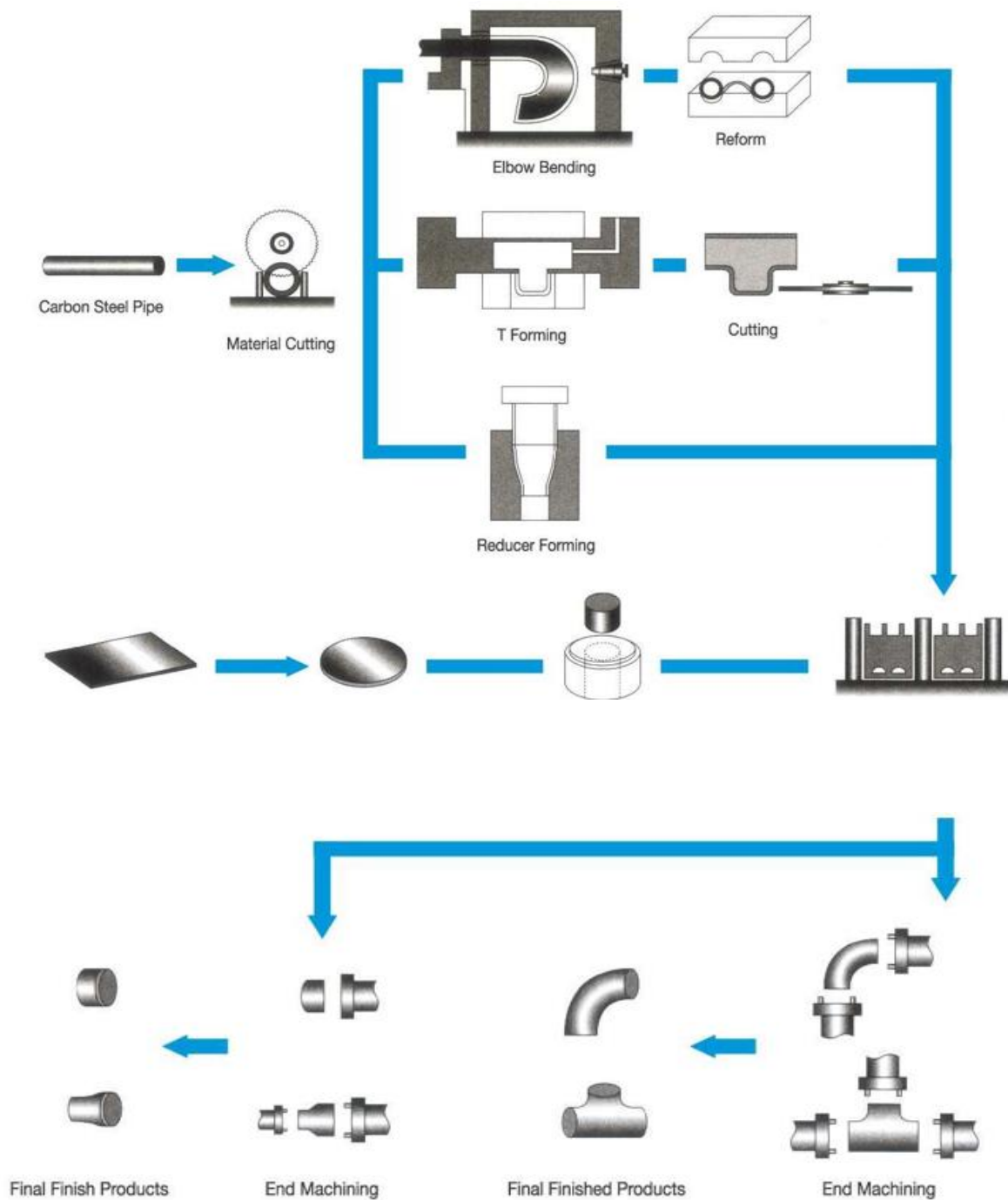


Manufacturing Process of Carbon Steel Pipe Fittings



Carbon Steel Pipe Fitting and their Types



90° Elbow (Long)



180° Elbow (Long)



Reducer



Reducer (Concentric)



180° Elbow (Short)



Reducer (Eccentric)



45° Elbow (Long)



Tee (Straight)



Tee (Reducing)



90° Elbow (Short)



Cross Pipe



Cap

Pipe Fittings Specifications

Butt welding Fittings	
Specification	<p>ASTM A234M Welded and Seamless Carbon and Alloy Steel Pipe Fittings for Moderate and high-Temperature Service</p> <p>ASTM A420M Welded and Seamless Carbon and Alloy Steel Pipe Fittings for Low-Temperature Service</p>
Dimensions	ASME B16.9
Product	Elbows, Reducing Elbows, Returns, Tees, Crosses, Reducers, Stub Ends, Caps
Grade	ASTM A234M WPB, ASTM A420M WPL6. Refer to standard for others

Carbon Steel Pipe Fitting Dimensions

Butt-welding Fittings (kg per unit)												
Standard Weight												
Nominal size		OD	Elbows			Returns		Caps	Reducers	Stub Ends		Tees
			Long		Short	Long	Short			MSS	ASME	
DN	NPS	mm	90 deg	45 deg	90 deg	Long	Short					
15	½	21.3	0.08	0.04		0.16		0.04		0.12	0.14	0.09
20	¾	26.7	0.11	0.06		0.21		0.05	0.06	0.15	0.18	0.13
25	1	33.4	0.16	0.08	0.11	0.31	0.21	0.11	0.12	0.19	0.30	0.25
32	1¼	42.2	0.26	0.13	0.18	0.52	0.35	0.14	0.16	0.26	0.41	0.43
40	1½	48.3	0.37	0.19	0.25	0.74	0.49	0.17	0.25	0.38	0.55	0.61
50	2	60.3	0.66	0.33	0.44	1.30	0.87	0.24	0.38	0.54	0.99	0.88
65	2½	73.0	1.29	0.69	0.91	2.73	1.82	0.42	0.73	0.8	1.56	1.74
80	3	88.9	2.04	1.02	1.36	4.07	2.71	0.67	0.94	1.13	2.13	2.41
90	3½	101.6	2.94	1.47	1.97	5.65	3.77	0.92	1.19	1.47	2.58	3.26
100	4	114.3	3.84	1.92	2.56	7.67	5.11	1.17	1.45	1.81	3.04	4.12
125	5	141.3	6.48	3.24	4.32	13.0	8.64	1.9	2.50	2.53	5.3	6.54
150	6	168.3	9.94	4.97	6.63	19.9	13.3	2.83	3.60	3.73	6.89	9.58
200	8	219.1	20.1	10.1	13.4	40.3	26.8	5.11	5.70	5.89	10.4	17.9
250	10	273.0	35.4	17.7	23.6	70.8	47.2	8.92	9.60	10.4	18.1	30.4
300	12	323.8	52.0	26.0	34.6	112	71.9	13.1	13.6	14.9	22.2	43.6
350	14	355.6	67.9	34.0	45.3			15.9	25.4	15.5	28.3	53.5
400	16	406.4	89.0	44.5	59.1			20.0	31.0	18.0	32.7	66.1
450	18	457	113	56.5	75.3			25.5	37.8	21.0	37.5	83.9
500	20	508	140	70.0	93.1			31.8	55.4	23.3	41.7	104
550	22	559	169	84.5	113			38.8	62.4	25.8	46.3	126
600	24	610	202	101	135			45.1	68.4	28.4	50.5	139
650	26	660	237	119	158			50.5	89.4			176
700	28	711	276	138	184			56.2	96.6			198
750	30	762	316	158	211			62.1	104			228
800	32	813	361	180	241			68.4	111			259
850	34	864	406	204	272			75.4	116			295
900	36	914	457	228	304			81.9	125			331
950	38	965	510	255	340			94.7	133			370
1000	40	1016	565	282	377			102	140			411
1050	42	1067	622	311	416			110	147			422
1100	44	1118	684	342	456			126	155			475
1150	46	1168	748	374	499			134	189			521
1200	48	1219	814	407	543			143	197			569

Butt-welding Fittings (kg per unit)												
XS												
Nominal size		OD	Elbows			Returns		Caps	Reducers	Stub Ends		
			Long		Short	Long	Short			MSS	ASME	
DN	NPS	mm	90 deg	45 deg	90 deg	Long	Short					
15	½	21.3	0.10	0.05		0.20		0.05		0.13	0.12	0.11
20	¾	26.7	0.14	0.70		0.21		0.07	0.08	0.17	0.2	0.17
25	1	33.4	0.20	0.10	0.14	0.41	0.26	0.15	0.15	0.24	0.38	0.32
32	1¼	42.2	0.35	0.18	0.23	0.70	0.46	0.20	0.21	0.35	0.55	0.56
40	1½	48.3	0.50	0.25	0.33	1.02	0.66	0.24	0.33	0.46	0.68	0.81
50	2	60.3	0.90	0.45	0.6	1.88	1.19	0.33	0.51	0.74	1.36	1.20
65	2½	73.0	1.79	0.90	1.19	3.56	2.38	0.57	0.95	1.06	2.08	2.28
80	3	88.9	2.74	1.37	1.83	5.74	3.65	0.92	1.25	1.51	2.84	3.25
90	3½	101.6	4.05	2.02	2.07	12.7	5.21	1.30	1.64	2.01	3.51	4.51
100	4	114.3	5.36	2.68	3.58	15.7	7.15	1.68	2.02	2.52	4.23	5.77
125	5	141.3	9.13	4.57	6.09	19.3	12.2	2.73	3.52	3.60	7.52	9.2
150	6	168.3	15.0	7.50	10.0	31.9	20.0	4.38	5.38	5.57	10.4	14.5
200	8	219.1	30.5	15.3	20.3	64.3	40.7	7.91	8.63	10.1	15.9	27.1
250	10	273.0	47.7	23.9	31.8	99.6	74.9	12.2	12.9	13.9	24.3	41.0
300	12	323.8	68.7	34.4	45.8	144.9	94.9	17.4	18.0	19.9	29.8	57.7
350	14	355.6	89.9	15.0	60.0			21.2	33.6	21	38	70.9
400	16	406.4	118	59.0	78.3			26.7	41.1	24	44	87.7
450	18	457	150	75.5	100			34.1	50.1	28	50	111
500	20	508	186	93	124			42.5	74.9	31	56	138
550	22	559	225	113	150			51.7	82.9	33	61	167
600	24	610	268	134	179			60.1	91	37	67	186
650	26	660	315	158	210			67.3	119			234
700	28	711	367	184	245			74.9	129			264
750	30	762	421	211	281			82.8	138			304
800	32	813	480	240	320			91.2	148			347
850	34	864	543	272	362			100	158			393
900	36	914	608	304	405			109	167			441
950	38	965	679	339	453			126	177			493
1000	40	1016	753	376	502			137	187			547
1050	42	1067	828	414	554			147	196			562
1100	44	1118	912	456	608			167	206			633
1150	46	1168	997	498	665			179	252			695
1200	48	1219	1085	542	724			191	263			759