



PRCV-STH1L

PIPELINE ROTARY CONTROL VALVES



Size Range	4 in to 36 in
Max Noise Attenuation	6 dBA
Relative Capacity	Very High Capacity
Max Range-Ability	200:1
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 1L
Performance Trim Technology	Upstream Variable Diffuser
Max Control ΔP	1000 psid
Max Shutoff ΔP	FULL ANSI ΔP
Compatible Buried Applications	YES
Flow Profile Curve	Exponential
Min Control Cv	0.5% 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



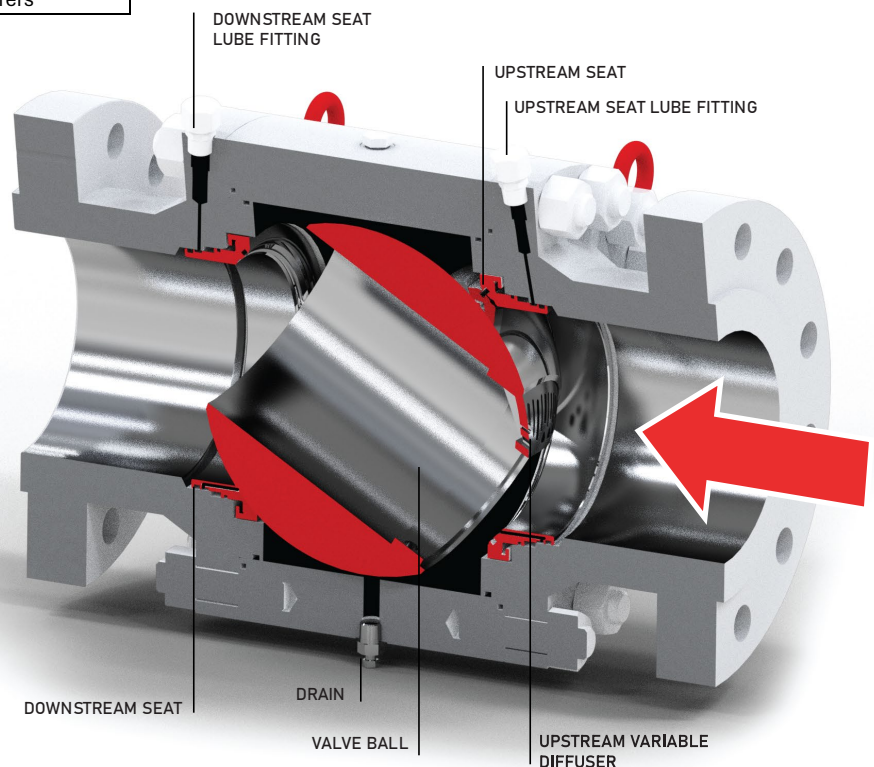
SIZE RANGE
4 in to 36 in



MAX NOISE
ATTENUATION
6 dBA



MAX RANGE-ABILITY
200:1





PRCV-STH1L

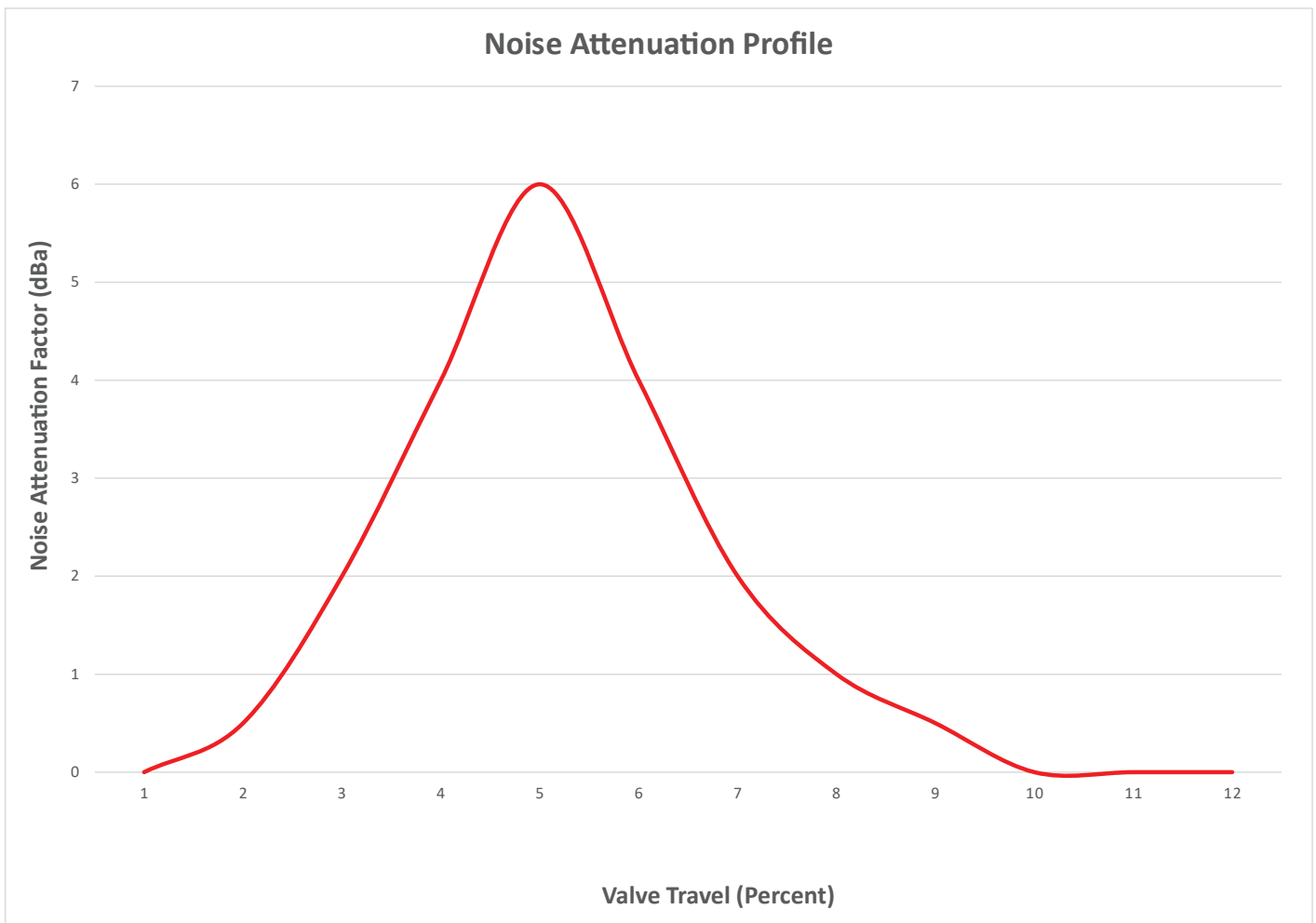
PIPELINE ROTARY CONTROL VALVES



NOISE ATTENUATION (DBA)

Percent Rotation	0	5	10	20	30	40	50	60	70	80	90	100
PRCV-STH1L	0	0.5	2	4	6	4	2	1	0.5	0	0	0

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





PRCV-STH1L

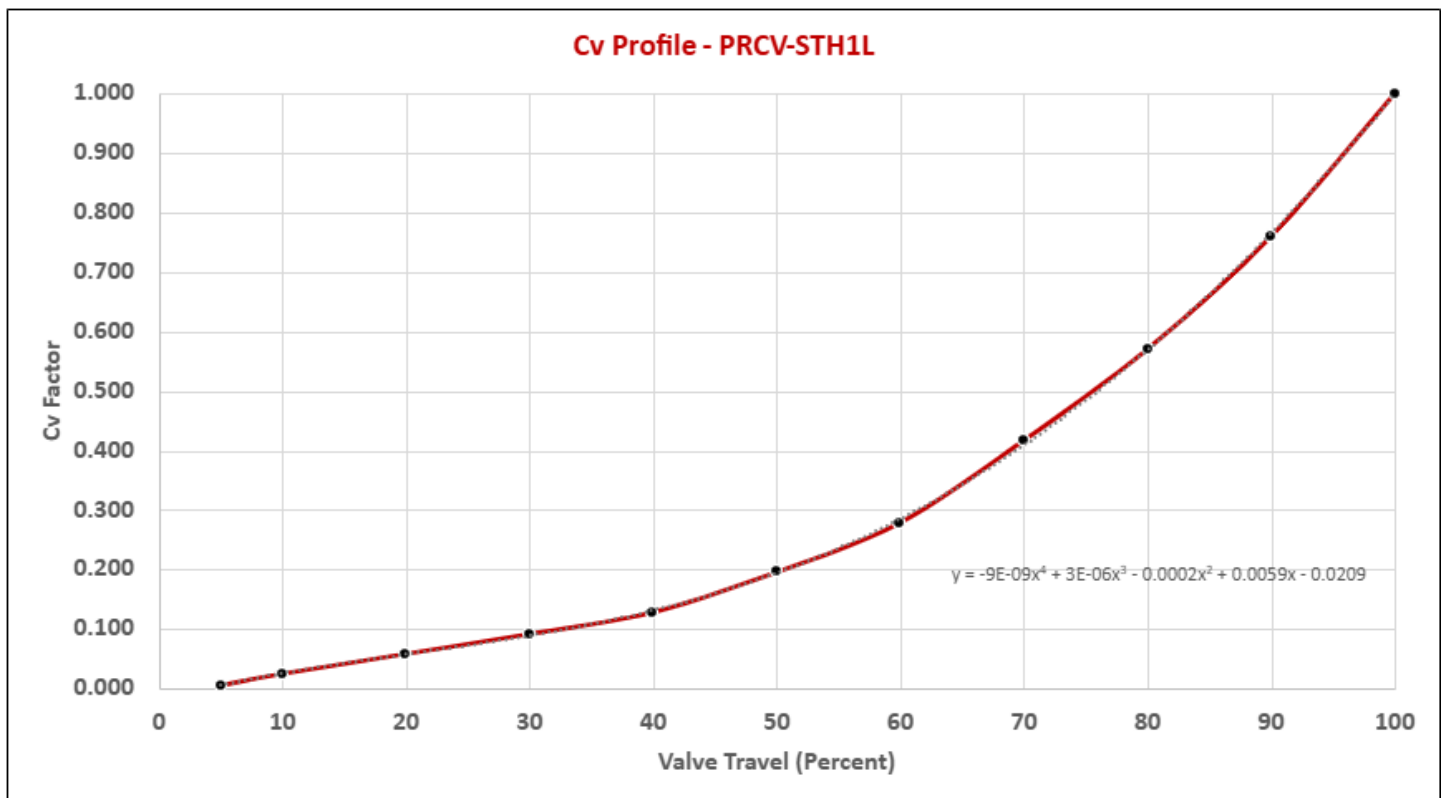
PIPELINE ROTARY CONTROL VALVES



CV PROFILE

PRCV-STH1L	MIN	5	10	20	30	40	50	60	70	80	90	100
Cv Factor	0.005	0.005	0.025	0.058	0.092	0.128	0.196	0.279	0.417	0.57	0.76	1
4	4	4	18	43	68	96	146	208	311	425	567	746
6	9	9	41	98	154	215	328	467	700	957	1275	1678
8	14	14	63	150	236	330	504	718	1075	1470	1959	2578
10	22	22	102	242	381	533	814	1159	1736	2374	3162	4162
12	30	30	140	332	521	730	1114	1587	2377	3251	4330	5699
16	52	52	242	574	903	1264	1929	2748	4116	5628	7497	9866
20	80	80	371	879	1383	1936	2955	4210	6305	8621	11484	15114
24	115	115	534	1266	1992	2788	4256	6062	9079	12414	16537	21764
30	180	180	834	1978	3112	4357	6649	9472	14186	19397	25839	34007
36	260	260	1202	2849	4481	6274	9575	13640	20428	27932	37208	48970

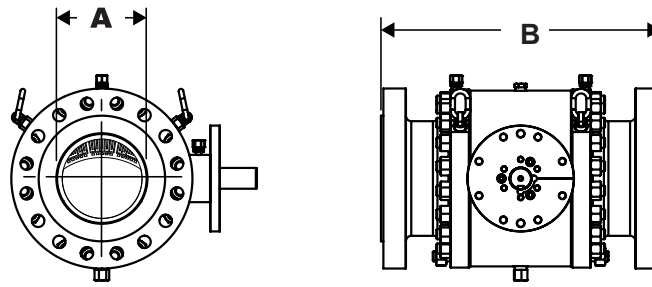
CV PROFILE – PRCV-STH1L





PRCV-STH1L

PIPELINE ROTARY CONTROL VALVES



PRCV-STH1L 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-STH1L Series Standard Weights 54 / 55 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	142	64	169	77	169	77	361	164	369	167
6"	150	389	176	433	196	544	247	720	327	1031	468
8"	200	689	313	744	337	1009	458	1059	480	1487	674
10"	250	879	399	1100	499	1267	575	1975	896	2416	1096
12"	300	1416	642	1440	653	1927	874	2534	1149	3400	1542
16"	400	2114	959	2613	1185	3226	1463	4125	1871	9947	4512
20"	500	4104	1862	4933	2238	5903	2678	7032	3190	18807	8531
24"	600	7985	3622	7787	3532	8871	4024	11275	5114	0	0
30"	750	11949	5420	13431	6092	15503	7032	0	0	0	0
36"	900	18672	8469	17812	8079	24250	11000	0	0	0	0

PRCV-STH1L 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	153	69	198	90	323	147	373	169	402	182
6"	150	398	181	440	200	616	279	797	362	1072	486
8"	200	651	295	755	342	1046	474	1416	642	1813	822
10"	250	1044	474	1146	520	1609	730	2195	996	3579	1623
12"	300	1547	702	1735	787	2627	1192	3214	1458	5213	2365
16"	400	2685	1218	3291	1493	4307	1954	5066	2298	9971	4523
20"	500	4705	2134	5113	2319	7075	3209	9676	4389	15011	6809
24"	600	7106	3223	8567	3886	12507	5673	15549	7053	25514	11573
30"	750	11929	5411	15809	7171	18962	8601	27515	12481	90	41
36"	900	19727	8948	22681	10288	29979	13598	44573	20218	150	68