

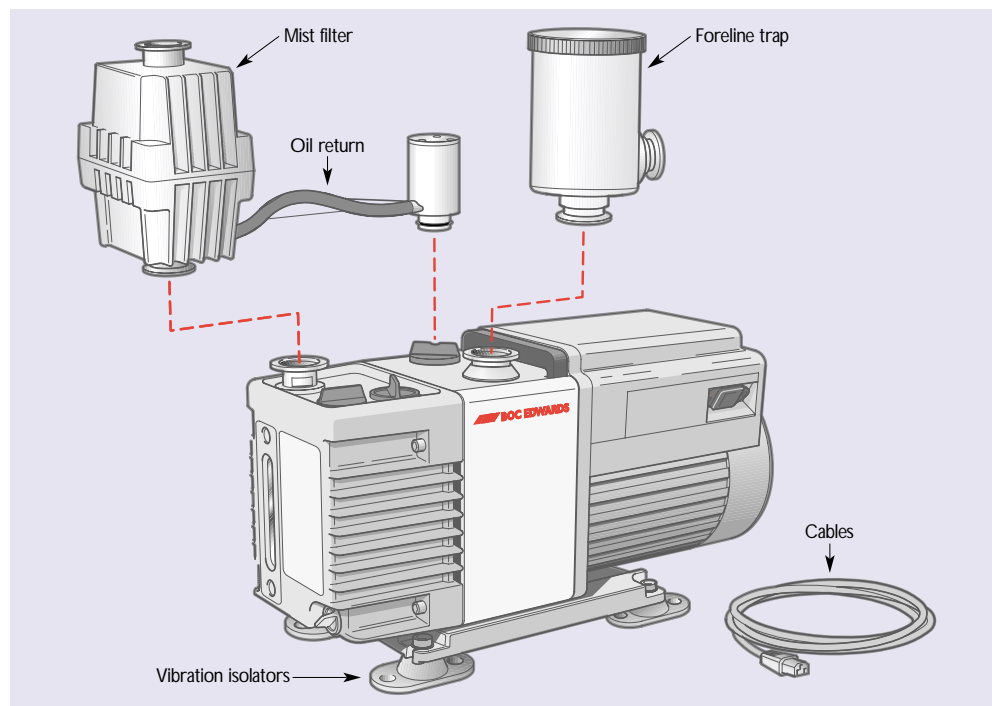
## Ordering details

Description	Ordering Number	Ordering Number
	Ultragrade Oil	PFPE Oil
<b>RV3</b> 115/230V, 50/60Hz set to 230V	A65201903	A65209903
100/200V, 50/60Hz	A65201904	A65209904
200-220V/380-415V, 50Hz		
200-230/460V, 60Hz, 3 phase	A65201905	A65209905
115/230V, 50/60Hz set to 115V	A65201906	A65209906
<b>RV5</b> 115/230V, 50/60Hz set to 230V	A65301903	A65309903
100/200V, 50/60Hz	A65301904	A65309904
200-220V/380-415V, 50Hz		
200-230/460V, 60Hz, 3 phase	A65301905	A65309905
115/230V 50/60Hz set to 115V	A65301906	A65309906
<b>RV8</b> 115/230V, 50/60Hz set to 230V	A65401903	A65409903
100/200V, 50/60Hz	A65401904	A65409904
200-220V/380-415V, 50Hz		
200-230/460V, 60Hz, 3 phase	A65401905	A65409905
115/230V, 50/60Hz set to 115V	A65401906	A65409906
<b>RV12</b> 115/230V, 50/60Hz set to 230V	A65501903	A65509903
100/200V, 50/60Hz	A65501904	A65509904
200-220V/380-415V, 50Hz		
200-230/460V, 60Hz, 3 phase	A65501905	A65509905
115/230V, 50/60Hz set to 115V	A65501906	A65509906

Description	Ordering Number
<b>Cord Sets</b> UK, three pin plug	A50505000
North European plug	A50506000
North American plug	A50507000
<b>Oil</b> Ultragrade 19, 1 liter bottle	H11025015
Fomblin YVAC 06/6 1kg (532ml)	H11301019
<b>Inlet accessories</b> Foreline trap - FL20K	A13305000
<b>Outlet accessories</b> Oil mist filter - EMF10	A46226000
Oil mist filter - EMF20	A46229000
<b>Oil returns</b> Clean application (no gas ballast)	A50420000
Adjustable gas ballast	A50523000
<b>Spare kits</b> Clean and overhaul kit	A65201131

Note: All pumps supplied with initial charge of oil

## Accessories



# RV Rotary Vane Pumps

BOC Edwards is a world leader in process equipment, materials and services for electronics, industrial and scientific applications. Our aim is to offer customers solutions that result in a measurable improvement in productivity.

### BOC EDWARDS PRODUCTS AND SERVICES

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for Better Process Results



# Proven performance that sets the industry standard

BOC Edwards' 30 years of experience in scientific applications affords us a deep understanding of research practices and the critical role that vacuum plays within them. From this platform, and through collaboration with the major analytical instrument manufacturers, we develop and support innovative vacuum products that underpin the customer's entire research process.

After 10 years, BOC Edwards RV pumps have become the industry standard vacuum pump for scientific primary pumping applications. RV pumps are unique in their capability to deliver high or low throughputs with ultimate high vacuum, which combined with ultra-low noise levels, makes them ideal for a wide range of applications and environments.

All pumps are approved to UL and CSA standards by an external test house. BOC Edwards has a global network, providing world-wide support for product applications and service.

## Typical Applications

	RV 3/5	RV 8/12
Analytical instruments - GCMS	●	
Analytical instruments - LCMS		●
Centrifuges, ultra-high speed	●	●
Coating	●	●
Degassing/curing - oil, epoxy resin	●	●
Distillation/extraction/filtration	●	●
Freeze drying	●	●
Furnaces	●	●
Gas bottle filling/emptying	●	●
Gel drying	●	●
Glove boxes, ovens	●	●
Laboratory bench top vacuum	●	●
Leak detectors, Helium	●	●
Load locks and transfer chambers	●	●
Refrigeration manufacture	●	●
Research and development	●	●
Rotary, centrifugal evaporators	●	●
Scanning electron microscopes - SEM	●	●
SEM/FIB (ion beam repair)	●	●
Solvent recovery	●	●
Surface science instruments	●	●
Turbomolecular backing pumps	●	●

### Adjustable gas ballast

Excellent water vapor handling capacity

### Patented inlet valve

Smooth opening, fast closing

### Integral air bleed

Quiet operation

### Wide voltage motors

All major countries covered with less stock holding

### Integral IEC 60320 connector

No customer wiring

### Motor on/off switch

Easy controls

### Patented mode switch

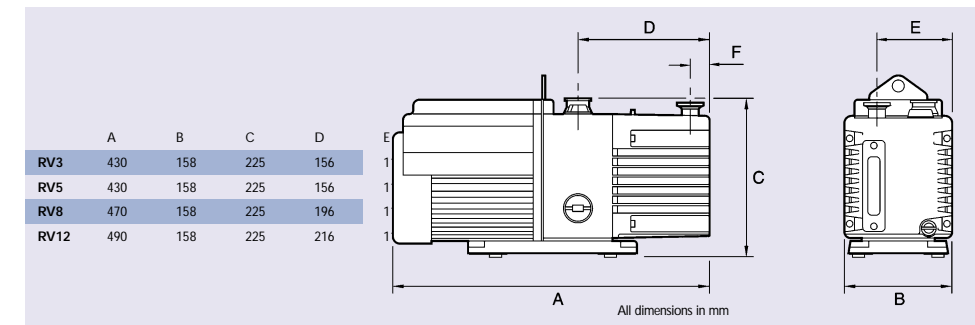
High vacuum or high throughput in one pump



All pumps externally approved to EN61010, CSA C22.2 1010, UL 61010 standards

Safe product

## Dimensions



## Specifications

	H <sub>z</sub>	Units	RV 3	RV 5	RV 8	RV 12
<b>VACUUM DATA</b>						
Peak pumping speed	60	cfm	2.3	3.6	5.9	8.4
	50	m <sup>3</sup> /h	3.3	5.1	8.5	12
Ultimate pressure (Total)	60	Torr	1.5 x 10 <sup>-3</sup>	1.5 x 10 <sup>-3</sup>	1.5 x 10 <sup>-3</sup>	1.5 x 10 <sup>-3</sup>
	50	mbar	2.0 x 10 <sup>-3</sup>	2.0 x 10 <sup>-3</sup>	2.0 x 10 <sup>-3</sup>	2.0 x 10 <sup>-3</sup>
Ultimate pressure GB I (Total)	50/60	Torr	2.3 x 10 <sup>-2</sup>	2.3 x 10 <sup>-2</sup>	2.3 x 10 <sup>-2</sup>	2.3 x 10 <sup>-2</sup>
		mbar	3.0 x 10 <sup>-2</sup>	3.0 x 10 <sup>-2</sup>	3.0 x 10 <sup>-2</sup>	3.0 x 10 <sup>-2</sup>
Ultimate pressure GB II (Total)	50/60	Torr	9.1 x 10 <sup>-2</sup>	9.1 x 10 <sup>-2</sup>	4.6 x 10 <sup>-2</sup>	9.1 x 10 <sup>-2</sup>
		mbar	1.2 x 10 <sup>-1</sup>	1.2 x 10 <sup>-1</sup>	6.0 x 10 <sup>-2</sup>	1.2 x 10 <sup>-1</sup>
High throughput mode	50/60	Torr	2.3 x 10 <sup>-2</sup>	2.3 x 10 <sup>-2</sup>	2.3 x 10 <sup>-2</sup>	2.3 x 10 <sup>-2</sup>
		mbar	3.0 x 10 <sup>-2</sup>	3.0 x 10 <sup>-2</sup>	3.0 x 10 <sup>-2</sup>	3.0 x 10 <sup>-2</sup>
Water vapor tolerance		Torr	60	38	38	24
		mbar	80	50	60	32
Water vapor capacity - GB I		g/h	60	60	60	60
Water vapor capacity - GB II		g/h	220	220	220	290

<b>MOTOR DATA</b>						
Motor rating 1 phase (nominal)	60	W	300	300	550	550
	50	W	250	250	450	450
Motor rating 3 phase		W				
Nominal rotation speed	60	rpm	1800	1800	1800	1800
	50	rpm	1500	1500	1500	1500

<b>PHYSICAL DATA</b>						
Weight		lb	47.5	47.5	57	58
		kg	21.5	21.5	26	26.3
Length		inch	16.9	16.9	18.5	19.3
		mm	430	430	470	490
Width		inch	6.2	6.2	6.2	6.2
		mm	158	158	158	158
Height		inch	8.9	8.9	8.9	8.9
		mm	225	225	225	225

Oil capacity		liters	0.7	0.7	0.75	1
Oil type (Ultragrade)			19	19	19	19
Inlet flange			NW25	NW25	NW25	NW25
Exhaust flange			NW25	NW25	NW25	NW25
Noise level	50	dBA	48	48	48	48
Operating temperature range		°C	12 to 40	12 to 40	12 to 40	12 to 40