



FITTINGS



BUTT WELDING FITTINGS
FORGED FITTINGS

FITTINGS

PRODUCT

WROUGHT STEEL BUTT-WELDING FITTINGS (CARBON & ALLOY STEEL)



90° Elbow
(Long)



180° Elbow
(Long)



Reducer
(Concentric)



Reducer
(Concentric)



90° Elbow
(Short)



180° Elbow
(Short)



Reducer
(Eccentric)



Reducer
(Eccentric)



45° Elbow
(Long)



Tee
(Straight)



Tee
(Reducing)



Cap



Y-Tee



Lateral



Lap Joint
Stub End

STAINLESS STEEL BUTT-WELDING FITTINGS



90° Elbow
(Long)



180° Elbow
(Long)



Reducer
(Concentric)



Reducer
(Concentric)



90° Elbow
(Short)



180° Elbow
(Short)



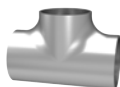
Reducer
(Eccentric)



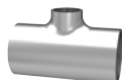
Reducer
(Eccentric)



45° Elbow
(Long)



Tee
(Straight)



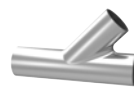
Tee
(Reducing)



Cap



Y-Tee



Lateral



Lap Joint
Stub End

FORGED STEEL SOCKET-WELDING&THREADED FITTINGS

Socket Welding
Fittings



90° Elbow



45° Elbow



Tee



Cross



Coupling



Reducer



Cap



Union



Lateral

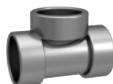
Threaded Fittings



90° Elbow



45° Elbow



Tee



Cross



Coupling



Half
Coupling



Cap



Union



Hex. Head
Plug



S. Q. Head
Plug



Round Head
Plug



Hex. Head
Bushing



Boss



Reducer
Insert



Nipple



Swage
Nipple

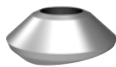


Lateral

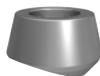
Outlets



Socket
Outlet



Welding-
Outlet



Thread-
Outlet

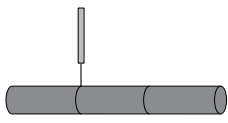


Nipple-
Outlet

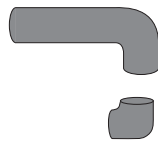
FITTINGS

ALL OUR FACILITIES HAVE BEEN DESIGNED FOR THE MOST EFFECTIVE PRODUCTION

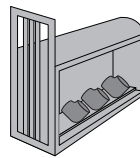
ELBOW



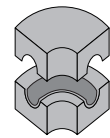
Pipe Cutting



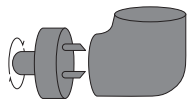
Forming



Heat Treatment



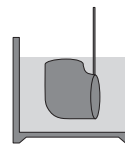
Sizing



Beveling

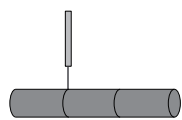


Marking

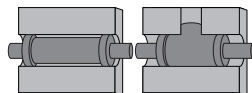


Coating

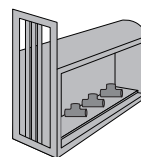
TEE



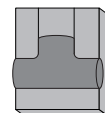
Pipe Cutting



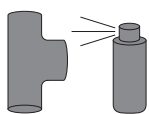
Forming



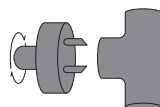
Heat Treatment



Sizing



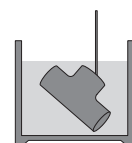
NDE



Beveling

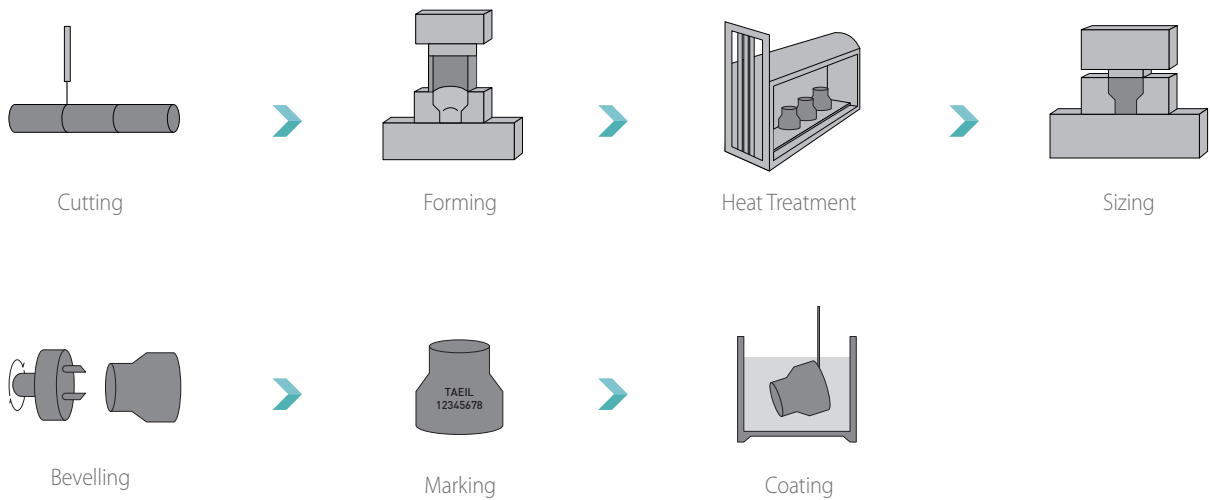


Marking

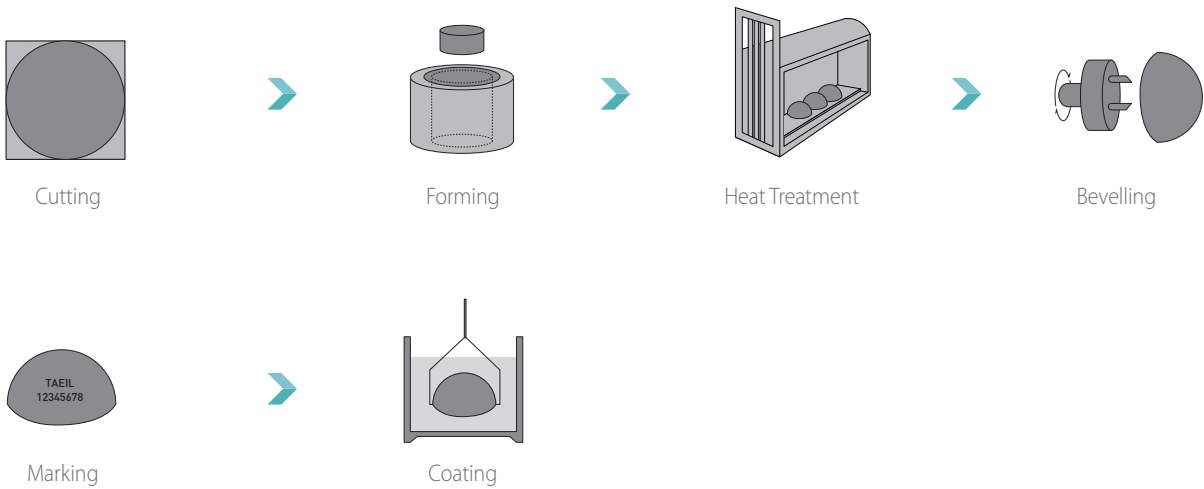


Coating

REDUCER



CAP



Comparison of ASTM specifications and similar standard

Specification & Grade Steel	ASTM				KS		
	Fitting	Pipe	Plate	Forging	Fitting	Pipe	Plate
Carbon Steel	-	A120	A283-A	-	SPP	SPP	SB41
	-	A53-B	A284	-	PS38[W], PS38, T38[W], PT38	SPPS38	SWS41B
	-	A53-B	A284	-	PS42[W], PS42, PT42[W], PT42	SPPS42	SWS41B
	-	-	-	-	HT38, HT38[W]	SPHT38	SBB42
	WPB	A106-B	A515 Gr.60, A516-Gr.65, A516-Gr.70	A105	HT42, HT42[W]	SPHT42	SBB42
	WPC	A106-C	A516-Gr.70	A105	HT49, HT49[W]	SPHT49	SBB49
Low Temperature Steel	WPL6	A333, A334-6	A516-Gr.6, A516-Gr.65	A350-LF2	PL39	SPHL39	SLAL39
	WPL3	A333, A334-3	A203-D	A350-LF3	-	-	-
	WPL9	A333, A334-9	A203-A	A350-LF9	-	-	-
Alloy Steel	WP1	A335-P1	A203-Gr.B	A182-F1	PA12, FA12	SPA12	SBB46M
	WP12	A335-P12	A387-Gr.12	A182-F12	PA22, FA22	SPA22	SCMV2
	WP11	A335-P11	A387-Gr.11	A182-F11	PA23, FA23	SPA23	SCMV3
	WP22	A335-P22	A387-Gr.22	A182-F22	PA24, FA24	SPA24	SCMV4
	WP5	A335-P5	A387-Gr.5	A182-F5	PA25, FA25	SPA25	SCMV6
	WP7	A335-P7	A387-Gr.7	A182-F7	-	-	-
	WP9	A335-P9	A387-Gr.9	A182-F9	-	-	-
Stainless Steel	WP91	A335-P91	A387-Gr.91	A182-F91	-	-	-
	WP304	A312-TP304	A240-Gr.304	A182-F304	STS304, STS304W, STS304F	STS304TP	STS304
	-	A312-TP304H	A240-Gr.304H	A182-F304H	-	-	-
	WP304L	A312-TP304L	A240-Gr.304L	A182-F304L	STS304L, STS304LW, STS304LF	STS304LTP	STS304L
	WP309	A312-TP309	A240-Gr.309S	-	STS309S, STS309SW, STS309SF	STS309STP	STS309S
	WP310	A312-TP310	A240-Gr.310S	A182-F310	STS310S, STS310SW, STS310SF	STS310TP	STS310S
	WP316	A312-TP316	A240-Gr.316	A182-F316	STS316, STS316W, STS316F	STS316TP	STS316
	WP316H	A312-TP316H	A240-Gr.316H	A182-F316H	STS316H, STS316HF	STS316HTP	-
	WP316L	A312-TP316L	A240-Gr.316L	A182-F316L	STS316L, STS316LW, STS316LF	STS316LTP	STS316L
	WP321	A312-TP321	A240-Gr.321	A182-F321	STS321, STS321W, STS321F	STS321TP	STS321
	WP321H	A312-TP321H	A240-Gr.321H	A182-F321H	-	-	-
	WP347	A312-TP347	A240-Gr.347	A182-F347	STS347, STS347W, STS347F	STS347TP	STS347
	WP347H	A312-TP347H	A240-Gr.347H	A182-F347H	STS347H, STS347HF	STS347HTP	-

Specification Steel	JIS			B.S	DIN	Chemical Composition, %				
	Fitting	Pipe	Plate	Pipe	Pipe	C	Cr	Ni	Mo	etc.
Carbon Steel	FSGP or SGP	SGP(STPY400)	SS400	1387-M	2440-ST33-1	0.30	0.40	0.40	0.15	-
	PG370[W], PS370[W], PT370[W], PT370	STPG370	SM41B	3602-ERW 23	1626ST37	0.30	0.40	0.40	0.15	-
	PG410[W], PS410[W], PT410[W], PT410	STPG410	SM41B	3602-ERW 27	-	0.30	0.40	0.40	0.15	-
	PS370, PT370[W]	STPT370	SB42	3602-ERW 23	17175-ST35.8	0.30	0.40	0.40	0.15	-
	PS410, PT410[W]	STPT410	SB42	3602-ERW 27	17175-ST35.8	0.30	0.40	0.40	0.15	-
	PS480, PT480[W]	STPT480	SB49	3602-ERW 35	-	0.35	0.40	0.40	0.15	-
Low Temperature Steel	PL380[W]	STPL380	-	3603-Steel 27 LT 30	-	0.30	0.30	0.40	0.12	Cu/Cb/V
	PL450[W]	STPL450	-	3603-Steel 503 LT 100	-	0.20	-	3.50	-	-
	PL690[W]	STPL690	-	-	-	0.20	-	2.00	-	Cu
Alloy Steel	PA12[W], FA12	STPA12	-	-	17175-15 Mo3	0.28	-	-	0.55	-
	PA22[W], FA22	STPA22	-	3603-HF620	17175-13 Cr Mo44	0.20	1.00	-	0.50	-
	PA23[W], FA23	STPA23	-	3603-HF621	-	0.15	1.25	-	0.50	-
	PA24[W], FA24	STPA24	SCMV4	3603-HF622,27	17175-10 Cr Mo910	0.15	2.25	-	1.00	-
	PA25[W], FA25	STPA25	-	3603-HF625	-	0.15	5.00	-	0.50	-
	-	-	-	-	-	0.15	7.00	-	0.50	-
	PA26[W], FA26	STPA26	-	-	-	0.12	9.00	-	1.00	-
	-	-	-	-	-	0.12	9.00	-	1.00	V/Cb/N
Stainless Steel	SUS304, SUS304W, SUS304F	SUS304TP	SUS304	3605-801	17440-X5 Cr Ni189	0.08	18.00	8.00	-	-
	SUS304H, SUS304HF	SUS304HTP	-	3605-811	-	0.10	18.00	8.00	-	-
	SUS304L, SUS304LW	SUS304LTP	SUS304L	3605-811L	17440-X2 Cr Ni189	0.03	18.00	10.00	-	-
	SUS309S, SUS309SW, SUS309SF	SUS309STP	SUS309S	-	-	0.08	22.00	12.00	-	-
	SUS310S, SUS310SW, SUS310SF	SUS310STP	SUS310S	3605-805S	-	0.08	25.00	20.00	-	-
	SUS316, SUS316W, SUS316F	SUS316TP	SUS316	3605-845	17440-X5 Cr Ni Mo1810	0.08	18.00	12.00	2.50	-
	SUS316L, SUS316LW	SUS316HTP	-	3605-855	-	0.10	18.00	12.00	2.50	-
	SUS316L, SUS316LW	SUS316HTP	SUS316L	3605-845L	17440-X2 Cr Ni Mo1810	0.03	18.00	12.00	2.50	-
	SUS321, SUS321W, SUS321F	SUS321TP	SUS321	3605-822Ti	17440-X10 Cr Ni Ti189	0.08	18.00	10.00	-	-
	SUS321H, SUS321HF	SUS321HTP	-	3605-832Ti	-	0.10	18.00	10.00	-	-
	SUS347, SUS347W, SUS347F	SUS347TP	SUS347	3605-822Nb	17440-X1 Cr Ni Nb189	0.08	18.00	11.00	-	-
	SUS347H, SUS347HF	SUS347HTP	-	3605-832Nb	-	0.10	18.00	11.00	-	-