

# E2M28 Two Stage Rotary Vane Pump

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

The E2M28 pump is a two-stage, direct drive, sliding vane pump. The pump is oil sealed and designed for reliable, long-term operation in both laboratory and industrial environments. 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, lifting plate. Fomblin® must be purchased separately for PFPE pumps.

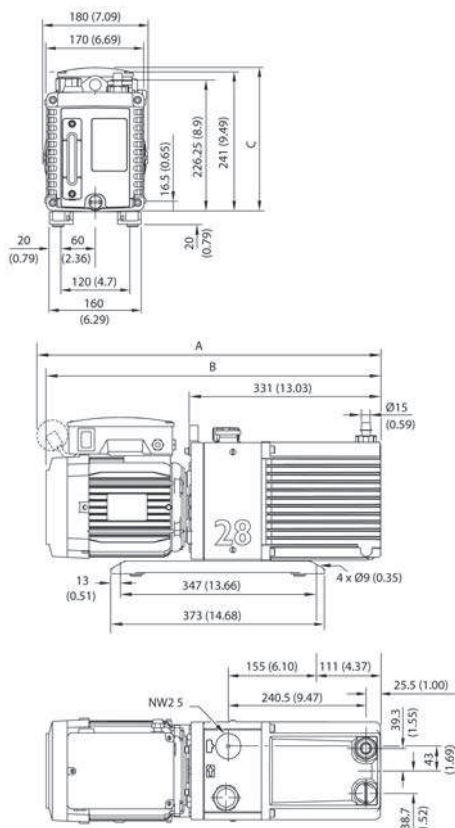
## Features & Benefits

- The pump is designed for reliable, long-term operation.
- Thermal overload device prevents overheating (single phase only).
- The pump is a free-standing unit.
- 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.

## Applications

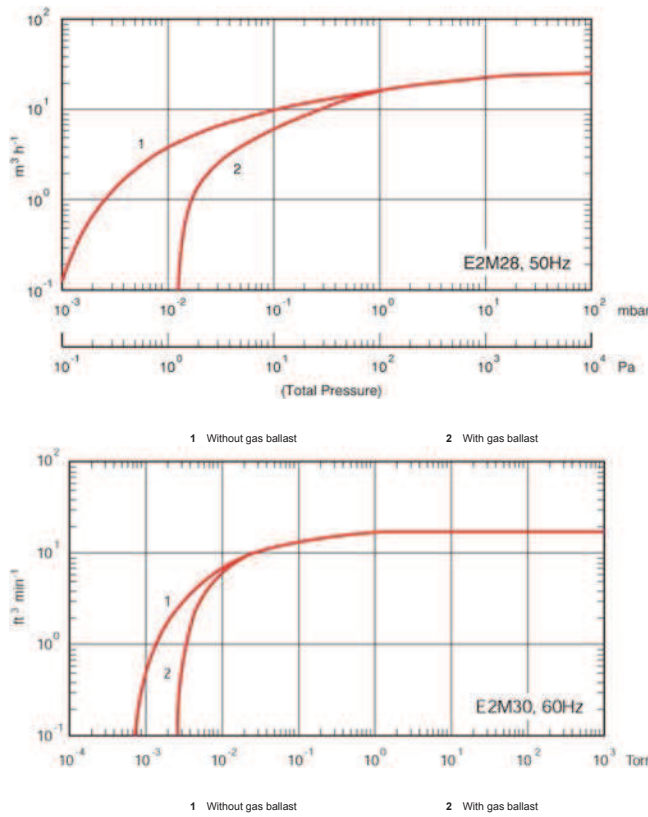
- Analytical instruments - LCMS
- Automotive
- Beam lines and high energy physics
- Centrifuges, ultra-high speed
- Coating

## Dimensions



Ordering No.	A	B	C
A37310940	-	553	217
A37315904	598	584	251
A37317984	-	584	251

## Performance Curves



## Technical Data

Displacement (swept volume) 50 Hz	32.2m <sup>3</sup> h <sup>-1</sup> / 19 ft <sup>3</sup> min <sup>-1</sup>
Displacement (swept volume) 60 Hz	38.9 m <sup>3</sup> h <sup>-1</sup> / 22.3 ft <sup>3</sup> min <sup>-1</sup>
Speed (Pneurop 6602) 50 Hz	27.5 m <sup>3</sup> h <sup>-1</sup> / 16.2 ft <sup>3</sup> min <sup>-1</sup>
Speed (Pneurop 6602) 60Hz	33.0 m <sup>3</sup> h <sup>-1</sup> / 19.5 ft <sup>3</sup> min <sup>-1</sup>
Ultimate vacuum (total pressure)	
without gas ballast	1 x 10 <sup>-3</sup> mbar / 7.5 x 10 <sup>-4</sup> Torr
with gas ballast	1.5 x 10 <sup>-2</sup> mbar / 1.1 x 10 <sup>-2</sup> Torr
with Fomblin®	1 x 10 <sup>-2</sup> mbar / 7.5 x 10 <sup>-3</sup> Torr
Inlet connection	NW25 flange
Outlet connection	Nozzle 15 mm external Ø removable from 3/4 in BSP tapped hole
Max allowed pressure at outlet	0.5 bar gauge / 7 psig
Max inlet pressure for water vapour	30 mbar / 23 Torr
Max water vapour pumping rate	0.7 kg h <sup>-1</sup>
Operating temperature range	13 – 40 °C
Nominal rotation speed	1440 / 1720 rpm
Motor power 50 Hz	0.75 kW
Motor power 60 Hz	0.90 kW
Power Connector 1-ph*	IEC EN60320 C19
Weight	40 kg / 88 lbs
Noise	57 dB(A) @ 50 Hz
Oil capacity - max	1.5 litre
Oil capacity - min	1.2 litre
Recommended oil (supplied)	Ultragrade 19

\* Pumps listed with IEC connector only

## Ordering Information

Product Description	Order No.
E2M28 200-230/380-415 V, 3-ph, 50 Hz or 200-230/460 V, 3-ph, 60 Hz	A37310940
E2M28 100/200 V, 1-ph, 50 Hz or 100-105/200-210 V, 1-ph, 60 Hz	A37315904
E2M28 115/200-230 V, 1-ph, 50/60 Hz with IEC60320 connector fitted	A37317984
PFPE E2M28 200-230/380-415 V, 3-ph, 50 Hz or 200-230/460 V, 3-ph, 60 Hz	A37321940
PFPE E2M28 115/200-230 V, 1-ph, 50/60 Hz with IEC60320 connector fitted	A37325984
Accessories & Spares	Order No.
Model MF30 mist filter	A46233000
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 E2M28	A37301131
Spares Kit Blade Sprung E2M28/30	A37301135
NW25 to 28mm bore tube adaptor	C10520201
3/4" BSP to NW25 outlet adaptor	C10501414