



PRCV-STH1

PIPELINE ROTARY CONTROL VALVES



Size Range	4 in to 36 in
Max Noise Attenuation	7 dBA
Relative Capacity	Very High Capacity
Max Range-Ability	300:1
Shutoff	Class V

Design Standard	API-6D ^{4,5,6,7} ASME 16.34 ⁸ , API 6FA ⁸
Face-Face Dimensions	API-6D
Flange Dimensions	ASME B16.5
PED / ATEX / CE	Optional ⁸
ANSI Range	150 – 1500 ANSI
End Connections	RFFE, Weld, RTJ, Combo
Trim Type	Stealth Trim, Level 1
Performance Trim Technology	Upstream Variable Diffuser Upstream Fixed Diffuser
Max Control ΔP	1000 psid
Max Shutoff ΔP	FULL ANSI ΔP
Compatible Buried Applications	YES
Flow Profile Curve	Exponential
Min Control Cv	0.33% Max Cv
Max Control Cv	85% Max Cv
Seats	2X Seats Soft Seats Std Double Piston Effect ^{4,5,6,7,8} Metal Seats Optional ⁸
Compatible Actuators	VRG RHPA-DA VRG RHPA-SR Electric Actuators Electro-Hydraulic Actuators Other Manufacturers

Base Platform	55 / B5 / PR / WR / VP
Control Valve Specs	Per VRG PRCV Specifications

MATERIALS OF CONSTRUCTION	
Seat Seal	VITON O-Ring Insert ^{4,5,7} DELTRIN Molded Profiled Insert ⁸ Optional SS ⁸
Seat Injection	Upstream/Downstream Buttonhead ^{4,5,7,8}
O-Rings	VITON GLD ^{4,5,7,8}
Firesafe Seals	GRAPHITE ⁸
High-Performance Trim	N/A
Final Assembly and Test	USA & ITALY
Country Origin	ITALY ^{4,5,7,8}
Body (Forged)	A350 LF2 ^{4,5,6,7,8}
Stem	AISI 4140 + 1.0 mil ENP ^{4,5,7} 174-PH SS ⁸
Ball	A350 LF2 + 1.0 mil ENP ^{4,5,7} ASTM A694-F60 + 3.0 mil ENP ⁸ Optional SS ⁸ PRCV Control Specification
Lubrication	Mobil SHC220 OR Valtex 2000
Stem Seal	VITON O-RINGS ^{4,5,7} PTFE V-PACK ⁸
Stem Injection**	Stem Inject & Opposing Stem Relief ^{4,5,7,8}
Body Drain**	90° From Stem ^{4,5,7,8}
Seat Ring**	A350 LF2 + ENP ^{4,5,7,8} , Optional SS ⁸ VRG Spec Seat Springs ^{4,5,6,8}

- 4 - Applies to Type 55 Platform
- 5 - Applies to Type B5 Platform
- 6 - Applies to Type PR Platform
- 7 - Applies to Type WR Platform
- 8 - Applies to Type VP Platform



MIN OPERATING TEMPERATURE

VP	-50 F STANDARD
T55, PR, WR	-20 F STANDARD
T54, T55, PR, WR	-50 F OPTIONAL

MAX OPERATING TEMPERATURE TEMP DEFINED BY:
ASME B16.34 PRESSURE-TEMPERATURE RATINGS



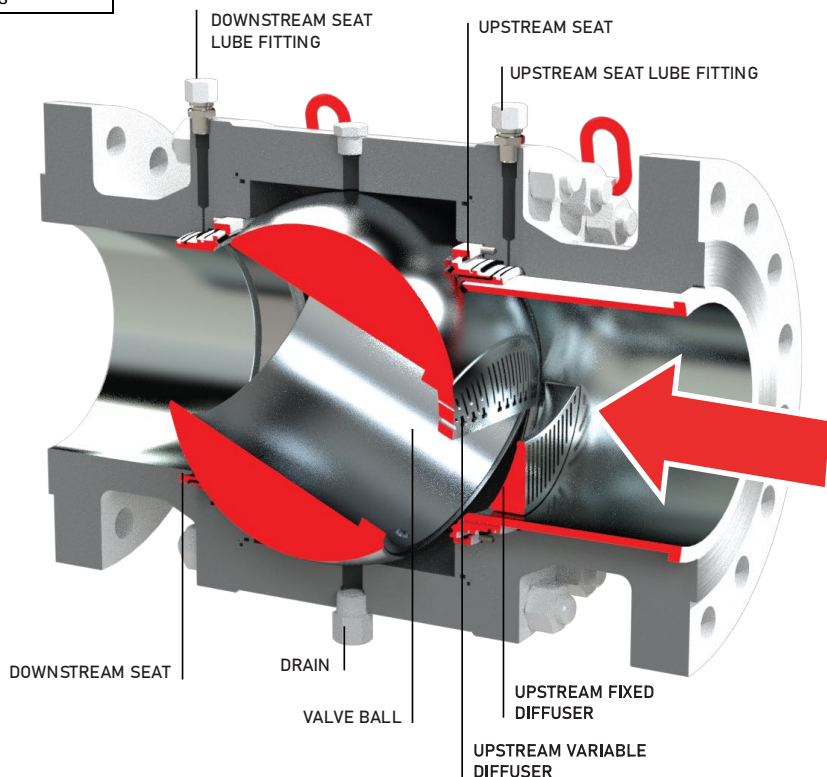
SIZE RANGE
4 in to 36 in



MAX NOISE
ATTENUATION
7 dBA



MAX RANGE-ABILITY
300:1





PRCV-STH1

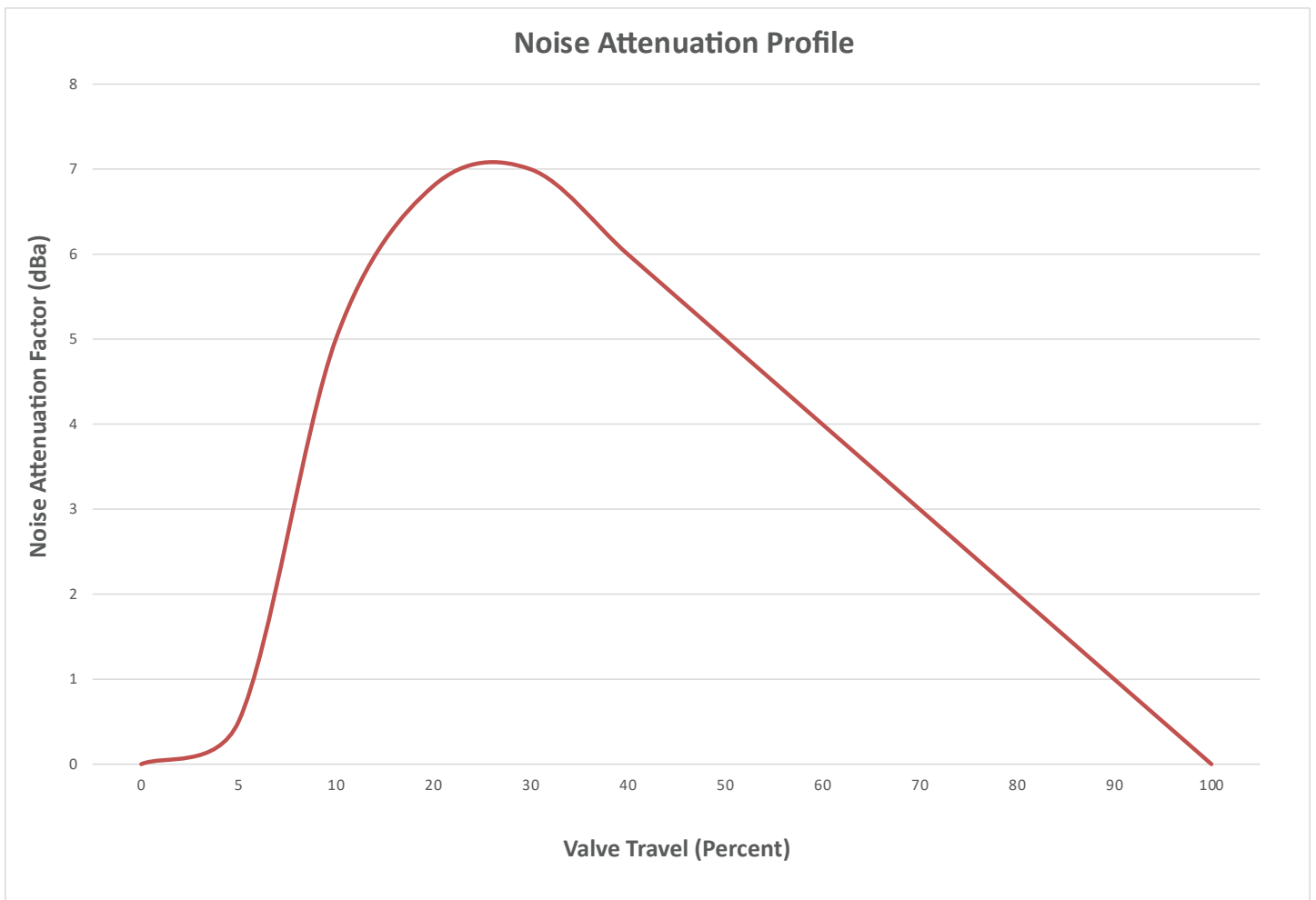
PIPELINE ROTARY CONTROL VALVES



NOISE ATTENUATION (DBA)

Percent Rotation	0	5	10	20	30	40	50	60	70	80	90	100
PRCV-STH1	0	0.5	5	6.8	7	6	5	4	3	2	1	0

NOISE ATTENUATION (DBA) VS. ROTATION OF PRCV CONTROL VALVE





PRCV-STH1

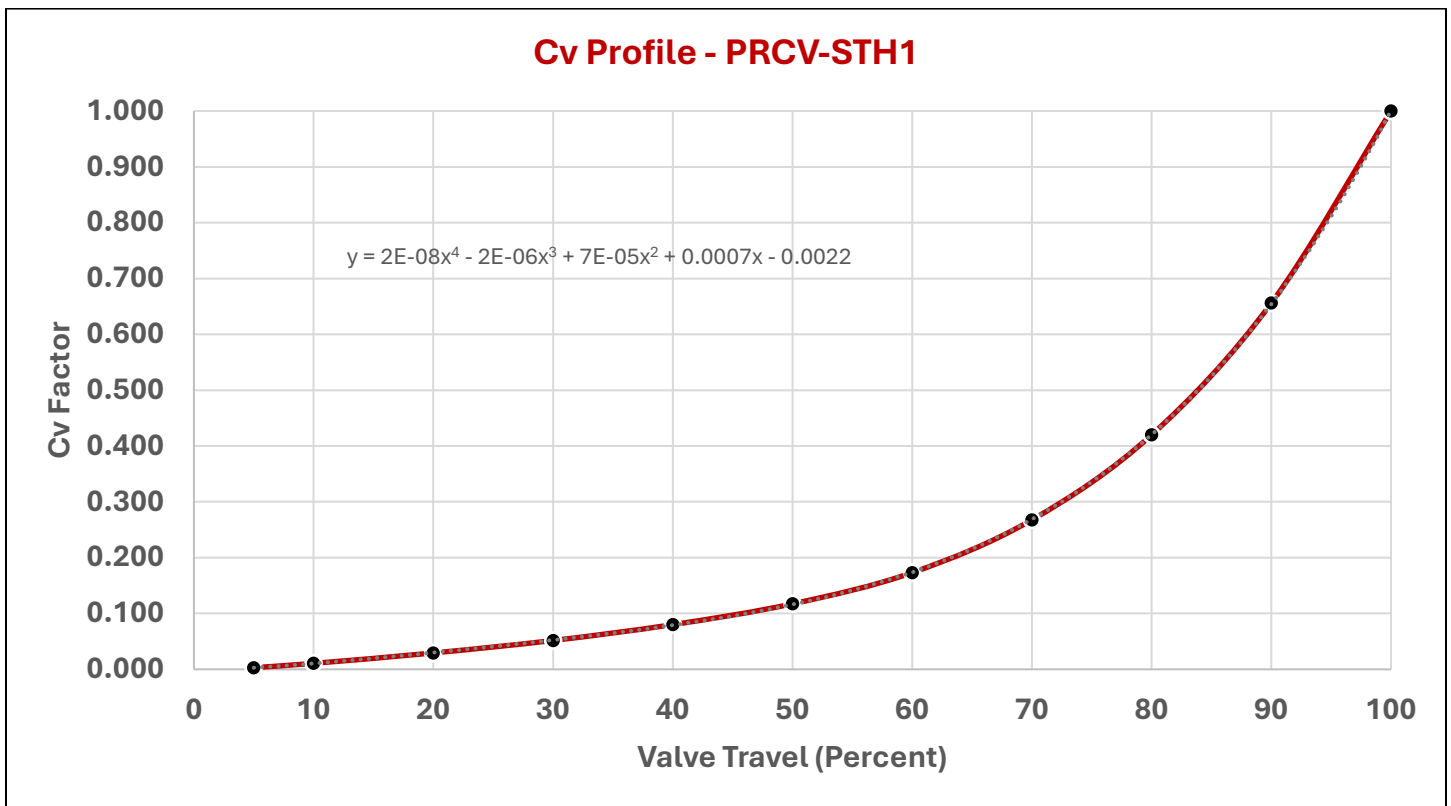
PIPELINE ROTARY CONTROL VALVES



CV PROFILE

PRCV-STH1	MIN	5	10	20	30	40	50	60	70	80	90	100
Cv Factor	0.003	0.003	0.011	0.029	0.052	0.080	0.117	0.173	0.268	0.420	0.656	1.000
4	2	2	7	18	32	50	73	108	166	261	408	621
6	4	4	15	41	72	112	164	242	374	587	917	1398
8	7	6	23	63	111	172	252	372	575	902	1409	2148
10	10	10	37	102	179	278	407	601	928	1456	2275	3468
12	14	14	51	139	245	380	557	822	1271	1994	3115	4749
16	25	25	88	241	425	658	965	1424	2201	3453	5393	8222
18	31	31	111	305	538	833	1221	1802	2786	4370	6826	10406
20	38	38	135	369	651	1009	1478	2181	3372	5289	8262	12595
24	54	54	194	532	937	1452	2128	3141	4855	7616	11897	18137
30	85	85	303	831	1464	2269	3325	4908	7586	11900	18589	28339
36	122	122	437	1197	2109	3268	4788	7067	10924	17136	26769	40808

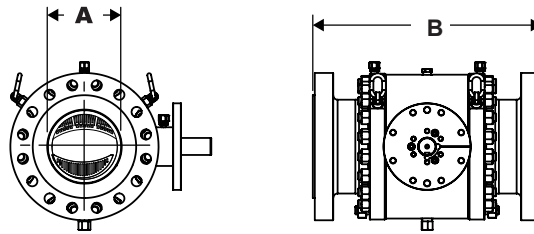
CV PROFILE – PRCV-STH1





PRCV-STH1

PIPELINE ROTARY CONTROL VALVES



PRCV-STH1 Series Face to Face Dimensions (RFFE)

A.Size (Bore)		B.150 ANSI		B.300 ANSI		B.600 ANSI		B.900 ANSI		B.1500 ANSI	
In.	(mm)	In.	(mm)	In.	(mm)	In.	(mm)	In.	(mm)	In.	(mm)
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	28	711
8"	200	18	457	19.75	502	26	660	29	737	32.75	832
10"	250	21	533	20.375	518	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	80.5	2045
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-STH1 Series Standard Weights (RFFE) - QTR 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
4"	100	143	65	171	77	171	77	368	167	376	171
6"	150	397	180	442	200	556	252	737	334	1057	479
8"	200	703	319	760	344	1032	468	1083	491	1523	691
10"	250	895	406	1122	509	1294	587	2022	917	2475	1122
12"	300	1440	653	1465	664	1965	891	2589	1175	3479	1578
16"	400	2144	972	2657	1206	3287	1491	4211	1910	10195	4624
20"	500	4152	1884	5004	2270	6001	2723	7162	3249	19264	8738
24"	600	8155	3699	7951	3607	9065	4112	11536	5233	0	0
30"	750	12189	5529	13712	6219	15841	7185	0	0	0	0
36"	900	19037	8635	18153	8234	24770	11236	0	0	0	0

PRCV-STH1 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
4"	100	154	70	200	91	329	149	380	173	410	186
6"	150	406	184	449	204	630	286	816	370	1099	498
8"	200	664	301	771	349	1070	485	1450	658	1858	843
10"	250	1065	483	1170	530	1646	746	2248	1020	3670	1665
12"	300	1575	714	1768	802	2685	1218	3288	1491	5343	2424
16"	400	2731	1238	3354	1521	4398	1995	5178	2349	10219	4635
20"	500	4770	2164	5189	2354	7206	3268	9879	4481	15363	6968
24"	600	7251	3289	8753	3970	12802	5807	15929	7225	26171	11871
30"	750	12168	5519	16156	7328	19397	8798	28187	12786	0	0
36"	900	20121	9127	23157	10504	30658	13906	45658	20710	0	0