

ASTM TUBE PART NUMBER MATRIX

TXXX	-	XX	-	XXXXXX (XXX)	X4	-	XXX	XX
PROCESS CODE		ALLOY CODE (SEE NOTE 1)		SIZE CODE (SEE NOTE 3)			WALL CODE	SURFACE FINISH & VISUALS
T1A = PER SP-9204 (101)		0S = 316L SEAMLESS		00125 .13 = .125" DIA	USED ONLY FOR 4-METER LENGTH TUBES		028 = .028" THICK	USED ONLY FOR 401 PROCESS CODE
T2A = PER SP-9206 (201)		0W = 316L WELDED		00250 .25 = .25" DIA			035 = .035" THICK	A5 = 5µIn Ra Max, Superior Visuals
T2I = PER CUSTOM SPEC		2S = 304L SEAMLESS		00375 .38 = .375" DIA			039 = .039" THICK	A7 = 7µIn Ra Max, Superior Visuals
T3A = PER SP-9223 (301)		2W = 304L WELDED		00500 .50 = .5" DIA			049 = .049" THICK	B0 = 10µIn Ra Max, Standard Visuals
T3B = PER SP-9223 BULK PK (301)		3S = 304L SEAMLESS		00750 .75 = .75" DIA			058 = .058" THICK	C0 = 10µIn Ra, Relaxed Visuals
T3O = PER SP-9223 OEM (301)		3W = 304L WELDED		01000 1.0 = 1" DIA			065 = .065" THICK	
T3OB = PER SP-9223 OEM BULK PK (301)		AS = 304 SEAMLESS		01500 1.5 = 1.5" DIA			083 = .083" THICK	USED ONLY FOR 444 PROCESS CODE
T4A = PER SP-9220 (401)		AW = 304 WELDED		02000 2.0 = 2" DIA			095 = .095" THICK	-5 = 5µIn Ra Max
T4B = PER SP-9220 BULK PK (401)		BS = 316L SEAMLESS, VOD/VAR		02500 2.5 = 2.5" DIA			109 = .109" THICK	-10 = 10µIn Ra Max
T4I = PER CUSTOM SPEC		HS = UNS N06022 ALLOY		03000 3.0 = 3" DIA				
T4O = PER SP-9220 OEM (401)		KS = 316L SEAMLESS VIM/VAR		04000 4.0 = 4" DIA				
T4R = PER SP-9220 & I.D./O.D. POLISH (401)		NS = 316L SEAMLESS (ASTM STD)		06000 6.0 = 6" DIA				
TMC = PER SP-9207 (222)		NW = 316L WELDED (ASTM STD)			USED ONLY FOR 20-FOOT AND 6-METER LENGTH TUBES & PRODUCT LINE 444			
TNE = PER SP-9241 (444)		QS = 316L SEAMLESS						
		QW = 316L WELDED						
		RS = 316L SEAMLESS						
		RW = 316L WELDED						
		VS = 316L SEAMLESS VIM/VAR						

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.



TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME		
SPECIFICATION	SHEET	REV
SP-9200	1/9	BP

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 = UNS N06022 ALLOY
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)

.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

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-XXXXX-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.



TITLE

TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME

SPECIFICATION

SP-9200

SHEET

2/9

REV

BP

SINGLE WALL FITTING PART NUMBER MATRIX - ASTM

XXPROCESS / ALLOY (SEE NOTE 1)

B = SP-9206 (201) 0S/OW/A4 (316L)
D = SP-9206 (201) 2S/2W (304L)
E = SP-9220 (401) 0S/OW/A4 (316L)
H = SP-9207 (222) HS (N06022)
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)

XXXXCONFIGURATION 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

-**XXXXXX**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(XXXXXX)USED ONLY FOR
REDUCING FITTINGSREFER TO "SIZE"
CODE IF APPLICABLE**- XX**SURFACE FINISH & VISUALSUSED 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

XXINNER PROCESS / ALLOY (SEE NOTE 1)

C = SP-9220 (401) 0S/OW (316L)
CB = SP-9206 (201) 0S/OW (316L)
HC = SP-9207 (222) HS (N06022)
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)

XOUTER ALLOY (SEE NOTE 1)

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

XXXXCONFIGURATION 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

-**XXXXXX**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(XXXXXX)USED ONLY FOR
REDUCING FITTINGSREFER TO "SIZE"
CODE IF APPLICABLE**- XX**SURFACE FINISH & VISUALSUSED 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.



TITLE

TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME

SPECIFICATION

SP-9200

SHEET

3/9

REV

BP

JIS PIPE PART NUMBER MATRIX

PXX	-	XX	-	XXXX (XXX)	X	X4	-	XXX	XX
PROCESS CODE		ALLOY CODE (SEE NOTE 1)		SIZE CODE (SEE NOTE 2)	END TYPE CODE	USED ONLY FOR 4-METER LENGTH PIPES		SCHEDULE CODE	SURFACE FINISH & VISUALS
P1A = PER SP-9204 (101)		1S = 304L SEAMLESS (JIS STD)		0008 = 8A PIPE	A = SQUARE			6M PIPE	USED ONLY FOR 401 PROCESS CODE
P2A = PER SP-9206 (201)		1W = 304L WELDED (JIS STD)		0010 = 10A PIPE	B = 32.5° BEVELED			05S = JIS SCH. 5	A5 = 5µIn Ra Max, Superior Visuals
P4A = PER SP-9220 (401)		AS = 304 SEAMLESS		0015 = 15A PIPE	C = SQUARE,			10S = JIS SCH. 10	A7 = 7µIn Ra Max, Superior Visuals
P4O = PER SP-9220 & O.D. POLISH (401)		AW = 304 WELDED		0020 = 20A PIPE	+10% / -15% WALL			4M PIPE	B0 = 10µIn Ra Max, Standard Visuals
P4R = PER SP-9220 & I.D./O.D. POLISH (401)		BS = 316L SEAMLESS, VOD/VAR		0025 = 25A PIPE	D = 32.5° BEVELED,			05 = JIS SCH. 5	C0 = 10µIn Ra, Relaxed Visuals
P2S = PER SP-9206 & I.D./O.D. POLISH (201)		NS = 316L SEAMLESS (JIS STD)		0032 = 32A PIPE	+10% / -15% WALL			10 = JIS SCH. 10	
		NW = 316L WELDED (JIS STD)		0040 = 40A PIPE	E = SQUARE, LOW Ti				
		RS = 316L SEAMLESS		0050 = 50A PIPE	F = 32.5° BEVELED, LOW Ti				
		RW = 316L WELDED		0065 = 65A PIPE	G = SQUARE, LOW Ti,				
				0080 = 80A PIPE	+10% / -15% WALL				
				0090 = 90A PIPE	H = 32.5° BEVELED, LOW Ti,				
				0100 = 100A PIPE	+10% / -15% WALL				
				0125 = 125A PIPE	I = SQUARE, P1A BA				
				0150 = 150A PIPE	J = SQUARE,				
				0200 = 200A PIPE	+UNSPECIFIED / -20% WALL				
				0250 = 250A PIPE	K = 32.5° BEVELED,				
				0300 = 300A PIPE	+UNSPECIFIED / -20% WALL				
				0350 = 350A PIPE					
				0400 = 400A PIPE					
				0450 = 450A PIPE					
				0500 = 500A PIPE					
				0550 = 550A PIPE					
				0600 = 600A PIPE					
				0650 = 650A PIPE					
				0700 = 700A PIPE					
				0750 = 750A PIPE					
				0800 = 800A PIPE					
				USED FOR 20-FOOT AND 6-METER LENGTH PIPES	USED ONLY FOR 4-METER LENGTH PIPES				

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



TITLE		
TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME		
SPECIFICATION	SP-9200	SHEET 4/9
		REV BP

JIS COAXIAL PIPE PART NUMBER MATRIX

CPXX

- XX

- XX

- XXX (XX)

X

X4

- XX

INNER PROCESS CODE

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

OUTER ALLOY (SEE NOTE 1)

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

INNER ALLOY (SEE NOTE 1)

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

SIZE CODE - INNER (SEE NOTE 2)

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

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

USED
ONLY FOR
4-METER
LENGTH
PIPES

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.
- 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
BP

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 .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 = SS
T = 10S

FACE-TYPE

(FLANGE ONLY)

1 = FULL FACE
2 = RAISED FACE
3 = GROOVED FACE

x(XXXX)

USED ONLY FOR
REDUCING FITTINGSREFER 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:

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)

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 FITTINGSREFER 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.



TITLE
TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME

SPECIFICATION
SP-9200

SHEET
6/9

REV
BP

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

XX

- XXXXX

X

X

XXXX

- XXXX

PROCESS / ALLOY (SEE NOTE 1)

CS = 316L SEAMLESS
CW = 316L WELDED
DS = 304L SEAMLESS
DW = 304L WELDED
AS = 304 SEAMLESS
AW = 304 WELDED

SIZE CODE:

ASTM TUBE

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

JIS & NPS PIPE

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)

END 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

WALL CODE

TUBE WALL

.035 = .035" THICK
.039 = .039" THICK
.049 = .049" THICK
.065 = .065" THICK
.083 = .083" THICK
.109 = .109" THICK

PIPE SCHEDULE

5S = SCH. 5
10S = SCH. 10
40S = SCH. 40
80S = SCH. 80

FINISH CODE

AP = CFOS, O.D.=AP, I.D.=AP
ODMP = CFOS, O.D.=MP, I.D.=AP
BA = CFOS, O.D.=BA, I.D.=BA 200Ra MAX
BA40 = CFOS, O.D.=BA, I.D.=40 Ra BA
EP = LDEP, O.D.=BA, I.D.=EP 20 Ra Ave / 25 Ra MAX
ID40 = CFOS, O.D.=AP, I.D.=40 Ra BA
IDMP = CFOS, O.D.=AP, I.D.=BA 200Ra MAX

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.



www.valex.com

TITLE

TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME

SPECIFICATION

SP-9200

SHEET

7/9

REV.

BP

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
2KWS = 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

- 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.

- 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
BLANK = SQUARE

ASTM TUBE:
B = .035" WALL
C = .039" WALL
D = .049" WALL
F = .065" WALL
G = .083" WALL
J = .109" WALL
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



TITLE
TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME

SPECIFICATION
SP-9200

SHEET
8/9

REV
BP

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 ²	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 ²	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 ³	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 ¹	316L	-	-	-	-	0.005 - 0.012	-	-	-	-	-
0W	E, B	C, CB	Welded	AOD or VOD	A269 ¹	316L	-	-	-	-	0.005 - 0.017	-	-	-	-	-
1S	DF ⁴	-	Seamless	AOD or VOD	G3459 / G3468 / A312	304L	-	-	-	-	-	-	-	-	-	-
1W	DF ⁴	-	Welded	AOD or VOD	G3459 / G3468 / A312	304L	-	-	-	-	-	-	-	-	-	-
2S	D	-	Seamless	AOD or VOD	A269 ¹	304L	-	-	-	-	0.005 - 0.012	-	-	-	-	-
2W	D	-	Welded	AOD or VOD	A269 ¹	304L	-	-	-	-	0.005 - 0.017	-	-	-	-	-
3S	-	-	Seamless	AOD or VOD	A269 ¹ / A312	304L	-	-	-	-	0.010 max	-	-	-	-	-
3W	-	-	Welded	AOD or VOD	A269 ¹ / 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 ¹ / A312	304	-	-	-	-	-	-	-	-	-	-
AW	AF, JD, JA	-	Welded	AOD or VOD	G3459 / G3468 / A269 ¹ / 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	UNS N06022	-	-	-	-	-	-	-	-	-	-
KS	Y, YB	W, WB	Seamless	VIM/VAR	G3459 / A269 ¹	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 ⁴	-	Seamless	AOD or VOD	G3459 / A269 ¹ / A312	316L	-	-	-	-	-	-	-	-	-	-
NW	CF ⁴	-	Welded	AOD or VOD	G3459 / A269 ¹ / A312	316L	-	-	-	-	-	-	-	-	-	-
QS	-	-	Seamless	AOD or VOD	A269 ¹ / A312	316L	-	-	-	-	0.010 max	-	-	-	-	-
QW	-	-	Welded	AOD or VOD	A269 ¹ / A312	316L	-	-	-	-	0.010 max	-	-	-	-	-
RS	RE, RB, JE, JB	JC, RC	Seamless	AOD or VOD	G3459 / G3468 / A269 ¹	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 ¹	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.



TITLE:
TUBE, PIPE, AND FITTING ITEM NUMBER SCHEME

SPECIFICATION
SP-9200

SHEET
9/9

REV
BP