

Airpel® Comparison Chart

Model	Airpel - M9	Airpel - M16	Airpel - M24	Airpel - M32
Piston diameter	9.3 mm	15.9 mm	24.0 mm	32.5 mm
Piston area	67.7 mm ²	198 mm ²	452.5 mm ²	830 mm ²
Max. pressure	700 kPa (7 bar)			
Suitable for vacuum actuation	yes	yes	yes	yes
Force output at max. pressure on rear side	47.4 N	139 N	316.6 N	581 N
Force output at max. pressure on rod side	42.0 N	125 N	294.5 N	526 N
Force factor: Ratio of air pressure (bar) at the system and force (Newton) at the rod:				
Factor rear side:	6.77	19.8	45.25	83.0
Factor rod side:	6.0	17.8	42.08	75.1
Min. operating pressure	< 1.5 kPa (0.015 bar)	< 1.5 kPa (0.015 bar)	< 1.5 kPa (0.015 bar)	< 3.5 kPa (0.035 bar)
Piston friction as % of load (without side load)	1 – 2 %	1 – 2 %	1 – 2 %	1 – 2 %
Temperature range				
Standard	- 20 bis + 150 °C			
Code ET	- 55 bis + 150 °C			
Weight in g: (Piston/Rod assy)				
Single rod end:	4.5+0.53xStroke	16+0.142xStroke	41.4+0.254xStroke	82.6+0.56xStroke
Double rod end:	8.87+0.13xStroke	28.48+0.315xStroke	74.28+0.509xStroke	
Weight of complete unit in g (Complete air cylinder)				
Single rod end:	31.7+0.375xStroke	64.6+0.622xStroke	157.18+1.225xStroke	616+3.66xStroke
Double rod end:	41.02+0.462xStroke	80.45+0.854xStroke	204.9+1.480xStroke	
Max leak rate (Reference pressure of 340 kPa / 3.4 bar)				
Max. leak rate at the piston l/min:	1.16	1.39	2.2	2.2
Max. leak rate at the rod l/min:	2.2	2.6	2.6	2.0