



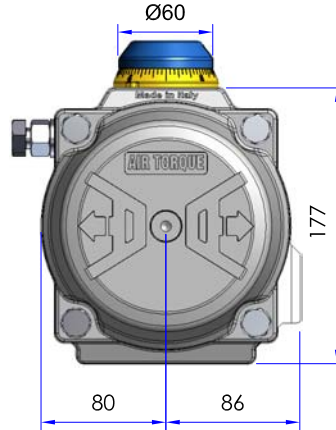
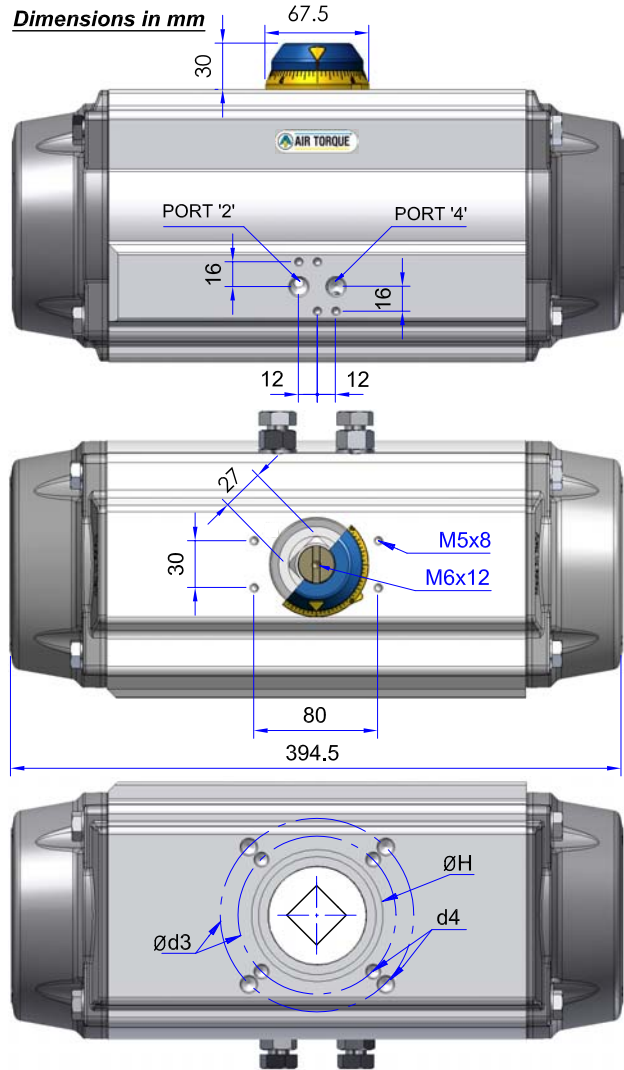
# AIR TORQUE

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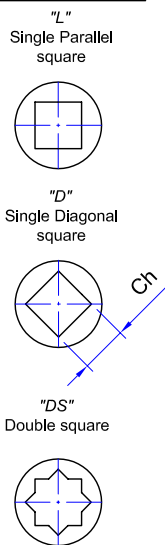
**Model AT451 U**  
**D/S - 90°**

T.D.S. n° **AT451U-DM**  
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**Dimensions in mm**

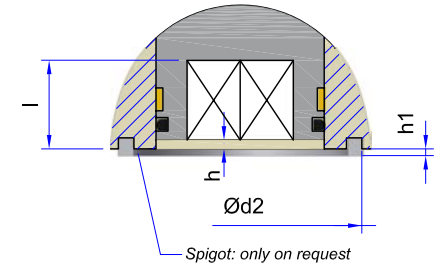


**Optional Square:**



**ISO 5211 Flange Dimensions Available**

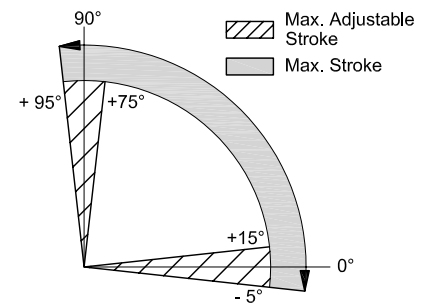
ISO 5211	STD		OPTIONAL
	F10 + F12	F12	
Ø d2	70	NA	85
d3	102	125	125
Ø d4	M10x15	M12x18	M12x18
Ø H	70		
Ch x l	22x32 - 27x29		
min. DS	27x29		
h min.	1,5	1,5	1,5
h1	3	NA	1,5



**Connection / Attachment**

Pressure connection: Port 2 and 4	<b>G1/4"</b>
Ancillary Attachment	<b>AA2</b>

**Rotation and stroke adjustment**



**Output Torque**

Pressure	OUTPUT TORQUE FOR DOUBLE ACTING IN Nm												APPROX. WEIGHT (Kg)
	2,5 bar 0° 90°	3 bar 0° 90°	3,5 bar 0° 90°	4 bar 0° 90°	4,2 bar 0° 90°	4,5 bar 0° 90°	5 bar 0° 90°	5,5 bar 0° 90°	6 bar 0° 90°	7 bar 0° 90°	8 bar 0° 90°	D	
	217	261	304	348	365	391	435	478	522	609	696		14,2

Pressure	OUTPUT TORQUE FOR SPRING RETURN IN Nm												Spring stroke 90° 0°	APPROX. WEIGHT (Kg)	
	2,5 bar 0° 90°	3 bar 0° 90°	3,5 bar 0° 90°	4 bar 0° 90°	4,2 bar 0° 90°	4,5 bar 0° 90°	5 bar 0° 90°	5,5 bar 0° 90°	6 bar 0° 90°	7 bar 0° 90°	8 bar 0° 90°	Set			
<b>S 05</b>	135 88,6	179 132	222 176	265 219	283 236	309 262	352 306							129 82,4	15,4
<b>S 06</b>	119 62,8	162 106	206 150	249 193	266 211	293 237	336 280	379 324						155 99	15,6
<b>S 07</b>		146 80,5	189 124	233 167	250 185	276 211	320 254	363 298	406 341					180 115	15,9
<b>S 08</b>			173 98,2	216 142	233 159	260 185	303 229	347 272	390 316	477 403				206 132	16,1
<b>S 09</b>				200 116	217 133	243 159	287 203	330 246	374 290	460 377	547 464			232 148	16,4
<b>S 10</b>					227 134	270 177	314 221	357 264	444 351	531 438				258 165	16,6
<b>S 11</b>						254 151	297 195	341 238	428 325	515 412				283 181	16,9
<b>S 12</b>							281 169	324 213	411 299	498 386				309 198	17,1

**Technical Data**

Max. Pressure	Rotation (For STD)	Screw stroke Adjustment	Chamber φ (mm)	Air Volume (L)		Moving Time (Sec.) (A)	
				Opening	Closing	Opening	Closing
8 bar	0° - 90°	For 1° adj. need 1/6 Turn	145	2,41	3,78	D 1,2 S 1,5	D 1,4 S 1,8

**Operating Temperature Range**

Operating Temperature (°C) (B)		
ST (standard)	HT (high temperature)	LLT (Extreme low temperature)
- 40 to + 80	- 15 to + 150	- 55 to + 80

A) - The above indicated moving time of the actuator is obtained in the following test conditions: (1) Room Temperature, (2) Actuator Stroke 90°, (3) Solenoid Valve with Orifice of 4 mm and a flow capacity Qn 400 L/min., (4) Inside pipe diameter 8 mm, (5) Medium clean air, (6) Air supply pressure 5,5 bar (79,75 Psi), (7) Actuator without external resistance load. **Caution: obviously on the field applications when one or more of the above parameters are different, the moving time will be different.**

B) - Every temperature range option requires proper components and lubricant. See technical data-sheet N° T.D.S. U00501E.

**Operating Medium:**

The operating medium must be free of dust and oil. The maximum particle size must not exceed 30µ (ISO 8573 Part1, Class5). In order to prevent water condensation and/or solidification (ice when actuator works below 0°C), the operating medium must have a dew point equal to -20°C or at least 10°C below the ambient temperature (ISO 8573 Part1, Class3).