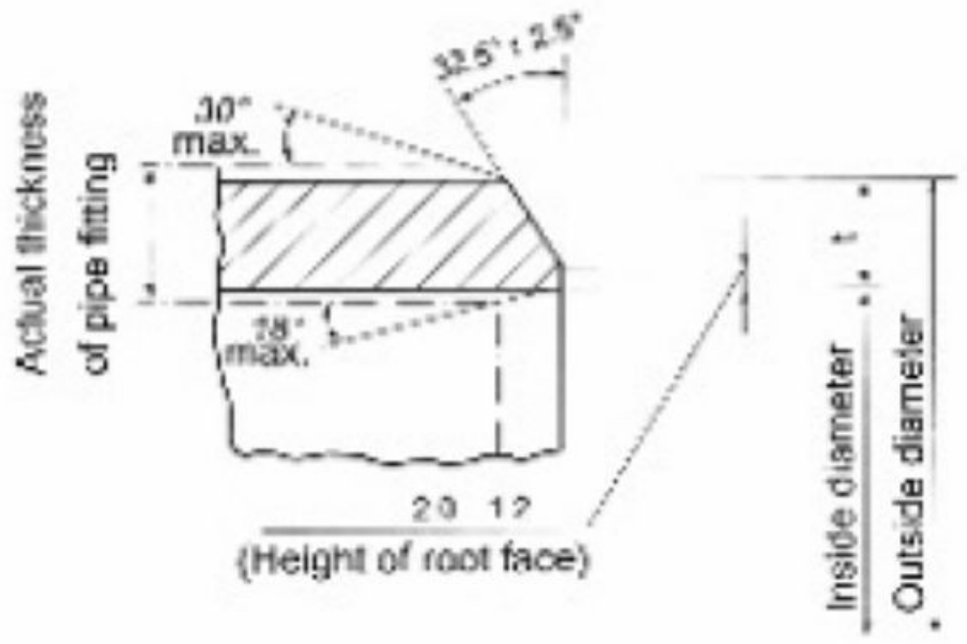
Welding Bevels and Root Face

Nominal Wall Thickness,t	*End Preparation*
Less than x [Note]	Cut square or slightly chamfer, at manufacturer's option. (Not illustarted.)
x to 22 (0.88)	Plain bevel as in sketch (a) above.
More than 22 (0.88)	Compound bevel as in sketch (b) above.

GENERAL NOTES: Dimensions in parentheses are in inches. Others are in Millimeters.
NOTE:X=5(0.19) for carbon steel or ferritic alloy steel
x=3(0.12) for austenitic alloy steel

JIS B2311

Unitmm

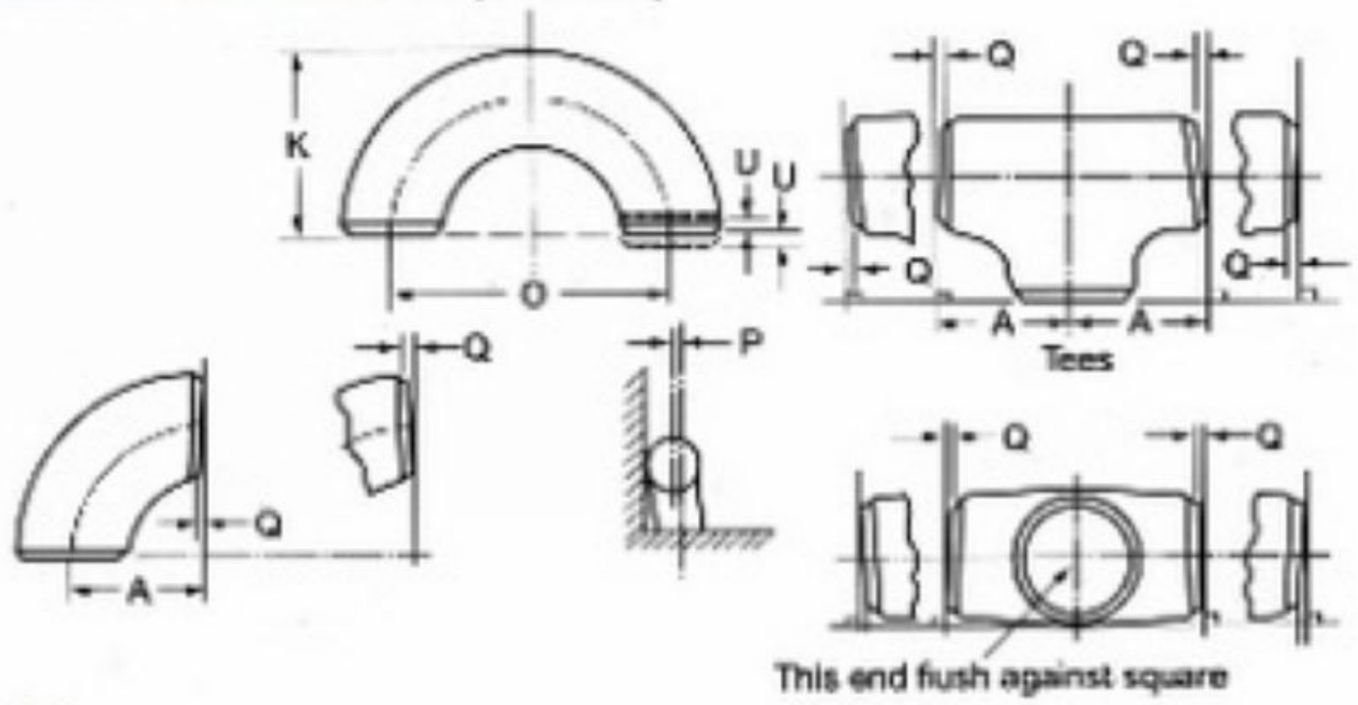


Shape and Dimensions of Bevel End

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Dimensional Tolerances(ASME)



ASME B16.9, B16.28

Pipe Size	All Fittings					90° & 45° Elbows and Tees		Reducers and Lap Joint Stub ends		Caps	
	Outside Diameter at Bevel, D (1)		Inside Diameter at End (f)		Wall Thickness t	Center-to-End Dimensions A, B, C, M		Overall Length, F, H		Overall Length, E	
	IN	MM	IN	MM		IN	MM	IN	MM	IN	MM
1/2-2 1/2	+0.06 -0.03	+1.6 -0.8	±0.03	±0.8	Not Less Than 87.5% of Nominal Thickness	±0.06	±2	±0.06	±2	±0.12	±3
3-2 1/2 4	±0.06	±1.6	±0.06	±1.6							
5-8	+0.09 -0.06	+2.4 -1.6								±0.25	±6
10-18	+0.16 -0.12	+4.0 -3.2	±0.12	±3.2		±0.09		±0.09			
20-24	+0.25 -0.19	+6.4 -4.8	±0.19	±4.8		±0.12	±3	±0.19	±5	±0.38	±10
26-30											
32-48						±0.19	±5				

Pipe Size	Lap Joint Stub Ends (2)						180 Return Bends					
	Outside Diameter of Lap, G		Lap Thickness		Fillet Radius of Lap, R		Center-to-Center Dimension, O		Back-to-Face Dimension, K		Alignment of Ends, U	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/2-2 1/2 3-2 1/2 4	+0 -0.03	+0 -1	+0.06 -0	+1.6 -0	+0 -0.03	+0 -1	±0.25	±6	±0.25	±6	0.03	±1
5-8					+0 -0.06	+0 -2						
10-18 20-24	+0 -0.06	+0 -2	+0.12 -0	+3.2 -0			±0.38	±10			±0.06	±2

Pipe Size	Off Angle, Q		Off Plane, P	
	IN	MM	IN	MM
1/2-4	±0.03	±1	±0.06	±2
5-8	±0.06	±2	±0.12	±4
10-12	±0.09	±3	±0.19	±5
14-16			±0.25	±6
18-24	±0.12	±4	±0.38	±10
26-30	±0.19	±5		
32-42			±0.50	±13
44-48			±0.75	±19

NOTES:
(1) Out-of-round is the sum of absolute values of plus and minus tolerances.
(2) Outside diameter of bare lsee the table on page 14.

Dimensional Tolerances(MSS)

MSS SP-43

Nominal Pipe Size	All Fittings		90° Elbows 45° Elbows Tees	Reducers Lap-Joint Stub Ends	180° Returns			Caps	Lap-Joint Stub Ends	
	Outside Diameter at Welding End(a)	Wall Thickness	Center-to-End A-B-C-M	Overall Length F-H	Center-to-Center O	Back-to-Face K	Alignment of Ends U	Overall Length E	Fillet(b) Radius of Lap A	Outside Diameter of Lap G
1/2~1 1/4	±0.03 (±0.8)	Not less than 87.5% of nominal thick-ness	±0.06 (±1.6)		±0.25 (±6.4)	±0.25 (±6.4)	±0.03 (±0.8)	±0.12 (±3.2)	+0 -0.03 (+0) (-0.8)	+0 -0.03 (+0) (-0.8)
2~3 1/2										
4										
5~8	+0.06 -0.03 (+1.6) (-0.8)							±0.25 (±6.4)	+0 -0.06 (+0) (-1.6)	
10~18	0.09 -0.03 (+2.4) (-0.8)		±0.09 (±2.4)	±0.38 (±9.6)			±0.06 (±1.6)			+0 -0.06 (+0) (-1.6)
20~24	+0.12 -0.03 (+3.2) (-0.8)									

GENERAL NOTE:
All dimensions are in inches. Dimensions in brackets are in millimeters for reference only.

NOTES:
(a) Out of roundness is the vector sum of plus and minus tolerance.
(B) Fillet B radius is maximum. See page 17.

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Dimensional Tolerances(JIS)

JIS B2311

Item	Types of Pipe Fittings	Nominal Diameter							
		A	15~65 1/2~2 1/2	80~100	125~200	250~450	500~600	650~750	800~1200
		B	1/2~2 1/2	3~4	5~8	10~18	20~24	26~30	32~48
		Tolerance							
Outside diameter at end	All types of pipe fittings	±2.0		±2.5	±3.5	+5.0 -4.5	+6.4 -4.8		
Inside diameter at end face						±4.5	±4.8		
Thickness		+Not specific -15%							
Bevel angle		See figure Shape and Dimensions of Bevel End on pape							
Height of root face									
Dimension from center line to end face (H,F)	45° elbows 90° elbows	±2.0		±3.2				±4.8	
Center line dimension (F)	180° elbows	±6.4		±9.5		-			
Dimension from back to end face (K)		±6.4				-			
Alignment of end faces (U) (max.)		1.6		3.2		-			
Overall length (H)	Reducers	±2.0		±3.2			±4.8		
Dimension from center line to end face (C,M)	Tees			±3.2				±4.8	
Dimension from back to end face (E)	Caps	±3.2		±6.4			-		
Outer peripheral length at end	All types of pipe fittings	-					±0.5%		

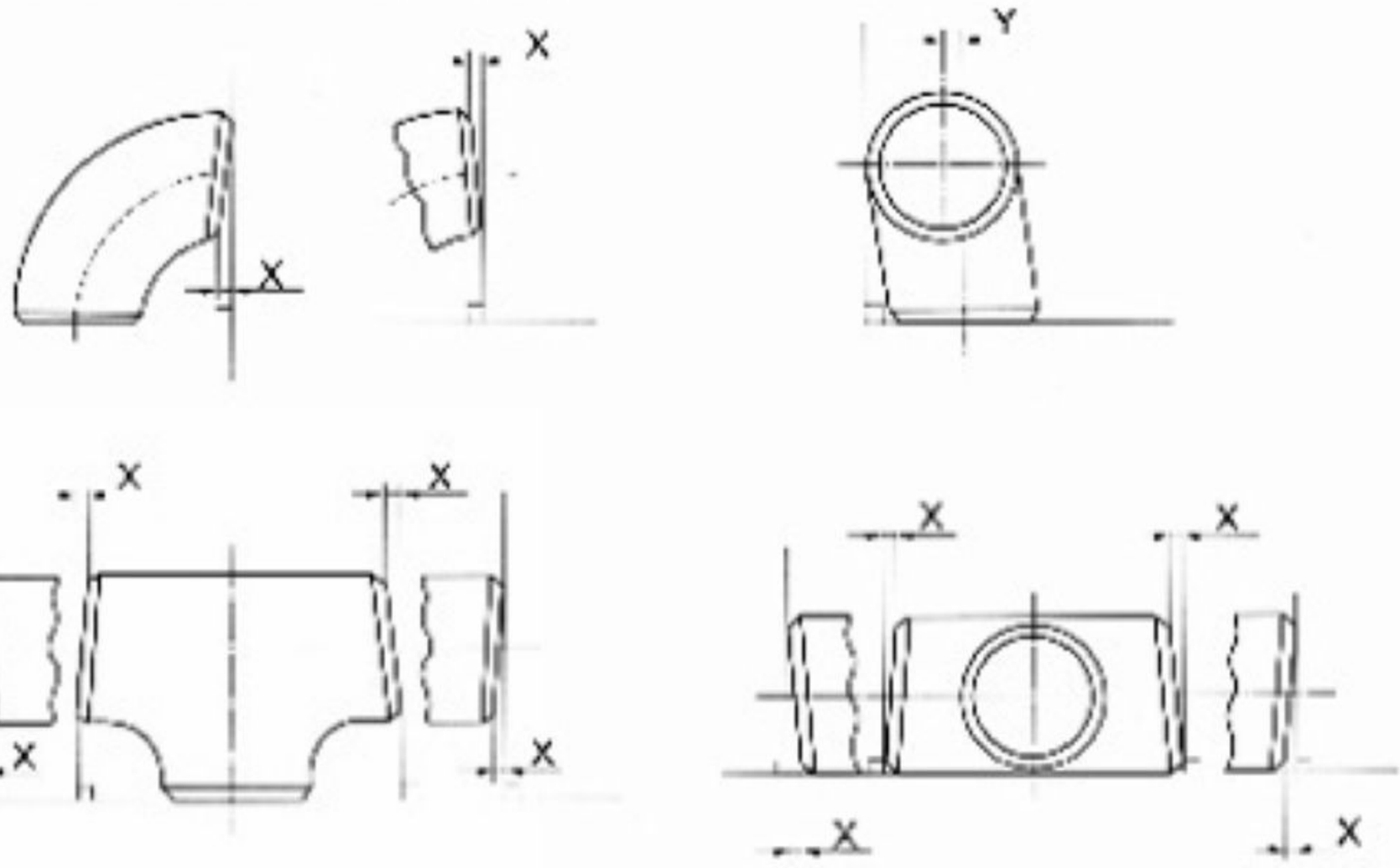
Remarks 1 For the dimensional tolerances for H of reducer and M of reduced tee, the tolerances specified for larger diameter side shall apply.

2 For the galvanized part of white pipe fittings, the above-mentioned tolerance shall be applied before galvanizing.

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

Dimensional Tolerances(JIS)



JIS B2311

Item	Types of Pipe Fitting	Nominal Diameter								
		A	15~100	125~200	250~300	350~400	450~600	650~750	800~1050	1100~1200
		B	1/2~4	5~8	10~12	14~16	18~24	26~30	32~42	44~48
		Tolerance								
Offangle (X)	Elbows, reducers, tees	0.8		1.6	2.4		3.2	4.8		
Offplane (Y)	Elbows, tees	1.6		3.2	4.8	6.4	9.5		12.7	19.1

Remarks 1 For the tolerances on alignment of reducer and reduced tee, the tolerances specified for larger diameter side shall apply.

2 For the galvanized part of white pipe fittings, the above-mentioned tolerance shall be applied before galvanizing.

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

MATERIAL SPECIFICATIONS FOR BUTT-WELDING FITTINGS(ASTM)

ASTM A234/A234M-00a
Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service

Grade	Composition, %										
	C	Mn	P	S	Si	Cr	Mo	Ni	Cu	V	Nb
WPB(1)(2)(3)(4)	0.30	0.29-1.06	0.050	0.058	0.10	0.40	0.15	0.40	0.40	0.08	0.02
WPC(1)(2)(3)(4)	0.35	0.29-1.06	0.050	0.058	0.10	0.40	0.15	0.40	0.40	0.08	0.02
WP11CL1	0.05-0.15	0.30-0.60	0.030	0.030	0.50-1.00	1.00-1.50	0.44-0.65	-	-	-	-
WP11CL2 WP11CL3	0.05-0.20	0.30-0.80	0.040	0.040	0.50-1.00	1.00-1.50	0.44-0.65	-	-	-	-

GENERAL NOTE:
All values are maximum unless otherwise indicated.
NOTES:
(1) For each reduction of 0.01% below the specified C maximum, an increase of 0.06% Mn above the specified maximum will be permitted, up to a maximum of 1.35%.
(2) The sum of Cu, Ni, Cr, and Mo shall not exceed 1.00%.
(3) The sum of Cr and Mo shall not exceed 0.32%.
(4) The maximum carbon equivalent (C.E.) shall be 0.50, based on heat analysis and the formula C.E.=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15.

Tensile Requirements	WPB	WPC, WP11CL2	WP11CL1	WP11CL3
Tensile Strength, min, ksi [MPa]	60-85	70-95	60-85	75-100
(0.2% offset for 0.5% Extension-under-load)	[415-585]	[485-655]	[415-585]	[520-690]
Yield Strength, min, ksi [MPa]	32	40	30	45
	[240]	[275]	[205]	[310]

	Wall thickness		Elongation Requirements	
	in	mm	Longitudinal	Transverse
Standard round specimen, or small proportional specimen, min % in 4D			22	14
Rectangular Specimen for wall thickness 0.312 in [7.94 mm] and over, and for all small sizes tested in full section; min % in 2 in [50 mm]	≥0.312	≥7.94	30	20
Rectangular Specimen for wall thickness less than 0.312 in [7.94 mm]; min % in 2 in [50 mm] (0.5 in [12.7 mm] wide specimen)	0.281	7.14	28.5	19
	0.250	6.35	27.0	18
	0.219	5.56	25.5	-
	0.188	4.76	24.0	-
	0.156	3.97	22.5	-
	0.125	3.17	21.0	-
	0.094	2.38	19.5	-
	0.062	1.59	18.0	-

Where the wall thickness lies between two values above, the min elongation value is determined by the following equations:

Longitudinal E=48t+15.00
Transverse E=32t+10.00

E = elongation in 2 in [50 mm], %
t = actual thickness of specimen, in [mm]

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

Material Specifications for Butt-Welding Fittings (JIS and DIN)

JIS B2311 Steel Butt-Welding PIpe Fittings for Ordinary Use
JIS G3452 Carbon Steel Pipes for Ordinary Piping
JIS G3457 Arc Welded Carbon Steel Pipes

Steel Grade	Chemical Composition %			Tensile Strength	Yield Point	Elongation % (1)	
	C	p	S			Longitudinal	Transverse
	Max			N/mm2 Min		Min	Min
SGP	-	0.040	0.040	290	-	30(2)	25(2)
PY400	0.25	0.040	0.040	400	255	-	18

NOTES:
(1)Values specified are for wall thickness 8mm and over.For each 1mm decrease in wall thickness below 8mm,a deduction of 1.5% for both longitudinal and transverse from the values shown above is permitted.
(2)Values not applicable to NPS below 32A.

DIN 1626 Welded Circular Unalloyed Steel Tubes Subject to Special Requirements
DIN 1629 Seamless Circular Unalloyed Steel Tubes Subject to Special Requirements
DIN 17175 Seamless Tubes of Heat-Resistant Steels

Steel Grade Symbol	Type of deoxidization	Chemical Composition (cast analysis)% (max unless otherwise specified)					
		C	SI(1)	Mn	P	S	N(3)
St37.0	R	0.17	-	-	0.040	0.040	0.009(3)
St35.8	-	0.17	0.10-0.35	0.40-0.80	0.040	0.040	-

NOTES:
(1)The minimum Si content is allowed to fall below 0.10% when the steel is alumimium-killed or vacuum-deoxidized.
(2)A content in excess of the maximum value stated is permitted if a P content less than the maximum specified by 0.005% P per 0.001% N is observed.However the N content shall not exceed a value of 0.012% in the case analysis and 0.014% in the product analysis.
(3)The specified value does not apply if the steels are supplied with the RR (instead of R) type of deoxidization.
R=killed,including semi-killed
RR=fully killed

Amounts by which the chemical composition in the product sample analysis may deviate from the limiting values applicable to the cast analysis.

Element	St37.0 Allowable Deviation Amount%	St35.8	
		Limits Quoted in Cast Analysis	Allowable Deviation Amount, %
C	0.02	≤0.24	±0.02
SI	-	≤0.35	±0.03
Mn	-	≤1.00	±0.04
P	0.010	≤0.040	±0.010
S	0.010	≤0.040	±0.010
N	0.001(1)	-	-

NOTES:
(1)A content in excess of the maximum value stated is permitted if a P content less than the maximum specified by 0.005% P per 0.001% N is observed.However the N content shall not exceed a value of 0.012% in the case analysis and 0.014% in the product analysis (this dose not apply to the RR type of deoxidization).
(2)In a cast the deviation of an element in a sample analysis is permitted to be below the minimum value or only above the maximum value of the range stipulated for the cast analysis,though not both at the same time.

Steel Grade Symbol	Upper Yield Stress ReH for Wall thicknesses, in mm			Tensile Strength Rm	Elongation after Fracture A5		Impact Strength Transverse
	ReH≤16	16<ReH≤40	40<ReH≤60		Longitudinal	Transverse	
	Min N/mm2				Min %		Min J
St37.0	235	225	215	350(1)-480	25	23	-
St35.8	235	225	215	360-480	25	23	34

NOTE:
(1)For cold finished tubes in the NBK condition,minimum values of tensile strength lower than this value by 10N/mm2 is permitted.

THE GENERAL MATERIAL FOR CHINESE PRESSURE PIPING FITTINGS 中国压力管道管件常用材料

钢种 Variety	牌号 Grade	标准号 Standard and Code	类型 Type	化学成份 ChemicalComposition%,max									力学性能Mechanical properties				
				C	Si	Mn	Cr	Ni	Mo	P	S	Other	σb Mpa/min	σs Mpa/min	δ5 %/min	HB Max	Other
碳钢 Carbon Steel	20	GB/G699	棒BAR	0.17-0.23	0.17-0.37	0.35-0.65	0.25	0.30	--	0.035	0.035	Cu 0.25	410	245	25	156	1%55
	20	GB3087	管PIPE	0.17-0.23	0.17-0.37	0.35-0.65	0.25	0.30	--	0.035	0.035	Cu 0.25	410-550	245	20	--	-
	20	GB/T8163	管PIPE	0.17-0.23	0.17-0.37	0.35-0.65	0.25	0.30	--	0.035	0.035	Cu 0.25	410-550	245	20	--	-
	20	GB9948	管PIPE	0.17-0.24	0.17-0.37	0.35-0.65	0.25	0.25	--	0.035	0.035	Cu 0.25	410-550	245	21	--	Akv J39
	20	GB711	板PLATE	0.17-0.24	0.17-0.37	0.35-0.65	0.25	0.25	--	0.035	0.040	Cu 0.25	410	--	28	--	-
	20G	GB5310	管PIPE	0.17-0.24	0.17-0.37	0.35-0.65	0.25	0.25	0.15	0.030	0.030	Cu 0.20;V0.08	410-550	245	24	--	Akv J35
	20G	GB6479	管PIPE	0.17-0.24	0.17-0.37	0.35-0.65	--	--	--	0.035	0.035	--	410-550	245	24	--	ak J/cm2:49
	20g	GB 713	板PLATE	0.20	0.15-0.30	0.50-0.90	--	--	--	0.035	0.035	--	400-530	245	26	--	Akv J27;aku J cm29
	20R	GB6654	板PLATE	0.20	0.15-0.30	0.40-0.90	--	--	--	0.035	0.030	--	400-520	245	25	--	Akv J31
	Q235A	GB3724	板PLATE	0.14-0.22	0.30	0.30-0.65	--	--	--	0.045	0.050	--	375-500	235	26	--	-
	Q235B	GB3724	板PLATE	0.12-0.20	0.30	0.30-0.70	--	--	--	0.045	0.045	--	375-500	235	26	--	Akv J27
合金钢 Alloy Steel	1Cr5Mo	GB1221	棒BAP	0.15	0.50	0.60	4.00-6.00	0.60	0.45-0.60	0.035	0.030	--	590	390	18	--	-
	1Cr5Mo	GB6479	管PIPE	0.15	0.50	0.60	4.00-6.00	--	0.45-0.60	0.035	0.030	Cu 0.25	390-590	195	22	--	ak J/cm2:118
	1Cr5Mo	GB9948	管PIPE	0.15	0.50	0.60	4.00-6.00	0.60	0.45-0.60	0.035	0.030	Cu 0.25	390	195	22	187	Aku J92
	1Cr2Mo	GB9948	管PIPE	0.15	0.50-1.00	0.30-0.60	2.15-2.85	--	0.45-0.65	0.035	0.030	Cu 0.25	390	175	22	179	Aku J92
	12CrMo	GB/T3077	棒BAP	0.08-0.15	0.17-0.37	0.40-0.70	0.40-0.70	0.30	0.40-0.55	0.035	0.035	Cu 0.30	410	265	24	179	1%60;AkU2 J:110
	12CrMo	GB6479	管PIPE	0.08-0.15	0.17-0.37	0.40-0.70	0.40-0.70	--	0.40-0.55	0.035	0.035	Cu 0.25	410-560	205	21	--	akJ/cm2:69
	12CrMo	GB9948	管PIPE	0.08-0.15	0.17-0.37	0.40-0.70	0.40-0.70	0.30	0.40-0.55	0.035	0.035	Cu 0.25	410-560	205	21	156	Aku J55
	12CrMoG	GB5310	管PIPE	0.08-0.15	0.17-0.37	0.40-0.70	0.40-0.70	0.30	0.40-0.55	0.030	0.030	Cu 0.20	410-560	205	21	--	Aku J35
	12Cr1MoV	GB/G3077	棒BAP	0.08-0.15	0.17-0.37	0.40-0.70	0.90-1.20	0.30	0.25-0.35	0.035	0.035	V0.15-0.30;Cu0.30	490	245	22	179	1%50;AkU2 J:71
	12Cr1MoVG	GB5310	管PIPE	0.08-0.15	0.17-0.37	0.40-0.70	0.90-1.20	0.30	0.25-0.35	0.030	0.030	V0.15-0.30;Cu0.20	470-640	255	21	--	Aku J35
	12Cr1MoVg	GB 713	板PLATE	0.08-0.15	0.17-0.37	0.40-0.70	0.90-1.20	0.30	0.25-0.35	0.030	0.030	Cu 0.30	440	245	29	--	Aku J31
	12Cr2Mo	GB6479	管PIPE	0.08-0.15	0.40-0.70	0.90	2.00-2.50	--	0.90-1.20	0.035	0.035	Cu 0.25	450-600	280	20	--	ak J/cm2:48
	12Cr2MoG	GB5310	管PIPE	0.08-0.15	0.50	0.40-0.70	2.00-2.50	0.30	0.90-1.20	0.030	0.030	Cu 0.20	450-600	280	20	--	Aku J35
	15CrMo	GB/T3077	棒BAP	0.12-0.18	0.17-0.37	0.40-0.70	0.80-1.10	0.30	0.40-0.55	0.035	0.035	Cu 0.30	440	295	22	179	1%60;AkU2 J59
	15CrMo	GB6479	管PIPE	0.12-0.18	0.17-0.37	0.40-0.70	0.80-1.10	--	0.40-0.55	0.035	0.035	Cu 0.25	440-640	235	21	--	ak J cm2:59
	15CrMo	GB9948	管PIPE	0.12-0.18	0.17-0.37	0.40-0.70	0.80-1.10	0.30	0.40-0.55	0.035	0.035	Cu 0.25	440-640	235	21	170	Aku J47
	15CrMoG	GB5310	管PIPE	0.12-0.18	0.17-0.37	0.40-0.70	0.80-1.10	0.30	0.40-0.55	0.030	0.030	Cu 0.20	440-640	235	21		Aku J35
	15CrMog	GB 713	板PLATE	0.12-0.18	0.15-0.40	0.40-0.70	0.80-1.20	0.30	0.45-0.60	0.030	0.030	Cu 0.30	450-590	295	19	--	Aku J31
	15CrMoR	GB6654	板PLATE	0.12-0.18	0.15-0.40	0.40-0.70	0.80-1.20	0.30	0.45-0.60	0.030	0.030	Cu 0.30	450-590	295	19	--	Aku J31

恒力管件 Fittings
HL PIPE FITTING CO.,LTD

钢种 Variety	牌号 Grade	标准号 Standard and Code	类型 Type	化学成份 ChemicalComposition% max									力学性能Mechanical properties				
				C	Si	Mn	Cr	Ni	Mo	P	S	Other	σb Mpa min	σa Mpa min	δ5 Min	HB Max	Other
奥氏体不锈钢 Austenitic Stainless Steel	00Cr17Ni14Mo2	GB 1220	棒BAR	0.030	1.00	2.00	16.00-18.00	12.00-15.00	2.00-3.00	0.035	0.030	–	480	177	40	187	4%60
	00Cr17Ni14Mo2	GB 4237	板PLATE	0.030	1.00	2.00	16.00-18.00	12.00-15.00	2.00-3.00	0.035	0.030	–	480	177	40	187	–
	00Cr17Ni14Mo2	GB/T 14976	管PIPE	0.030	1.00	2.00	16.00-18.00	12.00-15.00	2.00-3.00	0.035	0.030	–	480	175	35	–	–
	00Cr19Ni10	GB 1220	棒BAR	0.030	1.00	2.00	18.00-20.00	8.00-12.00	–	0.035	0.030	–	480	177	40	187	4%60
	00Cr19Ni10	GB 4237	板PLATE	0.030	1.00	2.00	18.00-20.00	8.00-12.00	–	0.035	0.030	–	480	177	40	187	–
	00Cr19Ni10	GB/T 14976	管PIPE	0.030	1.00	2.00	18.00-20.00	8.00-12.00	–	0.030	0.030	–	480	175	35	–	–
	0Cr17Ni12Mo2	GB 1220	棒BAR	0.08	1.00	2.00	16.00-18.50	10.00-14.00	2.00-3.00	0.035	0.030	–	520	205	40	187	4%60
	0Cr17Ni12Mo2	GB 4237	板PLATE	0.08	1.00	2.00	16.00-18.00	10.00-14.00	2.00-3.00	0.035	0.030	–	520	205	40	187	–
	0Cr17Ni12Mo2	GB/T 14976	管PIPE	0.08	1.00	2.00	16.00-18.50	10.00-14.00	2.00-3.00	0.035	0.030	–	520	205	35	–	–
	0Cr18Ni9	GB 1220	棒BAR	0.07	1.00	2.00	17.00-19.00	8.00-11.00	–	0.035	0.030	–	520	205	40	187	4%60
	0Cr18Ni9	GB 4237	板PLATE	0.07	1.00	2.00	17.00-19.00	8.00-11.00	–	0.035	0.030	–	520	205	40	187	–
	0Cr18Ni9	GB/T 14976	管PIPE	0.07	1.00	2.00	17.00-19.00	8.00-11.00	–	0.035	0.030	–	520	205	35	–	–
	0Cr18Ni10Ti	GB 1220	棒BAR	0.08	1.00	2.00	17.00-19.00	9.00-12.00	–	0.035	0.030	Ti≤5C	520	205	40	187	4%50
	0Cr18Ni10Ti	GB 4237	板PLATE	0.08	1.00	2.00	17.00-19.00	9.00-12.00	–	0.035	0.030	Ti≤5C	520	205	40	187	–
	0Cr18Ni10Ti	GB/T 14976	管PIPE	0.08	1.00	2.00	17.00-19.00	9.00-12.00	–	0.030	0.030	Ti≤5C	520	205	35	–	–
	0Cr18Ni12Mo2Ti	GB 1220	棒BAR	0.08	1.00	2.00	16.00-19.00	11.00-14.00	1.80-2.50	0.035	0.030	Ti≤5C - 0.7	530	205	40	187	4%55
	0Cr18Ni12Mo2Ti	GB 4237	板PLATE	0.08	1.00	2.00	16.00-19.00	11.00-14.00	1.80-2.50	0.035	0.030	Ti≤5C - 0.7	530	205	37	187	–
	0Cr18Ni12Mo2Ti	GB/T 14976	管PIPE	0.08	1.00	2.00	16.00-19.00	11.00-14.00	1.80-2.50	0.035	0.030	Ti≤5C - 0.7	530	205	35	–	–
	1Cr18Ni9	GB 4237	板PLATE	0.15	1.00	2.00	17.00-19.00	8.00-10.00	–	0.035	0.030	–	520	205	40	187	–
	1Cr18Ni9	GB 5310	管PIPE	0.15	1.00	2.00	17.00-19.00	8.00-10.00	–	0.035	0.030	Cu≤0.20	520	205	35	–	–
双相不锈钢 Biphase Stainless Steel	00Cr26Ni6Mo2	GB 1220	棒BAR	0.08	1.00	1.50	23.00-28.00	3.00-6.00	1.00-3.00	0.035	0.030	–	590	390	18	277	4%40
	00Cr26Ni6Mo2	GB 4237	板PLATE	0.08	1.00	1.50	23.00-28.00	3.00-6.00	1.00-3.00	0.035	0.030	–	590	390	18	277	–
	00Cr26Ni6Mo2	GB 14976	管PIPE	0.08	1.00	1.50	23.00-28.00	3.00-6.00	1.00-3.00	0.035	0.030	–	590	390	18	–	–
	00Cr18Ni5Mo3Si2	GB 1220	棒BAR	0.030	1.30-2.00	1.00-2.00	18.00-19.50	4.50-5.50	2.50-3.00	0.035	0.030	–	590	390	20	–	4%40
	00Cr18Ni5Mo3Si2	GB 4237	板PLATE	0.030	1.30-2.00	1.00-2.00	18.0-19.5	4.5-5.5	2.5-3.0	0.030	0.030	N≤0.10	590	390	20	–	–
低温钢 Low Temperature Steel	09MnNiDR	GB 3531	板PLATE	0.012	0.15-0.50	1.20-1.60	0.25	0.30-0.80	0.08	0.025	0.020	Nb:0.04;Al≤0.05	440-570	290	22	–	Akv J27
	16Mn	GB 6479	管PIPE	0.12-0.20	0.20-0.60	1.20-1.60	-	–	–	0.040	0.040	Cu≤0.25	490-670	320	21	–	ak J/cm2 5
	16Mg	GB 713	板PLATE	0.20	0.20-0.55	1.20-1.60	0.30	0.30	0.10	0.035	0.030	Cu≤0.30	510-655	345	21	–	Akv J27
	16MnDR	GB 3531	板PLATE	0.20	0.15-0.50	1.20-1.60	0.25	0.40	0.08	0.030	0.025	Cu≤0.25	490-620	315	21	–	Akv J24
	16MnR	GB 6654	板PLATE	0.20	0.20-0.55	1.20-1.60	0.30	0.30	–	0.035	0.030	Cu≤0.30	510-640	345	21	–	Akv J31

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The index of material chemical composition and mechanical properties shall change as to some defined condition,and please refer to the original standard.

HENGLI Fittings 恒力管件
HL PIPE FITTING CO.,LTD

THE GENERAL MATERIAL FOR AMERICAN PRESSURE PIPING FITTINGS 美国压力管道管件常用材料

标准号 Standard and Code	级别 Grade	化学成份 ChemicalComposition% max										力学性能 Mechanical properties				
		C	Mn	P	S	Si	Cr	Mo	Ni	Cu	Other	σb Mpa min	σ0.2 Mpa min	δ% Min	HB Max	Other
ASTM A234/A234M 管件 FITING	WPB	0.30	0.29-1.06	0.050	0.058	0.10min	0.40	0.15	0.40	0.40	V:0.08;Nb:0.02	415-585	240	22	197	--
	WPC	0.35	0.29-1.06	0.050	0.058	0.10min	0.40	0.15	0.40	0.40	V:0.08;Nb:0.02	485-655	275	22	197	--
	WP1	0.28	0.30-0.90	0.045	0.045	0.10-0.50	--	0.44-0.65	--	--	--	380-550	205	22	197	--
	WP12CL1	0.05-0.20	0.30-0.80	0.045	0.045	0.60	0.80-1.25	0.44-0.65	--	--	--	415-585	220	22	197	--
	WP12CL2	0.05-0.20	0.30-0.80	0.045	0.045	0.60	0.80-1.25	0.44-0.65	--	--	--	485-655	275	22	197	--
	WP11CL1	0.05-0.15	0.30-0.60	0.030	0.030	0.50-1.00	1.00-1.50	0.44-0.65	--	--	--	415-585	205	22	197	
	WP11CL2	0.05-0.20	0.30-0.80	0.040	0.040	0.50-1.00	1.00-1.50	0.44-0.65	--	--	--	485-655	275	22	197	--
	WP11CL3	0.05-0.20	0.30-0.80	0.040	0.040	0.50-1.00	1.00-1.50	0.44-0.65	--	--	--	520-690	310	22	197	--
	WP22CL1	0.05-0.15	0.30-0.60	0.040	0.040	0.50	1.90-2.60	0.87-1.13	--	--	--	415-585	205	22	197	--
	WP22CL3	0.05-0.15	0.30-0.60	0.040	0.040	0.50	1.90-2.60	0.87-1.13	--	--	--	520-690	310	22	197	--
	WP5CL1	0.15	0.30-0.60	0.040	0.030	0.50	4.0-6.0	0.44-0.65	--	--	--	415-585	205	22	217	--
	WP5CL3	0.15	0.30-0.60	0.040	0.030	0.50	4.0-6.0	0.44-0.65	--	--	--	520-690	310	22	217	--
	WP9CL1	0.15	0.30-0.60	0.030	0.030	1.00	8.0-10.0	0.90-1.10	--	--	--	415-585	205	22	217	--
	WP9CL3	0.15	0.30-0.60	0.030	0.030	1.00	8.0-10.0	0.90-1.10	--	--	--	520-690	310	22	217	--
	WPR	0.20	0.40-1.06	0.045	0.050	--	--	--	1.6-2.24	0.75-1.25	--	435-605	315	20/28	217	--
	WP91	0.08-0.12	0.30-0.60	0.020	0.010	0.20-0.50	8.0-9.5	0.85-1.05	0.40	--	See standard	585-760	415	20	248	--
	WP911	0.09-0.13	0.30-0.60	0.020	0.010	0.10-0.50	8.5-10.5	0.90-1.10	0.40	--	See standard	620-840	440	20	248	--
ASTM A403/A403M 管件 FITING	WP304	0.08	2.00	0.045	0.030	1.00	18.0-20.0	--	8.0-11.0	--	--	515	205	28	--	--
	WP304H	0.04-0.10	2.00	0.045	0.030	1.00	18.0-20.0	--	8.0-11.0	--	--	515	205	28	--	--
	WP304L	0.035	2.00	0.045	0.030	1.00	18.0-20.0	--	8.0-13.0	--	--	485	170	28	--	--
	WP304LN	0.030	2.00	0.045	0.030	0.75	18.0-20.0	--	8.0-10.5	--	N2:0.10-0.16	515	205	28	--	--
	WP304N	0.08	2.00	0.045	0.030	0.75	18.0-20.0	--	8.0-11.0	--	N2:0.10-0.16	550	240	28	--	--
	WP309	0.15	2.00	0.045	0.030	1.00	22.0-24.0	--	12.0-15.0	--	--	515	205	28	--	--
	WP310	0.15	2.00	0.045	0.030	1.50	24.0-26.0	--	19.0-22.0	--	--	515	205	28	--	--
	WP316	0.08	2.00	0.045	0.030	1.00	16.0-18.0	2.00-3.00	10.0-14.0	--	--	515	205	28	--	--
	WP316H	0.04-0.10	2.00	0.045	0.030	1.00	16.0-18.0	2.00-3.00	10.0-14.0	--	--	515	205	28	--	--
	WP316LN	0.030	2.00	0.045	0.030	0.75	16.0-18.0	2.00-3.00	11.0-14.0	--	N2:0.10-0.16	515	205	28	--	--
	WP316L	0.035	2.00	0.045	0.030	1.00	16.0-18.0	2.00-3.00	10.0-16.0	--	--	485	170	28	--	--
	WP316N	0.08	2.00	0.0450	0.030	0.75	16.0-18.0	2.00-3.00	11.0-14.0	--	N2:0.10-0.16	550	240	28	--	--
	WP317	0.08	2.00	0.045	0.030	1.00	18.0-20.0	3.0-4.0	11.0-15.0	--	--	515	205	28	--	--
	WP317L	0.030	2.00	0.045	0.030	1.00	18.0-20.0	3.0-4.0	11.0-15.0	--	--	515	205	28	--	--
	WP321	0.08	2.00	0.045	0.030	1.00	17.0-20.0	--	9.0-13.0	--	Ti:5C - 0.7	515	205	28	--	--
	WP321H	0.04-0.10	2.00	0.045	0.030	1.00	17.0-20.0	--	9.0-13.0	--	Ti:4C - 0.7	515	205	28	--	--
	WP347	0.08	2.00	0.045	0.030	1.00	17.0-20.0	--	9.0-13.0	--	Nb+Ta:10C - 1.10	515	205	28	--	--
	WP347H	0.04-0.10	2.00	0.045	0.030	1.00	17.0-20.0	--	9.0-13.0	--	Nb+Ta:8C - 1.00	515	205	28	--	--
	WP348	0.08	2.00	0.045	0.030	1.00	17.0-20.0	--	9.0-13.0	--	Ta:0.10	515	205	28	--	--
	WP348H	0.04-0.10	2.00	0.045	0.030	1.00	17.0-20.0	--	9.0-13.0	--	Ta:0.10	515	205	28	--	--

恒力管件 Fittings
HL PIPE FITTING CO.,LTD

类型 Variety	标准号 Standard andCode	级别 Grades	化学成份 ChemicalComposition% max										力学性能 Mechanical properties				
			C	Mn	P	S	Si	Cr	Mo	Ni	Cu	Other	σbMPa min	σ02Mpa min	δ%Min	HBmax	Other
管件 FITTING	ASTM A420/A420M	WPL6	0.30	0.29-1.06	0.035	0.040	0.15-0.30	0.30	0.12	0.40	0.40	Cb0.02;V0.05	415-585	240	22	--	--
		WPL9	0.20	0.40-1.06	0.030	0.030	--	--	--	1.60-2.24	0.75-1.25	--	435-610	315	20	--	--
		WPL3	0.20	0.31-0.64	0.05	0.05	0.13-0.37	--	--	3.2-3.8	--	--	450-620	240	22	--	--
		WPL8	0.13	0.90	0.030	0.030	0.13-0.37	--	--	8.4-9.6	--	--	690-865	515	16	--	--
	ASTMA815/A815M	UNS S31803	0.030	2.0	0.030	0.020	0.10	21.0-23.0	2.50-3.50	4.50-6.50	--	N:0.08-0.20	620-795	450	25	290	--
锻件 FORGING	ASTMA105/A105M	A105	0.35	0.60-1.05	0.035	0.040	0.10-0.35	0.30	0.12	0.40	0.40	V:0.05;Nb:0.02	485	250	22	187	伸长率:30
	ASTM A182/A182M	F11CL1	0.05-0.15	0.30-0.60	0.030	0.030	0.50-1.00	1.00-1.50	0.44-0.65	--	--	--	415	205	20	121-174	伸长率:45
		F11CL2	0.10-0.20	0.30-0.80	0.040	0.040	0.50-1.00	1.00-1.50	0.44-0.65	--	--	--	485	275	20	143-207	伸长率:30
		F11CL3	0.10-0.20	0.30-0.80	0.040	0.040	0.50-1.00	1.00-1.50	0.44-0.65	--	--	--	515	310	20	156-207	伸长率:30
		F12CL1	0.05-0.15	0.30-0.60	0.045	0.045	0.50	0.80-1.25	0.44-0.65	--	--	--	415	205	20	121-174	伸长率:45
		F12CL2	0.10-0.20	0.30-0.80	0.040	0.040	0.10-0.60	0.80-1.25	0.44-0.65	--	--	--	485	275	20	143-207	伸长率:30
		F304	0.08	2.00	0.045	0.030	1.00	18.0-20.0	--	8.0-11.0	--	N:0.10	515	205	30	--	伸长率:50
		F304H	0.04-0.10	2.00	0.045	0.030	1.00	18.0-20.0	--	8.0-11.0	--	--	515	205	30	--	伸长率:50
		F304L	0.035	2.00	0.045	0.030	1.00	18.0-20.0	--	8.0-13.0	--	N:0.10	485	170	30	--	伸长率:50
		F316L	0.035	2.00	0.045	0.030	1.00	16.0-18.0	2.00-3.00	10.0-15.0	--	N:0.10	485	170	30	--	伸长率:50
		F317	0.08	2.00	0.045	0.030	1.00	18.0-20.0	3.0-4.0	11.0-15.0	--	--	515	205	30	--	伸长率:50
		F321	0.08	2.00	0.045	0.030	1.00	17.0-19.0	--	9.0-12.0	--	Ti:5C%--0.7	515	205	30	--	伸长率:50
		F347	0.08	2.00	0.045	0.030	1.00	17.0-20.0	--	9.0-13.0	--	Ti:10C%--1.10	515	205	30	--	伸长率:50
管 PIPE	ASTMA53/A53M	B	0.30	1.20	0.05	0.045	--	0.40	0.15	0.40	0.40	V:0.08	415	240	see standrd	--	--
	ASTMA106	B	0.30	0.29-1.06	0.035	0.035	0.10min	0.40	0.15	0.40	0.40	V:0.08	415	240	22	--	--
		C	0.35	0.29-1.06	0.035	0.035	0.10min	0.40	0.15	0.40	0.40	V:0.08	485	275	20	--	--
	ASTM A312/A312M	TP304	0.08	2.00	0.040	0.030	0.75	18.0-20.0	--	8.0-11.0	--	--	515	205	35	--	--
		TP304H	0.04-0.10	2.00	0.040	0.030	0.75	18.0-20.0	--	8.0-11.0	--	--	515	205	35	--	--
		TP304L	0.035	2.00	0.040	0.030	0.75	18.0-20.0	--	8.0-13.0	--	--	485	170	35	--	--
		TP316L	0.035	2.00	0.040	0.030	0.75	16.0-18.0	2.00-3.00	10.0-15.0	--	--	485	170	35	--	--
		TP321	0.08	2.00	0.040	0.030	0.75	17.0-20.0	--	9.0-13.0	--	Ti:5C%--0.7	515	205	35	--	--
	ASTM A335/A335M	P5	0.15	0.30-0.60	0.025	0.025	0.50	4.00-6.00	0.45-0.65	--	--	--	415	205	22	--	--
		P5B	0.15	0.30-0.60	0.025	0.025	1.00-2.00	4.00-6.00	0.45-0.65	--	--	--	415	205	22	--	--
		P5C	0.12	0.30-0.60	0.025	0.025	0.50	4.00-6.00	0.45-0.65	--	--	Ti:4C%--0.7	415	205	22	--	--
		P9	0.15	0.30-0.60	0.025	0.025	0.50-1.00	8.00-10.00	0.90-1.10	--	--	--	415	205	22	--	--
		P11	0.05-0.15	0.30-0.60	0.025	0.025	0.50-1.00	1.00-1.50	0.44-0.65	--	--	--	415	205	22	--	--
		P12	0.05-0.15	0.30-0.61	0.025	0.025	0.50	0.80-1.25	0.44-0.65	--	--	--	415	220	22	--	--
		P22	0.05-0.15	0.30-0.60	0.025	0.025	0.50	1.90-2.60	0.87-1.13	--	--	--	415	205	22	--	--
		P91	0.08-0.12	0.30-0.60	0.020	0.010	0.20-0.50	8.00-9.50	0.85-1.05	0.40	--	See standard	585	415	20	--	--
板 PLATE	ASTM A515/A515M	60	0.24	0.98	0.035	0.035	0.13-0.45	--	--	--	--	--	415-550	220	25	--	--
		65	0.28	0.98	0.035	0.035	0.13-0.45	--	--	--	--	--	450-585	240	23	--	--
		70	0.31	1.30	0.035	0.035	0.13-0.45	--	--	--	--	--	485-620	260	21	--	--

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恒力管件 HENGLI Fittings
HL PIPE FITTING CO.,LTD

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

CARBON,ALLOY AND STAINLESS STEEL

各国常用碳钢，不锈钢材料对照表

中国 CN	德国 Grade	欧盟标准EN Designation	美国UNS	美国ANSI	法国 AFNOR	英国 BS	国际标准
Y1Cr13	1.4005	X12CrS13	S41600	416	Z12CF13	416S21	ISO
1Cr13	1.4006	X10Cr13	S41000	410	Z12C13	410S21	7
1Cr17	1.4016	X6Cr17	S43000	430	Z8C17	430S15	3
2Cr13	1.4021	X20Cr13	S42000	420	Z20C13	420S37	8
3Cr13	1.4034	X46Cr16	-	-	Z40C14	(420S45)	4
1Cr17Ni2	1.4057	X12CrNi172	S43100	431	Z15CN162	431S29	5
Y1Cr17	1.4104	X12CrMoS17	S43020	430F	Z10CF17	(441S29)	9
8Cr17	1.4112	X90CrMoV18	S44003	440B	-	-	8a
-	1.4122	X39CrMo17	-	-	-	-	-
0Cr18Ni9 (0Cr18Ni9)	1.4301	X5CrNi18 10	S30400	304	Z6CN18.09	304S15	-
Y1Cr11Ni9	1.4305	X10CrNiS189	S30300	303	Z10CNF 18.09	303S21	11
00Cr19Ni11(00Cr19Ni10)	1.4306	X2CrNi19 11	S30403	304L	Z2CN18.09	304S12	17
1Cr17Ni7	1.4310	X12CrNi17 7	S30100	301	Z12CN17.07	-	10
0Cr17Ni12Mo2	1.4401	X5CrNiMo17122	S31600	316	Z6CND17.11	316S16	14
00Cr17Ni14Mo2	1.4404	X2CrNiMo17132	S31603	316L	Z2CND17.12	316S12	20.20a
00Cr17Ni14Mo2	1.4435	X2CrNiMo18143	S31603	316L	Z2CND17.13	316S12	19.19a
0Cr17Ni12Mo2	1.4436	X5CrNiMo17133	S31600	316	Z6CND17.12	316S16	19.19a
00Cr19Ni13Mo3 (00Cr17Ni14Mo3)	1.4438	X2CrNiMo18164	S31703	317L	Z2CND19.15	317S12	20.20a
-	1.4439	X2CrNiMoN17 13 5	-	317LMN	-	-	24
0Cr19Ni13Mo3	1.4449	X5CrNiMo17 13	S31700	317	-	317S16	-
0Cr26Ni5Mo2	1.4460	X8CrNiMo275	S32900	329	-	-	25
-	1.4462	X2CrNiMoN22 5	S31803	-	Z5CND22.03	-	-
-	1.4539	X2NiCrMoCu25205	N08904	-	Z1NCDU25.20	-	-
(0Cr18Ni10Ti)(0Cr18Ni9Ti)	1.4541	X6CrNiTi18 10	S32100	321	Z6CNT18.10	321S12	-
0Cr18Ni11Nb	1.4550	X6CrNiNb1810	S34700	347	Z6CNNb18.10	347S17	15
0Cr18Ni12Mo2Ti	1.4571	X6CrNiMoTi17 12 2	S31635	316Ti	Z6CNDT17.12	320S17	16
-	1.4713	X10CrAl7	-	-	Z8CA7	-	-
-	1.4724	X10CrAl13	-	-	-	-	-
-	1.4742	X10CrAl18	-	-	Z10CAS18	-	-
1Cr25Ti	1.4762	X10CrAl24	(S44600)	(446)	Z10CAS24	-	-
-	1.4821	X20CrNiSi25 4	-	-	-	-	-
-	1.4828	X15CrNiSi20 12	(S30900)	(309)	Z15CNS20.12	(309S24)	-
-	1.4841	X15CrNiSi25 20	S31400	314	Z12CNS25.20	-	-
0Cr25Ni20	1.4845	X12CrNi2521	S31008	310S	Z12CN25.20	310S24	-
-	1.4864	X12CrNiSi36 16	S38330	330	(Z12NC37.18)	-	-
-	1.4876	X10CrNiAlTi32 20	-	-	Z8NC32.21	3076NA15H	-
(0Cr18Ni10Ti)(0Cr18Ni9Ti)	1.4878	X12CrNiTi 18 9	S32100	321	Z6CNT18.12	321S20	-
-	2.4068	LCNi99.2	-	B160	-	-	15
-	2.4360	NiCu30Fe	-	B164	-	3076NA13	-
-	2.4375	NiCu30Al	-	-	-	3076NA18	-
-	2.4610	NiMo16Cr16Ti	-	-	-	3076NA45	-
-	2.4816	NiCr15Fe	-	B166	-	3076NA14	-
-	2.4856	NiCr21Mo	-	-	-	3076NA43	-

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

CARBON STEEL & ALLOY STEEL WEIGHT LIST

90° Long Radius Elbows — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS		SGP	DIN
1/2				0.08	0.08		0.10	0.10				0.12	0.15	1/2	0.08	0.04
3/4				0.10	0.10		0.13	0.13				0.17	0.22	3/4	0.10	0.06
1				0.15	0.15		0.19	0.19				0.25	0.33	1	0.15	0.12
1-1/4				0.25	0.25		0.33	0.33				0.42	0.58	1-1/4	0.25	0.19
1-1/2				0.36	0.36		0.49	0.49				0.65	0.86	1-1/2	0.35	0.26
2				0.65	0.65		0.89	0.89				1.33	1.61	2	0.64	0.49
2-1/2				1.29	1.29		1.71	1.71				2.23	3.05	2-1/2	1.12	0.78
3				2.03	2.03		2.74	2.74				3.83	4.97	3	1.58	1.21
3-1/2				2.84	2.84		3.90	3.90						3-1/2	2.11	1.82
4				3.85	3.85		5.34	5.34		6.78		8.02	9.82	4	2.92	2.35
5				6.51	6.51		9.26	9.26		12.0		14.7	17.2	5	4.49	4.00
6				10.1	10.1		15.3	15.3		19.5		24.2	28.4	6	7.09	6.52
8		15.9	17.6	20.4	20.4	25.4	30.9	30.9	36.3	43.3	48.3	53.2	51.6	8	14.4	15.8
10		25.0	30.5	36.1	36.1	48.8	48.8	57.4	68.6	79.6	92.8	103	92.8	10	25.4	24.8
12		35.7	46.8	53.0	57.2	78.2	70.0	94.8	115	134	149	171	134	12	38.1	39.8
14	45.8	56.9	68.1	68.1	79.2	106	89.9	132	163	188	212	236		14	56.7	57.4
16	60.0	74.5	89.3	89.3	118	153	118	195	235	274	319	350		16	74.3	82.6
18	76.0	94.5	132	113	168	222	150	274	334	392	440	495		18	94.2	119
20	94.0	140	186	140	219	296	186	372	456	528	608	676		20	117	161
22	114	170	225	170		387	225	492	594	693	790	884		22	141	
24	136	202	301	202	366	510	268	634	786	918	1033	1159		24	168	264

45° Long Radius Elbows — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS		SGP	DIN
1/2				0.04	0.04		0.05	0.05				0.06	0.08	1/2	0.04	0.02
3/4				0.05	0.05		0.07	0.07				0.09	0.11	3/4	0.05	0.03
1				0.08	0.08		0.10	0.10				0.13	0.17	1	0.08	0.06
1-1/4				0.13	0.13		0.17	0.17				0.21	0.29	1-1/4	0.13	0.10
1-1/2				0.18	0.18		0.25	0.25				0.33	0.43	1-1/2	0.18	0.13
2				0.33	0.33		0.45	0.45				0.67	0.81	2	0.32	0.25
2-1/2				0.65	0.65		0.86	0.86				1.12	1.53	2-1/2	0.56	0.39
3				1.02	1.02		1.37	1.37				1.92	2.49	3	0.79	0.61
3-1/2				1.42	1.42		1.95	1.95						3-1/2	1.06	0.91
4				1.93	1.93		2.67	2.67		3.39		4.01	4.91	4	1.46	1.18
5				3.26	3.26		4.63	4.63		6.00		7.35	8.60	5	2.25	2.00
6				5.05	5.05		7.65	7.65		9.75		12.1	14.2	6	3.55	3.26
8		7.95	8.80	10.2	10.2	12.7	15.5	15.5	18.2	21.7	24.2	26.6	25.8	8	7.20	7.90
10		12.5	15.3	18.1	18.1	24.4	24.4	28.7	34.3	39.8	46.4	51.5	46.4	10	12.7	12.4
12		17.9	23.4	26.5	28.6	39.1	35	47.4	57.5	67.0	74.5	85.5	67.0	12	19.1	19.9
14	22.9	28.5	34.1	34.1	39.6	53.0	45	66.0	81.5	94.0	106	118		14	28.4	28.7
16	30.0	37.3	44.7	44.7	59	76.5	59	97.5	118	137	160	175		16	37.2	41.3
18	38.0	47.3	66.0	56.5	84	111	75	137	167	196	220	248		18	47.1	59.5
20	47.0	70.0	93.0	70	110	148	93	186	228	264	304	338		20	58.5	80.5
22	57.0	85.0	113	85		194	113	246	297	347	395	442		22	70.5	
24	68.0	101	151	101	183	255	134	317	393	459	517	580		24	84.0	132

Short Radius Returns — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS		SGP	DIN
1				0.20	0.20		0.25	0.25				0.33	0.44	1	0.20	0.16
1-1/4				0.33	0.33		0.44	0.44				0.56	0.77	1-1/4	0.33	0.25
1-1/2				0.48	0.48		0.65	0.65				0.87	1.15	1-1/2	0.47	0.35
2				0.87	0.87		1.19	1.19				1.77	2.15	2	0.85	0.65
2-1/2				1.72	1.72		2.28	2.28				2.97	4.07	2-1/2	1.49	1.04
3				2.71	2.71		3.65	3.65				5.11	6.63	3	2.11	1.61
3-1/2				3.79	3.79		5.20	5.20						3-1/2	2.81	2.42
4				5.13	5.13		7.12	7.12		9.04		10.7	13.1	4	3.89	3.13
5				8.68	8.68		12.3	12.3		16.0		19.6	22.9	5	5.99	5.33
6				13.5	13.5		20.4	20.4		26.0		32.3	37.9	6	9.45	8.69
8		21.2	23.5	27.2	27.2	33.9	41.2	41.2	48.4	57.7	64.4	70.9	68.8	8	19.2	21.1

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

CARBON STEEL & ALLOY STEEL WEIGHT LIST

Long Radius Returns — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS		SGP	DIN
1				0.30	0.30		0.38	0.38				0.50	0.66	1	0.30	0.24
1-1/4				0.50	0.50		0.66	0.66				0.84	1.16	1-1/4	0.50	0.38
1-1/2				0.72	0.72		0.98	0.98				1.30	1.72	1-1/2	0.70	0.52
2				1.30	1.30		1.78	1.78				2.66	3.22	2	1.28	0.98
2-1/2				2.58	2.58		3.42	3.42				4.46	6.10	2-1/2	2.24	1.56
3				4.06	4.06		5.48	5.48				7.66	9.94	3	3.16	2.42
3-1/2				5.68	5.68		7.80	7.80						3-1/2	4.22	3.64
4				7.70	7.70		10.7	10.7		13.6		16.0	19.6	4	5.84	4.70
5				13.0	13.0		18.5	18.5		24.0		29.4	34.4	5	8.98	8.00
6				20.2	20.2		30.6	30.6		39.0		48.4	56.8	6	14.2	13.0
8		31.8	35.2	40.8	40.8	50.8	61.8	61.8	72.6	86.6	96.6	106	103	8	28.8	31.6
10		50.0	61.0	72.2	72.2	97.6	97.6	115	137	159	186	206	186	10	50.8	49.6
12		71.4	93.6	106	114	156	140	190	230	268	298	342	268	12	76.2	79.6

90° Short Radius Elbows — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS		SGP	DIN
1				0.10	0.10		0.13	0.13				0.17	0.22	1	0.10	0.08
1-1/4				0.17	0.17		0.22	0.22				0.28	0.39	1-1/4	0.17	0.13
1-1/2				0.24	0.24		0.33	0.33				0.43	0.57	1-1/2	0.23	0.17
2				0.43	0.43		0.59	0.59				0.89	1.07	2	0.43	0.33
2-1/2				0.86	0.86		1.14	1.14				1.49	2.03	2-1/2	0.75	0.52
3				1.35	1.35		1.83	1.83				2.55	3.31	3	1.05	0.81
3-1/2				1.89	1.89		2.60	2.60						3-1/2	1.41	1.21
4				2.57	2.57		3.56	3.56		4.52		5.35	6.55	4	1.95	1.57
5				4.34	4.34		6.17	6.17		8.00		9.80	11.5	5	2.99	2.67
6				6.73	6.73		10.2	10.2		13.0		16.1	18.9	6	4.73	4.35
8		10.6	11.7	13.6	13.6	16.9	20.6	20.6	24.2	28.9	32.2	35.5	34.4	8	9.60	10.5
10		16.7	20.3	24.1	24.1	32.5	32.5	38.3	45.7	53.1	61.9	68.7	61.9	10	16.9	16.5
12		23.8	31.2	35.3	38.1	52.1	46.7	63.2	76.7	89.3	99.3	114	89.3	12	25.4	26.5
14	30.5	37.9	45.4	45.4	52.8	70.7	59.9	88.0	109	125	141	157		14	37.8	38.3
16	40.0	49.7	59.5	59.5	78.7	102	78.7	130	157	183	213	233		16	49.5	55.1
18	50.7	63.0	88	75.3	112	148	100	183	223	261	293	330		18	62.8	79.3
20	62.7	93.3	124	93.3	146	197	124	248	304	352	405	451		20	78.0	107
22	76.0	113	150	113		258	150	328	396	462	527	589		22	94.0	
24	90.7	135	201	135	244	340	179	423	524	612	689	773		24	112	176

Caps — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS		SGP	DIN
1/2				0.04	0.04		0.05	0.05				0.06	0.10	1/2	0.03	0.03
3/4				0.06	0.06		0.08	0.08				0.11	0.16	3/4	0.04	0.05
1				0.11	0.11		0.14	0.14				0.20	0.28	1	0.08	0.09
1-1/4				0.14	0.14		0.20	0.20				0.26	0.40	1-1/4	0.11	0.10
1-1/2				0.17	0.17		0.23	0.23				0.32	0.46	1-1/2	0.15	0.12
2				0.23	0.23		0.33	0.33				0.52	0.66	2	0.23	0.17
2-1/2				0.40	0.40		0.53	0.53				0.72	1.06	2-1/2	0.34	0.24
3				0.66	0.66		0.92	0.92				1.34	1.84	3	0.51	0.39
3-1/2				0.97	0.97		1.36	1.36						3-1/2	0.71	0.62
4				1.20	1.20		1.67	1.67		2.17		2.63	3.34	4	0.88	0.73
5				1.93	1.93		2.81	2.81		3.74		4.68	5.62	5	1.29	1.18
6				2.92	2.92		4.47	4.47		5.81		7.44	8.94	6	1.99	1.85
8		4.03	4.48	5.20	5.20	6.55	8.05	8.05	9.56	11.6	13.1	14.6	14.1	8	3.61	4.00
10		6.25	7.70	9.15	9.15	12.5	12.5	16.8	20.3	23.9	28.3	31.8	28.3	10	6.33	6.22
12		8.85	11.8	13.4	14.4	19.9	17.7	27.1	33.2	39.4	44.3	51.7	39.4	12	9.43	10.0
14	10.6	13.2	15.9	15.9	18.6	25.2	21.2	34.9	43.7	50.9	58.2	61.2		14	13.2	13.3
16	13.4	16.6	20.0	20.0	26.7	35.0	26.7	49.0	59.9	70.8	83.5	92.8		16	16.6	18.5
18	17.1	21.2	29.8	25.5	41.5	55.2	34.1	69.0	85.0	101	115	131		18	21.2	26.8
20	21.3	31.8	42.5	31.8	54.1	73.9	42.5	93.7	116	136	159	179		20	26.4	36.7
22	25.9	38.8	51.7	38.8		90.2	51.7	116	142	168	193	219		22	31.5	
24	30.1	45.1	67.5	45.1	90.1	127	60.1	160	201	238	271	307		24	36.6	59.2

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

CARBON STEEL & ALLOY STEEL WEIGHT LIST

Tees — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS	SGP	DIN
1/2 x 1/2				0.10	0.10		0.12	0.12				0.15	0.19	0.10	0.07
3/4 x 3/4				0.14	0.14		0.18	0.18				0.24	0.30	0.14	0.11
x 1/2				0.12	0.12		0.16	0.16				0.21	0.26	0.12	0.10
1 x 1				0.28	0.28		0.36	0.36				0.47	0.60	0.27	0.22
x 3/4				0.25	0.25		0.32	0.32				0.41	0.53	0.24	0.19
x 1/2				0.24	0.24		0.30	0.30				0.39	0.50	0.23	0.18
1-1/4 x 1-1/4				0.47	0.47		0.61	0.61				0.77	1.07	0.46	0.35
x 1				0.41	0.41		0.53	0.53				0.67	0.94	0.40	0.31
x 3/4				0.39	0.39		0.51	0.51				0.65	0.90	0.39	0.29
x 1/2				0.38	0.38		0.50	0.50				0.63	0.87	0.37	0.29
1-1/2 x 1-1/2				0.67	0.67		0.89	0.89				1.19	1.57	0.64	0.48
x 1-1/4				0.59	0.59		0.78	0.78				1.04	1.37	0.56	0.42
x 1				0.56	0.56		0.75	0.75				1.00	1.32	0.54	0.40
x 3/4				0.55	0.55		0.73	0.73				0.97	1.28	0.52	0.39
x 1/2				0.53	0.53		0.71	0.71				0.95	1.25	0.51	0.38
2 x 2				0.97	0.97		1.33	1.33				1.98	2.39	0.95	0.73
x 1-1/2				0.85	0.85		1.16	1.16				1.73	2.09	0.83	0.64
x 1-1/4				0.81	0.81		1.12	1.12				1.66	2.01	0.80	0.61
x 1				0.79	0.79		1.08	1.08				1.61	1.95	0.77	0.59
x 3/4				0.77	0.77		1.06	1.06				1.58	1.91	0.76	0.58
x 1/2				0.77	0.77		1.05	1.05				1.57	1.89	0.75	0.58
2-1/2 x 2-1/2				1.83	1.83		2.42	2.42				3.16	4.32	1.57	1.10
x 2				1.60	1.60		2.12	2.12				2.77	3.78	1.37	0.96
x 1-1/2				1.54	1.54		2.03	2.03				2.65	3.63	1.32	0.92
x 1-1/4				1.49	1.49		1.97	1.97				2.57	3.52	1.28	0.90
x 1				1.46	1.46		1.93	1.93				2.52	3.45	1.25	0.88
x 3/4				1.45	1.45		1.91	1.91				2.50	3.42	1.24	0.87
3 x 3				2.64	2.64		3.57	3.57				4.99	6.47	2.06	1.58
x 2-1/2				2.31	2.31		3.12	3.12				4.37	5.66	1.80	1.38
x 2				2.22	2.22		3.00	3.00				4.19	5.43	1.73	1.33
x 1-1/2				2.15	2.15		2.91	2.91				4.07	5.27	1.68	1.29
x 1-1/4				2.11	2.11		2.85	2.85				3.98	5.17	1.64	1.26
x 1				2.09	2.09		2.82	2.82				3.94	5.11	1.63	1.25
3-1/2 x 3-1/2				3.47	3.47		4.77	4.77						2.58	2.23
x 3				3.04	3.04		4.17	4.17						2.26	1.95
x 2-1/2				2.91	2.91		4.01	4.01						2.17	1.87
x 2				2.83	2.83		3.89	3.89						2.10	1.82
x 1-1/2				2.77	2.77		3.81	3.81						2.06	1.78
x 1-1/4				2.74	2.74		3.77	3.77						2.04	1.76
4 x 4				4.46	4.46		6.20	6.20		7.86		9.31	11.4	3.38	2.73
x 3-1/2				3.90	3.90		5.43	5.43		6.88		8.15	10.0	2.96	2.39
x 3				3.75	3.75		5.21	5.21		6.60		7.82	9.58	2.84	2.29
x 2-1/2				3.63	3.63		5.05	5.05		6.40		7.59	9.29	2.75	2.22
x 2				3.56	3.56		4.95	4.95		6.28		7.43	9.10	2.70	2.18
x 1-1/2				3.53	3.53		4.90	4.90		6.21		7.36	9.01	2.67	2.16
5 x 5				7.10	7.10		10.1	10.1		13.1		16.0	18.7	4.91	4.38
x 4				6.21	6.21		8.84	8.84		11.5		14.0	16.4	4.30	3.83
x 3-1/2				5.96	5.96		8.48	8.48		11.0		13.4	15.7	4.12	3.68
x 3				5.79	5.79		8.23	8.23		10.7		13.0	15.2	4.00	3.57
x 2-1/2				5.67	5.67		8.06	8.06		10.5		12.8	14.9	3.92	3.50
x 2				5.61	5.61		7.98	7.98		10.4		12.6	14.8	3.88	3.46
6 x 6				10.5	10.5		15.9	15.9		20.2		25.2	29.5	7.39	6.77
x 5				9.19	9.19		13.9	13.9		17.7		22.1	25.8	6.47	5.92
x 4				8.82	8.82		13.4	13.4		17.0		21.2	24.8	6.21	5.69
x 3-1/2				8.56	8.56		13.0	13.0		16.5		20.5	24.0	6.02	5.52

Fittings
恒力管件

HL PIPE FITTING CO.,LTD

CARBON STEEL & ALLOY STEEL WEIGHT LIST

Tees — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS	SGP	DIN
x 3				8.38	8.38		12.7	12.7		16.1		20.1	23.6	5.90	5.41
x 2-1/2				8.30	8.30		12.6	12.6		16.0		19.9	23.3	5.84	5.35
8 x 8		15.3	16.9	19.5	19.5	24.4	29.7	29.7	34.9	41.5	46.4	51.1	49.6	13.9	15.2
x 6		13.4	14.8	17.1	17.1	21.4	26.0	26.0	30.5	36.3	40.6	44.7	43.4	12.2	13.3
x 5		12.9	14.2	16.4	16.4	20.5	24.9	24.9	29.3	34.9	39.0	42.9	41.7	11.7	12.8
x 4		12.5	13.8	15.9	15.9	19.9	24.2	24.2	28.4	33.8	37.8	41.6	40.4	11.3	12.4
x 3-1/2		12.2	13.5	15.6	15.6	19.5	23.7	23.7	27.9	33.1	37.1	40.8	39.6	11.1	12.1
x 3		12.1	13.4	15.4	15.4	19.3	23.5	23.5	27.6	32.8	36.7	40.4	39.2	11.0	12.0
10 x 10		23.2	28.3	33.4	33.4	45.2	45.2	53.2	63.6	73.8	86.0	95.5	86.0	23.7	23.0
x 8		20.3	24.8	29.2	29.2	39.6	39.6	46.6	55.7	64.6	75.3	83.6	75.3	20.7	20.1
x 6		19.5	23.8	28.1	28.1	38.0	38.0	44.7	53.4	62.0	72.2	80.2	72.2	19.9	19.3
x 5		18.9	23.1	27.2	27.2	36.8	36.8	43.3	51.8	60.1	70.1	77.8	70.1	19.3	18.7
x 4		18.5	22.6	26.7	26.7	36.1	36.1	42.5	50.8	58.9	68.7	76.3	68.7	18.9	18.4
x 3-1/2		18.3	22.4	26.4	26.4	35.7	35.7	42.1	50.3	58.3	68.0	75.5	68.0	18.7	18.2
12 x 12		32.4	42.4	48.1	51.9	70.9	63.4	86.0	104	122	135	155	122	34.7	36.1
x 10		28.4	37.1	42.1	45.4	62.0	55.5	75.3	91.0	107	118	136	107	30.4	31.6
x 8		27.2	35.6	40.4	43.6	59.6	53.3	72.2	87.4	102	113	130	102	29.1	30.3
x 6		26.4	34.5	39.2	42.3	57.8	51.7	70.1	84.7	99.4	110	126	99.4	28.3	29.4
x 5		25.9	33.9	38.4	41.4	56.6	50.6	68.7	83.0	97.4	108	124	97.4	27.7	28.8
x 4		25.6	33.5	38.0	41.0	56.0	50.1	68.0	82.2	96.4	107	123	96.4	27.4	28.5
14 x 14	39.2	48.6	58.3	58.3	67.7	90.8	76.9	113	140	161	182	202		48.5	49.1
x 12	34.3	42.5	51.0	51.0	59.2	79.5	67.3	98.9	123	141	159	177		42.4	43.0
x 10	32.9	40.8	49.0	49.0	56.9	76.3	64.6	94.9	118	135	153	170		40.7	41.2
x 8	31.9	39.6	47.5	47.5	55.2	74.0	62.7	92.1	114	131	148	165		39.5	40.0
x 6	31.3	38.8	46.6	46.6	54.1	72.5	61.4	90.2	112	129	145	161		38.7	39.2
x 5	31.0	38.4	46.1	46.1	53.5	71.8	60.8	89.3	111	127	144	160		38.3	38.8
16 x 16	48.4	60.1	72.0	72.0	95.2	124	95.2	157	190	221	257	282		59.9	66.6
x 14	42.4	52.6	63.0	63.0	83.3	109	83.3	137	166	193	225	247		52.4	58.3
x 12	40.7	50.5	60.5	60.5	80.0	104	80.0	132	160	186	216	237		50.3	55.9
x 10	39.4	49.0	58.7	58.7	77.6	101	77.6	128	155	180	209	230		48.8	54.3
x 8	38.6	48.0	57.5	57.5	76.0	99.0	76.0	125	152	176	205	225		47.8	53.2
x 6	38.3	47.5	56.9	56.9	75.3	98.0	75.3	124	150	175	203	223		47.4	52.6
18 x 18	61.3	76.2	106	91.4	135	179	121	221	269	316	355	399		76.0	95.8
x 16	53.6	66.7	92.8	80.0	118	157	106	193	235	277	311	349		66.5	83.8
x 14	51.5	64.0	89.0	76.8	113	150	102	186	226	265	298	335		63.8	80.5
x 12	49.9	62.1	86.4	74.5	110	146	98.6	180	219	257	289	325		61.9	78.1
x 10	48.9	60.8	84.6	73.0	108	143	96.6	176	215	252	283	319		60.7	76.5
x 8	48.5	60.2	83.8	72.3	107	142	95.7	175	213	250	281	315		60.1	75.7
20 x 20	75.8	113	150	113	177	239	150	300	368	426	490	545		94.0	130
x 18	66.3	98.9	131	98.9	155	209	131	263	322	373	429	477		82.3	114
x 16	63.7	94.9	126	94.9	149	201	126	252	309	358	412	458		79.0	109
x 14	61.8	92.1	122	92.1	144	195	122	244	300	347	399	444		76.6	106
x 12	60.5	90.2	120	90.2	141	191	120	240	294	340	391	435		75.1	104
x 10	59.9	89.3	119	89.3	140	189	119	237	291	337	387	431		74.3	103
22 x 22	91.8	137	182	137		312	182	397	479	559	637	713		114	
x 20	80.3	120	159	120		273	159	347	419	489	557	624		100	
x 18	77.1	115	153	115		262	153	333	402	470	535	599		95.8	
x 16	74.8	112	148	112		254	148	323	390	455	519	581		92.9	
x 14	73.3	109	145	109		249	145	317	382	446	509	569		91.0	
x 12	72.6	108	144	108		247	144	314	379	442	504	564		90.1	
24 x 24	102	152	226	152	275	382	201	476	589	689	775	870		126	198
x 22	89.3	133	198	133	241	334	176	417	515	603	678	761		110	173
x 20	85.7	128	190	128	231	321	169	400	495	579	651	731		106	166
x 18	83.1	124	184	124	224	311	164	388	480	561	631	709		103	161
x 16	81.4	121	180	121	220	305	160	380	470	550	619	695		101	158
x 14	80.6	120	179	120	217	302	159	376	466	545	613	688		100	157

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

CARBON STEEL & ALLOY STEEL WEIGHT LIST

Reducers — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS	SGP	DIN
3/4 x 1/2				0.06	0.06		0.08	0.08				0.10	0.13	0.06	0.05
1 x 3/4				0.12	0.12		0.15	0.15				0.20	0.26	0.11	0.09
x 1/2				0.12	0.12		0.14	0.14				0.19	0.25	0.11	0.09
1-1/4 x 1				0.16	0.16		0.21	0.21				0.26	0.37	0.16	0.12
x 3/4				0.15	0.15		0.20	0.20				0.25	0.36	0.15	0.12
x 1/2				0.15	0.15		0.20	0.20				0.24	0.34	0.15	0.11
1-1/2 x 1-1/4				0.24	0.24		0.32	0.32				0.43	0.56	0.23	0.17
x 1				0.23	0.23		0.31	0.31				0.41	0.54	0.22	0.16
x 3/4				0.22	0.22		0.30	0.30				0.40	0.52	0.21	0.16
x 1/2				0.22	0.22		0.29	0.29				0.39	0.51	0.21	0.16
2 x 1-1/2				0.38	0.38		0.53	0.53				0.78	0.95	0.37	0.29
x 1-1/4				0.36	0.36		0.51	0.51				0.75	0.91	0.36	0.28
x 1				0.35	0.35		0.49	0.49				0.73	0.88	0.34	0.27
x 3/4				0.35	0.35		0.48	0.48				0.71	0.87	0.34	0.26
x 1/2				0.34	0.34		0.48	0.48				0.70	0.86	0.33	0.26
2-1/2 x 2				0.71	0.71		0.94	0.94				1.23	1.68	0.61	0.43
x 1-1/2				0.68	0.68		0.90	0.90				1.18	1.61	0.59	0.41
x 1-1/4				0.66	0.66		0.88	0.88				1.15	1.56	0.57	0.40
x 1				0.65	0.65		0.86	0.86				1.12	1.53	0.56	0.39
x 3/4				0.64	0.64		0.85	0.85				1.11	1.52	0.55	0.39
3 x 2-1/2				0.93	0.93		1.26	1.26				1.76	2.28	0.72	0.56
x 2				0.89	0.89		1.21	1.21				1.69	2.19	0.69	0.54
x 1-1/2				0.87	0.87		1.17	1.17				1.64	2.12	0.67	0.52
x 1-1/4				0.85	0.85		1.15	1.15				1.61	2.08	0.66	0.51
x 1				0.84	0.84		1.14	1.14				1.59	2.06	0.65	0.51
3-1/2 x 3				1.28	1.28		1.75	1.75						0.95	0.82
x 2-1/2				1.23	1.23		1.68	1.68						0.91	0.79
x 2				1.19	1.19		1.63	1.63						0.88	0.76
x 1-1/2				1.17	1.17		1.60	1.60						0.87	0.75
x 1-1/4				1.16	1.16		1.58	1.58						0.86	0.74
4 x 3-1/2				1.51	1.51		2.10	2.10		2.66		3.15	3.86	1.15	0.92
x 3				1.45	1.45		2.02	2.02		2.55		3.02	3.71	1.10	0.88
x 2-1/2				1.41	1.41		1.96	1.96		2.48		2.93	3.59	1.07	0.86
x 2				1.38	1.38		1.92	1.92		2.43		2.87	3.52	1.05	0.84
x 1-1/2				1.36	1.36		1.90	1.90		2.40		2.85	3.49	1.04	0.83
5 x 4				2.56	2.56		3.64	3.64		4.73		5.77	6.75	1.76	1.57
x 3-1/2				2.46	2.46		3.49	3.49		4.54		5.54	6.48	1.69	1.51
x 3				2.38	2.38		3.39	3.39		4.40		5.37	6.29	1.64	1.46
x 2-1/2				2.34	2.34		3.32	3.32		4.32		5.27	6.16	1.61	1.43
x 2				2.31	2.31		3.29	3.29		4.27		5.21	6.10	1.59	1.42
6 x 5				3.65	3.65		5.50	5.50		7.00		8.73	10.2	2.55	2.35
x 4				3.50	3.50		5.28	5.28		6.72		8.38	9.79	2.45	2.26
x 3-1/2				3.40	3.40		5.12	5.12		6.52		8.13	9.50	2.37	2.19
x 3				3.33	3.33		5.02	5.02		6.39		7.97	9.31	2.33	2.14
x 2-1/2				3.30	3.30		4.97	4.97		6.32		7.89	9.22	2.30	2.12

Fittings
恒 力 管 件

HL PIPE FITTING CO.,LTD

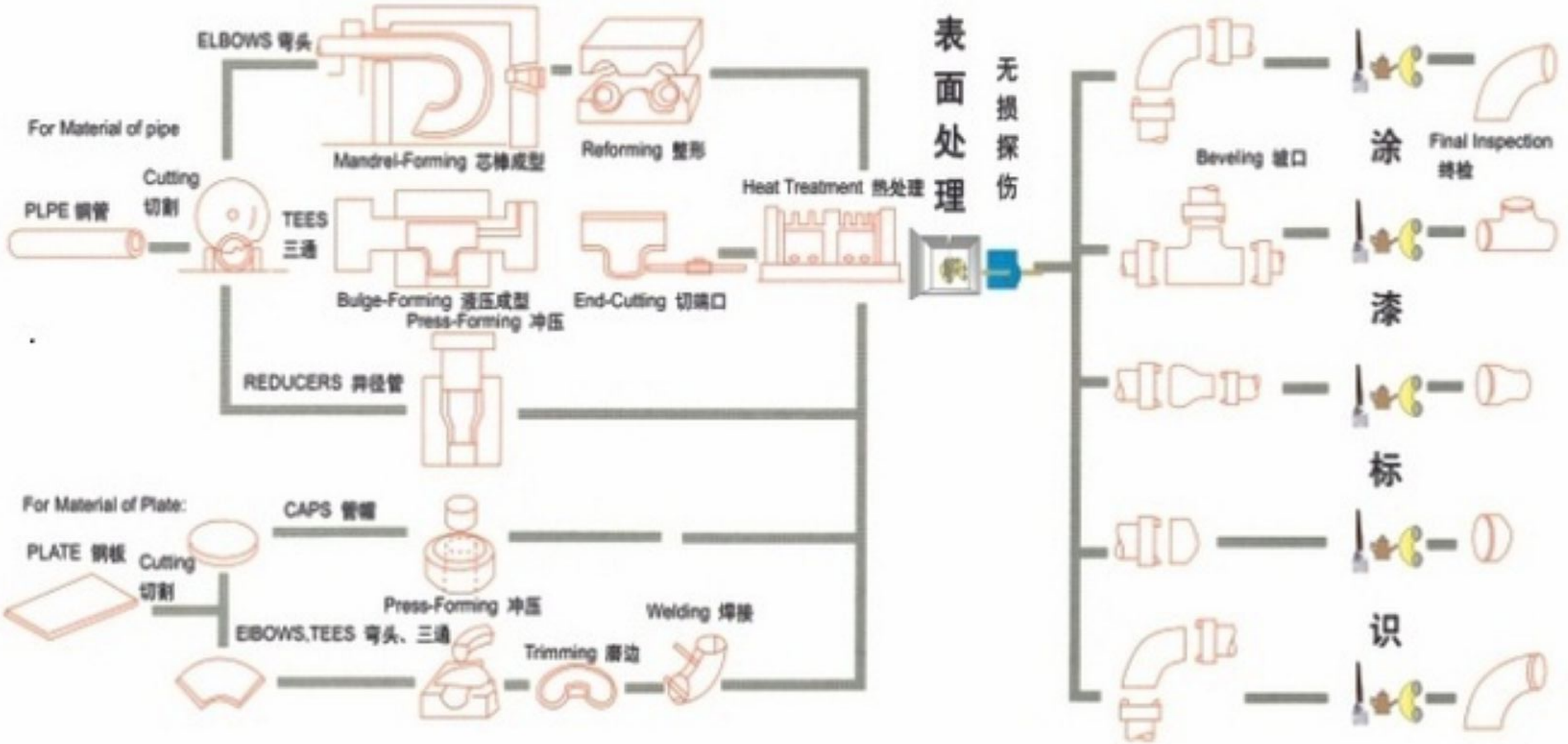
CARBON STEEL & ALLOY STEEL WEIGHT LIST

Reducers — Unit: kg

	S10	S20	S30	STD	S40	S60	XS	S80	S100	S120	S140	S160	XXS	SGP	DIN
8 x 6		4.7	5.19	6.00	6.00	7.48	9.11	9.11	10.7	12.7	14.2	15.7	15.2	4.24	4.66
x 5		4.51	4.98	5.76	5.76	7.18	8.75	8.75	10.3	12.2	13.6	15.1	14.6	4.07	4.47
x 4		4.38	4.83	5.59	5.59	6.97	8.48	8.48	10.0	11.8	13.2	14.6	14.2	3.95	4.34
x 3-1/2		4.29	4.74	5.48	5.48	6.83	8.31	8.31	9.76	11.6	13.0	14.3	13.9	3.87	4.25
x 3		4.25	4.69	5.42	5.42	6.76	8.23	8.23	9.67	11.5	12.8	14.2	13.7	3.83	4.21
10 x 8		6.87	8.39	9.92	9.92	13.4	13.4	15.8	18.9	21.9	25.5	28.3	25.5	6.98	6.81
x 6		6.60	8.05	9.52	9.52	12.9	12.9	15.2	18.1	21.0	24.5	27.2	24.5	6.70	6.54
x 5		6.40	7.81	9.24	9.24	12.5	12.5	14.7	17.6	20.4	23.7	26.4	23.7	6.50	6.34
x 4		6.27	7.66	9.05	9.05	12.2	12.2	14.4	17.2	20.0	23.3	25.8	23.3	6.37	6.21
x 3-1/2		6.21	7.58	8.96	8.96	12.1	12.1	14.3	17.1	19.8	23.0	25.6	23.0	6.31	6.15
12 x 10		9.35	12.3	13.9	15.0	20.5	18.3	24.8	30.1	35.1	39.1	44.9	35.1	10.0	10.4
x 8		8.98	11.8	13.3	14.4	19.7	17.6	23.8	28.9	33.7	37.5	43.1	33.7	9.60	10.0
x 6		8.71	11.5	12.9	14.0	19.1	17.0	23.1	28.0	32.7	36.4	41.8	32.7	9.31	9.68
x 5		8.53	11.2	12.7	13.7	18.7	16.7	22.6	27.5	32.0	35.7	41.0	32.0	9.13	9.49
x 4		8.45	11.1	12.6	13.6	18.5	16.5	22.4	27.2	31.7	35.3	40.6	31.7	9.03	9.40
14 x 12	16.7	20.7	24.8	24.8	28.9	38.7	32.8	48.3	59.5	68.6	77.4	86.0		20.7	20.9
x 10	16.0	19.9	23.8	23.8	27.7	37.2	31.5	46.4	57.1	65.9	74.3	82.6		19.9	20.1
x 8	15.6	19.3	23.1	23.1	26.9	36.0	30.5	45.0	55.4	63.9	72.1	80.1		19.3	19.5
x 6	15.2	18.9	22.6	22.6	26.4	35.3	29.9	44.1	54.3	62.6	70.6	78.5		18.9	19.1
x 5	15.1	18.7	22.4	22.4	26.1	35.0	29.6	43.6	53.8	62.0	69.9	77.7		18.7	18.9
16 x 14	20.7	25.6	30.7	30.7	40.6	52.7	40.6	66.9	80.8	94.3	110	120		25.5	28.4
x 12	19.9	24.6	29.5	29.5	39.0	50.6	39.0	64.2	77.6	90.5	106	115		24.5	27.3
x 10	19.3	23.8	28.6	28.6	37.8	49.1	37.8	62.3	75.2	87.8	102	112		23.7	26.4
x 8	18.9	23.4	28.0	28.0	37.1	48.1	37.1	61.1	73.7	86.1	100	110		23.3	25.9
x 6	18.7	23.1	27.7	27.7	36.7	47.6	36.7	60.4	73.0	85.2	99.4	108		23.0	25.7
18 x 16	25.0	30.9	43.1	37.1	54.9	72.5	49.1	89.8	109	128	144	162		30.8	38.8
x 14	24.0	29.7	41.4	35.6	52.7	69.6	47.1	86.2	105	123	138	156		29.6	37.2
x 12	23.3	28.8	40.1	34.5	51.1	67.5	45.7	83.6	102	119	134	151		28.7	36.1
x 10	22.8	28.2	39.3	33.9	50.1	66.2	44.8	81.9	99.5	117	131	148		28.1	35.4
x 8	22.6	27.9	38.9	33.5	49.6	65.5	44.4	81.1	98.5	116	130	146		27.8	35.1
20 x 18	37.1	55.0	72.9	55.0	86.2	116	72.9	146	179	207	239	265		45.8	63.4
x 16	35.6	52.8	70.0	52.8	82.8	111	70.0	140	172	199	229	254		44.0	60.9
x 14	34.5	51.2	67.9	51.2	80.3	108	67.9	136	167	193	223	247		42.6	59.0
x 12	33.9	50.2	66.5	50.2	78.7	106	66.5	133	163	189	218	242		41.8	57.9
x 10	33.5	49.7	65.9	49.7	77.9	105	65.9	132	162	187	216	239		41.4	57.3
22 x 20	40.9	60.7	80.4	60.7		138	80.4	176	212	248	282	316		50.4	
x 18	39.3	58.3	77.2	58.3		132	77.2	169	204	238	271	303		48.4	
x 16	38.1	56.5	74.9	56.5		129	74.9	164	197	231	263	294		46.9	
x 14	37.3	55.4	73.4	55.4		126	73.4	161	193	226	257	288		46.0	
x 12	37.0	54.8	72.6	54.8		125	72.6	159	192	224	255	285		45.5	
24 x 22	44.7	66.3	98.4	66.3	120	167	87.8	208	257	301	338	380		55.1	86.5
x 20	42.9	63.6	94.5	63.6	115	160	84.3	200	247	289	324	365		52.9	83.0
x 18	41.6	61.7	91.6	61.7	112	156	81.8	194	239	280	315	354		51.3	80.5
x 16	40.8	60.5	89.8	60.5	110	152	80.1	190	235	275	308	347		50.3	78.9
x 14	40.4	59.9	88.9	59.9	108	151	79.3	188	232	272	305	343		49.8	78.1

Production the craft flow chart

生产工艺流程图



Fittings

恒力管件

HL PIPE FITTING CO.,LTD