

Fisher® EU and EW Valves NPS 12 through 24 x 20

The Fisher® NPS 12 through 24 × 20 CL150 through CL600 EUT-2, EWT-2, EUD, and EWD general-purpose valves (figures 1, 2, and 3) are used for either throttling or on-off control of a wide variety of liquids and gasses. These valves have single ports, balanced valve plugs, and cage guiding.

EUT-2 and EWT-2 valves with a hanging cage (figure 2) are available for demanding applications in oil and natural gas to 232°C (450°F). The hanging cage, with the seat ring threaded into the cage, gives these valves easy-maintenance trim--no trim parts are threaded into the valve body. The seal between the plug and cage and the seal between the seat ring and valve body are spring-loaded PTFE seals.

EUD and EWD valves (figure 3) have a bolted-in seat ring. These valves have metal-to-metal seating and use two graphite piston rings between the valve plug and cage. They are used primarily for high temperature (over 232°C [450°F]) service.

EUT and EWT valves have a bolted-in seat ring. These valves have metal-to-metal seating and use PEEK anti-extrusion rings to obtain temperatures up to 316°C (600°F).

These valves share the following characteristics: multiple trim material choices, trim part interchangeability, and different cage styles to provide particular flow characteristics to handle specific applications.

To help reduce aerodynamic noise in gas service, Whisper Trim® III and WhisperFlo® cages (figure 4) are available. To eliminate liquid cavitation damage, Cavitrol® III cages are available. For cavitating liquids with particulate, DST (dirty service trim) is available.



Figure 1. Fisher® NPS 24 x 20 EWT Valve with Piston Actuator and FIELDVUE® DVC6020 Digital Valve Controller



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Rugged cage guiding stabilizes the valve plug at all points in its travel range. This guiding reduces vibration, mechanical noise, and the need for hydraulic snubbers.

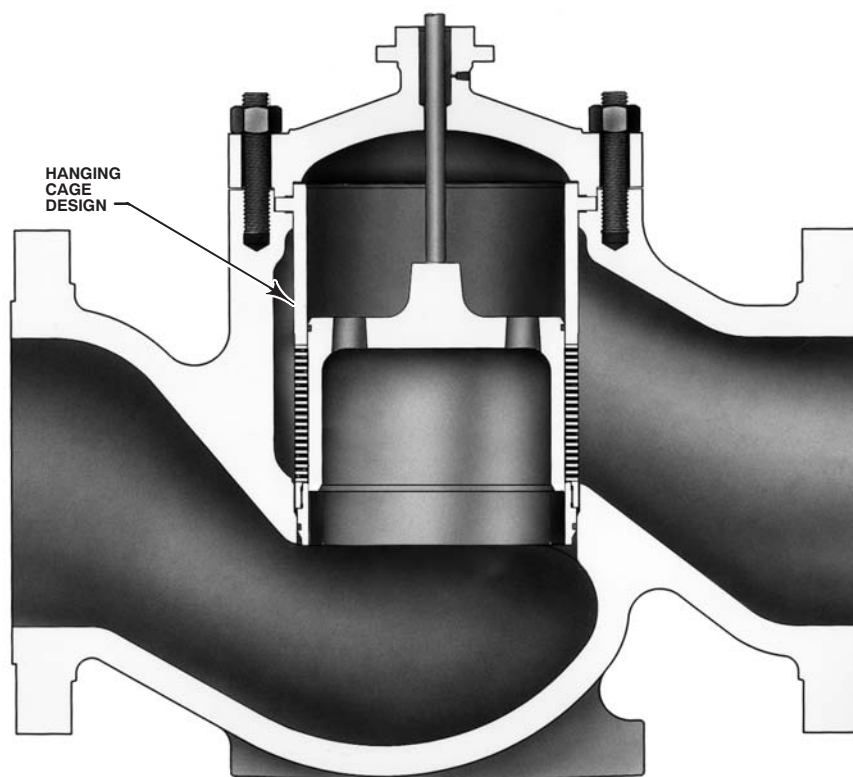
- **Economy**— Streamlined flow passages provide greater capacities per initial investment than most globe valves of the same size. Balanced valve plug design can allow use of smaller actuators for high pressure drops.

- **Cost-Effective Operation**— Increased wear resistance of the standard hardened stainless steel trim means long-lasting service.

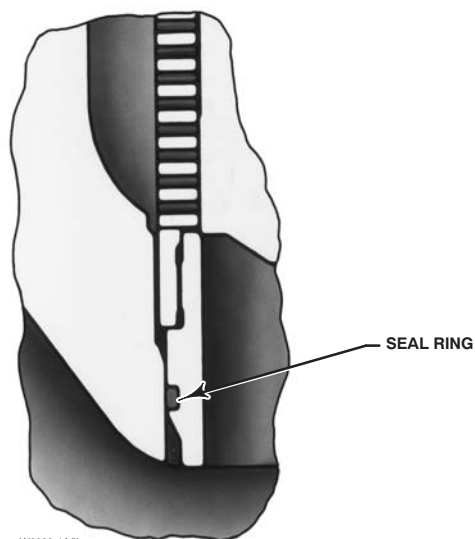
- **Easy Maintenance**— The valve can stay in the pipeline during removal of trim parts for inspection or maintenance.

Features

- **Stable Control at High Pressure Drops**—

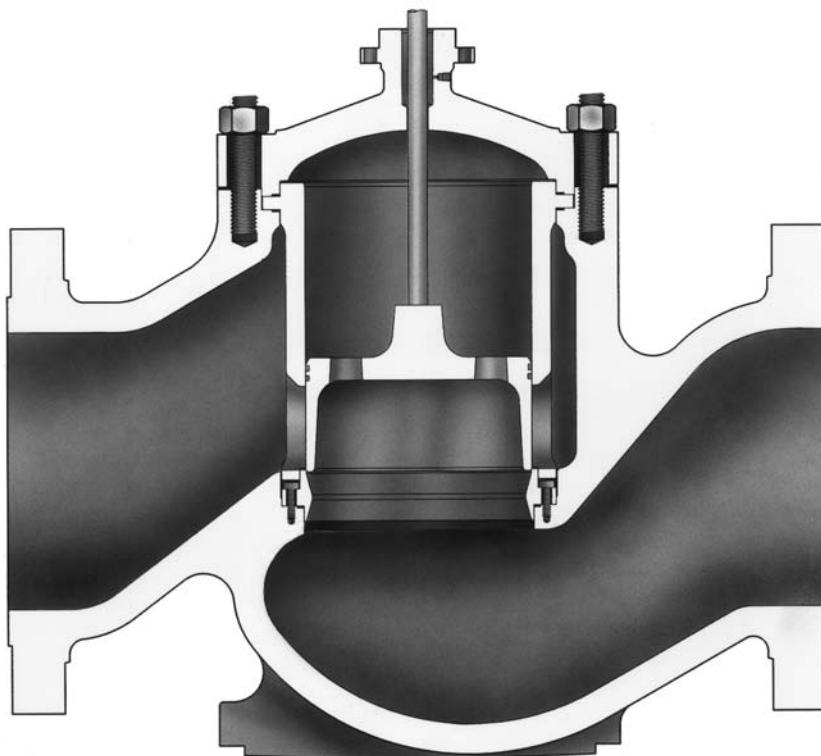


COMPLETE VALVE



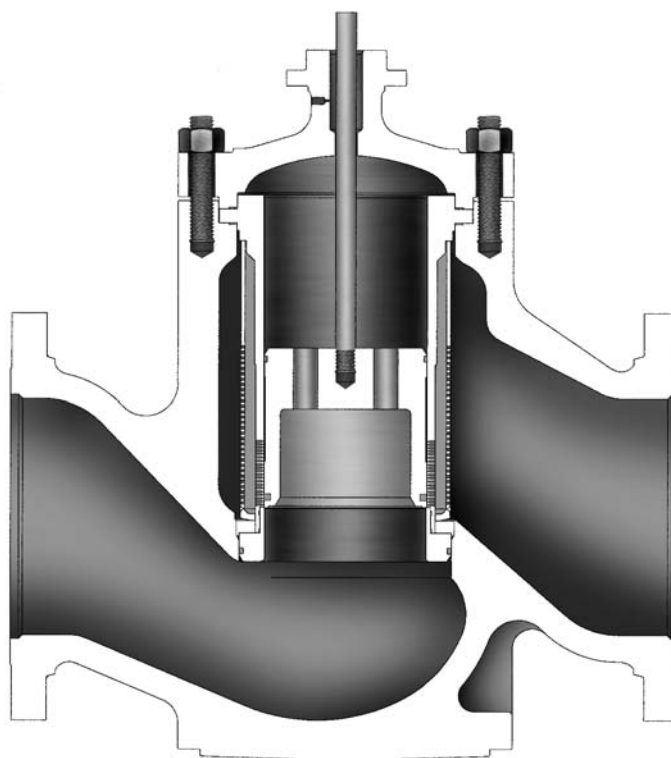
SEAT RING SEAL DETAIL

Figure 2. Typical Fisher® EUT-2 or EWT-2 Valve



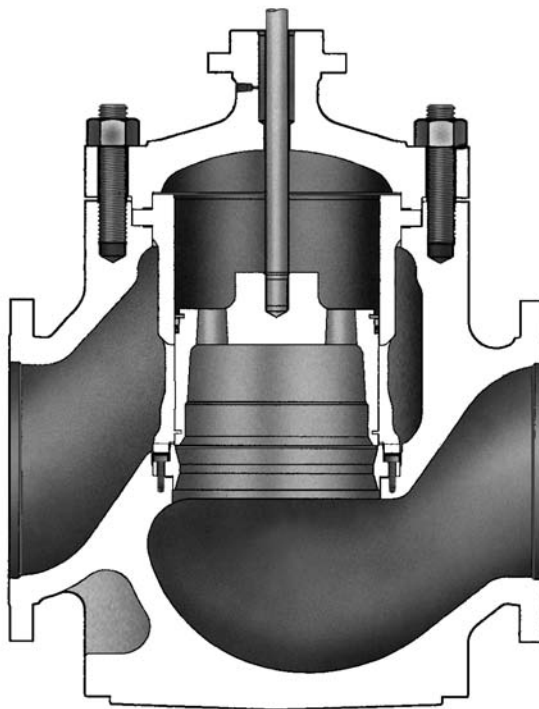
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Figure 3. Typical Fisher® EUD, EWD, or EUT Valve



W6202-2

Figure 4. Special Fisher® EWT-2 Valve with Whisper Trim® III D3 Cage and Baffle



W9518-1

Figure 5. Special Fisher® EUT Valve with PEEK Anti-Extrusion Rings and Lower Metal Piston Ring

Table 1. Construction Materials

PART		MATERIAL		TEMPERATURE	
				°C	°F
Valve Body and Bonnet		WCC Steel WC9 Steel CF8M (316 Stainless Steel)		-29 to 427 -29 to 593 -198 to 593	-20 to 800 -20 to 1100 -325 to 1000
Cage, Seat Ring, and Valve Plug		See tables 2 and 3		See figures 6 and 7	
Soft Metal Seat (with trim 233 in EUT-2 and EWT-2 valves only)		CF8M		See figures 6 and 7	
Valve Stem		S31600 (316 SST) or S20910 SST		Not a Limiting Factor	
Valve-to-Bonnet Bolting	WCC Valve	SA-193-B7 Studs		-29 to 427	-20 to 800
		SA-194-2H Nuts			
	LCC Valve	SA-193-B7 Studs		-46 to 343	-50 to 650
		SA-194-2H Nuts			
	WC9 Valve	B7 NCF2 Studs		-29 to 427	-20 to 800
		2H NCF2 Nuts			
	CF8M Valve	SA-193-B7 Studs		-29 to 427	-20 to 800
		SA-194-2H Nuts			
		B8M Class 2 studs		-198 to 427	-325 to 800
		8M nuts			
Seat Ring Cap Screws		S17400 N07718		-29 to 354 -198 to 593	-20 to 700 -325 to 1100
Bonnet, Seat Ring, and Cage Gaskets		N06600/Graphite	Oxidizing	-198 to 427	-325 to 800
			Non-Oxidizing	-198 to 593	-325 to 1100
EUD and EWD Piston Ring		Graphite (Fisher Designation FMS 17F39)	Oxidizing	-198 to 538	-325 to 1000
			Non-Oxidizing	-198 to 593	-325 to 1100
EUT, EWT, EUT-2, and EWT-2 Seat Ring Seal Ring		N10276/Glass and Moly-Filled PTFE		-73 to 232	-100 to 450
For applications using PEEK anti-extrusion rings	Backup ring	S41000		Not a Limiting Factor	Not a Limiting Factor
		S31600			
	Retaining ring	18-8		232 to 316	450 to 600
	Seal ring	PTFE/graphite with N10276 spring			
For applications using a lower metal piston ring	Lower metal piston ring	Iron / N07750		Not a Limiting Factor	
Packing (Temperatures shown are in-body temperatures with plain bonnet.)		PTFE V-Ring		-18 to 232	0 to 450
		PTFE Composition		-18 to 232	0 to 450
		Graphite Ribbon/Filament	Oxidizing	-18 to 354	0 to 700
			Non-Oxidizing	-18 to 538	0 to 1000
Packing Flange, Studs, and Nuts		Steel		-29 to 427	-20 to 800
		S31600 (316 Stainless Steel)		-198 to 593	-325 to 1100
Packing Follower, Spring (PTFE V-Ring Packing), or Lantern Ring		S31600		Not a Limiting Factor	
Packing Box Ring		S17400		-101 to 427	-150 to 800
		S31600		-198 to 593	-325 to 1100

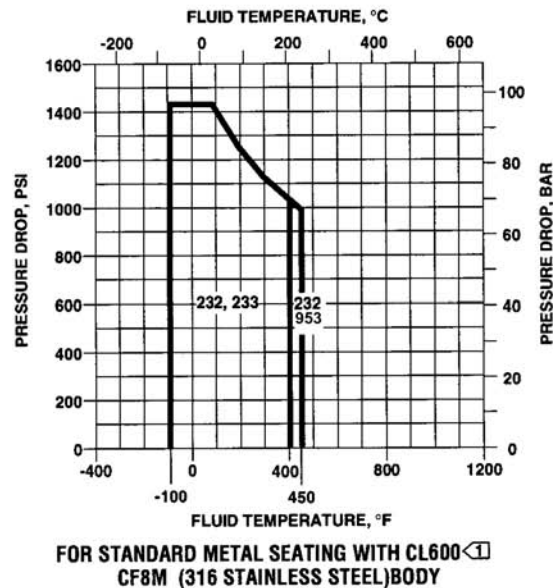
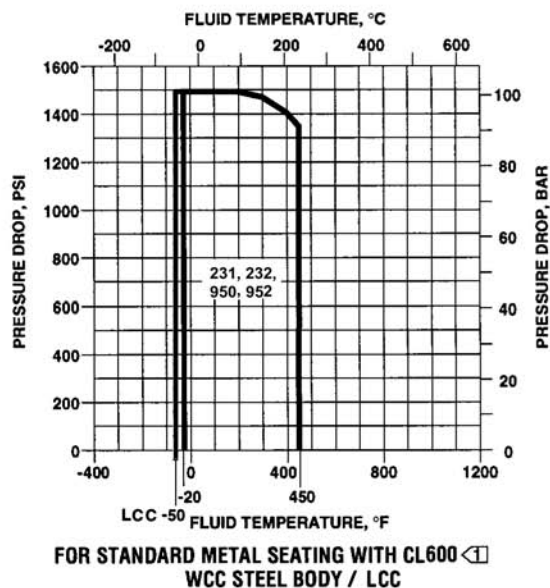
Table 2. Typical Combinations of Metal Trim Materials for All Valves Except Those with WhisperFlo® Trim⁽¹⁾

Valve Design	Trim Designation	Valve Plug	Seat Ring	Cage	Seat Ring Cap Screws	Temperature
EUD, EWD	226	CA6NM	CB7CU-1 H1075	CB7CU-1 H1075	S17400 H1100	See figure 7
	227	WCC Steel with CoCr-A on Seat and Guide	CF8M with CoCr-A on seat	WC9 Nitrided	N07718	
	227A	WCC Steel with CoCr-A on Seat and Guide	CF8M with CoCr-A on seat	WC9 Nitrided	N07718	
	228	WCC Steel with CoCr-A on Seat and Guide	CF8M with CoCr-A on seat	CB7CU-1 H1075	S17400 H1100	
	229	CF8M with CoCr-A on Seat and Guide	CF8M with CoCr-A on seat	CF8M ENC	N07718	
EUT-2, EWT-2	231 ⁽²⁾	CA6NM HT	CB7CU-1 H1075	CB7CU-1 H1075	---	See figure 6
	232	CF8M with CoCr-A on Seat and Guide	CF8M with CoCr-A on seat	CF8M ENC	---	
	233 ⁽³⁾	CF8M with CoCr-A on Seat and Guide	CF8M	CF8M ENC	---	
EUT, EWT	231	CA6NM HT	CB7CU-1 H1075	CB7CU-1 H1075	---	See figure 7
	232	CF8M with CoCr-A on Seat and Guide	CF8M with CoCr-A on seat	CF8M ENC	---	

1. For WhisperFlo trims, see table 3.
2. Cavitrol III cage is standard with trim 231
3. For soft metal seat only.

Table 3. WhisperFlo® Metal Trim Materials and Valve Body/Trim Temperature Capabilities

Valve Design	Trim Designation	Valve Plug	Seat Ring	Cage	Seat Ring Cap Screws	Temperature
EUD, EWD	950	CA6NM	CF8M with CoCr-A on seat	410 SST	N07718	See figure 7
	951	CF8M with CoCr-A on Seat and Guide	CF8M with CoCr-A on seat	316 SST (Chrome coat)	N07718	
EUT-2, EWT-2	227A	WC9 Steel with CoCr-A on Seat and Guide	CF8M with CoCr-A on seat	410 SST HT	---	See figure 6
	228	WCC steel with CoCr-A on Seat and Guide	CF8M with CoCr-A on seat	316 SST (Chrome coat)	---	

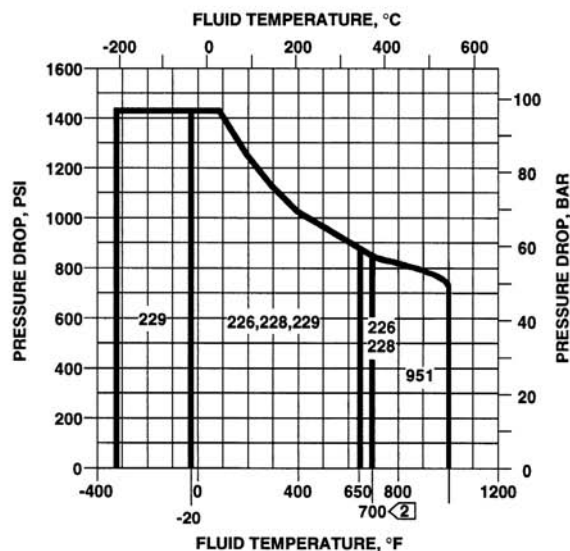
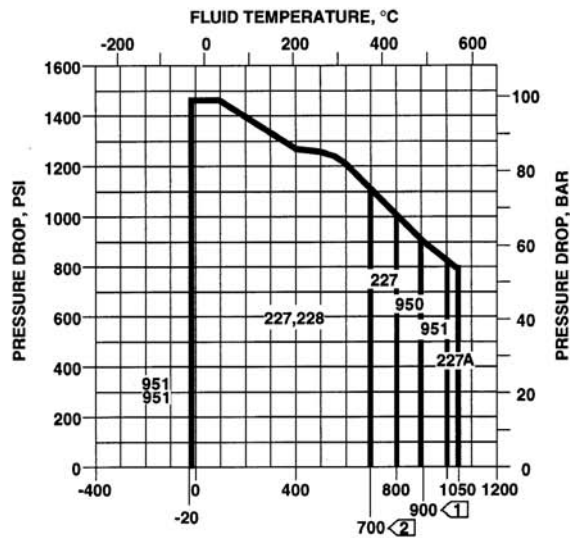
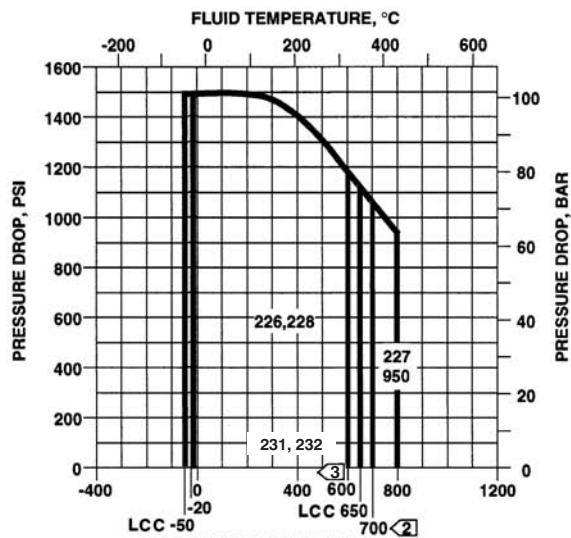


NOTES:

$\triangle$ DO NOT EXCEED THE MAXIMUM PRESSURE AND TEMPERATURE FOR THE CLASS RATING OF THE BODY MATERIAL USED, EVEN THOUGH THE TRIMS SHOWN MAY HAVE HIGHER CAPABILITIES.

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Figure 6. Temperature and Pressure Drops for Typical Trim Used in Fisher® EUT-2 and EWT-2 Valves



NOTE:

- ① 900° F (482° C) LIMIT -- WCC STEEL VALVE PLUG
- ② 700° F (371° C) LIMIT -- 17-4 PH SST SEAT RING BOLTING
- ③ 600° F (316° C) LIMIT -- EUT AND EWT VALVES WITH 231 AND 232 TRIMS

DO NOT EXCEED THE MAXIMUM PRESSURE AND TEMPERATURE FOR THE CLASS RATING OF THE BODY MATERIAL USED, EVEN THOUGH THE TRIMS SHOWN MAY HAVE HIGHER CAPABILITIES.

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Figure 7. Temperature and Pressure Drops for Typical Trim Used in Fisher® EUD, EWD, EUT, and EWT Valves

Table 4. Port Diameters for All Valves Except Fisher® EUT-2 and EWT-2

VALVE SIZE, NPS	TRIM	PORT DIAMETER	
		mm	Inches
12	All - except Whisper Trim D	279.4	11.00
	Whisper Trim III D	254	10.00
16 × 12	All - except Whisper Trim D	279.4	11.00
	Whisper Trim III D	254	10.00
16	All - except Whisper Trim D	374.7	14.75
	Whisper Trim III D	355.6	14.00
20 × 16	All - except Whisper Trim D	374.7	14.75
	Whisper Trim III D	355.6	14.00
24 × 16	All - except Whisper Trim D	374.7	14.75
	Whisper Trim III D	355.6	14.00
20	All Trim	463.6	18.25
24 × 20	All Trim	463.6	18.25

Table 5. Port Diameters for Fisher® EUT-2 and EWT-2 Valves

VALVE SIZE, NPS	TRIM	PORT DIAMETER	
		mm	Inches
12	All - except Whisper Trim D	279.4	11.00
	Whisper Trim III D	254	10.00
16 × 12	All - except Whisper Trim D	279.4	11.00
	Whisper Trim III D	254	10.00
16	Cast cages ⁽¹⁾ , WhisperFlo, and Cav III	374.7	14.75
	All - except Whisper Trim D	412.8	16.25
	Whisper Trim III D	355.6	14.00
20 × 16	Cast cages ⁽¹⁾ , WhisperFlo, and Cav III	374.7	14.75
	Drilled cages ⁽¹⁾ and all Whisper Trim except level D	412.8	16.25
	Whisper Trim III D	355.6	14.00
24 × 16	Cast cages ⁽¹⁾ , WhisperFlo, and Cav III	374.7	14.75
	Drilled cages ⁽¹⁾ and all Whisper Trim except level D	412.8	16.25
	Whisper Trim III D	355.6	14.00
20	Cast cages ⁽¹⁾ , WhisperFlo, and Cav III	463.6	18.25
	Drilled cages ⁽¹⁾ and all Whisper Trim except level D	501.7	19.75
	Whisper Trim III D	431.8	17.00
24 × 20	Cast cages ⁽¹⁾ , WhisperFlo, and Cav III	463.6	18.25
	Drilled cages ⁽¹⁾ and all Whisper Trim except level D	501.7	19.75
	Whisper Trim III D	431.8	17.00

1. Linear or equal percentage.

Product Bulletin

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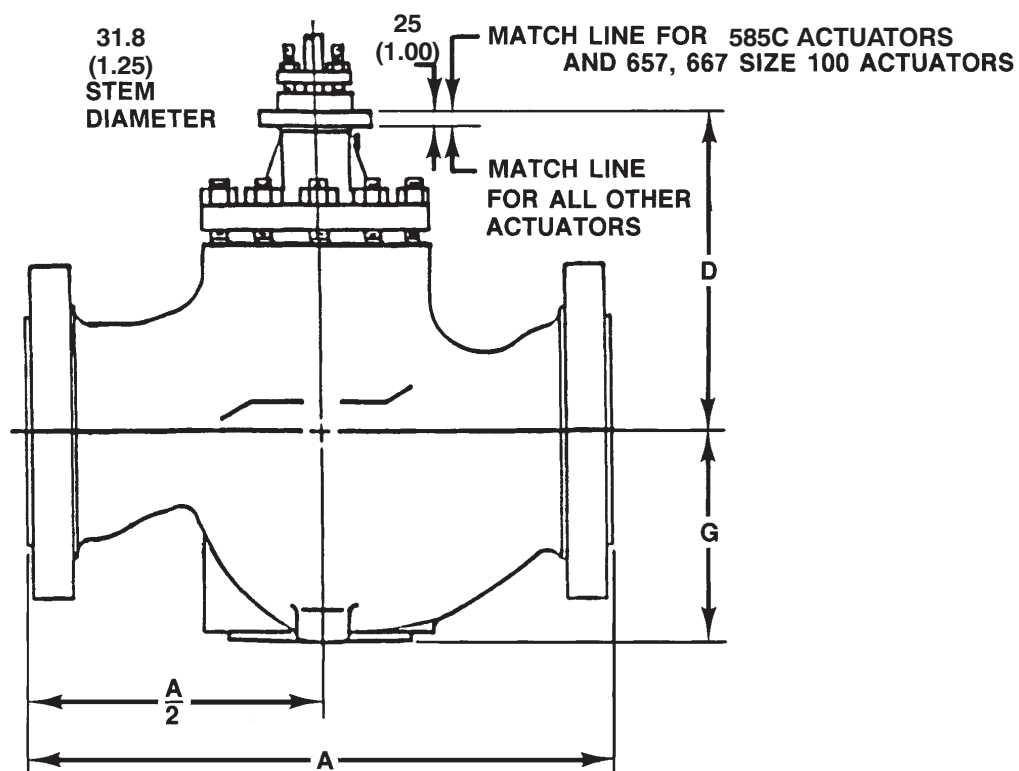
EU Valve

Table 6. Dimensions and Approximate Weights

END CONNECTION		APPROXIMATE WEIGHT (LONG-NECK VALVE ⁽²⁾)		DIMENSION															
				A						G		Plain Bonnet							
												Short-Neck Valve ⁽²⁾				Long-Neck Valve ⁽²⁾			
												D		Max. Travel		D		Max. Travel	
Size, NPS	Type ⁽¹⁾	Kg	Lb	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch		
12	RF	1410	3100	737	29.00	775	30.50	819	32.25	338	13.31	592	23.32	127	5.00	745	29.32	226	8.88
	RTJ			746	29.38	790	31.12	822	32.38										
	BW	1220	2700	---	---	---	---	819	32.25										
16 × 12	RF	1720	3800	1016	40.00	1057	41.62	1108	43.62	389	15.31	---	---	---	---	713	28.06	226	8.88
	RTJ			1026	40.38	1073	42.25	1111	43.75										
	BW	1450	3200	---	---	---	---	1108	43.62										
16	RF	2540	5600	1016	40.00	1057	41.62	1108	43.62	437	17.19	663	26.12	127	5.00	816	32.12	226	8.88
	RTJ			1026	40.38	1073	42.25	1111	43.75										
	BW	2270	5000	---	---	---	---	1108	43.62										
20 × 16	RF	3540	7800	1267	49.88	1308	51.50	1372	54.00	487	19.19	706	27.81	226	8.88	859	33.81	276	10.88
	RTJ			1276	50.25	1327	52.25	1378	54.25										
	BW	3130	6900	---	---	---	---	1372	54.00										
24 × 16	RF	5220	11,500	1556	61.25	1600	63.00	1676	66.00	526	20.69	816	32.12	226	8.88	1121	44.12	378	14.88
	RTJ			1565	61.62	1623	63.88	1686	66.38										
	BW	---	10,200	---	---	---	---	1676	66.00										
24 × 20	RF	7710	17,000	1556	61.25	1600	63.00	1676	66.00	565	22.25	917	36.12	276	10.88	1121	44.12	378	14.88
	RTJ			1565	61.62	1623	63.88	1686	66.38										
	BW	7120	15,700	---	---	---	---	1676	66.00										
1. RF--raised face; RTJ--ring-type joint; BW--buttwelding. 2. For longer travels, the neck of the valve (the portion of the valve body that supports the bonnet) is longer to accommodate the travel. The longer neck increases the D dimension.																			

1. RF--raised face; RTJ--ring-type joint; BW--butt welding.

2. For longer travels, the neck of the valve (the portion of the valve body that supports the bonnet) is longer to accommodate the travel. The longer neck increases the D dimension.



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mm
(INCH)

Figure 8. Dimensions and Approximate Weights (also see table 6)

Coefficients

Table 7. Fisher® EUD and EUT-2; CL150, 300, and 600; Linear; Flow Down

Linear																	Linear Characteristic
Valve Type	Valve Size, NPS	Port Diameter		Total Travel		Construction ⁽¹⁾	Flow Coefficient	Valve Opening—Percent of Total Travel									F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	
EUD & EUT-2	12	279.4	11.00	102	4.00	SNC	C _v	40	155	300	450	610	770	940	1100	1250	0.88
							K _v	34.6	134	260	389	528	666	813	952	1081	---
							X _T	0.391	0.609	0.678	0.676	0.645	0.654	0.693	0.746	0.789	---
		279.4	11.00	127	5.00	SNC	C _v	40	190	375	570	770	980	1180	1360	1500	0.88
							K _v	34.6	164	324	493	666	848	1021	1176	1298	---
							X _T	0.391	0.644	0.683	0.644	0.654	0.704	0.769	0.805	0.792	---
EUD & EUT-2	16	374.7	14.75	102	4.00	SNC	C _v	46	270	520	790	1080	1380	1690	1980	2240	0.88
							K _v	39.8	234	450	683	934	1194	1462	1713	1938	---
							X _T	0.391	0.643	0.684	0.667	0.645	0.664	0.694	0.721	0.749	---
		374.7	14.75	127	5.00	SNC	C _v	46	335	650	1000	1380	1770	2120	2410	2630	0.88
							K _v	39.8	290	562	865	1194	1531	1834	2085	2275	---
							X _T	0.391	0.650	0.677	0.652	0.650	0.666	0.709	0.745	0.755	---
EUD	20	436.6	18.25	203	8.00	SND	C _v	56	315	625	920	1230	1570	1920	2260	2530	0.89
							K _v	48.4	272	541	796	1064	1358	1661	1955	2188	---
							X _T	0.391	0.655	0.653	0.673	0.671	0.649	0.650	0.663	0.667	---
		463.6	18.25	276	10.88	SND	C _v	56	255	670	1030	1460	1930	2370	2780	3100	0.89
							K _v	48.4	221	580	891	1263	1669	2050	2405	2682	---
							X _T	0.391	0.648	0.656	0.681	0.656	0.649	0.653	0.667	0.690	---
EUD	20	463.6	18.25	378	14.88	LND	C _v	56	375	865	1370	1940	2460	2910	3330	3700	0.89
							K _v	48.4	324	748	1185	1678	2128	2517	2880	3201	---
							X _T	0.391	0.651	0.674	0.668	0.651	0.661	0.676	0.707	0.736	---
EUT-2	20	501.7	19.75	203	8.00	SND	C _v	60	340	675	990	1340	1710	2110	2420	2720	0.89
							K _v	51.9	294	584	856	1159	1479	1825	2093	2353	---
							X _T	0.391	0.654	0.664	0.682	0.668	0.656	0.647	0.659	0.665	---
		501.7	19.75	276	10.88	SND	C _v	60	465	905	1370	1880	2360	2760	3080	3350	0.89
							K _v	51.9	402	783	1185	1626	2041	2387	2664	2898	---
							X _T	0.391	0.650	0.673	0.665	0.654	0.657	0.669	0.685	0.711	---
EUT-2	20	501.7	19.75	378	14.88	LND	C _v	60	410	935	1500	2130	2650	3070	3510	3870	0.89
							K _v	51.9	355	809	1298	1842	2292	2656	3036	3348	---
							X _T	0.391	0.648	0.678	0.659	0.648	0.661	0.690	0.718	0.749	---

Table 8. Fisher® EUD and EUT-2; CL150, 300, and 600; Equal Percentage; Flow Down

Equal Percentage																	Equal Percentage Characteristic
Valve Type	Valve Size, NPS	Port Diameter		Total Travel		Construction ⁽¹⁾	Flow Coefficient	Valve Opening—Percent of Total Travel									F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	
EUD & EUT-2	12	279.4	11.00	102	4.00	SNC	C _v	21	37.0	68.6	99.4	135	183	261	366	502	0.78
							K _v	18.2	32.0	59.3	86.0	117	158	226	317	434	---
							X _T	0.391	0.750	0.739	0.728	0.698	0.656	0.604	0.574	0.574	---
		279.4	11.00	127	5.00	SNC	C _v	21	46.2	83.6	123	183	280	424	618	873	0.78
							K _v	18.2	40.0	72.3	106	158	242	367	535	755	---
							X _T	0.391	0.750	0.737	0.715	0.656	0.595	0.570	0.578	0.625	---
EUD & EUT-2	16	374.7	14.75	102	4.00	SNC	C _v	23	49.0	87.0	130	188	274	426	640	915	0.78
							K _v	19.9	42.4	75.3	112	163	237	368	554	791	---
							X _T	0.391	0.625	0.634	0.668	0.673	0.643	0.591	0.574	0.577	---
		374.7	14.75	127	5.00	SNC	C _v	23	58.1	106	166	274	464	758	1150	1630	0.78
							K _v	19.9	50.3	91.7	144	237	401	656	995	1410	---
							X _T	0.391	0.613	0.647	0.689	0.643	0.585	0.565	0.589	0.621	---
EUD	20	463.6	18.25	203	8.00	SND	C _v	25	67.5	113	174	282	439	726	1170	1700	0.80
							K _v	21.6	58.4	97.7	151	244	380	628	1012	1471	---
							X _T	0.391	0.677	0.624	0.647	0.681	0.645	0.584	0.566	0.585	---
		463.6	18.25	276	10.88	SND	C _v	25	76.8	132	204	333	535	880	1390	2000	0.80
							K _v	21.6	66.4	114	176	288	463	761	1202	1730	---
							X _T	0.391	0.657	0.633	0.666	0.670	0.616	0.580	0.573	0.597	---
		463.6	18.25	378	14.88	LND	C _v	25	86.4	154	241	396	658	1080	1660	2360	0.80
							K _v	21.6	74.7	133	208	343	569	934	1436	2041	---
							X _T	0.391	0.629	0.643	0.678	0.653	0.595	0.566	0.581	0.613	---
EUT-2	20	501.7	19.75	203	8.00	SND	C _v	30	69.8	117	180	293	460	759	1220	1760	0.80
							K _v	25.9	60.4	101	156	253	398	657	1055	1522	---
							X _T	0.391	0.673	0.628	0.656	0.681	0.638	0.584	0.566	0.591	---
		501.7	19.75	276	10.88	SND	C _v	30	79.3	137	213	348	562	924	1450	2080	0.80
							K _v	25.9	68.6	119	184	301	486	799	1254	1799	---
							X _T	0.391	0.651	0.636	0.665	0.659	0.613	0.578	0.576	0.603	---
		501.7	19.75	378	14.88	LND	C _v	30	88.6	160	250	412	693	1130	1730	2460	0.80
							K _v	25.9	76.6	138	216	356	599	977	1496	2128	---
							X _T	0.391	0.620	0.645	0.686	0.651	0.590	0.569	0.587	0.616	---

1. Construction—SNC = short neck, cast windows; SND = short neck, drilled windows; LND = long neck, drilled windows.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 9. Fisher® EUD and EUT-2; CL150, 300, and 600; Whisper Trim® III--Level A1; Flow Up

EUD and EUT-2 Whisper Trim III Trim—Level A1 Flow Up																			Linear Characteristic
Valve Type	Valve Size, NPS	Port Diameter		Total Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
EUD & EUT-2	12	279.4	11.00	203	8.00	LN	C _V	25	212	428	622	785	930	1052	1150	1229	1285	1315	0.89
							K _V		183	370	538	679	804	910	995	1063	1112	1137	---
							X _T		0.619	0.620	0.665	0.739	0.827	0.856	0.854	0.852	0.849	0.847	---
EUD	16	374.7	14.75	203	8.00	LN	C _V	38	335	677	1019	1298	1529	1721	1871	1985	2059	2095	0.89
							K _V		290	585	882	1123	1322	1488	1618	1717	1781	1812	---
							X _T		0.436	0.433	0.432	0.471	0.533	0.589	0.616	0.647	0.686	0.732	---
		374.7	14.75	226	8.88	LN	C _V	38	361	734	1115	1395	1629	1819	1957	2050	2095	2099	0.89
							K _V		312	635	964	1207	1409	1573	1693	1773	1812	1816	---
							X _T		0.435	0.433	0.437	0.497	0.572	0.606	0.640	0.681	0.731	0.789	---
EUT-2	16	412.8	16.25	203	8.00	LN	C _V	42	353	732	1104	1389	1628	1817	1960	2057	2106	2113	0.89
							K _V		305	633	955	1201	1408	1572	1695	1779	1822	1828	---
							X _T		0.436	0.433	0.432	0.490	0.563	0.603	0.635	0.674	0.722	0.780	---
		412.8	16.25	226	8.88	LN	C _V	42	398	810	1205	1500	1737	1918	2039	2104	2115	2115	0.89
							K _V		344	701	1042	1298	1503	1659	1764	1820	1829	1829	---
							X _T		0.435	0.433	0.450	0.520	0.590	0.623	0.664	0.715	0.779	0.825	---
EUD	16	374.7	14.75	251	9.88	LN-S	C _V	38	402	824	1212	1506	1743	1919	2036	2093	2100	2100	0.89
							K _V		348	713	1048	1303	1508	1660	1761	1810	1817	1817	---
							X _T		0.435	0.433	0.456	0.529	0.594	0.628	0.671	0.725	0.790	0.834	---
EUT-2	16	412.8	16.25	251	9.88	LN-S	C _V	42	444	909	1310	1614	1847	2008	2096	2116	2116	2116	0.89
							K _V		384	786	1133	1396	1598	1737	1813	1830	1830	1830	---
							X _T		0.435	0.433	0.472	0.557	0.608	0.650	0.703	0.773	0.827	0.851	---
EUD	20	463.6	18.25	276	10.88	SN	C _V	47	547	1123	1699	2128	2489	2776	2992	3135	3205	3214	0.89
							K _V		473	972	1470	1841	2153	2402	2588	2711	2773	2780	---
							X _T		0.434	0.433	0.432	0.494	0.567	0.604	0.637	0.677	0.726	0.784	---
EUT-2	20	501.7	19.75	276	10.88	SN	C _V	50	593	1217	1841	2351	2767	3111	3382	3580	3706	3760	0.89
							K _V		513	1053	1593	2034	2394	2691	2925	3097	3206	3252	---
							X _T		0.434	0.433	0.432	0.475	0.538	0.592	0.619	0.652	0.692	0.741	---
EUD	20	463.6	18.25	353	13.88	LN	C _V	47	709	1441	2058	2523	2866	3096	3205	3217	3217	3217	0.89
							K _V		614	1247	1780	2182	2479	2678	2773	2782	2782	2782	---
							X _T		0.434	0.432	0.482	0.575	0.616	0.662	0.722	0.795	0.840	0.852	---
EUT-2	20	501.7	19.75	327	12.88	LN	C _V	50	707	1451	2143	2664	3087	3409	3626	3743	3765	3765	0.89
							K _V		612	1255	1853	2304	2670	2948	3137	3238	3257	3257	---
							X _T		0.434	0.432	0.450	0.520	0.590	0.623	0.663	0.714	0.777	0.826	---

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

Table 10. Fisher® EUD and EUT-2; CL150, 300, and 600; Whisper Trim® III--Level A3; Flow Up

EUD and EUT-2 Whisper Trim III Trim—Level A3 Flow Up																			Linear Characteristic
Valve Type	Valve Size, NPS	Port Diameter		Total Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
EUD & EUT-2	12	279.4	11.00	203	8.00	LN	C _V	17	181	371	550	705	839	960	1063	1149	1219	1272	0.89
							K _V		157	321	475	610	726	831	919	994	1055	1100	---
							X _T		0.619	0.620	0.638	0.700	0.769	0.851	0.856	0.854	0.852	0.850	---
EUD	16	374.7	14.75	203	8.00	LN	C _V	25	290	593	892	1178	1396	1590	1749	1880	1980	2049	0.89
							K _V		251	513	772	1019	1208	1375	1513	1626	1713	1772	---
							X _T		0.436	0.433	0.433	0.447	0.495	0.554	0.594	0.618	0.646	0.679	---
		374.7	14.75	226	8.88	LN	C _V	25	326	658	991	1280	1507	1698	1854	1971	2049	2091	0.89
							K _V		282	569	857	1107	1304	1469	1604	1705	1772	1809	---
							X _T		0.436	0.433	0.432	0.467	0.526	0.586	0.612	0.643	0.678	0.723	---
EUT-2	16	412.8	16.25	203	8.00	LN	C _V	28	317	652	979	1270	1497	1693	1849	1970	2054	2100	0.89
							K _V		274	564	847	1099	1295	1464	1599	1704	1777	1817	---
							X _T		0.436	0.433	0.433	0.463	0.520	0.584	0.609	0.638	0.673	0.714	---
		412.8	16.25	226	8.88	LN	C _V	28	356	721	1088	1376	1609	1799	1947	2046	2101	2113	0.89
							K _V		308	624	941	1190	1392	1556	1684	1770	1817	1828	---
							X _T		0.436	0.433	0.432	0.487	0.556	0.600	0.631	0.668	0.714	0.771	---
EUD	16	374.7	14.75	251	9.88	LN-S	C _V	25	359	732	1106	1387	1622	1809	1950	2044	2092	2099	0.89
							K _V		310	634	957	1200	1403	1565	1687	1768	1810	1816	---
							X _T		0.435	0.433	0.432	0.492	0.565	0.604	0.636	0.675	0.723	0.781	---
EUT-2	16	412.8	16.25	251	9.88	LN-S	C _V	28	393	803	1192	1486	1724	1905	2030	2099	2115	2115	0.89
							K _V		340	695	1031	1285	1491	1648	1756	1816	1829	1829	---
							X _T		0.435	0.433	0.448	0.516	0.588	0.620	0.660	0.709	0.771	0.821	---
EUD	20	463.6	18.25	276	10.88	SN	C _V	31	470	976	1471	1912	2259	2555	2795	2980	3112	3189	0.89
							K _V		407	844	1272	1654	1954	2210	2418	2578	2692	2758	---
							X _T		0.435	0.433	0.432	0.461	0.517	0.583	0.607	0.635	0.669	0.710	---
EUT-2	20	501.7	19.75	276	10.88	SN	C _V	33	509	1056	1592	2103	2498	2843	3132	3365	3547	3671	0.89
							K _V		440	914	1377	1819	2161	2459	2709	2911	3068	3175	---
							X _T		0.435	0.433	0.432	0.446	0.495	0.553	0.594	0.618	0.646	0.678	---
EUD	20	463.6	18.25	353	13.88	LN	C _V	31	612	1248	1843	2293	2655	2926	3108	3201	3215	3215	0.89
							K _V		529	1079	1594	1984	2297	2531	2688	2769	2781	2781	---
							X _T		0.434	0.433	0.452	0.523	0.591	0.625	0.667	0.719	0.783	0.830	---
EUT-2	20	501.7	19.75	327	12.88	LN	C _V	33	609	1253	1896	2398	2820	3159	3426	3615	3726	3763	0.89
							K _V		527	1083	1640	2075	2439	2732	2963	3127	3223	3255	---
							X _T		0.434	0.433	0.432	0.481	0.548	0.596	0.625	0.661	0.703	0.757	---

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

Table 11. Fisher® EUD and EUT-2; CL150, 300, and 600; Whisper Trim® III--Level B1; Flow Up

EUD and EUT-2 Whisper Trim III Trim—Level B1 Flow Up																			Linear Characteristic
Valve Type	Valve Size, NPS	Port Diameter		Total Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
EUD & EUT-2	12	279.4	11.00	203	8.00	LN	C _v	21	120	228	337	453	557	646	730	813	889	949	0.89
							K _v		104	197	291	392	482	559	631	703	769	821	---
							X _T		0.618	0.619	0.620	0.620	0.641	0.675	0.713	0.756	0.803	0.846	---
EUD	16	374.7	14.75	203	8.00	LN	C _v	32	197	374	554	746	933	1111	1248	1385	1509	1603	0.89
							K _v		170	324	479	645	807	961	1080	1198	1305	1387	---
							X _T		0.438	0.435	0.433	0.433	0.432	0.432	0.461	0.493	0.528	0.56	---
		374.7	14.75	226	8.88	LN	C _v	32	207	416	627	824	1025	1207	1359	1488	1614	1726	0.89
							K _v		179	360	542	713	887	1044	1176	1287	1396	1493	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.453	0.486	0.521	0.564	0.591	---
EUT-2	16	412.8	16.25	203	8.00	LN	C _v	35	215	408	605	814	1018	1190	1337	1477	1604	1699	0.89
							K _v		186	353	523	704	881	1029	1157	1278	1387	1470	---
							X _T		0.438	0.435	0.433	0.433	0.432	0.448	0.479	0.515	0.556	0.586	---
		412.8	16.25	226	8.88	LN	C _v	35	226	454	683	899	1118	1294	1451	1583	1709	1802	0.89
							K _v		195	393	591	778	967	1119	1255	1369	1478	1559	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.469	0.507	0.548	0.587	0.601	---
EUD	16	374.7	14.75	251	9.88	LN-S	C _v	32	242	467	691	915	1132	1305	1464	1606	1728	1818	0.89
							K _v		209	404	598	791	979	1129	1266	1389	1495	1573	---
							X _T		0.437	0.434	0.433	0.432	0.438	0.473	0.514	0.56	0.591	0.606	---
EUT-2	16	412.8	16.25	251	9.88	LN-S	C _v	35	264	510	754	999	1215	1396	1559	1701	1821	1907	0.89
							K _v		228	441	652	864	1051	1208	1349	1471	1575	1650	---
							X _T		0.437	0.434	0.433	0.432	0.452	0.493	0.54	0.586	0.604	0.622	---
EUD	20	463.6	18.25	276	10.88	SN	C _v	39	314	632	928	1247	1542	1824	2043	2260	2440	2614	0.89
							K _v		292	587	862	1159	1432	1724	1937	2151	2331	2508	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.450	0.481	0.518	0.556	0.588	---
EUT-2	20	501.7	19.75	276	10.88	SN	C _v	42	337	679	996	1340	1656	1993	2239	2487	2695	2899	0.89
							K _v		292	587	862	1159	1432	1724	1937	2151	2331	2508	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.435	0.462	0.494	0.526	0.565	---
EUD	20	463.6	18.25	353	13.88	LN	C _v	39	396	793	1194	1583	1905	2189	2438	2646	2821	2968	0.89
							K _v		343	686	1033	1370	1648	1893	2109	2289	2440	2567	---
							X _T		0.436	0.433	0.432	0.432	0.460	0.504	0.555	0.591	0.611	0.634	---
EUT-2	20	501.7	19.75	327	12.88	LN	C _v	42	405	786	1190	1579	1960	2276	2551	2793	3019	3209	0.89
							K _v		350	680	1029	1366	1696	1968	2206	2416	2612	2776	---
							X _T		0.436	0.433	0.432	0.432	0.432	0.466	0.503	0.543	0.585	0.601	---

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

Table 12. Fisher® EUD and EUT-2; CL150, 300, and 600; Whisper Trim® III--Level B3; Flow Up

EUD and EUT-2 Whisper Trim III Trim—Level B3 Flow Up																		Linear Characteristic	
Valve Type	Valve Size, NPS	Port Diameter		Total Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
EUD & EUT-2	12	279.4	11.00	203	8.00	LN	C _V	15	114	222	336	445	550	641	728	808	883	942	0.89
							K _V		99	192	291	385	476	554	630	699	764	815	---
							X _T		0.617	0.619	0.62	0.62	0.639	0.674	0.712	0.754	0.799	0.841	---
EUD	16	374.7	14.75	203	8.00	LN	C _V	21	178	349	528	700	878	1052	1201	1331	1451	1555	0.89
							K _V		154	302	457	606	759	910	1039	1151	1255	1345	---
							X _T		0.439	0.435	0.433	0.433	0.432	0.432	0.452	0.48	0.511	0.543	---
		374.7	14.75	226	8.88	LN	C _V	21	197	388	584	780	971	1156	1300	1439	1559	1660	0.89
							K _V		170	336	505	675	840	1000	1125	1245	1349	1436	---
							X _T		0.438	0.435	0.433	0.432	0.432	0.443	0.473	0.507	0.544	0.582	---
EUT-2	16	412.8	16.25	203	8.00	LN	C _V	24	195	382	578	767	962	1143	1291	1426	1549	1654	0.89
							K _V		169	330	500	663	832	989	1117	1233	1340	1431	---
							X _T		0.439	0.435	0.433	0.433	0.432	0.439	0.469	0.501	0.537	0.575	---
		412.8	16.25	226	8.88	LN	C _V	24	215	425	639	854	1063	1244	1395	1538	1659	1759	0.89
							K _V		186	368	553	739	919	1076	1207	1330	1435	1522	---
							X _T		0.439	0.435	0.433	0.432	0.432	0.458	0.493	0.533	0.577	0.594	---
EUD	16	374.7	14.75	251	9.88	LN-S	C _V	21	215	436	651	865	1082	1258	1412	1549	1672	1772	0.89
							K _V		186	377	563	748	936	1088	1221	1340	1446	1533	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.463	0.5	0.54	0.583	0.598	---
EUT-2	16	412.8	16.25	251	9.88	LN-S	C _V	24	236	478	713	947	1170	1351	1510	1648	1770	1867	0.89
							K _V		204	413	617	819	1012	1169	1306	1426	1531	1615	---
							X _T		0.438	0.434	0.433	0.432	0.444	0.482	0.524	0.572	0.596	0.613	---
EUD	20	463.6	18.25	276	10.88	SN	C _V	26	292	588	884	1181	1478	1756	1982	2190	2378	2547	0.89
							K _V		252	508	765	1021	1278	1519	1715	1894	2057	2203	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.441	0.471	0.505	0.542	0.582	---
EUT-2	20	501.7	19.75	276	10.88	SN	C _V	28	314	633	952	1271	1591	1911	2175	2411	2628	2825	0.89
							K _V		272	548	823	1100	1377	1653	1882	2086	2273	2444	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.454	0.483	0.515	0.550	---
EUD	20	463.6	18.25	353	13.88	LN	C _V	26	380	753	1136	1510	1847	2121	2367	2580	2762	2914	0.89
							K _V		329	651	983	1306	1598	1835	2048	2232	2390	2521	---
							X _T		0.436	0.433	0.432	0.432	0.453	0.493	0.539	0.585	0.603	0.624	---
EUT-2	20	501.7	19.75	327	12.88	LN	C _V	28	379	755	1129	1512	1888	2199	2477	2724	2943	3140	0.89
							K _V		328	653	977	1308	1633	1902	2143	2356	2545	2716	---
							X _T		0.436	0.433	0.433	0.432	0.432	0.457	0.492	0.531	0.574	0.595	---

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

Table 13. Fisher® EUD and EUT-2; CL150, 300, and 600; Whisper Trim® III--Level C1; Flow Up

EUD and EUT-2 Whisper Trim III Trim—Level C1 Flow Up																			Linear Characteristic
Valve Type	Valve Size, NPS	Port Diameter		Total Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
EUD & EUT-2	12	279.4	11.00	203	8.00	LN	C _V	18	84	153	222	293	368	444	512	571	628	688	0.89
							K _V		73	132	192	253	318	384	443	494	543	595	---
							X _T		0.616	0.619	0.620	0.620	0.620	0.621	0.627	0.647	0.670	0.695	---
EUD	16	374.7	14.75	203	8.00	LN	C _V	27	131	244	351	460	577	696	811	919	1026	1132	0.89
							K _V		113	211	304	398	499	602	702	795	887	979	---
							X _T		0.442	0.436	0.434	0.433	0.433	0.432	0.432	0.432	0.431	0.439	---
		374.7	14.75	226	8.88	LN	C _V	27	132	264	396	518	637	763	897	1024	1133	1226	0.89
							K _V		114	228	343	448	551	660	776	886	980	1060	---
							X _T		0.442	0.436	0.434	0.433	0.433	0.432	0.432	0.432	0.439	0.457	---
EUT-2	16	412.8	16.25	203	8.00	LN	C _V	30	146	272	392	513	645	778	906	1027	1138	1238	0.89
							K _V		126	235	339	444	558	673	784	888	984	1071	---
							X _T		0.442	0.436	0.434	0.433	0.433	0.432	0.432	0.432	0.438	0.458	---
		412.8	16.25	226	8.88	LN	C _V	30	148	294	442	579	712	853	1002	1136	1240	1337	0.89
							K _V		128	254	382	501	616	738	867	983	1073	1157	---
							X _T		0.442	0.436	0.434	0.433	0.432	0.432	0.432	0.438	0.458	0.480	---
EUD	16	374.7	14.75	251	9.88	LN-S	C _V	27	159	291	429	578	714	847	995	1129	1231	1336	0.89
							K _V		138	252	371	500	618	733	861	977	1065	1156	---
							X _T		0.440	0.436	0.434	0.433	0.432	0.432	0.432	0.438	0.458	0.481	---
EUT-2	16	412.8	16.25	251	9.88	LN-S	C _V	30	178	325	479	646	798	946	1112	1236	1343	1453	0.89
							K _V		154	281	414	559	690	818	962	1069	1162	1257	---
							X _T		0.440	0.436	0.434	0.433	0.432	0.432	0.432	0.457	0.481	0.509	---
EUD	20	463.6	18.25	276	10.88	SN	C _V	33	199	393	591	787	972	1156	1344	1541	1726	1875	0.89
							K _V		172	340	511	680	841	1000	1162	1333	1493	1622	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.432	0.438	0.457	---
EUT-2	20	501.7	19.75	276	10.88	SN	C _V	36	218	430	647	861	1065	1266	1472	1688	1904	2082	0.89
							K _V		188	372	560	745	921	1095	1273	1460	1647	1801	---
							X _T		0.440	0.435	0.433	0.433	0.432	0.432	0.432	0.432	0.431	0.444	---
EUD	20	463.6	18.25	353	13.88	LN	C _V	33	265	495	752	989	1232	1485	1707	1906	2081	2242	0.89
							K _V		229	428	651	856	1066	1285	1477	1649	1800	1939	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.436	0.461	0.487	0.515	---
EUT-2	20	501.7	19.75	327	12.88	LN	C _V	36	258	504	757	1010	1263	1510	1752	1988	2179	2365	0.89
							K _V		223	436	654	874	1092	1306	1516	1719	1885	2045	---
							X _T		0.438	0.435	0.433	0.432	0.432	0.432	0.432	0.434	0.455	0.477	---

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

Table 14. Fisher® EUD and EUT-2; CL150, 300, and 600; Whisper Trim® III--Level C3; Flow Up

EUD and EUT-2 Whisper Trim III Trim—Level C3 Flow Up																			Linear Characteristic
Valve Type	Valve Size, NPS	Port Diameter		Total Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
EUD & EUT-2	12	279.4	11.00	203	8.00	LN	C _V	14	73	143	209	281	349	418	490	548	607	651	0.89
							K _V		63	124	181	243	302	362	424	474	525	563	---
							X _T		0.615	0.618	0.619	0.620	0.620	0.621	0.620	0.639	0.662	0.680	---
EUD	16	374.7	14.75	203	8.00	LN	C _V	20	116	226	339	456	564	681	794	904	1023	1120	0.89
							K _V		100	195	293	394	488	589	687	782	885	969	---
							X _T		0.444	0.437	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.437	---
		374.7	14.75	226	8.88	LN	C _V	20	129	250	379	503	629	756	879	1009	1122	1225	0.89
							K _V		112	216	328	435	544	654	760	873	971	1060	---
							X _T		0.442	0.436	0.434	0.433	0.433	0.432	0.432	0.432	0.437	0.457	---
EUT-2	16	412.8	16.25	203	8.00	LN	C _V	22	127	246	369	497	614	741	864	983	1113	1200	0.89
							K _V		109	213	319	430	531	641	747	851	963	1038	---
							X _T		0.444	0.437	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.450	---
		412.8	16.25	226	8.88	LN	C _V	22	141	272	413	548	685	823	958	1098	1203	1311	0.89
							K _V		122	236	357	474	593	712	828	950	1041	1134	---
							X _T		0.442	0.436	0.434	0.433	0.433	0.432	0.432	0.432	0.451	0.473	---
EUD	16	374.7	14.75	251	9.88	LN-S	C _V	20	146	284	429	563	707	846	984	1122	1227	1326	0.89
							K _V		126	246	371	487	612	732	851	971	1061	1147	---
							X _T		0.441	0.436	0.434	0.433	0.432	0.432	0.432	0.437	0.457	0.479	---
EUT-2	16	412.8	16.25	251	9.88	LN-S	C _V	22	156	305	457	613	760	918	1067	1196	1312	1414	0.89
							K _V		135	264	396	530	657	794	923	1035	1135	1223	---
							X _T		0.441	0.436	0.434	0.433	0.432	0.432	0.432	0.449	0.473	0.498	---
EUD	20	463.6	18.25	276	10.88	SN	C _V	24	194	375	568	752	935	1127	1309	1495	1686	1826	0.89
							K _V		168	325	491	650	809	975	1132	1293	1458	1579	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.450	---
EUT-2	20	501.7	19.75	276	10.88	SN	C _V	26	213	412	623	825	1026	1237	1436	1641	1850	2030	0.89
							K _V		184	356	539	713	888	1070	1242	1419	1601	1756	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.439	---
EUD	20	463.6	18.25	353	13.88	LN	C _V	24	248	483	717	957	1199	1437	1671	1858	2037	2203	0.89
							K _V		215	418	620	828	1037	1243	1445	1607	1762	1905	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.454	0.480	0.508	---
EUT-2	20	501.7	19.75	327	12.88	LN	C _V	26	253	490	731	979	1221	1458	1701	1949	2141	2319	0.89
							K _V		219	424	632	846	1056	1261	1471	1686	1852	2006	---
							X _T		0.439	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.451	0.472	---

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

Table 15. Fisher® EUD and EUT-2; CL150, 300, and 600; Whisper Trim® III--Level D1; Flow Up

EUD and EUT-2 Whisper Trim III Trim—Level D1 Flow Up																		Linear Characteristic
Valve Size, NPS	Port Diameter		Total Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
	mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
12	254	10.00	203	8.00	LN	C _V	17	77	142	204	270	340	410	466	518	569	621	0.89
						K _V		67	123	176	234	294	355	403	448	492	537	---
						X _T		0.616	0.619	0.620	0.620	0.620	0.621	0.645	0.669	0.695	0.725	---
16	356	14.00	203	8.00	LN	C _V	26	119	220	322	431	543	653	754	855	963	1056	0.89
						K _V		103	190	279	373	470	565	652	740	833	913	---
						X _T		0.443	0.443	0.437	0.433	0.433	0.432	0.432	0.432	0.431	0.446	---
	356	14.00	226	8.88	LN	C _V	26	124	239	364	487	600	712	834	959	1057	1142	0.89
						K _V		107	207	315	421	519	616	721	830	914	988	---
						X _T		0.442	0.436	0.434	0.433	0.433	0.432	0.432	0.432	0.447	0.466	---
	356	14.00	251	9.88	LN-S	C _V	26	141	265	404	540	663	796	936	1046	1144	1244	0.89
						K _V		122	229	349	467	573	689	810	905	990	1076	---
						X _T		0.441	0.436	0.434	0.433	0.432	0.432	0.432	0.444	0.466	0.492	---
20	432	17.00	276	10.88	LN	C _V	31	189	374	562	749	926	1101	1280	1462	1610	1745	0.89
						K _V		164	323	486	648	801	953	1107	1265	1393	1509	---
						X _T		0.440	0.435	0.433	0.433	0.432	0.432	0.432	0.435	0.456	0.478	---
	432	17.00	378	14.88	LN	C _V	31	260	506	755	1006	1258	1498	1691	1868	2028	2170	0.89
						K _V		225	438	653	870	1088	1295	1463	1616	1754	1877	---
						X _T		0.437	0.434	0.433	0.432	0.432	0.439	0.469	0.501	0.537	0.577	---
1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve. 2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.																		

Table 16. Fisher® EUD and EUT-2; CL150, 300, and 600; Whisper Trim® III--Level D3; Flow Up

EUD and EUT-2 Whisper Trim III Trim—Level D3 Flow Up																		Linear Characteristic
Valve Size, NPS	Port Diameter		Total Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel										F _L	
	mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90		100
12	254	10.00	203	8.00	LN	C _V	12	67	132	192	259	321	384	445	496	549	594	0.89
						K _V		58	114	166	224	278	332	385	429	475	514	---
						X _T		0.615	0.618	0.619	0.620	0.620	0.621	0.636	0.658	0.685	0.710	---
16	356	14.00	203	8.00	LN	C _V	19	108	209	319	425	529	641	743	850	959	1034	0.89
						K _V		93	181	276	368	458	554	643	735	830	894	---
						X _T		0.444	0.437	0.435	0.433	0.433	0.432	0.432	0.431	0.442	---	
	356	14.00	226	8.88	LN	C _V	19	117	236	352	474	588	711	824	948	1046	1139	0.89
						K _V		101	204	304	410	509	615	713	820	905	985	---
						X _T		0.443	0.436	0.434	0.433	0.433	0.432	0.432	0.432	0.444	0.465	---
	356	14.00	251	9.88	LN-S	C _V	19	130	264	391	528	656	789	922	1037	1143	1234	0.89
						K _V		112	228	338	457	567	682	798	897	989	1067	--
						X _T		0.442	0.436	0.434	0.433	0.432	0.432	0.432	0.442	0.466	0.490	---
20	432	17.00	276	10.88	LN	C _V	22	185	357	540	715	889	1072	1245	1422	1570	1699	0.89
						K _V		160	309	467	618	769	928	1077	1230	1358	1470	---
						X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.432	0.450	0.470	---
	432	17.00	378	14.88	LN	C _V	22	252	493	733	973	1218	1464	1652	1825	1982	2126	0.89
						K _V		218	427	634	842	1054	1266	1429	1578	1715	1839	---
						X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.462	0.493	0.526	0.563	---

1. Construction—LN = long-neck valve; LN-S = long neck valve with bonnet spacer; SN = short-neck valve.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

Table 17. Fisher® EUT-2; CL150, 300, and 600; Cavitrol® III; Flow Down

EUT-2																		Linear Characteristic
Cavitrol III Trim—One Stage Flow Down																		
Valve Size, NPS	Port Diameter		Total Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel										F _L	
	mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90		100
12	279.4	11.00	203	8.00	SND	C _V	40	132	302	462	607	736	849	946	1030	1100	1160	0.91
						K _V	34.6	114	261	400	525	637	734	818	891	952	1003	---
	279.4	11.00	226	8.88	SND	C _V	40	151	338	512	666	801	915	1010	1090	1160	1210	0.91
						K _V	34.6	131	292	443	576	693	791	874	943	1003	1047	---
16	374.7	14.75	203	8.00	SND	C _V	46	177	408	632	844	1040	1230	1390	1540	1670	1790	0.91
						K _V	39.8	153	353	547	730	900	1064	1202	1332	1445	1548	---
	374.7	14.75	276	10.88	LND	C _V	46	261	571	862	1130	1360	1560	1740	1890	2010	2120	0.91
						K _V	39.8	226	494	746	977	1176	1349	1505	1635	1739	1834	---
20	436.6	18.25	276	10.88	SND	C _V	56	323	710	1080	1430	1750	2030	2290	2520	2720	2890	0.91
						K _V	48.4	279	614	934	1237	1514	1756	1981	2180	2353	2500	---
	436.6	18.25	378	14.88	LND	C _V	56	467	985	1460	1890	2260	2570	2830	3040	3220	3370	0.91
						K _V	48.4	404	852	1263	1635	1955	2223	2448	2630	2785	2915	---

1. Construction—SND = short-neck valve, drilled windows; LND = long-neck valve, drilled windows.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.

Table 18. Fisher® EWD and EWT-2; CL150, 300, and 600; Linear Cast-Window Cage; Flow Down

Linear Cast-Window Cage																	Linear Characteristic	
Valve Size, NPS	Port Diameter		Maximum Travel		Con-struction ⁽¹⁾	Flow Coeffi-cient	Valve Opening—Percent of Total Travel											F _L
	mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
20 x 16	374.7	14.75	102	4.00	SNC	C _V	46	269	524	814	1100	1390	1730	2070	2380	2670	2960	0.88
						K _V	39.8	233	453	704	952	1202	1496	1791	2059	2310	2560	---
						X _T	0.391	0.989	0.901	0.804	0.750	0.742	0.742	0.748	0.755	0.759	0.767	---
20 x 16	374.7	14.75	127	5.00	SNC	C _V	46	321	670	1030	1390	1810	2230	2590	2960	3300	3580	0.88
						K _V	39.8	278	580	891	1202	1566	1929	2240	2560	2855	3097	---
						X _T	0.391	0.994	0.843	0.759	0.742	0.738	0.751	0.761	0.772	0.759	0.750	---
24 x 16	374.7	14.75	102	4.00	SNC	C _V	46	351	604	590	1183	1470	1770	2090	2450	2820	3190	0.88
						K _V	39.8	304	522	510	1023	1272	1531	1808	2119	2439	2759	---
						X _T	0.391	0.994	0.914	0.808	0.751	0.738	0.742	0.744	0.758	0.766	0.757	---
24 x 16	374.7	14.75	140	5.50	SNC	C _V	46	418	817	1220	1600	2040	2540	3050	3530	3850	4060	0.88
						K _V	39.8	362	707	1055	1384	1765	2197	2638	3053	3330	3512	---
						X _T	0.391	0.986	0.820	0.744	0.739	0.744	0.759	0.769	0.759	0.746	0.765	---
1. Construction—SNC = short-neck, cast windows. 2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.																		

Table 19. Fisher® EWD and EWT-2; CL150, 300, and 600; Linear Drilled-Window Cage; Flow Down

Linear Drilled-Window Cage																		Linear Characteristic	
Valve Type	Valve Size, NPS	Port Diameter		Maximum Travel		Con-struction ⁽¹⁾	Flow Coeffi-cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
EWD & EWT-2	16 x 12	279.4	11.00	203	8.00	LND	C _V	40	139	298	479	659	843	993	1190	1360	1530	1690	0.89
							K _V	34.6	120	258	414	570	729	859	1029	1176	1323	1462	---
							X _T	0.391	0.989	0.899	0.797	0.742	0.735	0.741	0.749	0.756	0.758	0.767	---
	16 x 12	279.4	11.00	226	8.88	LND	C _V	40	147	316	505	694	890	1050	1260	1430	1620	1790	0.89
							K _V	34.6	127	273	437	600	770	908	1090	1237	1401	1548	---
							X _T	0.391	0.990	0.886	0.785	0.741	0.739	0.743	0.745	0.764	0.763	0.762	---
EWD	20 x 16	374.7	14.75	276	10.88	LND	C _V	46	262	550	874	1200	1560	1850	2190	2470	2760	3040	0.89
							K _V	39.8	227	476	756	1038	1349	1600	1894	2137	2387	2630	---
							X _T	0.391	0.985	0.894	0.791	0.740	0.738	0.743	0.745	0.758	0.762	0.760	---
	20 x 16	374.7	14.75	378	14.88	LN-SD	C _V	46	330	742	1160	1570	1970	2370	2740	3110	3430	3660	0.89
							K _V	39.8	285	642	1003	1358	1704	2050	2370	2690	2967	3166	---
							X _T	0.391	0.985	0.815	0.739	0.739	0.740	0.754	0.764	0.768	0.752	0.753	---
EWT-2	20 x 16	412.8	16.25	276	10.88	LND	C _V	52	322	679	1080	1480	1880	2210	2570	2880	3180	3480	0.89
							K _V	45.0	279	587	934	1280	1626	1912	2223	2491	2751	3010	---
							X _T	0.391	0.988	0.888	0.786	0.742	0.738	0.759	0.744	0.754	0.762	0.768	---
	20 x 16	412.8	16.25	378	14.88	LN-SD	C _V	52	390	868	1350	1850	2340	2810	3240	3670	4060	4370	0.89
							K _V	45.0	337	751	1168	1600	2024	2431	2803	3175	3512	3780	---
							X _T	0.391	0.990	0.823	0.751	0.736	0.742	0.754	0.760	0.760	0.754	0.746	---
EWD	24 x 16	374.7	14.75	378	14.88	LND	C _V	46	328	701	1140	1610	2060	2480	2860	3140	3340	3490	0.89
							K _V	39.8	284	606	986	1393	1782	2145	2474	2716	2889	3019	---
							X _T	0.391	0.997	0.934	0.828	0.767	0.745	0.734	0.743	0.753	0.767	0.764	---
	24 x 16	374.7	14.75	429	16.88	LN-SD	C _V	46	356	764	1240	1750	2210	2620	3030	3300	3500	3670	0.89
							K _V	39.8	308	661	1073	1514	1912	2266	2621	2855	3028	3175	---
							X _T	0.391	0.994	0.919	0.816	0.757	0.743	0.741	0.751	0.759	0.759	0.748	---
EWT-2	24 x 16	412.8	16.25	378	14.88	LND	C _V	52	363	765	1240	1750	2280	2740	3260	3670	3960	4150	0.89
							K _V	45.0	314	662	1073	1514	1972	2370	2820	3175	3425	3590	---
							X _T	0.391	0.997	0.955	0.853	0.787	0.745	0.739	0.738	0.748	0.759	0.763	---
	24 x 16	412.8	16.25	429	16.88	LN-SD	C _V	52	393	832	1350	1900	2440	2940	3480	3850	4110	4310	0.89
							K _V	45.0	340	720	1168	1644	2111	2543	3010	3330	3555	3728	---
							X _T	0.391	0.997	0.942	0.834	0.775	0.746	0.738	0.743	0.757	0.767	0.757	---
EWD	24 x 20	463.6	18.25	378	14.88	LND	C _V	56	457	995	1560	2130	2640	3190	3660	4110	4560	4970	0.89
							K _V	48.4	395	861	1349	1842	2284	2759	3166	3555	3944	4299	---
							X _T	0.391	0.991	.0850	0.763	0.738	0.739	0.743	0.753	0.757	0.769	0.766	---
	24 x 20	463.6	18.25	429	16.88	LN-SD	C _V	56	490	1080	1680	2300	2920	3440	3970	4510	5000	5440	0.89
							K _V	48.4	424	934	1453	1990	2526	2976	3434	3901	4325	4706	---
							X _T	0.391	0.990	0.832	0.753	0.735	0.733	0.748	0.755	0.767	0.766	0.754	---
EWT-2	24 x 20	501.7	19.75	378	14.88	LND	C _V	60	502	1070	1690	2300	2900	3500	4020	4480	4960	5420	0.89
							K _V	51.9	434	926	1462	1990	2509	3028	3477	3875	4290	4688	---
							X _T	0.391	0.992	0.873	0.775	0.743	0.736	0.735	0.747	0.758	0.760	0.768	---
	24 x 20	501.7	19.75	429	16.88	LN-SD	C _V	60	591	1320	2050	2790	3470	4190	4830	5470	6060	6500	0.89
							K _V	51.9	511	1142	1773	2413	3002	3624	4178	4732	5242	5623	---
							X _T	0.391	0.988	0.816	0.741	0.735	0.747	0.748	0.765	0.770	0.758	0.749	---
1. Construction—LND = long neck, drilled windows; LN-SD = long neck with bonnet spacer, drilled windows. 2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.																			

1. Construction—LND - long neck, drilled windows; LN-SD = long neck with bonnet spacer, drilled windows.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 20. Fisher® EWD and EWT-2; CL150, 300, and 600; Equal Percentage Cast-Window Cage; Flow Down

Equal Percentage Cast-Window Cage																	Equal Percentage Characteristic	
Valve Size, NPS	Port Diameter		Maximum Travel		Con-struction ⁽¹⁾	Flow Coeffi-cient	Valve Opening—Percent of Total Travel											F _L
	mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
20 x 16	374.7	14.75	102	4.00	SNC	C _V	23	29.8	61.3	99.1	152	233	355	544	818	1180	1630	0.88
						K _V	19.9	25.8	53.0	85.7	131	202	307	471	708	1021	1410	---
						X _T	0.391	0.997	0.990	0.993	0.990	0.987	0.986	0.896	0.802	0.744	0.735	---
20 x 16	374.7	14.75	127	5.00	SNC	C _V	23	37.2	77.4	132	233	388	652	1070	1630	2080	2460	0.88
						K _V	19.9	32.2	67.0	114	202	336	564	926	1410	1799	2128	---
						X _T	0.391	0.989	0.990	0.989	0.987	0.959	0.847	0.751	0.735	0.747	0.755	---
20 x 16	374.7	14.75	140	5.50	SNC	C _V	23	41.2	88.2	162	293	517	900	1470	2000	2420	2830	0.88
						K _V	19.9	35.6	76.3	140	253	447	779	1272	1730	2093	2448	---
						X _T	0.391	0.990	0.990	0.991	0.987	0.907	0.785	0.741	0.742	0.757	0.762	---
24 x 16	374.7	14.75	102	4.00	SNC	C _V	23	38.9	79.8	128	195	296	444	646	922	1290	1700	0.88
						K _V	19.9	33.6	69.0	111	169	256	384	559	798	1116	1471	---
						X _T	0.391	0.992	0.992	0.996	0.995	0.993	0.982	0.899	0.801	0.744	0.735	---
24 x 16	374.7	14.75	127	5.00	SNC	C _V	23	48.6	100	170	296	480	753	1180	1700	2130	2580	0.88
						K _V	19.9	42.0	86.5	147	256	415	651	1021	1471	1842	2232	---
						X _T	0.391	0.986	0.990	0.991	0.993	0.969	0.852	0.751	0.735	0.742	0.757	---
24 x 16	374.7	14.75	140	5.50	SNC	C _V	23	53.8	114	208	371	619	1010	1560	2030	2530	3040	0.88
						K _V	19.9	46.5	98.6	180	321	535	874	1349	1756	2188	2630	---
						X _T	0.391	0.989	0.990	0.993	0.995	0.908	0.781	0.732	0.745	0.758	0.774	---

1. Construction—SNC = short-neck, cast windows.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 21. Fisher® EWD and EWT-2; CL150, 300, and 600; Equal Percentage Drilled-Window Cage; Flow Down

Equal Percentage Drilled-Window Cage																	Equal Percentage Characteristic		
Valve Type	Valve Size, NPS	Port Diameter		Maximum Travel		Construction ⁽¹⁾	Flow Coefficient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
EWD & EWT-2	16 x 12	279.4	11.00	203	8.00	LND	C _v	21	23.9	25.4	94.0	152	249	418	681	992	1240	1470	0.89
							K _v	18.2	20.7	22.0	81.3	131	215	362	589	858	1073	1272	---
							X _T	0.391	0.990	0.994	0.995	0.987	0.916	0.805	0.738	0.743	0.752	0.764	---
	16 x 12	279.4	11.00	226	8.88	LND	C _v	21	25.7	56.3	101	164	268	450	733	1070	1340	1590	0.89
							K _v	18.2	22.2	48.7	87.4	142	232	389	634	926	1159	1375	---
							X _T	0.391	0.984	0.998	0.995	0.994	0.923	0.810	0.739	0.747	0.756	0.764	---
EWD	20 x 16	374.7	14.75	276	10.88	LND	C _v	23	42.8	93.5	170	278	445	750	1220	1810	2290	2700	0.89
							K _v	19.9	37.0	80.9	147	240	385	649	1055	1566	1981	2336	---
							X _T	0.391	0.986	0.995	0.991	0.996	0.934	0.816	0.741	0.743	0.751	0.764	---
	20 x 16	374.7	14.75	378	14.88	LN-SD	C _v	23	55.7	123	213	340	584	974	1580	2210	2750	3260	0.89
							K _v	19.9	48.2	106	184	294	505	843	1367	1912	2379	2820	---
							X _T	0.391	0.993	0.995	0.995	0.985	0.879	0.771	0.735	0.751	0.762	0.764	---
EWT-2	20 x 16	412.8	16.25	276	10.88	LND	C _v	25	48.1	105	189	318	500	841	1370	2070	2640	3100	0.89
							K _v	21.6	41.6	90.8	163	275	433	727	1185	1791	2284	2682	---
							X _T	0.391	0.996	0.990	0.995	0.997	0.951	0.833	0.748	0.739	0.744	0.759	---
	20 x 16	412.8	16.25	378	14.88	LN-SD	C _v	25	65.9	146	253	403	691	1150	1880	2640	3280	3890	0.89
							K _v	21.6	57.0	126	219	349	598	995	1626	2284	2837	3365	---
							X _T	0.391	0.995	0.990	0.996	0.985	0.885	0.783	0.736	0.746	0.737	0.754	---
EWD	24 x 16	374.7	14.75	378	14.88	LND	C _v	23	42.4	88.1	150	265	438	732	1250	2000	2650	3110	0.89
							K _v	19.9	36.7	76.2	130	229	379	633	1081	1730	2292	2690	---
							X _T	0.391	0.993	0.998	0.997	0.995	0.998	0.928	0.814	0.746	0.755	0.764	---
	24 x 16	374.7	14.75	429	16.88	LN-SD	C _v	23	46.8	97.4	166	293	484	820	1400	2210	2860	3270	0.89
							K _v	19.9	40.5	84.3	144	253	419	709	1211	1912	2474	2829	---
							X _T	0.391	0.998	0.992	0.991	0.997	0.994	0.905	0.797	0.739	0.743	0.760	---
EWT-2	24 x 16	412.8	16.25	378	14.88	LND	C _v	25	49.6	103	176	311	513	853	1460	2350	3120	3700	0.89
							K _v	21.6	42.9	89.1	152	269	444	738	1263	2033	2699	3201	---
							X _T	0.391	0.996	0.995	0.991	0.994	0.988	0.935	0.814	0.743	0.735	0.748	---
	24 x 16	412.8	16.25	429	16.88	LN-SD	C _v	25	53.1	110	188	332	549	921	1580	2510	3290	3830	0.89
							K _v	21.6	45.9	95.2	163	287	475	797	1367	2171	2846	3313	---
							X _T	0.391	0.996	0.995	0.995	0.988	0.995	0.918	0.802	0.742	0.737	0.754	---
EWD	24 x 20	463.6	18.25	378	14.88	LND	C _v	28	71.8	158	283	457	749	1260	2050	2990	3730	4430	0.89
							K _v	24.2	62.1	137	245	395	648	1090	1773	2586	3226	3832	---
							X _T	0.391	0.992	0.987	0.996	0.991	0.918	0.801	0.739	0.742	0.759	0.765	---
	24 x 20	463.6	18.25	429	16.88	LN-SD	C _v	28	81.5	180	315	501	854	1430	2330	3280	4070	4840	0.89
							K _v	24.2	70.5	156	272	433	739	1237	2015	2837	3521	4187	---
							X _T	0.391	0.994	0.994	0.984	0.986	0.889	0.776	0.735	0.742	0.761	0.762	---
EWT-2	24 x 20	501.7	19.75	378	14.88	LND	C _v	30	76.1	166	302	496	792	1330	2170	3230	4080	4820	0.89
							K _v	25.9	65.8	144	261	429	685	1150	1877	2794	3529	4169	---
							X _T	0.391	0.991	0.997	0.987	0.996	0.939	0.824	0.743	0.738	0.757	0.759	---
	24 x 20	501.7	19.75	429	16.88	LN-SD	C _v	30	98.4	218	378	602	1030	1720	2800	3930	4880	5780	0.89
							K _v	25.9	85.1	189	327	521	891	1488	2422	3399	4221	5000	---
							X _T	0.391	0.992	0.991	0.997	0.985	0.882	0.776	0.735	0.748	0.758	0.763	---
1. Construction—LND = long neck, drilled windows; LN-SD = long neck with bonnet spacer, drilled windows. 2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.																			

1. Construction—LND - long neck, drilled windows; LN-SD = long neck with bonnet spacer, drilled windows.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 22. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level A1; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level A1																	Linear Characteristic
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel									F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	
16x12	EWD & EWT-2	279.4	11	203	8.00	SN	C _v	25	212	428	644	857	1073	1289	1454	1548	0.89
							K _v		183	370	557	741	928	1115	1258	1339	---
							X _T		0.619	0.620	0.621	0.621	0.621	0.621	0.663	0.765	---
		279.4	11	226	8.88	LN	C _v	25	236	475	715	952	1193	1416	1530	1608	0.89
							K _v		204	411	619	823	1032	1225	1323	1391	---
							X _T		0.619	0.620	0.621	0.621	0.621	0.633	0.739	0.805	---
20x16	EWD	374.7	14.75	203	8.00	SN	C _v	38	320	663	1001	1341	1685	1977	2211	2417	0.89
							K _v		277	574	865	1160	1457	1710	1912	2090	---
							X _T		0.436	0.433	0.432	0.432	0.432	0.451	0.493	0.541	---
		374.7	14.75	276	10.88	LN	C _v	38	443	907	1372	1836	2171	2449	2675	2846	0.89
							K _v		383	785	1186	1588	1878	2119	2314	2462	---
							X _T		0.434	0.433	0.432	0.432	0.484	0.549	0.580	0.607	---
		374.7	14.75	378	14.88	LN	C _v	38	617	1247	1876	2309	2642	2878	3011	3046	0.89
							K _v		534	1078	1622	1997	2286	2489	2605	2635	---
							X _T		0.434	0.432	0.436	0.513	0.576	0.613	0.660	0.722	---
	EWT-2	412.8	16.25	203	8.00	SN	C _v	41	353	732	1104	1480	1859	2231	2508	2757	0.89
							K _v		305	633	955	1280	1608	1930	2170	2385	---
							X _T		0.436	0.433	0.432	0.432	0.432	0.466	0.506	0.550	---
		412.8	16.25	276	10.88	LN	C _v	41	489	1001	1514	2026	2460	2797	3080	3309	0.89
							K _v		423	866	1309	1752	2128	2420	2664	2863	---
							X _T		0.434	0.433	0.432	0.432	0.459	0.513	0.565	0.587	---
		412.8	16.25	378	14.88	LN	C _v	41	681	1376	2079	2626	3038	3353	3564	3678	0.89
							K _v		589	1190	1798	2272	2628	2900	3083	3181	---
							X _T		0.434	0.432	0.432	0.483	0.561	0.592	0.629	0.676	---
24X16	EWD	374.7	14.75	203	8.00	SN	C _v	38	335	676	1019	1356	1698	1982	2219	2433	0.89
							K _v		290	585	881	1173	1469	1714	1919	2105	---
							X _T		0.435	0.433	0.432	0.432	0.432	0.457	0.495	0.539	---
		374.7	14.75	276	10.88	LN	C _v	38	461	924	1387	1838	2176	2466	2707	2901	0.89
							K _v		399	799	1200	1590	1882	2133	2342	2509	---
							X _T		0.434	0.433	0.432	0.438	0.487	0.546	0.571	0.592	---
		374.7	14.75	378	14.88	LN	C _v	38	628	1264	1877	2319	2676	2938	3110	3191	0.89
							K _v		543	1093	1624	2006	2315	2541	2690	2760	---
							X _T		0.433	0.432	0.442	0.513	0.568	0.597	0.633	0.679	---
	EWT-2	412.8	16.25	203	8.00	SN	C _v	41	353	732	1104	1480	1859	2218	2501	2759	0.89
							K _v		305	633	955	1280	1608	1919	2163	2387	---
							X _T		0.436	0.433	0.432	0.432	0.432	0.436	0.469	0.505	---
		412.8	16.25	276	10.88	LN	C _v	41	489	1001	1513	2025	2450	2799	3099	3350	0.89
							K _v		423	866	1309	1752	2119	2421	2681	2898	---
							X _T		0.434	0.433	0.432	0.432	0.462	0.511	0.558	0.576	---
		412.8	16.25	403	15.88	LN	C _v	41	726	1474	2208	2746	3181	3512	3737	3858	0.89
							K _v		628	1275	1910	2375	2752	3038	3233	3337	---
							X _T		0.433	0.432	0.435	0.503	0.563	0.590	0.624	0.665	---

Table 23. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level A1; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level A1																		Linear Characteristic	
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
24x20	EWD	436.6	18.25	378	14.88	LN	C _V	43	669	1353	2045	2735	3346	3811	4199	4520	4768	4944	0.89
							K _V		579	1171	1769	2365	2894	3296	3632	3909	4124	4277	---
							X _T		0.529	0.528	0.528	0.528	0.552	0.615	0.689	0.736	0.766	0.801	---
		436.6	18.25	429	16.88	LN-S	C _V	43	759	1541	2323	3106	3668	4132	4505	4786	4975	5072	0.89
							K _V		656	1333	2010	2686	3173	3574	3897	4140	4303	4387	---
							X _T		0.529	0.528	0.528	0.528	0.593	0.674	0.735	0.769	0.809	0.858	---
	EWT-2	501.7	19.75	378	14.88	LN	C _V	46	725	1466	2215	2962	3696	4231	4688	5079	5397	5642	0.89
							K _V		627	1268	1916	2562	3197	3659	4055	4393	4668	4881	---
							X _T		0.529	0.528	0.528	0.528	0.531	0.586	0.649	0.721	0.746	0.775	---
		501.7	19.75	429	16.88	LN-S	C _V	46	822	1669	2517	3364	4065	4609	5060	5420	5688	5864	0.89
							K _V		711	1444	2177	2910	3516	3986	4377	4688	4920	5072	---
							X _T		0.529	0.528	0.528	0.528	0.567	0.636	0.719	0.748	0.781	0.821	---

1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 24. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level A3; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level A3																	Linear Characteristic
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel									F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	
16x12	EWD & EWT-2	279.4	11	203	8.00	SN	C _v	17	181	371	557	748	934	1125	1311	1453	0.89
							K _v		157	321	482	647	808	973	1134	1256	---
							X _T		0.619	0.620	0.620	0.621	0.621	0.621	0.621	0.663	---
		279.4	11	226	8.88	LN	C _v	17	204	411	620	832	1039	1247	1432	1528	0.89
							K _v		176	356	536	719	899	1079	1239	1322	---
							X _T		0.619	0.620	0.621	0.621	0.621	0.621	0.645	0.739	---
20x16	EWD	374.7	14.75	203	8.00	SN	C _v	25	290	593	892	1198	1495	1800	2032	2236	0.89
							K _v		251	513	772	1036	1293	1557	1758	1934	---
							X _T		0.436	0.433	0.432	0.432	0.432	0.432	0.460	0.498	---
		374.7	14.75	276	10.88	LN	C _v	25	400	807	1223	1629	1994	2267	2503	2694	0.89
							K _v		346	698	1058	1409	1725	1961	2165	2330	---
							X _T		0.435	0.433	0.432	0.432	0.454	0.504	0.562	0.582	---
		374.7	14.75	378	14.88	LN	C _v	25	549	1114	1677	2128	2469	2732	2915	3018	0.89
							K _v		475	964	1451	1840	2135	2363	2521	2611	---
							X _T		0.434	0.432	0.432	0.476	0.554	0.587	0.622	0.666	---
	EWT-2	412.8	16.25	203	8.00	SN	C _v	28	317	651	979	1315	1642	1978	2291	2531	0.89
							K _v		274	563	847	1138	1420	1711	1981	2189	---
							X _T		0.436	0.433	0.432	0.432	0.432	0.438	0.469	0.505	---
		412.8	16.25	276	10.88	LN	C _v	28	438	886	1343	1790	2245	2569	2857	3099	0.89
							K _v		379	767	1161	1548	1942	2222	2472	2680	---
							X _T		0.435	0.433	0.432	0.432	0.432	0.475	0.525	0.566	---
		412.8	16.25	378	14.88	LN	C _v	28	601	1223	1843	2403	2814	3148	3402	3576	0.89
							K _v		520	1058	1594	2079	2434	2723	2943	3093	---
							X _T		0.434	0.432	0.432	0.451	0.516	0.570	0.599	0.632	---
24X16	EWD	374.7	14.75	203	8.00	SN	C _v	18	163	451	735	1025	1307	1597	1861	2075	0.89
							K _v		141	390	636	887	1131	1381	1610	1795	---
							X _T		0.440	0.434	0.433	0.432	0.432	0.441	0.471	0.505	---
		374.7	14.75	276	10.88	LN	C _v	19	281	688	1103	1509	1895	2188	2449	2666	0.89
							K _v		243	595	954	1305	1639	1893	2118	2306	---
							X _T		0.437	0.433	0.432	0.432	0.445	0.489	0.542	0.567	---
		374.7	14.75	378	14.88	LN	C _v	19	430	994	1558	2038	2410	2711	2939	3095	0.89
							K _v		372	860	1348	1763	2085	2345	2542	2677	---
							X _T		0.435	0.433	0.432	0.465	0.533	0.571	0.597	0.628	---
	EWT-2	412.8	16.25	203	8.00	SN	C _v	28	304	635	970	1297	1634	1961	2269	2515	0.89
							K _v		263	549	839	1122	1413	1696	1963	2175	---
							X _T		0.436	0.433	0.433	0.432	0.432	0.442	0.471	0.503	---
		412.8	16.25	276	10.88	LN	C _v	28	421	877	1324	1781	2216	2557	2852	3114	0.89
							K _v		364	759	1145	1541	1917	2212	2467	2694	---
							X _T		0.435	0.433	0.432	0.432	0.436	0.476	0.520	0.559	---
		412.8	16.25	403	15.88	LN	C _v	28	620	1274	1924	2476	2908	3261	3533	3727	0.89
							K _v		536	1102	1664	2142	2515	2821	3056	3224	---
							X _T		0.434	0.432	0.432	0.465	0.530	0.569	0.593	0.622	---

Table 25. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level A3; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level A3																	Linear Characteristic
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel									F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	
24x20	EWD	436.6	18.25	378	14.88	LN	C _v	29	578	1173	1774	2374	2970	3450	3843	4183	0.89
							K _v		500	1014	1534	2054	2569	2984	3325	3618	---
							X _T		0.529	0.528	0.528	0.528	0.528	0.564	0.621	0.686	---
		436.6	18.25	429	16.88	LN-S	C _v	29	660	1338	2014	2692	3310	3772	4164	4487	0.89
							K _v		571	1157	1742	2329	2864	3263	3602	3882	---
							X _T		0.529	0.528	0.528	0.528	0.548	0.609	0.682	0.733	---
	EWT-2	501.7	19.75	378	14.88	LN	C _v	31	625	1269	1919	2570	3215	3811	4266	4666	0.89
							K _v		541	1098	1660	2223	2781	3297	3690	4036	---
							X _T		0.529	0.528	0.528	0.528	0.528	0.541	0.590	0.646	---
		501.7	19.75	429	16.88	LN-S	C _v	31	714	1448	2179	2913	3648	4183	4644	5036	0.89
							K _v		618	1253	1885	2520	3156	3618	4017	4356	---
							X _T		0.529	0.528	0.528	0.528	0.528	0.580	0.642	0.714	---

1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer.
2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 26. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level B1; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level B1																		Linear Characteristic	
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel										F _L	
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90		100
16x12	EWD & EWT-2	279.4	11	203	8.00	SN	C _V	21	120	228	337	453	566	674	782	897	1011	1107	0.89
							K _V		104	197	291	392	489	583	676	776	875	958	---
							X _T		0.618	0.619	0.620	0.620	0.621	0.621	0.621	0.621	0.621	0.621	0.621
		279.4	11	226	8.88	LN	C _V	21	127	253	381	500	622	750	874	992	1119	1246	0.89
							K _V		109	219	329	433	538	649	756	858	968	1078	---
							X _T		0.618	0.620	0.620	0.620	0.621	0.621	0.621	0.621	0.621	0.621	0.621
20x16	EWD	374.7	14.75	203	8.00	SN	C _V	31	196	374	554	746	933	1111	1290	1480	1669	1827	0.89
							K _V		170	324	479	645	807	961	1116	1280	1444	1581	---
							X _T		0.438	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.431	0.431	---
		374.7	14.75	276	10.88	LN	C _V	31	256	515	756	1016	1256	1517	1757	1974	2141	2307	0.89
							K _V		221	445	654	879	1087	1313	1520	1707	1852	1995	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.432	0.451	0.480	0.514
		374.7	14.75	378	14.88	LN	C _V	31	357	698	1037	1377	1718	2009	2243	2446	2617	2758	0.89
							K _V		309	603	897	1191	1486	1738	1941	2116	2263	2386	---
							X _T		0.435	0.433	0.432	0.432	0.432	0.456	0.500	0.549	0.573	0.592	---
	EWT-2	412.8	16.25	203	8.00	SN	C _V	34	214	408	605	814	1018	1212	1407	1614	1821	1993	0.89
							K _V		185	353	523	704	880	1049	1217	1396	1575	1724	---
							X _T		0.438	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.431	0.431	---
		412.8	16.25	276	10.88	LN	C _V	34	279	562	825	1109	1370	1655	1916	2201	2405	2603	0.89
							K _V		241	486	713	959	1185	1432	1658	1904	2081	2251	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.452	0.480	---
		412.8	16.25	378	14.88	LN	C _V	34	390	761	1131	1502	1874	2249	2527	2772	2986	3170	0.89
							K _V		337	658	979	1299	1621	1946	2186	2398	2583	2742	---
							X _T		0.435	0.433	0.432	0.432	0.432	0.433	0.469	0.509	0.553	0.573	---
24X16	EWD	374.7	14.75	203	8.00	SN	C _V	31	196	374	554	746	933	1111	1290	1480	1669	1818	0.89
							K _V		170	324	479	645	807	961	1116	1280	1444	1573	---
							X _T		0.438	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.431	0.436	---
		374.7	14.75	276	10.88	LN	C _V	31	255	515	755	1016	1255	1516	1756	1964	2137	2290	0.89
							K _V		221	445	653	879	1086	1311	1519	1699	1849	1981	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.455	0.481	0.509	---
		374.7	14.75	378	14.88	LN	C _V	31	357	697	1036	1376	1718	2001	2243	2456	2639	2789	0.89
							K _V		309	603	896	1190	1486	1731	1940	2124	2283	2412	---
							X _T		0.435	0.433	0.432	0.432	0.432	0.460	0.500	0.544	0.565	0.579	---
	EWT-2	412.8	16.25	203	8.00	SN	C _V	34	214	408	605	814	1018	1212	1407	1614	1821	1993	0.89
							K _V		185	353	523	704	881	1048	1217	1396	1575	1724	---
							X _T		0.438	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.431	0.431	---
		412.8	16.25	276	10.88	LN	C _V	34	279	561	824	1108	1369	1654	1915	2193	2394	2576	0.89
							K _V		241	485	713	958	1184	1431	1656	1897	2071	2228	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.434	0.456	0.479	---
		412.8	16.25	403	15.88	LN	C _V	34	404	814	1201	1612	2000	2355	2638	2896	3123	3311	0.89
							K _V		349	704	1039	1394	1730	2037	2282	2505	2701	2864	---
							X _T		0.435	0.433	0.432	0.432	0.432	0.451	0.487	0.528	0.560	0.573	---

Table 27. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level B1; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level B1																	Linear Characteristic
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel									F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	
24x20	EWD	436.6	18.25	378	14.88	LN	C _v	36	385	751	1115	1479	1846	2219	2593	2963	0.89
							K _v		333	649	964	1280	1597	1919	2243	2563	---
							X _T		0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	---
		436.6	18.25	429	16.88	LN-S	C _v	36	431	847	1263	1679	2095	2513	2931	3293	0.89
							K _v		373	732	1092	1452	1812	2173	2535	2849	---
							X _T		0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.546	---
	EWT-2	501.7	19.75	378	14.88	LN	C _v	38	414	806	1198	1589	1983	2383	2785	3183	0.89
							K _v		358	698	1036	1375	1715	2061	2409	2753	---
							X _T		0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	---
		501.7	19.75	429	16.88	LN-S	C _v	38	463	910	1356	1803	2250	2699	3148	3597	0.89
							K _v		400	787	1173	1560	1946	2334	2723	3112	---
							X _T		0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---

1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer.
2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 28. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level B3; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level B3																		Linear Characteristic	
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
16x12	EWD & EWT-2	279.4	11	203	8.00	SN	C _V	15	114	222	336	445	558	668	780	891	1002	1114	0.89
							K _V		98	192	291	385	483	578	675	771	867	963	---
							X _T		0.617	0.619	0.620	0.620	0.621	0.621	0.621	0.621	0.621	0.621	---
		279.4	11	226	8.88	LN	C _V	15	126	247	371	496	617	744	865	991	1113	1237	0.89
							K _V		109	214	321	429	534	644	748	858	963	1070	---
							X _T		0.618	0.620	0.620	0.620	0.621	0.621	0.621	0.621	0.621	0.621	---
20x16	EWD	374.7	14.75	203	8.00	SN	C _V	21	178	349	528	701	878	1052	1228	1404	1578	1756	0.89
							K _V		154	302	457	606	760	910	1062	1215	1365	1519	---
							X _T		0.439	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.431	0.431	---
		374.7	14.75	276	10.88	LN	C _V	21	236	475	714	954	1194	1434	1674	1896	2070	2229	0.89
							K _V		204	411	618	825	1032	1240	1448	1640	1791	1928	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.439	0.467	0.497	---
		374.7	14.75	378	14.88	LN	C _V	21	326	657	982	1307	1639	1936	2163	2367	2545	2689	0.89
							K _V		282	569	849	1130	1418	1675	1871	2047	2201	2326	---
							X _T		0.436	0.433	0.432	0.432	0.432	0.445	0.483	0.528	0.566	0.582	---
	EWT-2	412.8	16.25	203	8.00	SN	C _V	23	194	382	578	767	962	1152	1345	1537	1729	1922	0.89
							K _V		168	330	500	663	832	996	1164	1329	1495	1663	---
							X _T		0.439	0.435	0.433	0.433	0.432	0.432	0.432	0.432	0.431	0.431	---
		412.8	16.25	276	10.88	LN	C _V	23	258	520	782	1044	1307	1570	1833	2096	2328	2517	0.89
							K _V		223	450	676	903	1131	1358	1586	1813	2014	2177	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.443	0.468	---
		412.8	16.25	378	14.88	LN	C _V	23	357	719	1074	1431	1795	2153	2438	2683	2902	3086	0.89
							K _V		309	622	929	1238	1553	1862	2109	2321	2510	2670	---
							X _T		0.436	0.433	0.432	0.432	0.432	0.432	0.456	0.493	0.534	0.566	---
24X16	EWD	374.7	14.75	203	8.00	SN	C _V	21	178	349	528	701	878	1052	1228	1404	1578	1744	0.89
							K _V		154	302	457	606	759	910	1062	1214	1365	1509	---
							X _T		0.439	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.431	0.431	---
		374.7	14.75	276	10.88	LN	C _V	21	236	475	714	953	1193	1433	1673	1886	2064	2217	0.89
							K _V		204	411	618	824	1032	1240	1447	1631	1785	1918	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.444	0.470	0.495	---
		374.7	14.75	378	14.88	LN	C _V	21	326	657	981	1306	1639	1926	2159	2373	2561	2711	0.89
							K _V		282	568	849	1130	1418	1666	1868	2053	2215	2345	---
							X _T		0.436	0.433	0.432	0.432	0.432	0.449	0.485	0.525	0.559	0.571	---
	EWT-2	412.8	16.25	203	8.00	SN	C _V	23	194	382	578	767	962	1152	1345	1537	1729	1910	0.89
							K _V		168	330	500	663	832	996	1163	1330	1496	1652	---
							X _T		0.439	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.431	0.431	---
		412.8	16.25	276	10.88	LN	C _V	23	258	520	782	1044	1307	1570	1833	2096	2316	2496	0.89
							K _V		223	450	676	903	1131	1358	1586	1813	2003	2159	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.447	0.469	---
		412.8	16.25	403	15.88	LN	C _V	23	379	762	1147	1532	1916	2271	2553	2807	3034	3222	0.89
							K _V		328	659	992	1325	1657	1964	2208	2428	2624	2787	---
							X _T		0.435	0.433	0.432	0.432	0.432	0.442	0.476	0.513	0.550	0.566	---

Table 29. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level B3; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level B3																		Linear Characteristic	
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
24x20	EWD	436.6	18.25	378	14.88	LN	C _V	25	355	713	1064	1416	1776	2130	2481	2837	3178	3428	0.89
							K _V		307	617	920	1225	1536	1842	2146	2454	2749	2965	--
							X _T		0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.534	0.562	--
		436.6	18.25	429	16.88	LN-S	C _V	25	402	806	1210	1613	2016	2418	2819	3196	3486	3750	0.89
							K _V		348	697	1046	1395	1744	2092	2438	2765	3015	3244	--
							X _T		0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.535	0.569	0.607	--
	EWT-2	501.7	19.75	378	14.88	LN	C _V	27	382	768	1146	1525	1913	2294	2672	3056	3441	3779	0.89
							K _V		331	664	991	1319	1655	1984	2311	2643	2976	3269	--
							X _T		0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	0.539	--
		501.7	19.75	429	16.88	LN-S	C _V	27	433	868	1303	1737	2171	2604	3035	3467	3839	4143	0.89
							K _V		375	751	1127	1503	1878	2253	2626	2999	3320	3584	--
							X _T		0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.545	0.576	--

1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 30. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level C1; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level C1																	Linear Characteristic
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel									F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	
16x12	EWD	279.4	11	203	8.00	SN	C _v	18	84	153	222	293	368	444	515	583	0.89
							K _v		73	133	192	253	318	384	445	504	---
							X _T		0.616	0.619	0.620	0.620	0.620	0.621	0.621	0.621	---
		279.4	11	226	8.88	LN	C _v	18	85	166	251	331	406	485	569	652	0.89
							K _v		73	144	217	286	352	419	492	564	---
							X _T		0.616	0.619	0.620	0.620	0.620	0.621	0.621	0.621	---
20x16	EWD	374.7	14.75	203	8.00	SN	C _v	27	131	244	351	459	577	696	811	919	0.89
							K _v		113	211	303	397	499	602	701	795	---
							X _T		0.442	0.436	0.434	0.433	0.432	0.432	0.432	0.431	---
		374.7	14.75	276	10.88	LN	C _v	27	161	318	478	637	787	936	1088	1247	0.89
							K _v		139	275	414	551	681	810	941	1079	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.432	---
		374.7	14.75	276	14.88	LN	C _v	27	221	430	642	855	1069	1284	1498	1712	0.89
							K _v		191	372	555	740	925	1111	1296	1481	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.431	---
	EWT-2	412.8	16.25	203	8.00	SN	C _v	30	146	272	392	513	645	777	906	1027	0.89
							K _v		126	235	339	444	558	672	784	888	---
							X _T		0.442	0.436	0.434	0.433	0.432	0.432	0.432	0.431	---
		412.8	16.25	276	10.88	LN	C _v	30	180	355	534	712	880	1046	1216	1394	0.89
							K _v		156	307	462	616	761	905	1052	1206	---
							X _T		0.440	0.435	0.433	0.433	0.432	0.432	0.432	0.432	---
		412.8	16.25	276	14.88	LN	C _v	30	247	481	717	956	1195	1435	1675	1913	0.89
							K _v		214	416	620	827	1034	1241	1448	1655	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.431	---
24X16	EWD	374.7	14.75	203	8.00	SN	C _v	27	131	244	351	459	577	696	811	919	0.89
							K _v		113	211	304	397	499	602	702	795	---
							X _T		0.442	0.436	0.434	0.433	0.432	0.432	0.432	0.431	---
		374.7	14.75	276	10.88	LN	C _v	27	161	318	478	636	787	936	1087	1246	0.89
							K _v		139	275	413	550	681	810	940	1078	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.432	---
		374.7	14.75	378	14.88	LN	C _v	27	221	430	641	855	1069	1283	1497	1711	0.89
							K _v		191	372	554	740	925	1110	1295	1480	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.431	---
	EWT-2	412.8	16.25	203	8.00	SN	C _v	30	146	272	392	513	645	777	906	1027	0.89
							K _v		126	235	339	444	558	672	784	888	---
							X _T		0.442	0.436	0.434	0.433	0.432	0.432	0.432	0.431	---
		412.8	16.25	276	10.88	LN	C _v	30	180	355	534	711	880	1046	1215	1393	0.89
							K _v		156	307	462	615	761	905	1051	1205	---
							X _T		0.440	0.435	0.433	0.433	0.432	0.432	0.432	0.432	---
		412.8	16.25	403	15.88	LN	C _v	30	270	514	778	1017	1282	1525	1783	2034	0.89
							K _v		234	445	673	880	1109	1319	1542	1759	---
							X _T		0.437	0.434	0.433	0.432	0.432	0.432	0.432	0.431	---

Table 31. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level C1; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level C1																		Linear Characteristic	
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
24x20	EWD	436.6	18.25	378	14.88	LN	C _V	31	241	466	695	925	1157	1389	1620	1851	2080	2305	0.89
							K _V		208	403	601	800	1001	1201	1401	1601	1799	1994	---
							X _T		0.530	0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---
		436.6	18.25	429	16.88	LN-S	C _V	31	273	531	790	1048	1306	1566	1826	2086	2347	2607	0.89
							K _V		236	460	683	906	1130	1354	1579	1805	2030	2255	---
							X _T		0.530	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---
	EWT-2	501.7	19.75	378	14.88	LN	C _V	34	263	511	761	1013	1267	1521	1774	2027	2278	2525	0.89
							K _V		228	442	658	877	1096	1315	1535	1753	1970	2184	---
							X _T		0.530	0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---
		501.7	19.75	429	16.88	LN-S	C _V	34	299	582	865	1148	1431	1715	2000	2285	2570	2856	0.89
							K _V		259	503	748	993	1238	1483	1730	1976	2223	2470	---
							X _T		0.530	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---

1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 32. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level C3; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level C3																	Linear Characteristic
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel									F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	
16x12	EWD & EWT-2	374.7	14.75	203	8.00	SN	C _v	14	73	143	209	282	349	418	490	556	0.89
							K _v		63	124	181	243	302	361	424	481	---
							X _T		0.615	0.618	0.619	0.620	0.620	0.621	0.621	0.621	---
		374.7	14.75	226	8.88	LN	C _v	14	82	156	236	309	390	464	543	618	0.89
							K _v		71	135	204	267	337	401	470	535	---
							X _T		0.616	0.619	0.620	0.620	0.620	0.621	0.621	0.621	---
20x16	EWD	374.7	14.75	203	8.00	SN	C _v	19	116	235	344	458	574	682	800	912	0.89
							K _v		100	203	298	396	497	590	692	789	---
							X _T		0.443	0.437	0.434	0.433	0.433	0.432	0.432	0.431	---
		374.7	14.75	276	10.88	LN	C _v	19	161	311	471	623	776	935	1085	1240	0.89
							K _v		139	269	408	539	671	809	939	1073	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.431	---
		374.7	14.75	276	14.88	LN	C _v	19	220	430	639	849	1063	1277	1490	1700	0.89
							K _v		191	372	553	734	919	1105	1289	1470	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.431	---
	EWT-2	412.8	16.25	203	8.00	SN	C _v	21	126	246	369	497	614	741	864	983	0.89
							K _v		109	213	319	430	531	641	747	851	---
							X _T		0.443	0.437	0.435	0.433	0.433	0.432	0.432	0.431	---
		412.8	16.25	276	10.88	LN	C _v	21	170	338	502	676	840	1007	1180	1343	0.89
							K _v		147	292	434	584	727	871	1021	1162	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.431	---
		412.8	16.25	276	14.88	LN	C _v	21	229	462	695	923	1151	1379	1611	1845	0.89
							K _v		198	400	601	799	995	1193	1394	1596	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.431	---
24X16	EWD	374.7	14.75	203	8.00	SN	C _v	19	116	235	344	458	574	682	800	912	0.89
							K _v		100	203	298	396	497	590	692	789	---
							X _T		0.443	0.437	0.434	0.433	0.433	0.432	0.432	0.431	---
		374.7	14.75	276	10.88	LN	C _v	19	161	311	471	623	775	935	1085	1239	0.89
							K _v		139	269	407	539	670	809	939	1072	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.431	---
		374.7	14.75	378	14.88	LN	C _v	19	220	430	639	849	1062	1276	1490	1700	0.89
							K _v		190	372	553	734	919	1104	1289	1471	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.431	---
	EWT-2	412.8	16.25	203	8.00	SN	C _v	21	109	217	325	423	531	639	737	845	0.89
							K _v		94	188	281	366	459	553	638	731	---
							X _T		0.445	0.438	0.435	0.434	0.433	0.432	0.432	0.431	---
		412.8	16.25	276	10.88	LN	C _v	21	155	297	439	580	722	864	1006	1148	0.89
							K _v		134	257	380	502	625	747	870	993	---
							X _T		0.441	0.436	0.434	0.433	0.432	0.432	0.432	0.431	---
		412.8	16.25	403	15.88	LN	C _v	21	219	424	632	846	1056	1262	1467	1680	0.89
							K _v		189	367	547	732	913	1092	1269	1453	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.431	---

Table 33. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level C3; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level C3																		Linear Characteristic	
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
24x20	EWD	436.6	18.25	378	14.88	LN	C _V	23	234	456	676	897	1122	1348	1573	1794	2014	2235	0.89
							K _V		202	394	585	776	970	1166	1360	1552	1742	1933	---
							X _T		0.530	0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---
		436.6	18.25	429	16.88	LN-S	C _V	23	263	517	771	1023	1275	1527	1780	2032	2284	2538	0.89
							K _V		228	447	667	885	1103	1321	1539	1757	1976	2195	---
							X _T		0.530	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---
	EWT-2	501.7	19.75	378	14.88	LN	C _V	25	257	500	742	984	1231	1479	1726	1969	2211	2453	0.89
							K _V		222	432	642	851	1065	1279	1493	1703	1912	2122	---
							X _T		0.530	0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---
		501.7	19.75	429	16.88	LN-S	C _V	25	288	568	846	1123	1400	1676	1953	2230	2507	2785	0.89
							K _V		250	491	732	971	1211	1450	1689	1929	2168	2409	---
							X _T		0.530	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---

1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 34. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level D1; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level D1																		Linear Characteristic	
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
16x12	EWD/ EWT-2	254	10.00	203	8.00	SN	C _V	17	77	142	204	270	340	410	475	538	602	672	0.89
							K _V		67	122	177	234	294	354	411	465	521	581	---
							X _T		0.616	0.619	0.620	0.620	0.620	0.621	0.621	0.621	0.621	0.621	---
		254	10.00	226	8.88	LN	C _V	17	78	153	231	305	375	447	525	602	672	742	0.89
							K _V		67	133	200	264	325	387	455	521	582	642	---
							X _T		0.616	0.619	0.620	0.620	0.620	0.621	0.621	0.621	0.621	0.621	---
20x16	EWD/ EWT-2	355.6	14.00	203	8.00	SN	C _V	25	119	220	322	431	543	653	754	855	963	1074	0.89
							K _V		103	190	278	373	470	564	653	740	833	929	---
							X _T		0.442	0.437	0.434	0.433	0.433	0.432	0.432	0.432	0.431	0.431	---
		355.6	14.00	276	10.88	LN	C _V	25	152	292	441	592	740	881	1021	1165	1315	1466	0.89
							K _V		131	253	381	512	640	762	883	1008	1138	1268	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.431	---
		355.6	14.00	276	14.88	LN	C _V	25	208	405	602	799	998	1199	1401	1603	1768	1909	0.89
							K _V		180	350	521	691	863	1037	1212	1386	1529	1651	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.449	0.476	---
24x16	EWD/ EWT-2	355.6	14.00	203	8.00	SN	C _V	25	123	230	331	433	543	655	764	865	966	1074	0.89
							K _V		106	199	286	375	470	567	661	748	836	929	---
							X _T		0.442	0.436	0.434	0.433	0.433	0.432	0.432	0.432	0.432	0.431	0.431
		355.6	14.00	276	10.88	LN	C _V	25	152	300	450	599	741	881	1023	1173	1324	1470	0.89
							K _V		131	260	389	518	641	762	885	1015	1145	1272	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.432	0.432	0.431	0.431
		355.6	14.00	378	14.88	LN	C _V	25	208	405	604	805	1006	1208	1410	1610	1765	1907	0.89
							K _V		180	350	522	696	870	1045	1220	1393	1527	1650	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.432	0.454	0.474	---
24x20	EWD/ EWT-2	431.8	17.00	378	14.88	LN	C _V	29	229	444	661	881	1102	1322	1543	1763	1981	2196	0.89
							K _V		198	384	572	762	953	1144	1335	1525	1713	1899	---
							X _T		0.530	0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	0.528
		431.8	17.00	429	16.88	LN-S	C _V	29	260	506	752	998	1244	1491	1739	1987	2235	2483	0.89
							K _V		225	437	650	863	1076	1290	1504	1719	1933	2148	---
							X _T		0.530	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	0.528	0.528
1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer. 2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.																			

1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 35. Fisher® EWD and EWT-2; CL150, 300, and 600; Whisper Trim® III -- Level D3; Flow Up

Design EWD & EWT-2 Whisper Trim III—Level D3																		Linear Characteristic	
Valve Size, NPS	Valve Type	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
		mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
16x12	EWD & EWT-2	254	10.00	203	8.00	SN	C _V	12	67	132	192	259	321	384	451	511	577	641	0.89
							K _V		58	114	166	224	278	332	390	442	499	554	---
							X _T		0.615	0.618	0.619	0.620	0.620	0.621	0.621	0.621	0.621	0.621	---
		254	10	226	8.88	LN	C _V	12	75	143	217	284	359	427	499	569	640	711	0.89
							K _V		65	124	188	246	310	369	432	492	554	615	---
							X _T		0.616	0.619	0.620	0.620	0.621	0.621	0.621	0.621	0.621	0.621	---
20x16	EWD/ EWT-2	355.6	14.00	203	8.00	SN	C _V	18	108	209	319	425	529	641	743	850	959	1060	0.89
							K _V		93	181	276	368	457	554	643	736	830	917	---
							X _T		0.444	0.437	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.431	---
		355.6	14.00	276	10.88	LN	C _V	18	143	292	432	580	727	867	1017	1161	1304	1442	0.89
							K _V		123	252	374	502	629	750	880	1005	1128	1247	---
							X _T		0.441	0.435	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.431	---
		355.6	14.00	276	14.88	LN	C _V	18	194	395	597	798	995	1192	1390	1591	1760	1901	0.89
							K _V		168	342	517	690	861	1031	1202	1376	1522	1644	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.448	0.474	---
24X16	EWD/ EWT-2	355.6	14.00	203	8.00	SN	C _V	18	109	216	319	431	534	641	750	852	962	1068	0.89
							K _V		94	187	276	373	462	554	649	737	832	924	---
							X _T		0.443	0.437	0.435	0.433	0.433	0.432	0.432	0.432	0.431	0.431	---
		355.6	14.00	276	10.88	LN	C _V	18	150	292	437	586	727	873	1021	1162	1310	1442	0.89
							K _V		130	253	378	507	629	755	883	1005	1133	1247	---
							X _T		0.440	0.435	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.431	---
		355.6	14.00	378	14.88	LN	C _V	18	194	395	597	798	995	1192	1390	1591	1751	1897	0.89
							K _V		168	342	517	690	861	1031	1202	1376	1515	1641	---
							X _T		0.438	0.434	0.433	0.432	0.432	0.432	0.432	0.431	0.452	0.476	---
24x20	EWD/ EWT-2	431.8	17.00	378	14.88	LN	C _V	21	222	433	643	853	1067	1282	1496	1706	1916	2126	0.89
							K _V		192	375	556	738	923	1109	1294	1476	1657	1839	---
							X _T		0.530	0.529	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---
		431.8	17.00	429	16.88	LN-S	C _V	21	250	492	733	973	1213	1453	1693	1932	2173	2414	0.89
							K _V		216	425	634	842	1049	1257	1464	1672	1879	2088	---
							X _T		0.530	0.529	0.528	0.528	0.528	0.528	0.528	0.528	0.528	0.528	---
1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer. 2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.																			

1. Construction—SN = short-neck valve; LN = long-neck valve; LN-S = long-neck valve with bonnet spacer.

2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might result.

Table 36. Fisher® EWD and EWT-2; CL150, 300, and 600; Cavitol® III -- One Stage; Flow Down

EWD & EWT-2 Cavitrol III Trim—One Stage																	Linear Characteristic	
Valve Size, NPS	Port Diameter		Maximum Travel		Con- struc- tion ⁽¹⁾	Flow Coeffi- cient	Valve Opening—Percent of Total Travel											F _L
	mm	Inches	mm	Inches			Min ⁽²⁾	10	20	30	40	50	60	70	80	90	100	
16 x 12	279.4	11.00	203	8.00	LND	C _v	40	132	304	471	628	775	910	1030	1140	1240	1330	0.91
						K _v	34.6	114	263	407	543	670	787	891	986	1073	1150	---
20 x 16	374.7	14.75	276	10.88	LND	C _v	46	262	576	877	1160	1420	1660	1880	2070	2240	2390	0.91
						K _v	39.8	227	498	759	1003	1228	1436	1626	1791	1938	2067	---
	374.7	14.75	378	14.88	LN-SD	C _v	46	379	800	1190	1540	1850	2110	2330	2510	2670	2800	0.91
						K _v	39.8	328	692	1029	1332	1600	1825	2015	2171	2310	2422	---
24 x 16	374.7	14.75	276	10.88	LND	C _v	46	262	576	878	1160	1420	1160	1880	2070	2240	2390	0.91
						K _v	39.8	227	498	759	1003	1228	1003	1626	1791	1938	2067	---
	374.7	14.75	378	14.88	LND	C _v	46	379	800	1190	1540	1850	2110	2330	2520	2670	2800	0.91
						K _v	39.8	328	692	1029	1332	1600	1825	2015	2180	2310	2422	---
	374.7	14.75	429	16.88	LN-SD	C _v	46	437	909	1340	1710	2030	2290	2510	2680	2830	2940	0.91
						K _v	39.8	378	786	1159	1479	1756	1981	2171	2318	2448	2543	---
24 x 20	463.6	18.25	378	14.88	LND	C _v	56	468	995	1490	1960	2370	2750	3070	3360	3600	3810	0.91
						K _v	48.4	405	861	1289	1695	2050	2379	2656	2906	3114	3296	---
	463.6	18.25	429	16.88	LN-SD	C _v	56	540	1130	1690	2190	2630	3010	3340	3620	3860	4050	0.91
						K _v	48.4	467	977	1462	1894	2275	2604	2889	3131	3339	3503	---
1. Construction—SND = short-neck valve, drilled windows; LND - long-neck valve, drilled windows; LN-SD = long-neck valve with bonnet spacer, drilled windows. 2. Do not allow the valve to throttle at less than the minimum coefficient shown for an extended time, or erosion damage to the valve seat might occur.																		

Specifications

Valve Sizes

EUT-2 and EUD: ■ NPS 12, ■ 16, and ■ 20
EWT-2 and EWD: ■ NPS 16 x 12, ■ 20 x 16,
 ■ 24 x 16, and ■ 24 x 20 valves (size
 designations are end connection size x nominal
 trim size)

End Connection Styles

Flanged: CL150, 300, and 600 raised-face or
 ring-type joint flanges per ASME B16.5
Buttwelding: All ASME B16.25 schedules
 through schedule 120 that are compatible with the
 ASME B16.34 valve body rating

For other end connections, contact your Emerson
 Process Management sales office for details.

Maximum Inlet Pressure⁽¹⁾

Flanged: Consistent with CL150, 300, and 600
 pressure-temperature ratings per ASME B16.34
Buttwelding: Consistent with CL600 per
 ASME B16.34

Material Temperature and Pressure Drop Capabilities⁽¹⁾

See table 1 and figures 6 and 7.

Shutoff Classifications per ANSI/FCI 70-2 and IEC 60534-4

EUT-2 and EWT-2 with Metal Seats.
*Standard (for all trims except 2-Stage Cavitrol
 Trim):* Class IV
Standard (for 2-Stage Cavitrol Trim): Class V
*Optional (for all trims except 2-Stage Cavitrol
 Trim):* Class V
EUT-2 and EWT-2 with Soft Metal Seats.
 Class V
EUD and EWD with Metal Seats.
Standard: Class III
Optional: Class IV and V

Construction Materials

Valve Body and Bonnet: ■ WCC steel, ■ WC9
 steel, ■ LCC steel, or ■ CF8M (316 stainless
 steel). For other materials, consult your Emerson
 Process Management sales office

Trim and Other Parts: See tables 1, 2, and 3.

Flow Characteristics

Standard Cages: ■ Linear or ■ equal percentage
Whisper Trim III and Cavitrol III Cages: Linear
WhisperFlo Cages: Linear

For other characteristics, contact your Emerson
 Process Management sales office for details.

Flow Direction

Standard and Cavitrol III Cages: Down
Whisper Trim III Cages: Up
WhisperFlo Cages: Up

Flow Coefficients

See the section titled Coefficients in this bulletin,
 or Fisher Catalog 12

Port Diameters

See table 4

Valve Plug Travel

102 through 432 mm (4 to 17 inches).

Contact your Emerson Process Management
 sales office for further details if needed

Yoke Boss and Stem Diameters

■ 127 mm (5-inch) or ■ 127 mm (5H-inch)
 diameter yoke boss, each with 31.8 mm
 (1.25 inch) diameter valve stem

Typical Bonnet Style

Style 1 extension

Approximate Weights

See figure 8

1. The pressure/temperature limits in this bulletin and any applicable standard or code limitation for valve should not be exceeded.

Note

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Emerson Process Management

Marshalltown, Iowa 50158 USA

Sorocaba, 18087 Brazil

Chatham, Kent ME4 4QZ UK

Dubai, United Arab Emirates

Singapore 128461 Singapore

www.Fisher.com