

Standard conditions for determining & calculating (pneumatic) actuators for valves

Determining the correct actuator size for a certain valve is essential for the correct operation of an assembly, and SODECO takes great care in sizing actuators correctly.

in.					Dow	105	0	01	62	02	
lyacul salvo	Balvario		•	P		Wite	117	70,2	87,75	33,5	-
1774		10	Ne		10	A5-0300 H	190	126	193	119	
					1	/5/2300 14	263	205	268	177	
Notan .		128	N 0		11	45/380014	400	367	482	271	
idety .		138	3		12	PL-EASE	10	4	764	162	
MALT		124			10	12-2208	261	138	25.0	100	
1001		101	~			PF-9926-5	434	396	487	316	
NAME:											
COMPC	6	٠	24	D	-						
				10 1010					Spring strates		
ALLOY .					o						
source it end	Specieture		•		"h						
bend	VELNA	_	_								
											160
	E N Tope			15	0						
ine .	111 PE 12							<u> </u>			
	25 PE 20		11								120
	22.47										
	PE-100		2		ΚN						
	25.00				18.3						
	11.000		C.S.		111	X.					
	10.100					11		10	1		
	T PL650					1		121			
	T 12-44.93										
	AS-20										
langed	77 A5-20 77 A5-40 Renderi		-		0 01 02	0.3 0.4 0.5	5 0.6 0.7	08 09 1	03.05	07 05 05	04 03 02 01 0

At SODECO, the actuator sizing is done with the help of a calculation program, based on the available working conditions.

When looking at the actual working conditions, we add extra safety coefficients to compensate for circumstances which can increase or decrease the operating torque of the actuator. This allows us to make sure that the chosen actuator always delivers enough torque.

When the actual working conditions are incomplete or unknown, we assume the following standard working conditions :

Fluid :	standard (cfr. clean water)
Temperature :	standard (-25°C <t<+200°c)< th=""></t<+200°c)<>
Fluid viscosity :	standard (cfr. clean water)
Operating frequency :	standard (no long standstills/multiple operations each day)
Available air pressure :	6 bar

For sizing, we take the basic breakaway torque the manufacturer provides us for the chosen seat material, at maximum Δp of the valve and for the manufacturers' standard working conditions (usually water at 20°C), unless indicated otherwise.

SODECO applies a 30% safety margin as standard, for both single acting and double acting actuators.

For single acting actuators, we always assume the normally closed version (NC), unless the normally open version (NO) is specifically requested. As standard, the single acting actuators are calculated and delivered with the standard spring sets.

The standard sizing does not account for cavity fillers or other options which increase the operating torque.

Disclaimer :

SODECO takes great care in calculating the correct actuator and cannot be held responsible for oversized or undersized actuators caused by working conditions which are unknown to us.