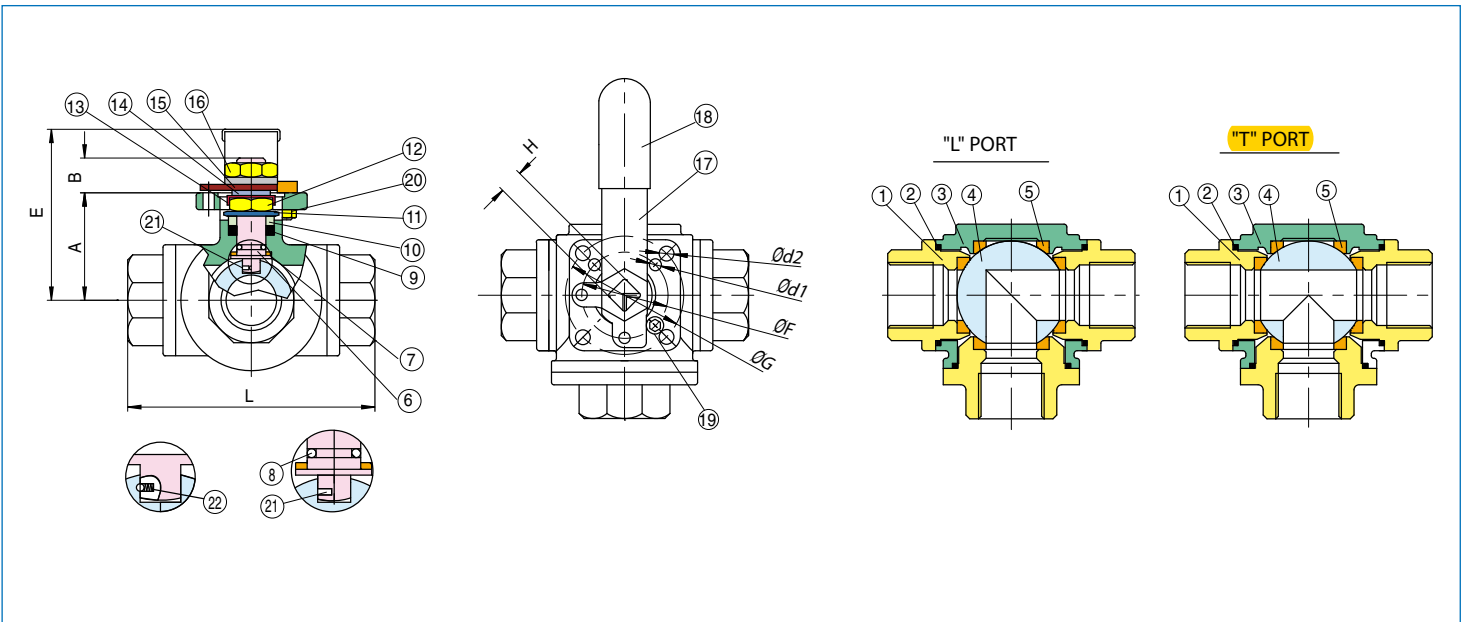




**SERIES 955N (T) - 965N (L) • STANDARD PORT**  
**SERIES 956N (T) - 966N (L) • FULL PORT**  
**DIRECT MOUNT 3 WAY BALL VALVE**

Direct mount stainless steel CF8M three way ball valve with ISO 5211 pad, full and reduced port in sizes 1/2" to 2".

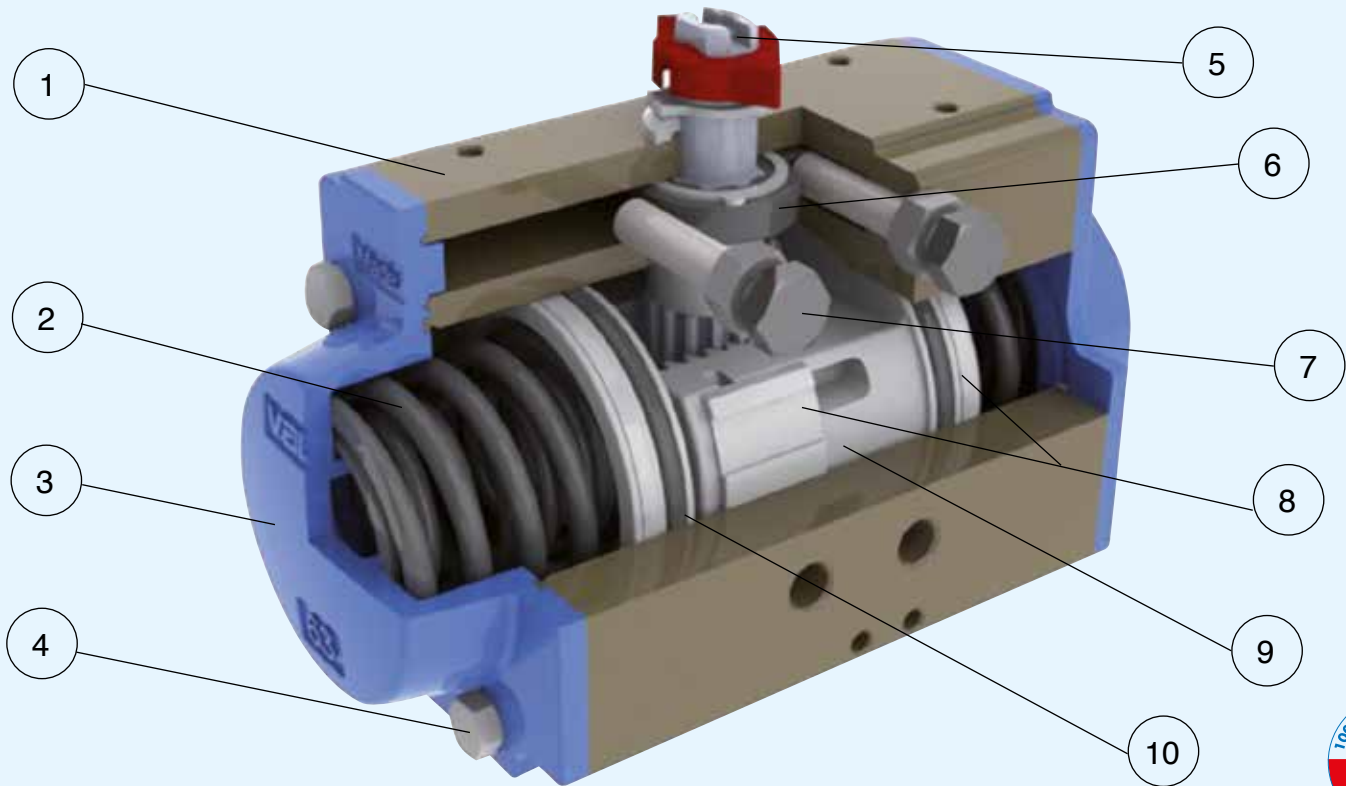
- Self adjusting stem packing.
- Blow-out proof stem design.
- 100% air tested under water at 80 psi.
- Working pressure is 1000 psi (1/4" to 1"), 800 psi (1/4" to 2").
- Temperature range -4° F to 450° F.
- ISO 5211 mounting pad.



	PART NAME	MATERIAL	N PCS
1	END CAP	A351 CF8M	3
2	GASKET	P.T.F.E.	3
3	BODY	A351 CF8M	1
4	BALL	SS316	1
5	SEATS	R.T.F.E.	4
6	STEM	SS316	1
7	STEM SEAL	R.P.T.F.E.	1
8	O-RING	FKM (Viton®)	1
9	STEM PACKING	P.T.F.E.	1
10	GLAND	SS304	1
11	DISK WASHER	SS301	2
12	STEM NUT	SS304	1
13	NUT STOP	SS304	1
14	SPACE WASHER	SS304	1
15	PLATE STOP	SS304	1
16	HANDLE NUT	SS304	1
17	HANDLE	SS304	1
18	HANDLE SLEEVE	VINYL	1
19	STOPPER	SS304	1
20	PIN NUT	SS304	1
21	INSERT PIN	SS316	1
22	ANTISTATIC DEVICE	SS316	1

FULL PORT	STANDARD PORT	A	B	C	Ød1	Ød2	E	ØF	ØG	H	K	L	Port	psi	ISO5211	Lbs 955-965	Lbs 956-966
1/4"	-	1.45	0.40	5.11	0.23	0.23	2.44	1.41	1.65	0.35	1.41	2.83	0.43	1000	F03/F04	-	1.41
3/8"	1/2"	1.45	0.40	5.11	0.23	0.23	2.44	1.41	1.65	0.35	1.41	2.83	0.47	1000	F03/F04	-	1.41
1/2"	3/4"	1.65	0.45	5.11	0.23	0.23	2.51	1.41	1.65	0.35	1.63	3.26	0.59	1000	F03/F04	1.41	1.87
3/4"	1"	1.90	0.59	6.49	0.23	0.27	3.22	1.65	1.96	0.43	1.94	3.89	0.78	1000	F04/F05	1.87	3.21
1"	1"1/4"	2.18	0.55	6.49	0.23	0.27	3.50	1.65	1.96	0.43	2.20	4.40	0.98	1000	F04/F05	3.21	4.80
1"1/4"	1"1/2"	2.48	0.64	8.07	0.27	0.36	3.85	1.96	2.75	0.55	2.46	4.92	1.25	800	F05/F07	4.80	7.23
1"1/2"	2"	2.88	0.62	8.07	0.27	0.36	4.25	1.96	2.75	0.55	2.93	5.86	1.49	800	F05/F07	7.23	11.55
2"	-	3.63	0.88	12.79	0.36	0.44	5.51	2.75	4.01	0.66	3.42	6.85	1.96	800	F07/F10	11.55	20.89





**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.

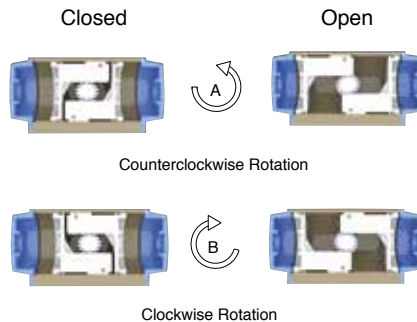
**EXTERNAL CONNECTION:**

- 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:**

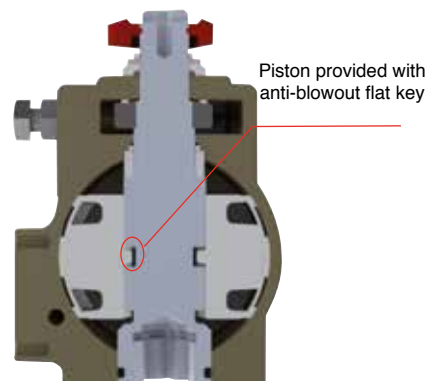
- Pressure rating max 8 bar.
- Temperature range: standard (-4°F;+185°F), high (-4°F;+302°F), low (-40°F;+185°F).
- Pre lubricated for life of actuator on assembly.
- Fully tested on manufacture 100%.

**MOUNTING VARIATIONS**



View from the top of the pinion

**ANTI-BLOWOUT SYSTEM**



**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:**

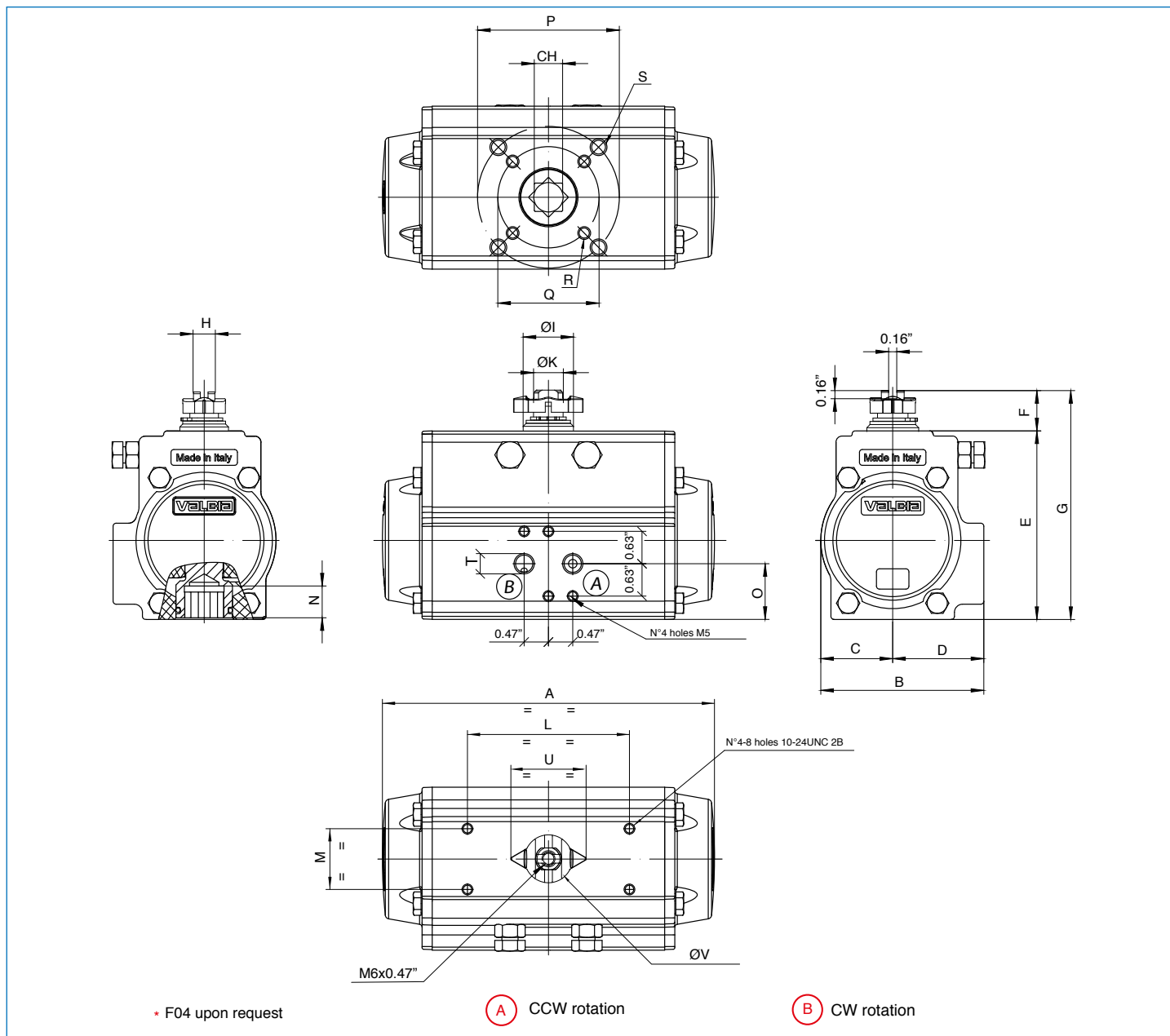
- Chemical nickel plating upon request.

**10 SEALS:**

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

**TWIN RACK AND PINION DESIGN:**

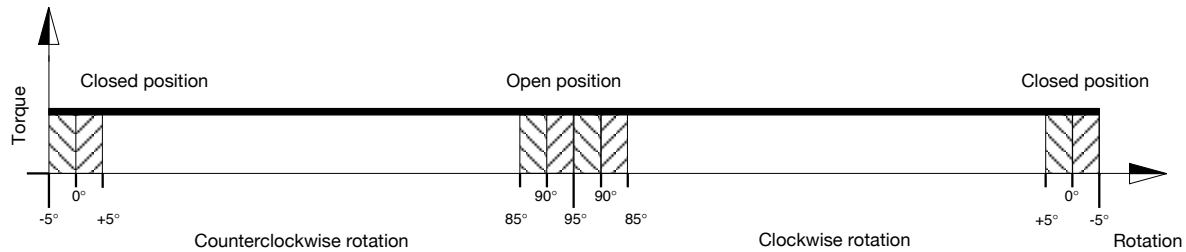
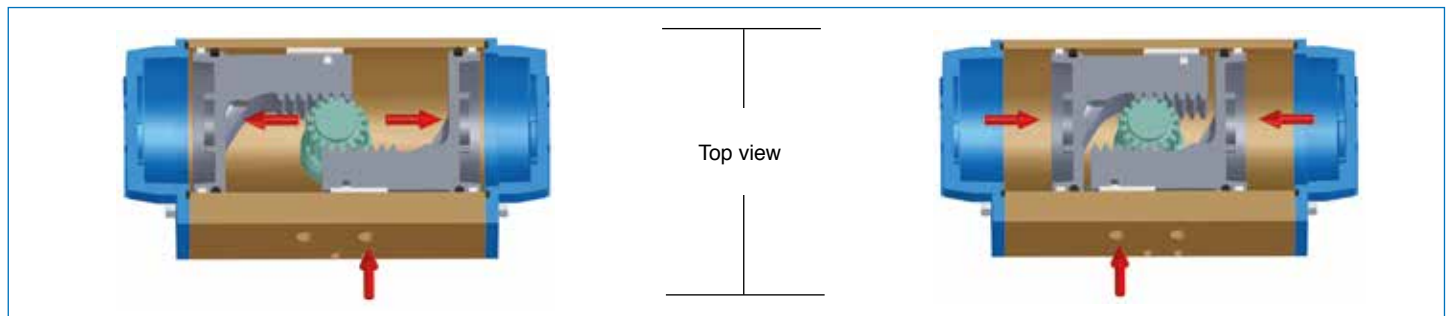
- Constant torque output.
- Compact design.
- Balanced internal forces.
- Robust design to ensure long life.



MOD.	DRILLING ISO 5211	CH	A	B	C	D	E	F	G	H	ØI	ØK	L	M	N	O	P	Q	R	S	T NPT	U	øV
52	F03-F05 *	0.43	5.55	2.80	1.18	1.61	3.21	0.79	4.00	0.39	0.83	0.47	3.15	1.18	0.47	1.04	1.97	1.42	10-24 UNC 2Bx0.29"	1/4-20 UNC 2Bx0.35"	1/8"	1.36	0.87
63	F05 - F07	0.55	6.46	3.17	1.40	1.77	3.66	0.79	4.45	0.43	0.98	0.59	3.15	1.18	0.63	1.08	2.76	1.97	1/4-20 UNC 2Bx0.31"	5/16-18 UNC 2Bx0.47"	1/8"	1.36	0.87
75	F05 - F07	0.67	8.27	3.72	1.65	2.07	4.37	0.79	5.16	0.51	1.14	0.75	3.15	1.18	0.75	1.38	2.76	1.97	1/4-20 UNC 2Bx0.31"	5/16-18 UNC 2Bx0.47"	1/8"	1.65	1.14
85	F05 - F07	0.67	9.47	4.17	1.87	2.30	4.92	0.79	5.71	0.59	1.38	0.86	3.15	1.18	0.75	1.65	2.76	1.97	1/4-20 UNC 2Bx0.31"	5/16-18 UNC 2Bx0.47"	1/8"	1.65	1.14
100	F07 - F10	0.67	10.83	4.84	2.17	2.68	5.43	0.79	6.21	0.59	1.38	0.86	3.15	1.18	0.81	1.97	4.02	2.76	5/16-18 UNC 2Bx0.31"	3/8-16 UNC 2Bx0.55"	1/4"	1.65	1.14
115	F07 - F10	0.87	13.11	5.39	2.52	2.87	6.39	1.18	7.57	0.87	1.93	1.26	3.15/5.12	1.18	0.94	1.97	4.02	2.76	5/16-18 UNC 2Bx0.47"	3/8-16 UNC 2Bx0.59"	1/4"	2.52	1.73
125	F07 - F10	0.87	14.65	5.83	2.68	3.15	6.87	1.18	8.05	0.87	1.93	1.26	3.15/5.12	1.18	0.94	2.40	4.02	2.76	5/16-18 UNC 2Bx0.47"	3/8-16 UNC 2Bx0.59"	1/4"	2.52	1.73
140	F10 - F12	1.06	17.13	6.46	3.01	3.44	7.76	1.18	8.94	0.94	1.93	1.38	3.15/5.12	1.18	1.14	2.80	4.92	4.02	3/8-16 UNC 2Bx0.59"	1/2-13 UNC 2Bx0.71"	1/4"	2.52	1.73
160	F10 - F12	1.06	19.69	7.32	3.43	3.90	8.70	1.18	9.88	1.18	2.24	1.57	3.15/5.12	1.18	1.26	3.15	4.92	4.02	3/8-16 UNC 2Bx0.55"	1/2-13 UNC 2Bx0.67"	1/4"	3.17	2.36
180	F10 - F14	1.42	19.41	8.38	3.86	4.53	9.96	1.18	11.14	1.42	2.44	1.77	3.15/5.12	1.18	1.69	3.90	5.51	4.02	3/8-16 UNC 2Bx0.59"	5/8-11 UNC 2Bx0.98"	1/4"	3.17	2.36
200	F14	1.42	22.76	8.54	4.25	4.29	10.94	1.18	12.13	1.42	2.64	1.97	3.15/5.12	1.18	1.46	3.07	5.51	/	/	5/8-11 UNC 2Bx0.94"	1/4"	3.17	2.36
230	F16	* 1.81	27.17	9.78	4.88	4.90	12.80	1.18	13.98	1.42	2.64	1.97	3.15/5.12	1.18	1.97	3.62	6.50	/	/	3/4-10 UNC 2Bx1.14"	1/4"	3.17	2.36

\*\* Only square connection at 45°.

## 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