

# GENERAL DATA

COMMON MATERIAL				
PRODUCT FORM	CARBON STEEL	C/S LOW TEMP.	304 STAINLESS	316 STAINLESS
PLATE (PRESSURE VESSEL)	SA 516 70	SA 516 70N	SA 240 304	SA 240 316
PLATE (STRUCTURAL)	SA 36/44W	SA 516 70N	SA 240 304	SA 240 316
FORGING (FLANGE/CPL'G)	SA 105	SA 350LF2 CL.1	SA 182F 304	SA 182F 316
SEAMLESS PIPE	SA 106B/C	SA 333 GR.6	SA 312TP 304 SMLS	SA 312TP 316 SMLS
WELDED PIPE	SA 53E/B	N/A	SA 312TP 304 WLD	SA 312TP 316 WLD
B.W FITTINGS	SA 234WP B	SA 420 WPL6	SA 403WP 304 WLD	SA 403WP 316 WLD
BAR & ANGLE	SA 36/44W	SA 36/44W	SA 479 304	SA 479 316
BOLT/STUD	SA 193 B7	SA 193 B7M	SA-193 B8 CL.1	SA-193 B8 CL.2
NUT	SA 194 2H	SA 194 2HM	SA 194-8	SA 194-8
BOLT SIZE & T.P.I	C.S ALLOWABLE STRESS @ TEMPERATURE		SURFACE PREPARATION	
1/4"-20UNC	<b>MATERIAL SPECIFICATION</b> SA 516 70	<b>ALLOWABLE STRESS @ &lt;400°F</b> 20000 PSI	CARBON STEEL: SSPC-SP6 OR PEEN BLAST	
3/8"-16UNC	SA 516 70	20000 PSI	STAINLESS STEEL: BEAD BLAST OR ELECTRO POLISH	
1/2"-13UNC	SA 105 / 350LF2 CL.1	20000 PSI	CODES	
5/8"-11UNC	SA 106C/ 234 WPC	20000 PSI	B31.3 TEST PRESSURE: 1.5 x DESIGN PRESSURE	
3/4"-10UNC	SA 106B/ 234 WPB/ 333 GR.6/ 420 PWL6	17100 PSI	ASME SECT. VIII DIV.1 TEST PRESSURE: 1.3 x DESIGN PRESSURE	
7/8"-9UNC	SA 53E/B	14600 PSI	PWHT: 1150°F +/- 25°F	
1" SIZE AND ABOVE ALL 8UN	SA 36/44W	16600 PSI	IMPACT TEST EXEMPTION: CS: UG-20(f) UCS-66(a) & (b)	
	SA 193 B7	25000 PSI	SST:UHA-51(d)	
			FITTING CRN: <6 NPS OR <1.5 CU.FT	
MATERIAL STRENGTH			"UM VESSEL" PRESSURE & VOLUME LIMITATION	
<b>MATERIAL SPEC'S &amp; GRADE</b>	<b>MINIMUM YIELD</b>	<b>MINIMUM YTSILE</b>	AT 250 PSI: Max. Vol 37GAL OR 5 CU.FT	
SA 516 70	38 KSI	70 KSI	AT 300 PSI: Max. Vol 22GAL OR 3 CU.FT	
SA 105 / 350LF2 CL.1	36 KSI	70 KSI	AT 600 PSI: Max. Vol 11GAL OR 1.5 CU.FT	
SA 106C/ 234 WPC	40 KSI	70 KSI	DATA REPORT FORM	
SA 106B/ 234 WPB/ 333 GR.6/ 420 PWL6	35 KSI	60 KS	CRN FITTING HOUSING IS INSPECTED SHOP (MDR IS COC)	
SA 53E/B	35 KSI	60 KSI	"UM" STAMPED VESSEL IS INSPECTED BY SHOP C.I (MDR IS U-3 FORM)	
SA 36/44W	36 KSI	58 KSI	"U" STAMPED VESSEL IS INSPECTED BY A.I.A (MDR IS U-1 OR U-1A FORM)	
SA 193 B7	105 KSI	125 KSI	COMMON SEALING MATERIAL	
SA 193 B7M	80 KSI	100 KSI	<b>MAX OPERATING TEMP</b>	<b>SEALING MATERIAL</b>
304SS / 316SS	30 KSI	75 KSI	UP TO 700 °F	FLEXITALLIC
304LSS / 316LSS	25 KSI	70 KSI	UP TO 250 °F	BUNA-ORING
WELDING PROCESS	STAINLESS GRADE ALLOWABLE STRESS @ TEMP.		UP TO 3000 °F	EPDM-ORING
GTAW: GAS TUNGSTEN ARC WELDING	<b>STAINLESS GRADE @ TEMPERATURE IN DEG. F</b>	<b>ALLOWABLE STRESS IN PSI</b>	UP TO 400 °F	VITON-ORING
GMAW: GAS METAL ARC WELDING	304SS @ UP TO 200	20000	UP TO 400 °F	SILICON
SMAW: SHIELDED METAL ARC WELDING	304SS @ 250	19450	CRN DESIGNATION	
SAW: SUBMERGED ARC WELDING	304SS @ 300	18900	TXXXX.1	BC=1
<b>NDE</b>	304SS @ 325	18750	TXXXX.2	AB=2
RT=RADIOGRAPHY TESTING	304SS @ 350	18600	TXXXX.3	SK=3
UT=ULTRASONIC TESTING	304SS @375	18450	TXXXX.4	MB=4
MT-MAGNETIC PARTICLE TESTING	304SS @ 400	18100	TXXXX.5	ON=5
VI=VISUAL INPECTION	316SS @ UP TO 300	20000	TXXXX.6	QC=6
HT= HARDNESS TESTING	316SS @ 325	19825	TXXXX.7	NB=7
WFT=WET FLUORESCENT TESTING	316SS @ 350	19650	TXXXX.0	NL=0
LPT=LQUID PENETRANT TESTING	316SS @ 375	19475	TXXXX.C	ALL CANADIAN PROVINCE=C
PMI: POSITIVE MATERIAL IDENTIFICATION	316SS @ 400	19300		

\*\*\*This Chart contains general information and is a general guide only\*\*\*

CRN TXXXX.21345. THE 1ST REGISTERED IN PROVINCE IS ALBERTA SINCE THE DIGIT AFTER THE DECIMAL IS "2"

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# FILTER SOLUTIONS INC