

# EH MECHANICAL BOOSTER PUMPS

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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 m<sup>3</sup>h<sup>-1</sup> displacement, feature the unique hydrokinetic drive, providing an efficient power transmission with benefits in economy, performance and compactness.



## Increased productivity

The unique Hydro kinetic drive allows the pump to operate from atmospheric pressure leading to fast pump down times.



## Simple installation

No need for pressure switches, bypass lines or variable frequency drives.



## Reliability

Robust and safe operation - Automatic overload protection, reliable shaftseal design.



## Reassurance

Peace of mind - Industry proven, with a large installed base.

### Technical data

	Units	EH250	EH500	EH1200	EH2600	EH4200
Displacement 50 Hz	m <sup>3</sup> h <sup>-1</sup> /cfm	310/185	505/300	1195/715	2590/1525	4140/2440
Displacement 60 Hz	m <sup>3</sup> h <sup>-1</sup> /cfm	375/220	605/335	1435/845	3110/1830	4985/2935
Inlet connection		ISO63	ISO100	ISO160	ISO160	ISO250
Outlet connection						
Pressure differential across pump 50 Hz	mbar/torr	0-180/0-140	0-110/0-83	0-90/0-68	0-120/0-90	0-70/0-52
Pressure differential across pump 60 Hz	mbar/torr	0-150/0-115	0-90/0-68	0-75/0-56	0-67/0-50	0-50/0-38
Weight	kg/lb	69/152	106/233	149/328	401/882	481/1058
Dimensions (L, W, H)	mm	705, 305, 272	791, 305, 265	953, 380, 334	1156, 522, 479	1336, 522, 479
Motor Power 50 Hz	kW/hp	2.2/3	2.2/3	3.0/4	11.0/15	11.0/15
Motor Power 60 Hz	kW/hp	2.2/3	2.2/3	3.0/4	11.0/15	11.0/15
Oil capacity gear case	litre	N/A	N/A	1.25	3.5	3.5
Oil capacity coupling cover	litre	1.5	1.5	2.4	6.5	6.5
Oil capacity shaft seal reservoir	litre	0.125	0.125	0.125	0.15	0.15
Water cooling req	lhr <sup>1</sup> /gal min <sup>-1</sup>	N/A air cooled	N/A air cooled	120/0.53	250/1.1	250/1.1
Recommended oil		Ultragrade® 20 Fomblin® Y16/6	Ultragrade® 20 Fomblin® Y16/6	Ultragrade® 20 Fomblin® Y16/6	Ultragrade® 20 Fomblin® Y16/6	Ultragrade® 20 Fomblin® Y16/6

### Ordering information

Oil type	Voltage	EH250	EH500	EH1200	EH2600	EH4200
"Hydrocarbon oil (Oil supplied with pump)"	200V 50HZ IE3	A30105934	A30205934	A30505934	A30705934	A30905934
	380-400V 50HZ IE3	A30105945	A30205945	A30505945	A30705945	A30905945
	200V 60HZ, 380V 60HZ IE3	A30106934	A30206934	A30506934	A30706934	A30906934
	230 / 460V 60HZ IE3	A30106946	A30206946	A30506946	A30706946	A30906946
PFPE Prepared FX (Oil to be ordered separately)	200V 50HZ IE3	A30107934	A30207934	A30507934	A30707934	A30907934
	380-400V 50HZ IE3	A30107945	A30207945	A30507945	A30707945	A30907945
	200V 60HZ, 380V 60HZ IE3	A30108934	A30208934	A30508934	A30708934	A30908934
	230 / 460V 60HZ IE3	A30108946	A30208946	A30508946	A30708946	A30908946

For Chemical, ATEX versions, contact Edwards

### Applications

- Semiconductor processing
- Vacuum distillation
- Vacuum packaging
- Steel degassing
- Thin film coating
- Vacuum metallurgy
- Low density wind tunnels
- Space simulation
- Vacuum impregnation
- Oil drying and degassing
- Pharmaceutical freeze drying
- CO<sub>2</sub> lasers

### GLOBAL CONTACTS

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# HV 8000 - MECHANICAL BOOSTER PUMP

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HV8000 feature a rugged design for robust and reliable operation in very large scale processes both in the industrial and chemical markets.



## Performance

Stable process for consistent output - Suitable for continuous operation over wide pressure ranges.



## Adaptability

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



## Reliability

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



## 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.

### Technical Data

	Units	HV8000
Displacement 50 Hz	m <sup>3</sup> h <sup>-1</sup> /CFM	7200/4241
Displacement 60 Hz	m <sup>3</sup> h <sup>-1</sup> /CFM	8640/5089
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)
Pressure differential across pump 50 Hz	mbar/torr	190/143
Pressure differential across pump 60 Hz	mbar/torr	120/90
Max cooling water supply pressure	bar/psi	4.0/58
Max cooling water supply temp	°C/F	35/95
Cooling water flow rate	lmin <sup>-1</sup> /US gal min <sup>-1</sup>	15/3.96
Noise level	dB(A)	82
Weight (without motor)	kg/lb	580/1279
Weight (with standard motor) kg	kg/lb	720/1587
Motor Power 50Hz	kW/hp	15/20
Motor Power 60Hz	kW/hp	18.5/25
Oil capacity (vertical gas flow)	litre/gal	8.3/2.18
Dimensions Horizontal flow L x W x H	mm	1737 x 530 x 820
Dimensions Vertical flow L x W x H	mm	1737 x 670 x 638

### Ordering information

Product Description	Part Number
HV8000 VF 400 V 50 Hz 230/460 V 60 Hz 18.5 kW BOOSTER	A311-03-940
HV8000 VF 200 V 50 Hz 200/380 V 60 Hz 18.5 kW BOOSTER	A311-03-934
HV8000 VF BARESHAFT BOOSTER	A311-01-985
HV8000 HF 380/400 V 50 Hz 230/460 V 60 Hz 18.5 kW BOOSTER	A311-04-940
HV8000 HF 200 V 50 Hz 200/380 V 60 Hz 18.5 kW BOOSTER	A311-04-934
HV8000 HF BARESHAFT BOOSTER	A311-02-985

ATEX variants available on request

### Applications

- Steel degassing
- Metallurgy
- Coating
- Process industry

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# STOKES 6" MECHANICAL BOOSTER PUMPS

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The Stokes 6" Series features a rugged design for robust and reliable operation. Available in sizes from 1040 to 6630 m<sup>3</sup>/hr, it is one of the most versatile and flexible range of boosters.



### Robust

Increased lifetime, reliability and simple to use - Large diameter shafts, ring feeder keyless gear locking system and dynamically balanced impellers.



### Reliable

Improved design available - 5 mechanical seal variants for optimum protection against dust and particles in arduous applications.



### Versatile

Configured for your needs - Bare shaft or direct drive, 1800-3600 rpm. Vertical or horizontal gas flow orientation with by-pass versions available.



## Technical Data

	Units	607	607 PIB (Process Isolation)	615	615 PIB (Process Isolation)	615 BP (By-pass)	615 BP PIB (By-pass) Process Isolation	622	622 (Process Isolation)
Displacement 1800 rpm	m <sup>3</sup> h <sup>-1</sup> /CFM	1040/612	n/a	2210/1300	n/a	2210/2000	n/a	n/a	n/a
Displacement 2750 rpm	m <sup>3</sup> h <sup>-1</sup> /CFM	1589/935	1589/935	3375/2000	3375/2000	3375/2000	3375/2000	5100/3000	5100/3000
Displacement 3000 rpm	m <sup>3</sup> h <sup>-1</sup> /CFM	1733/1020	1733/1020	3685/2170	3685/2170	3685/2170	3685/2170	5525/2350	5525/2350
Displacement 3600 rpm	m <sup>3</sup> h <sup>-1</sup> /CFM	2080/1224	2080/1224	4420/2600	4420/2600	4420/2600	4420/2600	6630/3900	6630/3900
Inlet connection/Outlet connection		6 inch ASA /ANSI	6 inch ASA /ANSI	8 inch ASA /ANSI	8 inch ASA /ANSI	8 inch ASA /ANSI	8 inch ASA /ANSI	8 inch ASA /ANSI	8 inch ASA /ANSI
Max pressure differential	mbar/torr	506/380	506/380	506/380	506/380	n/a	n/a	333/250	333/250
Max temperature rise	°C/F	135/275	135/275	135/275	135/275	135/275	135/275	121/250	121/250
Max discharge temperature	°C/F	191/375	191/375	191/375	191/375	191/375	191/375	177/350	177/350
Weight bare shaft	kg/lb	215/475	215/475	234/515	234/515	284/625	284/625	335/740	335/740
Weight TEFC direct drive	kW/hp	408/900	345/760	390/860	297/875	530/1170	538/1185	617/1360	625/1370
Motor Power 50 Hz	kW/hp	7.5/10 @ 3000 rpm	7.5/10 @ 3000 rpm	7.5/10 @ 3000 rpm	11/15 @ 3000 rpm	18/25 @ 3000 rpm	18/25 @ 3000 rpm	18/25 @ 3000 rpm	18/25 @ 3000 rpm
Motor Power 60 Hz	kW/hp	3.7/5 15 /20	7.5/10	7.5/10 @ 1800 rpm 11/15 @ 3600 rpm	11/15 @ 3600 rpm	7.5/10 @ 1800 rpm 18 /25 @ 3600rpm	18/25 @ 3600rpm	18/25 @ 3600rpm	18/25 @ 3600rpm
Oil capacity (horizontal flow)	litre/gal	1.9/0.51	1.9/0.51	1.9/0.51	1.9/0.51	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	4.1/1.1	4.1/1.1	4.1/1.1	4.1/1.1	4.1/1.1	4.1/1.1	4.1/1.1
Water cooling req @ 30°C/85° F	lmin <sup>-1</sup> /galmin <sup>-1</sup>	air cooled	7.6-11.4/2-3	air cooled	7.6-11.4/2-3	air cooled	7.6-11.4/2-3	air cooled	7.6-11.4/2-3
Water inlet connection	NPT								
Recommended oil		V Lube H	V Lube H	V Lube H	V Lube H	V Lube H	V Lube H	V Lube H	V Lube H

### Ordering information

Part Number	Product Description	Part Number	Product Description
900607MHR934	607 MHR IE3 ASIA 50/60HZ	90061B5HR940	61B 5HR IE3 EU/US/CN 50/60HZ
900607MHR940	607 MHR IE3 EU/US/CN 50/60HZ	90061B5HR934	61B 5HR IE3 ASIA 50/60HZ
900607MVR934	607 MVR IE3 ASIA 50/60HZ	90061B5VR940	61B 5VR IE3 EU/US/CN 50/60HZ
900607MVR940	607 MVR IE3 EU/US/CN 50/60HZ	90061B5VR934	61B 5VR IE3 ASIA 50/60HZ
9006075HR940	607 5HR IE3 EU/US/CN 50/60HZ	900-61B-MVR	61B BP VGF Bare Shaft
9006075HR934	607 5HR IE3 ASIA 50/60HZ	900-61B-MHR	61B BP HGF Bare Shaft
9006075VR940	607 5VR IE3 EU/US/CN 50/60HZ	90061BMV10EE	61B BP VGF 10hp EE 230/460V 60Hz
9006075VR934	607 5VR IE3 ASIA 50/60HZ	90061BMV25EE	61B BP VGF 25hp EE 230/460V 60Hz
900-607-MVR	607MVR VGF Bare Shaft	90061B5V25EE	61B PIB BP VGF 25hp 230-460V 60Hz
900-607-MHR	607MHR HGD Bare Shaft	90061BMH10EE	61B BP HGF 10hp EE 230/460V 60Hz
900607MV05EE	607 VGF 5hp EE 230-460V 60Hz	90061BMH25EE	61B BP HGF 25hp EE 230/460V 60Hz
900607MV20EE	607 VGF 20hp EE 230-460V 60Hz	90061B5H25EE	61B PIB BP HGF 25hp 230-460V 60Hz
9006075V10EE	607 PIB VGF 10hp 230-460V 60Hz	90061BMHR934	61B MHR IE3 ASIA 50/60HZ
900607MH05EE	607 HGF 5hp EE 230-460V 60Hz	90061BMHR940	61B MHR IE3 EU/US/CN 50/60HZ
900607MH20EE	607 HGF 20hp EE 230-460V 60Hz	90061BMVR934	61B MVR IE3 ASIA 50/60HZ
9006075H10EE	607 PIB HGF 10hp 230-460V 60Hz	90061BMVR940	61B MVR IE3 EU/US/CN 50/60HZ
900615MHR934	615 MHR IE3 ASIA 50/60HZ	9006225HR940	622 5HR IE3 EU/US/CN 50/60HZ
900615MHR940	615 MHR IE3 EU/US/CN 50/60HZ	9006225HR934	622 5HR IE3 ASIA 50/60HZ
900615MVR934	615 MVR IE3 ASIA 50/60HZ	9006225VR940	622 5VR IE3 EU/US/CN 50/60HZ
900615MVR940	615 MVR IE3 EU/US/CN 50/60HZ	9006225VR934	622 5VR IE3 ASIA 50/60HZ
9006155HR940	615 5HR IE3 EU/US/CN 50/60HZ	900-622-MVR	622 VGF Bare Shaft
9006155HR934	615 5HR IE3 ASIA 50/60HZ	900-622-MHR	622 HGF Bare Shaft
9006155VR940	615 5VR IE3 EU/US/CN 50/60HZ	900622MV25EE	622 VGF 25hp 230-460 60Hz
9006155VR934	615 5VR IE3 ASIA 50/60HZ	9006225V25EE	622 PIB VGF 25hp 230-460 60Hz
900-615-MVR	615MVR VGF Bare Shaft	900622MH25EE	622 HGF 25hp 230-460V 60Hz
900-615-MHR	615MHR HGF Bare Shaft	9006225H25EE	622 PIB HGF 25hp 230-460V 60Hz
900615MV10EE	615 VGF 10hp EE 230-460V 60Hz	900622MHR934	622 MHR IE3 ASIA 50/60HZ
900615MV15EE	615 VGF 15hp EE 230-460V 60Hz	900622MHR940	622 MHR IE3 EU/US/CN 50/60HZ
9006155V15EE	615 PIB VGF 15hp EE 230-460V 60Hz	900622MVR934	622 MVR IE3 ASIA 50/60HZ
900615MH10EE	615 HGF 10hp EE 230-460V 60Hz	900622MVR940	622 MVR IE3 EU/US/CN 50/60HZ
900615MH15EE	615 HGF 15hp EE 230-460V 60Hz		
9006155H15EE	615 PIB HGF 15hp 230-460V 60Hz		

Note: for PFPE variants please contact Edwards

VGF - Vertical Gas Flow | HGF - Horizontal Gas Flow | EE - Energy Efficient Motor

### Applications

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

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