



# AIR TORQUE

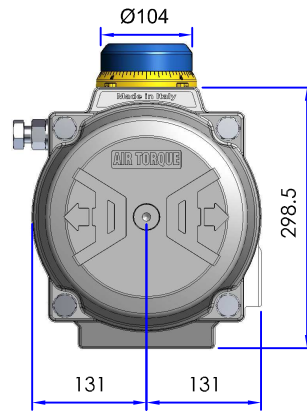
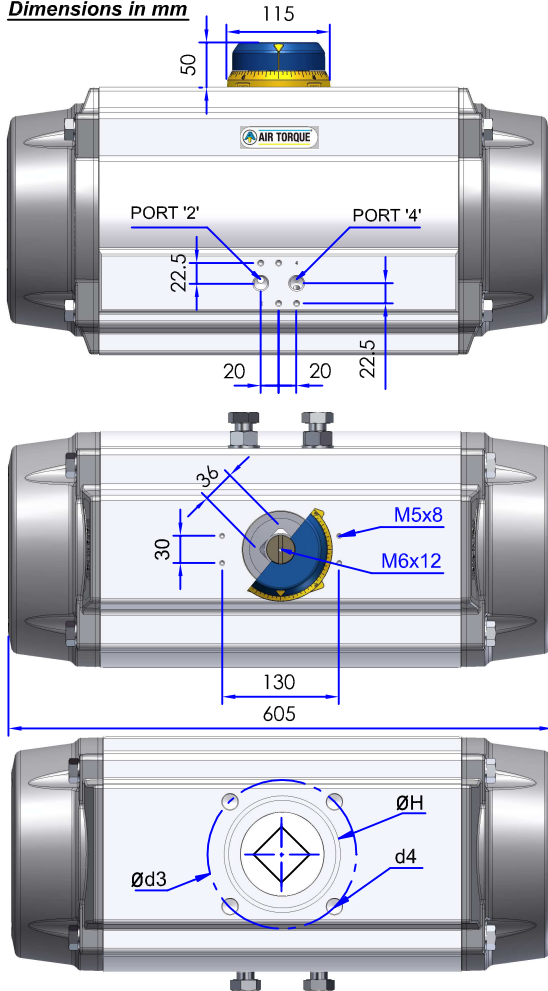
**AIR TORQUE S.p.A.**  
 via Alla Campagna, N° 1  
 24060 Costa di Mezzate (Bg) Italy  
 Tel.: +39 035 682299  
 Fax: +39 035 687791  
 E-mail: info@airtorque.it



**Model AT651 U**  
**D/S - 90°**

TDS n° **AT651U-DM**  
 Issued on: 10/09 - Page 1/1

**Dimensions in mm**



**Optional Square:**

"L"  
Single Parallel square



"D"  
Single Diagonal square

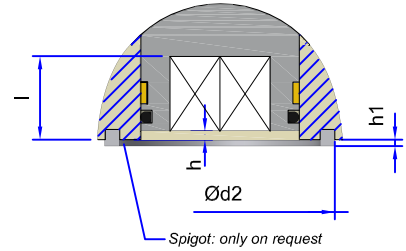


"DS"  
Double square



**ISO 5211 Flange Dimensions**

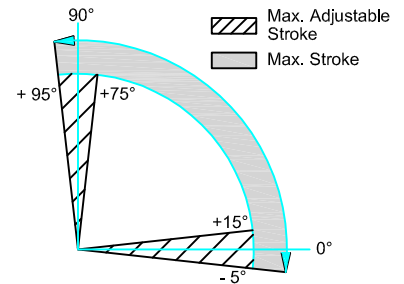
ISO 5211	STD		OPTIONAL
	F16	F14	F12
Ø d2	130	100	NA
Ø d3	165	140	125
d4	M20x30	M16x24	M12x18
Ø H	130	100	93
Ch x l min.	27x40- 46x48		
DS	36x38 - 46x48		
h min.	2,5	2,5	2,5
h1	1,5	1,5	NA



**Connection / Attachment**

Pressure connection: Port 2 and 4	G3/8"
Ancillary Attachment	AA 4

**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	893	1072	1251	1430	1501	1608	1787	1966	2144	2502	2859	54,6

Pressure	OUTPUT TORQUE FOR SPRING RETURN IN Nm											Spring stroke	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	Start End	Start End	Start End	Start End	Start End	Start End	Start End	Start End	Start End	Start End	Start End	Start End	Start End	
S 05	533 372	712 551	890 730	1069 908	1141 980	1248 1087	1426 1266						521 360	60,6
S 06	461 268	640 447	818 625	997 804	1068 876	1176 983	1354 1162	1533 1340					625 433	61,8
S 07		568 343	746 521	925 700	996 771	1104 879	1282 1057	1461 1236	1640 1415				730 505	63
S 08			674 417	853 596	924 667	1032 774	1210 953	1389 1132	1568 1310	1925 1668			834 577	64,2
S 09				781 491	852 563	959 670	1138 849	1317 1028	1495 1206	1853 1564	2210 1921		938 649	65,4
S 10					887 566	1066 745	1245 923	1423 1102	1781 1459	2138 1817			1042 721	66,6
S 11						994 640	1173 819	1351 998	1709 1355	2066 1713			1146 793	67,8
S 12								1101 715	1279 894	1637 1251	1994 1608		1251 865	69

**Technical Data**

Max. Pressure	Rotation	Screw stroke Adjustment	Chamber Ø (mm)	Air Volume (L)		Moving Time (Sec.) (A)	
				Opening	Closing	Opening	Closing
8 bar	0° - 90°	For 1° adj. need 1/6 Turn	240	10	15,2	D 3,5 S 4,1	D 4,0 S 4,6

**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 11 mm and a flow capacity Qn 6000 L/min., (4) Inside pipe diameter 11 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. U005010E.

**Operating Medium:**

The operating medium must be free of dust and oil. The maximum particle size must not exceed 30 µ (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).