



# nRVi ENHANCED ROTARY VANE PUMPS

[edwardsvacuum.com](http://edwardsvacuum.com)



Edwards new nRVi two stage oil sealed rotary vane pumps have been designed to deliver an enhanced and a consistent performance worldwide. By incorporating Edwards drive technology, with the industry leading RV pump, oil sealed vacuum technology has been brought into the 21<sup>st</sup> century.

Choice of enhanced  
pumping speeds

Proven pumping  
mechanism

Flexibility of control

Auto-sensing universal  
voltage operation



## Flexible control- enjoy the difference

Control is at the core of nRVi. The choice of control options are standard with nRVi, either manual, simple remote or serial communications may be utilised to provide real control and better installation for the system builder. Standby mode allows the user to set the pumping speed and tune performance.

## Intelligent proven performance

The intelligent drive offers universal voltage operation, and its auto-sensing wide voltage control ensures a consistent worldwide performance. For system designers trying to meet European harmonic emission requirements there is an enhanced EMC version for high voltage operation.

nRVi is the latest addition to the Edwards intelligent pumping range available in pumping speeds of 4, 6, 10, 14 m<sup>3</sup>h<sup>-1</sup>, and are the ideal oil sealed rotary vane pumps for Scientific OEMs and R&D end users in applications where a consistent performance, control and reliability are essential.

### Order information

High volts version	
Product description	Order number
nRV4i 200-240V 1-ph 50/60 Hz	A65601903
nRV6i 200-240V 1-ph 50/60 Hz	A65701903
nRV10i 200-240V 1-ph 50/60 Hz	A65801903
nRV14i 200-240V 1-ph 50/60 Hz	A65901903
nRV4i FX 200-240V 1-ph 50/60 Hz	A65609903
nRV6i FX 200-240V 1-ph 50/60 Hz	A65709903
nRV10i FX 200-240V 1-ph 50/60 Hz	A65809903
nRV14i FX 200-240V 1-ph 50/60 Hz	A65909903

Universal volts version	
Product description	Order number
nRV4i 100-127/200-240V 1-ph 50/60 Hz	A65601983
nRV6i 100-127/200-240V 1-ph 50/60 Hz	A65701983
nRV10i 100-127/200-240V 1-ph 50/60 Hz	A65801983
nRV14i 100-127/200-240V 1-ph 50/60 Hz	A65901983
nRV4i FX 100-127/200-240V 1-ph 50/60 Hz	A65609983
nRV6i FX 100-127/200-240V 1-ph 50/60 Hz	A65709983
nRV10i FX 100-127/200-240V 1-ph 50/60 Hz	A65809983
nRV14i FX 100-127/200-240V 1-ph 50/60 Hz	A65909983

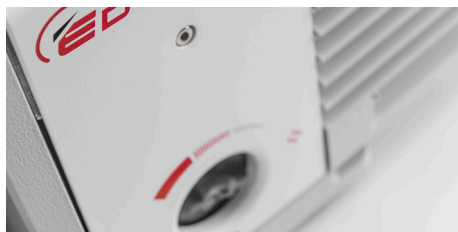
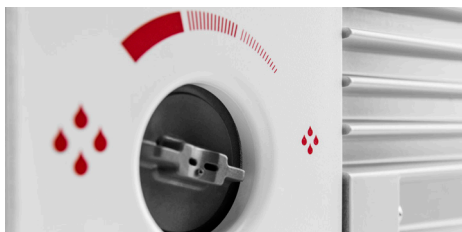
## Accessories and spares

Product description	Order number
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
Ultragrade 19 oil 1 litre	H11025015
Ultragrade 19 oil 4 litre	H11025013
Model EMF10 mist filter	A46226000
Model EMF20 mist Filter	A46229000
Gas ballast adaptor	A50502000
Clean application oil return kit	A50419000
Adjustable gas ballast oil return kit	A50523000
RV easy oil box drain kit	A50503000
Exhaust nozzle kit 3/4" to 15mm	A50509000
RV vibration isolator (0.45kg)	A24801404
Spares kit cartridge RV3/4i	A65201032
Spares kit cartridge RV5/6i	A65301032
Spares kit cartridge RV8/10i	A65401032
Spares kit cartridge RV12/14i	A65501032
Spares kit blades RV3/4i	A65201130
Spares kit blades RV5/6i	A65301130
Spares kit blades RV8/10i	A65401130
Spares kit blades RV12/14i	A65501130
Spares kit inlet valve RV	A65201036
Spares kit clean and overhaul RV	A65201131
Spares kit outer shaft seal kit RV	A65201134



## Time to make the intelligent choice

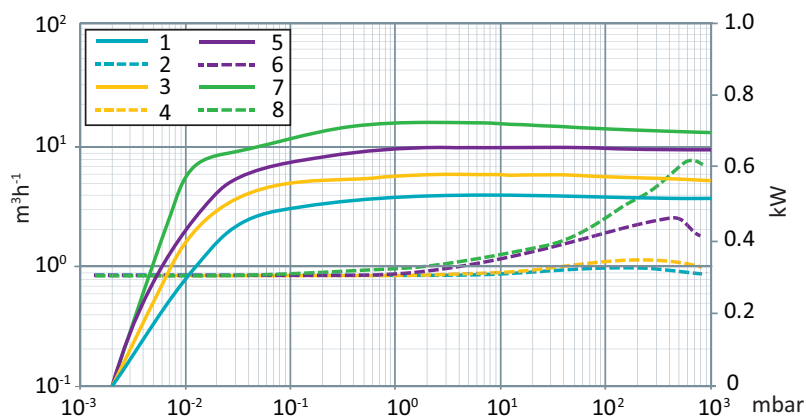
Auto-sensing universal voltage operation	Consistent worldwide pumping performance ensuring the instrument works the same in any country
Choice of enhanced pumping speeds	nRVi 4, 6, 10, 14 m <sup>3</sup> h <sup>-1</sup> pumping speeds
Flexibility of control	Manual control, simple remote control and serial communications control as standard allow more control options for the system builder
Enhanced EMC variant	High volt variant meets the EU harmonic emissions requirement of EN61000-3-2
Proven reliability	Over 300,000 RV pumps manufactured and pump of choice in many applications



## Technical Data

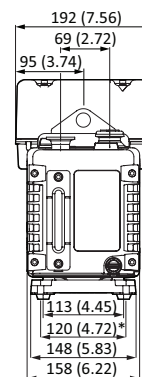
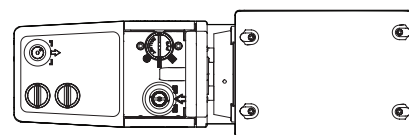
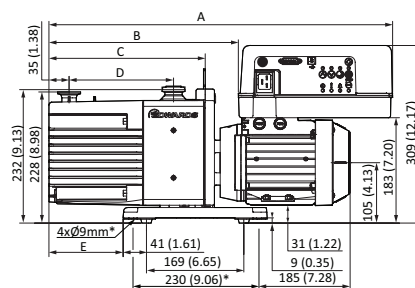
	Units	nRV4i	nRV6i	nRV10i	nRV14i
Pumping speed	m³h <sup>-1</sup> /ft³h <sup>-1</sup>	3.9/2.3	6.2/3.7	10/5.9	14.2/8.4
Ultimate pressure no gas ballast	mbar/Torr	2 x 10 <sup>-3</sup> /1.5 x 10 <sup>-3</sup>			
Ultimate with gas ballast 1	mbar/Torr	3 x 10 <sup>-2</sup> /2.3 x 10 <sup>-2</sup>			
Ultimate with gas ballast 2	mbar/Torr	1.2 x 10 <sup>-1</sup> / 9.1 x 10 <sup>-2</sup>		6.0 x 10 <sup>-2</sup> / 4.6 x 10 <sup>-2</sup>	1.2 x 10 <sup>-1</sup> / 9.1 x 10 <sup>-2</sup>
Water vapour tolerance (gas ballast 2)	ghr <sup>-1</sup>	220			290
Inlet port		NW25			
Outlet port		NW25			
Power supply		100 -240 V AC +/- 10% 50/60 Hz			
Power connection		IEC 60320 C19			
On/off control		Manual, remote parallel and serial comms			
Serial communications		RS232 and RS485			
Noise (Pressure)	dB(A)	<55			
Ambient temperature range	°C	12 to 40			
Cooling		Air Cooled			
Weight without oil	kg/lb	27.8 / 61.1		30.3 / 66.7	31.5 / 69.3
Oil type		Ultragrade 19			
Oil capacity min-max	litre	0.42-0.7		0.45-0.75	0.65-1.0

## Performance Graph



1. nRV4i
2. nRV4i supply power (kW)
3. nRV6i
4. nRV6i supply power (kW)
5. nRV10i
6. nRV10i supply power (kW)
7. nRV14i
8. nRV14i supply power (kW)

## Dimensions – mm (inches)



Pump	Dimensions				
	A	B	C	D	E
nRV4i	537	269	211	121	69
nRV6i	537	269	211	121	69
nRV10i	577	309	251	161	109
nRV14i	597	329	271	181	129

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