



PRODUCT CATALOGUE 2012



E1M18 One Stage, E2M18 Two Stage Rotary Vane Pumps



The EM range of oil-sealed rotary pumps - renowned for their high ultimate vacuum, rapid pumping speed, quiet operation and ability to handle vapour - have become the industry standard for laboratory and light industrial applications.

The E1M18 and E2M18 pumps are direct drive, sliding vane pumps. The pump is oil sealed and designed for reliable, long-term operation. The pump is a freestanding unit with the drive provided through a flexible coupling by either a single-phase or three-phase (four-pole) motor.

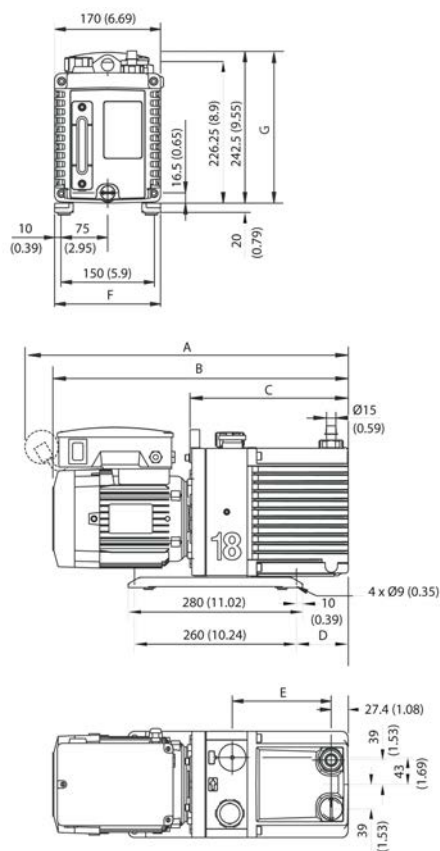


Supplied with: Ultragrade 19 oil, NW25 O-ring and centering ring. Fomblin® must be purchased separately for PFPE pumps.

Features & Benefits

- The pump is designed for reliable, long-term operation.
- Thermal overload device prevents overheating (single phase only).
- The drive is provided through a flexible coupling by a single-phase or three-phase (four pole) motor.
- The motors are totally enclosed and are cooled by the motor-cooling fan.
- Pressure die cast oil box with integral oil seals prevents oil leaks.

Dimensions

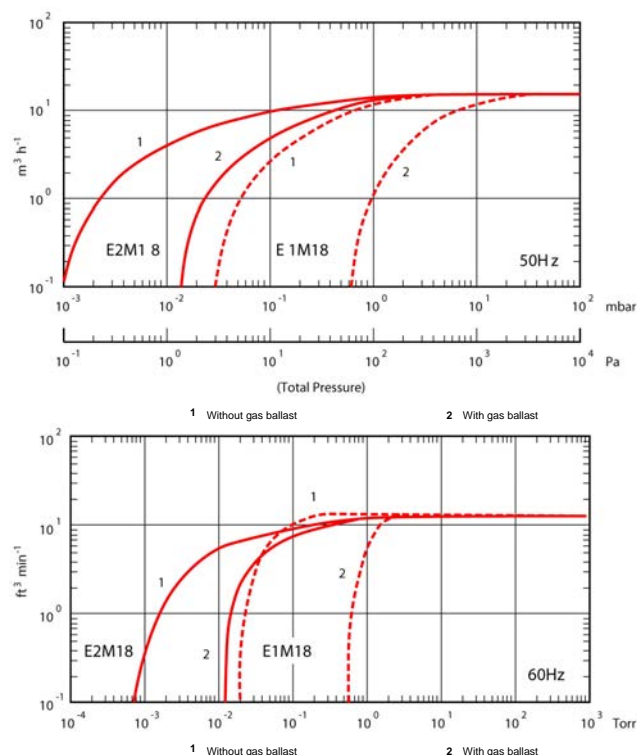


Order No.	A	B	C	D	E	F	G
A34310940	-	474	247	83	159	171.4	217
A34315904	518	474	247	83	159	171.4	241
A34317984	-	504	247	83	159	171.4	251
A36310940	-	520	295	131	207	171.4	217
A36315904	564	520	295	131	207	171.4	241
A36317984	-	550	295	131	207	171.4	251

Applications

- Analytical instruments
- Leak detectors, Helium
- Research and development
- Backing Turbomolecular pumps

Performance Curves



Technical Data

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	E1M18	E2M18
Displacement (50Hz)	20.5 m ³ h ⁻¹ / 12.1 ft ³ min ⁻¹	20.5 m ³ h ⁻¹ / 12.1 ft ³ min ⁻¹
Displacement (60Hz)	25.0 m ³ h ⁻¹ / 14.7 ft ³ min ⁻¹	25.0 m ³ h ⁻¹ / 14.7 ft ³ min ⁻¹
Speed (Pneurop 6602) 50 Hz	17.0 m ³ h ⁻¹ / 10 ft ³ min ⁻¹	17.0 m ³ h ⁻¹ / 10 ft ³ min ⁻¹
Speed (Pneurop 6602) 60Hz	20.4 m ³ h ⁻¹ / 12.1 ft ³ min ⁻¹	20.4 m ³ h ⁻¹ / 12.1 ft ³ min ⁻¹
Ultimate vacuum (total pressure)		
without gas purge	3 x 10 ⁻² mbar / 2.2 x 10 ⁻² Torr	1 x 10 ⁻³ mbar / 7.4 x 10 ⁻⁴ Torr
with gas purge	6.5 x 10 ⁻¹ mbar / 4.8 x 10 ⁻¹ Torr	1.5 x 10 ⁻¹ mbar / 1.1 x 10 ⁻² Torr
with Fomblin®	3 x 10 ⁻¹ mbar / 2.56 x 10 ⁻² Torr	1 x 10 ⁻² mbar / 7.5 x 10 ⁻³ Torr
Inlet connection	NW25 Nozzle 15 mm external Ø	NW25 Nozzle 15 mm external Ø
Outlet connection	removable from 3/4 in BSP tapped hole	removable from 3/4 in BSP tapped hole
Max permitted pressure at outlet	0.5 bar gauge / 7 psig	0.5 bar gauge / 7 psig
Max inlet pressure	50 mbar / 38 Torr	20 mbar / 15 Torr
Max water vapour pumping rate	0.65 kg h ⁻¹	0.3 kg h ⁻¹
Operating temp range	13-40°C	13-40°C
Nominal Rotation speed 50/60Hz	1440/1720 rpm	1440/1720 rpm
Power connector 1-ph*	IEC EN60320 C19	IEC EN60320 C19
Motor power 50 Hz	0.55 kW	0.55 kW
Motor power 60 Hz	0.75 kW	0.75 kW
Weight	37 kg / 82 lbs	39 kg / 86 lbs
Noise @ 50Hz	57 dB(A)	57 dB(A)
Oil capacity - max	1.4 litre	1.05 litre
Oil capacity - min	0.9 litre	0.75 litre
Recommended oil (supplied)	Ultragrade 19	Ultragrade 19

* Pumps listed with IEC connector only

Ordering Information

Product Description	Order No.
E1M18 200-230/380-415V, 3-ph, 50Hz or 200-230/460V, 3-ph, 60Hz	A34310940
E1M18 100/200V, 1-ph, 50Hz or 100-105/200-210V, 1-ph, 60Hz	A34315904
E1M18 115/200-230V, 1-ph, 50/60Hz with IEC60320 connector, factory set to 230V	A34317984
PFPE E1M18 115/200-230V, 1-ph, 50/60Hz with IEC60320 connector	A34325984
E2M18 200-230/380-415V, 3-ph, 50Hz or 200-230/460V, 3-ph, 60Hz	A36310940
E2M18 100/200V, 1-ph, 50Hz or 100-105/200-210V, 1-ph, 60Hz	A36315904
E2M18 115/200-230V, 1-ph, 50/60Hz with IEC60320 connector	A36317984
PFPE E2M18 200-230/380-415 V, 3-ph, 50 Hz or 200-230/460 V, 3-ph, 60 Hz	A36321940
PFPE E2M18 100/200V, 1-ph, 50Hz or 100-105/200-210V, 1-ph, 60Hz	A36325904
PFPE E2M18 115/200-230 V, 1-ph, 50/60 Hz with IEC60320 connector fitted	A36325984
Accessories & Spares	Order No.
Model EMF20 mist filter	A46229000
2m Electrical supply cable, UK, three-pin plug	A50505003
2m Electrical supply cable, North European plug	A50506003
2m Electrical supply cable, North America/Japan plug	A50507003
2m Electrical supply cable, no plug	A50508003
Spares Kit C&O E1M18/E2M18	A36301131
Spares Kit Blade E1M18	A34301041
Spares Kit Blade E2M18	A36301020
NW25 to 28mm bore tube adaptor	C10520201
3/4" BSP to NW25 outlet adaptor	C10501414