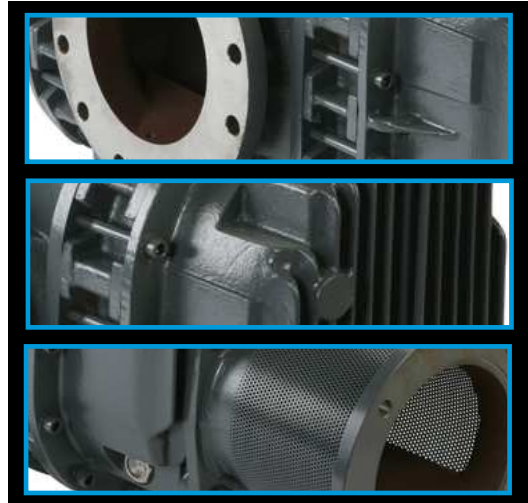


HV8000 MECHANICAL BOOSTER PUMP

MAXIMISE YOUR PRODUCTIVITY AND PERFORMANCE



The Edwards HV8000 high vacuum mechanical booster has been developed to provide high reliability operation in aggressive environments. With a nominal pumping speed of 7200 m³h⁻¹ (4241 ft³ min⁻¹) at 50 Hz, it is ideal for large industrial and chemical applications. IE3 energy efficiency 3 phase motors are now fitted to our standard motor pumps



Features and Benefits

Performance

- Stable process for consistent output – suitable for continuous operation over wide pressure ranges on heavy duty large scale applications.

Reliability

- No unplanned downtime – high performance water cooled mechanical shaft seal, large diameter shaft and large helical gears.

Adaptability

- Easy integration and safe – optional water cooled exhaust gas after cooler, shaft seal safety purge, temperature monitoring and VFD available.

Flexibility

- Configured to your needs – can be supplied with standard motor or without motor to allow a local motor to be fitted. Horizontal or vertical flow to suit application and system design.

Applications

- Steel degassing.
- Metallurgy.
- Coating.
- Process engineering industries.

Pump Range

- HV**
- HV8000



Performance Curves

HV8000 Mechanical booster pump

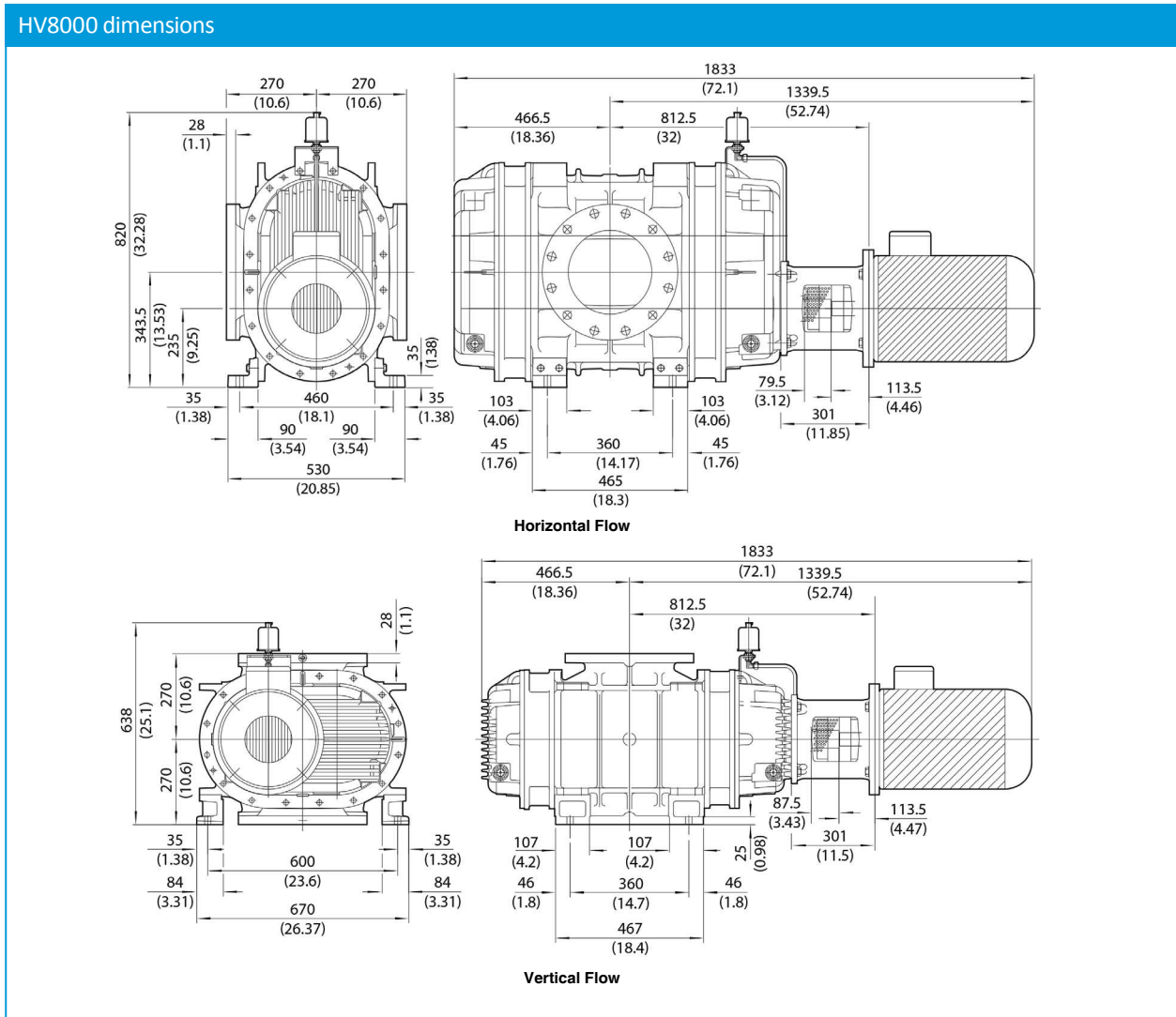
HV8000



Ordering information

Product description	Order no:
HV8000 VF IE3 Asia 50/60 Hz 200 V 50/60 Hz 380 V 60 Hz	A31103934
HV8000 VF IE3 EU/USA 50/60 Hz 18.5 kW 380-400 V 50 Hz 230/460 V 60 Hz	A31103940
HV8000 VF IE3 Asia 50/60 Hz 380 V 60 Hz	A31104934
HV8000 VF IE3 EU/USA 50/60 Hz 18.5 kW 380-400 V 50 Hz	A31104940
HV8000IND VF bare shaft	A31101985
HV8000IND HF bare shaft	A31102985

Dimensions



HV8000 pumps tend to be used in large pumping systems rather than simple combinations.

Technical Data



	Units	HV8000
Displacement (swept volume)		
50 Hz	m ³ h ⁻¹ /ft ³ min ⁻¹	7200/4241
60 Hz	m ³ h ⁻¹ /ft ³ min ⁻¹	8640/5089
Max rotation speed		
50 Hz	rpm	3000
60 Hz	rpm	3600
Max pressure differential		
50 Hz	mbar/Torr	190/143
60 Hz	mbar/Torr	120/90
Ultimate (depends on backing set)		
50 Hz	mbar/Torr	1.5 x 10 ⁻⁴ /1 x 10 ⁻⁴
60 Hz	mbar/Torr	2 x 10 ⁻⁴ /1.5 x 10 ⁻⁴
Standard motor power	kW/hp	18.5/25
Standard backing set speed requirements	m ³ h ⁻¹ /ft ³ min ⁻¹	2600/1530
Recommended oil		Mobil SHC 629
Max oil capacity (vertical gas flow config)	litre/US gal	8.3/2.18
Inlet/outlet connection		10" class 150 ASME B16.5
Inlet/outlet cooling water connection		Rp ½ ISO 7-1 (½ BSP)
End cover purge gas inlet		Rp ¾ ISO 7-1 (¾ BSP)
Max cooling water supply pressure	bar/psi	4/58
Max cooling water supply temp	°C/F	35/95
Cooling water flow rate	lmin ⁻¹ /US gal min ⁻¹	15/3.96
Noise level		82 dB(A)
Weight (without motor)	kg/lb	570/1257
Weight (with standard motor)	kg/lb	670/1474



Service, Spares and Accessories

HV Kit

Product description	Order no:
HV8000 VF motor mounting kit IEC	A31101002
HV8000 VF motor mounting kit NEMA	A31101006
HV8000 HF motor mounting kit IEC	A31102002
HV8000 HF motor mounting kit NEMA	A31102006
After cooler kit HV8000	A71205550

Gear Box Oil

Product description	Order no:
Gear Box Oil 4 Ltr Mobil SHC 629	H11023011

Spares

Product description	Order no:
HV8000 Set of O-Rings spare	A31101801
HV8000 mech seal kit spare	A31101802
HV8000 mech seal + sleeve kit spare	A31101803
HV8000 gear set spare	A31101804
HV8000 bearings kit spare	A31101805
HV8000 rotors kit spare	A31101806
HV8000 oil reservoir spare	A31101807
HV8000 sight glass spare	A31101808

Service

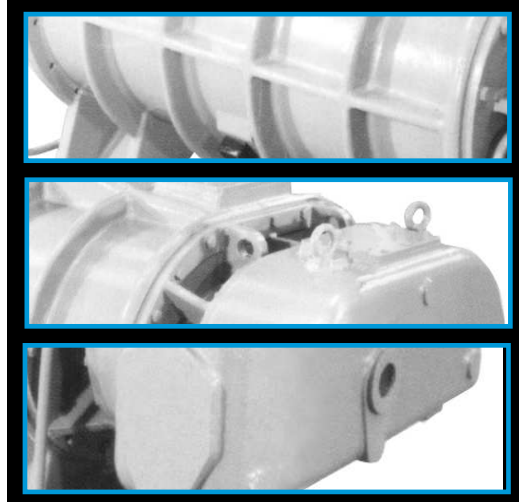
Edwards products, spares and accessories are available from Edwards companies in Belgium, Brazil, China, France, Germany, Israel, Italy, Japan, Korea, Singapore, United Kingdom, U.S.A. and a worldwide network of distributors. The majority of these centres employ Service Engineers who have undergone comprehensive Edwards training courses. Order spare parts and accessories from your nearest Edwards company or distributor.

When you order, please state for each part required:

- Model and item number of your equipment.
- Serial number (if any).
- Item number and description of the part.

HV30000/40000 MECHANICAL BOOSTER PUMP

MAXIMISE YOUR PRODUCTIVITY AND PERFORMANCE



HV30000/40000 is a high capacity mechanical booster used in the manufacture and assembly of large industrial vacuum systems. These pumps are backed by Edwards dry pumps or mechanical booster pumps. This range of high capacity booster pumps is designed to operate reliably for long periods with no need for maintenance. The HV pumps can be fitted with an inverter to allow them to be started at atmospheric pressure, at the same time as the dry pumps.



Features and Benefits

- Water cooled oil boxes and after cooler.
- Vertical flow, direct drive.
- Control with inverter or interlock with a pressure switch input.
- Very reliable with little maintenance.

Applications

- Steel degassing.
- Metallurgy.
- Coating.
- Process engineering industries.

Pump Range

- HV**
- HV30000
 - HV40000



Performance Curves

HV30000/40000 Mechanical Booster Pump

HV30000



Displacement (supply)	
50 Hz	30000 m ³ h ⁻¹ (17660 ft ³ min ⁻¹)
60 Hz	36000 m ³ h ⁻¹ (21200 ft ³ min ⁻¹)

HV40000



Displacement (supply)	
50 Hz	33333 m ³ h ⁻¹ (19620 ft ³ min ⁻¹)
60 Hz	40000 m ³ h ⁻¹ (23540 ft ³ min ⁻¹)

Ordering information

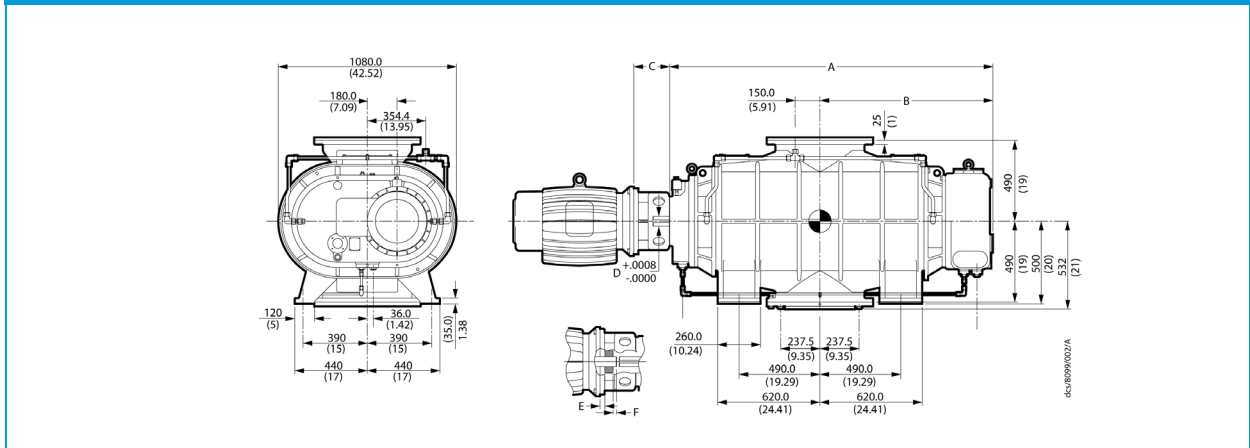
Product description	Order no:
HV30000 Vertical Flow Vacuum Booster Pump	On request

Ordering information

Product description	Order no:
HV40000 Vertical Flow Vacuum Booster Pump	On request

Dimensions

HV30000/40000 dimensions



Unit	HV30000	HV30000	HV30000	HV30000	HV40000	HV40000	HV40000	HV40000
Motor size	200 l (30 kW)	250 m (55 kW)	324 td (40 hp)	365 td (75 hp)	200 l (30 kW)	250 m (55 kW)	324 td (40 hp)	365 td (75 hp)
A	1959.36 (77.14)	1959.36 (77.14)	1959.36 (77.14)	1959.36 (77.14)	2099.31 (82.65)	2099.31 (82.65)	2099.31 (82.65)	2099.31 (82.65)
B	1048.77 (41.29)	1048.77 (41.29)	1048.77 (41.29)	1048.77 (41.29)	1118.62 (44.04)	1118.62 (44.04)	1118.62 (44.04)	1118.62 (44.04)
C	217.93 (8.58)	246.89 (9.72)	246.89 (9.72)	246.89 (9.72)	217.93 (8.58)	246.89 (9.72)	246.89 (9.72)	246.89 (9.72)
D Shaft Ø	2.3627	2.3627	2.3627	2.3627	2.3627	2.3627	2.3627	2.3627
E ¹	19.76 (0.78)	48.76 (1.92)	48.76 (1.92)	48.76 (1.92)	19.76 (0.78)	48.76 (1.92)	48.76 (1.92)	48.76 (1.92)
F ²	20.24 (0.80)	21.24 (0.84)	20.94 (0.82)	14.44 (0.57)	20.24 (0.80)	21.24 (0.84)	20.94 (0.82)	14.44 (0.57)

① Motor face to back of coupler.

② End of shaft to front of coupler.

Technical Data



	Units	HV30000	HV40000
Displacement			
50 Hz	m ³ h ⁻¹ /ft ³ min ⁻¹	30000/17660	33333/19620
60 Hz	m ³ h ⁻¹ /ft ³ min ⁻¹	36000/21200	40000/23540
Maximum pressure differential			
50 Hz	mbar	24	25
60 Hz	mbar	29	24
Recommended backing pumps		IDX1300 and HV8000	IDX1300 and HV8000
Maximum motor power	kW/hp	55/75	55/75
Ambient operating temperature	°C/°F	-20 to 40/-4 to 140	-20 to 40/-4 to 140
Cooling water supply			
Maximum supply temperature	°C/°F	30/85	30/85
Maximum supply pressure	bar/psi	5/73	5/73
Maximum operating humidity		90% RH	90% RH
Weight(without motor)	kg/lb	3017/6650	3400/7495



Service, Spares and Accessories

HV30000/40000 Accessories

For HV30000/40000 accessories and spares please refer to the manual on our website

Service

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