Fisher Controls Int. Inc.

# Design EZ Valve Body Assemblies, NPS 2

CONFIDENTIAL. This document, including the information it bears, is the property of Fisher Controls and must be held in strict confidence and properly safeguarded by the recipient at all times. It may not be copied or reproduced, or provided or revealed to any other party, except with the prior written authorization of Fisher Controls, and any authorized copy or reproduction must include this legend. The recipient may use the same only for the purpose for which Fisher Controls has provided it to the recipient, and it must be returned to Fisher Controls, along with all copies and reproductions, upon request. By accepting this document, the recipient agrees to the forgoing. The original controlled version of this document resides in the Electronic Document Control System (EDOCS) accessible on the Fisher FishWeb. Copies of this document are uncontrolled. Engineering Standard DS40 controls the creation and maintenance of this document.

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 C D	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
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	
OF	Elass Discotion	

9E Flow Direction

9Z Partial Assembly

Design EZ Valve Body Assemblies, NPS 2

Fisher Controls Int. Inc.

### 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	200
		250	500
WCC	-20 +800	150	290
		300	750
		600	1500
C5	-20 +1100	150	290
		300	750
		600	1500
LCC	-50 +650	150	290
		300	750
		600	1500
CF8M	-325 +1000	150	275
		300	720
		600	1440
ALY 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
CD3MN	-20 +500	300	750

#### EN1092-1

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

	SCREWE	ED	125B FF		250B RF		SOCKET	WELD	SCH 40 E	<b>WE</b>	SCH 80 B	SWE
	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	1	45	2	46	3	47	M	M	M	M	M	M
WCC	4	48	M	M	M	M	9	53	11	55	13	57
CF8M	5	49	M	M	M	M	10	54	12	56	14	58
ALLOY 20	6	50	M	M	M	M	M	M	M	M	M	M
HAST C	7	51	M	M	M	M	M	M	M	M	M	M
MONEL	8	52	M	M	M	M	M	M	M	M	M	M
C5	94	104	M	M	M	M	95	105	96	106	97	107

Page 3 of 27

Design EZ Valve Body Assemblies, NPS 2

Fisher Controls Int. Inc.

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

	CL150 RI	7	CL300 RI	7	CL600 RI	7	CL150 R7	ГЈ	CL300 R	ГЈ	CL600 R7	ГЈ
	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
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

	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
BODY	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

Fisher Controls Int. Inc.

# Design EZ Valve Body Assemblies, NPS 2

ITEM B - SEAT RING RETAINER, BUSHING

**ITEM C - SEAT RING** 

ITEM D - VALVE PLUG

ITEM G - STEM

#### METAL SEAT - MICRO-FLOW & MICRO FLUTE

						THERM.	AL EXPANSION LIMIT
SEAT				NON-LUBR	LUBR	TRIM/B0	ODY COMB
RING	SEAT	VALVE		FLUID	FLUID	WHERE	APPLICABLE
RETAINER	RING	PLUG	STEM	TEMP ° F	TEMP ° F	BODY	TEMP ° F
ALY 20	ALY 20	ALY 20	ALY 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	-20+550
						WCC	-20+600
CB7CU-1	316	ALY 6	316	-150+300	-150+300		
316	316	ALY 6	316	-325+300	-325+300		
HARD FAC	CED SEAT & B	ORE RING					
HARD FAC	CED SEAT & G	UIDE PLUG					
CB7CU-1	316	316	316	-150+800	-150+800	CF8M	-150+570
316	316	316	316	-325+1100	-325+1100		
HARD FAC	CED SEAT & B	ORE RING					
CB7CU-1	316	ALY 6	316	-150+800	-150+800	CF8M	-150+570
316	316	ALY 6	316	-325+1100	-325+1100		
HARD FAC	CED SEAT RIN	G					
HARD FAC	CED SEAT & G	UIDE PLUG					
CB7CU-1	316	316	316	-150+300	-150+800	CF8M	-150+570 (LUBR)
316	316	316	316	-325+300	-325+1100		
HARD FAC	CED SEAT RIN	G					
CB7CU-1	316	ALY 6	316	-150+300	-150+800	CF8M	-150+570 (LUBR)
316	316	ALY 6	316	-325+300	-325+1100		
HARD FAC	CED SEAT & G	UIDE PLUG					
CB7CU-1	316	316	316	-150+300	-150+300		
316	316	316	316	-325+300	-325+300		

Rev: CN

Fisher Controls Int. Inc.

Design EZ Valve Body Assemblies, NPS 2

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 LOAD	NOT CONSIDERED)
SEAT				MAX PRESS	DROP PSI/100° F
RING	SEAT	VALVE		(CANNOT EX	KCEED C.W.P.)
RETAINER	RING	PLUG	STEM	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 FAC	ED SEAT & B	ORE RING			
HARD FAC	ED SEAT & G	UIDE PLUG			
CB7CU-1	316	316	316	1500	1500
316	316	316	316	1500	1500
HARD FAC	ED SEAT & B	ORE RING			
CB7CU-1	316	ALY 6	316	1500	1500
316	316	ALY 6	316	1500	1500
HARD FAC	ED SEAT RIN	G			
HARD FAC	ED SEAT & G	UIDE PLUG			
CB7CU-1	316	316	316	1500	1500
316	316	316	316	1500	1500
HARD FAC	ED SEAT RIN	G			
CB7CU-1	316	ALY 6	316	1500	1500
316	316	ALY 6	316	1500	1500
HARD FAC	ED SEAT & G	UIDE PLUG			
CB7CU-1	316	316	316	300	1500
316	316	316	316	300	1500



**EZX3** Page 6 of 27

Fisher Controls Int. Inc.

# Design EZ Valve Body Assemblies, NPS 2

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

METAL SEAT - ALL EACEFT MICRO-TEUTE & MICRO-TEUW										
							THERMA	<del>_</del>		
							EXPANSI	ON LIMIT		
SEAT				_	NON LUBR	LUBR	TRIM/BO	DY COMB		
RING		SEAT	VALVE		FLUID	FLUID	WHERE A	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+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 FA	CED SEAT RI	NG								
HARD FA	CED SEAT PI	LUG								
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 FA	CED SEAT RI	NG								
HARD FA	CED SEAT &	<b>GUIDE PLUG</b>	·							
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 FAC	CED SEAT RI	NG								
HARD FAC	CED SEAT &	GUIDE PLUG								
SPECIAL 7	TACK WELDI	ED SEAT RING	G RETAINER/	BUSHING AS	SEMBLY					
316	COCR-A	316	316	316	-325+800	-325+1100	WCC	-20+800		
HARD FAC	ED SEAT & I	BORE RING								
HARD FAC	ED SEAT, GU	JIDE & CONT	OUR PLUG							
316	COCR-A	316	316	316	-325+500	-325+500				

Rev: CN

Fisher Controls Int. Inc.

### Design EZ Valve Body Assemblies, NPS 2

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 CONS	IDERED)	
					MAX PRESS	DROP PSI		
					(CANNOT EX	XCEED C.W.	P.)	
					SHUT-OFF			FLOWING
SEAT					1/4-1 PORT	2 PORT		ALL PORTS
RING		SEAT	VALVE		3/8 & 1/2	1/2	3/4	ALL
RETAINER	BUSHING	RING	PLUG	STEM	STEM	STEM	STEM	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 FA	ACED SEAT R	ING, HARD FA	ACED SEAT PI	LUG				
CB7CU-1	17-4PH	316	316	316	1500	1500	1500	1500
316	COCR-A	316	316	316	1500	1500	1500	1500
HARD FA	ACED SEAT R	ING, HARD FA	ACED SEAT &	<b>GUIDE PLUG</b>				_
CB7CU-1	17-4PH	316	316	316	1500	1500	1500	1500
316	COCR-A	316	316	316	1500	1500	1500	1500
HARD F	ACED SEAT &	BORE, HARD	FACED SEAT	, GUIDE & CO	NTOUR PLUG	ī		
316	COCR-A	316	316	316	1500	1500	1500	1500

#### **COMPOSITION SEAT - MICRO-FLUTE**

						(SEAT LOAD	NOT
						CONSIDERE	D)
SEAT				NON LUBR	LUBR	MAX PRESS	DROP PSI
RING	SEAT	VALVE		FLUID	FLUID	(CANNOT EX	(CEED C.W.P.)
RETAINER	RING	PLUG	STEM	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					NON LUBR	NON LUBR
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	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

**EZX3**Page 8 of 27

Fisher Controls Int. Inc.

### Design EZ Valve Body Assemblies, NPS 2

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)

					(CIRTIOI BITCEBE	0.1112	
SEAT					SHUT OFF		FLOWING
RING		SEAT	VALVE		1/4 THRU 1 PORT	2 PORT	ALL PORTS
RETAINER	BUSHING	RING	PLUG	STEM	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	SEAT	VALVE				1L3750, 1L	.5001 VAC
RETAINER	RING	PLUG	STEM		_	.075 Cv	.181 Cv
MATERIAL				В	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, H	IARD FACED SE	AT & GUIDE PL	UG			
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 FA	CED SEAT & GU	IDE 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

Fisher Controls Int. Inc.

# Design EZ Valve Body Assemblies, NPS 2

### MICRO FLUTE VALVE PLUG, 3/4" TVL

SEAT RING	SEAT	VALVE			1L3750 OR	L5001 VSC		
RETAINER	RING	PLUG	STEM		1/4" PORT	1-FLUTE	2-FLUTE	3-FLUTE
MATERIAL				В	С	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 S	SEAT & BORE R	ING, HARD FA	CED SEAT & GU	JIDE P	LUG			
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	SEAT & BORE R	ING						
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 S	SEAT RING, HA	RD FACED SEA	T & GUIDE PLU	JG				
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	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 S	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

**EZX3** Page 10 of 27

Design EZ Valve Body Assemblies, NPS 2

Fisher Controls Int. Inc.

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)
ITEM D - VALVE PLUG (CONT)

MICRO FLUTE VALVE PLUG, 3/4" TVL

			IL3750 OR IL5001 VSC						
SEAT RING	SEAT	VALVE			1/4"				
RETAINER	RING	PLUG	STEM		PORT	1 FLUTE	2 FLUTE	3 FLUTE	
MATERIAL				В	C	D	D	D	
HARD FACEI	D SEAT & GU	IDE PLUG							
316 SST	316 SST	316 SST	316 SST	2	6	7	12	204	
HARD FACEI	D SEAT & BO	RE RING, HAR	RD FACED SE	AT & C	BUIDE PLU	JG			
316 SST	316 SST	316 SST	316 SST	2	11	7	12	204	
HARD FACEI	D SEAT RING	, HARD FACE	D SEAT & GU	IDE PL	UG			_	
316 SST	316 SST	316 SST	316 SST	2	10	7	12	204	

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

WIETTIE SET	ii - Micko	ORW VIL	VETECO 3/	+ IMIVEE		1/4"	PORT			3/8"	PORT		
SEAT RING		SEAT	VALVE			1L37	50	1L50	00	1L37	50	1L50	000
RETAINER	BUSHING	RING	PLUG	STEM		VSC		VSC		VSC		VSC	
MATERIA	L				В	C	D	C	D	С	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 FAC	CED SEAT RIN	NG, HARD FA	CED SEAT PL	UG									<u>.</u>
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 FAC	CED SEAT RI	NG, HARD FA	CED 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 FAC	ED SEAT RIN	G & SEAT & 0	GUIDE PLUG										
SPECIAL TA	ACK WELDEI	SEAT RING	RETAINER/B	USHING ASSI	EMBL	Y							
316 SST	COCR-A	316 SST	316 SST	316 SST	18	10	18	M	M	52	211	52	219
			RD FACED SI			TOUF	R PLUC	j		•			
316 SST	COCR-A	316 SST	316 SST	316 SST	8	11	18	M	M	53	216	53	224

EZX3

Page 11 of 27

Fisher Controls Int. Inc. Design EZ Valve Body Assemblies, NPS 2

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)

						1/2 P	ORT			3/4 P	ORT		
SEAT RING		SEAT	VALVE			1L37	50	1L50	00	1L37	50	1L50	00
RETAINER	BUSHING	RING	PLUG	STEM		VSC		VSC		VSC		VSC	
MATERIA	L				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	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	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 FA	CED SEAT RI	NG, HARD FA	ACED SEAT I	PLUG									
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 FA	CED SEAT RI	NG, HARD FA	ACED SEAT &	& GUIDE PLU	JG								
CB7CU-1	17-4PH	316 SST	316 SST	316 SST	6	16	24	16	34	39	138	39	146
H1150	H900												
316 SST	COCR-A	316 SST	316 SST	316 SST	8	16	24	16	34	39	138	39	146
HARD FAC	ED SEAT RIN	IG & SEAT &	<b>GUIDE PLUC</b>	3									
SPECIAL T	ACK WELDE	D SEAT RING	RETAINER/	BUSHING AS	SEMI	BLY							
316 SST	COCR-A	316 SST	316 SST	316 SST	18	16	24	16	34	39	138	39	146
_	CED SEAT & I	· · · · · · · · · · · · · · · · · · ·					OUR P						
316 SST	COCR-A	316 SST	316 SST	316 SST	8	32	112	32	115	40	143	40	151

EZX3

Page 12 of 27

Design EZ Valve Body Assemblies, NPS 2

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 (EXCEPT BELLOW SEAL) - 3/4" TVL

RESTRICTED VAL	VEILOGI IO	KI (EACEI I	DELLO	W SL	AL) - 3/4	1 1 1	L				LINI	EAR	
SEAT RING		SEAT		VAL	VE						1L37		1L5000
RETAINER	BUSHING	RING		PLU	G	ST	ΈM				VSC		VSC
MATERIAL		1	<u> </u>						В	С	Г	)	D
CB7CU-1 H1150	17-4 H900	316 SS7	Γ	316 \$	SST	31	6 SST	Γ	6	17	3		50
316 SST	COCR-A	316 SS7		316 \$			6 SST		8	17	3	8	50
ALLOY 20	ALLOY 20			ALL	OY 20	ΑI	LLOY	20	9	18	4		53
HAST C	HAST C	HAST (		HAS			AST (		10	19	4:		54
MONEL M-35W	K-MONEL	K-MON			ONEL		MON		11	20	4:	3	55
CB7CU-1 H1150	17-4 H900	416 SS7		416 \$			6 SST		6	30			121
HARD FACED	SEAT RING	1	<u> </u>								1		_
HARD FACED													
CB7CU-1 H1150	17-4 H900	316 SS7	Γ	316 \$	SST	31	6 SST	Γ	6	21	3	9	51
316 SST	COCR-A	316 SS7	Γ	316 \$	SST	31	6 SST	Γ	8	21	3	9	51
HARD FACED	SEAT RING	1	<u> </u>								1		
HARD FACED		DE PLUG											
CB7CU-1 H1150	17-4 H900	316 SST	Γ	316 \$	SST	31	6 SST	Γ	6	21	4	0	52
316 SST	COCR-A	316 SS7		316 \$			6 SST		8	21	4		52
HARD FACED S	SEAT RING &	SEAT & GU	IDE PL		I						I		
SPECIAL TACK					JSHING A	ASS	SEMB	LY					
316 SST	COCR-A	316 SS		316.5			6 SST		18	21	4	0	52
HARD FACED S													
HARD FACED S			R PLUC	ì									
316 SST	COCR-A	316 SS7		316 \$	SST	31	6 SST		8	33	11	9	124
310 551	Cockii	1 310 551	- 1	5101	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	51	0 55 1		1 0	55	1		12.
									EQ %			QUIC	K OPEN
SEAT RING		SEAT	VALV	/E					1L375	0 1	L5000	1L375	0 1L5000
RETAINER													
	BUSHING	RING	PLUG	ì	STEM				VSC	V	/SC	VSC	VSC
MATERIAL	BUSHING	RING	PLUG	<del>i</del>	STEM		В	C	VSC <b>D</b>	V	VSC D	VSC <b>D</b>	VSC <b>D</b>
	17-4 H900	RING 316SST	PLUG 316SS		STEM 316SST		<b>B</b>	<b>C</b>		V		_	
MATERIAL				ST					D	V	D	D	D
MATERIAL CB7CU-1 H1150	17-4 H900	316SST	316SS	ST ST	316SST		6	17	<b>D</b> 44	V	<b>D</b> 56	<b>D</b> 98	104 104
MATERIAL CB7CU-1 H1150 316 SST	17-4 H900 COCR-A	316SST 316SST	316SS 316SS	ST ST 20	316SST 316SST		6 8	17 17	<b>D</b> 44 44	V	<b>D</b> 56 56	98 98	104 104 107
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20	17-4 H900 COCR-A ALLOY 20	316SST 316SST ALY 20	316SS 316SS ALY 2	ST ST 20	316SST 316SST ALY 20		6 8 9	17 17 18	44 44 47	V	<b>D</b> 56 56 59	98 98 101	104 104 107 108
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C	17-4 H900 COCR-A ALLOY 20 HAST C	316SST 316SST ALY 20 HAST C	316SS 316SS ALY 2 HAST	ST ST 20 C C NEL	316SST 316SST ALY 20 HAST C		6 8 9 10	17 17 18 19	44 44 47 48		56 56 59 60	98 98 101 102	104 104 107 108 109
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900	316SST 316SST ALY 20 HAST C KMONEL	316SS 316SS ALY 2 HAST KMON	ST ST 20 C C NEL	316SST 316SST ALY 20 HAST C KMONE		6 8 9 10 11	17 17 18 19 20	44 44 47 48 49		56 56 59 60 61	98 98 101 102 103	104 104 107 108 109
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING	316SST 316SST ALY 20 HAST C KMONEL	316SS 316SS ALY 2 HAST KMON	ST ST 20 C C NEL	316SST 316SST ALY 20 HAST C KMONE		6 8 9 10 11	17 17 18 19 20	44 44 47 48 49		56 56 59 60 61	98 98 101 102 103	104 104 107 108 109
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG	316SST 316SST ALY 20 HAST C KMONEL 416SST	316SS 316SS ALY 2 HAST KMOI 416SS	ST ST 20 C C NEL ST	316SST 316SST ALY 20 HAST C KMONE 316SST		6 8 9 10 11 6	17 17 18 19 20 30	44 44 47 48 49 117		56 56 59 60 61 122	98 98 101 102 103 118	104 104 107 108 109 123
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900	316SST 316SST ALY 20 HAST C KMONEL	316SS 316SS ALY 2 HAST KMOI 416SS	ST ST 20 C C NEL ST	316SST 316SST ALY 20 HAST C KMONE 316SST		6 8 9 10 11	17 17 18 19 20	44 44 47 48 49		56 56 59 60 61	98 98 101 102 103	104 104 107 108 109
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A	316SST 316SST ALY 20 HAST C KMONEL 416SST	316SS 316SS ALY 2 HAST KMOI 416SS	ST ST 20 C C NEL ST	316SST 316SST ALY 20 HAST C KMONE 316SST		6 8 9 10 11 6	17 17 18 19 20 30	44 44 47 48 49 117		56 56 59 60 61 122	98 98 101 102 103 118	104 104 107 108 109 123
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING	316SST 316SST ALY 20 HAST C KMONEL 416SST 316SST 316SST	316SS 316SS ALY 2 HAST KMOI 416SS	ST ST 20 C C NEL ST	316SST 316SST ALY 20 HAST C KMONE 316SST		6 8 9 10 11 6	17 17 18 19 20 30	44 44 47 48 49 117		56 56 59 60 61 122	98 98 101 102 103 118	104 104 107 108 109 123
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED HARD FACED	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING SEAT RING SEAT & GUII	316SST 316SST ALY 20 HAST C KMONEL 416SST 316SST 316SST	316SS 316SS ALY 2 HAST KMOI 416SS 316SS	ST 20 C C NEL ST	316SST 316SST ALY 20 HAST C KMONE 316SST 316SST 316SST		6 8 9 10 11 6	17 17 18 19 20 30	44 44 47 48 49 117		56 56 59 60 61 122 57 57	98 98 101 102 103 118	104 104 107 108 109 123
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED HARD FACED HARD FACED CB7CU-1 H1150	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING SEAT & GUII 17-4 H900	316SST 316SST ALY 20 HAST C KMONEL 416SST 316SST 316SST DE PLUG 316SST	316SS 316SS ALY 2 HAST KMOI 416SS 316SS 316SS	ST 20 C C NEL ST	316SST 316SST ALY 20 HAST C KMONE 316SST 316SST 316SST		6 8 9 10 11 6	17 17 18 19 20 30	44 44 47 48 49 117		56 56 59 60 61 122 57 57	98 98 101 102 103 118	104 104 107 108 109 123
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED HARD FACED CB7CU-1 H1150 316 SST	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING SEAT & GUII 17-4 H900 COCR-A	316SST 316SST ALY 20 HAST C KMONEL 416SST 316SST 316SST 316SST 316SST	316SS 316SS ALY 2 HAST KMOI 416SS 316SS 316SS 316SS	ST ST 20 C C NEL ST ST ST	316SST 316SST ALY 20 HAST C KMONE 316SST 316SST 316SST 316SST	EL	6 8 9 10 11 6	17 17 18 19 20 30 21 21	44 44 47 48 49 117 45 45		56 56 59 60 61 122 57 57	98 98 101 102 103 118	104 104 107 108 109 123 105 105
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED HARD FACED	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT & GUII 17-4 H900 COCR-A SEAT RING	316SST 316SST ALY 20 HAST C KMONEL 416SST 316SST 316SST 316SST 316SST ARD FACE	316SS 316SS ALY 2 HAST KMOI 416SS 316SS 316SS 316SS D SEAT	ST ST 20 C C NEL ST ST ST	316SST 316SST ALY 20 HAST C KMONE 316SST 316SST 316SST 316SST UIDE PLU	UG	6 8 9 10 11 6 6 8	17 17 18 19 20 30 21 21 21	44 44 47 48 49 117 45 45		56 56 59 60 61 122 57 57	98 98 101 102 103 118	104 104 107 108 109 123
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED SPECIAL TACK	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING SEAT & GUII 17-4 H900 COCR-A SEAT RING, H	316SST 316SST ALY 20 HAST C KMONEL 416SST 316SST DE PLUG 316SST 316SST ARD FACEI AT RING RE	316SS 316SS ALY 2 HAST KMOI 416SS 316SS 316SS 316SS D SEAT ETAINE	ST ST 20 C C NEL ST ST ST ST ST ST ST	316SST 316SST ALY 20 HAST C KMONE 316SST 316SST 316SST UIDE PLU JSHING	UG ASS	6 8 9 10 11 6 6 8	17 17 18 19 20 30 21 21 21 21	44 44 47 48 49 117 45 45		56 56 59 60 61 122 57 57 58	98 98 101 102 103 118 99 99	104 104 107 108 109 123 105 105
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED CB7CU-1 H1150 316 SST HARD FACED SPECIAL TACK 316 SST	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT & GUII 17-4 H900 COCR-A SEAT RING, H WELDED SE	316SST 316SST ALY 20 HAST C KMONEL 416SST 316SST 316SST 316SST ARD FACEI AT RING RE 316 SST	316SS 316SS ALY 2 HAST KMOI 416SS 316SS 316SS 316SS D SEAT	ST ST 20 C C NEL ST ST ST ST ST ST ST	316SST 316SST ALY 20 HAST C KMONE 316SST 316SST 316SST 316SST UIDE PLU	UG ASS	6 8 9 10 11 6 6 8	17 17 18 19 20 30 21 21 21	44 44 47 48 49 117 45 45		56 56 59 60 61 122 57 57	98 98 101 102 103 118	104 104 107 108 109 123 105 105
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED CB7CU-1 H1150 316 SST HARD FACED SPECIAL TACK 316 SST HARD FACED S	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT & GUII 17-4 H900 COCR-A SEAT RING, H WELDED SE COCR-A	316SST 316SST ALY 20 HAST C KMONEL 416SST 316SST 316SST 316SST 316SST 316SST ARD FACEI AT RING RE 316 SST RING	316SS 316SS ALY 2 HAST KMOI 416SS 316SS 316SS 316SS 316SS 316SS 316SS 316SS	ST 20 C C NEL ST ST ST ST ST ST	316SST 316SST ALY 20 HAST C KMONE 316SST 316SST 316SST UIDE PLU JSHING	UG ASS	6 8 9 10 11 6 6 8	17 17 18 19 20 30 21 21 21 21	44 44 47 48 49 117 45 45		56 56 59 60 61 122 57 57 58	98 98 101 102 103 118 99 99	104 104 107 108 109 123 105 105
MATERIAL CB7CU-1 H1150 316 SST ALLOY 20 HAST C MONEL M-35W CB7CU-1 H1150 HARD FACED HARD FACED CB7CU-1 H1150 316 SST HARD FACED CB7CU-1 H1150 316 SST HARD FACED SPECIAL TACK 316 SST	17-4 H900 COCR-A ALLOY 20 HAST C K-MONEL 17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT & GUII 17-4 H900 COCR-A SEAT RING, H WELDED SE COCR-A	316SST 316SST ALY 20 HAST C KMONEL 416SST 316SST 316SST 316SST 316SST 316SST ARD FACEI AT RING RE 316 SST RING	316SS 316SS ALY 2 HAST KMOI 416SS 316SS 316SS 316SS 316SS 316SS 316SS 316SS	ST 20 C C NEL ST	316SST 316SST ALY 20 HAST C KMONE 316SST 316SST 316SST UIDE PLU JSHING	UG ASS	6 8 9 10 11 6 6 8	17 17 18 19 20 30 21 21 21 21	44 44 47 48 49 117 45 45		56 56 59 60 61 122 57 57 58	98 98 101 102 103 118 99 99	104 104 107 108 109 123 105 105

**EZX3**Page 13 of 27

Design EZ Valve Body Assemblies, NPS 2

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 1" PORT (BELLOWS SEAL ONLY) - 3/4" TVL

							LINEAR	
SEAT RING		SEAT	VALVE				1L3750	1L5000
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC
MATERIAL					В	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 S	SEAT RING, HAR	RD FACED SE	EAT 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 S	SEAT RING, HAR	RD FACED SE	EAT & GUID	E 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 & GU	IDE PLUG					
SPECIAL TACI	K WELDED SEA	AT RING RE	ETAINER/B	USHING A	SSEMI	BLY		
316 SST	COCR-A	316 SST	316 SST	316 SST	19	21	241	255
HARD FACED SE	AT & BORE RIN	G, HARD FA	CED SEAT,G	UIDE & CO	NTOUR	R PLUG	r	
316 SST	COCR-A	316 SST	316 SST	316 SST	14	33	242	256

EZX:

Page 14 of 27

Fisher Controls Int. Inc. Design EZ Valve Body Assemblies, NPS 2

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

							EQUAL 9	%	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	17-4PH 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 S	SEAT RING, HAR	D FACED S	SEAT PLUG	ſ						
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 S	SEAT RING, HAR	D FACED S	SEAT & GU	IDE 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 S	EAT RING & SEA	AT & GUID	E PLUG							_
SPECIAL TACK	WELDED SEAT I	RING RETA	INER/BUSI	HING ASSE	MBL	Y				
316 SST	COCR-A	316 SST	316 SST	316 SST	19	21	246	260	251	265
HARD FACED SE	EAT & BORE RIN	G, HARD F	ACED SEA	T,GUIDE &	CON'	TOUR	PLUG			
316 SST	COCR-A	316SST	316SST	316SST	14	33	247	261		

EZX3

Page 15 of 27

Design EZ Valve Body Assemblies, NPS 2

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 VALVE PLUG - 1 1/8" TVL

				,					QUICK O	PEN
SEAT RING		SEAT	$r \mid v$	/ALVE					1L5000	1L7500
RETAINER	BUSHIN	G RINC	F P	PLUG	STE	M			VSC	VSC
MATERIAL		<u> </u>	·				В	С	D	D
CB7CU-1 H1150	17-4 H90	0 316 S	ST 3	316 SST	316.5	SST	12	22	62	80
316 SST	COCR-A			316 SST	316		14	22	62	80
ALLOY 20	ALLOY 2			ALLOY 20		OY 20		23	65	83
HAST C	HAST C	HAS		HAST C	HAS		16	24	66	84
MONEL M-35W	K-MONE			K-MONEL	1	ONEI		25	67	85
CB7CU-1 H1150	17-4 H90			16 SST	316.5	-	12	31	126	131
HARD FACED			DI   1	10 551	3101	JD 1	12	31	120	131
HARD FACED										
			CT 2	21.C CCT	216	CCT	12	26		0.1
CB7CU-1 H1150	17-4 H90			316 SST	316.5		12	26	63	81
316 SST	COCR-A		51 5	316 SST	316	221	14	26	63	81
HARD FACED										
HARD FACED			1							
CB7CU-1 H1150	17-4 H90			316 SST	316		12	26	64	82
316 SST	COCR-A			316 SST	316 \$	SST	14	26	64	82
HARD FACED	SEAT RING	& SEAT &	GUIDE PL	UG						
SPECIAL TACE	K WELDED S	<b>EAT RING</b>	<b>RETAINE</b>	R/BUSHING	3 ASSI	EMBL	Y			
316 SST	COCR-A	316 S	ST 3	16 SST	316.5	SST	19	26	64	82
HARD FACED	SEAT & BO	RE RING					<u>I</u>			
HARD FACED	SEAT.GUID	E & CONT	OUR PLU	G						
316 SST	COCR-A			316 SST	316	SST	14	34		
210 221	1 0001111	10102		10 221	010.	5.5 1	1 -	1 0 . 1	ļ	ļ
							LINEAR		EQ %	
SEAT RING		SEAT	VALVE				1L5000	1L7500		1L7500
RETAINER	BUSHING	RING	PLUG	STEM	1		VSC	VSC	VSC	VSC
MATERIAL					В	С	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	1.0	~ .		0.0		
MONEL M-35W			1111111111	IIASI C	16	24	72	90	78	96
	K-MONEL	KMONEL	KMONEL	KMONEL	16	24 25	72 73	90 91	78 79	96 97
CB7CU-1 H1150	17-4 H900				_					
HARD FACED S	17-4 H900 SEAT RING	KMONEL	KMONEL	KMONEL	17	25	73	91	79	97
HARD FACED S	17-4 H900 SEAT RING SEAT PLUG	KMONEL 416SST	KMONEL 416SST	KMONEL 316SST	17 12	25 31	73 127	91 132	79 128	97 133
HARD FACED S HARD FACED S CB7CU-1 H1150	17-4 H900 SEAT RING SEAT PLUG 17-4 H900	KMONEL 416SST	KMONEL 416SST	KMONEL 316SST	17 12	25 31 26	73 127 69	91 132 87	79 128 75	97 133
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A	KMONEL 416SST	KMONEL 416SST	KMONEL 316SST	17 12	25 31	73 127	91 132	79 128	97 133
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING	KMONEL 416SST 316SST 316SST	KMONEL 416SST	KMONEL 316SST	17 12	25 31 26	73 127 69	91 132 87	79 128 75	97 133
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S HARD FACED S	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING SEAT & GUIDI	KMONEL 416SST 316SST 316SST	KMONEL 416SST 316SST 316SST	KMONEL 316SST 316SST 316SST	17 12 12 14	25 31 26 26	73 127 69 69	91 132 87 87	79 128 75 75	97 133 93 93
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S HARD FACED S CB7CU-1 H1150	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING SEAT & GUIDI 17-4 H900	KMONEL 416SST 316SST 316SST E PLUG 316SST	316SST 316SST 316SST	316SST 316SST 316SST 316SST	17 12 12 14	25 31 26 26 26	73 127 69 69 70	91 132 87 87 87	79 128 75 75 76	97 133 93 93 94
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING SEAT & GUIDI 17-4 H900 COCR-A	KMONEL 416SST 316SST 316SST E PLUG 316SST 316SST	316SST 316SST 316SST 316SST 316SST	KMONEL 316SST 316SST 316SST	17 12 12 14	25 31 26 26	73 127 69 69	91 132 87 87	79 128 75 75	97 133 93 93
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING SEAT & GUIDI 17-4 H900 COCR-A	KMONEL 416SST 316SST 316SST E PLUG 316SST 316SST SEAT & GUI	316SST 316SST 316SST 316SST DE PLUG	316SST 316SST 316SST 316SST 316SST 316SST	17 12 12 14	25 31 26 26 26 26	73 127 69 69 70	91 132 87 87 87	79 128 75 75 76	97 133 93 93 94
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S SPECIAL TACK	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT RING SEAT & GUIDI 17-4 H900 COCR-A EAT RING & S	316SST 316SST 316SST E PLUG 316SST 316SST SEAT & GUI AT RING RE	316SST 316SST 316SST 316SST DE PLUG FAINER/BU	316SST 316SST 316SST 316SST 316SST 316SST	17 12 12 14 12 14 EMBLY	25 31 26 26 26 26	73 127 69 69 70 70	91 132 87 87 87 88 88	79 128 75 75 76 76	97 133 93 93 94 94
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S SPECIAL TACK 316 SST	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT & GUIDI 17-4 H900 COCR-A EAT RING & S WELDED SEA	KMONEL 416SST 316SST 316SST E PLUG 316SST 316SST SEAT & GUI AT RING RES 316 SST	316SST 316SST 316SST 316SST DE PLUG	316SST 316SST 316SST 316SST 316SST 316SST	17 12 12 14	25 31 26 26 26 26	73 127 69 69 70	91 132 87 87 87	79 128 75 75 76	97 133 93 93 94
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S SPECIAL TACK 316 SST HARD FACED S	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT & GUIDI 17-4 H900 COCR-A EAT RING & S WELDED SEAT COCR-A SEAT & BORE	KMONEL 416SST 316SST 316SST E PLUG 316SST 316SST SEAT & GUI AT RING RET 316 SST RING	316SST 316SST 316SST 316SST DE PLUG FAINER/BU 316 SST	316SST 316SST 316SST 316SST 316SST 316SST	17 12 12 14 12 14 EMBLY	25 31 26 26 26 26	73 127 69 69 70 70	91 132 87 87 87 88 88	79 128 75 75 76 76	97 133 93 93 94 94
HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S HARD FACED S CB7CU-1 H1150 316 SST HARD FACED S SPECIAL TACK 316 SST	17-4 H900 SEAT RING SEAT PLUG 17-4 H900 COCR-A SEAT & GUIDI 17-4 H900 COCR-A EAT RING & S WELDED SEAT COCR-A SEAT & BORE	KMONEL 416SST 316SST 316SST E PLUG 316SST 316SST SEAT & GUI AT RING RET 316 SST RING	316SST 316SST 316SST 316SST DE PLUG FAINER/BU 316 SST	316SST 316SST 316SST 316SST 316SST 316SST	17 12 12 14 12 14 EMBLY 19	25 31 26 26 26 26	73 127 69 69 70 70	91 132 87 87 87 88 88	79 128 75 75 76 76	97 133 93 93 94 94

Design EZ Valve Body Assemblies, NPS 2

Fisher Controls Int. Inc.

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	SEAT	VALVE						
RETAINER	RING	PLUG	STEM		1/4 PORT	1-FLUTE	2-FLUTE	3-FLUTE
MATERIAL				В	C	D	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	E & 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		SEAT	VALVE								
RETAINER	BUSHING	RING	PLUG	STEM		1/4 P	ORT	3/8 P	ORT	1/2 P	ORT
MATERIAL					В	C	D	C	D	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

Page 17 of 27

Design EZ Valve Body Assemblies, NPS 2

Fisher Controls Int. Inc.

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		SEAT	VALVE				EQUAL %
RETAINER	BUSHING	RING	PLUG	STEM			1L5000 VSC
MATERIAL					В	C	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

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

#### QUICK OPENING CHARACTERISTIC

							QUICK OF	PENING
SEAT RING		SEAT	VALVE				1L5000	1L7500
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC
MATERIAL					В	С	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	12	22	301	302

EZX3

Page 18 of 27

Fisher Controls Int. Inc.

### Design EZ Valve Body Assemblies, NPS 2

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 CHARATERISTIC (MICRO FORM TIP) - 3/4" TVL TFE DISC

						3/4"	PORT		1" P	ORT	
SEAT RING		SEAT	VALVE				1L3750	1L5000		1L3750	1L5000
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC		VSC	VSC
MATERIAL					В	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

						3/4 P	ORT		1" P	ORT	
SEAT RING		SEAT	VALVE				1L3750	1L5000		1L5001	1L5000
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC		VSC	VSC
MATERIAL					В	C	D	D	C	D	D
316 SST	COCR-A	316 SST	316 SST	316 SST	8	35	170	185	17	175	190
HARD FAC	CED PLUG GUII	ЭE									
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

		3/4 PORT						1" PORT			
SEAT RING		SEAT	VALVE				1L3750	1L5000		1L3750	1L5000
RETAINER	BUSHING	RING	PLUG	STEM			VSC	VSC		VSC	VSC
MATERIAL					В	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

Fisher Controls Int. Inc.

### Design EZ Valve Body Assemblies, NPS 2

ITEM B - SEAT RING RETAINER, BUSHING (CONT)

ITEM C - SEAT RING (CONT)

ITEM D - VALVE PLUG (CONT)

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

										LINEAD		
CEAT DING	ĺ	SE	<b>л</b> т I	VALVE	ĺ		ĺ			LINEAR 1L3750	1L5000	
SEAT RING RETAINER	BUSHIN			PLUG	СТ	ΈM				VSC	VSC	
MATERIAL		NO KII	NU	rLuu	31	EIVI	:	В	С	D	D	_
CB7CU-1 H11		00 314	5 SST	316 SST	21/	6 SS	T	<u>Б</u>	60	38	50	
316 SST	COCR-A			316 SST		6 SS		8	60	38	50	
CB7CU-1 H11				416 SST		6 SS		6	61	116	121	
	CED SEAT RIN		7 551	+10 001	310	O DL	,1	0	01	110	121	
	CED SEAT PL	-										
CB7CU-1 H11			SST	316 SST	310	6 SS	ST	6	62	39	51	
316 SST	COCR-A			316 SST		6 SS		8	62	39	51	
	ED SEAT RING				1					I		
SPECIAL TA	ACK WELDED	SEAT RI	NG RETA	INER/BU	SHIN	IG A	SSE	MBL	Y			
316 SST	COCR-A	316	SST	316 SST	31	16 S	ST	18	62	39	51	<del></del>
HARD FAC	CED SEAT RIN	1G										
HARD FAC	CED SEAT & C	GUIDE PLI	JG									
CB7CU-1 H11				316 SST		6 SS		6	62	40	52	
316 SST	COCR-A	A 316	SST	316 SST	310	6 SS	ST	8	62	40	52	
								LEGI	TAT O	,	l outroiz o	NDEN
CE AT DING	1	LODATE	X7 A T X7E	, 1	1			_	JAL 9		QUICK C	
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM				1L37 VSC		1L5000 VSC	1L3750 VSC	1L5000 VSC
MATERIAL		KING	FLUG	STEM		В	С	VSC		D	D	D
CB7CU-1	17-4 H900	316SST	316SST	316SS		6	60	_	<u>,                                     </u>	56	98	104
H1150	17-411500	310331	310331	31055	1	U	00	-	7	30	70	104
316 SST	COCR-A	316SST	316SST	316SS	Г	8	60	4	4	56	98	104
CB7CU-1	17-4 H900	416SST	416SST			6	61	11		122	118	123
H1150	17 111500	110001	110001	31000	•		01	1.	,	122	110	123
	CED SEAT RIN	NG			i i			I				
HADDEAC	CED SEAT PL	IC										
HAKD FAC		UG										
CB7CU-1	17-4 H900	316SST	316SST	316SS	Γ	6	62	4	5	57	99	105
		1	316SST	316SS	Γ	6	62	4	5	57	99	105
CB7CU-1		1	316SST			6 8	62		5	57 57	99 99	105
CB7CU-1 H1150 316 SST	17-4 H900	316SST 316SST	316SST	316SS								
CB7CU-1 H1150 316 SST HARD FACI	17-4 H900 COCR-A	316SST 316SST G & SEAT	316SST & GUIDI	316SS E PLUG	Γ	8	62	4	5			
CB7CU-1 H1150 316 SST HARD FACI SPECIAL TA 316 SST	17-4 H900 COCR-A ED SEAT RING ACK WELDED COCR-A	316SST 316SST G & SEAT O SEAT RII 316SST	316SST & GUIDI	316SS E PLUG AINER/BU	Γ SHIN	8	62	4 MBL	5			
CB7CU-1 H1150 316 SST HARD FACI SPECIAL TA 316 SST HARD FACI	17-4 H900  COCR-A  ED SEAT RING ACK WELDED  COCR-A  CED SEAT RING	316SST 316SST G & SEAT O SEAT RI 316SST NG	316SST & GUIDI NG RETA 316 SS	316SS E PLUG AINER/BU	Γ SHIN	8 IG A	62 ASSEI	4 MBL	5 Y	57	99	105
CB7CU-1 H1150 316 SST HARD FACI SPECIAL TA 316 SST HARD FACI HARD FACI	17-4 H900  COCR-A  ED SEAT RING ACK WELDED  COCR-A  CED SEAT RING CED SEAT & C	316SST 316SST G & SEAT D SEAT RII 316SST NG GUIDE PLI	316SST & GUIDI NG RETA 316 SST	316SS E PLUG AINER/BU F 316SS	SHIN	8 IG A	62 ASSEI	4 MBL	5 Y	57	99	105
CB7CU-1 H1150 316 SST HARD FACI SPECIAL TA 316 SST HARD FACI HARD FACI CB7CU-1	17-4 H900  COCR-A  ED SEAT RING ACK WELDED  COCR-A  CED SEAT RING	316SST 316SST G & SEAT O SEAT RI 316SST NG	316SST & GUIDI NG RETA 316 SS	316SS E PLUG AINER/BU F 316SS	SHIN	8 IG A	62 ASSEI	MBLY	5 Y	57	99	105
CB7CU-1 H1150 316 SST HARD FACI SPECIAL TA 316 SST HARD FACI HARD FACI	17-4 H900  COCR-A  ED SEAT RING ACK WELDED  COCR-A  CED SEAT RING CED SEAT & C	316SST 316SST G & SEAT D SEAT RII 316SST NG GUIDE PLI	316SST & GUIDI NG RETA 316 SST	316SS E PLUG ΔINER/BU Γ 316SS	Γ SHIN T T	8 IG A 18	62 ASSEI 62	4 MBLY 4	5 Y -5	57	99	105

Page 20 of 27

Design EZ Valve Body Assemblies, NPS 2

Fisher Controls Int. Inc.

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

VANED SEAT KI	ING - 3/4 TRA	AVEL							Lin	EAR	
SEAT RING	1	1	SEAT	VALVE	1					750	1L5000
RETAINER	BUSHING		RING	PLUG	STE	ZN/	1		VS		VSC
MATERIAL	DUSTIINO		KINU	FLOG	311	21V1	В	С	-	D	D
CB7CU-1 H1150	17-4PH H9	00	316 SST	316 SST	216	SST	12	60	-	39	253
316 SST	COCR-A		316 SST	316 SST		SST	14	60		239	253
CB7CU-1 H1150	17-4PH H90		416 SST	416 SST		SST	12	61	_	.39	257
HARD FACED	-,	00	410 001	410 331	310	331	12	01		43	231
HARD FACED											
CB7CU-1 H1150	17-4PH H90	00	316 SST	316 SST	316	SST	12	62	2	240	254
316 SST	COCR-A		316 SST	316 SST		SST	14	62	2	240	254
HARD FACED	SEAT RING &	& SEAT	& GUIDE	PLUG	1						
SPECIAL TACE	K WELDED SE	EAT RIN	NG RETAII	NER/BUSHI	NG A	SSEM	BLY				
316 SST	COCR-A		316 SST	316 SST	316	SST	19	62	2	40	254
HARD FACED	SEAT RING			•						•	
HARD FACED	SEAT & GUI	DE PLU	JG								
CB7CU-1 H1150	17-4PH H90	00	316 SST	316 SST	316	SST	12	62	2	241	255
316 SST	COCR-A		316 SST	316 SST	316	SST	14	62	2	241	255
	·	·			•		•		•	•	
	ı		1				EQUAL				K OPEN
SEAT RING	D	SEAT	VALVE	-	i		1L3750	_	000	1L3750	
RETAINER	BUSHING	RING	PLUG	STEM		-	VSC	VSC		VSC	VSC
MATERIAL CB7CU-1 H1150	17 ADII 11000	21.000	E 21600T	21,600	<b>B</b>	C	<b>D</b> 244		<u>D</u>	<b>D</b> 249	D 262
316 SST	17-4PH H900 COCR-A	316SST			14	60 60	244		58 58	249	263 263
CB7CU-1 H1150	17-4PH H900	416SS			12	61	244		62	252	266
HARD FACED S		41000	1 410001	310551	12	01	240		02	232	200
HARD FACED S	SEAT PLUG										
CB7CU-1 H1150	17-4PH H900	316SS	Γ 316SST	316SST	12	62	245	2	59	250	264
316 SST	COCR-A	316SS			14	62	245	2	59	250	264
HARD FACED											
SPECIAL TAC					IING A	ASSE	MBLY				
316 SST	COCR-A	316SS	T 316 SS	T 316SST	19	62	245	2	259	250	264
HARD FACED S		DLUG									
HARD FACED S	SEAT & GUIDE 17-4PH H900	PLUG 316SS	Г 316SST	316SST	12	- (2	246	1 2	<i>c</i> 0	251	265
CB7CU-1 H1150	1 1 /_4PH H900	1 3 16 5	1 1316881	1 3 1 6 5 5 1	1 17	62	1 246	1 7	60	751	765
316 SST	COCR-A	316SS			14	62	246	_	60	251	265

EZX3

Page 21 of 27

Fisher Controls Int. Inc.

### Design EZ Valve Body Assemblies, NPS 2

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

												QUICE	(O	PEN	
SEAT RING			SEA	T	VALVE							1L500	0	1L750	00
RETAINER	BUSHI	NG	RIN	G	PLUG		S	TEM				VSC		VSC	
MATERIAL										В	С	D		D	
CB7CU-1 H1150	17-4 H	900	316	SST	316 SST		3	16 SS	T	12	63	62		80	
316 SST	COCR-	·A	316	SST	316 SST		3	16 SS	T	14	63	62		80	
CB7CU-1 H1150	17-4 H	900	416	SST	416 SST		3	16 SS	T	12	64	126		131	
HARD FACE	D SEAT RIN	1G													
HARD FACE	D SEAT PL	JG													
CB7CU-1 H1150	17-4 H	900	316	SST	316 SST		3	16 SS	T	12	65	63		81	
316 SST	COCR-	·A	316	SST	316 SST		3	16 SS	T	14	65	63		81	
HARD FACE															
SPECIAL TA	CK WELDE	D SEAT				NG	AS	SSEM	IBLY						
316 SST	COCR-	A	316	SST	316 SST		3	16 SS	ST	19	65	63		81	
HARD FACED S															
HARD FACE	D SEAT & C	BUIDE F	LUG	f											
CB7CU-1 H1150	17-4 H	900	316	SST	316 SST			16 SS		12	65	64		82	
316 SST	COCR-	·A	316	SST	316 SST		3	16 SS	T	14	65	64		82	
									ī						
an. mnn. a		1 ~= . =	1		ī				LINEA	_		EQ %			
SEAT RING	DUCHING	SEAT RING		VALVE PLUG	CTEM	ĺ			1L5000 VSC	VS0	500	1L5000 VSC	IL VS	7500	
RETAINER MATERIAL	BUSHING	KING		PLUG	STEM	P	•	С	D		)	D		D	
CB7CU-1 H1150	17-4 H900	316SS	т	316SST	316SST	13		63	68		66	<del></del>	_	92	
316 SST	COCR-A	316SS		316SST	316SST	14	_	63	68	_	6	74		92	
CB7CU-1 H1150	17-4 H900	416SS		416SST	316SST	1:		64	127	_	32	128		33	
HARD FACED	SEAT RING	•			•				•		U				
HARD FACED															
CB7CU-1 H1150	17-4 H900	316SS		316SST	316SST	1.		65	69	_	57	75		93	
316 SST	COCR-A	316SS		316SST	316SST	14	4	65	69	8	7	75		93	
HARD FACED S					HOLING AG	171.4	тът	<b>3</b> 7							
SPECIAL TACK 316 SST	COCR-A	316SS		316 SST	316SST	SEM 1		65	69	8	7	75	C	13	
HARD FACED		31033	) 1	310 331	310331	1	7	0.5	09	0	1	13		-3	
HARD FACED		DE PLU	G												
CB7CU-1 H1150	17-4 H900	316SS		316SST	316SST	1.	2	65	70	8	8	76		94	
316 SST	COCR-A	316SS	T	316SST	316SST	14	4	65	70	8	8	76		94	

Page 22 of 27

Fisher Controls Int. Inc. Design EZ Valve Body Assemblies, NPS 2

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		SEAT	VALVE		_		EQUAL %
RETAINER	BUSHING	RING	PLUG	STEM			1L5000 VSC
MATERIAL					В	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 CHARATERISTIC (MICRO FORM TIP) - 3/4" TVL TFE DISC

SEAT RING		SEAT	VALVE				1" PORT	
RETAINER	BUSHING	RING	PLUG	STEM			1L3750 VSC	1L5000 VSC
MATERIAL					В	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		SEAT	VALVE				1" PORT	
RETAINER	BUSHING	RING	PLUG	STEM			1L5001 VSC	1L5000 VSC
MATERIAL					В	C	D	D
316 SST	COCR-A	316 SST	316 SST	316 SST	8	60	175	190
HARD FAC	ED PLUG GU	IDE						_
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		SEAT	VALVE		_	_	1" PORT	
RETAINER	BUSHING	RING	PLUG	STEM			1L3750 VSC	1L5000 VSC
MATERIAL					В	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

EZX3

Page 23 of 27

Fisher Controls Int. Inc. Design EZ Valve Body Assemblies, NPS 2

980

#### **ITEM E - GASKETS**

SPIRAL WOUND

HAST C & COMP

MONEL & COMP

MONEL & PTFE

INCONEL & GRAPH

		(SEAT LOAD NOT CONSIDERED) (CANNOT EXCEED C.W.P.) MAX PRESS DROP PSI/100 DEG F,SHUT OFF PORT SIZE				UT OFF
Ī	Ī					
FLAT SHEET	TEMP ° F	3/16 & 1/4	1/2	3/4	1"	2
GRAPH/SST	-100+450	760	770	790	810	1020
GRAPH/SST	-100+450	760	770	790	810	1020
MONEL/PTFE	-100+300	980	990	1020	1060	1470

990

1020

1060

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

-325+1100

GRAPH/SST

Rev: CN

Fisher Controls Int. Inc.

# Design EZ Valve Body Assemblies, NPS 2

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

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

				STD &	BELLOWS	ENVIRO-SEAL
				EXT	SEAL	BELLOWS SEAL
				BNT	BONNET	BONNET
BODY MATL	° F	BOLT	NUT	F	F	F
CAST IRON	-20+450	SAE GR 5		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+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 2	10	15
	-50+450	B7	2H		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	-	

Page 25 of 27

Fisher Controls Int. Inc.

# Design EZ Valve Body Assemblies, NPS 2

# 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
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

Fisher Controls Int. Inc.

# Design EZ Valve Body Assemblies, NPS 2

#### ITEM K - FLOW ARROW



#### 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	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	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	TRA	VEL	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		9.40	24
COMP	VI(BUBBLES/MIN)	EQUAL PERCENT	1	3/4		1	11
			2	1 1/8	1	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

Page 27 of 27

Fisher Controls Int. Inc.

# Design EZ Valve Body Assemblies, NPS 2

#### 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		9 <b>Z</b>
A,F,J,9B	10004,10005,10006,10008		1
COMPOSITION SEAT ASSEMBLY DRAWING		46	A1842
ASSEMBLY DRAWING		35.	A5717
GASKET ASSEMBLY DRAWING		16	A1943

### **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".