

**ASTM TUBE PART NUMBER MATRIX**

<b>TXXX</b>	-	<b>XX</b>	-	<b>XXXXX (XXX)</b>	<b>X4</b>	-	<b>XXX</b>	<b>XX</b>
<u>PROCESS CODE</u>		<u>ALLOY CODE (SEE NOTE 1)</u>		<u>SIZE CODE (SEE NOTE 3)</u>			<u>WALL CODE</u>	<u>SURFACE FINISH &amp; VISUALS</u>
<b>T1A</b> = PER SP-9204 (101)		<b>0S</b> = 316L SEAMLESS		<b>00125</b> .13 = .125" DIA	<b>USED ONLY FOR 4-METER LENGTH TUBES</b>		<b>028</b> = .028" THICK	<b>USED ONLY FOR 401 PROCESS CODE</b>
<b>T2A</b> = PER SP-9206 (201)		<b>0W</b> = 316L WELDED		<b>00250</b> .25 = .25" DIA			<b>035</b> = .035" THICK	<b>A5</b> = 5µIn Ra Max, Superior Visuals
<b>T2I</b> = PER CUSTOM SPEC		<b>2S</b> = 304L SEAMLESS		<b>00375</b> .38 = .375" DIA			<b>039</b> = .039" THICK	<b>A7</b> = 7µIn Ra Max, Superior Visuals
<b>T3A</b> = PER SP-9223 (301)		<b>2W</b> = 304L WELDED		<b>00500</b> .50 = .5" DIA			<b>049</b> = .049" THICK	<b>B0</b> = 10µIn Ra Max, Standard Visuals
<b>T3B</b> = PER SP-9223 BULK PK (301)		<b>3S</b> = 304L SEAMLESS		<b>00750</b> .75 = .75" DIA			<b>058</b> = .058" THICK	<b>C0</b> = 10µIn Ra, Relaxed Visuals
<b>T3O</b> = PER SP-9223 OEM (301)		<b>3W</b> = 304L WELDED		<b>01000</b> 1.0 = 1" DIA			<b>065</b> = .065" THICK	
<b>T3OB</b> = PER SP-9223 OEM BULK PK (301)		<b>AS</b> = 304 SEAMLESS		<b>01500</b> 1.5 = 1.5" DIA			<b>083</b> = .083" THICK	
<b>T4A</b> = PER SP-9220 (401)		<b>AW</b> = 304 WELDED		<b>02000</b> 2.0 = 2" DIA			<b>095</b> = .095" THICK	
<b>T4B</b> = PER SP-9220 BULK PK (401)		<b>BS</b> = 316L SEAMLESS, VOD/VAR		<b>02500</b> 2.5 = 2.5" DIA			<b>109</b> = .109" THICK	
<b>T4I</b> = PER CUSTOM SPEC		<b>HS</b> = HASTELLOY® C-22® SEAMLESS*		<b>03000</b> 3.0 = 3" DIA				
<b>T4O</b> = PER SP-9220 OEM (401)		<b>KS</b> = 316L SEAMLESS VIM/VAR		<b>04000</b> 4.0 = 4" DIA				
<b>T4R</b> = PER SP-9220 & I.D./O.D. POLISH (401)		<b>NS</b> = 316L SEAMLESS (ASTM STD)		<b>06000</b> 6.0 = 6" DIA				
<b>TMC</b> = PER SP-9207 (222)		<b>NW</b> = 316L WELDED (ASTM STD)						
		<b>QS</b> = 316L SEAMLESS						
		<b>QW</b> = 316L WELDED						
		<b>RS</b> = 316L SEAMLESS						
		<b>RW</b> = 316L WELDED						
		<b>VS</b> = 316L SEAMLESS VIM/VAR						

USED FOR 20-FOOT AND 6-METER LENGTH TUBES	USED ONLY FOR 4-METER LENGTH TUBES
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**NOTES:**

- PROCESS CODES ARE NOT AVAILABLE FOR ALL TYPE CODES (MATERIAL) AND SIZES. PLEASE CONTACT VALEX SALES FOR ITEM NUMBER AVAILABILITY.
- ZEROS MAY BE OMITTED AND REPLACED WITH DECIMAL IN SOME PROCESSES (I.E. T30B).
- SHADED COLUMNS USED ONLY FOR 4-METER LENGTH TUBES.
- VISUAL CRITERIA IS TO BE USED IN CONJUNCTION WITH SURFACE ROUGHNESS AS INDICATED.

**NOTES:**

- SEE SHEET 9 FOR BREAKDOWN OF ALLOY CHEMISTRIES AND MELT TYPE.

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<b>TITLE</b>		
<b>TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME</b>		
SPECIFICATION	SHEET	REV
SP-9200	1/9	BK

**ASTM COAXIAL TUBE PART NUMBER MATRIX**

**CTXX**

**- XX**

**- XX**

**- XXXXX (XXXX)**

**X4**

**- XX**

INNER PROCESS CODE

**CT1A** = PER SP-9204 (101)  
**CT2A** = PER SP-9206 (201)  
**CT3A** = PER SP-9223 (301)  
**CT4A** = PER SP-9220 (401)  
**CT4I** = PER CUSTOM SPEC  
**CTMC** = PER SP-9207 (222)

OUTER ALLOY (SEE NOTE 1)

**S** = 316L 0S SEAMLESS  
**W** = 316L 0W WELDED  
**2S** = 304L SEAMLESS  
**2W** = 304L WELDED  
**AW** = 304 WELDED  
**NS** = 316L SEAMLESS (ASTM STD)  
**RS** = 316L SEAMLESS  
**RW** = 316L WELDED  
**VS** = 316L SEAMLESS VIM/VAR

INNER ALLOY (SEE NOTE 1)

**0S** (or BLANK) = 316L SEAMLESS  
**0W** = 316L WELDED  
**2S** = 304L SEAMLESS  
**2W** = 304L WELDED  
**3S** = 304L SEAMLESS  
**3W** = 304L WELDED  
**BS** = 316L SEAMLESS, VOD/VAR  
**HS** = HASTELLOY® C-22® (SEAMLESS)\*  
**KS** = 316L SEAMLESS VIM/VAR  
**NS** = 316L SEAMLESS (ASTM STD)  
**NW** = 316L WELDED (ASTM STD)  
**QS** = 316L SEAMLESS  
**QW** = 316L WELDED  
**RS** = 316L SEAMLESS  
**RW** = 316L WELDED (JIS STD)  
**VS** = 316L SEAMLESS VIM/VAR

SIZE CODE - INNER (SEE NOTE 3)

<b>.25</b>	<b>.25</b>	= .25" DIA
<b>.25M</b>	<b>.25M</b>	= .25" DIA (1MM WALL)
<b>.375</b>	<b>.38</b>	= .375" DIA
<b>.375M</b>	<b>.38M</b>	= .375" DIA (1MM WALL)
<b>.5</b>	<b>.5</b>	= .5" DIA
<b>.75</b>	<b>.75</b>	= .75" DIA
<b>.75M</b>	<b>.75M</b>	= .75" DIA (.049" WALL)
<b>1</b>	<b>1</b>	= 1" DIA
<b>1.5</b>	<b>1.5</b>	= 1.5" DIA
<b>2</b>	<b>2</b>	= 2" DIA

USED FOR 20-FOOT AND 6-METER LENGTH TUBES	USED ONLY FOR 4-METER LENGTH TUBES
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USED  
ONLY FOR  
4-METER  
LENGTH  
TUBES

SURFACE FINISH & VISUALS

**USED ONLY FOR 401 PROCESS CODE**  
**A5** = 5µIn Ra Max, Superior Visuals  
**A7** = 7µIn Ra Max, Superior Visuals  
**B0** = 10µIn Ra Max, Standard Visuals  
**C0** = 10µIn Ra, Relaxed Visuals

**NOTES:**

- SEE SHEET 9 FOR BREAKDOWN OF ALLOY CHEMISTRIES AND MELT TYPE.
- DECIMALS MAY BE OMITTED AND REPLACED WITH ZEROS IN SOME PROCESSES (I.E. CT4A-S-VS-XXXX-XX).
- SHADED COLUMNS USED ONLY FOR 4-METER LENGTH TUBES.
- PROCESS CODES ARE NOT AVAILABLE FOR ALL ALLOY AND SIZE CODES. PLEASE CONTACT VALEX FOR ITEM NUMBER AVAILABILITY.

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TITLE		
<b>TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME</b>		
SPECIFICATION	SHEET	REV
SP-9200	2/9	BK

**SINGLE WALL FITTING PART NUMBER MATRIX - ASTM**

**XX**

PROCESS / ALLOY (SEE NOTE 1)

**B** = SP-9206 (201) 0S/0W/A4 (316L)  
**D** = SP-9206 (201) 2S/2W (304L)  
**E** = SP-9220 (401) 0S/0W/A4 (316L)  
**H** = SP-9207 (222) HS (HASTELLOY® C-22®)\*  
**Q** = SP-9220 (401) VS (316L)  
**RB** = SP-9206 (201) RS/RW (316L)  
**RE** = SP-9220 (401) RS/RW (316L)  
**Y** = SP-9220 (401) KS (316L)  
**YB** = SP-9206 (201) KS (316L)

**XXXX**

CONFIGURATION CODE

**2** = 90° ELBOW  
**2W** = 90° ELBOW, WLD  
**2K** = 45° ELBOW  
**2KW** = 45° ELBOW, WLD  
**7** = EQUAL TEE  
**7W** = EQUAL TEE, WLD  
**7ST** = EQUAL TEE, SHORT TANGENT  
**7STW** = EQUAL TEE, SHORT TANGENT, WLD  
**7R** = REDUCING TEE  
**7RW** = REDUCING TEE, WLD  
**7RWW** = REDUCING TEE, WLD X WLD  
**9** = EQUAL CROSS  
**9R** = REDUCING CROSS  
**16** = END CAP  
**16W** = END CAP, WLD  
**31** = CONCENTRIC REDUCER  
**31(S)** = CONCENTRIC REDUCER, SHORT TYPE  
**31W** = CONCENTRIC REDUCER, WLD X SMLS  
**31WW** = CONCENTRIC REDUCER, WLD X WLD  
**32** = ECCENTRIC REDUCER  
**32W** = ECCENTRIC REDUCER, WLD X SMLS  
**32WW** = ECCENTRIC REDUCER, WLD X WLD  
**38** = WELD NECK FLANGE W/ SMLS TUBE  
**38W** = WELD NECK FLANGE W/ WLD TUBE  
**38SE** = TUBE STUB END, SHORT  
**38LE** = TUBE STUB END, LONG  
**38PF** = TUBE PLATE FLANGE

-

**XXXXX**

SIZE CODE (SEE NOTE 2)

**.25** = 1/4" O.D. X .035" WALL  
**.25M** = 1/4" O.D. X .039" (1MM) WALL  
**.375** = 3/8" O.D. X .035" WALL  
**.375M** = 3/8" O.D. X .039" (1MM) WALL  
**.5** = 1/2" O.D. X .049" WALL  
**.75** = 3/4" O.D. X .065" WALL  
**.75M** = 3/4" O.D. X .049" WALL  
**1** = 1" O.D. X .065" WALL  
**1.5** = 1-1/2" O.D. X .065" WALL  
**2** = 2" O.D. X .065" WALL  
**2.5** = 2-1/2" O.D. X .065" WALL  
**3** = 3" O.D. X .065" WALL  
**4** = 4" O.D. X .083" WALL  
**6** = 6" O.D. X .109" WALL

**x(XXXXX)**

USED ONLY FOR  
REDUCING FITTINGS  
  
REFER TO "SIZE"  
CODE IF APPLICABLE

**- XX**

SURFACE FINISH & VISUALS

**USED ONLY FOR 401 PROCESS CODE**  
**A5** = 5µIn Ra Max, Superior Visuals  
**A7** = 7µIn Ra Max, Superior Visuals  
**B0** = 10µIn Ra Max, Standard Visuals  
**C0** = 10µIn Ra, Relaxed Visuals

*Single Wall Fitting Example 1:*

**E2-.5-B0**  
 VALEX 401 SPEC, 90° ELBOW, 1/2" O.D. X .049" WALL,  
 STANDARD VISUALS, 10 Ra MAX, 0S CHEMISTRY

*Single Wall Fitting Example 2:*

**Y7R-1X.5-A5**  
 VALEX 401 SPEC, REDUCING TEE, 1"(.065" WALL) X 1/2" (.049" WALL),  
 SUPERIOR VISUALS, 5Ra MAX, KS CHEMISTRY

**COAXIAL FITTING PART NUMBER MATRIX - ASTM**

**XX**

INNER PROCESS / ALLOY (SEE NOTE 1)

**C** = SP-9220 (401) 0S/0W (316L)  
**CB** = SP-9206 (201) 0S/0W (316L)  
**HC** = SP-9207 (222) HS (HASTELLOY® C-22®)\*  
**R** = SP-9220 (401) VS (316L)  
**RC** = SP-9220 (401) RS/RW (316L)  
**W** = SP-9220 (401) KS (316L)  
**WB** = SP-9206 (201) KS (316L)

**X**

OUTER ALLOY (SEE NOTE 1)

**BLANK** = 0S/0W (316L)  
**2** = 2S/2W (304L)  
**A** = AW (304)  
**N** = NS (316L)  
**R** = RS/RW (316L)  
**V** = VS (316L)

**XXXX**

CONFIGURATION CODE

**2** = 90° ELBOW  
**2K** = 45° ELBOW  
**7** = EQUAL TEE  
**7R** = REDUCING TEE  
**7P** = COAX PURGE TEE, MALE  
**7PF** = COAX PURGE TEE, FEMALE  
**7PFS** = COAX PURGE TEE W/ FS, MALE  
**12** = COAX SLEEVE  
**12E** = COAX SLEEVE (4=4", 5=5", 6=6")  
**14FS** = COAX FS WELD GLAND, FEMALE  
**15FS** = COAX FS WELD GLAND, MALE  
**16** = COAX TERMINATOR  
**17BH** = COAX BULKHEAD FITTING  
**31** = CONCENTRIC REDUCER

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**XXXXX**

SIZE CODE (SEE NOTE 2)

**.25** = 1/4" O.D. X .035" WALL INNER TUBE  
 1/2" O.D. X .049" WALL OUTER TUBE  
**.25M** = 1/4" O.D. X .039" (1MM) WALL INNER TUBE  
 1/2" O.D. X .049" WALL OUTER TUBE  
**.375** = 3/8" O.D. X .035" WALL INNER TUBE  
 5/8" O.D. X .049" WALL OUTER TUBE  
**.375M** = 3/8" O.D. X .039" (1MM) WALL INNER TUBE  
 5/8" O.D. X .049" WALL OUTER TUBE  
**.5** = 1/2" O.D. X .049" WALL INNER TUBE  
 3/4" O.D. X .065" WALL OUTER TUBE  
**.75** = 3/4" O.D. X .065" WALL INNER TUBE  
 1" O.D. X .065" WALL OUTER TUBE  
**.75M** = 3/4" O.D. X .049" WALL INNER TUBE  
 1" O.D. X .065" WALL OUTER TUBE  
**1** = 1" O.D. X .065" WALL INNER TUBE  
 1-1/4" O.D. X .065" WALL OUTER TUBE  
**1.5** = 1.5" O.D. X .065" WALL INNER TUBE  
 2" O.D. X .065" WALL OUTER TUBE  
**2** = 2" O.D. X .065" WALL INNER TUBE  
 2-1/2" O.D. X .065" WALL OUTER TUBE

**x(XXXXX)**

USED ONLY FOR  
REDUCING FITTINGS  
  
REFER TO "SIZE"  
CODE IF APPLICABLE

**- XX**

SURFACE FINISH & VISUALS

**USED ONLY FOR 401 PROCESS CODE**  
**A5** = 5µIn Ra Max, Superior Visuals  
**A7** = 7µIn Ra Max, Superior Visuals  
**B0** = 10µIn Ra Max, Standard Visuals  
**C0** = 10µIn Ra, Relaxed Visuals

*Coax Fitting Example:*

**C2-.25M-A5**  
 VALEX 401 SPEC, COAXIAL 90° ELBOW, 1/4" (1MM WALL) INNER,  
 1/2" (.049" WALL) OUTER, SUPERIOR VISUALS, 5 Ra MAX, 0S INNER  
 CHEMISTRY, 0S OUTER CHEMISTRY

**NOTES:**

- SEE SHEET 9 FOR BREAKDOWN OF ALLOY CHEMISTRIES AND MELT TYPE.
- SHADED COLUMNS USED ONLY FOR REDUCING FITTINGS.
- PROCESS CODES ARE NOT AVAILABLE FOR ALL ALLOY AND SIZE CODES.  
PLEASE CONTACT VALEX FOR ITEM NUMBER AVAILABILITY.

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 www.valex.com		
TITLE		
TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME		
SPECIFICATION	SHEET	REV
SP-9200	3/9	BK

**JIS PIPE PART NUMBER MATRIX**

<b>PXX</b>	<b>- XX</b>	<b>- XXXX (XXX)</b>	<b>X</b>	<b>X4</b>	<b>- XXX</b>	<b>XX</b>
<u>PROCESS CODE</u>	<u>ALLOY CODE (SEE NOTE 1)</u>	<u>SIZE CODE (SEE NOTE 2)</u>	<u>END TYPE CODE</u>	<b>USED ONLY FOR 4-METER LENGTH PIPES</b>	<u>SCHEDULE CODE</u>	<u>SURFACE FINISH &amp; VISUALS</u>
<b>P1A</b> = PER SP-9204 (101)	<b>0S</b> = 316L SEAMLESS	<b>0008</b> = 8A PIPE	<b>A</b> = SQUARE			<b>6M PIPE</b>
<b>P2A</b> = PER SP-9206 (201)	<b>0W</b> = 316L WELDED	<b>0010</b> = 10A PIPE	<b>B</b> = 32.5° BEVELED		<b>05S</b> = JIS SCH. 5	<b>A5</b> = 5µIn Ra Max, Superior Visuals
<b>P4A</b> = PER SP-9220 (401)	<b>1S</b> = 304L SEAMLESS (JIS STD)	<b>0015</b> = 15A PIPE	<b>C</b> = SQUARE, +10% / -15% WALL		<b>10S</b> = JIS SCH. 10	<b>A7</b> = 7µIn Ra Max, Superior Visuals
<b>P4O</b> = PER SP-9220 & O.D. POLISH (401)	<b>1W</b> = 304L WELDED (JIS STD)	<b>0020</b> = 20A PIPE	<b>D</b> = 32.5° BEVELED, +10% / -15% WALL		<b>4M PIPE</b>	<b>B0</b> = 10µIn Ra Max, Standard Visuals
<b>P4R</b> = PER SP-9220 & I.D./O.D. POLISH (401)	<b>AS</b> = 304 SEAMLESS	<b>0025</b> = 25A PIPE	<b>E</b> = SQUARE, LOW Ti		<b>05</b> = JIS SCH. 5	<b>C0</b> = 10µIn Ra, Relaxed Visuals
<b>P2S</b> = PER SP-9206 & I.D./O.D. POLISH (201)	<b>AW</b> = 304 WELDED	<b>0032</b> = 32A PIPE	<b>F</b> = 32.5° BEVELED, LOW Ti		<b>10</b> = JIS SCH. 10	
	<b>BS</b> = 316L SEAMLESS, VOD/VAR	<b>0040</b> = 40A PIPE	<b>G</b> = SQUARE, LOW Ti, +10% / -15% WALL			
	<b>NS</b> = 316L SEAMLESS (JIS STD)	<b>0050</b> = 50A PIPE	<b>H</b> = 32.5° BEVELED, LOW Ti, +10% / -15% WALL			
	<b>NW</b> = 316L WELDED (JIS STD)	<b>0065</b> = 65A PIPE	<b>I</b> = SQUARE, P1A BA			
	<b>RS</b> = 316L SEAMLESS	<b>0080</b> = 80A PIPE	<b>J</b> = SQUARE, +UNSPECIFIED / -20% WALL			
	<b>RW</b> = 316L WELDED	<b>0090</b> = 90A PIPE	<b>K</b> = 32.5° BEVELED, +UNSPECIFIED / -20% WALL			
		<b>0100</b> = 100A PIPE				
		<b>0125</b> = 125A PIPE				
		<b>0150</b> = 150A PIPE				
		<b>0200</b> = 200A PIPE				
		<b>0250</b> = 250A PIPE				
		<b>0300</b> = 300A PIPE				
		<b>0350</b> = 350A PIPE				
		<b>0400</b> = 400A PIPE				
		<b>0450</b> = 450A PIPE				
		<b>0500</b> = 500A PIPE				
		<b>0550</b> = 550A PIPE				
		<b>0600</b> = 600A PIPE				

USED FOR 20-FOOT AND 6-METER LENGTH PIPES	USED ONLY FOR 4-METER LENGTH PIPES
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- NOTES:**
- SEE SHEET 9 FOR BREAKDOWN OF ALLOY CHEMISTRIES AND MELT TYPE.
  - SHADED COLUMNS USED ONLY FOR 4-METER LENGTH PIPES.



TITLE		
<b>TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME</b>		
SPECIFICATION	SHEET	REV
SP-9200	4/9	BK

**JIS COAXIAL PIPE PART NUMBER MATRIX**

**CPXX**

- **XX**

- **XX**

- **XXX (XX)**

**X**

**X4**

- **XX**

INNER PROCESS CODE

OUTER ALLOY (SEE NOTE 1)

INNER ALLOY (SEE NOTE 1)

SIZE CODE - INNER (SEE NOTE 2)

END TYPE CODE

**USED ONLY FOR 4-METER LENGTH PIPES**

SURFACE FINISH & VISUALS

**USED ONLY FOR 401 PROCESS CODE**

**CP1A** = PER SP-9204 (101)  
**CP2A** = PER SP-9206 (201)  
**CP4A** = PER SP-9220 (401)

**S** = 316L 0S SEAMLESS  
**W** = 316L 0S WELDED  
**AS** = 304 SEAMLESS  
**AW** = 304 WELDED  
**NS** = 316L SEAMLESS (ASTM STD)  
**RS** = 316L SEAMLESS  
**RW** = 316L WELDED (JIS STD)

**0S** (or BLANK) = 316L Seamless  
**0W** = 316L WELDED  
**1S** = 304L SEAMLESS (JIS STD)  
**1W** = 304L WELDED (JIS STD)  
**NS** = 316L SEAMLESS (ASTM STD)  
**NW** = 316L WELDED (ASTM STD)  
**RS** = 316L SEAMLESS  
**RW** = 316L WELDED

**008**    **08**    = 8A PIPE  
**010**    **10**    = 10A PIPE  
**015**    **15**    = 15A PIPE  
**020**    **20**    = 20A PIPE  
**025**    **25**    = 25A PIPE  
**032**    **32**    = 32A PIPE

**USED FOR 20-FOOT AND 6-METER LENGTH PIPES**

**USED ONLY FOR 4-METER LENGTH PIPES**

**A** = SQUARE  
**B** = 32.5° BEVELED  
**C** = SQUARE, +10% / -15% WALL  
**D** = 32.5° BEVELED, +10% / -15% WALL  
**J** = SQUARE, +UNSPECIFIED / -20% WALL  
**K** = 32.5° BEVELED, +UNSPECIFIED / -20% WALL

**A5** = 5µIn Ra Max, Superior Visuals  
**A7** = 7µIn Ra Max, Superior Visuals  
**B0** = 10µIn Ra Max, Standard Visuals  
**C0** = 10µIn Ra, Relaxed Visuals

**NOTES:**

- SEE SHEET 9 FOR BREAKDOWN OF ALLOY CHEMISTRIES AND MELT TYPE.
- SHADED COLUMNS USED ONLY FOR 4-METER LENGTH PIPES.
- PROCESS CODES ARE NOT AVAILABLE FOR ALL ALLOY AND SIZE CODES. PLEASE CONTACT VALEX FOR ITEM NUMBER AVAILABILITY.



TITLE

**TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME**

SPECIFICATION

**SP-9200**

SHEET  
5/9

REV  
BK

**SINGLE WALL FITTING PART NUMBER MATRIX - JIS**

**XX**

PROCESS / ALLOY (SEE NOTE 1)  
**JA** = SP-9204 (101) AS/AW (304)  
**JB** = SP-9206 (201) RS/RW (316L)  
**JD** = SP-9206 (201) AS/AW (304)  
**JE** = SP-9220 (401) RS/RW (316L)

**XXXXX**

CONFIGURATION CODE  
**2(S)** = 90° ELBOW, SHORT RADIUS  
**2(L)** = 90° ELBOW, LONG RADIUS  
**2W(S)** = 90° ELBOW, SHORT RADIUS, WLD  
**2W(L)** = 90° ELBOW, LONG RADIUS, WLD  
**2K** = 45° ELBOW  
**2KW** = 45° ELBOW, WLD  
**2(SS)** = 90° ELBOW, SHORT, JIS B2312  
**2(LS)** = 90° ELBOW, LONG, JIS B2312  
**2W(SS)** = 90° ELBOW, SHORT, JIS B2313, WLD  
**2W(LS)** = 90° ELBOW, LONG, JIS B2313, WLD  
**2K(LS)** = 45° ELBOW, LONG, JIS B2312  
**2KW(LS)** = 45° ELBOW, LONG, JIS B2313, WLD  
**7** = EQUAL TEE  
**7W** = EQUAL TEE, WLD  
**7R** = REDUCING TEE  
**7RW** = REDUCING TEE, WLD  
**7RWW** = REDUCING TEE, WLD X WLD  
**7RN** = REDUCING TEE, NO RISER  
**7S** = EQUAL TEE, JIS B2312 / B2313  
**7RS** = REDUCING TEE, JIS B2312 / B2313  
**7RSN** = REDUCING TEE, JIS B2312 / B2313, NO RISER  
**16** = END CAP  
**16W** = END CAP, WLD  
**31** = CONC REDUCER  
**31W** = CONC REDUCER, WLD X SMLS  
**31WW** = CONC REDUCER, WLD X WLD  
**31FF** = CONC REDUCER, FORMED, NO TANGENT  
**31FS** = CONC REDUCER, NO TANGENT LARGE, SMALL TANGENT SMLS  
**31SF** = CONC REDUCER, LARGE TANGENT SMLS, NO TANGENT SMALL  
**31FW** = CONC REDUCER, NO TANGENT LARGE, SMALL TANGENT WLD  
**31WF** = CONC REDUCER, LARGE TANGENT WLD, NO TANGENT SMALL  
**33** = CONC REDUCER, CAP TYPE  
**33FF** = CAP REDUCER, FORMED, NO TANGENT  
**33FS** = CAP REDUCER, NO TANGENT LARGE, SMALL TANGENT SMLS  
**33SF** = CAP REDUCER, LARGE TANGENT SMLS, NO TANGENT SMALL  
**33FW** = CAP REDUCER, NO TANGENT LARGE, SMALL TANGENT WLD  
**33WF** = CAP REDUCER, LARGE TANGENT WLD, NO TANGENT SMALL  
**38BF** = BLANK FLANGE  
**38L** = LAP JOINT STUB END, JIS  
**38LJ** = LAP JOINT FLANGE  
**38WN** = WELD NECK FLANGE

**- XXXX**

SIZE CODE (SEE NOTE 2)  
**8** = 8A PIPE  
**10** = 10A PIPE  
**15** = 15A PIPE  
**20** = 20A PIPE  
**25** = 25A PIPE  
**32** = 32A PIPE  
**40** = 40A PIPE  
**50** = 50A PIPE  
**65** = 65A PIPE  
**80** = 80A PIPE  
**90** = 90A PIPE  
**100** = 100A PIPE  
**125** = 125A PIPE  
**150** = 150A PIPE  
**200** = 200A PIPE  
**250** = 250A PIPE  
**300** = 300A PIPE  
**350** = 350A PIPE  
**400** = 400A PIPE  
**450** = 450A PIPE  
**500** = 500A PIPE  
**550** = 550A PIPE  
**600** = 600A PIPE  
**.25** = 1/4" O.D. X .035" WALL  
**.25M** = 1/4" O.D. X .039" (1MM) WALL  
**.38** = 3/8" O.D. X .035" WALL  
**.38M** = 3/8" O.D. X .039" (1MM) WALL  
**.5** = 1/2" O.D. X .049" WALL  
**.75** = 3/4" O.D. X .065" WALL  
**.75M** = 3/4" O.D. X .049" WALL  
**1** = 1" O.D. X .065" WALL  
**1.5** = 1-1/2" O.D. X .065" WALL  
**2** = 2" O.D. X .065" WALL  
**2.5** = 2-1/2" O.D. X .065" WALL  
**3** = 3" O.D. X .065" WALL  
**4** = 4" O.D. X .083" WALL  
**6** = 6" O.D. X .109" WALL

**X**

END TYPE CODE  
**A** = SQUARE  
**B** = 32.5° BEVELED  
**C** = SQUARE,  
 +10% / -15% WALL  
**D** = 32.5° BEVELED,  
 +10% / -15% WALL  
**E** = SQUARE, LOW TI  
**F** = 32.5° BEVELED, LOW TI  
**G** = SQUARE, LOW TI,  
 +10% / -15% WALL  
**H** = 32.5° BEVELED, LOW TI,  
 +10% / -15% WALL  
**J** = SQUARE,  
 +UNSPECIFIED / -20% WALL  
**K** = 32.5° BEVELED,  
 +UNSPECIFIED / -20% WALL  
FLANGE TYPE CODE  
**S** = JIS 5K  
**T** = JIS 10K

**X**

SCHEDULE  
**BLANK** = 5S  
**T** = 10S  
FACE-TYPE  
(FLANGE ONLY)  
**1** = FULL FACE  
**2** = RAISED FACE  
**3** = GROOVED FACE

**x(XXXX)**  
 USED ONLY FOR REDUCING FITTINGS  
 REFER TO "SIZE", "END TYPE" & "SCHEDULE" CODES IF APPLICABLE

**- XX**

SURFACE FINISH & VISUALS  
**USED ONLY FOR 401 PROCESS CODE**  
**A5** = 5µln Ra Max, Superior Visuals  
**A7** = 7µln Ra Max, Superior Visuals  
**B0** = 10µln Ra Max, Standard Visuals  
**C0** = 10µln Ra, Relaxed Visuals

*Single Wall Fitting Example 1:*  
**JE2S-150AT-B0**  
 VALEX 401 SPEC, 90° ELBOW (SHORT TYPE), 150A PIPE,  
 SCHEDULE 10, SQUARED ENDS, STANDARD VISUALS, 10 Ra MAX

*Single Wall Fitting Example 2:*  
**JB7R-80AX20A**  
 VALEX 201 SPEC, REDUCING TEE, 80A PIPE X 20A PIPE,  
 SCHEDULE 5, SQUARED ENDS, NO EP.

**COAXIAL FITTING PART NUMBER MATRIX - JIS**

**XX**

INNER PROCESS / ALLOY (SEE NOTE 1)  
**JC** = SP-9220 (401) RS/RW (316L)

**X**

OUTER ALLOY (SEE NOTE 1)  
**BLANK** = 0S/0W (316L)  
**2** = 2S/2W (304L)  
**A** = AW (304)  
**N** = NS (316L)  
**R** = RS/RW (316L)

**XXXXX**

CONFIGURATION CODE  
**2** = 90° ELBOW  
**2K** = 45° ELBOW  
**7** = EQUAL TEE  
**7R** = REDUCING TEE  
**7P** = COAX PURGE TEE, MALE  
**7PF** = COAX PURGE TEE, FEMALE  
**7PFS** = COAX PURGE TEE W/ FS, MALE  
**12** = COAX SLEEVE  
**14FS** = COAX FS WELD GLAND, FEMALE  
**15FS** = COAX FS WELD GLAND, MALE  
**16** = COAX TERMINATOR  
**17BH** = COAX BULKHEAD FITTING  
**31** = CONCENTRIC REDUCER

**- XXXX**

SIZE CODE (SEE NOTE 2)  
**10** = 10A X SCHEDULE 5 INNER PIPE  
 20A X SCHEDULE 5 OUTER PIPE  
**15** = 15A X SCHEDULE 5 INNER PIPE  
 25A X SCHEDULE 5 OUTER PIPE  
**20** = 20A X SCHEDULE 5 INNER PIPE  
 32A X SCHEDULE 5 OUTER PIPE  
**25** = 25A X SCHEDULE 5 INNER PIPE  
 40A X SCHEDULE 5 OUTER PIPE  
**32** = 32A X SCHEDULE 5 INNER PIPE  
 40A X SCHEDULE 5 OUTER PIPE

**X**

END TYPE CODE  
**A** = SQUARE  
**B** = 32.5° BEVELED  
**C** = SQUARE,  
 +10% / -15% WALL  
**D** = 32.5° BEVELED,  
 +10% / -15% WALL  
**J** = SQUARE,  
 +UNSPECIFIED / -20% WALL  
**K** = 32.5° BEVELED,  
 +UNSPECIFIED / -20% WALL

**x(XXX)**


USED ONLY FOR REDUCING FITTINGS  
 REFER TO "SIZE", "END TYPE" CODES IF APPLICABLE

**- XX**

SURFACE FINISH & VISUALS  
**USED ONLY FOR 401 PROCESS CODE**  
**A5** = 5µln Ra Max, Superior Visuals  
**A7** = 7µln Ra Max, Superior Visuals  
**B0** = 10µln Ra Max, Standard Visuals  
**C0** = 10µln Ra, Relaxed Visuals

*Coax Fitting Example:*  
**JC2-25A-A5**  
 VALEX 401 SPEC, COAXIAL 90° ELBOW, 25A (SCH 5) INNER,  
 40A (SCH 5) OUTER, SQUARED ENDS, SUPERIOR VISUALS, 5 Ra MAX,  
 RS INNER CHEMISTRY, 0W OUTER CHEMISTRY

- NOTES:**
- SEE SHEET 9 FOR BREAKDOWN OF ALLOY CHEMISTRIES AND MELT TYPE.
  - SHADED COLUMNS USED ONLY FOR REDUCING FITTINGS.
  - PROCESS CODES ARE NOT AVAILABLE FOR ALL ALLOY AND SIZE CODES. PLEASE CONTACT VALEX FOR ITEM NUMBER AVAILABILITY.

 www.valex.com		
TITLE		
TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME		
SPECIFICATION SP-9200	SHEET 6/9	REV BK

**TUBE & PIPE PART NUMBER MATRIX - CFOS AND LDEP PRODUCT LINES**

<b>XX</b>	<b>- XXXXX</b>		<b>X</b>	<b>X</b>	<b>XXXX</b>	<b>- XXXX</b>
<b>PROCESS / ALLOY (SEE NOTE 1)</b>	<b>SIZE CODE:</b>		<b>END TYPE CODE:</b>		<b>WALL CODE</b>	<b>FINISH CODE</b>
<b>CS</b> = 316L SEAMLESS	<b>ASTM TUBE</b>	<b>JIS &amp; NPS PIPE</b>	<b>ASTM TUBE</b>		<b>TUBE WALL</b>	<b>PIPE SCHEDULE</b>
<b>CW</b> = 316L WELDED	1/4 = .25" DIA	25 = DN 25 (JIS 25A)	<b>BLANK</b> = SQUARE		.035 = .035" THICK	5S = SCH. 5
<b>DS</b> = 304L SEAMLESS	3/8 = .375" DIA	32 = DN 32 (JIS 32A)			.039 = .039" THICK	10S = SCH. 10
<b>DW</b> = 304L WELDED	1/2 = .5" DIA	40 = DN 40 (JIS 40A)	<b>JIS PIPE:</b>		.049 = .049" THICK	40S = SCH. 40
<b>AS</b> = 304 SEAMLESS	3/4 = .75" DIA	50 = DN 50 (NPS 2 / JIS 50A)	<b>A</b> = SQUARE		.065 = .065" THICK	80S = SCH. 80
<b>AW</b> = 304 WELDED	1 = 1" DIA	65 = DN 65 (NPS 2-1/2 / JIS 65A)	<b>B</b> = BEVELED		.083 = .083" THICK	
	1-1/2 = 1.5" DIA	80 = DN 80 (NPS 3 / JIS 80A)	<b>J</b> = SQUARE,		.109 = .109" THICK	
	2 = 2" DIA	90 = DN 90 (NPS 3-1/2 / JIS 90A)	-20% WALL			
	2-1/2 = 2.5" DIA	100 = DN 100 (NPS 4 / JIS 100A)	<b>K</b> = BEVELED,			
	3 = 3" DIA	125 = DN 125 (NPS 5 / JIS 125A)	-20% WALL			
	4 = 4" DIA	150 = DN 150 (NPS 6 / JIS 150A)				
	6 = 6" DIA	200 = DN 200 (NPS 8 / JIS 200A)	<b>NPS PIPE:</b>			
		250 = DN 250 (NPS 10 / JIS 250A)	<b>L</b> = SQUARE			
		300 = DN 300 (NPS 12 / JIS 300A)	<b>M</b> = BEVELED			
		350 = DN 350 (NPS 14 / JIS 350A)	<b>N</b> = SQUARE,			
		400 = DN 400 (NPS 16 / JIS 400A)	-20% WALL			
		450 = DN 450 (NPS 18 / JIS 450A)	<b>P</b> = BEVELED,			
		500 = DN 500 (NPS 20 / JIS 500A)	-20% WALL			
		550 = DN 550 (NPS 22 / JIS 550A)				
		600 = DN 600 (NPS 24 / JIS 600A)				
		650 = DN 650 (JIS 650A)				
		700 = DN 700 (JIS 700A)				
		750 = DN 750 (NPS 30 / JIS 750A)				

NPS Pipe Example:  
**DW-250LX20S-BA40**  
 VALEX CFOS SPEC PIPE, 304L WELDED, NPS 10 (DN 250) X SCH 20, BA FINISH OPTION WITH 40 Ra, SQUARED ENDS

ASTM Tube Example:  
**CS-1/2X.049-BA**  
 VALEX CFOS SPEC TUBE, 316L SEAMLESS, 1/2" O.D. X .049" WALL, BA FINISH OPTION, SQUARED ENDS

JIS Pipe Example:  
**AW-250BX10S-AP**  
 VALEX CFOS SPEC PIPE, 304 WELDED, JIS SIZE 250A X SCH 10, AP FINISH OPTION, BEVELED ENDS

- NOTES:**
1. PER VALEX SPECIFICATION SP-9234 (CFOS) AND SP-9235 (LDEP).
  2. PROCESS CODES ARE NOT AVAILABLE FOR ALL SIZE AND FINISH CODES. PLEASE CONTACT VALEX FOR ITEM NUMBER AVAILABILITY.

 <a href="http://www.valex.com">www.valex.com</a>		
<b>TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME</b>		
SPECIFICATION <b>SP-9200</b>	SHEET <b>7/9</b>	REV. <b>BK</b>

**FITTING PART NUMBER MATRIX - CFOS AND LDEP PRODUCT LINES**

**XX**

ALLOY  
(SEE NOTE 1)  
AF = 304  
CF = 316L  
DF = 304L

**XXXXX**

CONFIGURATION CODE  
**2S** = 90° ELBOW, SHORT RADIUS  
**2L** = 90° ELBOW, LONG RADIUS  
**2WS** = 90° ELBOW, SHORT RADIUS, WLD  
**2WL** = 90° ELBOW, LONG RADIUS, WLD  
**2K** = 45° ELBOW  
**2KW** = 45° ELBOW, WLD  
**2SS** = 90° ELBOW, SHORT, ASME B16.9 / JIS B2312  
**2LS** = 90° ELBOW, LONG, ASME B16.9 / JIS B2312  
**2WSS** = 90° ELBOW, SHORT, ASME B16.9 / B2313, WLD  
**2WLS** = 90° ELBOW, LONG, ASME B16.9 / B2313, WLD  
**2KLS** = 45° ELBOW, LONG, ASME B16.9 / JIS B2312  
**2KWLS** = 45° ELBOW, LONG, ASME B16.9 / B2313, WLD  
**7** = EQUAL TEE  
**7W** = EQUAL TEE, WLD  
**7ST** = EQUAL TEE, SHORT TANGENT  
**7STW** = EQUAL TEE, SHORT TANGENT, WLD  
**7R** = REDUCING TEE  
**7RW** = REDUCING TEE, WLD  
**7RWW** = REDUCING TEE, WLD X WLD  
**7S** = EQUAL TEE, JIS B2312 / B2313  
**7RS** = REDUCING TEE, JIS B2312 / B2313  
**9** = EQUAL CROSS  
**9R** = REDUCING CROSS  
**16** = END CAP  
**16W** = END CAP, WLD  
**31** = CONC REDUCER  
**31T** = CONC REDUCER, TRANSITIONAL  
**31W** = CONC REDUCER, WLD X SMLS  
**31WW** = CONC REDUCER, WLD X WLD  
**31FF** = CONC REDUCER, FORMED  
**32** = ECCENTRIC REDUCER  
**33** = CONC REDUCER, CAP TYPE  
**38BF** = BLIND / BLANK FLANGE  
**38L** = LAP JOINT STUB END, JIS  
**38LA** = LAP JOINT STUB END, LONG PATTERN, TYPE "A", ASME B16.9  
**38SA** = LAP JOINT STUB END, SHORT PATTERN, TYPE "A", ASME B16.9  
**38LJ** = LAP JOINT FLANGE  
**38WN** = WELD NECK FLANGE

**- XX**

SIZE CODE (SEE NOTE 2)

<u>ASTM TUBE</u>	<u>JIS &amp; NPS PIPE</u>
04 = .25" DIA	70 = DN 15 (NPS 1/2 / JIS 15A)
06 = .375" DIA	71 = DN 20 (NPS 3/4 / JIS 20A)
08 = .5" DIA	72 = DN 25 (NPS 1 / JIS 25A)
12 = .75" DIA	73 = DN 32 (NPS 1-1/4 / JIS 32A)
16 = 1" DIA	74 = DN 40 (NPS 1-1/2 / JIS 40A)
24 = 1.5" DIA	75 = DN 50 (NPS 2 / JIS 50A)
32 = 2" DIA	76 = DN 65 (NPS 2-1/2 / JIS 65A)
40 = 2.5" DIA	77 = DN 80 (NPS 3 / JIS 80A)
48 = 3" DIA	78 = DN 90 (NPS 3-1/2 / JIS 90A)
64 = 4" DIA	79 = DN 100 (NPS 4 / JIS 100A)
96 = 6" DIA	80 = DN 125 (NPS 5 / JIS 125A)
	81 = DN 150 (NPS 6 / JIS 150A)
	82 = DN 200 (NPS 8 / JIS 200A)
	83 = DN 250 (NPS 10 / JIS 250A)
	84 = DN 300 (NPS 12 / JIS 300A)
	85 = DN 350 (NPS 14 / JIS 350A)
	86 = DN 400 (NPS 16 / JIS 400A)
	87 = DN 450 (NPS 18 / JIS 450A)
	88 = DN 500 (NPS 20 / JIS 500A)
	89 = DN 550 (NPS 22 / JIS 550A)
	90 = DN 600 (NPS 24 / JIS 600A)

*Fitting Example 1:*  
**AF7RWW-82MT75MT-2**

VALEX CFOS SPEC, REDUCING TEE, NPS 8" X NPS 2" PIPE, SCHEDULE 10, BEVELED ENDS, BA GRADE

*Fitting Example 2:*

**CF2KW-79M-3**  
VALEX CFOS SPEC, 45° ELBOW, NPS 4" PIPE, SCHEDULE 5, BA GRADE, 40 Ra

**X**

TYPE CODE

ASTM TUBE:  
BLANK = SQUARE  
  
JIS PIPE:  
A = SQUARE  
B = BEVELED  
J = SQUARE, -20% WALL  
K = BEVELED, -20% WALL  
  
NPS PIPE:  
L = SQUARE  
M = BEVELED  
N = SQUARE, -20% WALL  
P = BEVELED, -20% WALL  
  
FLANGE TYPE:  
Q = B16.5, CLASS 150  
R = B16.5, CLASS 300  
S = JIS B2220, 5K  
T = JIS B2220, 10K

**X**

WALL CODE

ASTM TUBE:  
B = .035" WALL  
C = .039" WALL  
D = .049" WALL  
F = .065" WALL  
G = .083" WALL  
J = .109" WALL  
  
JIS & NPS PIPE:  
BLANK = 5S  
T = 10S  
V = 40S  
W = 80S  
  
FACE TYPE  
(FLANGE ONLY):  
1 = FLAT / FULL FACE  
2 = RAISED FACE  
3 = GROOVED FACE

**(XXXX)**

USED ONLY FOR REDUCING FITTINGS  
REFER TO "SIZE", "TYPE" & "WALL" CODES IF APPLICABLE

**- X**

FINISH CODE

BLANK = NO FINISH REQUIREMENT  
1 = CFOS, O.D.=AP, I.D.=AP  
2 = CFOS, O.D.=BA, I.D.=BA 200 Ra MAX  
3 = CFOS, O.D.=BA, I.D.=40 Ra BA  
4 = LDEP, O.D.=BA, I.D.=EP 20 Ra Ave / 25 Ra MAX  
5 = CFOS, O.D.=AP, I.D.=40 Ra BA  
6 = CFOS, O.D.=AP, I.D.=BA 200 Ra MAX

**NOTES:**

- PER VALEX SPECIFICATION SP-9234 (CFOS) AND SP-9235 (LDEP).
- SHADED COLUMNS USED ONLY FOR REDUCING FITTINGS.
- PROCESS CODES ARE NOT AVAILABLE FOR ALL ALLOY AND SIZE CODES. PLEASE CONTACT VALEX FOR ITEM NUMBER AVAILABILITY.



TITLE <b>TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME</b>		
SPECIFICATION <b>SP-9200</b>	SHEET <b>8/9</b>	REV <b>BK</b>



**CHEMISTRY CODE MATRIX**

Unit : wt%

Tube Identifier	Fitting Identifier	Coax Fitting Identifier (Inner)	Seamless / Welded	Melt Type	Standard	Grade	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	
REFERENCE					ASTM A269	TP 304	0.080 max	1.00 max	2.00 max	0.045 max	0.030 max	8.0 - 11.0	18.0 - 20.0	-	-	-	
					ASTM A269	TP 304L	0.035 max <sup>2</sup>	1.00 max	2.00 max	0.045 max	0.030 max	8.0 - 12.0	18.0 - 20.0	-	-	-	
					ASTM A269	TP 316L	0.035 max <sup>2</sup>	1.00 max	2.00 max	0.045 max	0.030 max	10.0 - 15.0	16.0 - 18.0	2.00 - 3.00	-	-	-
					ASTM A312	TP 304	0.080 max	1.00 max	2.00 max	0.045 max	0.030 max	8.0 - 11.0	18.0 - 20.0	-	-	-	
					ASTM A312	TP 304L	0.035 max	1.00 max	2.00 max	0.045 max	0.030 max	8.0 - 13.0	18.0 - 20.0	-	-	-	
					ASTM A312	TP 316L	0.035 max	1.00 max	2.00 max	0.045 max	0.030 max	10.0 - 14.0	16.0 - 18.0	2.00 - 3.00	-	-	-
					ASTM A276 / A479	S31603 (316L)	0.030 max	1.00 max	2.00 max	0.045 max	0.030 max	10.0 - 14.0	16.0 - 18.0	2.00 - 3.00	-	-	-
					ASTM A632	TP 304	0.080 max	0.75 max	2.00 max	0.045 max	0.030 max	8.0 - 11.0	18.0 - 20.0	-	-	-	-
					ASTM A632	TP 304L	0.030 max	0.75 max	2.00 max	0.045 max	0.030 max	8.0 - 13.0	18.0 - 20.0	-	-	-	-
					ASTM A632	TP 316L	0.030 max	1.00 max <sup>3</sup>	2.00 max	0.045 max	0.030 max	10.0 - 15.0	16.0 - 18.0	2.00 - 3.00	-	-	-
					ASTM A774	TP 304L	0.030 max	1.00 max	2.00 max	0.045 max	0.030 max	8.0 - 12.0	18.0 - 20.0	-	-	-	-
					ASTM A774	TP 316L	0.030 max	1.00 max	2.00 max	0.045 max	0.030 max	10.0 - 14.0	16.0 - 18.0	2.00 - 3.00	-	-	-
					JIS G3459	SUS304TP	0.080 max	1.00 max	2.00 max	0.045 max	0.030 max	8.0 - 11.0	18.0 - 20.0	-	-	-	-
					JIS G3459	SUS304LTP	0.030 max	1.00 max	2.00 max	0.045 max	0.030 max	9.0 - 13.0	18.0 - 20.0	-	-	-	-
					JIS G3459	SUS316LTP	0.030 max	1.00 max	2.00 max	0.045 max	0.030 max	12.0 - 16.0	16.0 - 18.0	2.00 - 3.00	-	-	-
					JIS G3468	SUS304	0.080 max	1.00 max	2.00 max	0.045 max	0.030 max	8.0 - 10.5	18.0 - 20.0	-	-	-	-
					JIS G3468	SUS304L	0.030 max	1.00 max	2.00 max	0.045 max	0.030 max	9.0 - 13.0	18.0 - 20.0	-	-	-	-
					JIS G3468	SUS316L	0.030 max	1.00 max	2.00 max	0.045 max	0.030 max	12.0 - 15.0	16.0 - 18.0	2.00 - 3.00	-	-	-


*Exceptions to Standard Chemistry*

0S	E, B	C, CB	Seamless	AOD or VOD	A269 <sup>1</sup>	316L	-	-	-	-	0.005 - 0.012	-	-	-	-	-
0W	E, B	C, CB	Welded	AOD or VOD	A269 <sup>1</sup>	316L	-	-	-	-	0.005 - 0.017	-	-	-	-	-
1S	DF <sup>4</sup>	-	Seamless	AOD or VOD	G3459 / G3468 / A312	304L	-	-	-	-	-	-	-	-	-	-
1W	DF <sup>4</sup>	-	Welded	AOD or VOD	G3459 / G3468 / A312	304L	-	-	-	-	-	-	-	-	-	-
2S	D	-	Seamless	AOD or VOD	A269 <sup>1</sup>	304L	-	-	-	-	0.005 - 0.012	-	-	-	-	-
2W	D	-	Welded	AOD or VOD	A269 <sup>1</sup>	304L	-	-	-	-	0.005 - 0.017	-	-	-	-	-
3S	-	-	Seamless	AOD or VOD	A269 <sup>1</sup> / A312	304L	-	-	-	-	0.010 max	-	-	-	-	-
3W	-	-	Welded	AOD or VOD	A269 <sup>1</sup> / A312	304L	-	-	-	-	0.010 max	-	-	-	-	-
A4	E, B	C	N/A	AOD	A276 / A479	316L	-	-	-	-	-	-	-	-	-	-
AS	AF, JD, JA	-	Seamless	AOD or VOD	G3459 / G3468 / A269 <sup>1</sup> / A312	304	-	-	-	-	-	-	-	-	-	-
AW	AF, JD, JA	-	Welded	AOD or VOD	G3459 / G3468 / A269 <sup>1</sup> / A312	304	-	-	-	-	-	-	-	-	-	-
BS	-	-	Seamless	VOD/VAR	G3459	316L	0.02 max	0.30 max	0.40 max	0.040 max	0.003 max	12.0 - 15.0	-	-	-	-
HS	H	HC	Seamless	AOD	B622	* Hastelloy® C-22®	-	-	-	-	-	-	-	-	-	-
KS	Y, YB	W, WB	Seamless	VIM/VAR	G3459 / A269 <sup>1</sup>	316L	0.02 max	0.20 max	0.05 max	0.040 max	0.002 max	14.5 - 16.0	-	2.20 - 3.00	0.15 max	0.010 max
NS	CF <sup>4</sup>	-	Seamless	AOD or VOD	G3459 / A269 <sup>1</sup> / A312	316L	-	-	-	-	-	-	-	-	-	-
NW	CF <sup>4</sup>	-	Welded	AOD or VOD	G3459 / A269 <sup>1</sup> / A312	316L	-	-	-	-	-	-	-	-	-	-
QS	-	-	Seamless	AOD or VOD	A269 <sup>1</sup> / A312	316L	-	-	-	-	0.010 max	-	-	-	-	-
QW	-	-	Welded	AOD or VOD	A269 <sup>1</sup> / A312	316L	-	-	-	-	0.010 max	-	-	-	-	-
RS	RE, RB, JE, JB	JC, RC	Seamless	AOD or VOD	G3459 / G3468	316L	0.025 max	0.60 max	0.80 max	0.040 max	0.005 max	12.0 - 15.0	-	-	-	-
RW	RE, RB, JE, JB	JC, RC	Welded	AOD or VOD	G3459 / G3468	316L	-	-	-	-	0.010 max	-	-	-	-	-
VS	Q	R	Seamless	VIM/VAR	A269 <sup>1</sup>	316L	0.02 max	0.20 max	0.05 max	0.040 max	0.002 max	14.5 - 16.0	-	2.20 - 3.00	0.15 max	0.010 max

**NOTES:**

- 1) For tube sizes 1/2" and greater, the ASTM reference is A269. For tube sizes less than 1/2", the ASTM reference is A632.
- 2) For tube sizes less than 1/2", a carbon maximum of 0.040% is allowed in ASTM A269 grades 304L and 316L.
- 3) For ASTM A632 welded 316L grade tubes, the maximum silicon allowed is 0.75%.
- 4) Special Pipe X Tube Fittings may have chemistry per A774 pipe connections.

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TITLE:  
**TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME**

SPECIFICATION <b>SP-9200</b>	SHEET <b>9/9</b>	REV <b>BK</b>
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