Base Load Power Hub (BLPH)

SDV/BDV AND TIGHT SHUT-OFF XV VALVES

ACTUATOR SIZING CALCULATION AND PERFORMANCE DATA

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Fluitek Valves

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Actuator Performance Table

Thrust N **Torque** Nm **Pressure** Bar **Volume** L

Item	Valve Tag	Valve Break to Open	Valve Running	Valve Fully Open	Valve Break to Close	Valve Running	Valve End to Close	Valve MAST	Pressure Pmin
Displacement	Actuator Model	Actuator Break to Open	Actuator Running	Actuator Fully Open	Actuator Break to Close	Actuator Running	Actuator End to Close	Actuator MAX	
Valve/Size/Class	Open/close time / Safety factor	Real Safety Factor	Real Safety Factor	Real Safety Factor	Real Safety Factor	Real Safety Factor	Real Safety Factor	Fail Position	Pressure Pmax
1	**25-BDV-022**	28.0	14.0	11.0	21.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	46.5	22.3	30.4	68.7	35.2	51.9	86.3	
1"#300	1.0 / 3.0 / 1.5	1.66	1.59	2.76	2.75	2.52	2.59	OPEN	4.7
2	**25-BDV-005**	290.0	145.0	116.0	276.0	145.0	232.0	1818.0	4.0
4.4	CP/S-055-200A/BA	613.1	281.4	362.4	630.5	281.7	350.6	806.9	
4"#300	4.0 / 12.0 / 1.5	2.11	1.94	3.12	2.28	1.94	1.51	OPEN	4.7
3	**25-BDV-007**	290.0	145.0	116.0	276.0	145.0	232.0	1818.0	4.0
4.4	CP/S-055-200A/BA	613.1	281.4	362.4	630.5	281.7	350.6	806.9	
4"#300	4.0 / 12.0 / 1.5	2.11	1.94	3.12	2.28	1.94	1.51	OPEN	4.7
4	**25-BDV-010**	290.0	145.0	116.0	276.0	145.0	232.0	1818.0	4.0
4.4	CP/S-055-200A/BA	613.1	281.4	362.4	630.5	281.7	350.6	806.9	
4"#300	4.0 / 12.0 / 1.5	2.11	1.94	3.12	2.28	1.94	1.51	OPEN	4.7
5	**25-BDV-013**	290.0	145.0	116.0	276.0	145.0	232.0	1818.0	4.0
4.4	CP/S-055-200A/BA	613.1	281.4	362.4	630.5	281.7	350.6	806.9	
4"#300	4.0 / 12.0 / 1.5	2.11	1.94	3.12	2.28	1.94	1.51	OPEN	4.7
6	**25-BDV-016**	290.0	145.0	116.0	276.0	145.0	232.0	1818.0	4.0
4.4	CP/S-055-200A/BA	613.1	281.4	362.4	630.5	281.7	350.6	806.9	
4"#300	4.0 / 12.0 / 1.5	2.11	1.94	3.12	2.28	1.94	1.51	OPEN	4.7
7	**25-BDV-019**	290.0	145.0	116.0	276.0	145.0	232.0	1818.0	4.0
4.4	CP/S-055-200A/BA	613.1	281.4	362.4	630.5	281.7	350.6	806.9	
4"#300	4.0 / 12.0 / 1.5	2.11	1.94	3.12	2.28	1.94	1.51	OPEN	4.7
8	**25-SDV-001**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
9	**25-SDV-023**	42.0	21.0	17.0	40.0	21.0	34.0	227.0	4.0
0.7	CP/S-035-100A/BA	96.6	45.5	60.5	90.2	42.9	57.7	124.0	
1.5"#300	4.5 / 1.5 / 1.5	2.30	2.17	3.56	2.25	2.04	1.70	CLOSE	4.7
10	**64-SDV-001**	19.0	10.0	8.0	18.0	10.0	15.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	3.62	3.52	6.49	2.58	2.23	2.02	CLOSE	4.7
11	**25-XV-004**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
12	**25-XV-006**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
13	**25-XV-008**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
14	**25-XV-009**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
15	**25-XV-011**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
16	**25-XV-012**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
17	**25-XV-014**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
18	**25-XV-015**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
19	**25-XV-017**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
20	**25-XV-018**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
21	**25-XV-020**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
22	**25-XV-021**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
23	**25-XV-024**	28.0	14.0	11.0	25.0	14.0	20.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#300	3.0 / 1.0 / 1.5	2.45	2.52	4.72	1.86	1.59	1.52	CLOSE	4.7
24	**50-XV-001**	30.0	15.0	12.0	29.0	15.0	24.0	142.0	4.0
0.7	CP/S-035-100A/BA	96.6	45.5	60.5	90.2	42.9	57.7	124.0	
1.5"#150	4.5 / 1.5 / 1.5	3.22	3.03	5.04	3.11	2.86	2.40	CLOSE	4.7
25	**50-XV-002**	19.0	10.0	8.0	18.0	10.0	15.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#150	3.0 / 1.0 / 1.5	3.62	3.52	6.49	2.58	2.23	2.02	CLOSE	4.7
26	**50-XV-003**	30.0	15.0	12.0	29.0	15.0	24.0	142.0	4.0
0.7	CP/S-035-100A/BA	96.6	45.5	60.5	90.2	42.9	57.7	124.0	
1.5"#150	4.5 / 1.5 / 1.5	3.22	3.03	5.04	3.11	2.86	2.40	CLOSE	4.7
27	**50-XV-004**	19.0	10.0	8.0	18.0	10.0	15.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1.0"#150	3.0 / 1.0 / 1.5	3.62	3.52	6.49	2.58	2.23	2.02	CLOSE	4.7
28	**80-XV-001**	19.0	10.0	8.0	18.0	10.0	15.0	108.0	4.0
0.5	CP/S-035-080A/AA	68.7	35.2	51.9	46.5	22.3	30.3	86.3	
1"#150	3.0 / 1.0 / 1.5	3.62	3.52	6.49	2.58	2.23	2.02	CLOSE	4.7

NOTE : Actuators have been sized considering a minimum supply pressure of 4,0 barg; the actuators are fitted with a safety relief valve which limits the pressure at 4,7 bar g in case of pressure regulator failure.

If Actuator MAX cell is coloured orange (or dark coloured) it means the actuator max torque/thrust exceeds 90% the Valve MAST. Please check data in this table carefully