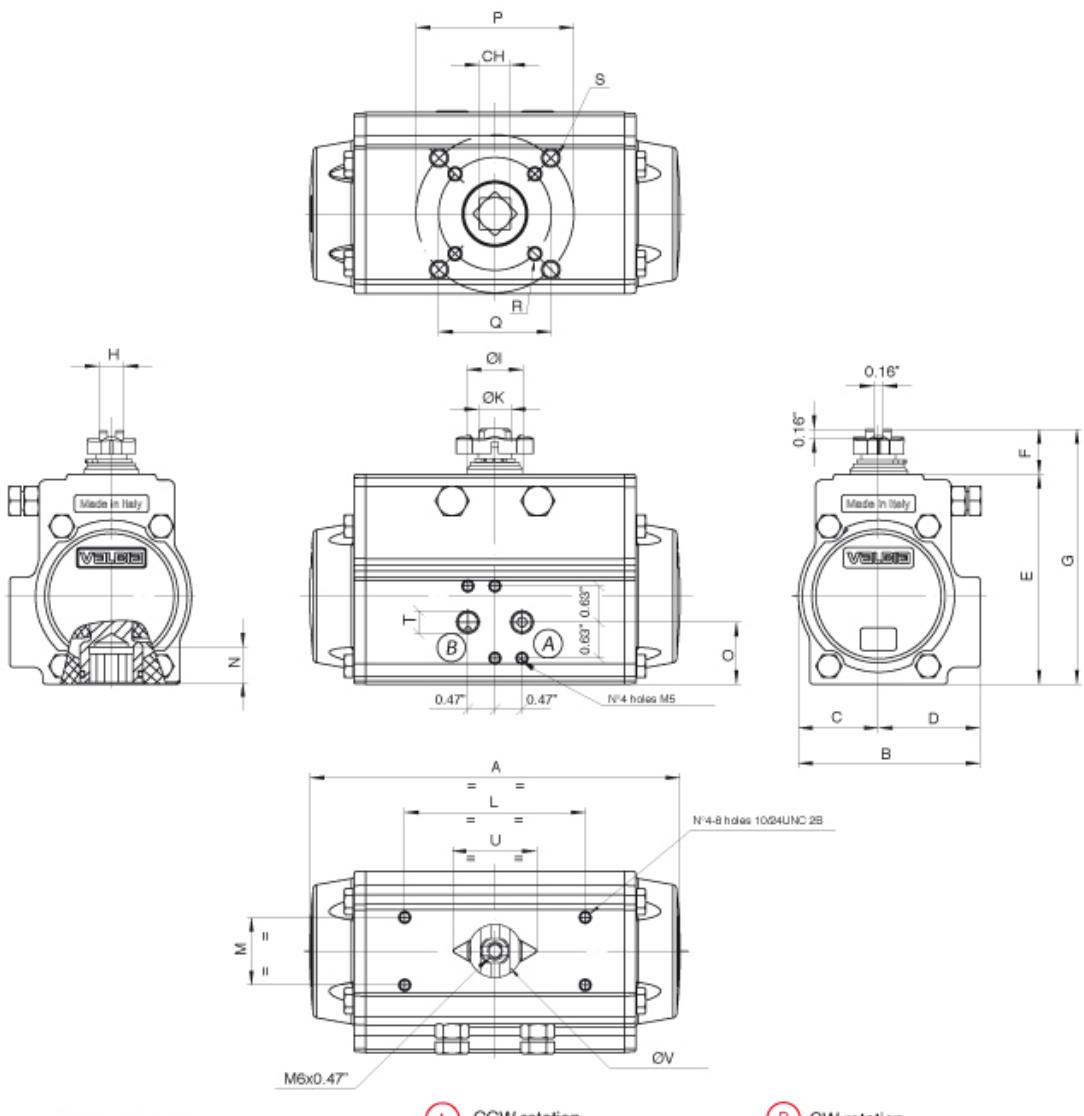


ITEM	DESCRIPTION	MATERIAL	TREATMENT	Q.TA' DA	Q.TA' SR
1	Body	Extruded aluminium	Hard anodized	1	1
2	Anti-blowout pinion	Steel	Nickel plated	1	1
• 3	O-ring	NBR		1	1
• 4	spacer ring	POM		1	1
• 5	O-ring	NBR		1	1
• 6	O-ring	NBR		1	1
7	Cam	Stainless steel		1	1
8	Spacer	POM		1	1
• 9	Spacer	POM		1	1
10	Washer	Stainless steel		1	1
**11	Snap ring	Steel	Nickel plated	1	1
12	Piston	Die cast aluminium		2	2
• 13	O-ring	NBR		2	2
• 14	Antifriction ring	POM		2	2
• 15	Thrust block	POM		2 [4]	2 [4]
16	Stop bolt retaining nut	Stainless steel		2	2
17	Stop bolt	Stainless steel		2	2
18	External spring	Steel	Painted	0	See spring
***19	central spring	Steel	Painted	0	
20	internal spring	Steel	Painted	0	
21	Left end cap	Die cast aluminium	Painted	1	1
22	Right end cap	Die cast aluminium	Painted	1	1
23	End cap seats	NBR		2	2
24	O-ring	NBR		2	2
25	End cap fixing screw	Stainless steel		8	8
26	Position indicator	Thermoplastic rubber TPE		1	1

* Parts subject to wear

** Reinforced series DIN 471 - UNI 7436

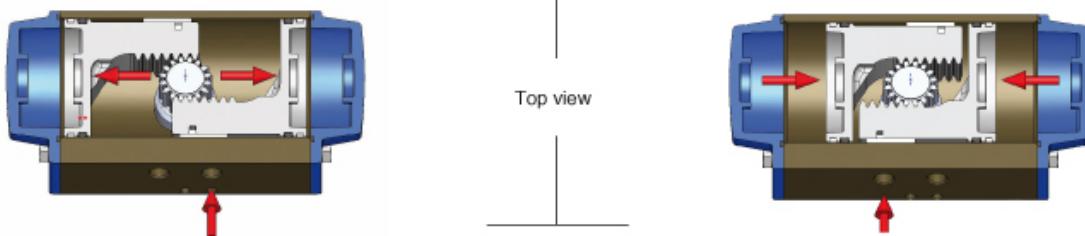


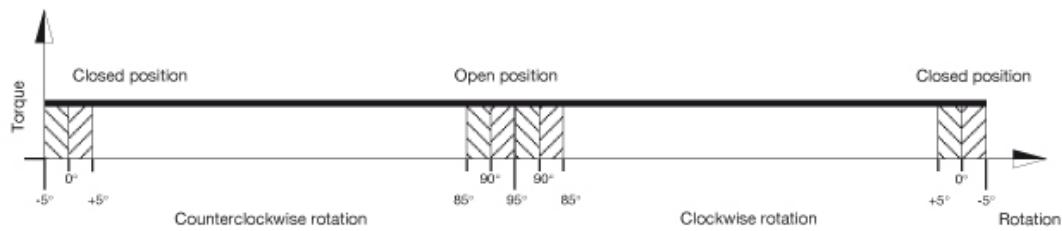
* F04 upon request

(A) CCW rotation

(B) CW rotation

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
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

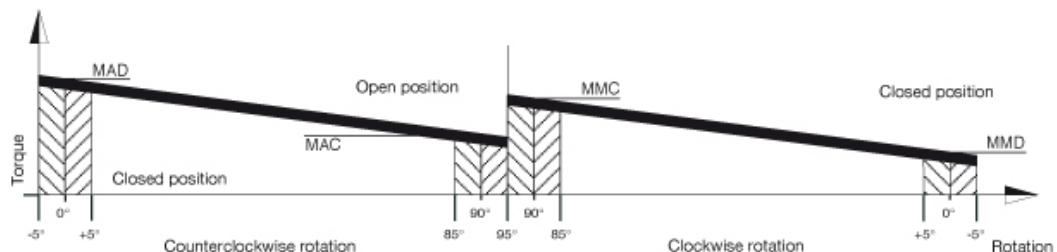
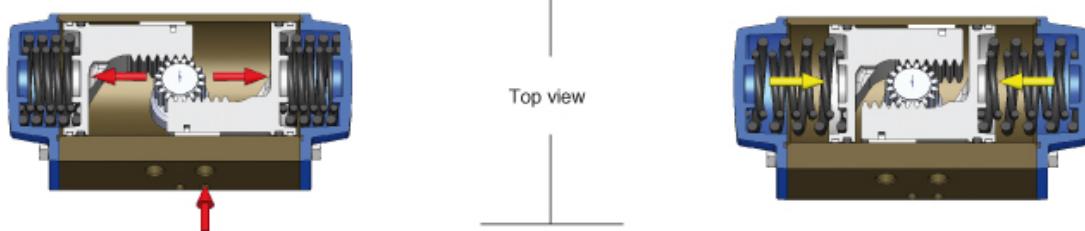




With reference to the above diagram it can be noted that the torque of a double acting actuator remains constant through-out the complete action. The user can decide on which model to choose according to his/her own specific requirements, using the following guidelines:

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 200	5198	6494	7796	9089	10393	11670	12972	14924



With reference to the above diagram the torque of a spring return actuator is not constant but decreasing. This is due to the action of the springs that when compressed during air actuation counteract the piston movement and accumulate energy which will be available in a decreasing way during the rotation inversion. The torque given by the actuator is defined by four fundamental values.

Opening rotation

MAD = Actuator torque with unfolded springs

MAC = Actuator torque with compressed springs.

Closing rotation

MMC = Torque with compressed springs.

MMD = Torque with unfolded springs

The user can decide on which model to chose according to his/her 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 the torque value exact to or exceeding the one obtained, taking account of the lower value between the MMD and MAC values.
4. Once the torque value is determined move horizontally to the column "model" to find the actuator model required.

SPRING SETTING			
SET STANDARD 06			
SET	EXTERNAL SPRING	CENTRAL SPRING	INTERNAL SPRING
01	-	2	-
02	2	-	-
03	1	2	-
04	2	-	2
05	2	2	-
06	2	2	2

MOD	SET	SPRING TORQUE (Nm)		AIR SUPPLY PRESSURE (psi)											
				40	50	60	70	80	70	100	115				
		TORQUE OUTPUT SPRING RETURN ACTUATORS (in-Lbs)													
SR200	1	0° MMD	90° MMC	0° MAD	90° MAC	0° MAD	90° MAC	0° MAD	90° MAC	0° MAD	90° MAC	0° MAD	90° MAC	0° MAD	90° MAC
	2	2098	3124			4264	3211	5531	4477						
	3	2549	3788			3812	2558	5080	3823	6338	5081				
	4	2992	4620				4549	2885	5807	4144	7132	5468			
	5	3593	5346					5196	3418	6521	4742	7837	6058		
	6	4487	6842						5539	3150	6854	4465	8122	5732	10066
															7677

WORKING TIME (SEC)		
COUNTERCLOCKWISE ROTATION (DA)	CCW	3,08
CLOCKWISE ROTATION (DA)	CW	2,41
COUNTERCLOCKWISE ROTATION (SR)	CCW	3,58
CLOCKWISE ROTATION (SR)	CW	2,80

WEIGHT CHART (Lbs)		
DOUBLE ACTING		81,59
SPRING RETURN		121,28

ACTUATOR AIR CONSUMPTION CHART		
COUNTERCLOCKWISE ROTATION (DA/SR)	CCW	347,83
CLOCKWISE ROTATION (DA)	CW	643,8

To obtain the air consumption in Nl/min multiply the value in the chart for the correct parameters. That is to say for the supplied absolute pressure and the number of strokes in a minute.