

# E2M40 AND 80 OIL SEALED ROTARY VANE PUMPS MAXIMISE YOUR PRODUCTIVITY AND PERFORMANCE



Edwards E2M series two stage oil sealed rotary vane vacuum pumps are renowned for their high ultimate vacuum, rapid pumping speeds, quiet operation and ability to handle water vapour. These direct drive rotary vane pumps are inherently compact and vibration free, and with their finger-proof fan and coupling housings they offer excellent operator protection.

A comprehensive range of accessories is available to allow use on a wide variety of vacuum applications.



## Features and Benefits

### Reliability

- Reliable and stable process – effective lubrication even under high gas loads.

### Robust

- No contamination of process – oil and air suck-back protection.

### Performance

- Long and trouble free life – industrial roller bearings on drive shaft.

### Reassurance

- Peace of mind – tried, tested and industry standard for years.
- Reliable and stable – high vacuum performance.

## Applications

- Vacuum metallurgy processes.
- Thin film coating technologies.
- Pharmaceutical freeze drying.
- Refrigeration and air conditioning system evacuation, drying, and backfilling.

## Pump Range

### E2M40

- E2M40
- E2M40FX
- E2M40T4

### E2M175

- E2M175
- E2M175FX
- E2M175T3

### E2M80

- E2M80
- E2M80FX
- E2M80T4

### E2M275

- E2M275
- E2M275FX
- E2M275T3

# Performance Curves

## E2M40 Oil Sealed Rotary Pump

### E2M40



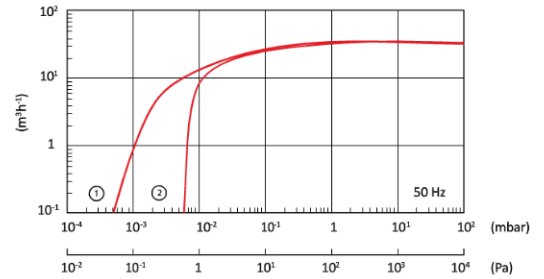
Displacement	
50 Hz	42.5 m <sup>3</sup> hr/25 ft <sup>3</sup> min <sup>-1</sup>
60 Hz	50.5 m <sup>3</sup> h <sup>-1</sup> /29.7 ft <sup>3</sup> min <sup>-1</sup>
Speed (Pneurop)	
50 Hz	37 m <sup>3</sup> h <sup>-1</sup> /21.8 ft <sup>3</sup> min <sup>-1</sup>
60 Hz	44 m <sup>3</sup> h <sup>-1</sup> /25.9 ft <sup>3</sup> min <sup>-1</sup>

### Ordering information

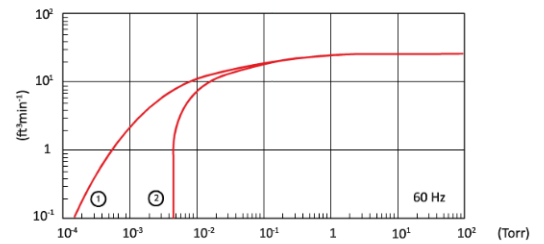
Product description	Order no.
E2M40 HC IE3 ASIA 50/60HZ 200V 50/60HZ, 380V 60HZ	A36404934
E2M40 HC IE3 EU/US 50/60HZ 380-400V 50HZ, 230 / 460V 60HZ	A36404940
E2M40 FX IE3 ASIA 50/60HZ 200V 50/60HZ, 380V 60HZ	A36417934
E2M40 FX IE3 EU/US 50/60HZ 380-400V 50HZ, 230 / 460V 60HZ	A36417940
E2M40 AZ IE3 ASIA 50/60HZ 200V 50/60HZ, 380V 60HZ	A36407934
E2M40 AZ IE3 EU/US 50/60HZ 380-400V 50HZ, 230 / 460V 60HZ	A36407940

Each EM pump is supplied Ultragrade 70 oil. For PFPE prepared FX pumps Fomblin® to be ordered separately.

### E2M40 Performance Curve

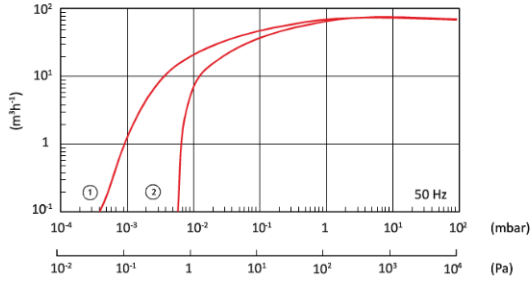


- 1 Without gas ballast
- 2 With gas ballast

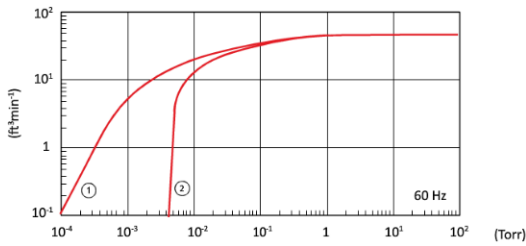


- 1 Without gas ballast
- 2 With gas ballast

E2M80 Performance Curve



- 1 Without gas ballast
- 2 With gas ballast



- 1 Without gas ballast
- 2 With gas ballast

Displacement	
50 Hz	80 m <sup>3</sup> h <sup>-1</sup> /47.1 ft <sup>3</sup> min <sup>-1</sup>
60 Hz	96 m <sup>3</sup> h <sup>-1</sup> /56.5 ft <sup>3</sup> min <sup>-1</sup>
Speed (Pneurop)	
50 Hz	74 m <sup>3</sup> h <sup>-1</sup> /43.6 ft <sup>3</sup> min <sup>-1</sup>
60 Hz	90 m <sup>3</sup> h <sup>-1</sup> /53 ft <sup>3</sup> min <sup>-1</sup>



Ordering information

Product description	Order no.
E2M80 HC IE3 ASIA 50/60HZ 200V 50/60HZ, 380V 60HZ	A36504934
E2M80 HC IE3 EU/US 50/60HZ 380-400V 50HZ, 230/460V 60HZ	A36504940
E2M80 FX IE3 ASIA 50/60HZ 200V 50/60HZ, 380V 60HZ	A36517934
E2M80 FX IE3 EU/US 50/60HZ 380-400V 50HZ, 230/460V 60HZ	A36517940
E2M80 AZ IE3 ASIA 50/60HZ 200V 50/60HZ, 380V 60HZ	A36507934
E2M80 AZ IE3 EU/US 50/60HZ 380-400V 50HZ, 230/460V 60HZ	A36507940

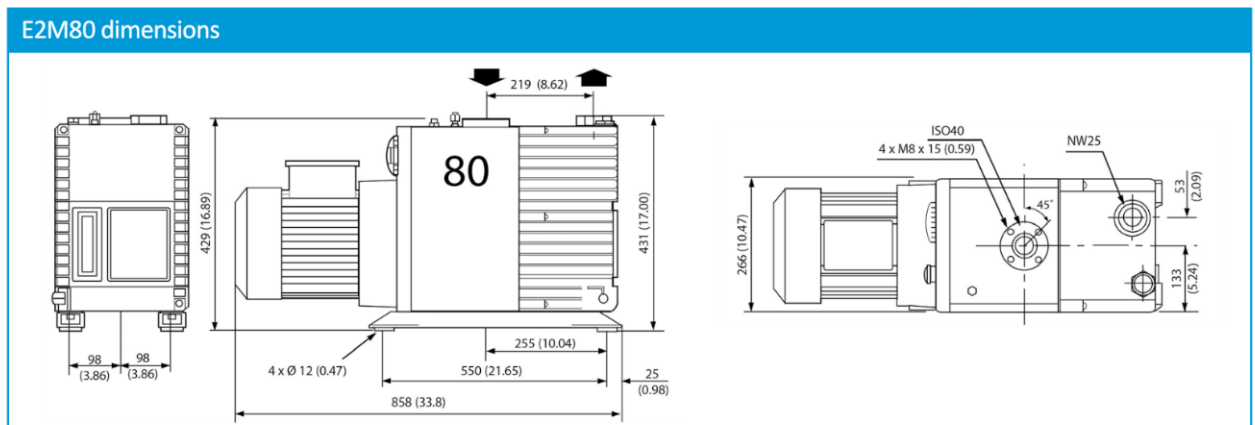
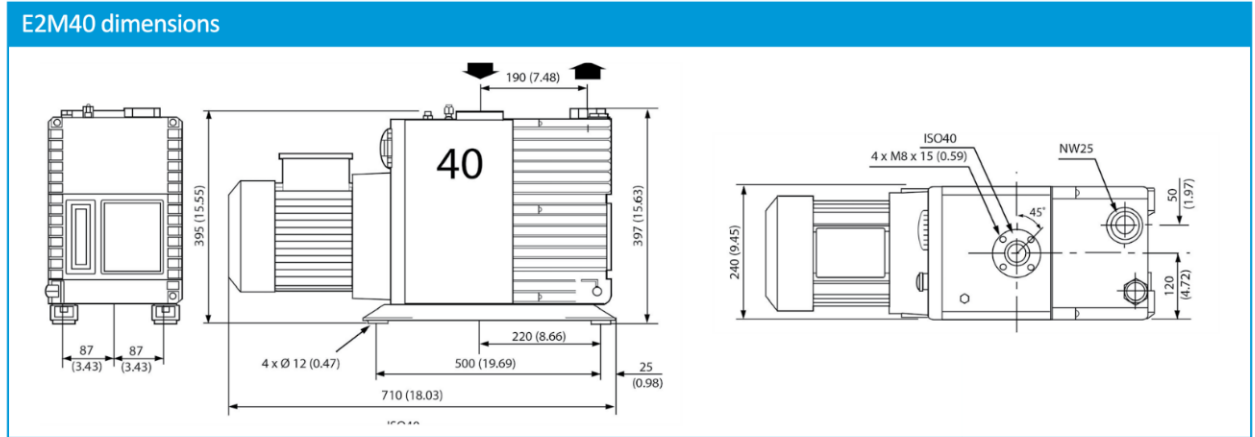
Each EM pump is supplied Ultragrade 70 oil.  
For PFPE prepared FX pumps Fomblin® to be ordered separately.

## Technical Data



	Units	E2M40	E2M80
<b>Displacement</b>			
50 Hz	m <sup>3</sup> h <sup>-1</sup> /ft <sup>3</sup> min <sup>-1</sup>	42.5/25	80/47.1
60 Hz	m <sup>3</sup> h <sup>-1</sup> /ft <sup>3</sup> min <sup>-1</sup>	50.5/29.7	96/56.5
<b>Speed (Pneurop)</b>			
50 Hz	m <sup>3</sup> h <sup>-1</sup> /ft <sup>3</sup> min <sup>-1</sup>	37/218	74/43.6
60 Hz	m <sup>3</sup> h <sup>-1</sup> /ft <sup>3</sup> min <sup>-1</sup>	44/25.9	90/53
Number of stages		2	
<b>Ultimate vacuum (total pressure)</b>			
without gas ballast	mbar/Torr	1 x 10 <sup>-3</sup> /7.7 x 10 <sup>-4</sup>	
with gas ballast	mbar/Torr	7 x 10 <sup>-3</sup> /5.4 x 10 <sup>-3</sup>	
<b>Ultimate with Fomblin®</b>			
without gas ballast	mbar	1 x 10 <sup>-2</sup>	
Inlet connection		ISO40	
Outlet connection		25 mm flange suitable for NW25	
Max outlet pressure		0.5 bar gauge	
Max inlet pressure for water vapour	mbar/Torr	7/5.3	5/3.8
Max water vapour pumping rate	kg h <sup>-1</sup> /lb h <sup>-1</sup>	0.2/0.4	0.3/0.7
Weight	kg/lb	75/165	102/224
Motor protection rating		IP55	
<b>Motor power</b>			
50 Hz	kW/hp	11/15	22/3
60 Hz	kW/hp	15/2	3/4
<b>Standard oil capacity</b>			
maximum	litre	4.0	6.3
minimum	litre	22	4
<b>PFPE oil capacity</b>			
maximum	litre	4.0	
minimum	litre	22	
Recommended oil		Ultragrade 70	
Noise level	dB(A)	65	70

# Dimensions



# Service and Spares

## Maintenance Kits

Product description	Order no.
<b>E2M40</b>	
Clean and overhaul kit	<a href="#">A34401131</a>
Blade Kit	<a href="#">A36401050</a>
Major service kit	<a href="#">A36401814</a>
Interior assembly	<a href="#">A36401100</a>
<b>E2M80</b>	
Interior assembly	<a href="#">A36501100</a>
Clean and overhaul kit	<a href="#">A34501131</a>
Blade kit	<a href="#">A36501050</a>
Major service kit	<a href="#">A36501814</a>
<b>All models</b>	
Fine oil-filter	<a href="#">A22304041</a>
Common seals kit	<a href="#">A34401820</a>