

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)	700 kPa (7 bar)	700 kPa (7 bar)	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 + 100 °C	- 20 bis + 100 °C	- 20 bis + 100 °C	- 20 bis + 100 °C
Code ET	- 40 bis + 150 °C	- 40 bis + 150 °C	- 40 bis + 150 °C	- 40 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