

**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						

<b>USED FOR 20-FOOT AND 6-METER LENGTH TUBES</b>	<b>USED ONLY FOR 4-METER LENGTH TUBES</b>
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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	BL

**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  
**VS** = 316L SEAMLESS VIM/VAR

SIZE CODE - INNER (SEE NOTE 3)

SIZE CODE	INNER	DIAMETER
.25	.25	= .25" DIA
.25M	.25M	= .25" DIA (1MM WALL)
.375	.38	= .375" DIA
.375M	.38M	= .375" DIA (1MM WALL)
.5	.5	= .5" DIA
.75	.75	= .75" DIA
.75M	.75M	= .75" DIA (.049" WALL)
1	1	= 1" DIA
1.5	1.5	= 1.5" DIA
2	2	= 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		
TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME		
SPECIFICATION	SHEET	REV
SP-9200	2/9	BL

**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

-

**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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TITLE TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME		
SPECIFICATION	SHEET	REV
SP-9200	3/9	BL

**JIS PIPE PART NUMBER MATRIX**

<b>PXX</b>	-	<b>XX</b>	-	<b>XXXX</b>	<b>(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>1S</b> = 304L SEAMLESS (JIS STD)		<b>0008</b>	<b>008</b> = 8A PIPE	<b>A</b> = SQUARE				<b>6M PIPE</b>	<b>USED ONLY FOR 401 PROCESS CODE</b>
<b>P2A</b> = PER SP-9206 (201)		<b>1W</b> = 304L WELDED (JIS STD)		<b>0010</b>	<b>010</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>AS</b> = 304 SEAMLESS		<b>0015</b>	<b>015</b> = 15A PIPE	<b>C</b> = SQUARE,				<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>AW</b> = 304 WELDED		<b>0020</b>	<b>020</b> = 20A PIPE	+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>BS</b> = 316L SEAMLESS, VOD/VAR		<b>0025</b>	<b>025</b> = 25A PIPE	<b>D</b> = 32.5° BEVELED,				<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>NS</b> = 316L SEAMLESS (JIS STD)		<b>0032</b>	<b>032</b> = 32A PIPE	+10% / -15% WALL				<b>10</b> = JIS SCH. 10	
		<b>NW</b> = 316L WELDED (JIS STD)		<b>0040</b>	<b>040</b> = 40A PIPE	<b>E</b> = SQUARE, LOW Ti					
		<b>RS</b> = 316L SEAMLESS		<b>0050</b>	<b>050</b> = 50A PIPE	<b>F</b> = 32.5° BEVELED, LOW Ti					
		<b>RW</b> = 316L WELDED		<b>0065</b>	<b>065</b> = 65A PIPE	<b>G</b> = SQUARE, LOW Ti,					
				<b>0080</b>	<b>080</b> = 80A PIPE	+10% / -15% WALL					
				<b>0090</b>	<b>090</b> = 90A PIPE	<b>H</b> = 32.5° BEVELED, LOW Ti,					
				<b>0100</b>	<b>100</b> = 100A PIPE	+10% / -15% WALL					
				<b>0125</b>	<b>125</b> = 125A PIPE	<b>I</b> = SQUARE, P1A BA					
				<b>0150</b>	<b>150</b> = 150A PIPE	<b>J</b> = SQUARE,					
				<b>0200</b>	<b>200</b> = 200A PIPE	+UNSPECIFIED / -20% WALL					
				<b>0250</b>	<b>250</b> = 250A PIPE	<b>K</b> = 32.5° BEVELED,					
				<b>0300</b>	<b>300</b> = 300A PIPE	+UNSPECIFIED / -20% WALL					
				<b>0350</b>	<b>350</b> = 350A PIPE						
				<b>0400</b>	<b>400</b> = 400A PIPE						
				<b>0450</b>	<b>450</b> = 450A PIPE						
				<b>0500</b>	<b>500</b> = 500A PIPE						
				<b>0550</b>	<b>550</b> = 550A PIPE						
				<b>0600</b>	<b>600</b> = 600A PIPE						
				<b>0650</b>	<b>650</b> = 650A PIPE						
				<b>0700</b>	<b>700</b> = 700A PIPE						
				<b>0750</b>	<b>750</b> = 750A PIPE						
				<b>0800</b>	<b>800</b> = 800A 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.



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

**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

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

**AS** = 304 SEAMLESS  
**AW** = 304 WELDED  
**NS** = 316L SEAMLESS (JIS STD)  
**NW** = 316L WELDED (JIS STD)  
**RS** = 316L SEAMLESS  
**RW** = 316L WELDED

**1S** = 304L SEAMLESS (JIS STD)  
**1W** = 304L WELDED (JIS STD)  
**NS** = 316L SEAMLESS (JIS STD)  
**NW** = 316L WELDED (JIS STD)  
**RS** = 316L SEAMLESS  
**RW** = 316L WELDED

<b>008</b>	<b>08</b>	= 8A PIPE, SCH. 5
<b>010</b>	<b>10</b>	= 10A PIPE, SCH. 5
<b>015</b>	<b>15</b>	= 15A PIPE, SCH. 5
<b>020</b>	<b>20</b>	= 20A PIPE, SCH. 5
<b>025</b>	<b>25</b>	= 25A PIPE, SCH. 5
<b>032</b>	<b>32</b>	= 32A PIPE, SCH. 5

<b>USED FOR 20-FOOT AND 6-METER LENGTH PIPES</b>	<b>USED ONLY FOR 4-METER LENGTH PIPES</b>
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**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

**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.
- 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	SHEET	REV
SP-9200	5/9	BL

**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  
**650** = 650A PIPE  
**700** = 700A PIPE  
**750** = 750A PIPE  
**800** = 800A 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 .085" 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** = SS  
**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** = 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:*  
**JE25-150AT-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)  
**1** = 1S/1W (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** = 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:*  
**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, OW 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	SHEET	REV
SP-9200	6/9	BL

**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>CW</b> = 316L WELDED <b>DS</b> = 304L SEAMLESS <b>DW</b> = 304L WELDED <b>AS</b> = 304 SEAMLESS <b>AW</b> = 304 WELDED	<b>ASTM TUBE</b>	<b>JIS &amp; NPS PIPE</b>	<b>ASTM TUBE</b>	<b>BLANK</b> = SQUARE	<b>TUBE WALL</b>	<b>PIPE SCHEDULE</b>	<b>AP</b> = CFOS, O.D.=AP, I.D.=AP <b>ODMP</b> = CFOS, O.D.=MP, I.D.=AP <b>BA</b> = CFOS, O.D.=BA, I.D.=BA 200Ra MAX <b>BA40</b> = CFOS, O.D.=BA, I.D.=40 Ra BA <b>EP</b> = LDEP, O.D.=BA, I.D.=EP 20 Ra Ave / 25 Ra MAX <b>ID40</b> = CFOS, O.D.=AP, I.D.=40 Ra BA <b>IDMP</b> = CFOS, O.D.=AP, I.D.=BA 200Ra MAX
	1/4 = .25" DIA 3/8 = .375" DIA 1/2 = .5" DIA 3/4 = .75" DIA 1 = 1" DIA 1-1/2 = 1.5" DIA 2 = 2" DIA 2-1/2 = 2.5" DIA 3 = 3" DIA 4 = 4" DIA 6 = 6" DIA	25 = DN 25 (JIS 25A) 32 = DN 32 (JIS 32A) 40 = DN 40 (JIS 40A) 50 = DN 50 (NPS 2 / JIS 50A) 65 = DN 65 (NPS 2-1/2 / JIS 65A) 80 = DN 80 (NPS 3 / JIS 80A) 90 = DN 90 (NPS 3-1/2 / JIS 90A) 100 = DN 100 (NPS 4 / JIS 100A) 125 = DN 125 (NPS 5 / JIS 125A) 150 = DN 150 (NPS 6 / JIS 150A) 200 = DN 200 (NPS 8 / JIS 200A) 250 = DN 250 (NPS 10 / JIS 250A) 300 = DN 300 (NPS 12 / JIS 300A) 350 = DN 350 (NPS 14 / JIS 350A) 400 = DN 400 (NPS 16 / JIS 400A) 450 = DN 450 (NPS 18 / JIS 450A) 500 = DN 500 (NPS 20 / JIS 500A) 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) 800 = DN 800 (JIS 800A)	<b>JIS PIPE:</b> <b>A</b> = SQUARE <b>B</b> = BEVELED <b>J</b> = SQUARE, -20% WALL <b>K</b> = BEVELED, -20% WALL  <b>NPS PIPE:</b> <b>L</b> = SQUARE <b>M</b> = BEVELED <b>N</b> = SQUARE, -20% WALL <b>P</b> = BEVELED, -20% WALL		.035 = .035" THICK .039 = .039" THICK .049 = .049" THICK .065 = .065" THICK .083 = .083" THICK .109 = .109" THICK	5S = SCH. 5 10S = SCH. 10 40S = SCH. 40 80S = SCH. 80	
					<u>NPS Pipe Example:</u> <b>DW-250LX20S-BA40</b> VALEX CFOS SPEC PIPE, 304L WELDED, NPS 10 (DN 250) X SCH 20, BA FINISH OPTION WITH 40 Ra, SQUARED ENDS		
					<u>ASTM Tube Example:</u> <b>CS-1/2X.049-BA</b> VALEX CFOS SPEC TUBE, 316L SEAMLESS, 1/2" O.D. X .049" WALL, BA FINISH OPTION, SQUARED ENDS		
					<u>JIS Pipe Example:</u> <b>AW-250BX10S-AP</b> 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.

		
www.valex.com		
TITLE		
<b>TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME</b>		
SPECIFICATION	SHEET	REV.
<b>SP-9200</b>	<b>7/9</b>	<b>BL</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)

ASTM TUBE	JIS & NPS PIPE
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)
	91 = DN 650 (JIS 650A)
	92 = DN 700 (JIS 700A)
	93 = DN 750 (JIS 750A)
	94 = DN 800 (JIS 800A)

*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  
 7 = CFOS, O.D.=MP, I.D.=AP

**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.



 www.valex.com		
TITLE <b>TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME</b>		
SPECIFICATION	SHEET	REV
<b>SP-9200</b>	<b>8/9</b>	<b>BL</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>BL</b>
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