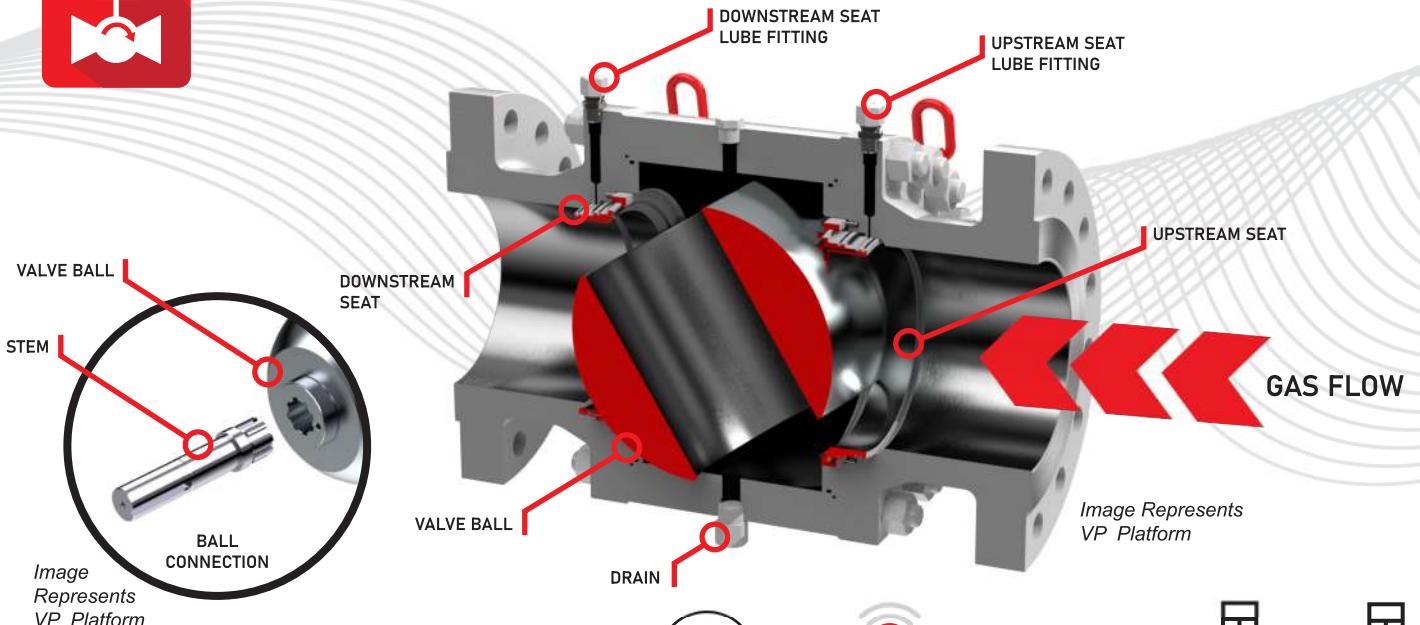




PIPELINE ROTARY CONTROL VALVES

VRG CONTROLS



PRCV-FP



SPECS AND MATERIALS CONSTRUCTION

Size Range	2 in to 42 in	Base Platform	T31 / 54 / 55 / B5 / EC / EB / VP
Max Noise Attenuation	N/A	Control Valve Specs	Per VRG PRCV Specifications
Relative Capacity	Maximum Capacity	Body (Forged)	A350 LF2 ^{3,4,5,6,7,8}
Max Range-Ability	100:1	Stem	AISI 4140 + 1.0 mil ENP ^{1,2,3,4,5,6,7} 174-PH SS ⁸
Shutoff	API 6D Bubble Tight	Ball	A350 LF2 + 1.0 mil ENP ^{1,2,3,4,5,6,7} ASTM A694-F60 + 3.0 mil ENP ⁸ Optional SS ⁸
Design Standard	API-6D ^{1, 2, 3, 4, 5, 6, 7} ASME 16.34 ⁸ , API 6FA ^{1, 2, 8}	Lubrication	PRCV Control Specification
Face-Face Dimensions	API-6D	Stem Seal	Mobil SHC220 OR Valtex 2000
Flange Dimensions	ASME B16.5	PTFE V-PACK	VITON O-RINGS ^{2,3,4,5,6,7} , LIP SEAL ^{1,2}
PED / ATEX / CE	Optional ⁸	Stem Injection	PTFE V-PACK ⁸
ANSI Range	150 – 1500 ANSI	Body Drain	Stem Inject & Opposing Stem Relief ^{1,2,3,4,5,6,7,8}
End Connections	RFFE, Weld, RTJ, Combo	Seat Ring	45° From Stem ^{1,2} , 90° From Stem ^{3,4,5,6,7,8}
Trim Type	Full Port		A350 LF2 + ENP ^{1,2,3,4,5,6,7,8} , Optional SS ⁸
Performance Trim Technology	N/A		VRG Spec Seat Springs ^{3,4,5,6,7,8}
Max Control ΔP	FULL ANSI ΔP - Limit by Noise		
Max Shutoff ΔP	FULL ANSI ΔP		
Compatible Buried Applications	YES		
Flow Profile Curve	Modified Equal Percentage		
Min Control Cv	1.0% Max Cv		
Max Control Cv	90% Max Cv		
Seats	2X Seats Soft Seats Std Double Piston Effect ^{2,3,4,5,6,7,8} Metal Seats Optional ⁸	MATERIALS OF CONSTRUCTION	
Compatible Actuators	VRG RHPA-DA VRG RHPA-SR Electric Actuators Eletro-Hydraulic Actuators Other Manufacturers	Seat Seal	VITON O-Ring Insert ^{3,4,5,6,7} DELRIN Molded Profiled Insert ⁸ NYLON Molded Insert ^{1,2} , Optional SS ⁸
		Seat Injection	Upstream/Downstream Buttonhead ^{1,2,4,5,6,7,8} Body Lubrication Port ³
		O-Rings	VITON GLD ^{1,2,3,4,5,6,7,8}
		Firesafe Seals	GRAPHITE ⁸
		High Performance Trim	N/A
		Final Assembly and Test	USA & ITALY
		Country Origin	USA ^{1,2} , ITALY ^{3,4,5,6,7,8} , CHINA ^{3,4}

1 - Applies to Type T31 Platform

2 - Applies to Type T32 Platform

3 - Applies to Type 54 Platform

4 - Applies to Type 55 Platform

5 - Applies to Type B5 Platform

6 - Applies to Type EC Platform

7 - Applies to Type EB Platform

8 - Applies to Type VP Platform

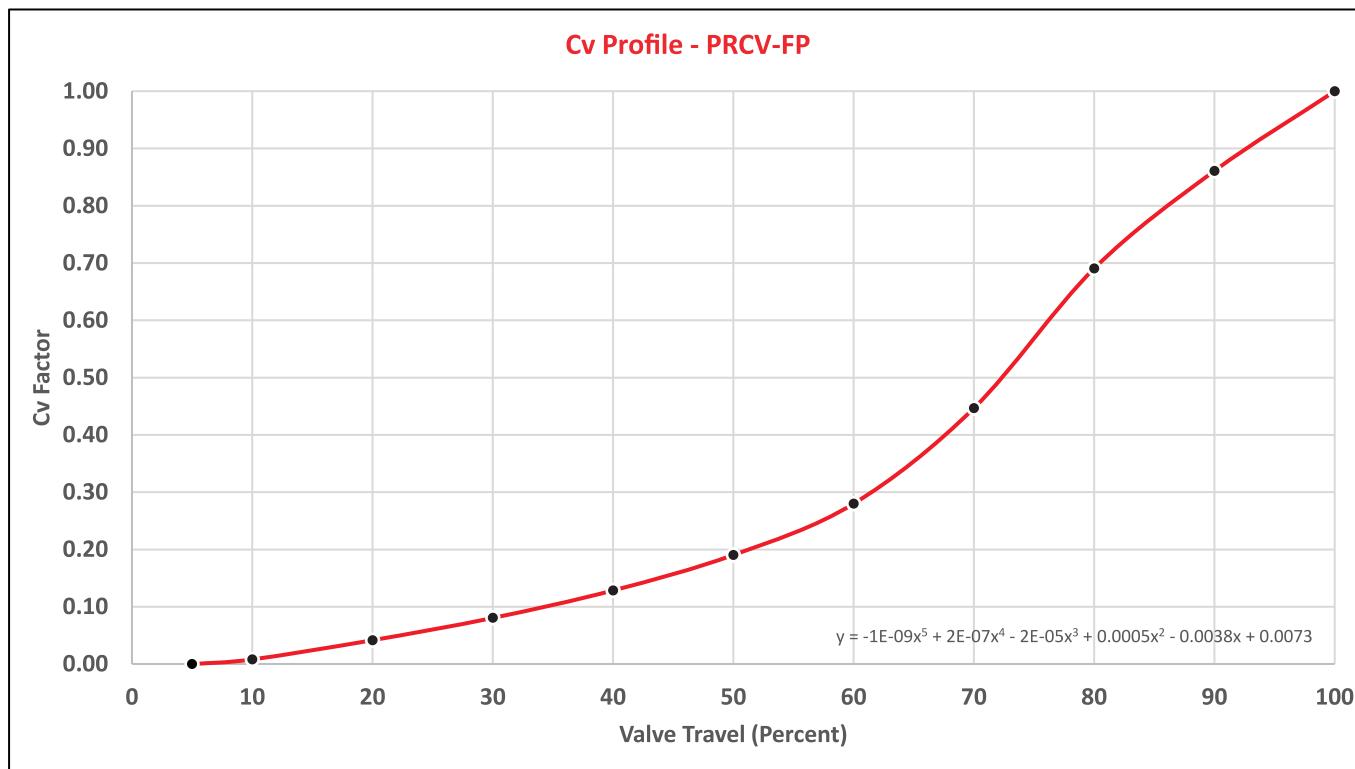


CV PROFILE

PERCENT TRAVEL

PRCV-FP	MIN	5	10	20	30	40	50	60	70	80	90	100
Cv Factor	0.01	0	0.008	0.042	0.081	0.129	0.190	0.280	0.447	0.690	0.861	1.000
2	2.6	0	2	11	21	33	50	73	116	180	224	260
3	5.5	0	5	23	44	71	105	154	246	380	474	550
4	9.75	0	8	41	79	125	186	273	436	673	839	975
6	26	0	21	108	209	334	495	728	1161	1795	2238	2600
8	52.5	0	43	219	423	675	1000	1470	2345	3625	4520	5250
10	85	0	70	355	685	1093	1619	2380	3797	5869	7318	8500
12	139	0	114	580	1120	1787	2648	3892	6209	9598	11967	13900
16	225	0	184	939	1813	2893	4286	6300	10050	15536	19371	22500
20	388	0	318	1619	3126	4989	7390	10864	17331	26790	33405	38800
24	580	0	475	2419	4673	7457	11048	16240	25907	40048	49935	58000
30	980	0	803	4088	7896	12600	18667	27440	43773	67667	84373	98000
36	1540	0	1261	6424	12408	19800	29333	43120	68787	106333	132587	154000
Xt	0.64	0.64	0.64	0.64	0.635	0.625	0.61	0.58	0.538	0.455	0.335	0.1625
Fl	0.78	0.75	0.78	0.85	0.9	0.91	0.9	0.86	0.79	0.71	0.63	0.53

Cv PROFILE - PRCV-FP





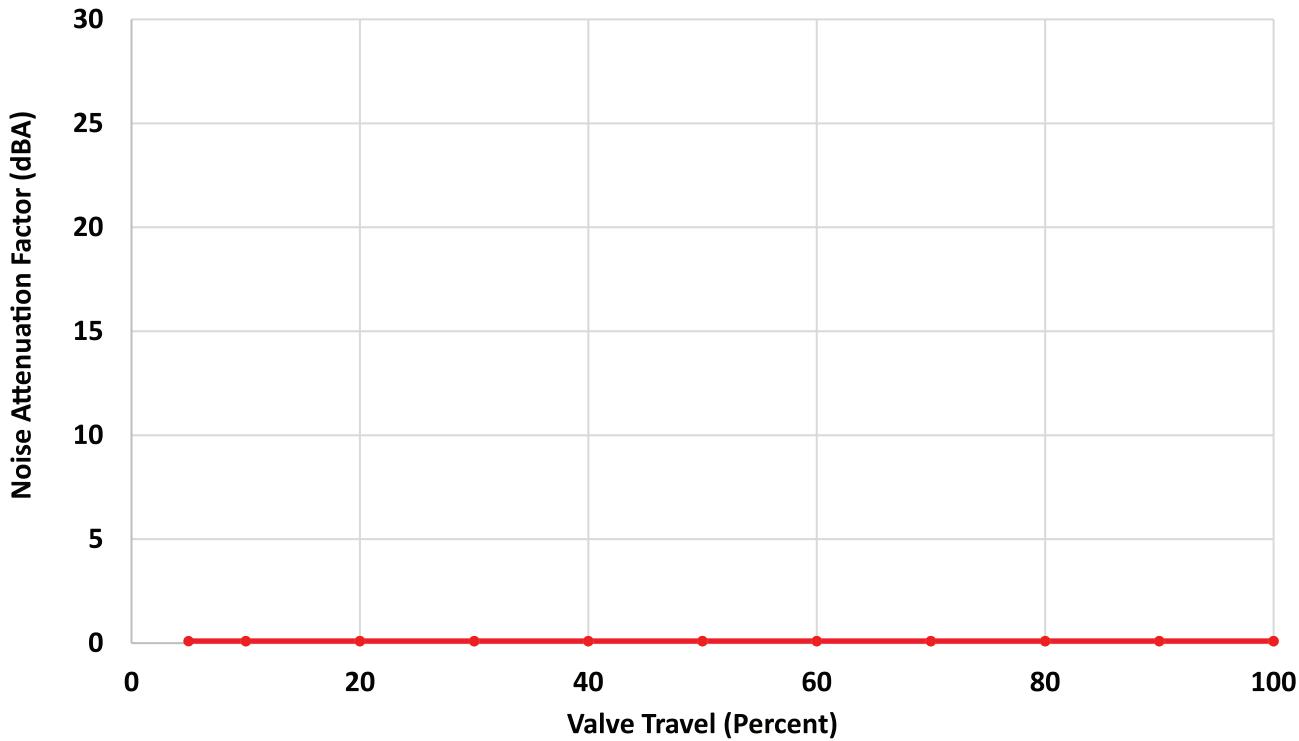
NOISE ATTENUATION (DBA)

Noise Attenuation (dBA) vs. Rotation of PRCV Control Valve

Percent Rotation	0	5	10	20	30	40	50	60	70	80	90	100
PRCV-FP		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Noise Attenuation (dBA) vs. Rotation of PRCV Control Valve

Noise Attenuation Profile - PRCV-FP

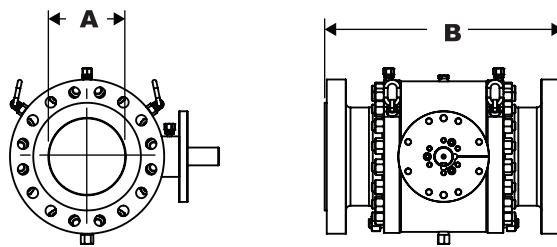




PIPELINE ROTARY CONTROL VALVES

PRCV-FP

VRG CONTROLS



PRCV-FP Series Face to Face Dimensions (RFFE)

A Size (Bore)		B 150 ANSI		B 300 ANSI		B 600 ANSI		B 900 ANSI		B 1500 ANSI	
Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)
2"	50	7	178	8.5	216	11.5	292	14.5	368	14.5	368
3"	80	8	203	11.125	283	14	356	15	381	18.5	470
4"	100	9	229	12	305	17	432	18	457	21.5	546
6"	150	15.5	394	15.875	403	22	559	24	610	27.75	705
8"	200	18	457	19.75	502	26	660	29	737	32.75	832
10"	250	21	533	22.375	568	31	787	33	838	39	991
12"	300	24	610	25.5	648	33	838	38	965	44.5	1130
16"	400	30	762	33	838	39	991	44.5	1130	54.5	1384
20"	500	36	914	39	991	47	1194	52	1321	65.5	1664
24"	600	42	1067	45	1143	55	1397	61	1549	76.5	1943
30"	750	51	1295	55	1397	65	1651	0	0	0	0
36"	900	60	1524	68	1727	82	2083	0	0	0	0

PRCV-FP Series Standard Weights (RFFE) - T31, T32, 54, 55, EC, EB PLATFORMS

Size (Bore)		150 ANSI		300 ANSI		600 ANSI		900 ANSI		1500 ANSI	
in	mm	Lbs.	kg	Lbs.	kg	Lbs.	kg	Lbs.	kg	Lbs.	kg
2"	50	44	20	47	21	58	26	128	58	128	58
3"	80	88	40	113	51	126	57	184	83	214	97
4"	100	139	63	166	75	166	75	358	162	366	166
6"	150	386	175	430	195	541	245	717	325	1,028	466
8"	200	684	310	739	335	1004	455	1,054	478	1,482	672
10"	250	871	395	1,092	495	1,259	571	1,967	892	2,408	1092
12"	300	1,401	635	1,425	646	1,912	867	2,519	1,143	3,385	1535
16"	400	2,086	946	2,585	1,173	3,198	1,451	4,097	1,858	9,919	4499
20"	500	4,040	1833	4,869	2209	5,839	2,649	6,968	3,161	18,743	8502
24"	600	7,934	3599	7,736	3509	8,820	4,001	11,224	5,091	0	0
30"	750	11,859	5379	9813	4451	15,413	6,991	0	0	0	0
36"	900	18,522	8401	17,662	8011	24,100	10,932	0	0	0	0

PRCV-FP Series Standard Weights (RFFE) - VP PLATFORM

Size (Bore)		150 ANSI		300 ANSI		600 ANSI		900 ANSI		1500 ANSI	
in	mm	Lbs.	kg	Lbs.	kg	Lbs.	kg	Lbs.	kg	Lbs.	kg
2"	50	66	30	68	31	93	42	130	59	132	60
3"	80	75	34	123	56	154	70	187	85	247	112
4"	100	150	68	195	88.6	320	145	370	168	399	181
6"	150	395	179	437	198	613	278	794	360	1,069	485
8"	200	646	293	750	340	1041	472	1411	640	1,808	820
10"	250	1,036	470	1,138	516	1,601	726	2,187	992	3,571	1,620
12"	300	1,532	695	1,720	780	2,612	1,185	3,199	1,451	5,198	2,358
16"	400	2,657	1,205	3,263	1,480	4,279	1,941	5,038	2,285	9,943	4,510
20"	500	4,641	2,105	5,049	2,290	7,011	3,180	9,612	4,360	14,947	6,780
24"	600	7,055	3,200	8,516	3,863	12,456	5,650	15,498	7,030	25,463	11,550
30"	750	11,839	5,370	15,719	7,130	18,872	8,560	27,425	12,440	0	0
36"	900	19,577	8,880	22,531	10,220	29,829	13,530	44,423	20,150	0	0