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EZX3 - A B C D E F G J K 9B 9C 9D 9E 9Z

EZ-OVT trim selection string: EZX3-A F J K 9B & EZOVTX3-A B C D 9A 9B

Item	Parts contained in Item	Find Number
A	Valve Body	1
	Pipe Plug	17
B	Seat Ring Retainer	3
C	Seat Ring	9
D	Valve Plug	2
	Groove Pin	8, 31
	Plug Guide	27
	Disc Retainer	28
	Disc or Disc Seat	29
	Plug Tip	30
E	Bonnet Gasket	10
	Spiral Gasket	12
	Seat Ring Gasket or Seal Ring	13
	Shim	25
F	Cap Screw or Stud Bolt	15
	Hex Nut	16
G	Stem	7
J	Drive Screw	19
	Nameplate	33
	Wire	34
K	Flow Arrow	18
	Drive Screw	19
9B	Class/Hydro	
9C	Seat Leak per FGS 4L5	
9D	Nameplate Data	
9E	Flow Direction	
9Z	Partial Assembly	

**ITEM A - VALVE BODY (WITHOUT DRAIN TAPPING=N/TAP) (WITH DRAIN TAPPING=TAP)**

ASME

BODY	TEMP ° F	CLASS	CWP
CI	-100 +406	250	400
CI CL B	-100 +450	125 250	200 500
WCC	-20 +800	150 300 600	290 750 1500
C5	-20 +1100	150 300 600	290 750 1500
LCC	-50 +650	150 300 600	290 750 1500
CF8M	-325 +1000	150 300 600	275 720 1440
ALY 20	-325 +800	150 300 600	230 600 1200
HAST C	-325 +1000	150 300 600	290 750 1500
MONEL	-325 +800	150 300 600	230 600 1200
CD3MN	-20 +500	300	750

EN1092-1

BODY	TEMP ° F	TEMP ° C	PN	CWP(BAR)
WCC	-20+800	-29 + 425	PN10/16/25/40 PN63 PN100	40 63 100
LCC	-50+650	-46 +343	PN10/16/25/40 PN63 PN100	40 63 100
CF8M	-325+1000	-198 +538	PN10/16/25/40 PN63 PN100	40 63 100
CI CL B	-100+450	-73 +232	PN10	232

BODIES	SCREWED		125B FF		250B RF		SOCKET WELD		SCH 40 BWE		SCH 80 BWE	
	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP
CAST IRON	A	A	A	A	A	A	A	A	A	A	A	A
WCC	1	45	2	46	3	47	M	M	M	M	M	M
CF8M	4	48	M	M	M	M	9	53	11	55	13	57
ALLOY 20	5	49	M	M	M	M	10	54	12	56	14	58
HAST C	6	50	M	M	M	M	M	M	M	M	M	M
MONEL	7	51	M	M	M	M	M	M	M	M	M	M
C5	8	52	M	M	M	M	M	M	M	M	M	M
	94	104	M	M	M	M	95	105	96	106	97	107

**ITEM A - VALVE BODY (CONT)****(WITHOUT DRAIN TAPPING=N/TAP) (WITH DRAIN TAPPING=TAP)**

BODIES	CL150 RF		CL300 RF		CL600 RF		CL150 RTJ		CL300 RTJ		CL600 RTJ	
	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP
	A	A	A	A	A	A	A	A	A	A	A	A
WCC	15	59	20	64	25	69	30	74	35	79	40	84
LCC	127	-	128	-	129	-	-	-	-	-	133	-
CF8M	16	60	21	65	26	70	31	75	36	80	41	85
ALLOY 20	17	61	22	66	27	71	32	76	37	81	42	86
HAST C	18	62	23	67	28	72	33	77	38	82	43	87
MONEL	19	63	24	68	29	73	34	78	39	83	44	88
C5	98	108	99	109	100	110	101	111	102	112	103	113
CD3MN	-	-	132	-	-	-	-	-	-	-	-	-

DN50, EN1092-1

W/O DRAIN TAPPING

BODY	RF (Type B)				Spigot (Type E)	Recess (Type F)			
	PN 10/16	PN 10/16/25/40	PN 63	PN 100	PN 10/16/25/40	PN 10/16/25/40	PN 63	PN 100	
	A	A	A	A	A	A	A	A	A
CI	120	-	-	-	-	-	-	-	-
WCC	-	121	136	139	131	142	145	148	
CF8M	-	122	137	140	134	143	146	149	
LCC	-	135	138	141	130	144	147	150	

**ITEM B - SEAT RING RETAINER, BUSHING****ITEM C - SEAT RING****ITEM D - VALVE PLUG****ITEM G - STEM**

METAL SEAT - MICRO-FLOW & MICRO FLUTE

SEAT RING RETAINER	SEAT RING	VALVE PLUG	STEM	NON-LUBR FLUID	LUBR FLUID	THERMAL EXPANSION LIMIT TRIM/BODY COMB WHERE APPLICABLE	
				TEMP ° F	TEMP ° F	BODY	TEMP ° F
ALY 20 HAST C MONEL CB7CU-1	ALY 20 HAST C K-MONEL 416	ALY 20 HAST C K-MONEL 416	ALY 20 HAST C K-MONEL 316	-325+300 -325+300 -325+600 -20+800	-325+300 -325+300 -325+600 -20+800	CF8M WCC	-20+550 -20+600
CB7CU-1 316	316 316	ALY 6 ALY 6	316 316	-150+300 -325+300	-150+300 -325+300		
HARD FACED SEAT & BORE RING HARD FACED SEAT & GUIDE PLUG							
CB7CU-1 316	316 316	316 316	316 316	-150+800 -325+1100	-150+800 -325+1100	CF8M	-150+570
HARD FACED SEAT & BORE RING							
CB7CU-1 316	316 316	ALY 6 ALY 6	316 316	-150+800 -325+1100	-150+800 -325+1100	CF8M	-150+570
HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG							
CB7CU-1 316	316 316	316 316	316 316	-150+300 -325+300	-150+800 -325+1100	CF8M	-150+570 (LUBR)
HARD FACED SEAT RING							
CB7CU-1 316	316 316	ALY 6 ALY 6	316 316	-150+300 -325+300	-150+800 -325+1100	CF8M	-150+570 (LUBR)
HARD FACED SEAT & GUIDE PLUG							
CB7CU-1 316	316 316	316 316	316 316	-150+300 -325+300	-150+300 -325+300		

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)****ITEM G - STEM (CONT)**

METAL SEAT - MICRO-FLOW & MICRO FLUTE (CONT)

SEAT RING RETAINER	SEAT RING	VALVE PLUG	STEM	(SEAT LOAD NOT CONSIDERED) MAX PRESS DROP PSI/100° F (CANNOT EXCEED C.W.P.)	
				SHUT OFF	FLOWING
ALY 20	ALY 20	ALY 20	ALY 20	300	1500
HAST C	HAST C	HAST C	HAST C	300	1500
MONEL	K-MONEL	K-MONEL	K-MONEL	800	1500
CB7CU-1	416	416	316	1500	1500
CB7CU-1	316	ALY 6	316	300	1500
316	316	ALY 6	316	300	1500
HARD FACED SEAT & BORE RING					
HARD FACED SEAT & GUIDE PLUG					
CB7CU-1	316	316	316	1500	1500
316	316	316	316	1500	1500
HARD FACED SEAT & BORE RING					
CB7CU-1	316	ALY 6	316	1500	1500
316	316	ALY 6	316	1500	1500
HARD FACED SEAT RING					
HARD FACED SEAT & GUIDE PLUG					
CB7CU-1	316	316	316	1500	1500
316	316	316	316	1500	1500
HARD FACED SEAT RING					
CB7CU-1	316	ALY 6	316	1500	1500
316	316	ALY 6	316	1500	1500
HARD FACED SEAT & GUIDE PLUG					
CB7CU-1	316	316	316	300	1500
316	316	316	316	300	1500



METAL SEAT - ALL EXCEPT MICRO-FLUTE & MICRO-FLOW

							THERMAL EXPANSION LIMIT TRIM/BODY COMB WHERE APPLICABLE	
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM	NON LUBR FLUID TEMP ° F	LUBR FLUID TEMP ° F	BODY	TEMP ° F
CB7CU-1	17-4PH	316	316	316	-150+300	-150+800	CF8M	-150+570 (LUBR)
316	COCR-A	316	316	316	-325+300	-325+500		
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	-325+300	-325+300		
HAST C	HAST C	HAST C	HAST C	HAST C	-325+400	-325+400		
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	-325+600	-325+600		
CB7CU-1	17-4PH	416	416	316	-20+800	-20+800	CF8M	-20+550
HARD FACED SEAT RING								
HARD FACED SEAT PLUG								
CB7CU-1	17-4PH	316	316	316	-150+300	-150+800	CF8M	-150+570 (LUBR)
316	COCR-A	316	316	316	-325+300	-325+500		
HARD FACED SEAT RING								
HARD FACED SEAT & GUIDE PLUG								
CB7CU-1	17-4PH	316	316	316	-150+800	-150+800	CF8M	-150+570
316	COCR-A	316	316	316	-325+500	-325+500		
HARD FACED SEAT RING								
HARD FACED SEAT & GUIDE PLUG								
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY								
316	COCR-A	316	316	316	-325+800	-325+1100	WCC	-20+800
HARD FACED SEAT & BORE RING								
HARD FACED SEAT, GUIDE & CONTOUR PLUG								
316	COCR-A	316	316	316	-325+500	-325+500		

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)****ITEM G - STEM (CONT)**

METAL SEAT - ALL EXCEPT MICRO-FLUTE & MICRO-FLOW (CONT)

					(SEAT LOAD NOT CONSIDERED) MAX PRESS DROP PSI (CANNOT EXCEED C.W.P.)			
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM	SHUT-OFF			FLOWING
					1/4-1 PORT	2 PORT		ALL PORTS
					3/8 & 1/2 STEM	1/2 STEM	3/4 STEM	ALL STEMS
CB7CU-1	17-4PH	316	316	316	300	300	300	1500
316	COCR-A	316	316	316	300	300	300	1500
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	300	300	300	1500
HAST C	HAST C	HAST C	HAST C	HAST C	300	300	300	1500
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	800	800	800	1500
CB7CU-1	17-4PH	416	416	316	1500	1500	1500	1500
HARD FACED SEAT RING, HARD FACED SEAT PLUG								
CB7CU-1	17-4PH	316	316	316	1500	1500	1500	1500
316	COCR-A	316	316	316	1500	1500	1500	1500
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG								
CB7CU-1	17-4PH	316	316	316	1500	1500	1500	1500
316	COCR-A	316	316	316	1500	1500	1500	1500
HARD FACED SEAT & BORE, HARD FACED SEAT, GUIDE & CONTOUR PLUG								
316	COCR-A	316	316	316	1500	1500	1500	1500

COMPOSITION SEAT - MICRO-FLUTE

					(SEAT LOAD NOT CONSIDERED) MAX PRESS DROP PSI (CANNOT EXCEED C.W.P.)		
SEAT RING RETAINER	SEAT RING	VALVE PLUG	STEM	NON LUBR FLUID	LUBR FLUID		
				TEMP ° F	TEMP ° F	SHUT OFF	FLOWING
CB7CU-1	316	316	316	-100+300	-100+300	1000	1500
316	316	316	316	-100+300	-100+300	1000	1500
ALY 20	ALY 20	ALY 20	ALY 20	-100+300	-100+300	1000	1500
HAST C	HAST C	HAST C	HAST C	-100+300	-100+300	1000	1500
MONEL	K-MONEL	K-MONEL	K-MONEL	-100+400	-100+400	1000	1500

ALL EXCEPT MICRO FLUTE

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM	NON LUBR FLUID	NON LUBR FLUID
					TEMP ° F	TEMP ° F
CB7CU-1	17-4PH	316	316	316	-100+300	-100+400
316	316	316	316	316	-100+300	-100+400
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	-100+300	-100+300
HAST C	HAST C	HAST C	HAST C	HAST C	-100+400	-100+400
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	-100+400	-100+400
CB7CU-1	17-4PH	416	416	316	-20+400	-30+400

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)****ITEM G - STEM (CONT)**

ALL EXCEPT MICRO FLUTE (CONT)

(SEAT LOAD NOT CONSIDERED)

MAX PRESS DROP PSI

(CANNOT EXCEED C.W.P)

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM	SHUT OFF		FLOWING
					1/4 THRU 1 PORT	2 PORT	ALL PORTS
					3/8 & 1/2 STEM	1/2 STEM	ALL STEMS
CB7CU-1	17-4PH	316	316	316	1500	1500	1500
316	COCR-A	316	316	316	1500	1500	1500
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	1500	1066	1500
HAST C	HAST C	HAST C	HAST C	HAST C	1500	1091	1500
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	1500	1500	1500
CB7CU-1	17-4PH	416	416	316	1500	1500	1500

METAL SEAT - MICRO FLOW VALVE PLUG, 3/16" PORT, 3/4" TVL

SEAT RING RETAINER	SEAT RING	VALVE PLUG	STEM			1L3750, 1L5001 VAC	
						.075 Cv	.181 Cv
MATERIAL				B	C	D	D
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	3	2	3	295
HAST C	HAST C	HAST C	HAST C	4	3	4	296
MONEL M35-1	K-MONEL	K-MONEL	K-MONEL	5	4	5	297
CB7CU-1 H1150	416 SST	416 SST	316 SST	1	47	200	298
HARD FACED SEAT & BORE RING, HARD FACED SEAT & GUIDE PLUG							
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	5	2	294
316 SST	316 SST	316 SST	316 SST	2	5	2	294
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG							
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	27	2	294
316 SST	316 SST	316 SST	316 SST	2	27	2	294
HARD FACED SEAT & GUIDE PLUG							
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	1	2	294
316 SST	316 SST	316 SST	316 SST	2	1	2	294



MICRO FLUTE VALVE PLUG, 3/4" TVL

SEAT RING RETAINER	SEAT RING	VALVE PLUG	STEM		1L3750 OR 1L5001 VSC			
					1/4" PORT	1-FLUTE	2-FLUTE	3-FLUTE
MATERIAL				B	C	D	D	D
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	3	7	8	13	205
HAST C	HAST C	HAST C	HAST C	4	8	9	14	206
MONEL M35-1	K-MONEL	K-MONEL	K-MONEL	5	9	10	15	207
CB7CU-1 H1150	416 SST	416 SST	316 SST	1	28	201	202	208
CB7CU-1 H1150	316 SST	ALLOY 6	316 SST	1	6	303	304	305
316 SST	316 SST	ALLOY 6	316 SST	2	6	303	304	305
HARD FACED SEAT & BORE RING, HARD FACED SEAT & GUIDE PLUG								
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	11	7	12	204
316 SST	316 SST	316 SST	316 SST	2	11	7	12	204
HARD FACED SEAT & BORE RING								
CB7CU-1 H1150	316 SST	ALLOY 6	316 SST	1	11	303	304	305
316 SST	316 SST	ALLOY 6	316 SST	2	11	303	304	305
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG								
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	10	7	12	204
316 SST	316 SST	316 SST	316 SST	2	10	7	12	204
HARD FACED SEAT RING								
CB7CU-1 H1150	316 SST	ALLOY 6	316 SST	1	10	303	304	305
316 SST	316 SST	ALLOY 6	316 SST	2	10	303	304	305
HARD FACED SEAT & GUIDE PLUG								
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	6	7	12	204
316 SST	316 SST	316 SST	316 SST	2	6	7	12	204

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

MICRO FLUTE VALVE PLUG, 3/4" TVL

SEAT RING RETAINER	SEAT RING	VALVE PLUG	STEM		IL3750 OR IL5001 VSC			
					1/4” PORT	1 FLUTE	2 FLUTE	3 FLUTE
					C	D	D	D
MATERIAL				B				
HARD FACED SEAT & GUIDE PLUG								
316 SST	316 SST	316 SST	316 SST	2	6	7	12	204
HARD FACED SEAT & BORE RING, HARD FACED SEAT & GUIDE PLUG								
316 SST	316 SST	316 SST	316 SST	2	11	7	12	204
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG								
316 SST	316 SST	316 SST	316 SST	2	10	7	12	204

METAL SEAT - MICRO FORM VALVE PLUG - 3/4" TRAVEL

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM		1/4" PORT				3/8" PORT				
						1L3750 VSC		1L5000 VSC		1L3750 VSC		1L5000 VSC		
MATERIAL						B	C	D	C	D	C	D	C	D
CB7CU-1	17-4PH	316 SST	316 SST	316 SST	6	6	16	6	28	48	209	48	217	
H1150	H900													
316 SST	COCR-A	316 SST	316 SST	316 SST	8	6	16	6	28	48	209	48	217	
ALLOY 20	ALLOY 20	ALLOY 20	ALY 20	ALY 20	9	7	19	7	29	49	212	49	220	
HAST C	HAST C	HAST C	HAST C	HAST C	10	8	20	8	30	50	213	50	221	
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	9	21	9	31	51	214	51	222	
M-35W														
CB7CU-1	17-4PH	416 SST	416 SST	316 SST	6	28	110	28	113	54	215	54	223	
H1150	H900													
HARD FACED SEAT RING, HARD FACED SEAT PLUG														
CB7CU-1	17-4PH	316 SST	316 SST	316 SST	6	10	17	M	M	52	210	52	218	
H1150	H900													
316 SST	COCR-A	316 SST	316 SST	316 SST	8	10	17	M	M	52	210	52	218	
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG														
CB7CU-1	17-4PH	316 SST	316 SST	316 SST	6	10	18	M	M	52	211	52	219	
H1150	H900													
316 SST	COCR-A	316 SST	316 SST	316 SST	8	10	18	M	M	52	211	52	219	
HARD FACED SEAT RING & SEAT & GUIDE PLUG														
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY														
316 SST	COCR-A	316 SST	316 SST	316 SST	18	10	18	M	M	52	211	52	219	
HARD FACED SEAT & BORE RING, HARD FACED SEAT, GUIDE & CONTOUR PLUG														
316 SST	COCR-A	316 SST	316 SST	316 SST	8	11	18	M	M	53	216	53	224	

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)****METAL SEAT - MICRO FORM VALVE PLUG - 3/4" TRAVEL (CONT)**

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM		1/2 PORT				3/4 PORT			
						1L3750		1L5000		1L3750		1L5000	
						VSC		VSC		VSC		VSC	
MATERIAL					B	C	D	C	D	C	D	C	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	6	12	22	12	32	35	136	35	144
316 SST	COCR-A	316 SST	316 SST	316 SST	8	12	22	12	32	35	136	35	144
ALLOY 20	ALLOY 20	ALLOY 20	ALY 20	ALY 20	9	13	25	13	35	36	139	36	147
HAST C	HAST C	HAST C	HAST C	HAST C	10	14	26	14	36	37	140	37	148
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	15	27	15	37	38	141	38	149
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	6	29	111	29	114	41	142	41	150
HARD FACED SEAT RING, HARD FACED SEAT PLUG													
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	6	16	23	16	33	39	137	39	145
316 SST	COCR-A	316 SST	316 SST	316 SST	8	16	23	16	33	39	137	39	145
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG													
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	6	16	24	16	34	39	138	39	146
316 SST	COCR-A	316 SST	316 SST	316 SST	8	16	24	16	34	39	138	39	146
HARD FACED SEAT RING & SEAT & GUIDE PLUG													
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY													
316 SST	COCR-A	316 SST	316 SST	316 SST	18	16	24	16	34	39	138	39	146
HARD FACED SEAT & BORE RING, HARD FACED SEAT, GUIDE & CONTOUR PLUG													
316 SST	COCR-A	316 SST	316 SST	316 SST	8	32	112	32	115	40	143	40	151

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)****METAL SEAT (CONT)**

RESTRICTED VALVE PLUG 1" PORT (EXCEPT BELLOW SEAL) - 3/4" TVL

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			LINEAR		
							1L3750 VSC	1L5000 VSC	
MATERIAL						B	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	17	38	50	
316 SST	COCR-A	316 SST	316 SST	316 SST	8	17	38	50	
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	9	18	41	53	
HAST C	HAST C	HAST C	HAST C	HAST C	10	19	42	54	
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	20	43	55	
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	6	30	116	121	

HARD FACED SEAT RING**HARD FACED SEAT PLUG**

CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	21	39	51
316 SST	COCR-A	316 SST	316 SST	316 SST	8	21	39	51

HARD FACED SEAT RING**HARD FACED SEAT & GUIDE PLUG**

CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	21	40	52
316 SST	COCR-A	316 SST	316 SST	316 SST	8	21	40	52

HARD FACED SEAT RING & SEAT & GUIDE PLUG**SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY**

316 SST	COCR-A	316 SST	316 SST	316 SST	18	21	40	52
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HARD FACED SEAT & BORE RING**HARD FACED SEAT, GUIDE & CONTOUR PLUG**

316 SST	COCR-A	316 SST	316 SST	316 SST	8	33	119	124
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SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			EQ %		QUICK OPEN	
							1L3750 VSC	1L5000 VSC	1L3750 VSC	1L5000 VSC
MATERIAL					B	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	17	44	56	98	104
316 SST	COCR-A	316SST	316SST	316SST	8	17	44	56	98	104
ALLOY 20	ALLOY 20	ALY 20	ALY 20	ALY 20	9	18	47	59	101	107
HAST C	HAST C	HAST C	HAST C	HAST C	10	19	48	60	102	108
MONEL M-35W	K-MONEL	KMONEL	KMONEL	KMONEL	11	20	49	61	103	109
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	6	30	117	122	118	123

HARD FACED SEAT RING**HARD FACED SEAT PLUG**

CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	21	45	57	99	105
316 SST	COCR-A	316SST	316SST	316SST	8	21	45	57	99	105

HARD FACED SEAT RING**HARD FACED SEAT & GUIDE PLUG**

CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	21	46	58	100	106
316 SST	COCR-A	316SST	316SST	316SST	8	21	46	58	100	106

HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG**SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY**

316 SST	COCR-A	316 SST	316 SST	316 SST	18	21	46	58	100	106
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HARD FACED SEAT & BORE RING**HARD FACED SEAT, GUIDE & CONTOUR PLUG**

316 SST	COCR-A	316SST	316SST	316SST	8	33	120	125	--	--
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**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - RESTRICTED VALVE PLUG 1" PORT (BELLOWS SEAL ONLY) - 3/4" TVL

							LINEAR		
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L3750 VSC	1L5000 VSC	
MATERIAL						B	C	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	17	239	253	
316 SST	COCR-A	316 SST	316 SST	316 SST	14	17	239	253	
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	12	30	243	257	
HARD FACED SEAT RING, HARD FACED SEAT PLUG									
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	21	240	254	
316 SST	COCR-A	316 SST	316 SST	316 SST	14	21	240	254	
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG									
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	21	241	255	
316 SST	COCR-A	316 SST	316 SST	316 SST	14	21	241	255	
HARD FACED SEAT RING & SEAT & GUIDE PLUG									
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY									
316 SST	COCR-A	316 SST	316 SST	316 SST	19	21	241	255	
HARD FACED SEAT & BORE RING, HARD FACED SEAT,GUIDE & CONTOUR PLUG									
316 SST	COCR-A	316 SST	316 SST	316 SST	14	33	242	256	

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - RESTRICTED VALVE PLUG 1" PORT (BELLOWS SEAL ONLY) - 3/4" TVL

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM					EQUAL %		QUICK OPEN	
					1L3750 VSC	1L5000 VSC	1L3750 VSC	1L5000 VSC				
MATERIAL						B	C	D	D	D	D	
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	12	17	244	258	249	263		
316 SST	COCR-A	316SST	316SST	316SST	14	17	244	258	249	263		
CB7CU-1 H1150	17-4PH H900	416SST	416SST	316SST	12	30	248	262	252	266		
HARD FACED SEAT RING, HARD FACED SEAT PLUG												
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	12	21	245	259	250	264		
316 SST	COCR-A	316SST	316SST	316SST	14	21	245	259	250	264		
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG												
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	12	21	246	260	251	265		
316 SST	COCR-A	316SST	316SST	316SST	14	21	246	260	251	265		
HARD FACED SEAT RING & SEAT & GUIDE PLUG												
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY												
316 SST	COCR-A	316 SST	316 SST	316 SST	19	21	246	260	251	265		
HARD FACED SEAT & BORE RING, HARD FACED SEAT,GUIDE & CONTOUR PLUG												
316 SST	COCR-A	316SST	316SST	316SST	14	33	247	261	--	--		

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - FULL CAPACITY VALVE PLUG - 1 1/8" TVL

							QUICK OPEN	
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC
MATERIAL					B	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	12	22	62	80
316 SST	COCR-A	316 SST	316 SST	316 SST	14	22	62	80
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	15	23	65	83
HAST C	HAST C	HAST C	HAST C	HAST C	16	24	66	84
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	17	25	67	85
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	12	31	126	131

HARD FACED SEAT RING

HARD FACED SEAT PLUG

CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	12	26	63	81
316 SST	COCR-A	316 SST	316 SST	316 SST	14	26	63	81

HARD FACED SEAT RING

HARD FACED SEAT & GUIDE PLUG

CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	12	26	64	82
316 SST	COCR-A	316 SST	316 SST	316 SST	14	26	64	82

HARD FACED SEAT RING & SEAT & GUIDE PLUG

SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY

316 SST	COCR-A	316 SST	316 SST	316 SST	19	26	64	82
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HARD FACED SEAT & BORE RING

HARD FACED SEAT, GUIDE & CONTOUR PLUG

316 SST	COCR-A	316 SST	316 SST	316 SST	14	34	--	--
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SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			LINEAR		EQ %		
							1L5000 VSC	1L7500 VSC	1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	12	22	68	86	74	92	
316 SST	COCR-A	316SST	316SST	316SST	14	22	68	86	74	92	
ALLOY 20	ALLOY 20	ALY 20	ALY 20	ALY 20	15	23	71	89	77	95	
HAST C	HAST C	HAST C	HAST C	HAST C	16	24	72	90	78	96	
MONEL M-35W	K-MONEL	KMONEL	KMONEL	KMONEL	17	25	73	91	79	97	
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	12	31	127	132	128	133	

HARD FACED SEAT RING

HARD FACED SEAT PLUG

CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	12	26	69	87	75	93
316 SST	COCR-A	316SST	316SST	316SST	14	26	69	87	75	93

HARD FACED SEAT RING

HARD FACED SEAT & GUIDE PLUG

CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	12	26	70	88	76	94
316 SST	COCR-A	316SST	316SST	316SST	14	26	70	88	76	94

HARD FACED SEAT RING & SEAT & GUIDE PLUG

SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY

316 SST	COCR-A	316 SST	316 SST	316 SST	19	26	70	88	76	94
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HARD FACED SEAT & BORE RING

HARD FACED SEAT, GUIDE & CONTOUR PLUG

316 SST	COCR-A	316SST	316SST	316SST	14	34	129	134	130	135
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**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

COMPOSITION SEAT - MICRO FLUTE VALVE PLUGS - TFE DISC 3/4" TVL - 1L3750 OR 1L5001 VSC

SEAT RING RETAINER	SEAT RING	VALVE PLUG	STEM		1/4 PORT	1-FLUTE	2-FLUTE	3-FLUTE
MATERIAL					B	C	D	D
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	3	43	153	157	226
HAST C	HAST C	HAST C	HAST C	4	44	154	158	227
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	5	45	155	159	228
HARD FACED PLUG TIP								
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	42	288	289	290
316 SST	316 SST	316 SST	316 SST	2	42	288	289	290
HARD FACED PLUG GUIDE & TIP								
316 SST	316 SST	316/ COCR-A	316 SST	2	42	291	292	293

COMPOSITION SEAT - MICRO FORM VALVE PLUGS - TFE DISC 3/4" TVL - 1L3750 OR 1L5001 VSC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM		1/4 PORT	3/8 PORT	1/2 PORT
MATERIAL						B	C	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	42 160	55 229	12 165
316 SST	COCR-A	316 SST	316 SST	316 SST	8	42 160	55 229	12 165
			316/ COCR-A	316 SST	8	42 278	55 279	12 280
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	9	43 161	56 230	13 166
HAST C	HAST C	HAST C	HAST C	HAST C	10	44 162	57 231	14 167
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	45 163	58 232	15 168
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	6	46 164	59 233	29 169
1L5000 VSC								
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	- -	55 234	12 180
316 SST	COCR-A	316 SST	316 SST	316 SST	8	- -	55 234	12 180
			316/ COCR-A	316 SST	8	-- ---	55 281	12 282
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	9	- -	56 235	13 181
HAST C	HAST C	HAST C	HAST C	HAST C	10	- -	57 236	14 182
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	- -	58 237	15 183
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	6	- -	59 238	29 184

**ITEM B - SEAT RING RETAINER, BUSHING****ITEM C - SEAT RING****ITEM D - VALVE PLUG**

COMPOSITION SEAT (CONT) - FULL CAPACITY VALVE PLUG - 1 1/8" TRAVEL TFE DISC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			EQUAL % 1L5000 VSC
MATERIAL							D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	22	195
316 SST	COCR-A	316 SST	316 SST	316 SST	14	22	195
			316/ COCR-A	316 SST	14	22	287
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	15	23	196
HAST C	HAST C	HAST C	HAST C	HAST C	16	24	197
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	17	25	198
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	12	31	199

LINEAR CHARACTERISTIC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			LINEAR		
							1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	22	299	300	

QUICK OPENING CHARACTERISTIC

							QUICK OPENING		
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	22	301	302	

**ITEM B - SEAT RING RETAINER (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

RESTRICTED 3/4" & 1" PORT (EXCEPT BELLOWS SEAL)

EQUAL PERCENTAGE CHARACTERISTIC (MICRO FORM TIP) - 3/4" TVL TFE DISC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM		3/4" PORT			1" PORT			
							1L3750 VSC	1L5000 VSC		1L3750 VSC	1L5000 VSC	
MATERIAL						B	C	D	D	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	35	170	185	17	175	190	
316 SST	COCR-A	316 SST	316 SST	316 SST	8	35	170	185	17	175	190	
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	9	36	171	186	18	176	191	
HAST C	HAST C	HAST C	HAST C	HAST C	10	37	172	187	19	177	192	
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	38	173	188	20	178	193	
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	6	41	174	189	30	179	194	

RESTRICTED 3/4" & 1" PORT (EXCEPT BELLOWS SEAL)

EQUAL PERCENT CHARACTERISTIC (MICRO FORM TIP) - 3/4" TVL TFE DISC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM		3/4 PORT			1" PORT			
							1L3750 VSC	1L5000 VSC		1L5001 VSC	1L5000 VSC	
MATERIAL						B	C	D	D	C	D	D
316 SST	COCR-A	316 SST	316 SST	316 SST	8	35	170	185	17	175	190	
HARD FACED PLUG GUIDE												
316 SST	COCR-A	316 SST	316/ COCR-A	316 SST	8	35	283	284	17	285	286	

COMPOSITION SEAT - RESTRICTED 3/4" & 1" PORT (BELLOWS SEAL ONLY)

EQUAL PERCENT CHARACTERISTIC (MICRO FORM TIP) - 3/4" TRAVEL TFE DISC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM		3/4 PORT			1" PORT			
							1L3750 VSC	1L5000 VSC		1L3750 VSC	1L5000 VSC	
MATERIAL						B	C	D	D	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	12	35	267	269	17	271	273	
316 SST	COCR-A	316 SST	316 SST	316 SST	14	35	267	269	17	271	273	
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	12	41	268	270	30	272	274	

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - RESTRICTED VALVE PLUG 1" PORT (EXCEPT BELLOW SEAL) - VANED SEAT RING
3/4 TRAVEL

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			LINEAR	
							1L3750 VSC	1L5000 VSC
MATERIAL					B	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	60	38	50
316 SST	COCR-A	316 SST	316 SST	316 SST	8	60	38	50
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	6	61	116	121

HARD FACED SEAT RING**HARD FACED SEAT PLUG**

CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	62	39	51
316 SST	COCR-A	316 SST	316 SST	316 SST	8	62	39	51

HARD FACED SEAT RING & SEAT & GUIDE PLUG**SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY**

316 SST	COCR-A	316 SST	316 SST	316 SST	18	62	39	51
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HARD FACED SEAT RING**HARD FACED SEAT & GUIDE PLUG**

CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	62	40	52
316 SST	COCR-A	316 SST	316 SST	316 SST	8	62	40	52

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			EQUAL %		QUICK OPEN		
							1L3750 VSC	1L5000 VSC	1L3750 VSC	1L5000 VSC	
MATERIAL						B	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	60	44	56	98	104	
316 SST	COCR-A	316SST	316SST	316SST	8	60	44	56	98	104	
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	6	61	117	122	118	123	

HARD FACED SEAT RING**HARD FACED SEAT PLUG**

CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	62	45	57	99	105
316 SST	COCR-A	316SST	316SST	316SST	8	62	45	57	99	105

HARD FACED SEAT RING & SEAT & GUIDE PLUG**SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY**

316 SST	COCR-A	316SST	316 SST	316SST	18	62	45	57	99	105
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HARD FACED SEAT RING**HARD FACED SEAT & GUIDE PLUG**

CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	62	46	58	100	106
316 SST	COCR-A	316SST	316SST	316SST	8	62	46	58	100	106

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING, VANED****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - RESTRICTED VALVE PLUG 1" PORT (BELLOWS SEAL ONLY)

VANED SEAT RING - 3/4" TRAVEL

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			LINEAR		
							1L3750 VSC	1L5000 VSC	
MATERIAL						B	C	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	60	239	253	
316 SST	COCR-A	316 SST	316 SST	316 SST	14	60	239	253	
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	12	61	243	257	

HARD FACED SEAT RING

HARD FACED SEAT PLUG

CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	62	240	254
316 SST	COCR-A	316 SST	316 SST	316 SST	14	62	240	254

HARD FACED SEAT RING & SEAT & GUIDE PLUG

SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY

316 SST	COCR-A	316 SST	316 SST	316 SST	19	62	240	254
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HARD FACED SEAT RING

HARD FACED SEAT & GUIDE PLUG

CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	62	241	255
316 SST	COCR-A	316 SST	316 SST	316 SST	14	62	241	255

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			EQUAL %		QUICK OPEN		
							1L3750 VSC	1L5000 VSC	1L3750 VSC	1L5000 VSC	
MATERIAL						B	C	D	D	D	D
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	12	60	244	258	249	263	
316 SST	COCR-A	316SST	316SST	316SST	14	60	244	258	249	263	
CB7CU-1 H1150	17-4PH H900	416SST	416SST	316SST	12	61	248	262	252	266	

HARD FACED SEAT RING

HARD FACED SEAT PLUG

CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	12	62	245	259	250	264
316 SST	COCR-A	316SST	316SST	316SST	14	62	245	259	250	264

HARD FACED SEAT RING & SEAT & GUIDE PLUG

SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY

316 SST	COCR-A	316SST	316 SST	316SST	19	62	245	259	250	264
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HARD FACED SEAT RING

HARD FACED SEAT & GUIDE PLUG

CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	12	62	246	260	251	265
316 SST	COCR-A	316SST	316SST	316SST	14	62	246	260	251	265

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING, VANED (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - FULL CAPACITY VALVE PLUG - VANED SEAT RING - 1 1/8" TVL

							QUICK OPEN		
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	12	63	62	80	
316 SST	COCR-A	316 SST	316 SST	316 SST	14	63	62	80	
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	12	64	126	131	

HARD FACED SEAT RING

HARD FACED SEAT PLUG

CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	12	65	63	81
316 SST	COCR-A	316 SST	316 SST	316 SST	14	65	63	81

HARD FACED SEAT RING & SEAT & GUIDE PLUG

SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY

316 SST	COCR-A	316 SST	316 SST	316 SST	19	65	63	81
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HARD FACED SEAT RING

HARD FACED SEAT & GUIDE PLUG

CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	12	65	64	82
316 SST	COCR-A	316 SST	316 SST	316 SST	14	65	64	82

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			LINEAR		EQ %		
							1L5000 VSC	1L7500 VSC	1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	12	63	68	86	74	92	
316 SST	COCR-A	316SST	316SST	316SST	14	63	68	86	74	92	
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	12	64	127	132	128	133	

HARD FACED SEAT RING

HARD FACED SEAT PLUG

CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	12	65	69	87
316 SST	COCR-A	316SST	316SST	316SST	14	65	69	87

HARD FACED SEAT RING & SEAT & GUIDE PLUG

SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY

316 SST	COCR-A	316SST	316 SST	316SST	19	65	69	87
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HARD FACED SEAT RING

HARD FACED SEAT & GUIDE PLUG

CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	12	65	70	88
316 SST	COCR-A	316SST	316SST	316SST	14	65	70	88

**ITEM B - SEAT RING RETAINER (CONT)****ITEM C - SEAT RING, VANED (CONT)****ITEM D - VALVE PLUG (CONT)**

COMPOSITION SEAT - VANED SEAT RING - FULL CAPACITY VALVE PLUG - 1 1/8" TVL TFE DISC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			EQUAL % 1L5000 VSC
MATERIAL					B	C	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	63	195
		416 SST	416 SST	316 SST	12	64	199
316 SST	COCR-A	316 SST	316 SST	316 SST	14	63	195
			316/ COCR-A	316 SST	14	63	287

RESTRICTED 1" PORT (EXCEPT BELLOWS SEAL)

EQUAL PERCENTAGE CHARACTERISTIC (MICRO FORM TIP) - 3/4" TVL TFE DISC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1" PORT	
							1L3750 VSC	1L5000 VSC
MATERIAL					B	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	60	175	190
316 SST	COCR-A	316 SST	316 SST	316 SST	8	60	175	190
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	6	61	179	194

RESTRICTED 1" PORT (EXCEPT BELLOWS SEAL)

EQUAL PERCENT CHARACTERISTIC (MICRO FORM TIP) - VANED SEAT RING - 3/4" TVL TFE DISC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1" PORT	
							1L5001 VSC	1L5000 VSC
MATERIAL					B	C	D	D
316 SST	COCR-A	316 SST	316 SST	316 SST	8	60	175	190
HARD FACED PLUG GUIDE								
316 SST	COCR-A	316 SST	316/ COCR-A	316 SST	8	60	285	286

COMPOSITION SEAT - VANED SEAT RING - RESTRICTED 1" PORT (BELLOWS SEAL ONLY)

EQUAL PERCENT CHARACTERISTIC (MICRO FORM TIP) - 3/4" TVL TFE DISC

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1" PORT	
							1L3750 VSC	1L5000 VSC
MATERIAL					B	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	12	60	271	273
316 SST	COCR-A	316 SST	316 SST	316 SST	14	60	271	273
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	12	61	272	274



ITEM E - GASKETS

			(SEAT LOAD NOT CONSIDERED) (CANNOT EXCEED C.W.P.) MAX PRESS DROP PSI/100 DEG F,SHUT OFF				
			PORT SIZE				
SPIRAL WOUND	FLAT SHEET	TEMP ° F	3/16 & 1/4	1/2	3/4	1"	2
HAST C & COMP	GRAPH/SST	-100+450	760	770	790	810	1020
MONEL & COMP	GRAPH/SST	-100+450	760	770	790	810	1020
MONEL & PTFE	MONEL/PTFE	-100+300	980	990	1020	1060	1470
INCONEL & GRAPH	GRAPH/SST	-325+1100	980	990	1020	1060	1470
SPIRAL WOUND GASKETS		FLAT SHEET GASKETS	TEMP ° F	E			
MONEL & PTFE		MONEL/PTFE	-100+300	6			
HAST C & GRAPHITE		GRAPH/SST	-100+1100	9			
MONEL & GRAPHITE		GRAPH/SST	-100+900	10			
INCONEL & GRAPHITE		GRAPH/SST	-325+1100	8			

**ITEM F - BOLTING** (UNDERLINED BOLT GRADE SYMBOL INDICATES STRAIN HARDENED BOLTING)

BOLTING	NUT	TEMP ° F	BODY	TEMP ° F
SAE GRADE 5	--	-20+650		
SA-193-B7	SA-194-2H	-50+800		
SA-320-B8	SA-194-8	-425+100		
SA-193-B7M	SA-194-2HM	-50+800		
SA-193- <u>B8M</u>	SA-194-8M	-325+800	HAST C	-325+225
			MONEL	-325+450

BOLTING	C.W.P. PSI/100° F	HYDRO PSI/MIN
SA-193- <u>B8M</u>	1200	1800/1
SA-320-B8	800	1325/1
SA-193-B7M	1000	1500/1

BODY MATL	° F	BOLT	NUT	STD & EXT BNT	BELLOWS SEAL BONNET	ENVIRO-SEAL BELLOWS SEAL BONNET
CAST IRON	-20+450	SAE GR 5	--	F 1	F M	F M
WCC	-20+450	B7	2H	2	9	14
	450+800	B7	2H LUB	6	12	17
	-20+800	B7M	2HM	5	-	--
LCC	-50+450	B7	2H	2	9	14
	450+700	B7	2H LUB	6	12	17
	-50+800	B7M	2HM	5	-	--
CF8M	-325+100	B8	GR 8	4	11	16
	-325+450	B8M CL2	8M	3	10	15
	-50+450	B7	2H	2	9	14
	450+800	B7	2H LUB	6	12	17
		B8M CL2	8M LUB	7	13	18
	-50+800	B7M	2HM	5	-	--
ALLOY 20	-325+400	B8M CL2	8M	3	10	15
	-50+450	B7	2H	2	9	14
	450+800	B7	2H LUB	6	12	17
	-50+900	B7M	2HM	5	-	--
HAST C	-50+450	B7	2H	2	9	14
	-325+225	B8M CL2	8M LUB	7	13	18
	450+800	B7	2H LUB	6	12	17
	450+800	B7M	2HM LUB	5	-	--
MONEL	-325+450	B8M CL2	8M	3	10	15
	-50+450	B7	2H	2	9	14
	450+800	B7	2H LUB	6	12	17
	450+800	B7M	2HM LUB	5	-	--

**ITEM G - STEM****ITEM 9D - PRODUCT DESCRIPTOR (NAMEPLATE DATA FOR ENVIRO-SEAL BELLOWS SEAL)**

GROUP 1 ACTR PER AU2259

BONNET STYLE	CAPACITY	STEM VSC	STEM	G	9D
PLAIN	ALL	1L5001	316SST	1	N
			ALY 20	2	N
			HAST C	3	N
			K-MONEL	4	N
			NIT 50	36	N
	ALL	1L5000	316SST	5	N
			ALY 20	6	N
			HAST C	7	N
			K-MONEL	8	N
			NIT 50	37	N
	ALL	1L7500	316SST	9	N
			ALY 20	10	N
			HAST C	11	N
			K-MONEL	12	N
			NIT 50	38	N
EXT STYLE 1	ALL	1L5001	316SST	21	N
		1L5000	316SST	23	N
		1L7500	316SST	25	N
EXT STYLE 2	ALL	1L5001	316SST	22	N
		1L5000	316SST	24	N
		1L7500	316SST	26	N
BELLOWS SEAL	FULL	1L5000	316SST	31	N
	RESTRICTED M-FORM/FLUTE/FLOW	1L5000	316SST	32	N
ENVIRO-SEAL BELLOWS SEAL	ALL	ALL	316LSST	N	1
			HAST C	N	2

TYPE 607 & 617 ACTR

BONNET STYLE	CAPACITY	STEM VSC	STEM	G	9D
PLAIN	ALL	1L5001	316SST	13	N
			ALY 20	14	N
			HAST C	15	N
			K-MONEL	16	N
	ALL	1L5000	316SST	17	N
			ALY 20	18	N
			HAST C	19	N
			K-MONEL	20	N
	ALL	1L5001	316SST	27	N
			316SST	29	N
EXT STYLE 1	ALL	1L5001	316SST	27	N
		1L5000	316SST	29	N
EXT STYLE 2	ALL	1L5001	316SST	28	N
		1L5000	316SST	30	N
ENVIRO-SEAL BELLOWS SEAL	ALL	ALL	316LSST	N	1
			HAST C	N	2

ITEM J - NAMEPLATE

	J
FISHER	1
PICK HEATERS	2

**ITEM K - FLOW ARROW****K**

1

ITEM 9B - CLASS/HYDRO

STYLE	BODY	CLASS	HYDRO PSI/MIN	9B
ASME	CAST IRON	125B	300 PSI/1 MIN	1
		250B	750 PSI/1 MIN	2
	WCC, C5 & CF8M	150	450 PSI/1 MIN	3
		300	1125 PSI/1 MIN	4
		600	2250 PSI/1 MIN	5
	ALLOY 20	150	350 PSI/1 MIN	6
		300	900 PSI/1 MIN	7
		600	1800 PSI/1 MIN	8
	MONEL	150	350 PSI/1 MIN	9
		300	900 PSI/1 MIN	10
		600	1800 PSI/1 MIN	11
	HAST C	150	450 PSI/1 MIN	12
		300	1125 PSI/1 MIN	13
		600	2250 PSI/1 MIN	14
EN	CAST IRON WCC, CF8M & LCC	PN 10/16	350 PSI (24 BAR)/1 MIN	16
		PN 10/16/25/40	875 PSI (60 BAR)/1 MIN	17
		PN 63	1375 PSI (95 BAR)/1 MIN	18
		PN 100	2175 PSI (150 BAR)/1 MIN	19

ITEM 9C - SEAT LEAK TEST FGS 4L5

SEAT	SEAT LEAK CLASS	CHARACTERISTIC	PORT SIZE	TRAVEL		VALUE	9C
METAL	IV (SCFH)	QUICK OPENING	1	3/4		4.44	1
			2	1 1/8		13.8	2
		LINEAR	1	3/4		3.87	3
			2	1 1/8		13.0	4
		EQUAL PERCENT	1	3/4		3.91	5
			2	1 1/8		13.2	6
		M-FORM	1/4	3/4		0.313	7
			3/8	3/4		0.672	8
			1/2	3/4		1.15	9
			3/4	3/4		2.47	10
		M-FLUTE	1/4	3/4	1 FLUTE	0.060	13
					2 FLUTE	0.118	14
					3 FLUTE	0.181	15
		M-FLOW	3/16	3/4	0.075 Cv	0.019	16
					0.181 Cv	0.039	17
	V AIR TEST (BUBBLES/MIN)	ALL	3/16	3/4		6	18
			1/4	3/4		8	19
			3/8	3/4		12	20
			1/2	3/4		16	21
			3/4	3/4		24	22
			1	3/4		32	23
			V AIR TEST (ML/MIN)	ALL	2	1 1/8	
COMP	VI(BUBBLES/MIN)	EQUAL PERCENT	1	3/4		1	11
			2	1 1/8		3	12
		M-FORM	1/4-3/4	3/4		1	11
		M-FLUTE	1/4	3/4		1	11
		M-FLOW	3/16	3/4		1	11

**ITEM 9E – FLOW DIRECTION**

FLOW DIRECTION	9E
UP	1
DOWN	2

ITEM 9Z - PARTIAL ASSY (USE FOR NAMEPLATE PAD VALUES)

ASSY INCLUDED ITEMS	INDEX CODES	9Z
A,F,J,9B	10004,10005,10006,10008	1

COMPOSITION SEAT ASSEMBLY DRAWING	46A1842
ASSEMBLY DRAWING	35A5717
GASKET ASSEMBLY DRAWING	16A1943

Revision Change Record Section for the present Revision

ECRN: 20181361

On page 4 and 5, add Alloy6 plug trim combination to trim material table.

Matrix Section:

Item	Module	Changes
D	303	New-Create “solid Alloy 6 M-Flute 1F plug”.
D	304	New-Create “solid Alloy 6 M-Flute 2F plug”.
D	305	New-Create “solid Alloy 6 M-Flute 3F plug”.