CROSSWIND	HOLLANDSE KUST NOORD WIND PARK Project Contract No. CW-I-WP4-2023-05	ROSETTI MARINO
Document Title:	ACTUATOR SIZING CALCULATION AND TORQUE TABLE	Sh. 1 of 3 Date: 15/07/2025 Rev. 03

Base Load Power Hub (BLPH)

SDV/BDV AND TIGHT SHUT-OFF XV VALVES

ACTUATOR SIZING CALCULATION AND TORQUE TABLE

Document Number: 1724000204-IN-CA-00017

Document Class: 2

Rev.	Date	Description	Prepared	Reviewed	Approved
03	15/07/2025	Accepted for Construction (AFC)	FOV/ROTORK	FOV/ROTORK	FOV/ROTORK
02	12/02/2025	Accepted for Construction (AFC)	FOV/ROTORK	FOV/ROTORK	FOV/ROTORK
01	22/11/2024	Accepted for Construction (AFC)	FOV/ROTORK	FOV/ROTORK	FOV/ROTORK
00	28/10/2024	Issue for Review (IFR)	FOV/ROTORK	FOV/ROTORK	FOV/ROTORK

Fluitek Valves

This document undergoes an issuance cycle within EDMS "Fusionlive".
Its distribution is electronically controlled. Once printed shall be considered as “NOT CONTROLLED” copy

Fluitek Valves

Valve NET Torques (No Safety factor is included)

ITEM No.	VALVE TAG / Data Sheet	Valve Type	QTY	SIZE [INCH]	CLASS	Actuator Sizing Dp [Mpa]	STEM MATERIAL	Design temp. [°C]	seat insert	Break To Open (Nm)	Run to open (Nm)	End To Open (Nm)	Break To Close (Nm)	Run to close (Nm)	End To Close (Nm)	M.A.S.T. (Nm)	Stem dia (mm)	ISO Flange	Remarks
1	50-XV-005	FLOATING	1	1-1/2"	150	2	A182 F53	-29/+200	RPTFE	30	15	12	29	15	24	164	M18	F05	

rotork®

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	Tank Volume
Displacement	Actuator Model	Actuator Break to Open	Actuator Running	Actuator Fully Open	Actuator Break to Close	Actuator Running	Actuator End to Close	Actuator MAX		Tank Sizing Pressure Pmin
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	Tank Sizing Charging Pressure
1	50-XV-005	30.0	15.0	12.0	29.0	15.0	24.0	164.0	4.0	
0.7	CP/S-035-100A/BA	90.2	42.9	57.7	96.6	45.5	60.5	96.6		
1.5"#150	1.5 / 4.5 / 1.5	3,00	2.86	4.81	3.33	3.03	2.52	OPEN	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.