Fisher Controls Int. Inc.

Design EZ Valve Body Assemblies, NPS 1 1/2

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EZX2 - A B C D E F G J K 9B 9C 9D 9E 9Z

EZ-OVT trim selection string: EZX2-A F J K 9B & EZOVTX2-A B C D 9A 9B

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, 31
	Plug Guide	27
	Disc Retainer	28
	Disc or Disc Seat	29
	Plug Tip	30
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	
OE	Elass Discation	

9E Flow Direction

9Z Partial Assembly

Design EZ Valve Body Assemblies, NPS 1 1/2

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

ASME

BODY	TEMP ° F	CLASS	CWP (PSI)
CI	-100+406	250	400
CI CLASS B	-100+450	125	200
		250	500
WCC	-20+800	150	290
		300	750
		600	1500
		PN40	580
LCC	-50+650	150	290
		300	750
		600	1500
		PN40	580
C5	-20+1100	150	290
		300	750
		600	1500
CF8M	-325+1000	150	275
		300	720
		600	1440
		PN40	580
ALLOY 20	-325+800	150	230
		300	600
		600	1200
HAST C	-325+1000	150	290
		300	750
		600	1500
MONEL	-325+800	150	230
		300	600
		600	1200

EN1092-1

BODY	TEMP ° F	TEMP°C	PN EN	CWP(BAR)
CI CLASS B	-100+450	-73+842	PN10	16
WCC	-20+800	-29 + 425	PN10/16/25/40	40
			PN63/100	100
LCC	-50+650	-46 +343	PN10/16/25/40	40
			PN63/100	100
CF8M	-325+1000	-198 +538	PN10/16/25/40	40
			PN63/100	100

EZX2

Page 3 of 20

Fisher Controls Int. Inc.

Design EZ Valve Body Assemblies, NPS 1 1/2

ITEM A - VALVE BODY (CONT)

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

	CL150R	F	CL300 F	RF	CL600 F	RF	CL150 F	RTJ	CL300 F	RTJ	CL600 F	RTJ
	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP
BODY	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

DN40, EN1092-1 WITHOUT DRAIN TAPPING

	RF (Type B)			Spigot (Type E)		
	PN 10/16 PN 10/16/25/40		PN 63/100	PN 16/25/40	PN 10/16/25/40	PN 63/100
BODY	A	A	A	A	A	A
CI	120	=	-	=	-	-
WCC	-	121	291	-	294	297
CF8M	-	122	292	134	295	298
LCC	-	290	293	130	296	299

EZX2Page 4 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING

ITEM C - SEAT RING

ITEM D - VALVE PLUG

ITEM G - STEM

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

METAL SEAT - ALL EACEFT MICKO-FLUTE & MICKO-FLUW											
							THERMA	L			
							EXPANS	ION LIMIT			
SEAT					NON LUBR	LUBR	TRIM/BC	DY COMB			
RING		SEAT	VALVE	FLUID	WHERE.	APPLICABLE					
RETAINER	BUSHING	RING	PLUG	STEM	TEMP ° F	TEMP ° F	BODY	TEMP ° F			
CB7CU-1	17-4PH	316	316	316	-150+300	-150+800	CF8M	-150+700			
316	COCR-A	316	316	316	-325+300	-325+500		(LUBR)			
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 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+500	-325+500					
CB7CU-1	17-4PH	416	416	316	-20+800	-20+800	CF8M	-20+670			
HARD FAC	ED SEAT RIN	G									
HARD FAC	ED SEAT PLU	JG									
CB7CU-1	17-4PH	316	316	316	-150+300	-150+800	CF8M	-150+700			
316	COCR-A	316	316	316	-325+300	-325+500		(LUBR)			
HARD FAC	ED SEAT RIN	G									
HARD FAC	ED SEAT & G	JUIDE PLUG									
CB7CU-1	17-4PH	316	316	316	-150+800	-150+800	CF8M	-150+700			
316	COCR-A	316	316	316	-325+500	-325+500					
HARD FACE	D SEAT RING	r									
HARD FAC	ED SEAT & G	UIDE PLUG									
SPECIAL T	ACK WELDE	D SEAT RING	RETAINER/B	USHING ASSE	EMBLY						
316	COCR-A	316 HFS	316 HFSG	316	-325+800	-325+1100	WCC	-20+800			
HARD FACE	HARD FACED SEAT & BORE RING										
HARD FACED SEAT, GUIDE & CONTOUR PLUG											
316	COCR-A	316	316	316	-325+500	-325+500					
					1		I				

METAL SEAT - ALL EXCEPT MICRO FLUTE & FLOW

WIETZIE SEZ	11 TIEL ET	er i mero	TECTE WIL	20 11	(SEAT I	OAD NOT	CONSIDE	RED)	
					`	ESS DROI		,	
						OT EXCEE			
					SHUT-O	FF			FLOWING
					PORT SI	ZE	PORT SI	ZE	PORT SIZE
SEAT					ALL OT	HERS	1 1/2"		ALL
RING		SEAT	VALVE		STEM S	IZE	STEM S	IZE	STEM SIZE
RETAINER	BUSHING	RING	PLUG	STEM	3/8"	1/2"	3/8"	1/2"	ALL
CB7CU-1	17-4PH	316	316	316	300	300	300	300	1500
316	COCR-A	316	316	316	300	300	300	300	1500
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	300	300	300	300	1500
HAST C	HAST C	HAST C	HAST C	HAST C	300	300	300	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	1500	1500	1500
HARD FAC	ED SEAT RING	G							
HARD FAC	ED SEAT PLU	G							
CB7CU-1	17-4PH	316	316	316	1500	1500	1500	1500	1500
316	COCR-A	316	316	316	1500	1500	1500	1500	1500
HARD FAC	ED SEAT RING	G							
HARD FAC	ED SEAT & GI	UIDE PLUG							
CB7CU-1	17-4PH	316	316	316	1500	1500	1500	1500	1500
316	COCR-A	316	316	316	1500	1500	1500	1500	1500
HARD FAC	ED SEAT & BO	ORE							
HARD FAC	ED SEAT, GUI	DE & CONTO	UR PLUG						
316	COCR-A	316	316	316	1500	1500	1500	1500	1500

EZX2 Page 5 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING

ITEM C - SEAT RING

ITEM D - VALVE PLUG

ITEM G - STEM

METAL SEAT - MICRO-FLUTE & MICRO-FLOW

	AT - MICRO-I	FLUIE & MIN	CKO-FLOW	1	I		XPANSION LIMIT
SEAT	ar m	l *** * * **	ı	NON LUBR	LUBR	TRIM/BODY	
RING	SEAT	VALVE		FLUID	FLUID	WHERE APPI	_
RETAINER	RING	PLUG	STEM	TEMP °F	TEMP °F	BODY	TEMP °F
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	-325+300	-325+300		
HAST C	HAST C	HAST C	HAST C	-325+300	-325+300		
MONEL	K-MONEL	K-MONEL	K-MONEL	-325+600	-325+600		
CB7CU-1	416	416	316	-20+800	-20+800	CF8M,WCC	-20+600
CB7CU-1	316	ALLOY 6	316	-150+300	-150+300		
316	316	ALLOY 6	316	-325+300	-325+300		
	CED SEAT & BO CED SEAT & G						
CB7CU-1	316	316	316	-150+800	-150+800	CF8M	-150+700
316	316	316	316	-325+1100	-325+1100		
HARD FAC	ED SEAT & BO			1	1	· I	
CB7CU-1	316	ALLOY 6	316	-150+800	-150+800	CF8M	-150+700
316	316	ALLOY 6	316	-325+1100	-325+1100		
	ED SEAT RING					L	
	CED SEAT & G						
CB7CU-1	316	316	316	-150+300	-150+800	CF8M	-150+700 (LUBR)
316	316	316	316	-325+300	-325+1100		
	ED SEAT RING	G	•	•	•	•	•
CB7CU-1	316	ALLOY 6	316	-150+300	-150+800	CF8M	-150+700 (LUBR)
316	316	ALLOY 6	316	-325+300	-325+1100		, ,
HARD FAC	ED SEAT & G	UIDE PLUG	•	•	•	•	•
CB7CU-1	316	316	316	-150+300	-150+300		
316	316	316	316	-325+300	-325+300		
SEAT RING	SEAT	VALVE	ĺ		DROP PSI/100 XCEED C.W.P.)		
RETAINER	RING	PLUG	STEM	SHUT OFF	FLOWING	·	
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 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	ALLOY 6	316	300	1500		
316	316	ALLOY 6	316	300	1500		
	ED SEAT & BO		<u></u>				
	ED SEAT & G	UIDE PLUG					
CB7CU-1	316	316	316	1500	1500		
316	316	316	316	1500	1500		
	ED SEAT & BO						
CB7CU-1	316	ALLOY 6	316	1500	1500		
316	316	ALLOY 6	316	1500	1500		
	ED SEAT RING ED SEAT & G						
	316	316	316	1500	1500		
('B /('U-1			316	1500	1500		
CB7CU-1		1 316			1300		
316	316	316	310	1000			
316 HARD FAC	316 CED SEAT RING	G	1	1	1500		
316 HARD FAC CB7CU-1	316 CED SEAT RING 316	G ALLOY 6	316	1500	1500 1500		
316 HARD FAC CB7CU-1 316	316 EED SEAT RING 316 316	G ALLOY 6 ALLOY 6	1	1	1500 1500		
316 HARD FAC CB7CU-1 316 HARD FAC	316 CED SEAT RING 316 316 CED SEAT & G	ALLOY 6 ALLOY 6 UIDE PLUG	316 316	1500 1500	1500		
316 HARD FAC CB7CU-1 316	316 EED SEAT RING 316 316	G ALLOY 6 ALLOY 6	316	1500			

EZX2Page 6 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING

ITEM C - SEAT RING

ITEM G - STEM

ITEM D - VALVE PLUG

COMPOSITION SEAT - ALL EXCEPT M-FLUTE

COM CONTROL THE BITCH I WILL CO											
					NON LUBR	LUBR					
SEAT RING		SEAT	VALVE		FLUID	FLUID					
RETAINER	BUSHING	RING	PLUG	STEM	TEMP ° F	TEMP ° F					
CB7CU-1	17-4PH	316	316	316	-100+300	-100+400					
316	COCR-A	316	316	316	-100+300	-100+400					
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 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	-20+400					

(SEAT LOAD NOT CONSIDERED) MAX PRESS DROP PSI

(CANNOT EXCEED C.W.P.)

					SHUT-OFF			FLOWING
					PORT SIZE	PORT S	IZE	PORT SIZE
SEAT					ALL OTHERS	1 1/2"		ALL
RING		SEAT	VALVE		STEM SIZE	STEM S	IZE	STEM SIZE
RETAINER	BUSHING	RING	PLUG	STEM	ALL	3/8"	1/2"	ALL
CB7CU-1	17-4PH	316	316	316	1500	1500	1500	1500
316	COCR-A	316	316	316	1500	1500	1500	1500
ALLOY 20	1500	1062	1500	1500				
HAST C	1500	1087	1500	1500				
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	1500	1500	1500	1500
CB7CU-1	17-4PH	416	416	316	1500	1500	1500	1500

MICRO-FLUTE

						(SEAT LOAI	NOT
				NON LUBR	LUBR	CONSIDERE	(D)
SEAT				FLUID	FLUID	MAX PRESS	DROP PSI
RING	SEAT	VALVE		TEMP	TEMP	(CANNOT E	XCEED C.W.P.)
RETAINER	RING	PLUG	STEM	°F	° 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
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 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

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING

ITEM C - SEAT RING ITEM D - VALVE PLUG

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

SEAT RING	SEAT	VALVE				1L3750, 1	L5001 VSC
RETAINER	RING	PLUG	STEM			.075 Cv	.181 Cv
MATERIAL				В	C	D	D
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	3	2	3	259
HAST C	HAST C	HAST C	HAST C	4	3	4	260
MONEL M35-1	K-MONEL	K-MONEL	K-MONEL	5	4	5	261
CB7CU-1 H1150	416 SST	416 SST	316 SST	1	47	200	262
HARD FACED S	EAT & BORE R	ING					
HARD FACED S	EAT & GUIDE	PLUG					
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	5	2	258
316 SST	316 SST	316 SST	316 SST	2	5	2	258
HARD FACED S	EAT RING						
HARD FACED S	EAT & GUIDE	PLUG					
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	27	2	258
316 SST	316 SST	316 SST	316 SST	2	27	2	258
HARD FACED S	EAT & GUIDE	PLUG					
CB7CU-1 H1150	316 SST	316 SST	316 SST	1	1	2	258
316 SST	316 SST	316 SST	316 SST	2	1	2	258

M-FLUTE VALVE PLUG, 3/4" TRAVEL

						1L3750 OR	1L5001 VSC	7
SEAT RING	SEAT	VALVE				1/4 PORT		
RETAINER	RING	PLUG	STEM			1 FLUTE	2 FLUTE	3 FLUTE
MATERIAL				В	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	267	268	269
316 SST	316 SST	ALLOY 6	316 SST	2	6	267	268	269
HARD FACED S	EAT & BORE I	RING						
HARD FACED S	EAT & 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 S	EAT & BORE I	RING						
CB7CU-1 H1150	316 SST	ALLOY 6	316 SST	1	11	267	268	269
316 SST	316 SST	ALLOY 6	316 SST	2	11	267	268	269
HARD FACED S	EAT RING							
HARD FACED S	EAT & 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 S	EAT RING							
CB7CU-1 H1150	316 SST	ALLOY 6	316 SST	1	10	267	268	269
316 SST	316 SST	ALLOY 6	316 SST	2	10	267	268	269
HARD FACED S	EAT & 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
	•	•	•		•	•	•	•

Page 8 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

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

WIETAL SEAT	Mickello	MWI VILVE	1 LOG 3/4	TRAVEL		1/4"	PORT			3/8"	PORT		
SEAT RING		SEAT	VALVE			1L3	750	1L50	000	1L37	750	1L50	000
RETAINER	BUSHING	RING	PLUG	STEM		VSC	2	VSC		VSC		VSC	2
MATERIAL					В	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	ALLOY 20	ALLOY 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 & GUI	DE 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,	HARD FACED	SEAT & GUI	DE PLUG									
SPECIAL TAC	CK WELDED S	EAT RING RE	TAINER/BUSI	HING ASSEM	BLY								
316 SST	COCR-A	316 SST	316 SST	316 SST	18	10	8	M	M	52	211	52	219
HARD FACED	SEAT & BOR	RE RING, HAR	D FACED SEA	T, GUIDE & C	CONT	OUR	PLUG						
316 SST	COCR-A	316 SST	316 SST	316 SST	8	11	18	M	M	53	216	53	224

METAL SEAT (CONT)

MICRO FORM VALVE PLUG (CONT) - 3/4" TRAVEL

						1/2"	PORT			3/4"	PORT		
SEAT RING		SEAT	VALVE			1L37	750	1L5	000	1L37	'50	1L50	000
RETAINER	BUSHING	RING	PLUG	STEM		VSC	1	VSC	7	VSC		VSC	
MATERIAL					В	C	D	C	D	C	D	C	D
CB7CU-1	17-4PH	316 SST	316 SST	316 SST	6	12	22	12	32	35	136	35	144
H1150	H900												
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	ALLOY 20	ALLOY 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	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	15	27	15	37	38	141	38	149
M-35W													
CB7CU-1	17-4PH	416 SST	416 SST	316 SST	6	29	111	29	114	41	142	41	150
H1150	H900												
HARD FAC	ED SEAT RING	G, HARD FAC	ED SEAT PLU	JG									
CB7CU-1	17-4PH	316 SST	316 SST	316 SST	6	16	23	16	33	39	137	39	145
H1150	H900												
316 SST	COCR-A	316 SST	316 SST	316 SST	8	16	23	16	33	39	137	39	145
HARD FAC	ED SEAT RIN	G, HARD FAC	ED SEAT & G	JUIDE PLUG									
CB7CU-1	17-4PH	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 FAC	ED SEAT RING	G, HARD FAC	ED SEAT & G	UIDE PLUG									
SPECIAL T	ACK WELDED	SEAT RING	RETAINER/BI	USHING ASSI	EMBL	Y							
316 SST	COCR-A	316 SST	316 SST	316 SST	18	16	24	16	34	39	138	39	146
HARD FAC	ED SEAT & BO	ORE RING, H	ARD FACED S	EAT, GUIDE	& COI	NTOU	R PLU	G					
316 SST	COCR-A	316 SST	316 SST	316 SST	8	32	112	32	115	40	143	40	151

EZX2 Page 9 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

LIMEAD

Fisher Controls Int. Inc.

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 - 3/4" TRAVEL

							LINEAR	
SEAT RING		SEAT	VALVE				1L3750	1L5000
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC
MATERIAL					В	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 SE	AT RING, HAR	D FACED SEA	T 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 SE	AT RING, HAR	D FACED SEA	Γ & GUIDE PL	IJ G				
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 SE	AT RING, HAR	D FACED SEA	T & GUIDE PL	IJG				
SPECIAL TACK V	VELDED SEAT	RING RETAIN	ER/BUSHING A	ASSEMBLY				
316 SST	COCR-A	316 SST	316 SST	316 SST	18	21	40	52
HARD FACED SE	AT & BORE RI	NG, HARD FAC	CED SEAT,GUI	DE & CONTOU	JR PLU	JG		
316 SST	COCR-A	316 SST	316 SST	316 SST	8	33	119	124

							EQ %		QUICK C	PEN
SEAT RING		SEAT	VALVE				1L3750	1L5000	1L3750	1L5000
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	6	17	44	56	98	104
316 SST	COCR-A	316SST	316SST	316SST	8	17	44	56	98	104
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 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 S	EAT RING, H	ARD FACED S	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 S	EAT RING, H	ARD FACED S	SEAT & GUID	E 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 S	EAT RING, H	ARD FACED S	SEAT & GUID	E PLUG						
SPECIAL TACK	WELDED SEA	AT RING RET	AINER/BUSH	ING ASSEMI	3LY					
316 SST	COCR-A	316 SST	316 SST	316 SST	18	21	46	58	100	106
HARD FACED S	EAT & BORE	RING, HARD	FACED SEAT	,′	ONTC		LUG			
316 SST	COCR-A	316SST	316SST	316SST	8	33	120	125		

EZX2

Page 10 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

 $\boldsymbol{ITEM} \ \boldsymbol{C} \boldsymbol{\cdot} \boldsymbol{SEAT} \ \boldsymbol{RING} \ (CONT)$

ITEM D - VALVE PLUG (CONT)

METAL SEAT (CONT)

FULL CAPACITY VALVE PLUG - 3/4" TRAVEL

CEATERNIC					
CE AT DIVIC				QUICK O	PEN
SEAT RING				1L3750	1L5000
RETAINER SEAT VALVE				VSC	VSC
MATERIAL BUSHING RING PLUG	STEM	В	C	D	D
CB7CU-1 H1150 17-4 H900 316 SST 316 SST	316 SST	6	22	62	80
316 SST COCR-A 316 SST 316 SST	316 SST	8	22	62	80
ALLOY 20 ALLOY 20 ALLOY 2	20 ALLOY 20	9	23	65	83
HAST C HAST C HAST C	HAST C	10	24	66	84
MONEL M-35W K-MONEL K-MONEL K-MONE	L K-MONEL	11	25	67	85
CB7CU-1 H1150 17-4 H900 416 SST 416 SST	316 SST	6	31	126	131
HARD FACED SEAT RING, HARD FACED SEAT PLUG					
CB7CU-1 H1150 17-4 H900 316 SST 316 SST	316 SST	6	26	63	81
316 SST COCR-A 316 SST 316 SST	316 SST	8	26	63	81
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE	E PLUG				
CB7CU-1 H1150 17-4 H900 316 SST 316 SST	316 SST	6	26	64	82
316 SST COCR-A 316 SST 316 SST	316 SST	8	26	64	82
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE	E PLUG				_
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHI	NG ASSEMBLY				
316 SST COCR-A 316 SST 316 SST	316 SST	18	26	64	82
HARD FACED SEAT & BORE RING, HARD FACED SEAT,	GUIDE & CONTO	UR PL	UG		
316 SST COCR-A 316 SST 316 SST	316 SST	8	34		

							LINEAR		EQ%	
SEAT RING		SEAT	VALVE				1L3750	1L5000	1L3750	1L5000
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	6	22	68	86	74	92
316 SST	COCR-A	316SST	316SST	316SST	8	22	68	86	74	92
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	9	23	71	89	77	95
HAST C	HAST C	HAST C	HAST C	HAST C	10	24	72	90	78	96
MONEL M-35W	K-MONEL	KMONEL	KMONEL	KMONEL	11	25	73	91	79	97
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	6	31	127	132	128	133
HARD FACED S	EAT RING, HA	ARD FACED S	SEAT PLUG							
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	26	69	87	75	93
316 SST	COCR-A	316SST	316SST	316SST	8	26	69	87	75	93
HARD FACED S	EAT RING, HA	ARD FACED S	SEAT & GUID	E PLUG						
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	26	70	88	76	94
316 SST	COCR-A	316SST	316SST	316SST	8	26	70	88	76	94
HARD FACED S	EAT RING, HA	ARD FACED S	SEAT & GUID	E PLUG						
SPECIAL TACK	WELDED SEA	AT RING RET.	AINER/BUSH	ING ASSEMB	LY					
316 SST	COCR-A	316 SST	316 SST	316 SST	18	26	70	88	76	94
HARD FACED S	EAT & BORE	RING, HARD	FACED SEAT	GUIDE & CO	JOTA	JR PLU	JG			
316 SST	COCR-A	316SST	316SST	316SST	8	34	129	134	130	135

EZX2

Page 11 of 20

Fisher Controls Int. Inc.

Design EZ Valve Body Assemblies, NPS 1 1/2

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" TRAVEL - 1L3750 OR 1L5001 VSC

SEAT RING	SEAT	VALVE			1/4"		1/4"		1/4"	
RETAINER	RING	PLUG	STEM		PORT	1-FLUTE	PORT	2-FLUTE	PORT	3-FLUTE
MATERIAL				В	C	D	C	D	C	D
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	3	43	153	43	157	43	226
HAST C	HAST C	HAST C	HAST C	4	44	154	44	158	44	227
MONEL	K-MONEL	K-MONEL	K-MONEL	5	45	155	45	159	45	228
M-35W										
HARD FACI	ED PLUG TIP									
CB7CU-1	316 SST	316 SST	316 SST	1	42	252	42	253	42	254
H1150										
316 SST	316 SST	316 SST	316 SST	2	42	252	42	253	42	254
HARD FAC	CED PLUG C	SUIDE & TIP								_
316 SST	316 SST	316/COCR-A	316 SST	2	42	255	42	256	42	257

Page 12 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

COMPOSITION SEAT (CONT)

MICRO FORM VALVE PLUGS - TFE DISC 3/4" TRAVEL

SEAT RING		SEAT	VALVE										
RETAINER	BUSHING	RING	PLUG	STEM		1/4"	PORT	3/8"	PORT	1/2"	PORT	3/4 P	ORT
1L3750 O	R 1L5001 VS	С			В	C	D	C	D	C	D	C	D
CB7CU-1	17-4 H900	316 SST	316 SST	316 SST	6	42	160	55	229	12	165	35	170
H1150													
316 SST	COCR-A	316 SST	316 SST	316 SST	8	42	160	55	229	12	165	35	170
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	9	43	161	56	230	13	166	36	171
HAST C	HAST C	HAST C	HAST C	HAST C	10	44	162	57	231	14	167	37	172
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	45	163	58	232	15	168	38	173
CB7CU-1	17-4 H900	416 SST	416 SST	316 SST	6	46	164	59	233	29	169	41	174
H1150													
1L5000 VS	C												
CB7CU-1	17-4	316 SST	316 SST	316 SST	6	-	-	55	234	12	180	35	185
H1150	H900												
316 SST	COCR-A	316 SST	316 SST	316 SST	8	-	-	55	234	12	180	35	185
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	9	-	-	56	235	13	181	36	186
HAST C	HAST C	HAST C	HAST C	HAST C	10	-	-	57	236	14	182	37	187
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	-	-	58	237	15	183	38	188
CB7CU-1	17-4 H900	416 SST	416 SST	316 SST	6	-	-	59	238	29	184	41	189
H1150													

FULL CAPACITY VALVE PLUG - EQUAL PERCENTAGE CHARACTERISTIC - 3/4" TRAVEL

							EQ %
SEAT RING		SEAT	VALVE				1L3750 OR
RETAINER	BUSHING	RING	PLUG	STEM			1L5001 VSC
MATERIAL					В	C	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	6	22	195
316 SST	COCR-A	316 SST	316 SST	316 SST	8	22	195
			316 SST/COCR-A	316 SST	8	22	249
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	9	23	196
HAST C	HAST C	HAST C	HAST C	HAST C	10	24	197
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	25	198
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	6	31	199

LINEAR CHARACTERISTIC

SEAT RING		SEAT	VALVE				LINEAR	
RETAINER	BUSHING	RING	PLUG	STEM			1L3750 VSC	1L5000 VSC
MATERIAL					В	\mathbf{C}	D	D

EZX

Page 13 of 20

Fisher Controls Int. Inc.

Design EZ Valve Body Assemblies, NPS 1 1/2

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

COMPOSITION SEAT (CONT)
QUICK OPENING CHARACTERISTIC

SEAT RING		SEAT	VALVE				QUICK OPENI	NG
RETAINER	BUSHING	RING	PLUG	STEM			1L3750 VSC	1L5000 VSC
MATERIAL					В	C	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	6	22	265	266

RESTRICTED 1" PORT - EQUAL PERCENTAGE CHARACTERISTIC (MICRO FORM TIP) - 3/4" TRAVEL

SEAT RING		SEAT	VALVE						
RETAINER	BUSHING	RING	PLUG	STEM		1L37	50 VSC	1L500	0 VSC
MATERIAL					В	C	D	C	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	17	175	17	190
316 SST	COCR-A	316 SST	316 SST	316 SST	8	17	175	17	190
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	9	18	176	18	191
HAST C	HAST C	HAST C	HAST C	HAST C	10	19	177	19	192
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	11	20	178	20	193
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	6	30	179	30	194

MICRO FORM VALVE PLUGS - TFE DISC 3/4" TRAVEL

SEAT RING		SEAT	VALVE										
RETAINER	BUSHING	RING	PLUG	STEM		1/4"	PORT	3/8"	PORT	1/2"	PORT	3/4" I	PORT
1L3750 OR	1L5001 VS	<u> </u>			В	C	D	C	D	C	D	C	D
316 SST	COCR-A	316 SST	316 SST	316 SST	8	42	160	55	229	12	165	35	170
HARD FAC	ED PLUG GU	ĪDE											
316 SST	COCR-A	316 SST	316/ COCR-A	316 SST	8	42	242	55	245	12	243	35	244
1L5000 VSC													
316 SST	COCR-A	316 SST	316 SST	316 SST	8			55	234	12	180	35	185
HARD FAC	ED PLUG GU	IDE											
316 SST	COCR-A	316 SST	316/ COCR-A	316 SST	8			55	248	12	246	35	247

RESTRICTED 1" PORT - EQUAL PERCENT CHARACTERISTIC (MICRO FORM TIP) - 3/4" TRAVEL

SEAT RING		SEAT	VALVE			1L37	750	1L50	00
RETAINER	BUSHING	RING	PLUG	STEM		VSC		VSC	
MATERIAL					В	C	D	C	D
316 SST	COCR-A	316 SST	316 SST	316 SST	8	17	175	17	190
HARD FACE	HARD FACED PLUG GUIDE								
316 SST	COCR-A	316 SST	316/COCR-A	316 SST	8	17	250	17	251

EZX2

Page 14 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

 $\textbf{ITEM B - SEAT RING RETAINER, BUSHING} \ (\texttt{CONT})$

ITEM C - SEAT RING, VANED

ITEM D - VALVE PLUG (CONT)

METAL SEAT (CONT)

RESTRICTED VALVE PLUG 1" PORT - VANED SEAT RING - 3/4" TRAVEL

RESTRICTED VII	E ' E I E C C I	10111 1111	TED BEITT IV	1110 5/1 11				
							LINEA	R
SEAT RING		SEAT	VALVE				VSC	_
RETAINER	BUSHING	RING	PLUG	STEM			1L375	1L5000
							0	
MATERIAL					В	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 S	SEAT RING, H	ARD FACEI	SEAT PLU	G				
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 S	SEAT RING, H	ARD FACEI	SEAT & GU	JIDE 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
HARD FACED SE	AT RING, HAR	D FACED SEA	AT & GUIDE F	LUG				
SPECIAL TACK V	VELDED SEAT	RING RETAIN	NER/BUSHING	G ASSEMBLY				
316 SST	COCR-A	316 SST	316 SST	316 SST	18	62	40	52

							EQUAL	%	QUICK (OPEN
SEAT RING		SEAT	VALVE				VSC			
RETAINER	BUSHING	RING	PLUG	STEM			1L3750	1L5000	1L3750	1L5000
MATERIAL					В	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, I	HARD FAC	ED SEAT F	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, H	HARD FAC	CED SEAT &	& GUIDE P	LUG					
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
HARD FACED SI										
SPECIAL TACK	WELDED SEAT	RING RET	AINER/BUSI	HING ASSE	MBLY	7				
316 SST	COCR-A	316 SST	316 SST	316 SST	18	62	46	58	100	106

Page 15 of 20

Fisher Controls Int. Inc.

Design EZ Valve Body Assemblies, NPS 1 1/2

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING, VANED (CONT)

ITEM D - VALVE PLUG (CONT)

METAL SEAT (CONT)

FULL CAPACITY VALVE PLUG - VANED SEAT RING - 3/4" TRAVEL

							QUICK O	PEN
SEAT RING							VSC	
RETAINER		SEAT	VALVE				1L3750	1L5000
MATERIAL	BUSHING	RING	PLUG	STEM	В	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	63	62	80
316 SST	COCR-A	316 SST	316 SST	316 SST	8	63	62	80
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	6	64	126	131
HARD FACED SE	AT RING, HAR	D FACED SEA	T PLUG					
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	65	63	81
316 SST	COCR-A	316 SST	316 SST	316 SST	8	65	63	81
HARD FACED SE	AT RING, HAR	D FACED SEA	T & GUIDE PL	UG				
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	65	64	82
316 SST	COCR-A	316 SST	316 SST	316 SST	8	65	64	82
HARD FACED SE	EAT RING, HAR	D FACED SEA	T & GUIDE PL	UG				
SPECIAL TACK V	VELDED SEAT	RING RETAIN	ER/BUSHING	ASSEMBLY				
316 SST	COCR-A	316 SST	316 SST	316 SST	18	65	64	82

							LINEAR		EQUAL	%
SEAT RING		SEAT	VALVE				VSC		VSC	
RETAINER	BUSHING	RING	PLUG	STEM			1L3750	1L5000	1L3750	1L5000
MATERIAL					В	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	63	68	86	74	92
316 SST	COCR-A	316SST	316SST	316SST	8	63	68	86	74	92
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	6	64	127	132	128	133
HARD FACED S	SEAT RING, H	ARD FAC	ED SEAT P	LUG						
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	65	69	87	75	93
316 SST	COCR-A	316SST	316SST	316SST	8	65	69	87	75	93
HARD FACED S	SEAT RING, H	ARD FAC	ED SEAT &	GUIDE P	LUG					
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	6	65	70	88	76	94
316 SST	COCR-A	316SST	316SST	316SST	8	65	70	88	76	94
HARD FACED SE	AT RING, HAR	D FACED S	EAT & GUI	DE PLUG					•	
SPECIAL TACK V	VELDED SEAT	RING RETA	AINER/BUSI	HING ASSE	MBLY	•				_

316 SST COCR-A 316 SST 316 SST 316 SST 18 65 70

COMPOSITION SEAT (CONT)

FULL CAPACITY VALVE PLUG - VANED SEAT RING - 3/4" TRAVEL

							EQUAL %
SEAT RING		SEAT	VALVE				1L3750 OR
RETAINER	BUSHING	RING	PLUG	STEM			1L5001 VSC
MATERIAL					В	C	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	6	63	195
		416 SST	416 SST	316 SST	6	64	199
316 SST	COCR-A	316 SST	316 SST	316 SST	8	63	195
			316/COCR-A	316 SST	8	63	249

RESTRICTED 1" PORT - EQUAL PERCENTAGE CHARACTERISTIC (MICRO FORM TIP) - VANED SEAT RING 3/4" TRAVEL

SEAT RING		SEAT	VALVE						
RETAINER	BUSHING	RING	PLUG	STEM		1L37	50 VSC	1L500	0 VSC
MATERIAL					В	C	D	C	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	6	60	175	60	190
		416 SST	416 SST	316 SST	6	61	179	61	194
316 SST	COCR-A	316 SST	316 SST	316 SST	8	60	175	60	190
			316/COCR-A	316 SST	8	60	250	60	251

Page 16 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

ITEM E - GASKETS

	MAXIMUM ΔP (PSI) SHUT-OFF (SEAT LOAD NOT CONSIDERED) (CANNOT EXCEED C.W.P.)							
			PORT SIZE			,		
SPIRAL WOUND	FLAT SHEET	TEMP ° F	3/16 & 1/4	1/2	3/4	1	1 1/2	E
MONEL & PTFE	MONEL/PTFE	-100+300	1130	1160	1200	1270	1520	6
HAST C & GRAPHITE	GRAPH/SST	-100+1100	850	860	890	920	1050	9
MONEL & GRAPHITE	GRAPH/SST	-100+900	850	860	890	920	1050	10
INCONEL & GRAPHITE	GRAPH/SST	-325+1100	1130	1160	1200	1270	1520	8

ITEM F - BOLTING

BOLTING	NUT	TEMP ° F	CWP (PSI)	HYDRO (PSI/MIN)	BODY	TEMP ° F
SAE GRADE 5		-20+650	BODY	BODY		_
B7	2H	-50+800	BODY	BODY		
B8	GREAD 8	-425+100	1325	2000/1		
B7M	2HM	-50+800	1480	2225/1		
B8M CLASS 2	8M	-325+800	BODY	BODY	HAST C	-325+225
					MONEL	-325+450

			BONNET		BELLOWS	ENVIRO-SEAL
				PLAIN & EXT	SEAL	BELLOWS SEAL
BODY	TEMP °F	BOLT	NUT	F	F	F
CAST IRON	-20+450	SAE GR5	-	1	M	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+650	B7	2H LUB	6	12	17
	-50+650	B7M	2HM	5	-	-
CF8M	-325+100	SA320-B8	GR8	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+800	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	-	

Fisher Controls Int. Inc.

Engineering Master

EZX2

Page 17 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

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

ACTR	BONNET STYLE	STEM VSC	STEM	G	9D
GROUP 1	PLAIN	1L3750	316SST	1	N
			ALLOY 20	2	N
			HAST C	3	N
			K-MONEL	4	N
			NIT 50	42	N
		1L5000	316SST	5	N
			ALLOY 20	6	N
			HAST C	7	N
			K-MONEL	8	N
			NIT 50	43	N
		1L5001	316SST	9	N
			ALLOY 20	10	N
			HAST C	11	N
			K-MONEL	12	N
			NIT 50	44	N
	EXT STYLE 1	1L3750	316SST	25	N
		1L5000	316SST	27	N
		1L5001	316SST	29	N
	EXT STYLE 2	1L3750	316SST	26	N
		1L5000	316SST	28	N
		1L5001	316SST	30	N
	BELLOWS SEAL	1L3750	316SST	37	N
		1L5000	316SST	38	N
	ENVIRO-SEAL BELLOWS SEAL	ALL	316LSST	N	1
- COT - C1T	DI ADA	11.0750	HAST C	N	2
607-617	PLAIN	1L3750	316SST	13	N
			ALLOY 20	14	N
			HAST C	15	N
		11.5000	K-MONEL	16	N
		1L5000	316SST	17	N
			ALLOY 20 HAST C	18 19	N
				20	N
		1L5001	K-MONEL		N
		1L3001	316SST ALLOY 20	21 22	N N
			HAST C	23	N
			K-MONEL	24	N
	EXT STYLE 1	1L 2750		31	N
	EAI STILE I	1L3750 1L5000	316SST 316SST	33	N
		1L5000 1L5001	316SST	35	N
	EXT STYLE 2	1L3750	316SST	32	N
	LAI STILL 2	1L5730 1L5000	316SST	34	N
		1L5000 1L5001	316SST	36	N
	ENVIRO-SEAL BELLOWS SEAL	ALL	316LSST	N	1
	ENVIRO-SEAL BELLOWS SEAL	ALL	HAST C	N	2
	I	I	IIASIC	1 1	1 4



EZX2

Page 18 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

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ITEM J - NAMEPLATE

NAMEPLATE	J
FISHER	1
PICK HEATERS	2

ITEM K - FLOW ARROW



ITEM 9B - CLASS/HYDRO

STYLE	BODY	CLASS	HYDRO	9B
ASME	CAST IRON	125B	300 PSI/1 MIN	1
		250B	750 PSI/1 MIN	2
	WCC, C5, LCC & 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	PN 10/16	350 PSI (24 BAR)/1 MIN	16
	WCC, CF8M & LCC	PN 10/16/25/40	875 PSI (60 BAR)/1 MIN	17
		PN 63/100	2175 PSI (150 NAR)/1 MIN	18

EZX2

Page 19 of 20

Fisher Controls Int. Inc.

Design EZ Valve Body Assemblies, NPS 1 1/2

ITEM 9C - SEAT LEAK TEST PER FGS 4L5

SEAT	SEAT LEAK CLASS	CHARACTERISTIC	TRAVEL	PORT	VALUE	9C
METAL	IV (SCFH)	QUICK OPENING	3/4	1	4.70	1
				1 1/2	8.15	2
		LINEAR	3/4	1	3.85	3
				1 1/2	7.46	4
		EQUAL PERCENT	3/4	1	4.15	5
				1 1/2	6.66	6
		M-FORM	3/4	1/4	0.313	7
				3/8	0.672	8
				1/2	1.15	9
				3/4	2.47	10
		M-FLUTE	3/4	1/4 1 FLUTE	0.060	13
				2 FLUTE	0.118	14
				3 FLUTE	0.181	15
		M-FLOW	3/4	3/16 0.075 Cv	0.019	16
				0.181 Cv	0.039	17
	V AIR TEST	ALL	3/4	3/16	6	18
	(BUBBLES/MINUTE)			1/4	8	19
				3/8	12	20
				1/2	16	21
				3/4	24	22
				1	32	23
				1 1/2	48	24
COMPOSITION	VI (BUBBLES/MINUTE)	EQUAL PERCENT	3/4	1	1	11
				1 1/2	2	12
		M-FORM	3/4	1/4-3/4	1	11
		M-FLUTE	3/4	1/4	1	11
		M-FLOW	3/4	3/16	1	11

ITEM 9E – FLOW DIRECTION

FLOW DIRECTION	9E
UP	1
DOWN	2

ITEM 9Z - PARTIAL ASSEMBLY FOR NAMEPLATE PAD VALUES

ASSEMBLY INCLUDED HEMS	INDEX CODES	92	
A, F, J, 9B	10004,10005,10006,100	08 1	
COMPOSITION SEAT ASSEMBLY	DRAWING 46A	A1842	
ASSEMBLY DRAWING	354	A5717	
GASKET ASSEMBLY DRAWING	164	A 1943	

EZX2

Page 20 of 20

Design EZ Valve Body Assemblies, NPS 1 1/2

Fisher Controls Int. Inc.

Revision Change Record Section for the present Revision

ECRN: 20181361

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

Matrix Section:

Item	Module	Changes
D	267	New-Create "solid Alloy 6 M-Flute 1F plug".
D	268	New-Create "solid Alloy 6 M-Flute 2F plug".
D	269	New-Create "solid Alloy 6 M-Flute 3F plug".