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Design EZ Valve Body Assemblies, NPS 4

Fisher Controls Int. Inc.

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EZX5 - A B C D E F G H J K 9B 9C 9D 9Z

Item	Parts contained in Item	Find Number
A	Valve Body	1
	Pipe Plug	17
В	Seat Ring Retainer	3
B C D	Seat Ring	9
D	Valve Plug	2
	Groove Pin	8
	Plug Guide	27
	Disc or Disc Seat	29
	Plug Tip	30
	Cap Screw	32
Е	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 J	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	
~~	D	

⁹Z Partial Assembly

Rev: BU

Design EZ Valve Body Assemblies, NPS 4

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

MATL	TEMP ° F	CLASS	CWP PSI	HYDRO PSI/MIN
CI	-100+450	125	200	300/2
		250	500	750/2
LCC	-50+650	150	290	450/2
		300	750	1125/2
		600	1500	2250/2
C5	-20+1100	150	290	450/2
		300	750	1125/2
		600	1500	2250/2
WCC	-20+800	150	290	450/2
		300	750	1125/2
		600	1500	2250/2
CF8M	-325+1000	150	275	450/2
		300	720	1125/2
		600	1440	2250/2
ALY 20	-325+800	150	230	400/2
		300	600	1025/2
		600	1200	2025/2
HAST C	-325+1000	150	290	450/2
		300	750	1125/2
		600	1500	2250/2
MONEL	-325+800	150	230	350/2
		300	600	900/2
		600	1200	1800/2

FOREIGN MANUFACTURED EN FLANGES (SIZE 100MM)

MATL	TEMP ° F	TEMP°C	PN EN	CWP(BAR)
WCC	-20+800	-29 + 425	PN10/16	16
			PN25/40	40
			PN63	63
			PN100	100
LCC	-50+650	-46 +343	PN10/16	16
			PN25/40	40
			PN63	63
			PN100	100
CF8M	-325+1000	-198 +538	PN10/16	16
			PN25/40	40
			PN63	63
			PN100	100

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Fisher Controls Int. Inc.

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

INTEGRAL	125B FF	7	250B RI	7	SCH 40	BWE	SCH 80	BWE	CL150 F	RF	CL300 R	ŀF	
FLANGED	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	
BODIES	A	A	Α	A	A	A	A	A	A	A	A	A	
CAST IRON	1	37	2	38	M	M	M	M	M	M	M	M	
WCC	M	M	M	M	3	39	5	41	7	43	12	48	
LCC	-	-	-	-	-	-	-	-	106	-	107	-	
CF8M	M	M	M	M	4	40	6	42	8	44	13	49	
ALLOY 20	M	M	M	M	M	M	M	M	9	45	14	50	
HAST C	M	M	M	M	M	M	M	M	10	46	15	51	
MONEL	M	M	M	M	M	M	M	M	11	47	16	52	
C5	M	M	M	M	78	86	79	87	80	88	81	89	

	CL600 R	CL600 RF		CL150 RTJ		TJ	CL600 RTJ		
	N/TAP	TAP	N/TAP	N/TAP TAP		N/TAP TAP		TAP	
	A	A	A	A	A	A	A	A	
WCC	17	53	22	58	27	63	32	68	
LCC	108	-	-	-	-	-	111	-	
CF8M	18	54	23	59	28	64	33	69	
ALLOY 20	19	55	24	60	29	65	34	70	
HAST C	20	56	25	61	30	66	35	71	
MONEL	21	57	26	62	31	67	36	72	
C5	82	90	83	91	84	92	85	93	

DN100, EN1092-1

WITHOUT DRAIN TAPPING

	RF (Type I	3)			Spigot (Ty	pe E)	Recess (Type F)			
	PN 10/16	PN 10/16 PN 25/40 PN 63 PN 100		10/16 PN 25/40 PN 63 PN 100 PN 10/16 PN 25/40 P		PN 10/16	PN 10/16 PN 25/40		PN100	
BODY	A	A	A	A	A	A	A	A	A	Α
CI	100	-	-	-	-	-	-	-	-	-
WCC	113	101	117	120	-	-	123	126	129	132
CF8M	114	102	118	121	-	112	124	127	130	133
LCC	115	116	119	122	-	109	125	128	131	134

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Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING

ITEM C - SEAT RING

ITEM D - VALVE PLUG

ITEM G - STEM

METAL SEAT

							THERMA	
	ī				ı	•		ION LIMIT
SEAT		I	1	1	NON LUBR	LUBR		DDY COMB
RING		SEAT	VALVE		FLUID	FLUID		APPLICABLE
RETAINER	BUSHING	RING	PLUG	STEM	TEMP ° F	TEMP ° F	BODY	TEMP ° F
CB7CU-1	17-4PH	316	316	316	-150+300	-150+700	CF8M	-150+360
								(LUBR)
316	COCR-A	316	316	316	-325+300	-325+700	WCC	-20+640
								(LUBR)
							C5	-20+450
								(LUBR)
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+350
HARD FA	CED SEAT RI	NG						
HARD FA	CED SEAT PL	UG						
CB7CU-1	17-4PH	316	316	316	-150+300	-150+700	CF8M	-150+360
								(LUBR)
316	COCR-A	316	316	316	-325+300	-325+700	WCC	-20+640
								(LUBR)
							C5	-20+450
								(LUBR)
HARD FA	CED SEAT RI	NG						
HARD FA	CED SEAT &	GUIDE PLUG	Í					
CB7CU-1	17-4PH	316	316	316	-150+450	-150+700	CF8M	-150+360
316	COCR-A	316	316	316	-325+700	-325+700	WCC	-20+640
							C5	-20+450
HARD FAC	CED SEAT RIN	NG						
HARD FAC	ED SEAT & C	GUIDE PLUG						
SPECIAL T.	ACK WELDE	D SEAT RING	RETAINER/	BUSHING AS	SEMBLY			
316	COCR-A	316	316	316	-325+800	-325+1100	WCC	-20+640
HARD FACE			- 					
HARD FA	CED SEAT, G	UIDE & CON	TOUR PLUG					
316	COCR-A	316	316	316	-325+700	-325+700	WCC	-20+640
		1					C5	-20+450

COMPOSITION SEAT - TFE DISC

COM OBITION BEAT THE BISC											
							THERMA	AL			
							EXPANS	ION LIMIT			
SEAT				LUBR	TRIM/BO	DDY COMB					
RING		SEAT	VALVE		FLUID	FLUID	WHERE APPLICABLE				
RETAINER	BUSHING	RING	PLUG	STEM	TEMP ° F	TEMP ° F	BODY	TEMP ° F			
'		316	316	316	-100+300	-100+400	CF8M	-150+360(LUBR)			
		416	416	316	-20+400	-20+400	CF8M	-20+350			
316	COCR-A	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					

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Design EZ Valve Body Assemblies, NPS 4

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

ITEM G - STEM (CONT)

METAL SEAT

					(SEAT LO MAX PRI (CANNO)				
	1				SHUT-OF	F			FLOWING
SEAT					2 PORT		4 PORT		ALL PORTS
RING		SEAT	VALVE		1/2	3/4	1/2	3/4	ALL
RETAINER	BUSHING	RING	PLUG	STEM	STEM	STEM	STEM	STEM	STEMS
CB7CU-1	17-4PH	316	316	316	300	300	300	300	1500
316	COCR-A	316	316	316	300	300	300	300	1500
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	300	300	267	300	1500
HAST C	HAST C	HAST C	HAST C	HAST C	300	300	273	300	1500
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	800	800	800	800	1500
CB7CU-1	17-4PH	416	416	316	1500	1500	405	912	1500
	CED SEAT RIN								
CB7CU-1	17-4PH	316	316	316	1500	1500	405	912	1500
316	1					1500		-	
	COCR-A	316	316	316	1500	1500	405	912	1500
	CED SEAT RIN								
	CED SEAT & C	1	216	216	1500	1500	105	010	1500
CB7CU-1	17-4PH	316	316	316	1500	1500	405	912	1500
316	COCR-A	316	316	316	1500	1500	405	912	1500
	CED SEAT & E								
	CED SEAT, GU			,			1		1
316	COCR-A	316	316	316	1500	1500	405	912	1500

COMPOSITION SEAT - TFE DISC

(SEAT LOAD NOT CONSIDERED) MAX PRESS DROP PSI/100 DEG F (CANNOT EXCEED C.W.P)

					SHUT OF	F		FLOWING	
SEAT					2 PORT		4 PORT		ALL PORTS
RING		SEAT	VALVE		1/2	3/4	1/2	3/4	ALL
RETAINER	BUSHING	RING	PLUG	STEM	STEM	STEM	STEM	STEM	STEMS
CB7CU-1	17-4PH	316	316	316	1500	1500	405	912	1500
316	COCR-A	316	316	316	1500	1500	405	912	1500
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	1066	1500	267	600	1500
HAST C	HAST C	HAST C	HAST C	HAST C	1091	1500	273	612	1500
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	1500	1500	423	952	1500
CB7CU-1	17-4PH	416	416	316	1500	1500	405	912	1500

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Design EZ Valve Body Assemblies, NPS 4

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (EXCEPT FOR BELLOWS SEAL) - 1 1/8" TVL

									LIN	EAR	
SEAT RING		SEAT	VAI	LVE					1L50	000	1L7500
RETAINER	BUSHING	RING	PLU		STEM				VSC		VSC
MATERIAL	Bosini	1111,0	1120		Z121.1		В	С	I		D
CB7CU-1 H1150	17-4 H900	316 SS	Т 316	ССТ	316 SST	,	7	1	1		13
316 SST	COCR-A	316 SS			316 SST		9	1			13
							_				
ALLOY 20	ALLOY 20				ALLOY		10	2	4		16
HAST C	HAST C	HAST			HAST (11	3	-		17
MONEL M-35W	K-MONEL	_			K-MON		12	4	(18
CB7CU-1 H1150	17-4 H900	416 SS	Γ 416	SST	316 SST		7	12	7	3	78
HARD FACEI	SEAT RING										
HARD FACEI	SEAT PLUG	ř									
CB7CU-1 H1150	17-4 H900	316 SS	Г 316	SST	316 SST		7	5	2	2	14
316 SST	COCR-A	316 SS	Т 316	SST	316 SST	-	9	5	2	2	14
HARD FACEI				1						1	<u>.</u>
HARD FACEI											
CB7CU-1 H1150	17-4 H900	316 SS	Т 316	T22	316 SST	,	7	5	3	<u> </u>	15
316 SST	COCR-A	316 SS			316 SST		9	5	3		15
						-	9	3		,	13
HARD FACED						(DI I	7				
SPECIAL TAC						MRL.			1	_	
316 SST	COCR-A	316 SST	316 SS	ST :	316 SST		13	5	,	3	15
HARD FACED S											
HARD FACEI	SEAT,GUID	E & CONTO	OUR PLUG								
316 SST	COCR-A	316 SS	Т 316	SST	316 SST		9	11	7	6	81
	•	•	·	•					•	·	
							EQ %			QUICK	OPEN
SEAT RING		SEAT	VALVE				1L5000	1L	7500	1L5000	1L7500
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VS	C	VSC	VSC
MATERIAL					В	C	D		D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	1	7		19	61	67
316 SST	COCR-A	316SST	316SST	316SST	9	1	7		19	61	67
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	10	2	10		22	64	70
HAST C	HAST C	HAST C	HAST C	HAST C	11	3	11		23	65	71
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEI		4	12		24	66	72
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	7	12	74		79	75	80
HARD FACED S											
HARD FACED S		T	T	1							
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	5	8		20	62	68
316 SST	COCR-A	316SST	316SST	316SST	9	5	8		20	62	68
HARD FACED S											
HARD FACED S							_	1			
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	5	9		21	63	69
316 SST	COCR-A	316SST	316SST	316SST	9	5	9		21	63	69
HARD FACED											
SPECIAL TACK						_	1 0		21		
316 SST		316 SST	316 SST	316 SST	13	5	9		21	63	69
HARD FACED SEA	AT x_2 RORERII	N(i									
TIADD DAGED			DLUC								
HARD FACED S			PLUG 316SST	316SST	9	11	77		82		

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Engineering Master

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Design EZ Valve Body Assemblies, NPS 4

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (BELLOWS SEAL ONLY) - 1 1/8" TVL

							LINEAR	
SEAT RING		SEAT	VALVE				1L5000	1L7500
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC
MATERIAL					В	C	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	1	103	115
316 SST	COCR-A	316 SST	316 SST	316 SST	3	1	103	115
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	1	12	107	119
HARD FACED S	SEAT RING							
HARD FACED S	SEAT PLUG							
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	5	104	116
316 SST	COCR-A	316 SST	316 SST	316 SST	3	5	104	116
HARD FACED S	SEAT RING							
HARD FACED S	SEAT & GUIDE P	LUG						
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	5	105	117
316 SST	COCR-A	316 SST	316 SST	316 SST	3	5	105	117
HARD FACED S	SEAT RING, HAR	D FACED S	EAT & GUII	DE PLUG				
SPECIAL TACK	WELDED SEAT	RING RETA	AINER/BUSH	HING ASSEN	MBLY			
316 SST	COCR-A	316 SST	316 SST	316 SST	14	5	105	117
HARD FACED SE	EAT & BORE RIN	G						
HARD FACED S	SEAT,GUIDE & C	ONTOUR P	LUG					
316 SST	COCR-A	316 SST	316 SST	316 SST	3	11	106	118

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Design EZ Valve Body Assemblies, NPS 4

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (BELLOWS SEAL ONLY) - 1 1/8" TVL (CONT)

							EQ	%		QU	JICK (OPEN
SEAT RING		SEAT	VALVE	1				000	1L750		5000	1L7500
	BUSHING	RING	PLUG	STEM			VSC		VSC	VS		VSC
MATERIAL			,		В	C		D	D		D	D
	17-4PH	316 SST	316 SST	316 SST	1	1	1	08	120	1	112	124
	H900											
	COCR-A	316 SST	316 SST	316 SST	3	1		08	120	1	112	124
	17-4PH	416 SST	416 SST	316 SST	1	12	-					
	H900	<u> </u>										
HARD FACE												
HARD FACE		316 SST	316 SST	316 SST	1	_	1	00	121		112	125
	17-4PH H900	210 221	310 331	310 331	1	5	1	09	121		113	125
	COCR-A	316 SST	316 SST	316 SST	3	5	1	09	121		113	125
HARD FACE			310 331	310 331		3	1	0)	121		113	123
HARD FACE			G									
	17-4PH	316 SST	316 SST	316 SST	1	5	1	10	122		114	126
	H900	510 551	310 551	310 551	•		1	10	122			120
	COCR-A	316 SST	316 SST	316 SST	3	5	1	10	122		114	126
HARD FACE	D SEAT RIN	G, HARD	FACED SE	AT & GUID	E PL	UG			l .			
SPECIAL TA	CK WELDEI	SEAT RI	NG RETAI	NER/BUSH	ING A	ASSEN	MBLY	l				
316 SST	COCR-A	316 SST	316 SST	316 SST	14	5	1	10	122	2	114	126
HARD FACE												
HARD FACE							1		1			
			316 SST	316 SST	3	11	1	11	123			
FULL CAPACIT	Y, 2" TRAVI	EL	316 SST COCR-A 316 SST 316 SST 3 11 111 123 FULL CAPACITY, 2" TRAVEL									
									ĺ	OTHO	Z ODE	NT.
CEAT DING	ı	Lan	. T	37.41.375	1					QUIC		
SEAT RING	BUGHIN	SEA DIN		VALVE	l gr	гем		I		1L500	0 1	L7500
RETAINER	BUSHIN			VALVE PLUG	S	ГЕМ		P	C	1L500 VSC	0 1	L7500 /SC
RETAINER MATERIAL		G RIN	1G	PLUG				B	C	1L500 VSC D	0 1	L7500 /SC D
RETAINER MATERIAL CB7CU-1 H1150	17-4 H90	00 316	SST	PLUG 316 SST	31	.6 SST		1	6	1L500 VSC D 25	0 1	L7500 /SC D 43
RETAINER MATERIAL CB7CU-1 H1150 316 SST	17-4 H90 COCR-A	00 316 316	SST SST	PLUG 316 SST 316 SST	31	6 SST	ı	1 3	6 6	1L500 VSC D 25 25	0 1	L7500 /SC D 43 43
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20	17-4 H90 COCR-A ALLOY	00 316 316 20 AL	SST SST LOY 20	PLUG 316 SST 316 SST ALLOY 20	31 31 A	6 SST 6 SST LLOY	20	1	6	1L500 VSC D 25	0 1	L7500 /SC D 43
RETAINER MATERIAL CB7CU-1 H1150 316 SST	17-4 H90 COCR-A ALLOY HAST C	00 316 316 20 AL HA	SST SST LOY 20	PLUG 316 SST 316 SST	31 31 A	6 SST	20	1 3 4	6 6 7	1L500 VSC D 25 25 28	0 1	L7500 /SC D 43 43 46
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C	17-4 H90 COCR-A ALLOY HAST C K-MONI	00 316 316 20 AL HA EL K-M	SST SST LOY 20 ST C	316 SST 316 SST ALLOY 20 HAST C	31 31 A H K	6 SST 6 SST LLOY AST C	20 EL	1 3 4 5	6 6 7 8	1L500 VSC D 25 25 28 29	0 1	L7500 //SC D 43 43 46 47
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90	O 316 316 20 AL HA EL K-M	SST SST LOY 20 ST C MONEL	316 SST 316 SST ALLOY 20 HAST C K-MONEL	31 31 A H K	6 SST 6 SST LLOY AST C	20 EL	1 3 4 5 6	6 6 7 8 9	1L500 VSC D 25 25 28 29 30	0 1	L7500 //SC D 43 43 46 47 48
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN	00 316 316 20 AL HA EL K-M 00 416	SST SST LOY 20 ST C MONEL	316 SST 316 SST ALLOY 20 HAST C K-MONEL	31 31 A H K	6 SST 6 SST LLOY AST C	20 EL	1 3 4 5 6	6 6 7 8 9	1L500 VSC D 25 25 28 29 30	0 1	L7500 //SC D 43 43 46 47 48
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE CB7CU-1 H1150	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU	OO 316 316 220 AL HA EL K-M OO 416 G JG	SST SST LOY 20 ST C MONEL SST	PLUG 316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST	31 31 A H K 31	6 SST 6 SST LLOY AST C -MON 6 SST	20 EL	1 3 4 5 6	6 6 7 8 9	1L500 VSC D 25 25 28 29 30	0 1	L7500 //SC D 43 43 46 47 48
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE CB7CU-1 H1150 316 SST	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU 17-4 H90 COCR-A	OO 316 316 220 AL HA EL K-M OO 416 G JG 316 316	SST SST LOY 20 ST C MONEL SST	316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST	31 31 A H K 31	6 SST 6 SST LLOY AST C -MON 6 SST	20 EL	1 3 4 5 6 1	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83	0 1	L7500 /SC D 43 43 46 47 48 88
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE CB7CU-1 H1150 316 SST HARD FACE	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU 17-4 H90 COCR-A D SEAT RIN	G RIN 00 316 316 20 AL HA EL K-N 00 416 G 00 316 316 G	SST SST CMONEL SST SST	PLUG 316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST	31 31 A H K 31	6 SST 6 SST LLOY AST C -MON 6 SST	20 EL	1 3 4 5 6 1	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83	0 1	L7500 /SC D 43 43 46 47 48 88
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE CB7CU-1 H1150 316 SST HARD FACE HARD FACE HARD FACE	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT PLU 17-4 H90 COCR-A D SEAT RIN D SEAT RIN	G RIN 00 316 316 20 AL HA EL K-N 00 416 G IG 00 316 G UIDE PLU	SST SST LOY 20 ST C MONEL SST SST	PLUG 316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST 316 SST	31 31 A H K 31	6 SST 6 SST LLOY AST C -MON 6 SST 6 SST	20 EL	1 3 4 5 6 1	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83	0 1	L7500 /SC D 43 43 46 47 48 88
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE CB7CU-1 H1150 316 SST HARD FACE HARD FACE CB7CU-1 H1150	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU COCR-A D SEAT RIN D SEAT RIN D SEAT & G	G RIN 00 316 316 20 AL HA EL K-N 00 416 G 1G 00 316 316 G UIDE PLU 00 316	SST SST LOY 20 ST C MONEL SST SST SST	PLUG 316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST 316 SST	31 31 A' H. K. 31	6 SST 6 SST LLOY AST C -MON 6 SST 6 SST	20 EL	1 3 4 5 6 1	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83	0 1	L7500 /SC D 43 43 46 47 48 88
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE HARD FACE HARD FACE CB7CU-1 H1150 316 SST HARD FACE CB7CU-1 H1150 316 SST	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU COCR-A D SEAT RIN D SEAT & G 17-4 H90 COCR-A	G RIN 00 316 316 20 AL HA EL K-N 00 416 G 00 316 316 G UIDE PLU 00 316	SST	PLUG 316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST 316 SST 316 SST	31 31 A' H K 31 31	6 SST 6 SST LLOY AST C -MON 6 SST 6 SST 6 SST	20 EL	1 3 4 5 6 1	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83	0 1	L7500 /SC D 43 43 46 47 48 88
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE HARD FACE CB7CU-1 H1150 316 SST HARD FACE CB7CU-1 H1150 316 SST HARD FACE	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU COCR-A D SEAT RIN D SEAT & G 17-4 H90 COCR-A C SEAT RIN COCR-A	G RIN 00 316 316 20 AL HA EL K-M 00 416 G G G UIDE PLU 00 316 316 G, HARD F	SST	PLUG 316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST 316 SST 316 SST AT & GUIDH	31 31 A H K 31 31 31 31	6 SST 6 SST LLOY AST C -MON 6 SST 6 SST 6 SST 5 SST JG	20 EL	1 3 4 5 6 1	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83	0 1	L7500 /SC D 43 43 46 47 48 88
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE CB7CU-1 H1150 316 SST HARD FACE CB7CU-1 H1150 316 SST HARD FACE SPECIAL TAC	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU COCR-A D SEAT RIN D SEAT & G 17-4 H90 COCR-A COCR-A COCR-A	G RIN 00 316 316 20 AL HA EL K-M 00 416 G G UIDE PLU 00 316 316 G, HARD F SEAT RIN	SST	316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST 316 SST 316 SST 316 SST	31 31 A H. K. 31 31 31 31	6 SST 6 SST LLOY AST C -MON 6 SST 6 SST 6 SST JG SSEM	20 EL	1 3 4 5 6 1 1 3	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83 26 26	0 1	L7500 /SC D 43 43 46 47 48 88 44 44 45
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE CB7CU-1 H1150 316 SST HARD FACE CB7CU-1 H1150 316 SST HARD FACE CB7CU-1 H1150 316 SST HARD FACEI SPECIAL TAC 316 SST	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU COCR-A D SEAT RIN D SEAT RIN D SEAT RIN COCR-A	G RIN 00 316 316 20 AL HA EL K-N 00 416 G IG 00 316 316 316 G UIDE PLU 00 316 316 G, HARD F SEAT RIN	SST	PLUG 316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST 316 SST 316 SST AT & GUIDH	31 31 A H. K. 31 31 31 31	6 SST 6 SST LLOY AST C -MON 6 SST 6 SST 6 SST 5 SST JG	20 EL	1 3 4 5 6 1	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83	0 1	L7500 /SC D 43 43 46 47 48 88
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE CB7CU-1 H1150 316 SST HARD FACE CB7CU-1 H1150 316 SST HARD FACE SPECIAL TAC 316 SST HARD FACEI SPECIAL TAC THARD FACED THARD FACEI THARD FACE	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU COCR-A D SEAT RIN D SEAT RIN D SEAT RIN COCR-A	G RIN 00 316 316 20 AL HA EL K-N 00 416 G JG 00 316 316 316 G UIDE PLU 00 316 316 G G, HARD F SEAT RIN 316 RE RING	SST	316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST 316 SST 316 SST 316 SST 316 SST 316 SST AT & GUIDINER/BUSHIN 316 SST	31 31 A H. K. 31 31 31 31	6 SST 6 SST LLOY AST C -MON 6 SST 6 SST 6 SST JG SSEM	20 EL	1 3 4 5 6 1 1 3	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83 26 26	0 1	L7500 /SC D 43 43 46 47 48 88 44 44 45
RETAINER MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACE HARD FACE CB7CU-1 H1150 316 SST HARD FACE CB7CU-1 H1150 316 SST HARD FACE CB7CU-1 H1150 316 SST HARD FACEI SPECIAL TAC 316 SST	17-4 H90 COCR-A ALLOY HAST C K-MONI 17-4 H90 D SEAT RIN D SEAT PLU COCR-A D SEAT RIN D SEAT RIN D SEAT RIN COCR-A	G RIN 00 316 20 AL HA EL K-M 00 416 G 00 316 316 G UIDE PLU 00 316 316 G G, HARD F SEAT RIN 316 RE RING DE & COM	SST	316 SST 316 SST ALLOY 20 HAST C K-MONEL 416 SST 316 SST 316 SST 316 SST 316 SST 316 SST 316 SST AT & GUIDINER/BUSHIN 316 SST	31 A H. K. 31 31 31 31 31 31 31	6 SST 6 SST LLOY AST C -MON 6 SST 6 SST 6 SST JG SSEM	EL BLY	1 3 4 5 6 1 1 3	6 6 7 8 9 14	1L500 VSC D 25 25 28 29 30 83 26 26	0 1	L7500 /SC D 43 43 46 47 48 88 44 44 44

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Design EZ Valve Body Assemblies, NPS 4

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

METAL SEAT - FULL CAPACITY, 2" TRAVEL (CONT)

SEAT RING RETAINER BUSHING RING PLUG STEM ST	METAL SEAT - FU	JLL CAPACI	111,2 IKA	VEL (CON I)			_			
RETAINER BUSHING RING PLUG STEM VSC VSC VSC VSC MATERIAL B C D D D D D D D D D								LINEAR		EQ %	
MATERIAL B C D D D CB7CU-1 H1150 17-4 H900 316SST 316SST 316SST 1 6 31 49 37 55 316 SST COCR-A 316SST 316SST 316SST 3 6 31 49 37 55 ALLOY 20 ALLOY 20 ALY 20 ALY 20 4 7 34 52 40 58 HAST C HAST C HAST C HAST C 5 8 35 53 41 59 MONEL M-35W K-MONEL KMONEL KMONEL KMONEL KMONEL 6 9 36 54 42 60 CB7CU-1 H1150 17-4 H900 416SST 416SST 316SST 1 14 84 89 85 90 HARD FACED SEAT PLUG CB7CU-1 H1150 17-4 H900 316SST 316SST 316SST 3 10 32 50 38 56	SEAT RING		SEAT	VALVE				1L5000	1L7500	1L5000	1L7500
CB7CU-1 H1150 17-4 H900 316SST 316SST 316SST 1 6 31 49 37 55 316 SST COCR-A 316SST 316SST 316SST 3 6 31 49 37 55 ALLOY 20 ALLOY 20 ALY 20 ALY 20 4 7 34 52 40 58 HAST C HAST C HAST C HAST C 5 8 35 53 41 59 MONEL M-35W K-MONEL KMONEL KMONEL KMONEL KMONEL 6 9 36 54 42 60 CB7CU-1 H1150 17-4 H900 416SST 416SST 316SST 1 14 84 89 85 90 HARD FACED SEAT RING THARD FACED SEAT RING 316SST 316SST 316SST 3 16SST 3 16SST <td< td=""><td>RETAINER</td><td>BUSHING</td><td>RING</td><td>PLUG</td><td>STEM</td><td></td><td></td><td>VSC</td><td>VSC</td><td>VSC</td><td>VSC</td></td<>	RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC	VSC	VSC
316 SST	MATERIAL					В	C	D	D	D	D
ALLOY 20	CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	1	6	31	49	37	55
HAST C HAST C HAST C HAST C HAST C HAST C S 8 35 53 41 59 MONEL M-35W K-MONEL KMONEL KMONEL 6 9 36 54 42 60 CB7CU-1 H1150 17-4 H900 416SST 416SST 316SST 1 14 84 89 85 90 HARD FACED SEAT PLUG CB7CU-1 H1150 17-4 H900 316SST 316SST 316SST 1 10 32 50 38 56 316 SST COCR-A 316SST 316SST 3 10 32 50 38 56 HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG HARD FACED SEAT & GUIDE PLUG 4 4 4 5 5 4 4 5 9 3 6 5 3 5 3 5 6 3 5 6 3 5 6 3 6 3 6 3 6 <td< td=""><td>316 SST</td><td>COCR-A</td><td>316SST</td><td>316SST</td><td>316SST</td><td>3</td><td>6</td><td>31</td><td>49</td><td>37</td><td>55</td></td<>	316 SST	COCR-A	316SST	316SST	316SST	3	6	31	49	37	55
MONEL M-35W CB7CU-1 H1150 K-MONEL 17-4 H900 KMONEL 416SST KMONEL 316SST KMONEL 1 66 9 36 54 42 60 HARD FACED SEAT RING HARD FACED SEAT PLUG 84 89 85 90 CB7CU-1 H1150 17-4 H900 316SST 316SST 1 10 32 50 38 56 316 SST COCR-A 316SST 316SST 3 10 32 50 38 56 HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG 8 8 8 56 36 36 54 42 60 85 90 85 90 85 90 85 90 85 90 85 90 85 90 85 90 85 85 90 85 90 <t< td=""><td>ALLOY 20</td><td>ALLOY 20</td><td>ALY 20</td><td>ALY 20</td><td>ALY 20</td><td>4</td><td>7</td><td>34</td><td>52</td><td>40</td><td>58</td></t<>	ALLOY 20	ALLOY 20	ALY 20	ALY 20	ALY 20	4	7	34	52	40	58
CB7CU-1 H1150 17-4 H900 416SST 416SST 316SST 1 14 84 89 85 90 HARD FACED SEAT RING HARD FACED SEAT PLUG CB7CU-1 H1150 17-4 H900 316SST 316SST 316SST 1 10 32 50 38 56 316 SST COCR-A 316SST 316SST 3 10 32 50 38 56 HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG	HAST C	HAST C	HAST C	HAST C	HAST C	5	8	35	53	41	59
HARD FACED SEAT RING HARD FACED SEAT PLUG CB7CU-1 H1150	MONEL M-35W	K-MONEL	KMONEL	KMONEL	KMONEL	6	9	36	54		60
HARD FACED SEAT PLUG CB7CU-1 H1150 17-4 H900 316SST 316SST 1 10 32 50 38 56 316 SST COCR-A 316SST 316SST 3 10 32 50 38 56 HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG	CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	1	14	84	89	85	90
CB7CU-1 H1150 17-4 H900 316SST 316SST 316SST 1 10 32 50 38 56 316 SST COCR-A 316SST 316SST 3 16SST 3 10 32 50 38 56 HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG	HARD FACED SE	EAT RING									
316 SST COCR-A 316SST 316SST 3 16SST 3 10 32 50 38 56 HARD FACED SEAT & GUIDE PLUG HARD FACED SEAT & GUIDE PLUG 4 10 32 50 38 56	HARD FACED SE	EAT PLUG									
HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG	CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	1	10	32	50	38	56
HARD FACED SEAT & GUIDE PLUG	316 SST	COCR-A	316SST	316SST	316SST	3	10	32	50	38	56
	HARD FACED SE	EAT RING									
CB7CU-1 H1150 17-4 H900 316SST 316SST 316SST 1 10 33 51 39 57	HARD FACED SE	EAT & GUIDE	PLUG								
	CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	1	10	33	51	39	57
316 SST COCR-A 316SST 316SST 3 10 33 51 39 57	316 SST	COCR-A	316SST	316SST	316SST	3	10	33	51	39	57
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG	HARD FACED SE	EAT RING, HA	RD FACED S	SEAT & GUID	E PLUG						
SPECIAL TACK WELDED SAET RING RETAINER/BUSHING ASSEMBLY	SPECIAL TACK V	WELDED SAE	T RING RETA	AINER/BUSH	ING ASSEMI	BLY					
316 SST COCR-A 316 SST 316 SST 14 10 33 51 39 57	316 SST	COCR-A	316 SST	316 SST	316 SST	14	10	33	51	39	57
HARD FACED SEAT & BORE RING	HARD FACED SEA	T & BORE RI	NG								
HARD FACED SEAT,GUIDE & CONTOUR PLUG	HARD FACED SE	EAT,GUIDE &	CONTOUR P	LUG							
316 SST COCR-A 316SST 316SST 3 13 86 91 87 92	316 SST	COCR-A	316SST	316SST	316SST	3	13	86	91	87	92

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Design EZ Valve Body Assemblies, NPS 4

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

COMPOSITION SEAT - FULL CAPACITY, EQUAL PERCENT, 2" TVL

SEAT RING		SEAT	VALVE				VSC	
RETAINER	BUSHING	RING	PLUG	STEM			1L5000	1L7500
MATERIAL					В	C	D	D
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	1	6	93	98
316SST	COCR-A	316SST	316SST	316SST	3	6	93	98
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	4	7	94	99
HAST C	HAST C	HAST C	HAST C	HAST C	5	8	95	100
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	6	9	96	101
CB7CU-1 H1150	17-4PH H900	416SST	416SST	316SST	1	14	97	102
HARD FACED	PLUG GUIDE							
316SST	COCR-A	316SST	316/ COCR-A	316SST	3	6	127	128

COMPOSITION SEAT - FULL CAPACITY, LINEAR, 2" TVL

SEAT RING		SEAT	VALVE				VSC	
RETAINER	BUSHING	RING	PLUG	STEM			1L5000	1L7500
MATERIAL					В	\mathbf{C}	D	D

COMPOSITION SEAT - FULL CAPACITY, QUICK OPENING, 2 TRAVEL

SEAT RING		SEAT	VALVE				VSC		
RETAINER	BUSHING	RING	PLUG	STEM			1L5000	1L7500	
MATERIAL					В	C	D	D	
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	1	6	131	132	

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (EXCEPT FOR BELLOWS SEAL) - VANED SEAT RING 1 1/8" TVL

							LINEAR	
SEAT RING		SEAT	VALVE				1L5000	1L7500
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC
MATERIAL	MATL	MATL	MATL	MATL	В	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	7	15	1	13
316 SST	COCR-A	316 SST	316 SST	316 SST	9	15	1	13
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	7	16	73	78
HARD FACED	SEAT RING							
HARD FACED	SEAT PLUG							
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	7	17	2	14
316 SST	COCR-A	316 SST	316 SST	316 SST	9	17	2	14
HARD FACED	SEAT RING, H	IARD FACE	D SEAT & GU	JIDE PLUG				
SPECIAL TAC	K WELDED SE	EATRING RE	TAINER/BUS	SHING ASSE	MBLY	7 -		
316 SST	COCR-A	316 SST	316 SST	316 SST	13	17	2	14
HARD FACED	SEAT RING							
HARD FACED	SEAT & GUID	E PLUG						
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	7	17	3	15
316 SST	COCR-A	316 SST	316 SST	316 SST	9	17	3	15

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Design EZ Valve Body Assemblies, NPS 4

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (EXCEPT FOR BELLOWS SEAL) - VANED SEAT RING 1 1/8" TVL (CONT)

1 1/0 1 VL (COI	11)						-		-	
							EQ %		QUICK O	PEN
SEAT RING		SEAT	VALVE				1L5000	1L7500	1L5000	1L7500
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC	VSC	VSC
MATERIAL					В	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	15	7	19	61	67
316 SST	COCR-A	316SST	316SST	316SST	9	15	7	19	61	67
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	7	16	74	79	75	80
HARD FACED	SEAT RING									
HARD FACED	SEAT PLUG									
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	17	8	20	62	68
316 SST	COCR-A	316SST	316SST	316SST	9	17	8	20	62	68
HARD FACED	SEAT RING, H	ARD FACED	SEAT & GU	IDE PLUG						
SPECIAL TACK	K WELDED SE.	AT RING RE	TAINER/BUS	SHING ASSE	MBLY	7				
316 SST	COCR-A	316 SST	316 SST	316 SST	13	17	8	20	62	68
HARD FACED SE	AT RING									
HARD FACED	SEAT & GUID	E PLUG								
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	17	9	21	63	69
316 SST	COCR-A	316SST	316SST	316SST	9	17	9	21	63	69

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Design EZ Valve Body Assemblies, NPS 4

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING, VANED (CONT)

ITEM D - VALVE PLUG (CONT)

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (BELLOWS SEAL ONLY) - VANED SEAT RING 1 $1/8"\,\mathrm{TVL}$

							LINEAR	
SEAT RING		SEAT	VALVE				1L5000	1L7500
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC
MATERIAL					В	C	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	15	103	115
316 SST	COCR-A	316 SST	316 SST	316 SST	3	15	103	115
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	1	16	107	119
HARD FACED	SEAT RING							
HARD FACED	SEAT PLUG							
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	17	104	116
316 SST	COCR-A	316 SST	316 SST	316 SST	3	17	104	116
HARD FACED	SEAT RING, HAR	D FACED S	EAT & GUII	DE PLUG				
SPECIAL TACK	K WELDED SEAT	RING RET	AINER/BUS	HING ASSE	MBLY	7		
316 SST	COCR-A	316 SST	316 SST	316 SST	14	17	104	116
HARD FACED	SEAT RING							
HARD FACED	SEAT & GUIDE P	LUG						
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	17	105	117
316 SST	COCR-A	316 SST	316 SST	316 SST	3	17	105	117

							EQ %		QUICK C	PEN
SEAT RING		SEAT	VALVE				1L5000	1L7500	1L5000	1L7500
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC	VSC	VSC
MATERIAL					В	C	D	D	D	D
CB7CU-1	17-4PH	316 SST	316 SST	316 SST	1	15	108	120	112	124
H1150	H900									
316 SST	COCR-A	316 SST	316 SST	316 SST	3	15	108	120	112	124
CB7CU-1	17-4PH	416 SST	416 SST	316 SST	1	16				
H1150	H900									
HARD FACI	ED SEAT RIN	G								
HARD FACI	ED SEAT PLU	G								
CB7CU-1	17-4PH	316 SST	316 SST	316 SST	1	17	109	121	113	125
H1150	H900									
316 SST	COCR-A	316 SST	316 SST	316 SST	3	17	109	121	113	125
HARD FACI	ED SEAT RIN	G, HARD F	ACED SEA	AT & GUID	E PLU	JG				
SPECIAL TA	ACK WELDED	SEAT RIN	NG RETAIN	NER/BUSH	ING A	SSEN	IBLY			
316 SST	COCR-A	316 SST	316 SST	316 SST	14	17	109	121	113	125
HARD FACI	ED SEAT RIN	G		•						
HARD FACI	ED SEAT & G	UIDE PLU	G							
CB7CU-1	17-4PH	316 SST	316 SST	316 SST	1	17	110	122	114	126
H1150	H900									
316 SST	COCR-A	316 SST	316 SST	316 SST	3	17	110	122	114	126

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Design EZ Valve Body Assemblies, NPS 4

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ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING, VANED (CONT)

ITEM D - VALVE PLUG (CONT)

METAL SEAT - VANED SEAT RING - FULL CAPACITY, 2" TVL

				ACITY, 2" TV	_					QUICK (ODEN
SEAT RING	İ	SEA'	т 1	VALVE	ı					1L5000	1L7500
RETAINER	BUSHING	RING		PLUG		STEM	ĺ			VSC	VSC
MATERIAL	возпіло	KIIN	J	rLUG	i.) I EIVI	-	В	C	D	D
CB7CU-1 H1150	17-4 H900	316.5	тээ	316 SST		316 SS'			18	25	43
316 SST	COCR-A	316.3		316 SST		316 SS			18	25	43
CB7CU-1 H1150	17-4 H900	416 3		416 SST		316 SS'			19	83	88
HARD FACED S		1101	351	110 551		710 00			17	03	00
HARD FACED											
CB7CU-1 H1150	17-4 H900	316.5	SST	316 SST	3	316 SS	Т	1	20	26	44
316 SST	COCR-A	316	SST	316 SST	3	316 SS'	Γ	3	20	26	44
HARD FACED	SEAT RING,	HARD FA	CED SEA	T & GUIDE	PLU	JG					
SPECIAL TACK	WELDED SI	EAT RING	RETAIN	ER/BUSHIN	G AS	SSEME	BLY				
316 SST	COCR-A	316	SST	316 SST	,	316 SS	T 1	4	20	26	44
HARD FACED S											
HARD FACED S											
CB7CU-1 H1150	17-4 H900	316 \$		316 SST		316 SS'			20	27	45
316 SST	COCR-A	316	SST	316 SST	3	316 SS	Γ	3	20	27	45
					COCR-A 310 331 310 331 3 20 27 43						
							I			1	
	I	l	1	1			LINEAR			EQUAL 9	
SEAT RING		SEAT	VALVE		i		1L5000	1L75		1L5000	1L7500
RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L75 VSC		1L5000 VSC	1L7500 VSC
RETAINER MATERIAL	<u> </u>	RING	PLUG	STEM	В	C	1L5000 VSC D	1L75 VSC D)	1L5000 VSC D	1L7500 VSC D
RETAINER MATERIAL CB7CU-1 H1150	17-4 H900	RING 316SST	PLUG 316SST	STEM 316SST	1	18	1L5000 VSC D 31	1L75 VSC D)	1L5000 VSC D 37	1L7500 VSC D 55
RETAINER MATERIAL CB7CU-1 H1150 316 SST	17-4 H900 COCR-A	RING 316SST 316SST	PLUG 316SST 316SST	316SST 316SST	1 3	18 18	1L5000 VSC D 31 31	1L75 VSC D)))	1L5000 VSC D 37 37	1L7500 VSC D 55 55
MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150	17-4 H900 COCR-A 17-4 H900	RING 316SST	PLUG 316SST	STEM 316SST	1	18	1L5000 VSC D 31	1L75 VSC D)))	1L5000 VSC D 37	1L7500 VSC D 55
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S	17-4 H900 COCR-A 17-4 H900 SEAT RING	RING 316SST 316SST	PLUG 316SST 316SST	316SST 316SST	1 3	18 18	1L5000 VSC D 31 31	1L75 VSC D)))	1L5000 VSC D 37 37	1L7500 VSC D 55 55
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S HARD FACED S	17-4 H900 COCR-A 17-4 H900 SEAT RING SEAT PLUG	316SST 316SST 416SST	316SST 316SST 416SST	316SST 316SST 316SST 316SST	1 3 1	18 18 19	1L5000 VSC D 31 31 84	1L75 VSC D 49 49)))	1L5000 VSC D 37 37 85	1L7500 VSC D 55 55 90
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S HARD FACED S CB7CU-1 H1150	17-4 H900 COCR-A 17-4 H900 SEAT RING SEAT PLUG 17-4 H900	316SST 316SST 416SST 316SST	316SST 316SST 416SST 316SST	316SST 316SST 316SST 316SST	1 3 1	18 18 19	1L5000 VSC D 31 31 84	1L75 VSC D 49 49 89)	1L5000 VSC D 37 37 85	1L7500 VSC D 55 55 90
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST	17-4 H900 COCR-A 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A	316SST 316SST 416SST 316SST 316SST	316SST 316SST 416SST 416SST 316SST 316SST	316SST 316SST 316SST 316SST 316SST	1 3 1	18 18 19 20 20	1L5000 VSC D 31 31 84	1L75 VSC D 49 49)	1L5000 VSC D 37 37 85	1L7500 VSC D 55 55 90
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S	17-4 H900 COCR-A 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING,	316SST 316SST 416SST 316SST 316SST HARD FA	316SST 316SST 416SST 416SST 316SST 316SST CED SEA	316SST 316SST 316SST 316SST 316SST T & GUIDE	1 3 1 1 3 PLU	18 18 19 20 20 20 JG	1L5000 VSC D 31 31 84 32 32	1L75 VSC D 49 49 89)	1L5000 VSC D 37 37 85	1L7500 VSC D 55 55 90
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S SPECIAL TACK	17-4 H900 COCR-A 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING,	316SST 316SST 416SST 316SST 316SST HARD FA	316SST 316SST 416SST 316SST 316SST 316SST CED SEA	316SST 316SST 316SST 316SST 316SST T & GUIDE NER/BUSHIN	1 3 1 1 3 PLU	18 18 19 20 20 20 JG ASSEM	1L5000 VSC D 31 31 84 32 32	1L75 VSC D 49 49 89)	1L5000 VSC D 37 37 85	1L7500 VSC D 55 55 90
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S HARD FACED S THARD FACED S SPECIAL TACK 316 SST	17-4 H900 COCR-A 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING, WELDED S	316SST 316SST 416SST 316SST 316SST HARD FA	316SST 316SST 416SST 416SST 316SST 316SST CED SEA	316SST 316SST 316SST 316SST 316SST T & GUIDE	1 3 1 1 3 PLU	18 18 19 20 20 20 JG	1L5000 VSC D 31 31 84 32 32	1L75 VSC D 49 49 89)	1L5000 VSC D 37 37 85	1L7500 VSC D 55 55 90
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S HARD FACED S THARD FACED S SPECIAL TACK 316 SST HARD FACED S HARD FACED S	17-4 H900 COCR-A 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING, WELDED S COCR-A SEAT RING	316SST 316SST 416SST 316SST 316SST HARD FA EAT RING 316SST	316SST 316SST 416SST 316SST 316SST CED SEA G RETAIN 316SST	316SST 316SST 316SST 316SST 316SST T & GUIDE NER/BUSHIN	1 3 1 1 3 PLU	18 18 19 20 20 20 JG ASSEM	1L5000 VSC D 31 31 84 32 32	1L75 VSC D 49 49 89)	1L5000 VSC D 37 37 85	1L7500 VSC D 55 55 90
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S HARD FACED S TORY THARD FACED S SPECIAL TACK THARD FACED S HARD FACED S SPECIAL TACK THARD FACED S HARD FACED S HARD FACED S HARD FACED S	17-4 H900 COCR-A 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING, WELDED S COCR-A SEAT RING SEAT RING SEAT & GUI	316SST 316SST 416SST 316SST 316SST HARD FA EAT RING 316SST	316SST 316SST 416SST 416SST 316SST 316SST CED SEA G RETAIN 316SST	316SST 316SST 316SST 316SST 316SST T & GUIDE NER/BUSHIN 316SST	1 3 1 3 PLU NG A	18 18 19 20 20 20 VG ASSEM 20	1L5000 VSC D 31 31 84 32 32 32 IBLY 32	1L75 VSC D 49 49 89	0	1L5000 VSC D 37 37 85 38 38	1L7500 VSC D 55 55 90 56 56
RETAINER MATERIAL CB7CU-1 H1150 316 SST CB7CU-1 H1150 HARD FACED S HARD FACED S THARD FACED S SPECIAL TACK 316 SST HARD FACED S HARD FACED S	17-4 H900 COCR-A 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING, WELDED S COCR-A SEAT RING	316SST 316SST 416SST 316SST 316SST HARD FA EAT RING 316SST	316SST 316SST 416SST 316SST 316SST CED SEA G RETAIN 316SST	316SST 316SST 316SST 316SST 316SST T & GUIDE NER/BUSHIN	1 3 1 1 3 PLU	18 18 19 20 20 20 JG ASSEM	1L5000 VSC D 31 31 84 32 32	1L75 VSC D 49 49 89	0 0 0	1L5000 VSC D 37 37 85	1L7500 VSC D 55 55 90

COMPOSITION SEAT, VANED SEAT RING, FULL CAPACITY, EQUAL PERCENT, 2 INCH TRAVEL

SEAT RING							1L5000 VSC	1L7500 VSC
RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM	В	C	D	D
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	1	18	93	98
316SST	COCR-A	316SST	316SST	316SST	3	18	93	98
CB7CU-1 H1150	17-4PH H900	416SST	416SST	316SST	1	19	97	102
316SST	COCR-A	316SST	316/HF GUIDE	316SST	3	18	127	128

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Design EZ Valve Body Assemblies, NPS 4

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ITEM	F -	CA	SKET
I I IVIVI	- L	(TA	1717 L

			MAXIMUM ΔP (PS)	1/100° F) SHU I OFF	
			SEAT LOAD NOT O	CONSIDERED	
SPIRAL WOUND	FLAT SHEET		CANNOT EXCEED	CWP	
GASKET		TEMP °F	2 PORT	4 PORT	E
MONEL & PTFE	MONEL/PTFE	-100+300	950	1650	6
HAST C & GRAPHITE	GRAPHITE/SST	-100+1100	710	1070	9
MONEL & GRAPHITE	GRAPHITE/SST	-100+900	710	1070	10
INCONEL & GRAPHITE	GRAPHITE/SST	-325+1100	950	1650	8

ITEM F - BOLTING

BOLTING	NUT	CWP (PSI)	HYDRO (PSI/MIN)	TEMP ° F	BODY	TEMP ° F
SAE GRADE 5	-	SAME AS BODY	SAME AS BODY	-20+650		
B7	2H	SAME AS BODY	SAME AS BODY	-50+800		
B8	GRADE 8	1125	1700/2	-425+100		
B7M	2HM	1250	1875/2	-50+800		
B8M CLASS 2	8M	1465	2200/2	-325+800	HAST C	-325+225
					MONEL	-325+450

						ENVIRO- SEAL
				STD & EXT	BELLOWS SEAL	BELLOWS SEAL
BODY	TEMP ° F	BOLT	NUT	F	F	F
CAST IRON	-20+450	SAE GR 5		1	M	M
WCC	-20+450	B7	2H	2	9	14
		B7M	2HM	5		
	450+800	B7	2H LUB	6	12	17
		B7M	2HM LUB	8		
LCC	-20+450	B7	2H	2	9	14
		B7M	2HM	5		
	450+700	B7	2H LUB	6	12	17
		B7M	2HM LUB	8		
CF8M	-325+100	B8	GR8	4	11	16
	-325+450	B8M CL2	8M	3	10	15
	-50+450	B7	2H	2	9	14
		B7M	2HM	5		
	450+800	B7	2H LUB	6	12	17
		B7M	2HM LUB	8		
		B8M CL2	8M LUB	7	13	18
ALLOY 20	-325+400	B8M CL2	8M	3	10	15
	-20+450	B7	2H	2	9	14
		B7M	2HM	5		
	450+800	B7	2H LUB	6	12	17
		B7M	2HM LUB	8		
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
		B7M	2HM LUB	8		
MONEL	-325+450	B8M CL2	8M	3	10	15
	-50+450	B7	2H	2	9	14
	450+800	B7	2H LUB	6	12	17
		B7M	2HM LUB	8		

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Design EZ Valve Body Assemblies, NPS 4

ITEM G - STEM ITEM 9D - NAMEPLATE DATA FOR ENVIRO-SEAL BELLOWS SEAL BONNET

CAPACITY	BONNET STYLE	STEM VSC	STEM	G	9D
FULL	PLAIN	1L5000	316SST	1	N
			ALY 20	2	N
			HAST C	3	N
			K-MONEL	4	N
			NIT 50	34	N
		1L7500	316SST	5	N
			ALY 20	6	N
			HAST C	7	N
			K-MONEL	8	N
			NIT 50	31	N
	EXT STYLE 1	1L5000	316SST	13	N
		1L7500	316SST	15	N
	EXT STYLE 2	1L5000	316SST	14	N
		1L7500	316SST	16	N
	BELLOWS SEAL	1L5000	316SST	25	N
		1L7500	316SST	26	N
	ENVIRO-SEAL BELLOWS SEAL	ALL	316LSST	N	1
			HAST C	N	2
RESTRICTED	PLAIN	1L5000	316SST	9	N
			ALY 20	10	N
			HAST C	11	N
			K-MONEL	12	N
			NIT 50	32	N
		1L7500	316SST	19	N
			ALY 20	20	N
			HAST C	21	N
			K-MONEL	22	N
			NIT 50	33	N
	EXT STYLE 1	1L5000	316SST	17	N
		1L7500	316SST	23	N
	EXT STYLE 2	1L5000	316SST	18	N
		1L7500	316SST	24	N
	BELLOWS SEAL	1L5000	316SST	25	N
		1L7500	316SST	26	N
	ENVIRO-SEAL BELLOWS SEAL	ALL	316LSST	N	1
			HAST C	N	2

Design EZ Valve Body Assemblies, NPS 4

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ITEM 9B - CLASS/HYDRO

STYLE	BODY	CLASS	HYDRO (PSI/MIN)	9B
ASME	CAST IRON	125B	300/2	1
		250B	750/2	2
	WCC, C5, LCC, CF8M	150	450/2	3
		300	1125/2	4
		600	2250/2	5
	ALLOY 20	150	350/2	6
		300	900/2	7
		600	1800/2	8
	MONEL	150	350/2	9
		300	900/2	10
		600	1800/2	11
	HAST C	150	450/2	12
		300	1125/2	13
		600	2250/2	14
EN	CAST IRON	PN 10/16	350 (24 BAR)/2	15
	WCC, CF8M & LCC	PN 10/16	350 (24 BAR)/2	17
		PN 25/40	875 (60 BAR)/2	16
		PN 63	1375 (95 BAR)/2	18
		PN 100	2175 (150 BAR)/2	19

ITEM 9C - SEAT LEAK TEST PER FGS 4L5

FLOW	SEAT	CLASS	CHARACTERISTIC	PORT	TRAVEL	VALUE	9C
UP	METAL	IV (SCFH)	QUICK OPENING	2	1 1/8	18.8	1
				4	2	52.7	2
			LINEAR	2	1 1/8	19.3	3
				4	2	50.3	4
			EQUAL PERCENT	2	1 1/8	16.6	5
				4	2	44.9	6
		V AIR TEST(ML/MIN)	ALL	2	1 1/8	9.40	8
				4	2	18.80	9
	COMPOSITION	VI (BUBBLES/MIN)	EQUAL PERCENT	4	2	11	7

ITEM J - NAMEPLATE

<u>J</u>

ITEM K - FLOW ARROW

K

ITEM 9Z - PARTIAL ASSY (NAMEPLATE PAD VALUES)

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

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

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Design EZ Valve Body Assemblies, NPS 4

Revision Change Record Section for the present Revision

ECRN: 20180325

Matrix Section:

Item Module Changes

9D 1 Change the stem material description from "316SST" to "316LSST" for the "ENVIRO-SEAL

BELLOWS SEAL" bonnet.