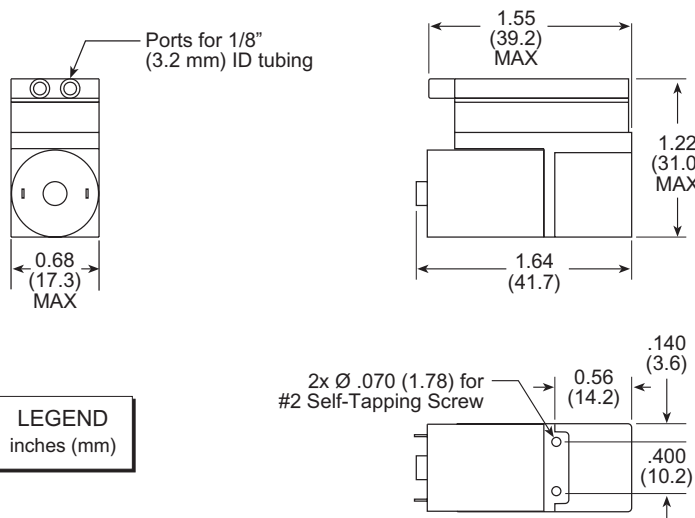


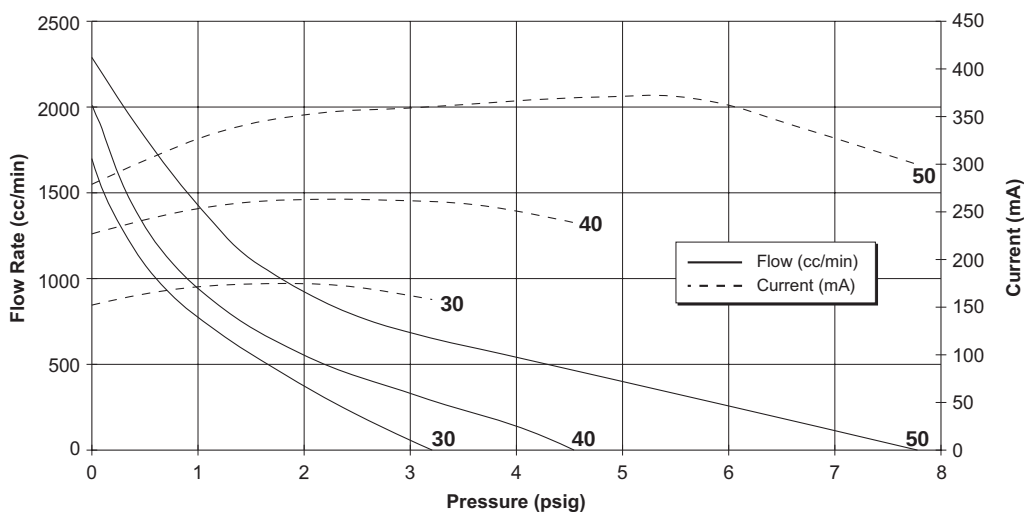
AA Series Micro Air Pump: Part No. AA045INSN (Pressure) Specifications

	Minimum Free Flow	Minimum Pressure @ Dead Head	Maximum Current @ Free Flow
Model 30	1700 cc/min	3.2 psig (221 mbar)	185 mA
Model 40	2035 cc/min	4.6 psig (317 mbar)	280 mA
Model 50	2300 cc/min	7.7 psig (531 mbar)	335 mA
Rated Voltage	4.5 volts DC		
Motor Construction	Iron Core		
Diaphragm Material	Neoprene (EPDM and Viton also available)		
Pump Body Material	Ryton		
Operating Temperature Range	32°–122°F (0°–50°C)		
Weight	1.2 oz (35 grams)		
Size	1.4 cubic inches		
Options	Counterweight (for vibration reduction); Four Port Locations; Ports for 3/32" (2.4 mm) I.D. Tubing.		

DIMENSIONS



PERFORMANCE

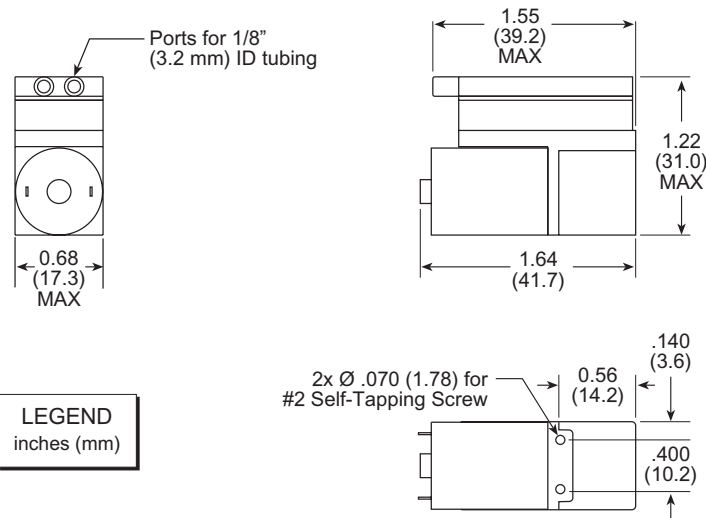


Performance curves are typical. Individual pump curves may vary.

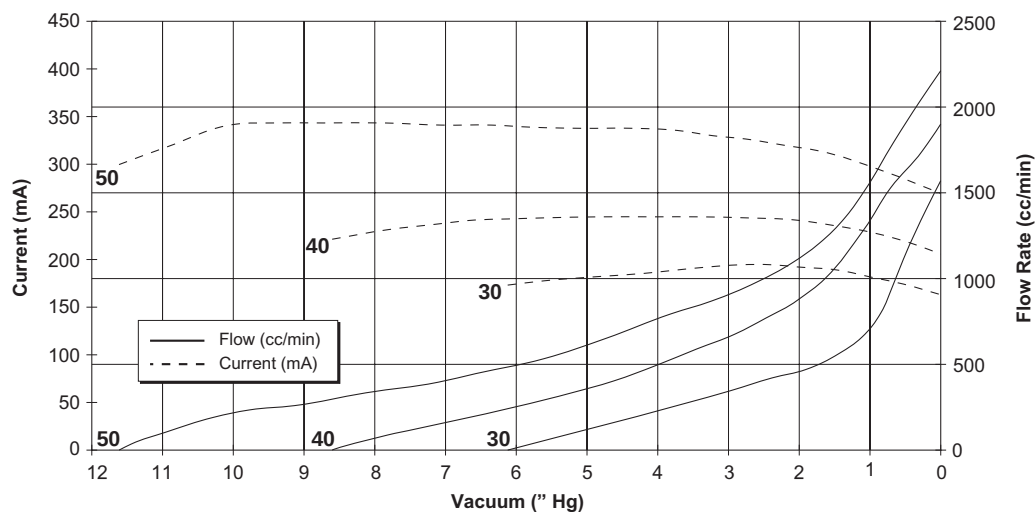
AA Series Micro Air Pump: Part No. AA045INSN (Vacuum) Specifications

	Minimum Free Flow	Minimum Vacuum @ Dead Head	Maximum Current @ Free Flow
Model 30	1565 cc/min	6.1 " Hg (206 mbar)	185 mA
Model 40	1875 cc/min	8.6 " Hg (290 mbar)	280 mA
Model 50	2175 cc/min	11.6 " Hg (392 mbar)	335 mA
Rated Voltage	4.5 volts DC		
Motor Construction	Iron Core		
Diaphragm Material	Neoprene (EPDM and Viton also available)		
Pump Body Material	Ryton		
Operating Temperature Range	32°–122°F (0°–50°C)		
Weight	1.2 oz (35 grams)		
Size	1.4 cubic inches		
Options	Counterweight (for vibration reduction); Four Port Locations; Ports for 3/32" (2.4 mm) I.D. Tubing.		

DIMENSIONS



PERFORMANCE

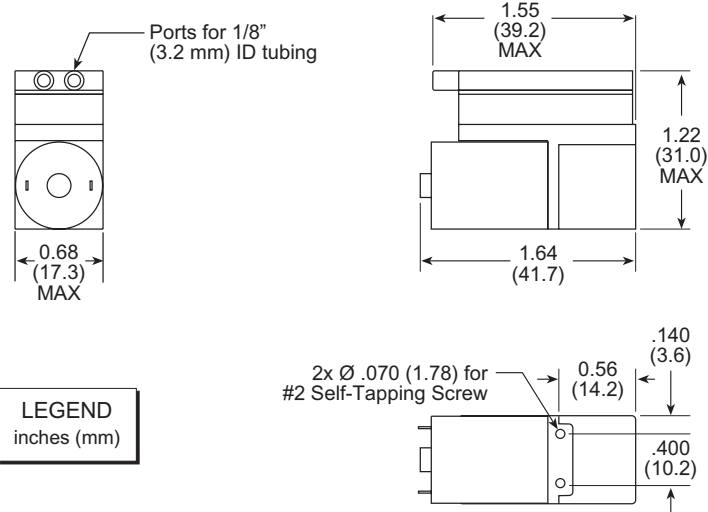


Performance curves are typical. Individual pump curves may vary.

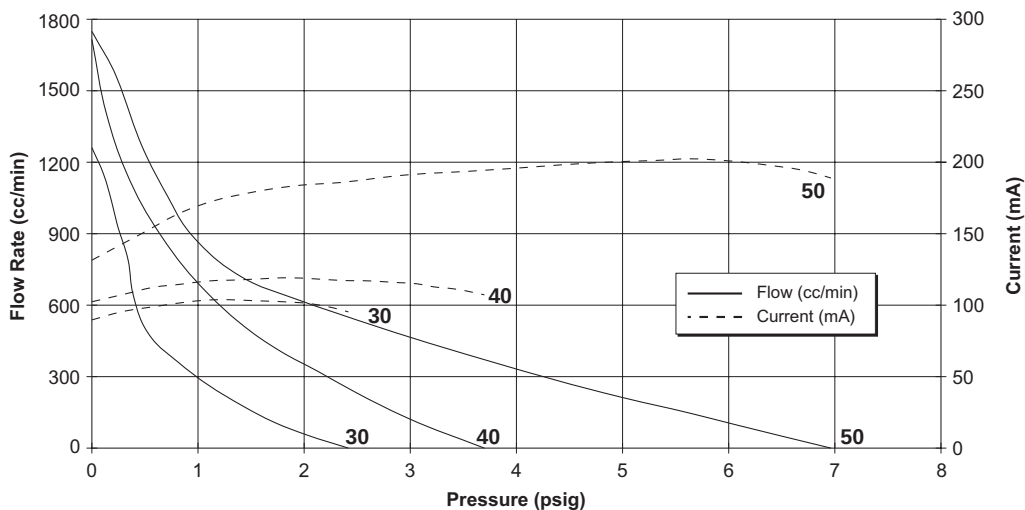
AA Series Micro Air Pump: Part No. AA060INSN (Pressure) Specifications

	Minimum Free Flow	Minimum Pressure @ Dead Head	Maximum Current @ Free Flow
Model 30	1210 cc/min	2.3 psig (159 mbar)	100 mA
Model 40	1605 cc/min	3.7 psig (255 mbar)	125 mA
Model 50	1720 cc/min	6.9 psig (476 mbar)	145 mA
Rated Voltage	6.0 volts DC		
Motor Construction	Iron Core		
Diaphragm Material	Neoprene (EPDM and Viton also available)		
Pump Body Material	Ryton		
Operating Temperature Range	32°–122°F (0°–50°C)		
Weight	1.2 oz (35 grams)		
Size	1.4 cubic inches		
Options	Counterweight (for vibration reduction); Four Port Locations; Ports for 3/32" (2.4 mm) I.D. Tubing.		

DIMENSIONS



PERFORMANCE

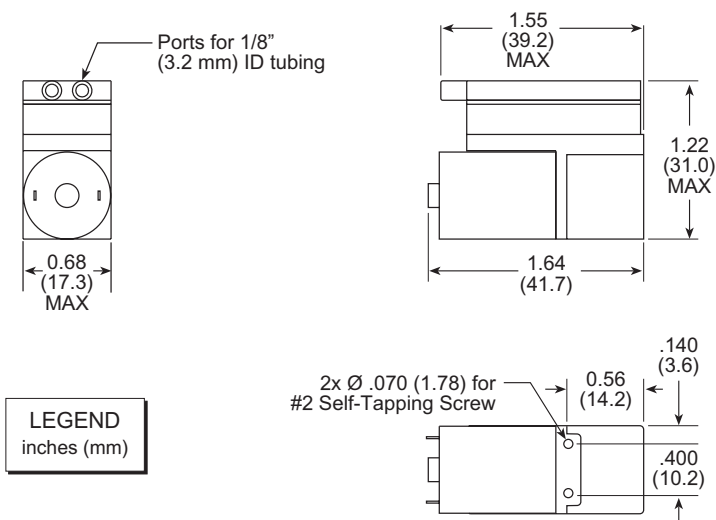


Performance curves are typical. Individual pump curves may vary.

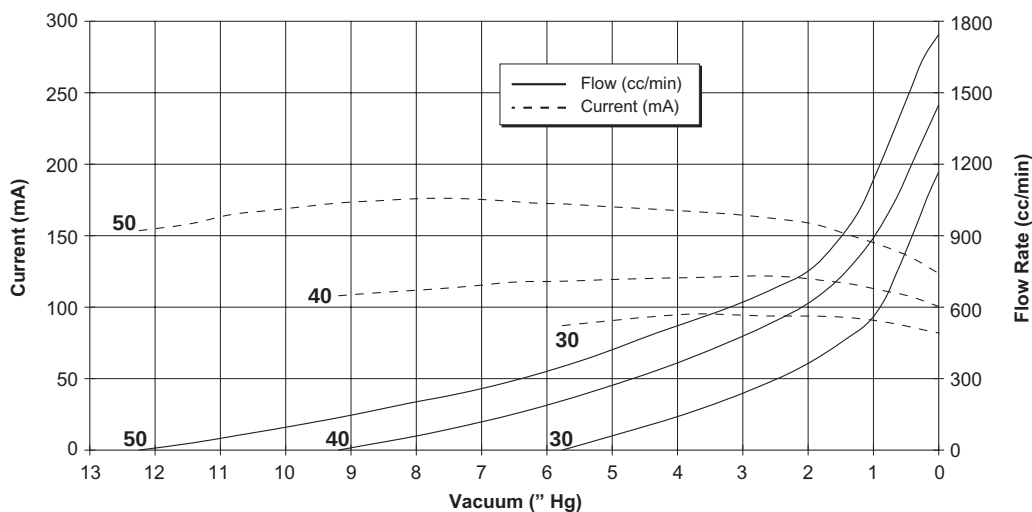
AA Series Micro Air Pump: Part No. AA060INSN (Vacuum) Specifications

	Minimum Free Flow	Minimum Vacuum @ Dead Head	Maximum Current @ Free Flow
Model 30	1175 cc/min	5.7 " Hg (192 mbar)	100 mA
Model 40	1460 cc/min	9.1 " Hg (307 mbar)	125 mA
Model 50	1750 cc/min	12.2 " Hg (412 mbar)	145 mA
Rated Voltage	6.0 volts DC		
Motor Construction	Iron Core		
Diaphragm Material	Neoprene (EPDM and Viton also available)		
Pump Body Material	Ryton		
Operating Temperature Range	32°–122°F (0°–50°C)		
Weight	1.2 oz (35 grams)		
Size	1.4 cubic inches		
Options	Counterweight (for vibration reduction); Four Port Locations; Ports for 3/32" (2.4 mm) I.D. Tubing.		

DIMENSIONS



PERFORMANCE

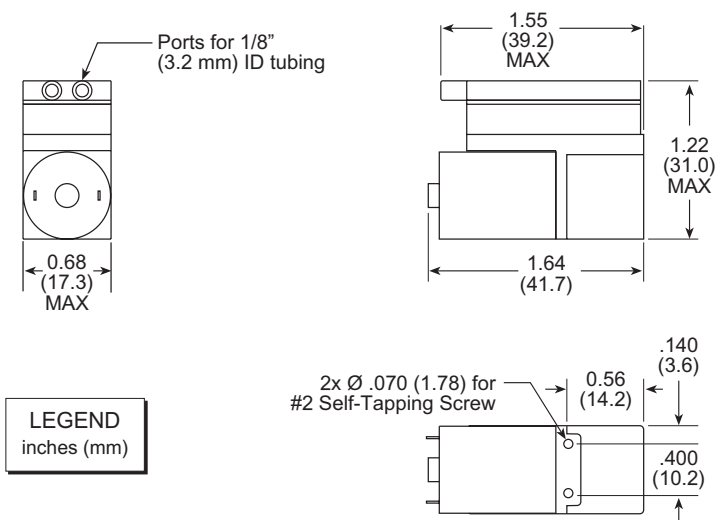


Performance curves are typical. Individual pump curves may vary.

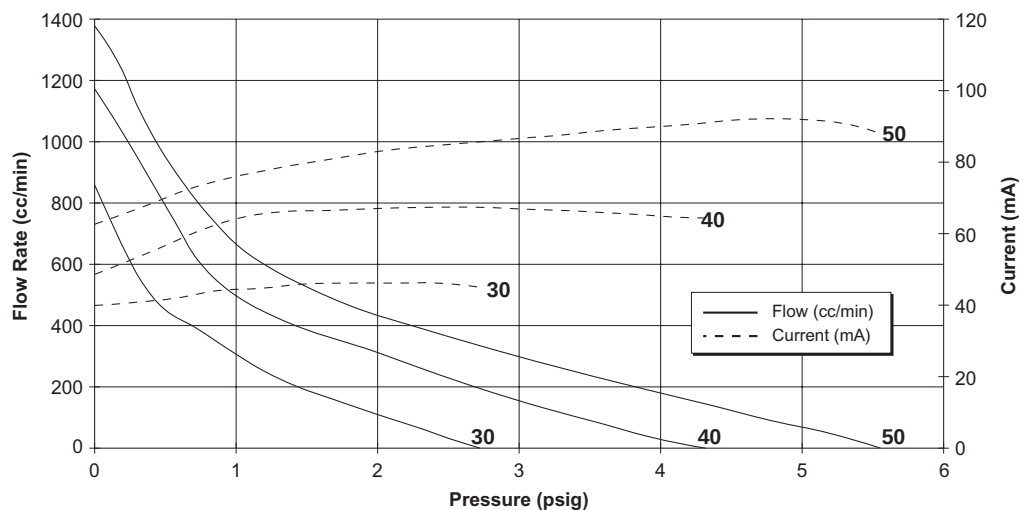
AA Series Micro Air Pump: Part No. AA120INSN (Pressure) Specifications

	Minimum Free Flow	Minimum Pressure @ Dead Head	Maximum Current @ Free Flow
Model 30	850 cc/min	2.7 psig (186 mbar)	50 mA
Model 40	1165 cc/min	4.2 psig (289 mbar)	75 mA
Model 50	1360 cc/min	5.4 psig (372 mbar)	100 mA
Rated Voltage	12.0 volts DC		
Motor Construction	Iron Core		
Diaphragm Material	Neoprene (EPDM and Viton also available)		
Pump Body Material	Ryton		
Operating Temperature Range	32°–122°F (0°–50°C)		
Weight	1.2 oz (35 grams)		
Size	1.4 cubic inches		
Options	Counterweight (for vibration reduction); Four Port Locations; Ports for 3/32" (2.4 mm) I.D. Tubing.		

DIMENSIONS



PERFORMANCE

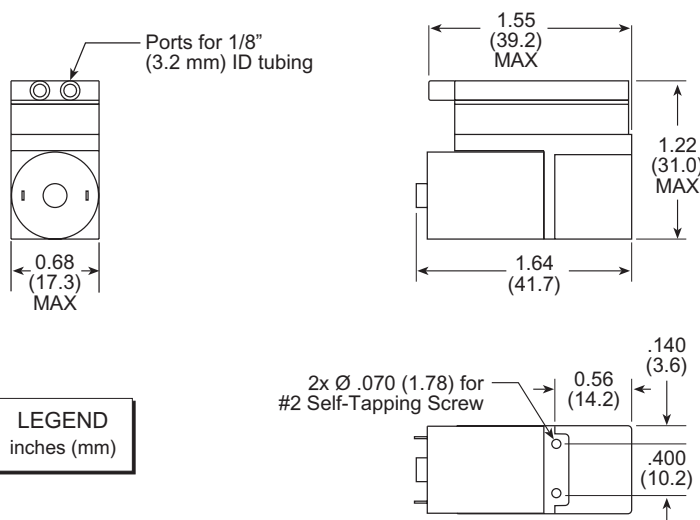


Performance curves are typical. Individual pump curves may vary.

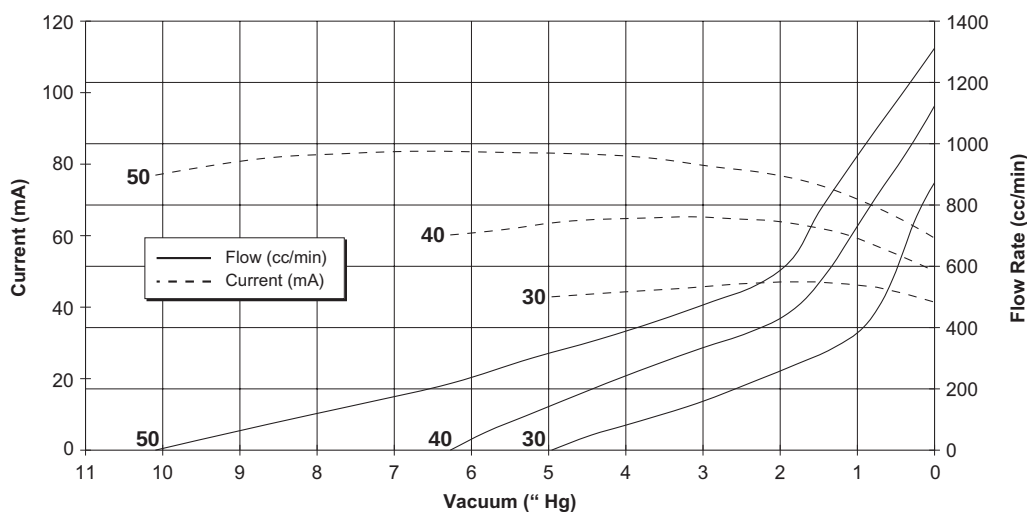
AA Series Micro Air Pump: Part No. AA120INSN (Vacuum) Specifications

	Minimum Free Flow	Minimum Vacuum @ Dead Head	Maximum Current @ Free Flow
Model 30	875 cc/min	5.0 " Hg (169 mbar)	50 mA
Model 40	1135 cc/min	6.2 " Hg (209 mbar)	75 mA
Model 50	1325 cc/min	10.1 " Hg (341 mbar)	100 mA
Rated Voltage	12.0 volts DC		
Motor Construction	Iron Core		
Diaphragm Material	Neoprene (EPDM and Viton also available)		
Pump Body Material	Ryton		
Operating Temperature Range	32°–122°F (0°–50°C)		
Weight	1.2 oz (35 grams)		
Size	1.4 cubic inches		
Options	Counterweight (for vibration reduction); Four Port Locations; Ports for 3/32" (2.4 mm) I.D. Tubing.		

DIMENSIONS



PERFORMANCE



Performance curves are typical. Individual pump curves may vary.