



I N T R O

UNICIMA Corporation is specialized on manufacture and sales of all kinds of pipe products, including St. St. Seamless and Welded pipe, mechanical & ornamental tube, sanitary tube, industrial pipe. We have a complete range of pipe & tube, outside diameter from 6mm to 1200mm and wall thickness from 0.5mm to 20mm. The material grade includes TP201, TP202, TP304, TP304L, TP316, TP316L, TP316LN, S31803, S32750, etc. Our products are widely used in petrochemical, machinery, architectural decoration, refrigeration & heat exchanger, medical facility, auto parts, etc.

Thanks for its 20 years' experience of manufacturing and trading, we have established a stable market network. **With** good quality, competitive price and excellent service, UNICIMA has gained good reputation both home and abroad.

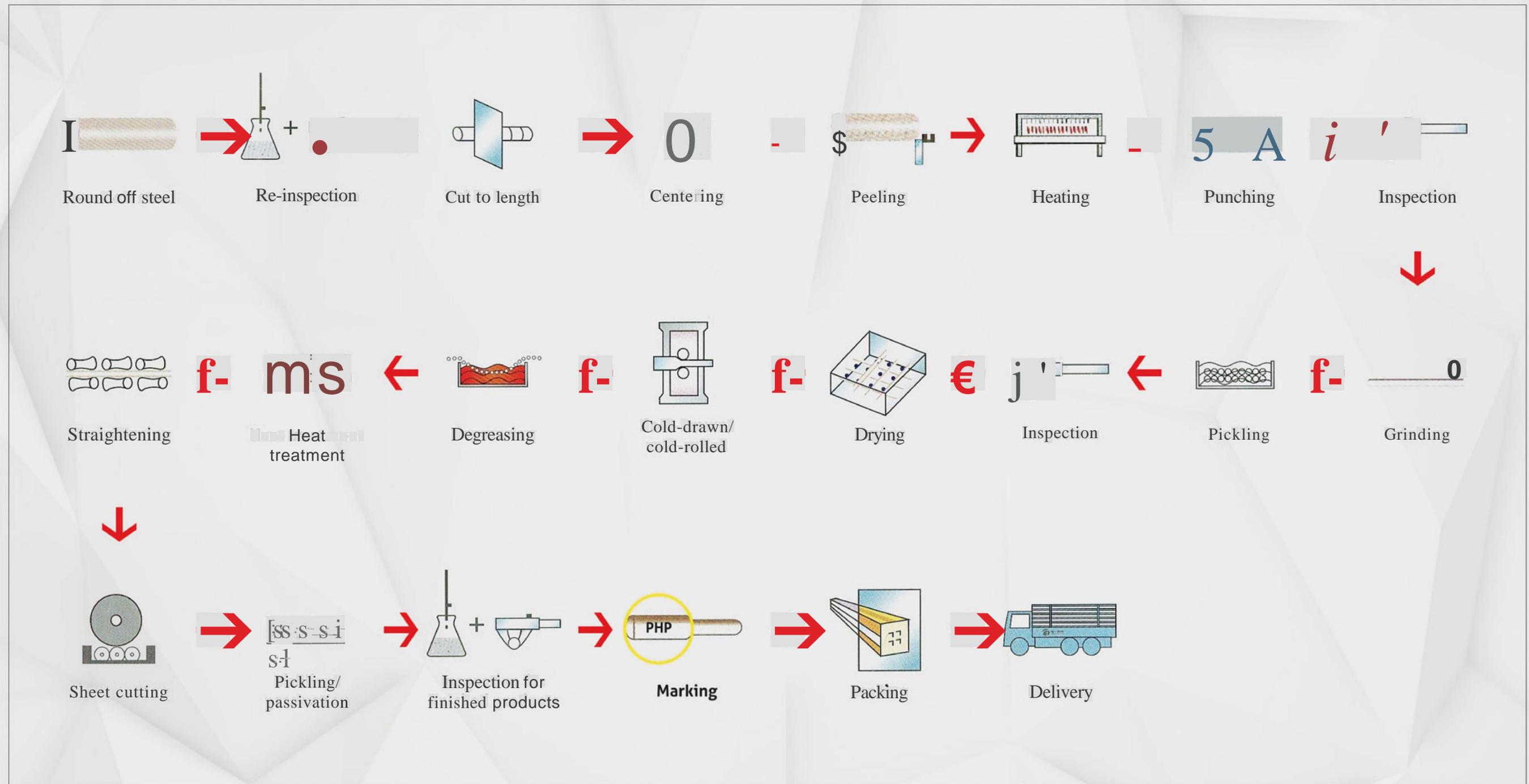
In UNICIMA, with our professional knowledge, advanced technology, outstanding management and skillful workers, we can meet all the requirements from customer both on manufacture and development. We are executing strictly by ISO9001 **QA/QC** system, with fully equipped quality inspection center, to achieve our concept "Quality is the eternal theme and life to the enterprise".

UNICIMA Pipe, your best choice!



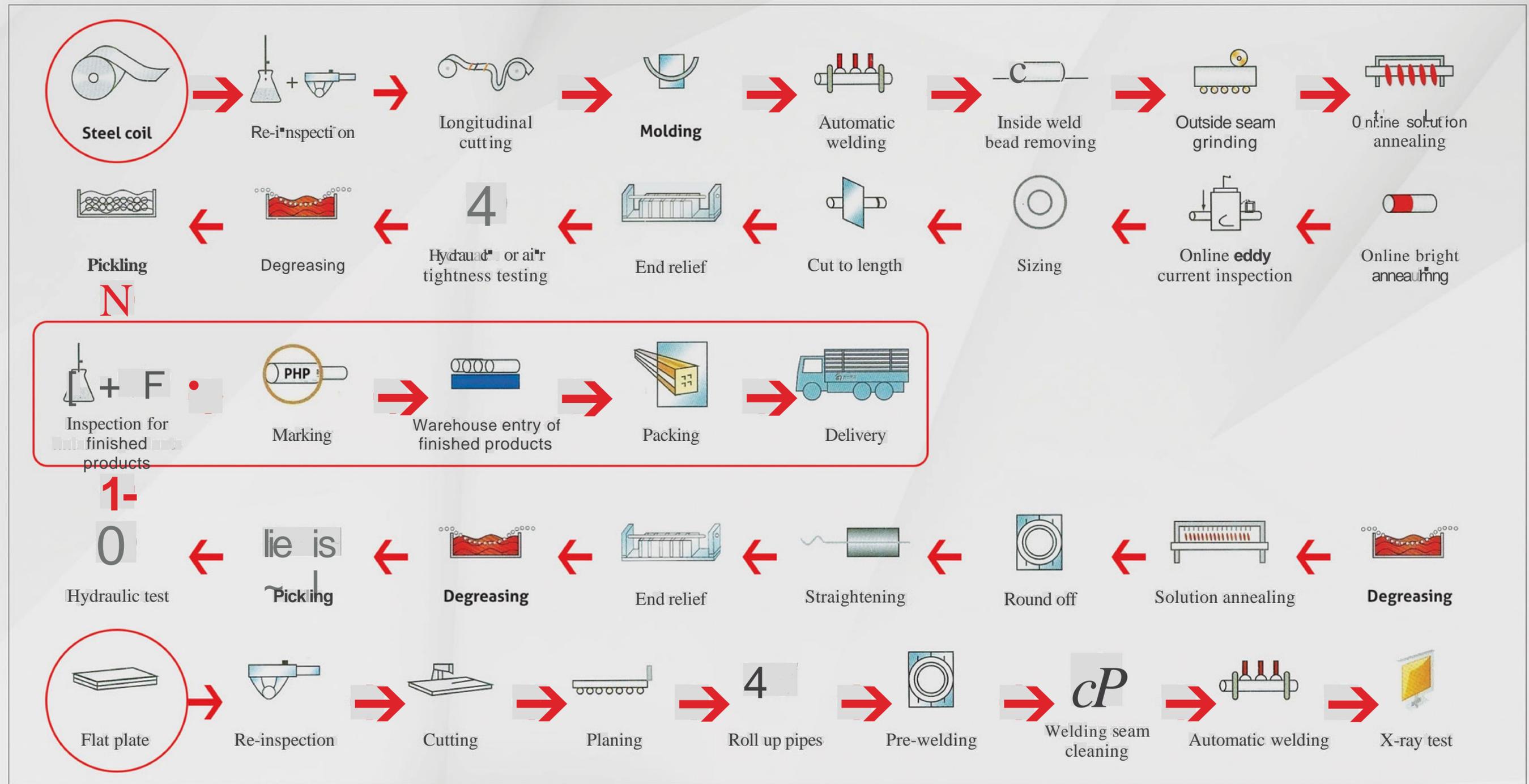
PRODUCTION PROCESS/

FLOWCHART SEAMLESS PIPE



PRODUCTION PROCESS/

FLOWCHART WELDED PIPE



ASTM A312

SEAMLESS, WELDED AND HEAVILY COLD WORKED AUSTENITIC STAINLESS STEEL PIPES



WELDED PIPE

Nominal Diameter		Outside Diameter	Nominal Wall Thickness				
N.B	NPS		SCH 5S	SCH 10S	SCH 20	SCH 40S	SCH 40
		mm	mm	mm	mm	mm	mm
15	1/2"	21.34	1.65	2.11		2.77	
20	3/4"	26.67	1.65	2.11		2.87	
25	1"	33.4	1.65	2.77		3.38	
32	1-1/4"	42.16	1.65	2.77		3.56	
40	1-1/2"	48.26	1.65	2.77		3.68	
50	2"	60.33	1.65	2.77		3.91	
65	2-1/2"	73.03	2.11	3.05		5.16	
80	3"	88.9	2.11	3.05		5.49	
90	3-1/2"	101.6	2.11	3.05		5.74	
100	4"	114.3	2.11	3.05		6.02	
125	5"	141.3	2.77	3.4		6.55	
150	6"	168.28	2.77	3.4		7.11	
200	8"	219.08	2.77	3.76		8.18	
250	10"	273.05	3.4	4.19		9.27	
300	12"	323.85	3.96	4.57		9.53	
350	14"	355.6	3.96	4.78	7.92		11.13
400	16"	406.4	4.19	4.78	7.92		12.7
450	18"	457.2	4.19	4.78	7.92		14.27
500	20"	508	4.78	5.54	9.53		15.09
550	22"	558.8	4.78	5.54	9.53		15.09
600	24"	609.6	5.54	6.35	9.53		17.48

FOR SIZE LARGER THAN 24", PLS CONTACT PHOENIX FOR DETAILS.

SEAMLESS PIPE

Nominal Diameter		Outside Diameter	Nominal Wall Thickness			
N.B	NPS		SCH 40S	SCH 40	SCH 80S	SCH 80
		mm	mm	mm	mm	
15	1/2"	21.34	2.77	2.77	3.73	3.73
20	3/4"	26.67	2.87	2.87	3.91	3.91
25	1"	33.4	3.38	3.38	4.55	4.55
32	1-1/4"	42.16	3.56	3.56	4.85	4.85
40	1-1/2"	48.26	3.68	3.68	5.08	5.08
50	2"	60.33	3.91	3.91	5.54	5.54
65	2-1/2"	73.03	5.16	5.16	7.01	7.01
80	3"	88.9	5.49	5.49	7.62	7.62
90	3-1/2"	101.6	5.74	5.74	8.08	8.08
100	4"	114.3	6.02	6.02	8.56	8.56
125	5"	141.3	6.55	6.55	9.52	9.52
150	6"	168.28	7.11	7.11	10.97	10.97
200	8"	219.08	8.18	8.18	12.7	12.7
250	10"	273.05	9.27	9.27	12.7	15.09
300	12"	323.85	9.53	10.31	12.7	17.47
350	14"	355.6	9.53	11.13	12.7	19.05
400	16"	406.4	9.53	12.7	12.7	21.44
450	18"	457.2	9.53	14.27	12.7	23.82
500	20"	508	9.53	15.09	12.7	26.2
SSO	22"	558.8	9.53	15.09	12.7	28.6
600	24"	609.6	9.53	17.48	12.7	30.96

FOR SIZE LARGER THAN 24", PLS CONTACT PHOENIX FOR DETAILS.

SANITARY FITTING

SANITARY ELBOWS

SANITARY TEES AND CROSS

SANITARY REDUCER

SANITARY CAP

SANITARY CLAMP

SANITARY UNION

SANITARY FERRULE

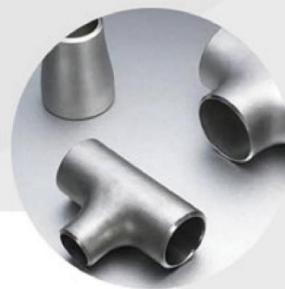
HOSE COUPLING

PIPE HOLDER



STANDARD:
3A, DIN, SMS-DS, ISO/IDF, AS1528
BS4825, ASME, BPE
STAINLESS STEEL: 304, 304L, 316, 316L

BUTT-WELDED FITTING



BUTT-WELDING ELBOWS AND RETURNS

BUTT-WELDING REDUCING TEES AND REDUCING CROSSES

BUTT-WELDING STRAIGHT TEES AND CROSSES

BUTT-WELDING CONCENTRIC & ECCENTRIC REDUCERS

BUTT-WELDING CAPS ASME-ANSI B16.9

BEND R 4D, R 5D

LAP JOINT STUB END

ANSI B16.25: BUTT-WELDING ENDS

ANSI B16.28: BUTT-WELDING SHORT RADIUS ELBOWS AND RETURNS

ANSI B16.9: BUTT-WELDING LONG RADIUS ELBOWS AND RETURNS

MSS SP-25: MARKING OF EACH FITTING

MSS SP-43: LIGHT-WALL STAINLESS STEEL FITTINGS, NPS 3/4 THROUGH

NPS 24 (DN 20 THROUGH DN 600)

MSS SP-75: HIGH TEST WROUGHT WELDING FITTINGS

STAINLESS STEEL: 304, 304L, 316, 316L AND 347. THEY ARE FURNISHED IN

ACCORDANCE WITH ASTM STANDARD A-403, WITH MATERIAL SPECIFICATIONS

TO ASTM A-312 COVERING FITTINGS MADE FROM PIPE, AND

A-240 FOR FITTING MADE FROM PLATE.

MATERIAL SPECIFICATION

CHEMICAL COMPOSITION TABLE FOR COMMON STAINLESS STEEL

		Chemical composition							
		C	Si	Mn	P	S	Ni	Cr	Mo
ASTM	TP304	<0.08	<1.00	<2.00	<0.045	<0.03	8.00-11.00	18.00-20.00	
	TP304L	≤0.035	≤1.00	≤2.00	≤0.045	≤0.03	8.00-13.00	18.00-20.00	
	TP316	≤0.08	≤1.00	≤2.00	≤0.045	≤0.03	10.00-14.00	16.00-18.00	2.00-3.00
	TP316L	≤0.035	≤1.00	≤2.00	≤0.045	≤0.03	10.00-14.00	16.00-18.00	2.00-3.00
JIS	\$US304	<0.08	<1.00	≤2.00	<0.040	≤0.03	8.00-11.00	18.00-20.00	
	\$US304L	<0.03	<1.00	<2.00	<0.040	≤0.03	8.00-13.00	18.00-20.00	
	\$US316	≤0.08	≤1.00	≤2.00	≤0.040	≤0.03	10.00-14.00	16.00-18.00	2.00-3.00
	\$US316L	≤0.03	≤1.00	≤2.00	≤0.040	≤0.03	12.00-16.00	16.00-18.00	2.00-3.00
GB	0Cr18Ni9	<0.07	<1.00	<2.00	<0.035	<0.03	8.00-11.00	17.00-19.00	
	00Cr19Ni10	<0.03	<1.00	≤2.00	<0.035	≤0.03	8.00-12.00	17.00-19.00	
	0Cr17Ni12Mo2	≤0.07	≤1.00	≤2.00	≤0.035	≤0.03	10.00-14.00	16.00-18.00	2.00-3.00
	00Cr17Ni14Mo2	≤0.03	≤1.00	≤2.00	≤0.035	50.03	12.00-15.00	16.00-18.00	2.00-3.00
EN10217-7	1.4301	<0.07	<1.00	<2.00	<0.045	<0.015	8.00-10.50	17.00-19.00	
	1.4307	<0.03	<1.00	<2.00	<0.045	<0.015	8.00-10.00	19.50-19.50	
	1.4401	≤0.07	≤1.00	≤2.00	≤0.045	≤0.015	10.00-13.00	17.50-19.50	2.00-2.50
	1.4404	≤0.03	≤1.00	≤2.00	≤0.045	≤0.015	10.00-13.00	16.50-18.50	2.00-2.50
							16.50-18.50		

MECHANICAL PROPERTY FOR COMMON STAINLESS STEEL

Grade		Mechanical properties			
		Tensile strength	Yield strength	Elongation	Hardness
		MPA	MPA	%	HRB(HV)
ASTM	TP304	275(515)	230(205)	235	≤90
	TP304L	270(483)	225(170)	235	<90
	TP316	275(515)	230(205)	235	<90
	TP316L	270(483)	225(170)	235	<90
JIS	\$US304	275(520)	230(206)	235	≤90
	SUS304L	270(481)	225(177)	235	<90
	SUS316	275(520)	230(206)	235	<90
	SUS316L	270(481)	225(177)	235	<90
GB	0Cr18Ni9	275(520)	230(210)	235	≤90
	00Cr19Ni10	270(480)	225(180)	235	≤90
	0Cr17Ni12Mo2	275(520)	230(210)	235	≤90
	00Cr17Ni14Mo2	270(480)	225(180)	235	≤90
EN 10 217-7	1.4301	(500-700)	2(195)	z40b	≤90
	1.4307	(470-510)	2(180)	z40b	≤90
	1.4401	(670-710)	2(205)	240b	≤90
	1.4404	(510-550)	2(190)	240b	≤90
		(490-690)			

CHEMICAL COMPOSITION FOR COMMON DUPLEX STAINLESS STEEL

Steel No.	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	N
\$32750(SAF2507) 00Cr25Ni7Mo4N	0.03	1.20	0.80	0.020	0.035	24.0/ 26.0	6.0/ 8.0	3.0/ 5.0	0.50	0.24/ 0.32
\$31803(SAF2205) 00Cr22Ni175Mo3N	0.03	2.00	1.0	0.020	0.030	21.0/ 23.0	4.50/ 6.50	2.50/ 3.50		0.08/ 0.20
\$31500(3RE60) 00Cr18Ni5Mo3Si2	0.03	1.2/ 2.00	1.4/ 2.00	0.030	0.030	18.0/ 19.0	4.25/ 5.25	2.50/ 3.50		0.05/ 0.10

WEIGHT CALCULATING FORMULA TABLE OF STAINLESS STEEL

GRADE	q/cm ³	CALCULATION FORMULA
0Cr19Ni9 \$US304 TP304	7.93	$w = 0.0249 \frac{t(D-t)}{1}$
0Cr17N712Mo \$US316 TP316	7.98	$w = 0.02507 \frac{t(D-t)}{1}$

MECHANICAL PROPERTY FOR COMMON DUPLEX STAINLESS STEEL

Steel No.	Heat Treatment system C	O _b (Mpa) 2	O _b (Mpa) 2z	δ% ≥	Hardness	
					Brinell	Rockwell
\$32750(SAF2507) 00Cr25Ni7 Mo4N	1025-1125 Water quench	800	550	15	310	32
\$31803(SAF2205) 00Cr22Ni175Mo3N	1020-1100 Water quench	620	450	25	290	30.5
\$31500(3RE60) 00Cr18Ni5Mo3Si2	980-1040 Water quench	630	440	30	290	30.5

SALES NETWORK



SURFACE BRIGHTNESS

ITEM	ROUND TUBING		SQUARE & RECTANGULAR TUBING	
	FINISH	DESCRIPTION	FINISH	DESCRIPTION
SURFACE FINISH	Mill Finish	As welded	Mill Finish	As welded
	180#	Buffed after polishing by 180#	180#	Buffed after polishing by 180#
	400#	Buffed after polishing by 400#	400#	180# Buffed after polishing by 400#
	600#	Buffed after polishing by 600#		
	180# Hairline	Hairline finished after polishing 180#	180# Hairline	Hairline finished after polishing 180#
	240# Hairline	Hairline finished after polishing 240#	240# Hairline	Hairline finished after polishing 240#

GLOBAL SALE NETWORK CHART



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