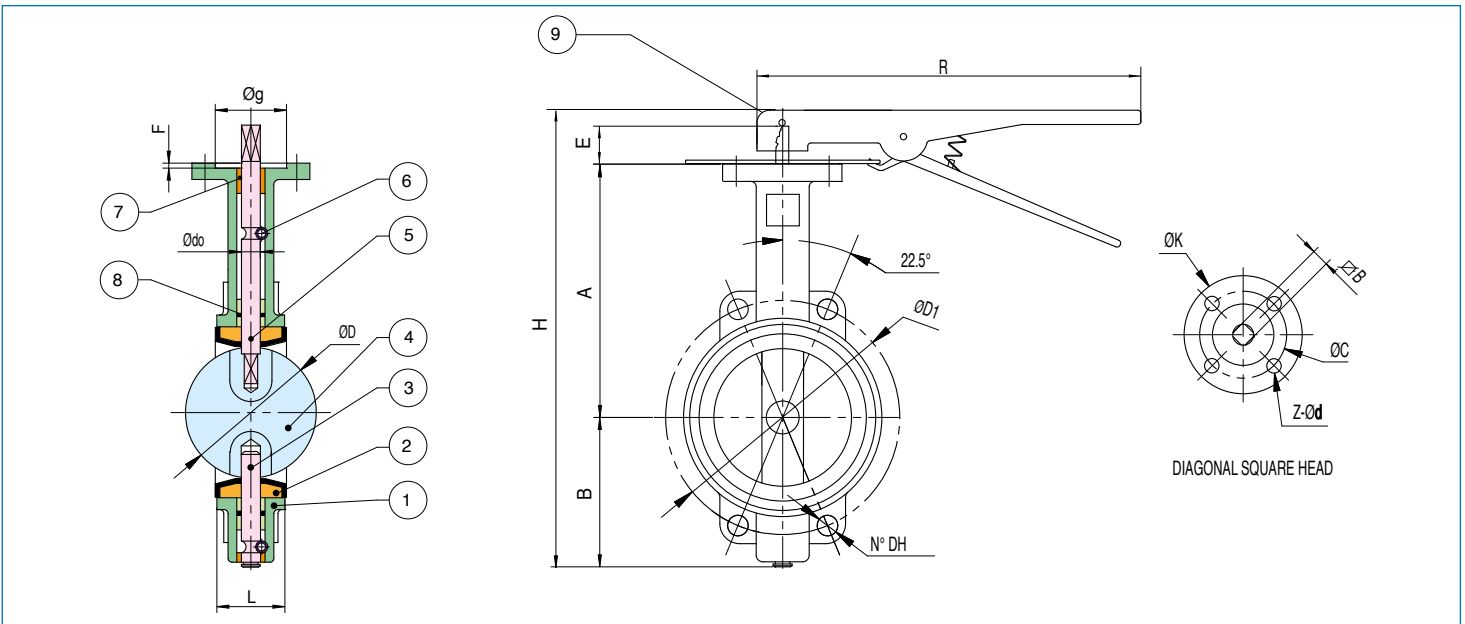


## SERIES 500N - 500S

NYLON 11 COATED DISC    CF8M SS DISC

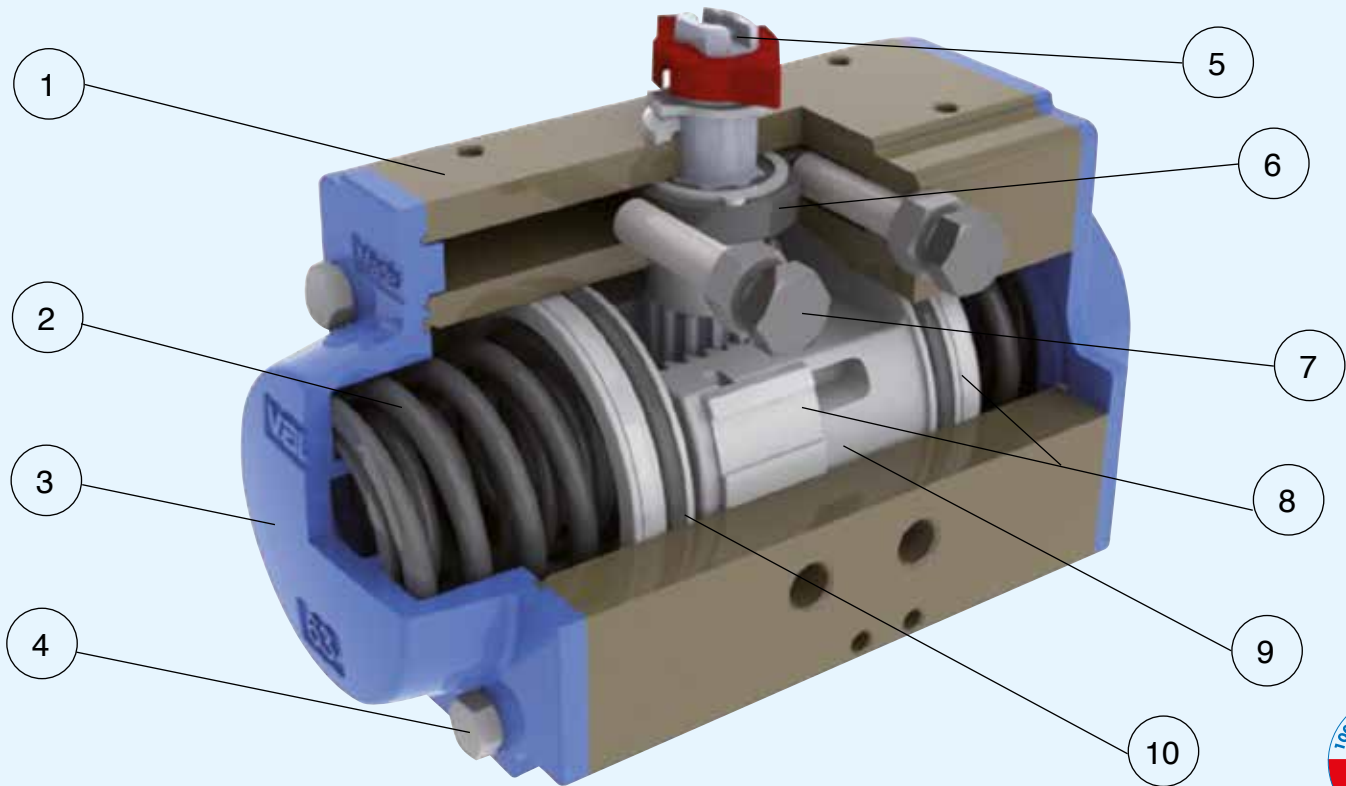
- Manually operated butterfly valves.
- Epoxy coated cast iron wafer body.
  - Full port sizes 1"1/2 to 12".
  - EPDM resilient seat -30°F to 250°F.
  - API609 face to face flange.
  - Floating dual shaft disc design.
  - 10 position stop.
  - MSS SP 67 compliant.
  - No pins in disc prevent potential leak points.

530N-530S: VITON SEATS  
540N-540S: BUNA-N SEATS



N° Pcs	PART NAME	MATERIAL	N° Pcs	SIZE	ØC ISO	Z/B	A	B	L	ØD	E	H	R	Ødo	UPPER FLANGE				DISC	WAFER	WT.	SEAT TORQUE		CV (GPM@ 1psi)	
															ØK	Z-d	Øg	F				ØD1	N°-DH	Lbs	100 psi
1	BODY	CAST IRON	1	1"1/2	F05	9 mm	5.71	2.97	1.61	1.67	0.47	12.95	10.63	0.50	3.03	4-0.28	1.38	0.12	4.74	4-0.75	5.0	111	133	35	108
2	SEAT	EPDM (30F to 250F)	1	2"	F05	9 mm	6.34	3.15	1.65	2.07	0.47	13.94	10.63	0.50	3.03	4-0.28	1.38	0.12	4.74	4-0.75	5.5	126	146	45	135
3	LOWER SHAFT	SS 416	1	2"1/2	F05	9 mm	6.89	3.50	1.76	2.54	0.47	15.04	10.63	0.50	3.03	4-0.28	1.38	0.12	5.49	4-0.75	7.1	134	167	65	220
4	DISC 500N DISC 500S	IRON NYLON 11 STAINLESS STEEL	1	3"	F05	9 mm	7.13	3.74	1.78	3.10	0.47	15.51	10.63	0.50	3.03	4-0.28	1.38	0.12	6.00	4-0.75	8.4	205	223	70	300
5	UPPER SHAFT	SS 416	1	4"	F07	11 mm	7.87	4.49	2.05	4.09	0.63	17	10.63	0.62	3.54	4-0.35	2.17	0.12	7.50	4-0.75	10.8	339	386	140	605
6	LOCATING PIN	CARBON STEEL	1	5"	F07	14 mm	8.34	5.00	2.14	4.85	0.75	17.94	10.63	0.75	3.54	4-0.35	2.17	0.12	8.50	4-0.87	15.4	523	602	235	1010
7	BUSHING	P.T.F.E.	1	6"	F07	14 mm	8.90	5.47	2.20	6.13	0.75	19.06	10.63	0.75	3.54	4-0.35	2.17	0.12	9.50	4-0.87	17.2	677	996	360	1620
8	O-RING	EPDM	1	8"	F10	17 mm	10.24	6.89	2.34	7.97	0.75	22.25	14.17	0.87	4.92	4-0.47	2.76	0.14	11.75	4-0.87	29.1	1205	1864	715	3205
9	LEVER	EPOXY-COATED CARBON STEEL	1	10"*	F10	22 mm	11.50	7.99	2.58	9.86	0.94	24.77	19.68	1.12	4.92	4-0.47	2.76	1.40	14.25	4-1.00	42.2	1890	3140	1225	5305
				12"*	F10	22 mm	13.27	9.53	3.03	11.87	0.94	28.31	19.68	1.24	5.51	4-0.47	2.76	1.40	17.00	4-1.00	71.5	2808	4767	1900	8250

\* 10" and 12" available in bare stem version only.



**1 BODY MANUFACTURED FROM EXTRUDED ALUMINUM UNI 6060:**

- Hard-coat anodized as standard finish 45-50 (micron).
- Good wear resistance.
- High corrosion resistance.
- Special finishes nichel-plating or P.T.F.E coated upon request.
- Bore finished to high standard to ensure low friction and long life.

**2 CONCENTRING SPRING SETS**

- Standard coating painted.
- High resistance and reliability.
- Spring sets to suit different air pressure/torque requirements.
- Long securing screws to allow safe dismantling for maintenance.
- Same body dimensions for DA/SR versions.

**3 DIE CAST ALUMINIUM END CAPS:**

- Standard polyester powder coated
- Upon request nickel - plated and or P.T.F.E coated for corrosive environments.

**4 ASSEMBLING SCREW:**

- Stainless steel as standard.

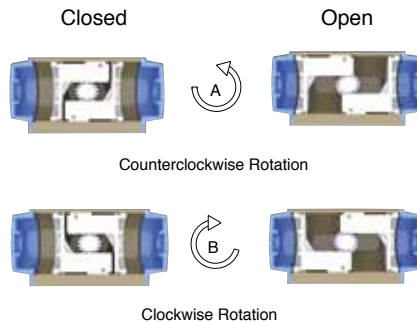
**EXTERNAL CONNECTION:**

- Top of pinion according to Namur norm.
- Solenoid valve connection according to Namur norm.
- Bottom of pinion according to ISO 5211-DIN 3337.

**NOMINAL VALUES:**

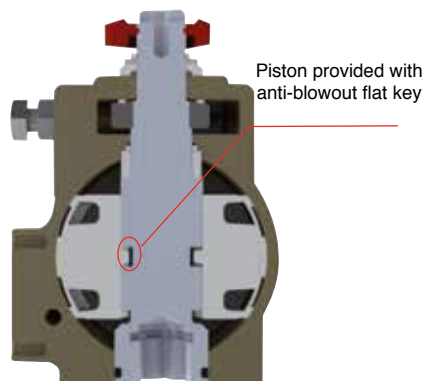
- Pressure rating max 8 bar.
- Temperature range: standard (-4°F;+185°F), high (-4°F;+302°F), low (-40°F;+185°F).
- Pre lubricated for life of actuator on assembly.
- Fully tested on manufacture 100%.

**MOUNTING VARIATIONS**



View from the top of the pinion

**ANTI-BLOWOUT SYSTEM**



Piston provided with anti-blowout flat key

**5 PINION MADE IN STEEL:**

- Nichel-plated for standard version against internal and external corrosion.
- Stainless steel for corrosive environments upon request.
- Anti-blowout design.

**6 CAM FOR LIMIT POSITION ADJUSTMENT 0°-90°:**

- Stainless steel.
- Adjustment for open and close position  $\pm 5^\circ$ .

**7 0-90° ADJUSTMENT SCREWS:**

- Stainless steel.

**8 PISTON GUIDES IN POM:**

- Large contact area.
- Low friction for self lubricating material.
- Long life.

**9 PISTONS MADE FROM DIE CAST ALUMINIUM:**

- Chemical nickel plating upon request.

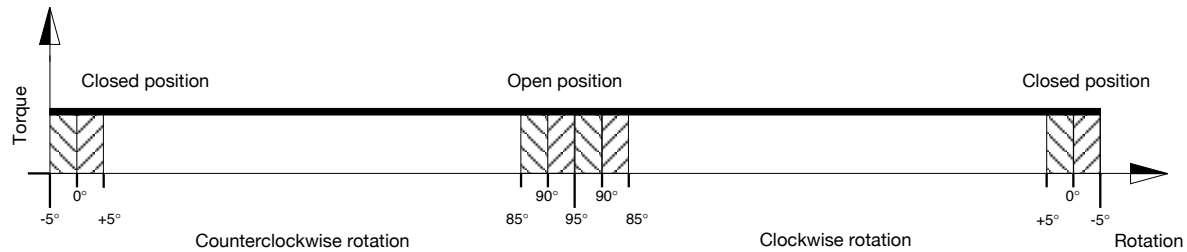
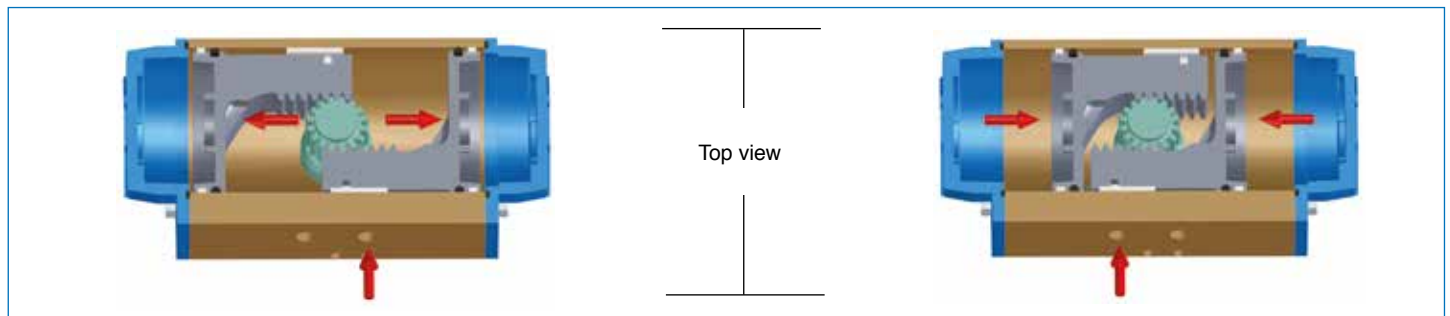
**10 SEALS:**

- NBR standard version.
- Viton high temperature version.
- Silicon low temperature version.

**TWIN RACK AND PINION DESIGN:**

- Constant torque output.
- Compact design.
- Balanced internal forces.
- Robust design to ensure long life.

## DOUBLE ACTING ACTUATOR



With reference to the above diagram it can be noted that the torque of a double acting actuator remains constant through-out the complete action.

The user can decide on which model to choose according to the own specific requirements, using the following guidelines:

1. Define the maximum torque of the valve to automate.
2. To obtain a safety factor increase the torque value chosen by 25% - 50% (subject to the type of valve and working conditions).
3. Once the torque value suggested is obtained consult the torque chart and in relation to the corresponding air pressure find a torque value exact to or exceeding the one obtained.
4. Once the torque value is determined move horizontally to the column "model" to find the actuator model required.

TYPE	AIR SUPPLY PRESSURE (psi)							
	40	50	60	70	80	90	100	115
	TORQUE OUTPUT DOUBLE ACTING ACTUATORS (in-Lbs)							
DA 32	34	43	55	64	71	82	87	101
DA 52 *	88	112	133	158	178	201	227	263
DA 63 *	152	193	238	282	320	361	405	469
DA 75 *	283	356	435	513	586	659	736	851
DA 85 *	406	514	628	744	853	960	1072	1237
DA 100 *	645	814	989	1163	1333	1505	1681	1939
DA 115	1065	1344	1640	1932	2212	2488	2779	3211
DA 125	1402	1771	2153	2539	2905	3274	3650	4220
DA 140	2003	2504	3005	3506	4006	4509	5009	5764
DA 160	2804	3501	4196	4899	5596	6292	6987	8045
DA 180	3860	4825	5790	6746	7711	8661	9627	11081
DA 200	5198	6494	7796	9089	10393	11670	12972	14924
DA 230	8589	10738	12880	15031	17180	19289	21440	24671
DA 270	12625	15777	18935	22093	25246	28361	31511	36269
DA 330	22464	28083	33702	39321	44939	50476	56086	64555

\* Valid also for stainless steel actuator