

MECHANICAL BOOSTERS

MAXIMISE YOUR PRODUCTIVITY AND PERFORMANCE

EH Mechanical Booster Pump	179
pXH Mechanical Booster Pump	187
Stokes 6" Series Mechanical Booster Pump	191
HV8000 Mechanical Booster Pump	201
HV30000/40000 Mechanical Booster Pump	205

Mechanical Boosters

- EH Mechanical Booster Pumps
- pXH Mechanical Booster Pumps
- Stokes 6" Mechanical Booster Pumps
- HV Mechanical Booster Pumps

Edwards provides a wide range of mechanical booster pumps to suit all the requirements of Industrial and Chemical processes.

Product ranges

The **EH Mechanical Booster** range gives our customers reassurance and peace of mind thanks to its large installed base, both in Industrial and Chemical markets. EH pumps, available in sizes from 250 to 4200 m³h⁻¹ displacement, feature the unique hydrokinetic drive, providing an efficient power transmission with benefits in economy, performance and compactness.



The **pXH Pumps** represent the new generation of large mechanical boosters providing high pumping capacity with reduced footprint. Available in sizes from 6965 to 8358 m³h⁻¹ displacement, are packaged as separate pumps with inverter driven controls. They are designed to be easily integrated with GXS, the last generation Edwards Industrial on board controlled dry pumps, into a high pumping speed dry pumping system



The **Stokes 6"** Series features a rugged design for robust and reliable operation. Available in sizes from 1040 to 6630 m³h⁻¹ displacement is configurable to customer needs: bare shaft or direct drive, 1800-3600 rpm, vertical or horizontal gas flow orientation with by-pass versions available.



HV Pumps feature a rugged design for robust and reliable operation in very large scale processes in Industrial and Chemical markets. Available in sizes from 7200 to 36000 m³h⁻¹ displacement, are configurable to customer needs: bare shaft or with direct drive motor fitted, can be specified with variable frequency drives for greater versatility.



EH MECHANICAL BOOSTER PUMP

THE INTELLIGENT CHOICE



The EH mechanical booster pump, based on the simple Roots principle, remains the favourite pump for applications where high pumping speeds are required for pressures in the region of 0.01 to 10 mbar.

This pump must always be backed by another pump, which can deliver against a high-pressure differential to atmospheric pressure. Operating at relatively low pressures, the mechanical booster pump is not exposed to the same concentrations of corrosive process media as is the backing pump, which makes it highly reliable.



Features and Benefits

- **Performance** - fast pump down time due to unique hydrokinetic drive
 - **Increased productivity** - faster pump down time
 - **More performance for less** - larger displacement than equivalent competitor models
 - **Stable operation** - optimised clearances and after coolers
- **Simplicity** - Continuous operation at all pressures
 - **Simple installation** - no need for pressure switches, bypass lines or variable frequency drives
 - **Reliability** - automatic overload protection, reliable shaft seal design
 - **Safe operation** - automatic overload protection
 - **Robust operation even for harsh duties** - proven shaft seal design to protect pumping mechanism and gearbox from cross-contamination
 - **High uptime and low maintenance** - internal evacuation of gearboxes extends shaft seal life
- **Reassurance**
 - **Peace of mind** - industry proven with large installed base

Applications

- Vacuum distillation
- Vacuum packaging
- Steel degassing
- Thin film coating
- Industrial freeze drying
- Semiconductor processing

Pump Range

- EH
- EH250
 - EH500
 - EH1200
 - EH2600
 - EH4200



Performance Curves

EH250 Mechanical Booster Pump

EH250



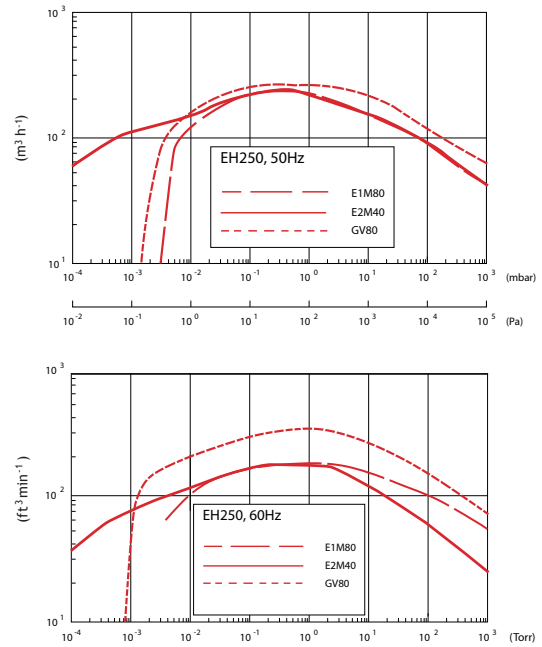
Displacement	
50Hz	310 m ³ h ⁻¹
	185 ft ³ min ⁻¹
60Hz	375 m ³ h ⁻¹
	220 ft ³ min ⁻¹

Ordering information

Product description	Order no:
EH250IND 200 / 380 V 3 ph 60 Hz	A30152934
EH250IND 200 / 380 V 3 ph 50 Hz	A30151934
EH250IND 220-240/380-415V, 3-ph, 50Hz, 2.2kW	A30151945
EH250IND 230V or 460V, 3-ph, 60Hz, 3 hp	A30152946
EH250FX 220-240/380-415V, 3-ph, 50Hz, 1.5kW	A30153935
EH250FX 230/460V, 3-ph, 60Hz, 2 hp	A30154936
EH250T4 220-240/380-415V, 3-ph 50Hz, 2.2kW	NRA996000

Please note that Fomblin ® must be purchased separately with PFPE Prepared pumps
Fomblin YVac 16/6 is appropriate

EH250 Performance Curve



EH500 Mechanical Booster Pump

EH500



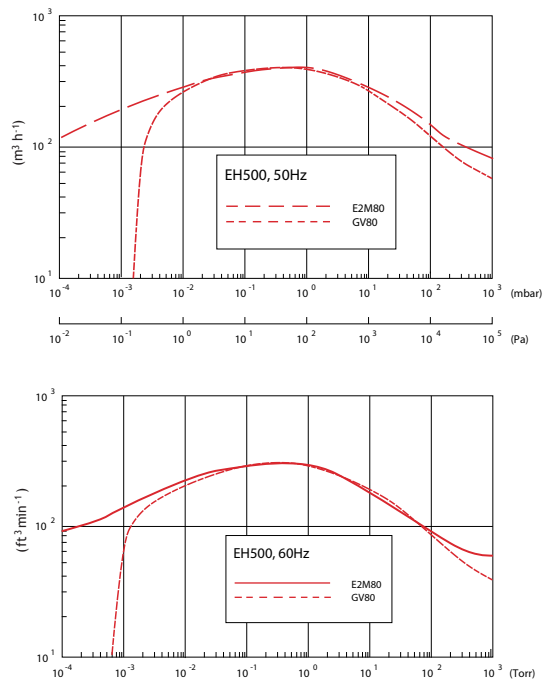
Displacement	
50Hz	505 m ³ h ⁻¹
	300 ft ³ min ⁻¹
60Hz	605 m ³ h ⁻¹
	335 ft ³ min ⁻¹

Ordering information

Product description	Order no:
EH500IND 208-230/460V, 3-ph, 60Hz, 3 hp	A30272946
EH500IND 200 / 380V 3 ph 60Hz	A30272934
EH500IND 200 / 380V 3 ph 50Hz	A30271934
EH500IND 220-240/380-415V, 3-ph, 50Hz, 2.2kW	A30271945
EH500FX 220-240/380-415V, 3-ph 50Hz, 2.2 kW	A30273935
EH500FX 208-230/460V, 3-ph, 60Hz, 3 hp	A30274936
EH500C 460V, 3-ph, 60Hz, 3 hp	NRA999000
EH500T3 220-240/380-415V, 3-ph, 50Hz, 2.2kW	NRA998000

Please note that Fomblin ® must be purchased separately with PFPE Prepared pumps
Fomblin YVac 16/6 is appropriate

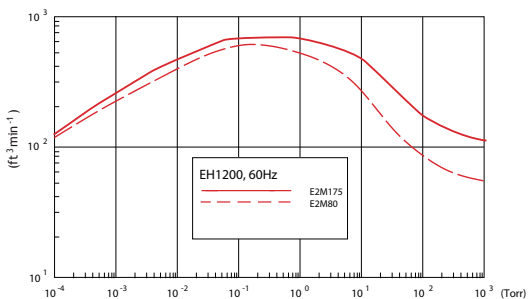
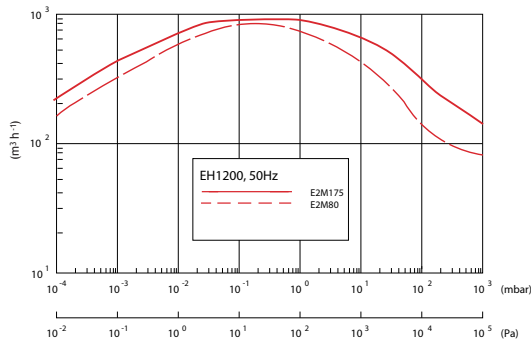
EH500 Performance Curve



EH1200 Mechanical Booster Pump

EH1200 Performance Curve

EH1200



Displacement

50Hz	1195 m ³ h ⁻¹
	715 ft ³ min ⁻¹
60Hz	1435 m ³ h ⁻¹
	845 ft ³ min ⁻¹



Ordering information

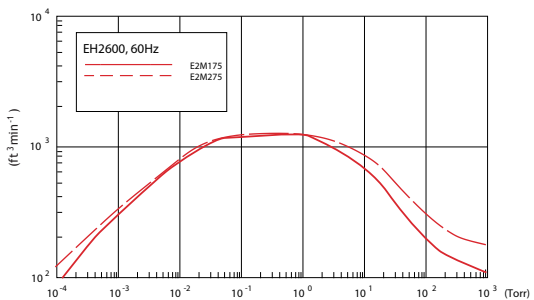
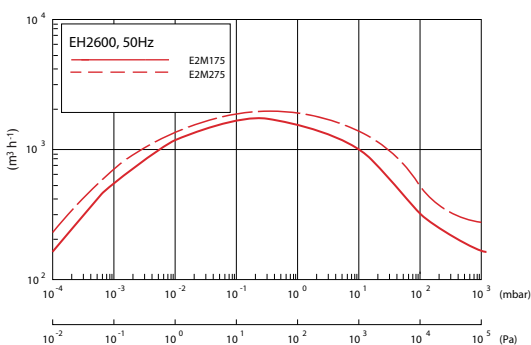
Product description	Order no:
EH1200IND 220-240/380-415V, 3-ph, 50Hz, 3kW	A30590935
EH1200IND 230/460V, 3-ph, 60Hz, 4 hp	A30591936
EH1200IND 200 / 380V 3 ph 60 Hz	A30591934
EH1200IND 200 / 380 V 3 ph 50 Hz	A30590934
EH1200FX 220-240/380-415V, 3-ph, 50Hz, 3 kW	A30592935
EH1200FX 230/460V, 3-ph, 60Hz, 4 hp	A30593936
EH1200C 230/460V, 3-ph, 60Hz, 4 hp	A30556982
EH1200T4 380-415V, 3-ph, 50Hz, 3kW	A30557900

Please note that Fomblin ® must be purchased separately with PFPE Prepared pumps
Fomblin YVac 16/6 is appropriate

EH2600 Mechanical Booster Pump

EH2600 Performance Curve

EH2600



Displacement

50Hz	2590 m ³ h ⁻¹
	1525 ft ³ min ⁻¹
60Hz	3110 m ³ h ⁻¹
	1830 ft ³ min ⁻¹



Ordering information

Product description	Order no:
EH2600IND 380-415V, 3-ph, 50Hz, 11 kW	A30775946
EH2600IND 230/460V, 3-ph, 60Hz, 15 hp	A30776982
EH2600IND 200 / 380 V 3ph 50 Hz	A30754934
EH2600IND 200V, 3-ph, 50Hz, 11 kW	A30753934
EH2600FX 220-240/380-415V, 3-ph, 50Hz, 11kW	A30753935
EH2600FX 230/460V, 3-ph, 60Hz, 15 hp	A30754936
EH2600C 230/460V, 3-ph, 60Hz, 15 hp	A30756982
EH2600T3 380-415V, 3-ph, 50Hz, 11 kW	A30741935
EH2600T4 380-415V, 3-ph, 50Hz, 11 kW	A30779900

Please note that Fomblin ® must be purchased separately with PFPE Prepared pumps
Fomblin YVac 16/6 is appropriate

Performance Curves

EH4200 Mechanical Booster Pump

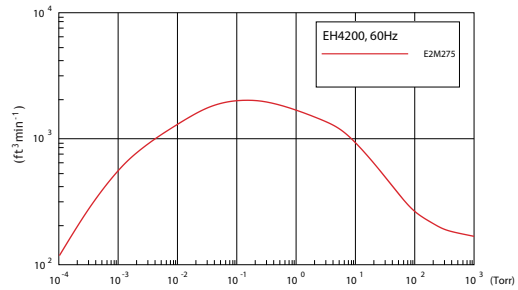
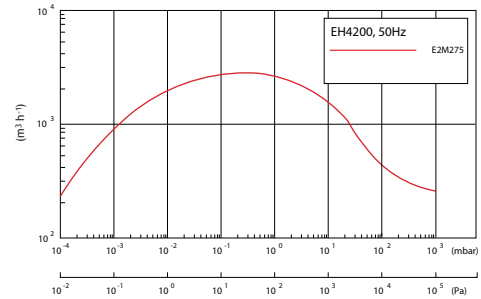
EH4200



Displacement

50Hz	4140 m ³ h ⁻¹
	2440 ft ³ min ⁻¹
60Hz	4940 m ³ h ⁻¹
	2935 ft ³ min ⁻¹

EH4200 Performance Curve

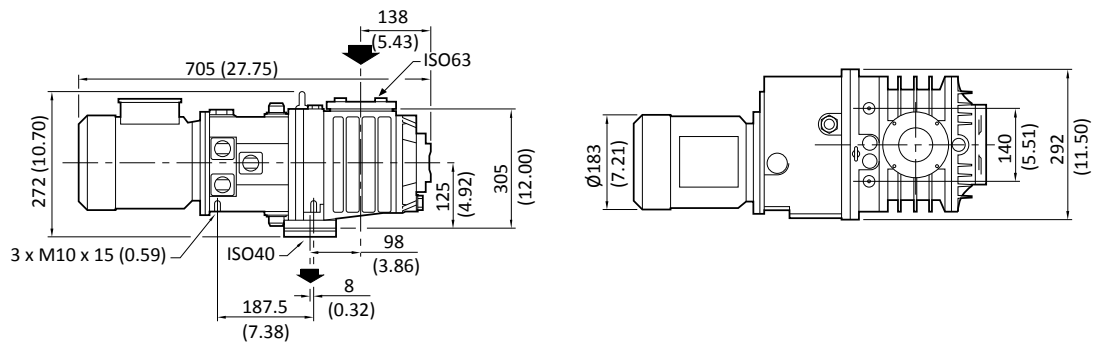


Ordering information

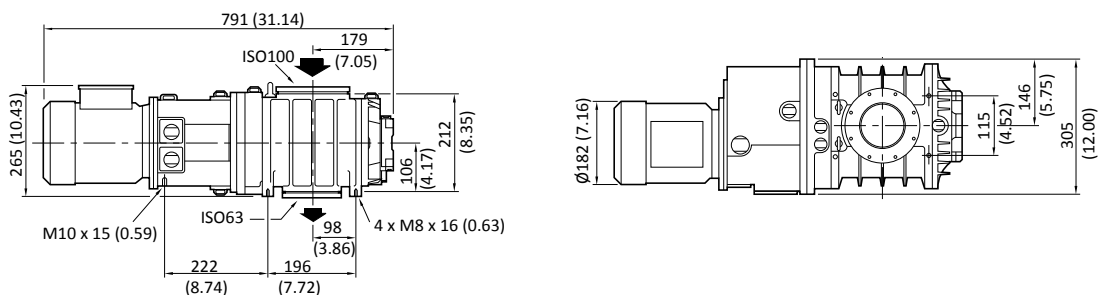
Product description	Order no:
EH4200IND 380-415V, 3-ph, 50Hz, 11kW	A30975946
EH4200IND 200 / 380V 3 ph 60 Hz	A30976934
EH4200IND 200 / 380 V 3 ph 50 Hz	A30975934
EH4200IND 230/460V, 3-ph, 60Hz, 15 hp	A30976982
EH4200C 230/460V, 3-ph, 60Hz, 15 hp	A30956982
EH4200T3 380-415V, 3-ph, 50Hz, 11 kW	A30941935
EH4200T4 380-415V, 3-ph, 50Hz, 11 kW	A30979900

Dimensions

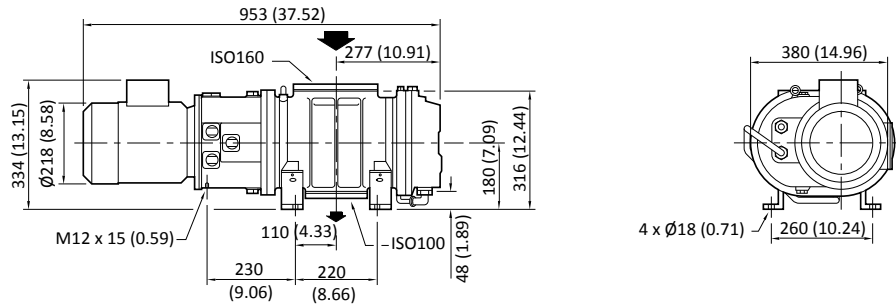
EH250 Dimensions



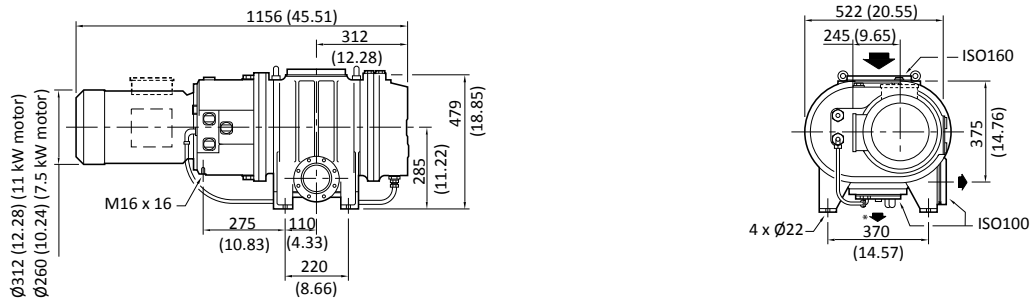
EH500 Dimensions



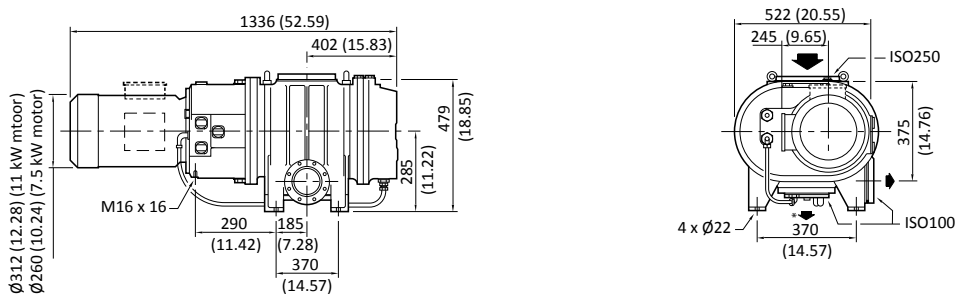
EH1200 Dimensions



EH2600 Dimensions



EH4200 Dimensions



Technical Data



Units		EH250	EH500	EH1200	EH2600	EH4200
Displacement (swept volume)						
50Hz	m ³ h ⁻¹ / ft ³ min ⁻¹	310 / 185	505 / 300	1195 / 715	2590/ 1525	4140/ 2440
60Hz	m ³ h ⁻¹ / ft ³ min ⁻¹	375 / 220	605 / 335	1435 / 845	3110/ 1830	4985/ 2935
Effective pumping speed with backing pump						
E2M40	m ³ h ⁻¹ / ft ³ min ⁻¹	240 / 141	350 / 206	840/ 495	-	-
E2M80	m ³ h ⁻¹ / ft ³ min ⁻¹	274 / 161	400 / 236	840/ 495	-	-
E2M175	m ³ h ⁻¹ / ft ³ min ⁻¹	-	440 / 259	930/ 548	1750/ 1031	-
E2M275	m ³ h ⁻¹ / ft ³ min ⁻¹	-	460 / 271	1020/ 601	1900/ 1119	3100/ 1825
Pressure differential across pump +						
50Hz	mbar/ Torr	0-180/ 0-140	0-110 / 0-83	0-90/ 0-68	0-120/ 0-90	0-70/ 0-52
60Hz	mbar/ Torr	0-150/ 0-115	0-90 / 0-68	0-75/ 0-56	0-67/ 0-50	0-50/ 0-38
Inlet connection		ISO63	ISO100	ISO160	ISO160	ISO250
Outlet connection		ISO40	ISO63	ISO100	ISO100	ISO100
Rotational speed						
50Hz	rpm	0-2900 rpm				
60Hz	rpm	0-3500 rpm				
Operating continuous inlet pressure	mbar/ Torr	0-1000 mbar / 0-760 Torr				
Maximum outlet pressure	mbar/ Torr	1000 mbar / 760 Torr				
Recommended backing pumps		GV80, E2M40, E2M80	GV80, E2M80	GXS160, GXS250, E2M80, E2M175	GXS250, GXS450, E2M175, E2M275	GXS450, E2M275
Electrical supply voltage, 3-ph						
50Hz		220-240V / 380-415V				
60Hz		230V / 460V				
Motor power						
Hydrocarbon	kW/ hp	2.2 / 3		3 / 4	11 / 15	
PFPE	kW/ hp	2.2 / 3		3 / 4	11 / 15	
ATEX	kW	2.2		3	11	
Explosion proof		3		4	15	
Ambient temperature range						
Operating	°C / F	5 to 40 / 40 to 104				
Storage	°C / F	-10 to 80 / 14 to 176				
Maximum operating humidity	RH	90%				
Cooling method		Air cooled			Water cooled	
Recommended oil						
Standard version		Ultragrade 20				
PFPE version		Fomblin® YVAC 16/6				
Oil capacity						
Gear case	litre	-	-	1.25	3.5	3.5
Coupling cover	litre	1.5		2.4	6.5	6.5 l
Shaft seal reservoir	litre	0.125			1.5	
Weight	kg / lb	69/ 152	106/ 233	149/ 328	345/ 759	481/ 1058

+ Depends on pressure

Service, Spares and Accessories

EH Accessories

Product description	Order no:
Inlet Mesh Assembly EH250/EH500	A60041569
Inlet Mesh Assembly 3.3 mm ISO63	A60041029
Inlet Mesh Assembly EH1200/EH2600	A60041570
Inlet Mesh Assembly EH4200	A60041571
ISO63 Screen Centring S/S Viton	C10521085
ISO100 Screen Centring ring S/S Viton	C10523085
ISO160 Screen Centring S/S Viton	C10524085
OLM500 oil level monitor*	A50434000

* Not suitable for ATEX boosters

Fomblin YVAC16/6

Product description	Order no:
Fomblin YVAC16/6	
1 kg	H11306019
5 kg	H11306020

Ultragrade Oil

Product description	Order no:
Ultragrade 20 Oil (1 litre)	H11024015
Ultragrade 20 Oil (12 x 1 litre)	H11024012
Ultragrade 20 Oil (4 litre)	H11024013
Ultragrade 20 Oil (4 x 4 litre)	H11024011

Service kits

Product description	Order no:
Spares Kit Con C&O EH/QMB250/500A	A30151815
Spares Kit Module EH/QMB250/500A	A30151820
Spares Kit Shim EH/QMB250/500A	A30151825
Spares Kit Con C&O EH/QMB1200	A30551815
Spares Kit Module EH/QMB1200	A30551820
Spares Kit Con C&O EH/QMB26/4200	A30751815
Spares Kit Module EH/QMB26/4200	A30751820
Spares Kit Shim EH/QMB12/26/4200	A30751825
Spares Kit Con C&O EH/QMB26/4200	A30751815
Spares Kit Module EH/QMB26/4200	A30751820
Spares Kit Shim EH/QMB12/26/4200	A30751825



This page has intentionally been left blank

PXH MECHANICAL BOOSTER PUMPS

THE INTELLIGENT CHOICE



The pXH pumps represent the new generation of large mechanical boosters providing high pumping capacity with reduced footprint. Available in sizes from 6965 to 8358 m³h⁻¹ displacement, are packaged as separate pumps with inverter driven controls. Designed to withstand harsh processes, they have a field proven reliability from the large installed base. pXH can be easily integrated with GXS, the last generation Edwards Industrial on board controlled dry pumps, into a high pumping speed dry pumping system.



Features and Benefits

- Inverter driven control for 'Plug and Pump', flexible operation and automated control of your process
- Low installation costs
- Consistent output
- Designed to withstand harsh industrial applications
- Robust and reliable

Applications

R&D / others

- Space simulation chambers evacuation
- Load lock evacuation
- Oil treatment
- Vacuum packaging

Drying

- Transformer drying
- Transformer vapour phase drying
- Pipeline drying
- Capacitor drying
- Li Ion Battery Drying

Coating

- Glass coating
- Roll / web coating
- Hard coating / CVD
- Surface activation
- Plasma spray

Steel Degassing

- VD vacuum degassing
- VOD vacuum oxygen decarburising

Metallurgy

- VIM vacuum induction melting
- VAR vacuum arc remelting
- MIM / vacuum sintering
- PIC (investment casting)
- Electroslag remelting
- Carbon vapour impregnation

Performance Curves

pXH Mechanical Booster Pump

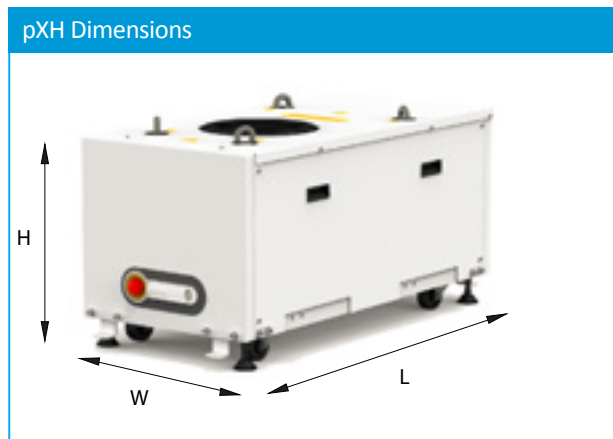
pXH



Ordering information

Product description	Order no:
pXH4500 380-460V	ACG000120300
pXH4500 200-230V	AC6000120300
pXH6000 380-460V	ACH000120300
pXH6000 200-230V	AC7000120300

Dimensions



		pXH4500	pXH6000
Length	mm	1086	1086
Width	mm	517	517
Height	mm	531	531

Technical data

		Units	pXH4500	pXH6000
Displacement		m ³ h ⁻¹	6965	8358
System inlet connection			ISO200	ISO250
System outlet connection			ISO160	NW160
Noise		dB (A)	66	
Mass		kg	400	435
Cooling Water	Cooling water connection		3/8" BSP quick connect	
	Maximum supply pressure	barg	6.9	
	Supply temperature	°C	10-25	
	Minimum pressure differential	barg	1.25	
	Typical water cooling flow rate	lmin ⁻¹	6	
Electrical supply type			200-230V 50/60 Hz / 380-460V 50/60 Hz	
			Han K 4/4	
Motor rating		kW (hp)	7.5 (10.0)	
Power at ultimate pressure (kW)		kW (hp)	1.9 (2.5)	



This page has intentionally been left blank

STOKES 6" SERIES MECHANICAL BOOSTER PUMPS

THE INTELLIGENT CHOICE



Stokes 6" series mechanical boosters are designed to be used in conjunction with rotary piston, dry vacuum, rotary vane, liquid ring or on the inlet of the backing pump to create a compact integrated package to increase pumping speed at working pressures and reduce the pump down time significantly.

The 6" Series are available in bare-shaft or direct drive motor variants, horizontal or vertical gas flow and with a single mechanical seal or a Process Isolation variant with 5 mechanical seals for optimum protection from dust and particulate contamination in arduous applications. Also By-pass variants are available which eliminate the need for pressure switches making the 6" Series one of the most versatile and flexible boosters.



Features and Benefits

- **Robust**
 - Over 80 years of time tested proven performance with experienced service and technical support
 - **Increased lifetime, reliability and simple to use** - large diameter shafts, ring feeder keyless gear locking system and dynamically balanced impellers
- **Reliable**
 - **Easy to maintain** - single mechanical seal
 - **Increased productivity** - 5 seal design for optimal process protection
- **Versatile**
 - **Configured for your needs** - bare shaft or direct drive, 1800-3600 rpm. Vertical or horizontal gas flow orientation with by-pass versions available
 - **Simple to service** - simple maintenance requirements result in long term reliability

Applications

- Automotive
- Chemical processing
- Heat treatment
- Leak detection
- Metallurgy
- PET processing
- Pharmaceuticals
- Thermal processing
- Transformer drying and cable fluid conditioning
- Vacuum coating
- Vacuum melting
- Many other industrial applications

Pump Range

Stokes	
- 607	- 61B
- 615	- 622

Performance Curves

Stokes 607

Stokes 607 Series Mechanical Booster



Displacement	
V belt 2750 rpm	1589 m ³ h ⁻¹
Direct drive 1800 rpm	1040 m ³ h ⁻¹
Direct drive 3000 rpm	1733 m ³ h ⁻¹
Direct drive 3600 rpm	2080 m ³ h ⁻¹

Stokes 607 Series Process Isolation Booster



Displacement	
V belt 2750 rpm	1589 m ³ h ⁻¹
Direct drive 3000 rpm	1733 m ³ h ⁻¹
Direct drive 3600 rpm	2080 m ³ h ⁻¹

Ordering information

Product description	Order no:
607 MHR CE, 7.5kW, 230/400V, 3-ph, 50Hz @3000rpm	900607MHR601
607 MHR CE, 7.5kW, 200-220V/380V, 3-ph, 50/60Hz@3000/3600rpm	900607MHR602
607 MVR CE, 7.5kW, 230/400V, 3-ph, 50Hz @ 3000rpm	900607MVR601
607 MVR CE, 7.5kW, 200-220V/380V, 3-ph, 50/60Hz @3000/3600rpm	900607MVR602
607 MHR (Bare shaft) Horizontal flow	900-607-MHR
607 MVR (Bare shaft) Vertical flow	900-607-MVR
607 MH20, 20 hp, 230/460V, 3-ph, 60Hz @ 1800rpm	900-607-MH20
607 MV05, 5 hp, 230/460V, 3-ph, 60Hz @ 1800rpm	900-607-MV05
607 MV20, 20 hp, 230/460V, 3-ph, 60Hz @ 1800rpm	900-607-MV20
607 MH05, 5 hp, 230/460V, 3-ph, 60Hz @ 1800rpm	900-607-MH05

Ordering information

Product description	Order no:
607 5HR CE 7.5kW, 230/400V, 3-ph, 50Hz @ 3000rpm	9006075HR601
607 5HR CE 7.5kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	9006075HR602
607 5H10, 10hp, 230/460V, 3-ph, 60Hz @1800rpm	900-607-5H10
607 5HR (Bare shaft) Horizontal flow	900-607-5HR
607 5V10, 10hp, 230/460V, 3-ph, 60Hz @ 1800rpm	900-607-5V10
607 5VR (Bare shaft) Vertical flow	900-607-5VR
607 5VR CE 7.5kW, 230/400V, 3-ph, 50Hz @ 3000rpm	9006075VR601
607 5VR CE 7.5kW, 200-220/380V, 3-ph, 50/60Hz @ 3000/3600rpm	9006075VR602

*Note: 607, 615 61B and 622 vertical gas flow boosters do not include mounting feet.

6" Mounting foot kit 426-715-002

Stokes 615 Series Mechanical Booster



Displacement	
V belt 2750 rpm	3375 m ³ h ⁻¹
Direct drive 1800 rpm	2210 m ³ h ⁻¹
Direct drive 3000 rpm	3685 m ³ h ⁻¹
Direct drive 3600 rpm	4420 m ³ h ⁻¹

Stokes 615 Series Process Isolation Booster



Displacement	
V belt 2750 rpm	3375 m ³ h ⁻¹
Direct drive 3000 rpm	3685 m ³ h ⁻¹
Direct drive 3600 rpm	4420 m ³ h ⁻¹

Ordering information

Product description	Order no:
615 MHR CE 11kW, 400V, 3-ph, 50Hz @ 3000rpm	900615MHR601
615 MHR CE 11kW, 200-220/380V, 3-ph, 50/60Hz @ 3000/3600rpm	900615MHR602
615 MV10, 10hp, 230/460V, 3-ph, 60Hz @ 1800rpm	900-615-MV10
615 MV15, 15hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-615-MV15
615 MVR (Bare shaft) Vertical flow	900-615-MVR
615 MVR CE 11kW, 400V, 3-ph, 50Hz @ 3000rpm	900615MVR601
615 MVR CE 11kW, 200-220/380V, 3-ph, 50/60Hz @ 3000/3600rpm	900615MVR602
615 MH10, 10hp, 230/460V, 3-ph, 60Hz @ 1800rpm	900-615-MH10
615 MH15, 15hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-615-MH15
615 MHR (Bare shaft) Horizontal flow	900-615-MHR

*Note: 607, 615 61B and 622 vertical gas flow boosters do not include mounting feet.
6" Mounting foot kit 426-715-002

Ordering information

Product description	Order no:
615 5HR CE 11kW, 230/400V, 3-ph, 50Hz @ 3000rpm	9006155HR601
615 5HR CE 11kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	9006155HR602
615 5H15, 15hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-615-5H15
615 5HR (Bare shaft) Horizontal flow	900-615-5HR
615 5V15, 15hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-615-5V15
615 5VR (Bare Shaft) Vertical flow	900-615-5VR
615 5VR CE 11kW, 230/400V, 3-ph, 50Hz @ 3000rpm	9006155VR601
615 5VR CE 11kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	9006155VR602

For performance curves of the various Stokes 6" booster coupled with a backing pump please consult Edwards



Performance Curves

Stokes 61B

Stokes 61B Series By-Pass Mechanical Booster

Displacement	
V belt 2750 rpm	3375 m ³ h ⁻¹
Direct drive 1800 rpm	2210 m ³ h ⁻¹
Direct drive 3000 rpm	3685 m ³ h ⁻¹
Direct drive 3600 rpm	4420 m ³ h ⁻¹

Stokes 61B Series Process Isolation Booster



Displacement	
V belt 2750 rpm	3375 m ³ h ⁻¹
Direct drive 3000 rpm	3685 m ³ h ⁻¹
Direct drive 3600 rpm	4420 m ³ h ⁻¹

Ordering information

Product description	Order no:
61B MHR CE, 18.5kW, 400V, 3-ph, 50Hz @ 3000rpm	90061BMHR601
61B MHR CE, 18.5kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	90061BMHR602
61B MH10, 10hp, 230/460V, 3-ph, 60Hz @ 1800rpm	900-61B-MH10
61B MH25, 25hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-61B-MH25
61B MHR (Bare shaft) Horizontal flow	900-61B-MHR
61B MV10, 10hp, 230/460V, 3-ph, 60Hz @ 1800rpm	900-61B-MV10
61B MV25, 25hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-61B-MV25
61B MVR (bare shaft) Vertical flow	900-61B-MVR
61B MVR CE, 18.5kW, 400V, 3-ph, 50Hz @ 3000rpm	90061BMVR601
61B MVR CE, 18.5kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	90061BMVR602

Ordering information

Product description	Order no:
61B 5HR CE 18.5kW, 230/400V, 3-ph, 50Hz @ 3000rpm	90061B5HR601
61B 5HR CE 18.5kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	90061B5HR602
61B 5H25, 25hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-61B-5H25
61B 5HR (Bare Shaft) Horizontal flow	900-61B-5HR
61B 5V25, 25hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-61B-5V25
61B 5VR (Bare shaft) Vertical flow	900-61B-5VR
61B 5VR CE 18.5kW, 230/400V, 3-ph, 50Hz @ 3000rpm	90061B5VR601
61B 5VR CE 18.5kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	90061B5VR602

*Note: 607, 615 61B and 622 vertical gas flow boosters do not include mounting feet.

6" Mounting foot kit 426-715-002

Stokes 622 Series Mechanical Booster



Displacement	
V belt 2750 rpm	5100 m ³ h ⁻¹
Direct drive 3000 rpm	5525 m ³ h ⁻¹
Direct drive 3600 rpm	6630 m ³ h ⁻¹
Direct drive 3600 rpm	4420 m ³ h ⁻¹

Stokes 622 Series Process Isolation Booster



Displacement	
V belt 2750 rpm	5100 m ³ h ⁻¹
Direct drive 3000 rpm	5525 m ³ h ⁻¹
Direct drive 3600 rpm	6630 m ³ h ⁻¹

Ordering information

Product description	Order no:
622 MHR CE 18.5kW, 400V, 3-ph, 50Hz @ 3000rpm	900622MHR601
622 MHR CE 18.5kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	900622MHR602
622 MH25, 25hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-622-MH25
622 MHR (Bare shaft) Horizontal flow	900-622-MHR
622 MV25, 25hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-622-MV25
622 MVR (Bare shaft) Vertical flow	900-622-MVR
622 MVR CE 18.5kW, 400V, 3-ph, 50Hz @ 3000rpm	900622MVR601
622 MVR CE 18.5kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	900622MVR602

*Note: 607, 615 61B and 622 vertical gas flow boosters do not include mounting feet.
6" Mounting foot kit 426-715-002

Ordering information

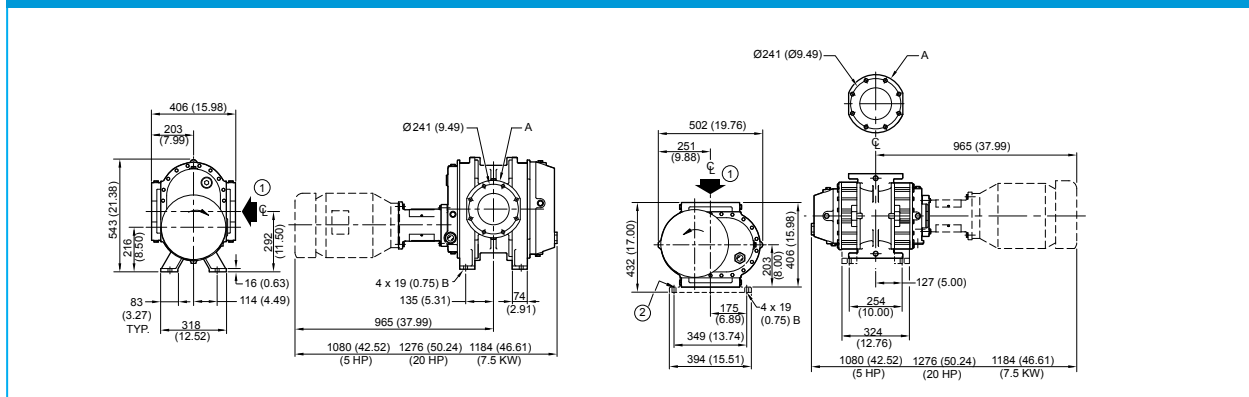
Product description	Order no:
622 5HR CE 18.5kW, 230/400V, 3-ph, 50Hz @ 3000rpm	9006225HR601
622 5HR CE 18.5kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	9006225HR602
622 5H25, 25hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-622-5H25
622 5HR (Bare shaft) Horizontal flow	900-622-5HR
622 5V25, 25hp, 230/460V, 3-ph, 60Hz @ 3600rpm	900-622-5V25
622 5VR (Bare shaft) Vertical flow	900-622-5VR
622 5VR CE 18.5kW, 230/400V, 3-ph, 50Hz @ 3000rpm	9006225VR601
622 5VR CE 18.5kW, 200-220/380V, 3-ph, 50/60Hz @3000/3600rpm	9006225VR602

For performance curves of the various Stokes 6" booster coupled with a backing pump please consult Edwards



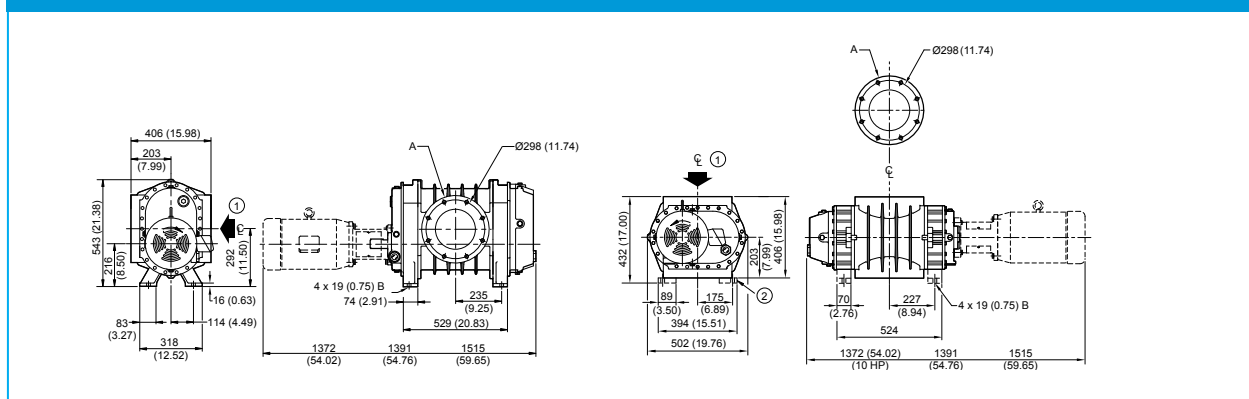
Dimensions

Stokes 607 Dimensions



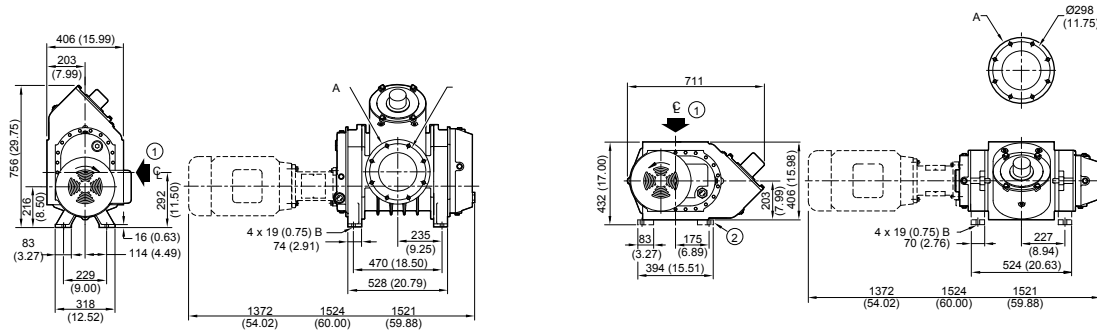
- A 6" pipe flange connection 11" (279 mm) OD x (152 mm) ID 8 x 3/4⁻¹⁰ NC-2B x 1 1/8" (29 mm) holes straddle both CL both flanges
- B DIA. Holes
- 1. STD Inlet
- 2. Optional feet

Stokes 615 Dimensions



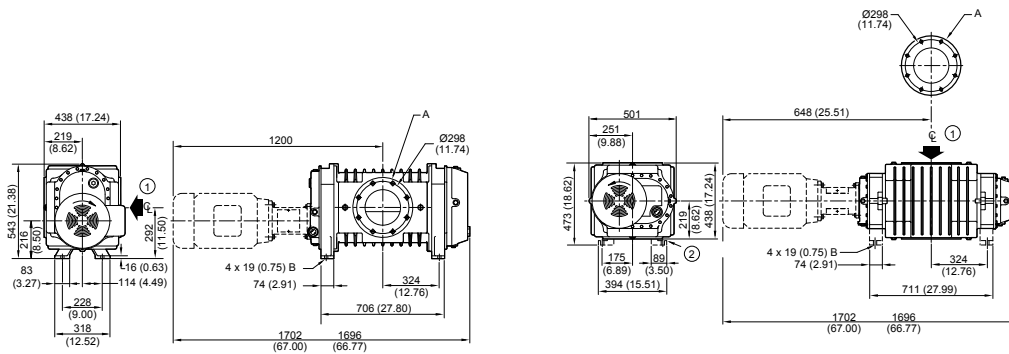
- A 8" pipe flange connection 13 1/2" (343 mm) OD x 8" (203 mm) ID 8 x 3/4⁻¹⁰ NC-2B x 1 1/8" (29 mm) holes straddle both CL both flanges
- B DIA. Holes
- 1. STD Inlet
- 2. Optional feet

Stokes 61B Dimensions



- A 8" pipe flange connection 13 1/2" (343 mm) OD x 8" (203 mm) ID 8 x 3/4⁻¹⁰ NC-2B x 1 1/8" (29 mm) holes straddle both CL both flanges
- B DIA. Holes
- 1. STD Inlet
- 2. Optional feet

Stokes 622 Dimensions



- A 8" pipe flange connection 13 1/2" (343 mm) OD x 8" (203 mm) ID 8 x 3/4⁻¹⁰ NC-2B x 1 1/8" (29 mm) holes straddle both CL both flanges
- B DIA. Holes
- 1. STD Inlet
- 2. Optional feet

Technical Data



Units	607	607 PIB	615	615 PIB	
Displacement					
V belt 2750 rpm	m ³ h ⁻¹ / ft ³ min ⁻¹	1589 / 935	1589 / 935	3375 / 2000	3375 / 2000
Direct drive 1800 rpm	m ³ h ⁻¹ / ft ³ min ⁻¹	1040 / 612	-	2210 / 1300	-
Direct drive 3000 rpm	m ³ h ⁻¹ / ft ³ min ⁻¹	1733 / 1020	1733 / 1020	3685 / 2170	3685 / 2170
Direct drive 3600 rpm	m ³ h ⁻¹ / ft ³ min ⁻¹	2080 / 1224	2080 / 1224	4420 / 2600	4420 / 2600
Inlet/outlet flanges	ASA/ANSI flange	6"		8"	
Motor power	hp (kW)	5 / 20 (7.5)	10 (7.5)	10 (11)	15 (11)
Cooling method		Air Cooled	-	Air cooled	-
By-pass available					
Cooling water	l min ⁻¹ / gal min ⁻¹	-	7.6-11.4 / 2-3	-	7.6-11.4 / 2-3
Oil capacity (horizontal flow)	litre / gal	1.9 / 0.51	1.9 / 0.51	1.9 / 0.51	1.9 / 0.51
Oil capacity (vertical flow)	litre / gal	4.1 / 1.1			
Max pressure differential	mbar / Torr	506 / 380			
Max temp rise	°C/F	135 / 275			
Max discharge temp	°C/F	191 / 375			
Weight bare shaft	kg / lbs	215 / 475		234 / 515	
Weight TEFC direct drive	kg / lbs	408 / 900	345 / 760	390 / 860	397 / 875
Recommended Oil		V- Lube H			



Units	61B	61B PIB	622	622 PIB	
Displacement					
V belt 2750 rpm	m ³ h ⁻¹ / ft ³ min ⁻¹	3375 / 2000	3375 / 2000	5100 / 3000	5100 / 3000
Direct drive 1800 rpm	m ³ h ⁻¹ / ft ³ min ⁻¹	2210 / 1300	-	-	5525 / 2350
Direct drive 3000 rpm	m ³ h ⁻¹ / ft ³ min ⁻¹	3685 / 2170	3685 / 2170	5525 / 2350	6630 / 3900
Direct drive 3600 rpm	m ³ h ⁻¹ / ft ³ min ⁻¹	4420 / 2600		6630 / 3900	
Inlet/outlet flanges	ASA/ANSI flange	8"			
Motor power	hp (kW)	1 10/25 (8.5)	25 (18.5)		
Cooling method		Air cooled		Air cooled	
By-pass available		Yes		-	-
Cooling water	l min ⁻¹ / gal min ⁻¹	-	7.6 - 11.4 / 2 - 3	-	7.6-11.4 / 2-3
Oil capacity (horizontal flow)	litre / gal	1.9 / 0.51	1.9 / 4.1	1.9 / 0.51	1.9 / 4.1
Oil capacity (vertical flow)	litre / gal	4.1 / 1.1	4.1 / 8.8	4.1 / 1.1	4.1 / 8.8
Max pressure differential	mbar / Torr			333mbar / 250Torr	333mbar / 250Torr
Max temp rise	°C/F	135 / 275		151 / 27	121 / 250
Max discharge temp	°C/F	191 / 375		177 / 350	
Weight bare shaft	kg / lbs	284 / 625		335 / 740	
Weight TEFC direct drive	kg / lbs	530kg / 1170	538 / 1185	617 / 1360	625 / 1370
Recommended Oil		-	V- Lube H		



Service, Spares and Accessories

Spares

Product description	Order no:
6 Inch MSeal Seal Kit	607-552-001
6 Inch MSeal Maintenance Kit *	607-552-002
Process Isolation 6XX-5HR Kit †	607-552-004
6" Vertical Gas Flow Mounting Feet	426-715-002

* This kit is the same as kit 607-552-001, but with bearings.

† This kit is for process isolation booster pumps, and must be used in conjunction with Kit 607-552-001 or 607-552-002.

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 world-wide network of distributors.

The majority of these centres employ Service Engineers who have undergone comprehensive Edwards training courses.

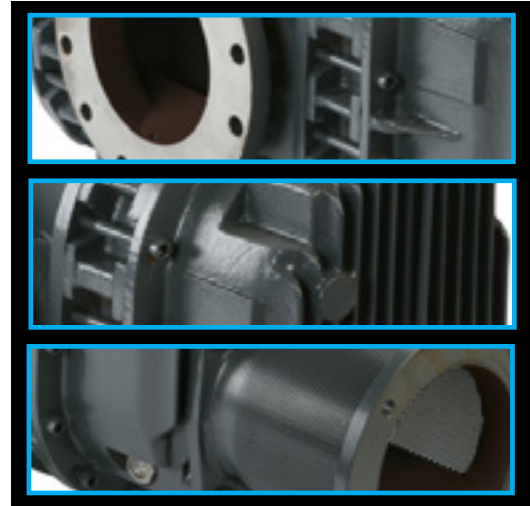
Order spare parts and accessories from your nearest Edwards company or distributor.

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.

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 50Hz, it is ideal for large industrial and chemical applications.



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



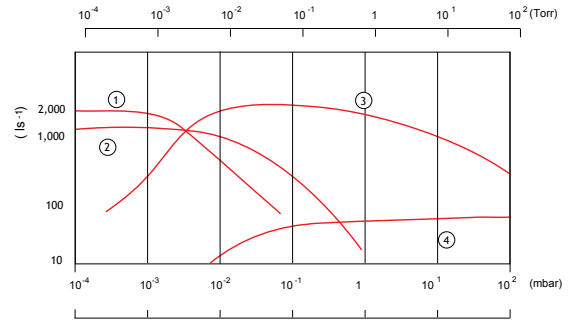
Displacement (swept volume)

50 Hz	7200 m ³ h ⁻¹ (4241 ft ³ min ⁻¹)
60 Hz	8640 m ³ h ⁻¹ (5089 ft ³ min ⁻¹)

Motor power

50 Hz	15 kW/ 20 hp
60 Hz	18.5 kW/ 25 hp

HV8000 Performance



Ordering information

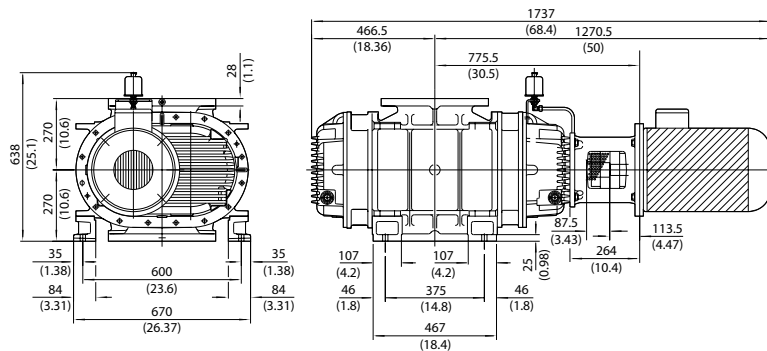
Product description	Order no:
HV8000IND VF 380-415V, 3-ph, 50Hz, 18.5kW	A31101935
HV8000IND VF 440-460V, 3-ph, 60Hz, 25hp	A31101936
HV8000IND VF bareshaft	A31101985
HV8000IND HF 380-415V, 3-ph, 50Hz, 18.5kW	A31102935
HV8000IND HF 440-460V, 3-ph, 60Hz, 25hp	A31102936
HV8000IND HF bareshaft	A31102985

In their most efficient range mechanical booster pumps (3) cover the gap between oil vapour diffusion pumps (1), Oil vapour booster pumps (2) and rotary or dry primary pump (4)

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

Dimensions

HV8000 Dimensions



Technical Data



	Units	HV8000
Displacement (swept volume)		
50Hz	m ³ h ⁻¹ / ft ³ min ⁻¹	7200 / 4241
60Hz	m ³ h ⁻¹ / ft ³ min ⁻¹	8640 / 5089
Max rotation speed		
50Hz	rpm	3000
60Hz	rpm	3600
Max pressure differential		
50Hz	mbar/ Torr	190 / 143
60Hz	mbar/ Torr	120 / 90
Ultimate (depends on backing set)		
50Hz	mbar/ Torr	1.5 x 10 ⁻⁴ / 1 x 10 ⁻⁴
60Hz	mbar/ Torr	2 x 10 ⁻⁴ / 1.5 x 10 ⁻⁴
Electrical supply voltage		
50Hz		380-415V, 3-ph
60Hz		440-460V, 3-ph
Standard motor power		
50Hz	kW/ hp	15 / 20
60Hz	kW/ hp	18.5/ 25
Standard backing set speed requirements		
	m ³ h ⁻¹ / ft ³ min ⁻¹	2600/ 1530
Recommended oil		
		Mobile 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 1/2 ISO 7-1 (1/2 BSP)
End cover purge gas inlet		
		Rp 3/8 ISO 7-1 (3/8 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	580 / 1279
Weight (with standard motor)		
	kg/ lb	720 / 1587



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 world-wide network of distributors.

The majority of these centres employ Service Engineers who have undergone comprehensive Edwards training courses.

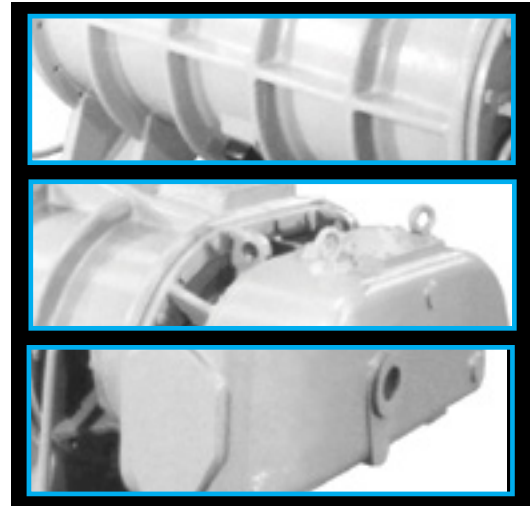
Order spare parts and accessories from your nearest Edwards company or distributor.

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

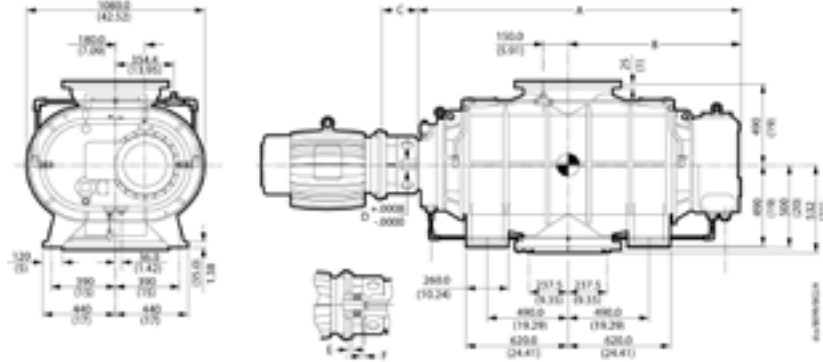
Product description	Order no:
HV30000 Vertical Flow Vacuum Booster Pump	On Request

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



Service, Spares and Accessories

HV30000/ 40000 Accessories

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

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 world-wide 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.

This page has intentionally been left blank



- ORDER TODAY -

Shop online at shop.edwardsvacuum.com

Contact our customer service team

Mechanical Boosters

Order your pump and accessories today!

How to order your pump and accessories at shop.edwardsvacuum.com

1

Take a look through our products and accessories in our webshop



EDWARDS

Home ▶ Webshop ▶ Products

WORLD-CLASS VACUUM SOLUTIONS
Giving you a clear edge

Products

- Small Wet/Dry Pumps [View Range](#)
- nEXT/EXT Turbo Pumps [View Range](#)
- STP Turbo Pumps [View Range](#)
- Small Diffusion Pumps [View Range](#)
- Large Diffusion Pumps [View Range](#)
- Measurement & Control [View Range](#)
- Vacuum Valves [View Range](#)
- Vacuum Fittings [View Range](#)
- Semiconductor Pumps [View Range](#)

OR

Search the webshop using a product number



EDWARDS

Home ▶ Webshop ▶ Products

WORLD-CLASS VACUUM SOLUTIONS
Giving you a clear edge

1502000000000

nXD56i 100 - 127 V, 200 - 240 V, 1ph 50/60 Hz
A73501983

Add to cart

2

Click 'Add to cart'

Use our Customer Services helpline

Contact our representatives at the below contact numbers:

EUROPE

UK Crawley +44 1293 528844

UK (local rate) 08459 212223

Belgium Brussels +32 2 300 0730

France Paris +33 1 4121 1256

Germany Munich 0800 000 1456

Italy Milan +39 02 48 4471

USA

Niagara (toll free) +1 800 848 9800

BRAZIL

Sao Paulo +55 11 3952 5000

ISRAEL

Qiryat-Gat +972 8 681 0633

ASIA PACIFIC

China (toll free) +86 400 111 9618

India, Pune +91 20 4075 2222

Japan, Yachiyo +81 47 458 8831

Korea, Bundang +82 31 716 7070

Singapore +65 6546 8408

Taiwan R.O.C. Jhunan Town +886 3758 1000

info@edwardsvacuum.com

This page has intentionally been left blank