

MEDIUM AND LARGE DRY PUMPS AND SYSTEMS

THE INTELLIGENT CHOICE

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Medium and Large Dry Pumps and Systems

- Mid-Range Dry Vacuum Pumps
- GXS Dry Vacuum Pumps
- IDX Dry Vacuum Pumps

Edwards is a market leader in dry pump technology and has pioneered the use of dry vacuum in some of the harshest applications.

Why Dry?

The competitive nature of today's business means changes are required to improve performance, lower costs, and provide optimal process solutions. The dry pumping solution is the change from traditional oil sealed pumps to a proven technology for this industry. Edwards, a world leader in dry pump technology, has demonstrated the ability to provide a low-cost, tailored solution to your vacuum application. The benefits offered by Edwards dry pumping solutions are:

Maintenance

- Low capital cost and minimal maintenance requirements lead to lowest cost of ownership
- Extended periods between user interventions
- Lower consumable costs

Environmental

- No oil disposal
- No oil emissions into atmosphere

Performance

- Very stable pumping speed gives repeatability to processes
- Continuous pumping at atmosphere
- Ability to handle particulates
- Dry eliminates back-streaming, thus protecting reactive alloys from contamination
- Significantly higher capacity for water vapour pumping than traditional oil sealed pumps

Safety

- Unobtrusive noise levels
- No unsightly oil spills
- No hazardous oil vapours

All Edwards dry pump ranges are ideally suited to:

- Heat treatment
- Metallurgy
- Coating
- Solar
- Drying
- and many more.

With such a range of pumping speeds, combinations and applications available, Edwards retains a comprehensive Applications Engineering capability and are able to offer a solutions package that includes:

- Process design
- Equipment specification and selection
- Safety and operating procedures
- Vacuum system and control integration
- Commissioning advice.

Solutions Engineering

The range and complexity of industrial applications means a 'one size fits all' policy does not result in system optimisation. A detailed appreciation of the process, environmental and safety issues is required to tailor systems to match performance and process.

Applications Design and Support

Edwards comprehensive design service is based on in-depth knowledge of the industries and applications involved. This expertise is held in the highly focused and experienced applications team, which consists of a Central Applications Group supported by a regional network of Applications Specialists. Proprietary software is used to define pumping requirements and a suite of optional accessories or modules are available. For larger or more unusual applications a custom engineering service is available.

Solutions could cover:

- Process design
- Equipment selection
- Safety and Operating Parameters
- Integration with plant control system(s)
- Commissioning advice and more

Contact your local office to request an initial discussion with an Applications Specialist. Typically, discussions will include gases/materials to be pumped, cycle times and duty pressures, system capacities, control systems, utilities, system footprint and all other aspects of the vacuum system to ensure that we are able to offer the most effective solution for your application.

Product range

Mid-Range Dry Vacuum Pumps

Several industrial processes require mid-range vacuum pumps. Small scale or pilot processes are the ideal size to try a dry vacuum technology for the first time and to discover the many benefits that dry pumping delivers. Edwards, with the largest installed base of dry vacuum pumps in the world, is able to offer the most appropriate solution to your needs in this performance range.

Entry Level Dry Pumping

Drystar80 – the robust and highly reliable Drystar80 is the most cost effective introduction to dry pumping.

Intelligent Dry Vacuum Pumps

Edwards is offering 3 models of intelligent and compact dry pumps delivered with a fully enabled on board controller providing:

- Automated start up and shut down routines.
- Vacuum speed control with inverter driven motors.
- Smart co mmunications via Ethernet, Profibus or hard-wired interfaces.
- “Green mode” energy-saving with reduced power consumption during idle periods.

iXL – for clean applications

GX – for medium applications

iXH – for harsh applications



GXS Dry Vacuum Pumps

The new range of GXS dry vacuum pumps takes vacuum performance to the next level. With unique screw technology and world leading high efficiency drives our customers are granted best in class pumping speeds, reliable operation even in harsh applications and low running costs for many years to come.

GXS is available in sizes from 160 to 750 m³h⁻¹ and can be systemised with inverter driven mechanical booster pumps from 1750 to 4200 m³h⁻¹ displacement.

Every pump and pumping system is supplied with on-board controller with extensive co mmunication and automated control capabilities for a true ‘plug and pump’ solution.



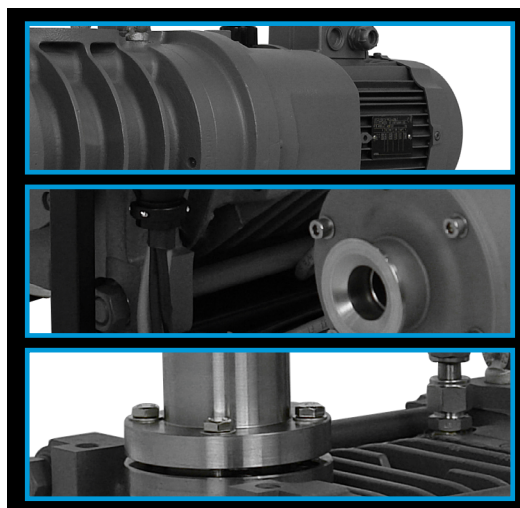
IDX Dry Vacuum Pumps

Available in sizes from 1000 to 1300 m³h⁻¹ IDX are the pumps optimised for demanding processes requiring large pumping speeds. Installed mainly in large, high productivity environments, these pumps have been designed to withstand process malfunctions and to minimise down time from line maintenance to overhaul.



DRYSTAR 80 PUMP AND BOOSTER PACKAGE

MAXIMISE YOUR PRODUCTIVITY AND PERFORMANCE



Drystar80 is the most cost effective introduction to basic dry pumping. It is available as a stand-alone unit for 80 m³h⁻¹ repeatable pumping performance; or in a combination with the respected EH500 hydrokinetic drive mechanical booster, offering 500 m³h⁻¹ displacement for applications where increased pumping speed and/or lower vacuum levels are required. Depending upon the application the Drystar80 can be supplied with mineral oil or PFPE lubrication.



Features and Benefits

- Specifically designed for demanding industrial applications.
- Industry proven, tried and tested.
- Consistent and repeatable performance.
- High and repeatable product quality.
- No oil changes and waste oil disposal.
- No disposal cost, environmentally friendly.

Applications

R&D/others

- Backing of turbomolecular pumps.
- House/central vacuum.

Drying

- Freeze drying.
- Refrigeration/air conditioning drying.
- Transformer drying.
- Automotive drying/filling.
- Transformer vapour phase drying.
- Bush filling.

Coating

- Load lock pump down.
- Plasma deposition.
- Plasma cleaning/sterilising.
- Reflective/decorative coating.
- Optical/ophthalmic coating.
- Roll/web coating.
- Hard coating/CVD.
- Surface activation.

Heat Treatment

- Tempering/annealing.
- Oil or gas quenching.

Metallurgy.

- EB welding/vacuum brazing.
- Plasma nitriding.
- LPN (nitriding) and nitrocarburising.
- LPC with acetylene.
- Plasma beam welding.
- MIM/vacuum sintering.
- PIC (investment casting).



Performance Curves

Drystar80/EH500 Booster Pump and Booster Package

Drystar 80/EH500

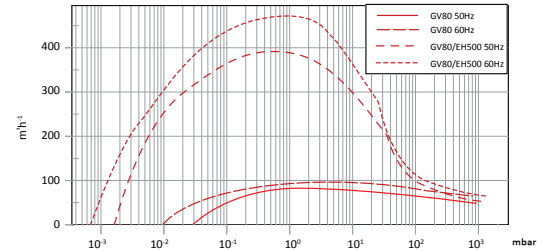
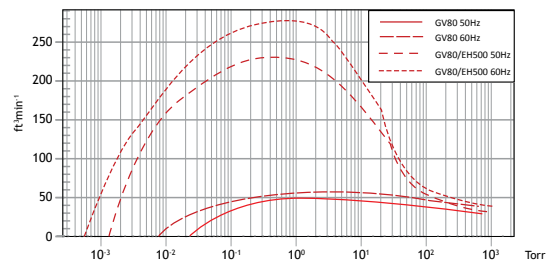


Peak pumping speed	
50 Hz	80/390 m ³ h ⁻¹
	47/230 cfm
60 Hz	94/471 m ³ h ⁻¹
	56/277 cfm
Ultimate Pressure	
mbar	< 3 x 10 ⁻¹
Torr	< 2 10 ⁻²

Ordering information

Product description	Order no:
Drystar80 SSP 380-415 V 50 Hz	NR8030000
Drystar80 SSP 230-460 V 60 Hz	NR8031000
Drystar80 PFPE SSP 380-415 V 50 Hz	NR8035000
Drystar80 PFPE SSP 230-460 V 60 Hz	NR8036000
Drystar80/EH500 SSP 380-415 V 50 Hz	NR041000
Drystar80/EH500 SSP 230-460 V 60 Hz	NR042000
Drystar80/EH500 PFPE SSP 380-415 V 50 Hz	NR046000
Drystar80/EH500 PFPE SSP 230-460 V 60 Hz	NR047000

Drystar 80 Performance Curve

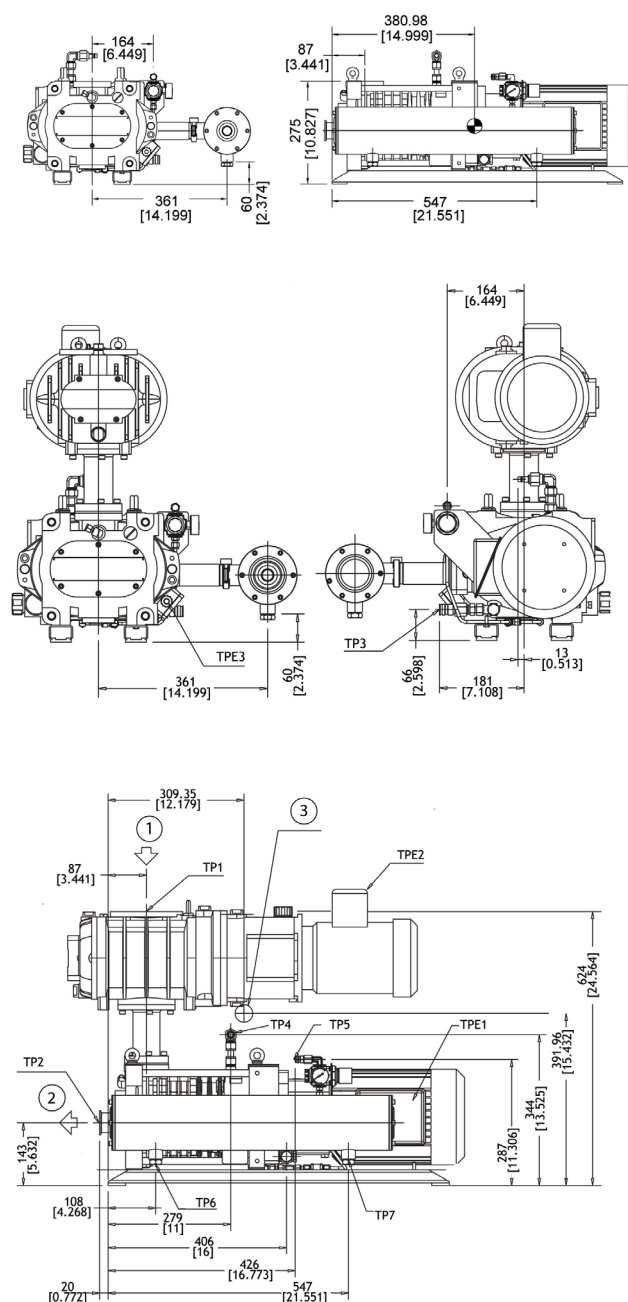


Technical Data

	Units	Drystar80	Drystar80/EH500
Peak pumping speed 50 Hz	m ³ h ⁻¹ /cfm	80/47	390/230
Peak pumping speed 60 Hz	m ³ h ⁻¹ /cfm	94/56	471/277
Ultimate pressure	mbar/Torr	3 x 10 ⁻² /2 x 10 ⁻²	3 x 10 ⁻³ /2 x 10 ⁻³
Power @ ultimate	kW	3.6	4.3
Motor Power	kW	4	6.6
Inlet connection		ISO40	ISO100
Outlet connection		NW40	NW40
Cooling water connection		½" Quick Connect	½" Quick Connect
Nitrogen connection		¼" Quick Connect	¼" Quick Connect
Water flow	lmin ⁻¹	1	1
Typical purge flow	slm	15	15
Weight	kg	145	220
Noise level	dB(A)	< 78	< 78

Dimensions

Drystar dimensions



- | | |
|---|-----------------------------|
| 1 | Process inlet |
| 2 | Process exhaust |
| 3 | Estimated centre of gravity |

IXL DRY PUMP SYSTEMS

THE INTELLIGENT CHOICE



iXL is the most compact and low energy dry pump option. It provides repeatable fast pump down of small load lock chambers and clean process operations, with extremely low power consumption.

It is available as the iXL120N stand-alone unit, or as the iXL1000N combination, which includes an inverter-driven booster delivering $930 \text{ m}^3\text{h}^{-1}$ peak pumping speed



Features and Benefits

- Integral controller and safety systems for 'Plug and Pump', flexible operation.
- Low installation costs.
- Minimal power consumption.
- Best in class cost of ownership.

Applications

R&D/others

- Backing of turbomolecular pumps.

Drying

- Freeze drying.

Coating

- Load lock pump down.
- Plasma deposition.
- Plasma cleaning/sterilising.

Performance Curves

iXL

iXL



Ordering information

Product description

iXL120N 200-460 V 50/60 Hz

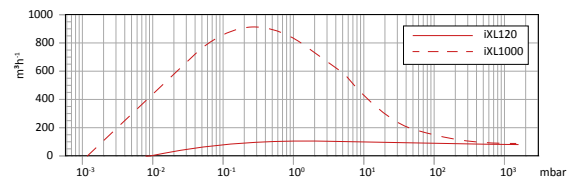
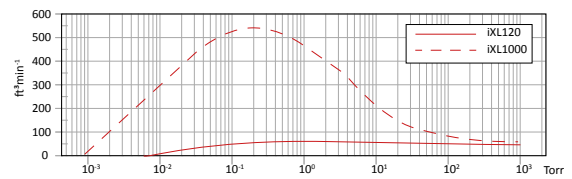
iXL1000N 200-460 V 50/60 Hz

Order no:

A54114010

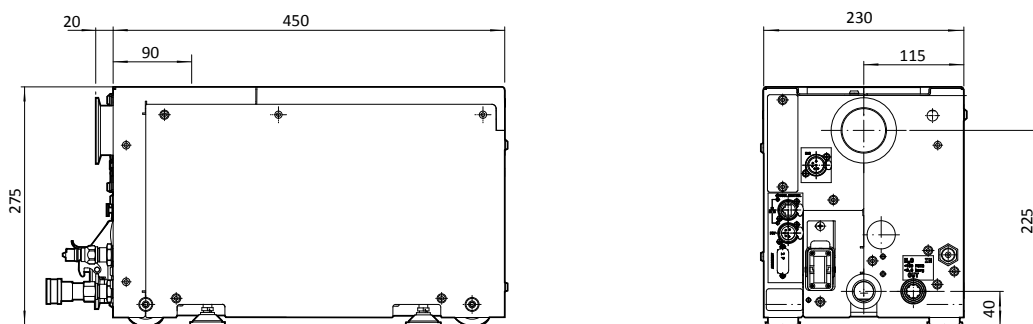
A54154020

iXL Performance Curve

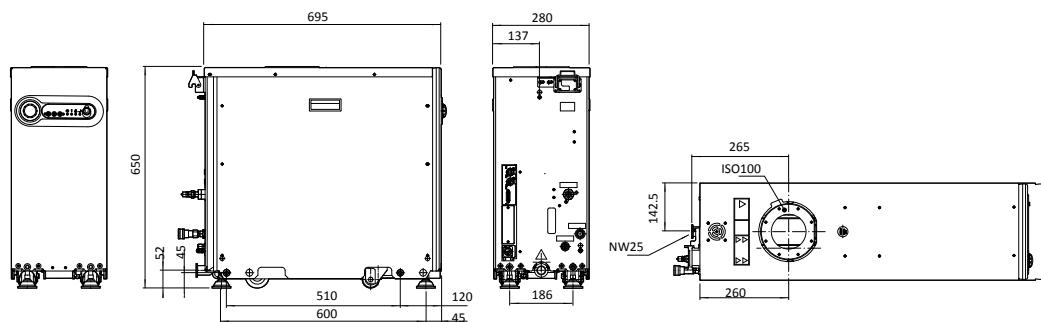


Dimensions

iXL120N dimensions



iXL1000N dimensions



Technical Data



	Units	iXL120N	iXL1000N
Peak pumping speed	m ³ h ⁻¹ /cfm	110/65	930/547
Ultimate pressure	mbar/Torr	1.3 x 10 ⁻² /9 x 10 ⁻³	1.0 x 10 ⁻³ /7.5 x 10 ⁻⁴
Power @ ultimate ⁽¹⁾	kW	0.55	1
Power @ green mode	kW	0.045	0.05
Motor Power	kW	3	4.9
Inlet connection	Vertical/Horizontal	ISO63/NW50	ISO100
Outlet connection		NW25	NW25
Cooling water connection		3/8" Quick Connect	3/8" Quick Connect
Nitrogen connection		1/4" tube fitting	1/4" tube fitting
Water flow ⁽²⁾	lmin ⁻¹	1	1.6
Typical purge flow	slm	0-5 slm	0-40 (default 10)
Weight	kg	59	168
Noise level	dB(A)	< 55	< 55

(1) Average power at 700T exhaust pressure

(2) Flow with Constant Flow Valve accessory fitted

GX DRY PUMP SYSTEMS

THE INTELLIGENT CHOICE



GX is the ideal choice for medium duty applications and sets new standards for zero maintenance between overhauls and low cost of ownership. It is available as the stand-alone GX100N pump, or combined with an inverter-driven booster as the GX600N (620 m³h⁻¹ peak speed) and GX1000N (800 m³h⁻¹ peak speed) units.



Features and Benefits

- Integral controller and safety systems for 'Plug and Pump' flexible operation.
- Low installation costs.
- No preventive maintenance between major overhauls.
- Maximum uptime for high productivity.

Applications

R&D/others

- House/central vacuum.

Drying

- Refrigeration/air conditioning drying.
- Transformer drying.
- Automotive drying/filling.

Coating

- Reflective/decorative coating.
- Optical/ophthalmic coating.

Heat Treatment

- Tempering/annealing
- Oil or gas quenching

Metallurgy

- EB welding/vacuum brazing
- Plasma nitriding
- LPN (nitriding) and nitrocarburising

Pump range

GX

- GX100N
- GX600N
- GX1000N

Performance Curves

GX Dry pump system

GX



Peak pumping speed

90 m³h⁻¹ – 800 m³h⁻¹

53 cfm – 471 cfm

Ultimate Pressure

GX100N 5.0 x 10⁻³ mbar

3.75 x 10⁻³ Torr

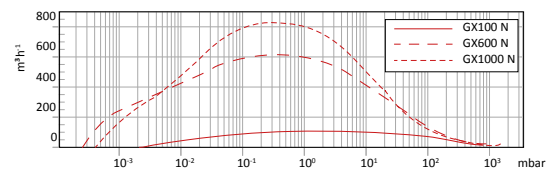
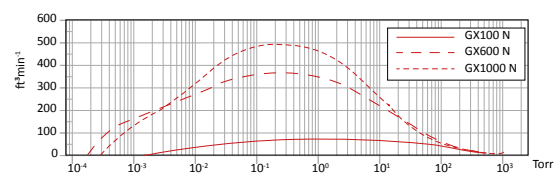
GX600N 1.0 x 10⁻³ mbar

7.5 x 10⁻⁴ Torr

GX1000N 1.0 x 10⁻³ mbar

7.5 x 10⁻⁴ Torr

GX Performance Curve

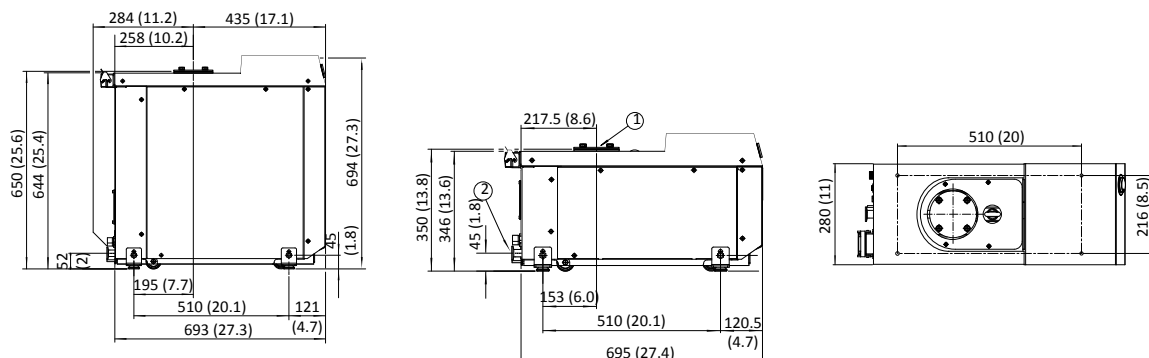


Ordering information

Product description	Order no:
GX100N 200-230 V 50/60 Hz	A54711958
GX100N 380-460 V 50/60 Hz	A54711959
GX600N 200-230 V 50/60 Hz	A54731958
GX600N 380-460 V 50/60 Hz	A54731959
GX1000N 200-230 V 50/60 Hz	A54781958
GX1000N 380-460 V 50/60 Hz	A54781959

Dimensions

GX dimensions



	GX100	GX600, 1000
Length	693	693
Width	280	280
Height	394	694

- ① Inlet flange
- ② Exhaust flange

Technical Data

	Units	GX100N	GX600N	GX1000N
Peak pumping speed	m ³ h ⁻¹ /cfm	90/53	600/353	800/471
Ultimate pressure	mbar/Torr	5.0 x 10 ⁻³ /3.75 x 10 ⁻³	1.0 x 10 ⁻³ /7.5 x 10 ⁻⁴	1.0 x 10 ⁻³ /7.5 x 10 ⁻⁴
Power @ ultimate ⁽¹⁾	kW	1.0	1.5	1.6
Power @ green mode	kW	0.05	0.05	0.05
Motor Power	kW	1.9	3.8	3.8
Inlet connection		ISO63	ISO100	ISO100
Outlet connection		NW25	NW25	NW25
Cooling water connection		3/8" quick connect	3/8" quick connect	3/8" quick connect
Nitrogen connection		1/4" compression fitting	1/4" compression fitting	1/4" compression fitting
Water flow ⁽²⁾	lmin ⁻¹	1	2	2
Typical purge flow	slm	4 to 39	4 to 39	4 to 39
Weight	kg	120	220	230
Noise level	dB(A)	< 60	< 55	< 55

(1) Average power at 700T exhaust pressure

(2) Flow with Constant Flow Valve accessory fitted



IXH DRY PUMP SYSTEMS

THE INTELLIGENT CHOICE



IXH sets new standards for really harsh process capabilities, reliability, and low cost of ownership. iXH pumps offer greatly increased dust and powder handling capabilities.

A wide pump temperature range allows optimisation to minimise by-product accumulation from condensation and plating reactions. iXH is available as primary pump at $100 \text{ m}^3\text{h}^{-1}$ (the iXH100) or combined with inverter-driven boosters delivering peak speeds of $665 \text{ m}^3\text{h}^{-1}$ (iXH610) or $1025 \text{ m}^3\text{h}^{-1}$ (iXH1210).



Features and Benefits

- Integral controller and safety systems for 'Plug and Pump', flexible operation.
- [Low installation costs](#)
- Cutting edge reversed claw technology for corrosion-free operation and robust dust and powder handling capabilities.
- [Robust and reliable](#)

Applications

Drying

- Transformer vapour phase drying.

Coating

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

Metallurgy

- LPC with acetylene.
- Plasma beam welding.
- MIM/vacuum sintering.
- PIC (investment casting).

Performance Curves

iXH

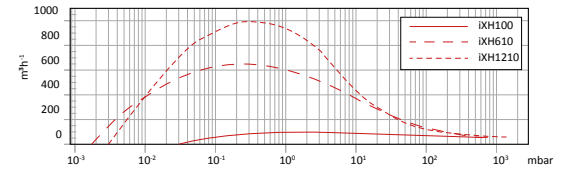
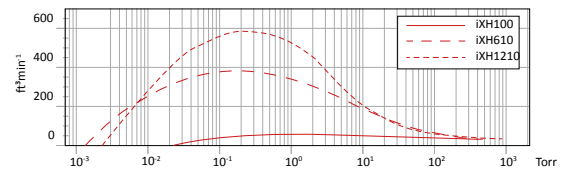
iXH



Ordering information

Product description	Order no:
iXH100 200-230 50/60 Hz	AC0102121000
iXH100 380-460 50/60 Hz	ACA102121000
iXH610 200-230 50-60 Hz	AC1102121100
iXH610 380-460 V 50/60 Hz	ACB102121100
iXH1210 200-230 50/60 Hz	AC3102121200
iXH1210 380-460 50/60 Hz	ACD102121200

iXH Performance Curve



Dimensions

iXH dimensions



Type	L	W	H
iXH100	784	390	526
iXH610	784	390	780
iXH1210	784	390	780

Technical Data

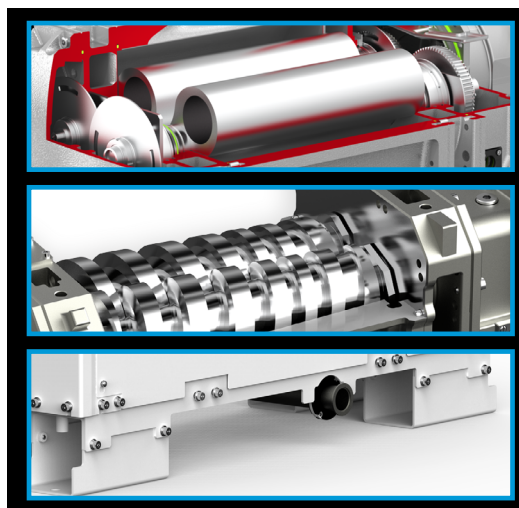
	Units	ixH100	ixH610	ixH1210
Peak pumping speed	m ³ h ⁻¹ /cfm	100/59	665/391	1025/603
Ultimate pressure	mbar/Torr	2.0 x 10 ⁻² /1.5 x 10 ⁻²	5.0 x 10 ⁻³ /3.7 x 10 ⁻³	5.0 x 10 ⁻³ /3.7 x 10 ⁻³
Power @ ultimate ⁽¹⁾	kW	2.1	2.6	3.2
Power @ green mode	kW	0.045	0.045	0.045
Motor Power	kW	4.5	6.4	9
Inlet connection		ISO63	ISO100	ISO100
Outlet connection		NW40	NW40	NW40
Cooling water connection		3/8" quick connect	3/8" quick connect	3/8" quick connect
Nitrogen connection		1/4" compression fitting	1/4" compression fitting	1/4" compression fitting
Water flow ⁽²⁾	lmin ⁻¹	2	3	4
Typical purge flow	slm	28 or 44	22 or 44	22 or 44
Weight	kg	260	355	430
Noise level	dB(A)	63	64	64

(1) Average power at 700 T exhaust pressure

(2) Water consumption varies with pump operating temperature; figures at 110 °C

GXS DRY PUMP

THE INTELLIGENT CHOICE



The competitive nature of today's business means changes are required to improve performance, lower costs, and provide optimal process solutions. The dry pumping solution is the change from traditional oil sealed pumps to a proven technology for this industry. Edwards, a world leader in dry pump technology, has demonstrated the ability to provide a low-cost, tailored solution to your vacuum application.



Features and Benefits

Maintenance

- Low capital cost and minimal maintenance requirements lead to lowest cost of ownership.
- Extended periods between user intervention.
- Lower consumable costs.

Environmental

- No oil disposal.
- No oil emissions into atmosphere.

Performance

- Very stable pumping speed gives repeatability to processes.
- Continuous pumping at atmosphere.
- Ability to handle particulates.
- Dry eliminates back-streaming, thus protecting reactive alloys from contamination.

Safety

- Unobtrusive noise levels.
- No unsightly oil spills.
- No hazardous oil vapours.

Applications

- Metallurgy.
- Coating.
- Drying.
- Solar.
- Vacuum chamber evacuation.

Pump Range

GXS160

- GXS160
- GXS160/1750

GXS250

- GXS250
- GXS250/2600

GXS450

- GXS450
- GXS450/2600
- GXS450/4200

GXS750

- GXS750
- GXS750/2600
- GXS750/4200

(GXSXXX/YYYY where XXX = backing screw pump and YYYY = roots booster)

Performance Curves

GXS450 Dry Pump

GXS450, GXS450/2600 & GXS450/4200



Peak Pumping Speed

450 m ³ h ⁻¹	2200 m ³ h ⁻¹	3026 m ³ h ⁻¹
265 cfm	1295 cfm	1781 cfm

Ultimate Pressure

with purge	1 x 10 ⁻² mbar	5.4 x 10 ⁻⁴ mbar	5.4 x 10 ⁻⁴ mbar
	(7.5 x 10 ⁻³ Torr)	(3.8 x 10 ⁻⁴ Torr)	(3.8 x 10 ⁻⁴ Torr)
without purge	5 x 10 ⁻³ mbar	5 x 10 ⁻⁴ mbar	5 x 10 ⁻⁴ mbar
	(3.8 x 10 ⁻³ Torr)	(3.8 x 10 ⁻⁴ Torr)	(3.8 x 10 ⁻⁴ Torr)

Ordering information

Applications
Industrial

Pump Mechanism
Screw

Pumps / Boosters
D 450 (11 kW)
F 450 (11 kW) / 2600 (7.5 kW)
G 450 (11 kW) / 4200 (7.5 kW)

Lubrication
PFPE (Drynet 25/6)

1

G S 2 0 0 0 0

Electrical
Low volt 200-230 V 3Ø 50/60 Hz 2
High volt 380-460 V 3Ø 50/60 Hz 5

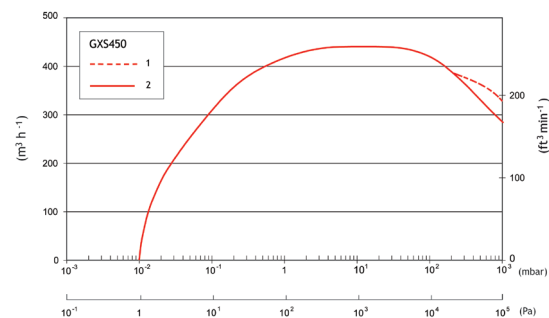
Cooling
TMS Standard 2

Pump purges
Light duty (SSP + HVP) 0
Medium duty (SSP + HVP + Inlet + GB + Exh PM) 3
Medium duty + High Flow Purge / Solvent Flush 4

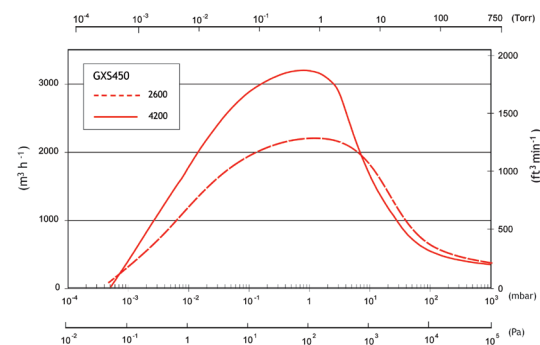
Installation
Side Exhaust and Skids 0
Rear Exhaust and Casters 5

GXS450, GXS450/2600 & GXS450/4200

Performance Curve

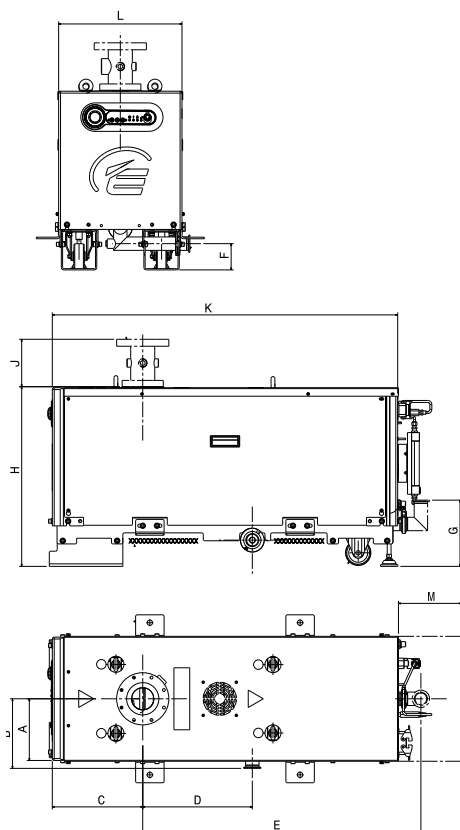


- 1 Fast
- 2 Slow



Dimensions

GXS dimensions

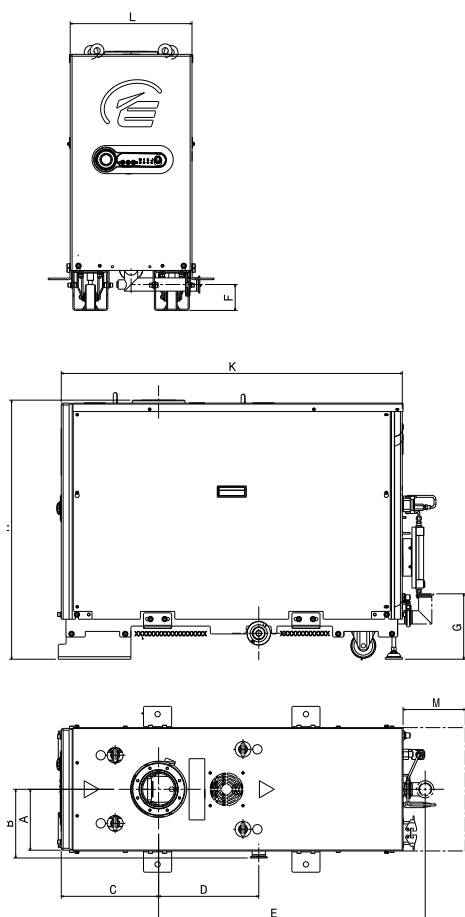


Pump views



(mm)	A	B	C	D	E	F	G	H	J	K	L	M
GXS160	195	220	285.9	346.5	879.5	83	209.4	568	150	1092	390	250
GXS160/1750	195	220	311.6	346.5	853.8	83	209.4	829.5	-	1092	390	250
GXS250	195	220	285.9	346.5	879.5	83	209.4	568	150	1092	390	250
GXS250/2600	195	220	311.6	346.5	853.8	83	209.4	829.5	-	1092	390	250
GXS450	258.5	283.5	394	300	871.6	83	261.4	717	150	1186	517	250
GXS450/2600	258.5	283.5	362	332	903.8	83	261.4	1031	-	1186	517	250
GXS450/4200	258.5	283.5	362	332	903.8	83	261.4	1031	-	1186	517	250
GXS750	258.5	283.5	576	413	1134	83	261.4	717	150	1622	517	250
GXS750/2600	258.5	283.5	657	332	1053	83	261.4	1031	-	1622	517	250
GXS750/4200	258.5	283.5	657	332	1053	83	261.4	1031	-	1622	517	250

GXS dimensions



Pump views



(inches)	A	B	C	D	E	F	G	H	J	K	L	M
GXS160	7.7	8.7	11.3	13.6	34.6	3.3	8.2	22.4	5.9	43	15.4	9.8
GXS160/1750	7.7	8.7	12.3	13.6	33.6	3.3	8.2	32.7	-	43	15.4	9.8
GXS250	7.7	8.7	11.3	13.6	34.6	3.3	8.2	22.4	5.9	43	15.4	9.8
GXS250/2600	7.7	8.7	12.3	13.6	33.6	3.3	8.2	32.7	-	43	15.4	9.8
GXS450	10.2	11.2	15.5	11.8	34.3	3.3	10.3	28.2	5.9	46.7	20.4	9.8
GXS450/2600	10.2	11.2	14.2	13.1	33.6	3.3	10.3	40.6	-	46.7	20.4	9.8
GXS450/4200	10.2	11.2	14.2	13.1	33.6	3.3	10.3	40.6	-	46.7	20.4	9.8
GXS750	10.2	11.2	15.5	11.8	34.3	3.8	10.3	28.2	5.9	46.7	20.4	9.8
GXS750/2600	10.2	11.2	25.9	13.1	41.5	3.8	10.3	40.6	-	63.9	20.4	9.8
GXS750/4200	10.2	11.2	25.9	13.1	41.5	3.8	10.3	40.6	-	63.9	20.4	9.8

Technical Data



Units			GXS160	GXS160/1750	GXS250	GXS250/2600
Peak Pumping Speed	m ³ h ⁻¹ (cfm)		160 (94)	1200 (706)	250 (147)	1900 (1118)
Ultimate Pressure (without purge)	mbar (Torr)		7x10 ⁻³ (5.3x10 ⁻³)	7x10 ⁻⁴ (5.3x10 ⁻⁴)	4x10 ⁻³ (3.0x10 ⁻³)	5x10 ⁻⁴ (3.8x10 ⁻⁴)
Full Load Power	@ ultimate pressure	kW (hp)	3.8 (5.1)	5.1 (6.8)	4.0 (5.4)	5.3 (7.1)
	@ peak pumping load	kW (hp)	5.0 (6.7)	7.4 (9.9)	9.0 (12.1)	9.7 (13.0)
Electrical	Supply options	High volt	380-460 V 3Ø 50/60 Hz		380-460 V 3Ø 50/60 Hz	
		Low volt	200-230 V 3Ø 50/60 Hz		200-230 V 3Ø 50/60 Hz	
	Connection	High volt	Harting Han K 4/4-F		Harting Han K 4/4-F	
		Low volt				
Vacuum Couplings	Inlet		ISO63	ISO100	ISO63	ISO160
	Exhaust		NW40		NW40	
Cooling Water	Supply pressure (max)	bar (psig)	6.9 (100)		6.9 (100)	
	DP across pump (min)	bar (psig)	1.0 (14.7)		1.0 (14.7)	
	Flow @ min DP	lmin ⁻¹ (gal/min)	4.0 (1.1)	7.0 (1.9)	4.0 (1.1)	7.0 (1.9)
	Temperature	°C (°F)	5-40 (41-104) All variants		5-40 (41-104) All variants	
	Connection		¾" BSP Male (G ¾")		¾" BSP Male (G ¾")	
Purge Gas*	Pressure	bar (psig)	2.5-6.9 (36-100)		2.5-6.9 (36-100)	
	Light Duty	sl/min	12		12	
	Medium Duty	sl/min	18-52		18-52	
	Connection		Swagelok® Ø ¼" tube with olive		Swagelok® Ø ¼" tube with olive	
High Flow Purge/ Solvent Flush	Supply pressure	bar (psig)	2.5-6.9 (36-100)		2.5-6.9 (36-100)	
	Control valve connection		Swagelok® Ø ¾" tube with olive		Swagelok® Ø ¾" tube with olive	
	Filter connection		½" NPT Male		½" NPT Male	
	Solvent connection		¾" BSP Male (G ¾")		¾" BSP Male (G ¾")	
Mass	kg (lbs)		305 (672)	475 (1047)	305 (672)	515 (1035)
Noise (with suitable exhaust pipe)	dB(A)		< 64		< 64	
Operating Temperature	°C (°F)		5-40 (41-104)		5-40 (41-104)	
Exhaust Back Pressure (MAX)	mbar (psia)		1400 (20)		1400 (20)	
System IP rating	Standard		21D		21D	
Lubrication	Type		PFPE Drynert® 25/6		PFPE Drynert® 25/6	
	Volume	l (gal)	0.7 (0.2)	1.4 (0.4)	0.7 (0.2)	1.4 (0.4)
Monitoring & Control	Standard	Control	Front panel "Dashboard" Serial – RS232		Front panel "Dashboard" Serial – RS232	
		Monitoring	Ethernet Webserver		Ethernet Webserver	
		Control & Monitoring	Parallel – MCM MicroTIM		Parallel – MCM MicroTIM	
	Option	Control & Monitoring	Profibus DP Pump Display Terminal (PDT)		Profibus DP Pump Display Terminal (PDT)	
		Monitoring	FabWorks®		FabWorks®	
*Pump combinations		Light duty	Shaft Seal Purge only		Shaft Seal Purge only	
		Medium duty	Shaft Seal Purge, High Vac Purge, Inlet Purge, variable Gas Ballast & Exhaust Purge (with Exhaust Pressure Sensor)		Shaft Seal Purge, High Vac Purge, Inlet Purge, variable Gas Ballast & Exhaust Purge (with Exhaust Pressure Sensor)	
		Medium duty +	As Medium duty, plus High Flow Purge/Solvent Flush		As Medium duty, plus High Flow Purge/Solvent Flush	

* Purge Gas information

Light duty: shaft seal purge only

Medium duty: Shaft seal purge, inlet purge, variable gas ballast & exhaust purge (with exhaust pressure sensor)

Medium duty plus: as Medium duty, plus High Flow Purge/Solvent Flush



GXS450	GXS450/2600	GXS450/4200	GXS750	GXS750/2600	GXS750/4200
450 (265)	2200 (1295)	3026 (1781)	740 (436)	2300 (1354)	3450 (2031)
5 x 10 ⁻³ (3.8x10 ⁻³)	5 x 10 ⁻⁴ (3.8x10 ⁻⁴)		3 x 10 ⁻³ (2.3x10 ⁻³)	5 x 10 ⁻⁴ (3.8x10 ⁻⁴)	
7.2 (9.6)	8.8 (11.8)	9.4 (12.6)	10.0 (13.4)	11.1 (14.9)	11.5 (15.4)
17.3 (23.2)	20.0 (26.8)	21.1 (28.3)	37.0 (49.6)	40.0 (53.6)	40.0 (53.6)
380-460 V 3Ø 50/60 Hz			380-460 V 3Ø 50/60 Hz		
200-230 V 3Ø 50/60 Hz			200-230 V 3Ø 50/60 Hz		
Harting Han K 4/4-F	Harting Han 100A-F		Harting Han 100A-F		
			Harting Han 200A-F		
ISO100	ISO160		ISO100	ISO160	
NW50			NW50		
6.9 (100)			6.9 (100)		
1 (15)	1 (15)		1 (15)	0.75 (11)	
10 (2.6)	12 (3.2)		12 (3.2)	15 (4)	
5-40 (41-104) All variants			5-40 (41-104) High Volt variants		
			5-30 (41-86) Low Volt variants		
⅜" BSP Male (G ⅜")			⅜" BSP Male (G ⅜")		
2.5-6.9 (36-100)			2.5-6.9 (36-100)		
12			12		
18-146			18-146		
Swagelok® Ø ¼" tube with olive			Swagelok® Ø ¼" tube with olive		
2.5-6.9 (36-100)			2.5-6.9 (36-100)		
Swagelok® Ø ⅜" tube with olive			Swagelok® Ø ⅜" tube with olive		
½" NPT Female			½" NPT Female		
½" BSP Male (G ½")			½" BSP Male (G ½")		
546 (1204)	760 (1676)	818 (1804)	679 (1497)	918 (2024)	976 (2152)
< 64			< 70		
5-40 (41-104)			5-40 (41-104)		
1400 (20)			1400 (20)		
21D			21D		
PFPE Drynert® 25/6			PFPE Drynert® 25/6		
1.8 (0.5)	2.5 (0.7)	3.6 (1.0)	2.4 (0.6)	3.1 (0.8)	4.2 (1.1)
Front panel "Dashboard" Serial – RS232			Front panel "Dashboard" Serial – RS232		
Ethernet Webserver			Ethernet webserver		
Parallel – MCM MicroTIM			Parallel – MCM MicroTIM		
Profibus DP Pump Display Terminal (PDT)			Profibus DP Pump Display Terminal (PDT)		
FabWorks®			FabWorks®		
Shaft Seal Purge & High Vac Purge only			Shaft Seal Purge & High Vac Purge only		
Shaft Seal Purge, High Vac Purge, Inlet Purge, variable Gas Ballast & Exhaust Purge (with Exhaust Pressure Sensor)			Shaft Seal Purge, High Vac Purge, Inlet Purge, variable Gas Ballast & Exhaust Purge (with Exhaust Pressure Sensor)		
As Medium duty, plus High Flow Purge/Solvent Flush			As Medium duty, plus High Flow Purge/Solvent Flush		



Service, Spares and Accessories

Fully Integrated Inlet Valves

Product description	Order no:	
	Carbon Steel	Stainless Steel
GXS Inlet valve 4" ASSY	-	M58808004
GXS Inlet valve 6" ASSY	-	M58828004
GXS Inlet valve 8" ASSY	-	M59848004

Inlet Dust Filters

Product description	Order no:	
	Carbon Steel	Stainless Steel
GXS Filter 4" ASSY	M58808005	M58808137
GXS Filter 6" ASSY	M58828005	M58828137
GXS Filter 8" ASSY	M59848005	M59848137

Cleanable & Drainable Discharge Silencers

Product description	Order no:	
	Carbon Steel	Stainless Steel
GXS Silencer 100 ctrs ASSY	M58808161	M58808162
GXS Silencer 150 ctrs ASSY C-STL	M59838161	M59838162
Drain valve ASSY	-	M58808010

Inlet Spools for Valves and Filters

Product description	Order no:	
	Carbon Steel	Stainless Steel
ISO63 4" ANSI Spool ASSY	M58808002	M58808134
ISO63-ISO100 Spool ASSY	M58808138	M58808135
ISO100 4" ANSI Spool ASSY	M59808002	M59808134
ISO100-ISO100 Spool ASY packed	M59808138	M59808135
ISO100 6" ANSI Spool ASSY	M58828002	M58828134
ISO100 ISO160 Spool ASSY	M58828003	M58828135
ISO160 6" ANSI Spool ASSY	M58938002	M58938134
ISO160 ISO160 Spool ASSY	M58938003	M58938135
ISO160 8" ANSI Spool ASSY C-STL	M59848002	M59848134
ISO160 ISO200 Spool ASSY C-STL	M59848003	M59848135

Silencer Mounts and Connection Kits

Product description	Order no:
Horizontal silencer mount 100CTR	M58808009
Rear silencer MT HORIZ 100CTR	M58808151
Horizontal silencer mount 150CTR	M59838009
Rear silencer MT HORIZ 150CTR	M59808151

Check Valves

Product description	Order no:
C-VALVE HOR silencer 100CTR	M58808012
C-VALVE HOR silencer 150CTR	M59838012

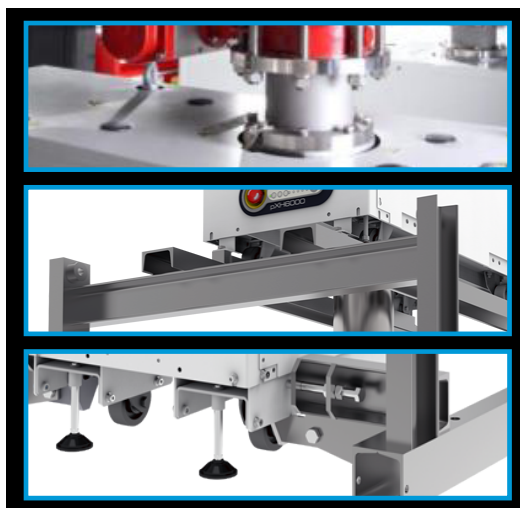
Instrumentation

Product description	Order no:
Pressure Indicator Assembly 90 deg	M58808141
Pressure Transducer Assembly (ASG)	M58808152
Temp Trans Assy GXS Pump Only	M58808160
Temp Trans Assy GXS Combi	M58828160
GXS N2 STD flow switch kit	A50633000
GXS N2 HIGH fow switch kit	A50634000
Cooling water flow monitoring switch	A50783000
GXS Auxiliary gauge cable (0-10 V)	D37241017
GXS Pressure input cable (4-20 mA)	D37241019
MCM MicroTIM	D37360320
Connector kit for MCM MicroTIM	D37422802
Profibus® module	D39753000



GXS/pXH DRY PUMP

MAXX DRY VACUUM SYSTEM



For high capacity applications our proven GXS dry pump range is available with pXH pumps, the new generation of large mechanical boosters for an integrated flexible modular skid design.

pXH booster pumps are provided with high efficiency motor and inverter drives that integrate directly into the GXS pump control system with a single connection. With our unique screw technology and world leading high efficiency booster, you are guaranteed best-in-class pumping speeds and low running cost for many years to come.



Features and Benefits

- **Flexible** – integrated modular skid design.
- **Fast** – reduced pump down times with ultimate vacuum $< 5 \times 10^{-4}$ mbar.
- **Robust** – reliable operation even in harsh industrial applications.
- **Intelligent** – on board controller with extensive and automated control capabilities.
- **Economical** – affordable capital investment and low cost of ownership.
- **Environmental** – smooth, quiet running with low power and utilities consumption.

Applications

- Metallurgy.
- Coating.
- Vacuum packaging.
- Drying.
- Plasma processes.
- Steel degassing.
- Vacuum chamber evacuation.
- Other applications.

Pump Range

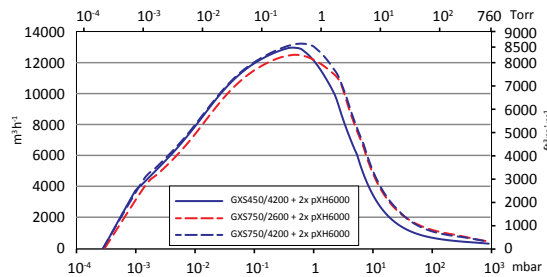
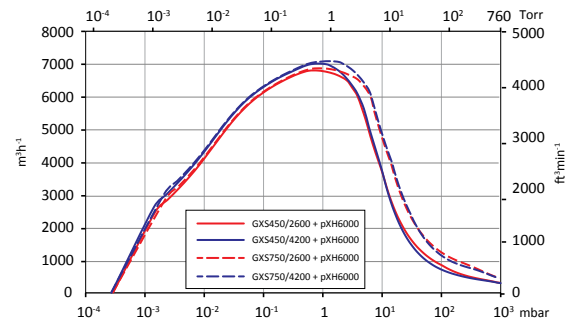
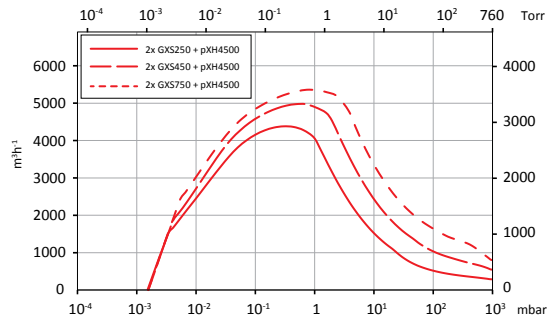
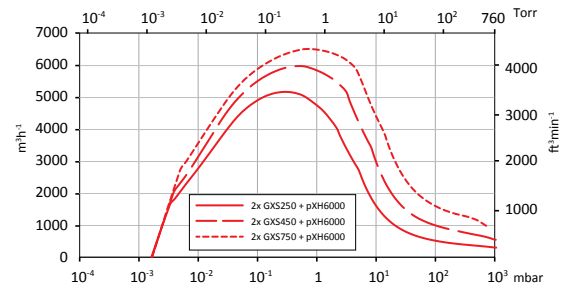
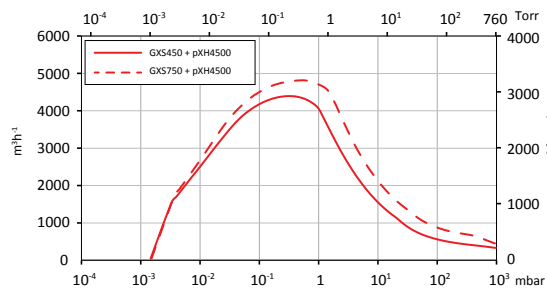
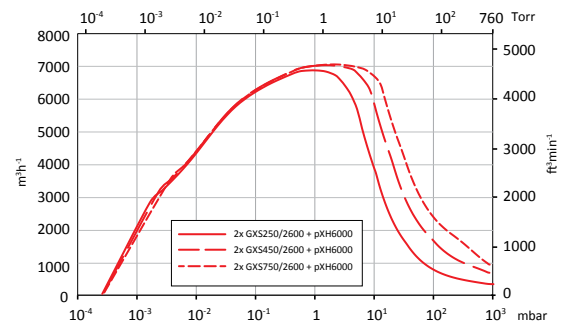
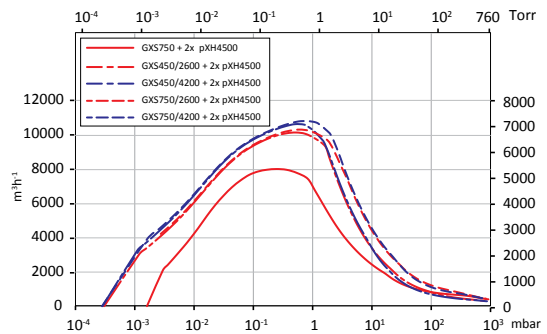
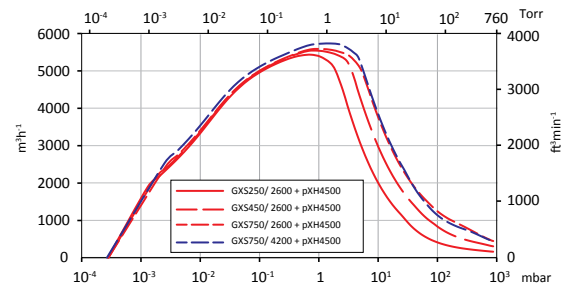
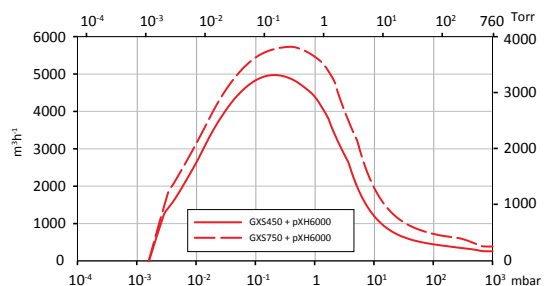
- | | |
|---------------|-----------|
| - GXS250 | - pXH4500 |
| - GXS450 | - pXH6000 |
| - GXS750 | |
| - GXS250/2600 | |
| - GXS450/2600 | |
| - GXS750/2600 | |
| - GXS450/4200 | |
| - GXS750/4200 | |



Performance Curves

GXS/pXH Combinations

GXS/pXH Combinations Performance Curve



GXS/pXH Combinations

	PXH4500	pXH6000	2 x pXH4500	2 x pXH6000
2x GXS250	•	•		
GXS450	•	•		
2x GXS450	•	•		
GXS750	•	•	•	
2x GXS750	•	•		
GXS250/2600	•			
2x GXS250/2600		•		
GXS450/2600	•	•	•	
2x GXS450/2600		•		
GXS450/4200		•	•	•
GXS750/2600	•	•	•	•
2x GXS750/2600		•		
GXS750/4200	•	•	•	•

MAXX system 1+1 straight spool



MAXX system 3 sets of 1+1 straight spool



MAXX system 2x GXS750 + 1x pXH



MAXX system 1x GXS750 + 2x pXH



Technical Data

		Units	GXS450 & pXH4500 7.5 kW	2x GXS750 & pXH6000 7.5 kW	GXS750/2600 & pXH6000 7.5 kW
Peak pumping speed		m ³ h ⁻¹ (cfm)	4250 (2501)	5350 (3149)	6820 (4914)
Ultimate pressure		mbar (Torr)	1.6 x 10 ⁻³ (1.2)	1.6 x 10 ⁻³ mbar (1.17 ⁻³)	2.8 x 10 ⁻⁴ (2.12 ⁻⁴)
Motor rating power		kW (hp)	18.5 (24.8)	51.5 (69.0)	37 (49.6)
Full load power	@ ultimate pressure	kW (hp)	7.9 (10.6)	19.2 (25.7)	12.0 (16.09)
	@ peak pumping load	kW (hp)	16.8 (22.5)	56.2 (75.4)	30.6 (41.03)
Electrical	Supply options	High volt (GXS & pXH)	380-460 V 3Ø 50/60 Hz		
		Low volt (GXS & pXH)	200-230 V 3Ø 50/60 Hz		
	Connections	High volt (GXS & pXH)	Harting han K 4/4-F	Harting han 100A-F	
		Low volt (GXS & pXH)	Harting han K 4/4-F	Harting han 200A-F	
		pXH	Harting han K 4/4-F		
Vacuum couplings	pXH	Inlet	pXH4500/ISO200	pXH6000/ISO250	pXH6000/ISO250
	GXS	Exhaust	GXS450/NW50	GXS750/NW50	GXS750/2600/NW50
Cooling water	Flow	GXS/pXH	12 lmin ⁻¹ (3.2 galmin ⁻¹) (10-25 °C)	26 lmin ⁻¹ (6.9 galmin ⁻¹) (10-25 °C)	18 lmin ⁻¹ (4.8 galmin ⁻¹) (10-25 °C)
	Supply pressure (max)	GXS/pXH	6.9 bar (100 psig)		
	DP across pump (min)	GXS/pXH	1.25 bar (18 psig)	2 bar (29 psig)	2.5 bar (36 psig)
Operating temperature		°C (°F)	5-40 (41-104)		
N ₂ pressure (supply pressure)		bar (psig)	2.5-6.9 (36-100)		
Light duty		slm	12		
Medium duty		slm	18-146		
Control valve connection			Swagelok® Ø ⅜" tube with olive		
Solvent flush	Filter connection		½" NPT Male		
	Solvent connection		⅜" BSP Male (G ⅜")		
Noise		dB (A)	< 64	< 70	
GXS exhaust back pressure (max)		mbar (psia)	1400 (20)		
System IP rating			21D (IEC60529)		
Lubrication	Type		PFPE Drynert® 25/6 (reco mmended), Fomblin® 25/6 (alternative), Krytox® 1525 (alternative)		
	Volume	l (US gal)	3.6 (0.9)	6.8 (1.8)	4.9 (1.3)
Monitoring & Control			Profibus DP		
Weight		kg (lbs)	1191 (2625)	2038 (4493)	1598 (3523)

Units			GXS750/4200 & pXH6000 7.5 kW	GXS750/2600 & 2x pXH6000 7.5 kW	GXS750/4200 & 2x pXH6000 7.5 kW	
Peak pumping speed			m ³ h ⁻¹ (cfm)	7040 (4143)	12500 (7357)	13220 (7781)
Ultimate pressure			mbar (Torr)	2.7 x 10 ⁻⁴ (2.00 ⁻⁴)	3.1 x 10 ⁻⁴ (2.32 ⁻⁴)	2.9 x 10 ⁻⁴ (2.16 ⁻⁴)
Motor rating power			kW (hp)	37 (49.6)	44.5 (59.7)	44.5 (59.7)
Full load power	@ ultimate pressure	kW (hp)	12.7 (16.96)	14.0 (18.82)	14.7 (19.74)	
	@ peak pumping load	kW (hp)	29.9 (40.09)	31.3 (41.95)	30.5 (40.95)	
Electrical	Supply options	High volt (GXS & pXH)		380-460 V 3Ø 50/60 Hz		
		Low volt (GXS & pXH)		200-230 V 3Ø 50/60 Hz		
	Connections	High volt (GXS & pXH)		Harting han 100A-F		
		Low volt (GXS & pXH)		Harting han 200A-F		
		pXH	Harting han K 4/4-F			
Vacuum couplings	pXH	Inlet	pXH6000/ISO250	pXH6000/ISO250	pXH6000/ISO250	
	GXS	Exhaust	GXS750/4200/NW50	GXS750/2600/NW50	GXS750/4200/NW50	
Cooling water	Flow	GXS/pXH	18 lmin ⁻¹ (4.8 galmin ⁻¹) (10-25 °C)	24 lmin ⁻¹ (6.3 galmin ⁻¹) (10-25 °C)	24 lmin ⁻¹ (6.3 galmin ⁻¹) (10-25 °C)	
	Supply pressure (max)	GXS/pXH	6.9 bar (100 psig)			
	DP across pump (min)	GXS/pXH	2.5 bar (36 psig)	2.5 bar (36 psig)	2.5 bar (36 psig)	
Operating temperature		°C (°F)		5-40 (41-104)		
N ₂ pressure (supply pressure)		bar (psig)		2.5-6.9 (36-100)		
Light duty		slm		12		
Medium duty		slm		18-146		
Control valve connection			Swagelok® Ø ⅜" tube with olive			
Solvent flush	Filter connection		½" NPT Male			
	Solvent connection		⅜" BSP Male (G ⅜")			
Noise		dB (A)		< 70		
GXS exhaust back pressure (max)		mbar (psia)	1400 (20)			
System IP rating			21D (IEC60529)			
Lubrication	Type	PFPE Drynert® 25/6 (reco mmended), Fomblin® 25/6 (alternative), Krytox® 1525 (alternative)				
	Volume	l (US gal)	6.0 (1.6)	6.6 (1.7)	7.7 (2.0)	
Monitoring & Control				Profibus DP		
Weight		kg (lbs)	1556 (3430)	2033 (4482)	2021 (4455)	



Ordering information

Booster

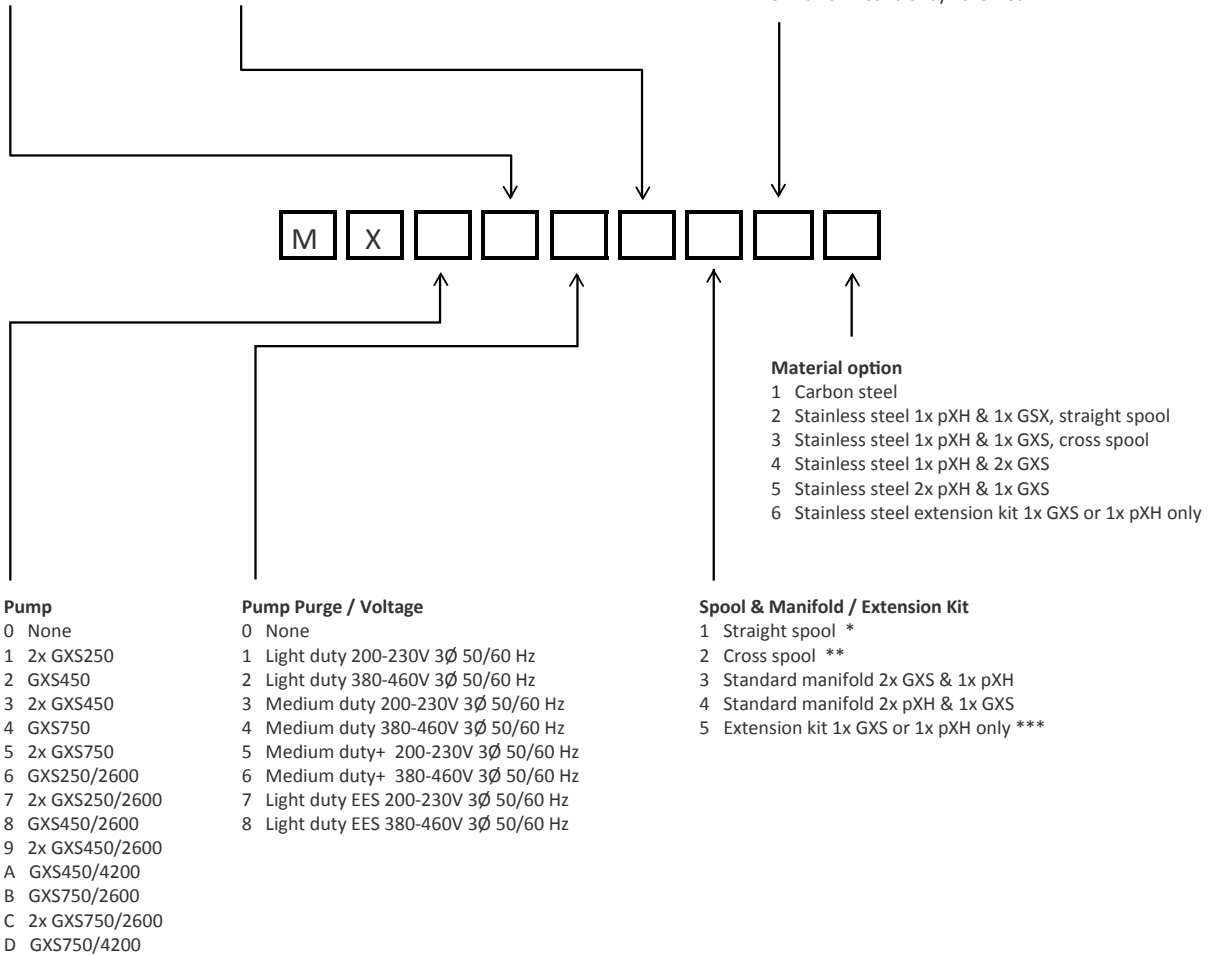
- 0 None
- 1 pXH4500
- 2 pXH6000
- 3 2x pXH4500
- 4 2x pXH6000

Vacuum Instrumentation

- 0 None
- 1 GXS / GMB Interstage Active Pirani Gauge
- 2 pXH / GXS Interstage Active Pirani Gauge
- 3 GXS / GMB Interstage Active Strain Gauge
- 4 pXH / GXS Interstage Active Strain Gauge

Interface Accessories

- 0 None
- 1 Full Profibus (2x Profibus Modules)
- 2 One Profibus Module + pXH Serial Link
- 3 Full MCMmicroTIM (2x TIMs)
- 4 One MCMmicroTIM + pXH Serial Link
- 5 Full SIM control by Ethernet



Notes

* Cost effective variant

** Ready for future module extension

*** Select, if already installed 1x GXS & 1x pXH with cross spool and want extension to module C or D.

Extension kit includes necessary spool(s), frame for 2x pXH, valve, bellows, hardware etc. Important: the pump or booster you select for extension must be of the same size or type as bought previously

Material Options

1: Carbon steel except GXS valve made of iron cast & stainless steel, bellows made of st. steel / flanges CS

2 - 6: Stainless steel except GXS valve made of iron cast & st. steel, bellows made of st. steel / flanges CS, recommended for chemical applications

Pump Purge / Voltage include:

Light duty: SSP

Medium duty: SSP + Inlet + GB + Exh PM, pressure monitoring

Medium duty+ : the same as medium duty with high flow purge / solvent flush

Light duty EES includes SSP & external evacuation system

Please contact your sales representative for more information

IDX 1000/1300 DRY PUMP

MAXIMISE YOUR PRODUCTIVITY AND PERFORMANCE



The IDX1000 is the benchmark in performance for fast pump-down of large chambers and high capacity pumping for industrial processes. Based on the double-ended screw technology, the IDX Dry Vacuum Pump will give you all the reliability and performance you want for your process. The IDX outperforms all other dry pumps in robustness, performance and ease of operation, giving you faster pump-down from atmosphere and managing higher throughput at low pressures. Dry pumping systems reduce energy costs, eliminate effluent and can give significant improvements in product quality, making them the ideal solution for many coating and metallurgy processes.



Features and Benefits

- Improved performance and reliability.
- Continuous performance from atmosphere to ultimate.
- Excellent thermal profile and temperature control.
- Tolerates liquid and particles.
- Does not contaminate your process.

Applications

- Metallurgy.
- Vacuum Induction Melting (VIM).
- Vacuum Arc Refining (VAR).
- Precision Investment Casting (PIC).
- Steel Degassing.

Pump Range

IDX

- IDX1000
- IDX1300



Performance Curves

IDX1000

IDX1000



Peak Pumping Speed

1000 m³h⁻¹

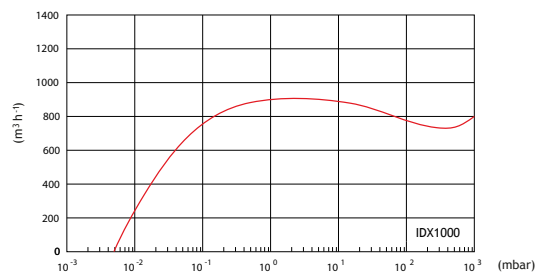
(589 cfm)

Ultimate Pressure

5 x 10⁻² mbar

(3.75 x 10⁻² Torr)

IDX1000 Performance Curve



Ordering information

Product description	Order no:
IDX1000 22 kW 50 Hz safe area	A70803985
IDX1000 30 kW 50 Hz safe area extended performance	A70804985
IDX1000 30 hp 60 Hz safe area	A70813985
IDX1000 40 hp 60 Hz safe area extended performance	A70814985

IDX1300

IDX1300



Peak Pumping Speed

1300 m³h⁻¹

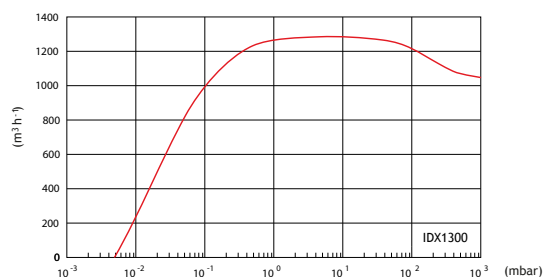
(766 cfm)

Ultimate Pressure

5 x 10⁻² mbar

(3.75 x 10⁻² Torr)

IDX1300 Performance Curve

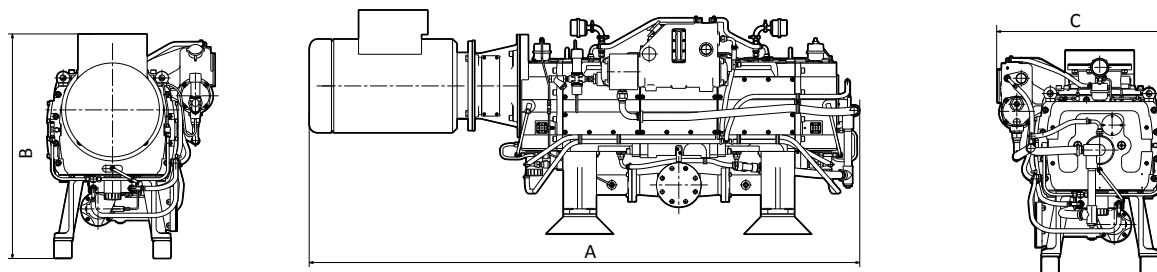


Ordering information

Product description	Order no:
IDX1300 30 kW DIN Safe Area	A70904985
IDX1300 40 hp ANSI Safe Area	A70914985

Dimensions

IDX Dimensions



		IDX1000	IDX1300
A	50 Hz	2250 mm (88.5")	2465 mm (97")
	60 Hz	2290 mm (90.1")	2515 mm (99")
B		854 mm (33.6")	1005 mm (39.6")
C		750 mm (29.5")	750 mm (29.5")

Technical Data



		IDX1000	IDX1300
50 Hz	kg (lb)	1560 (3439)	1590 (3506)
60 Hz	kg (lb)	1630 (3594)	1660 (3660 lb)
Pumping speed			
Nominal	m ³ h ⁻¹ (cfm)	1000 (589)	1300 (766)
Actual	m ³ h ⁻¹ (cfm)	900 (560)	1250 (736)
Ultimate pressure	mbar (Torr)	5 x 10 ⁻² (3.75 x 10 ⁻²)	
Noise	dB(A)	82	
Motor	kW (hp)	30 (40)	
Optional	kW (hp)	22 (30)	-



Service, Spares and Accessories

Gear Box Oil

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

Coolant

Product description	Order no:
Coolant 0.9/2L Drystar	H12810003
* 0.9 litres (0.24 US gal) as supplied, 2.0 litres (0.53 US gal) when diluted.	

IDX Kit

Product description	Order no:
IDX Routine maintenance kit	A70801800
IDX Heat exchanger cleaning kit	A70801801
IDX Cooling system overhaul kit	A70801802
IDX Motor fitting kit	A70801803
IDX Drive coupling kit	A70801804
IDX Bearing and seal replacement kit	A70801805
IDX Oil pump replacement kit	A70801806
IDX Strip and rebuild kit	A70801807
IDX Flame arrestor cleaning kit	A70801808
IDX Hoses kit	A70801809
IDX Flame arrestor replacement kit (inlet)	A70801810
IDX Flame arrestor replacement kit (outlet)	A70801811
IDX Flame arrestor tooling kit	A70801812

A number of accessories are available for the CDX and IDX pumps, as listed below. Contact your supplier or Edwards for details of these accessories.

- Exhaust Silencers (mild steel or stainless steel)
- Flame arrestors
- Acoustic enclosures and acoustic cover kits
- Gas ballast kits
- Inlet purge kit
- Exhaust purge kit

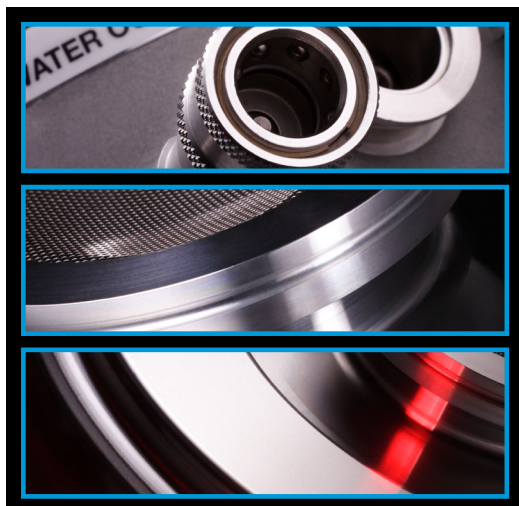
Service

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

EPX HIGH VACUUM PRIMARY PUMP

MODERNISING YOUR WORLD THROUGH VACUUM



The EPX series uses a unique, patented, single-shaft regenerative/Holweck® stage mechanism that makes them capable of pumping from atmosphere to ultimate pressures of $< 1 \times 10^{-4}$ mbar or $< 1 \times 10^{-6}$ mbar depending on model. They are ideal for applications where a better base pressure is required than can be delivered by a typical primary pump and where otherwise a turbomolecular pump and primary pump would be required and also for applications that cycle frequently from atmosphere to low pressures as they can operate continuously at all inlet pressures.



Features and Benefits

- **Compact footprint** – the EPX is more compact than the equivalent turbomolecular pump and primary pump combination.
- **Low cost of ownership** – zero routine maintenance with a 5 year service interval.
- **Unique patent protected pumping mechanism** – the EPX can pump down from atmosphere to turbomolecular base pressure and can operate continuously at all inlet pressures. No separate “rough pumping” required.
- **Ultra clean mechanism** – EPX pumps have no grease or oil under vacuum and present no other source of potential contamination.
- **Extremely reliable** – based on field proven IPX technology, the EPX has a MTBFp = 13 years (SEMI E10) with service periods of around every 5 years to maximize the life of the pump.
- **Water cooled** – low environmental heat load
- **Low noise and vibration** – better working environment. Ideal for vibration sensitive environments.

Applications

- Gas recirculation.
- Gas recovery.
- Beamlines.
- Distillation, drying and degassing.

Pump Range

EPX180

- EPX180LE
- EPX180NE

EPX500

- EPX500LE
- EPX500NE



Performance Curves

EPX180LE Dry Pump

EPX180LE



Peak speed

170 m³h⁻¹

105 ft³min⁻¹

2835 lmin⁻¹

Ultimate vacuum

< 1 x 10⁻⁴ mbar

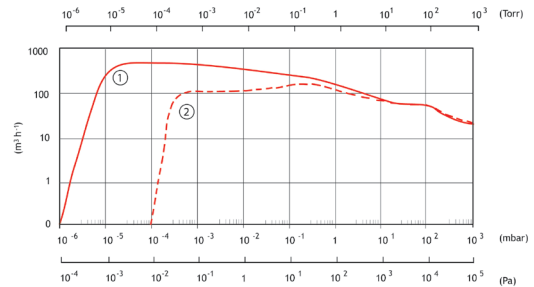
< 7.5 x 10⁻⁵ Torr

< 1 x 10⁻² Pa

Ordering information

Product description	Order no:
EPX180LE Dry Pump 208 V No TIM ¾ water connector	A41943012
EPX180LE Dry Pump 400 V No TIM ¾ water connectors	A41943014
EPX180LE Dry Pump 208 V No TIM ¼ water connector	A41943022
EPX180LE Dry Pump 400 V No TIM ¼ water connectors	A41943024
EPX180LE Dry Pump 208 V MCM TIM ¾ water connector	A41943712
EPX180LE Dry Pump 400 V MCM TIM ¾ water connectors	A41943714
EPX180LE Dry Pump 208 V MCM TIM ¼ water connector	A41943722

EPX180LE Performance Curve



- 1 Comparative pumping speeds from back to back testing
- 2 ISO pumping speed obtained using total pressure gauges

EPX180NE Dry Pump

EPX180NE



Peak speed

170 m³h⁻¹

105 ft³min⁻¹

2835 lmin⁻¹

Ultimate vacuum

< 1 x 10⁻⁴ mbar

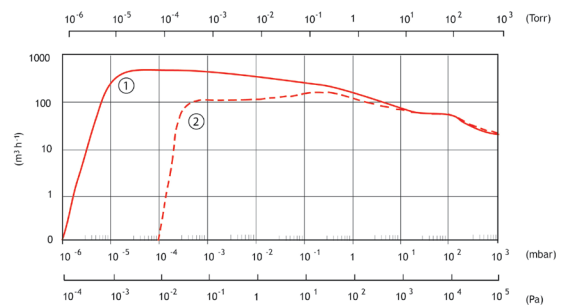
< 7.5 x 10⁻⁵ Torr

< 1 x 10⁻² Pa

Ordering information

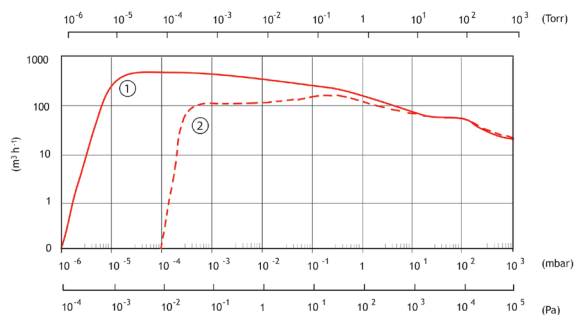
Product description	Order no:
EPX180NE Dry pump 208 V MCM TIM ¾ water connector	A41944514
EPX180NE Dry pump 400 V MCM TIM ¾ water connectors	A41944712
EPX180NE Dry pump 400 V MCM TIM ¼ water connectors	A41944714
EPX180NE Dry pump 208 V No TIM ¾ water connector	A41944724
EPX180NE Dry pump 400 V No TIM ¾ water connector	A41944012

EPX180NE Performance Curve



- 1 Comparative pumping speeds from back to back testing
- 2 ISO pumping speed obtained using total pressure gauges

EPX500 Performance Curve



- 1 Comparative pumping speeds from back to back testing
- 2 ISO pumping speed obtained using total pressure gauges

EPX500L Dry Pump

EPX500LE

Peak speed

500 m³h⁻¹

295 ft³min⁻¹

8338 lmin⁻¹

Ultimate vacuum

< 1 x 10⁻⁶ mbar

< 7.5 x 10⁻⁷ Torr

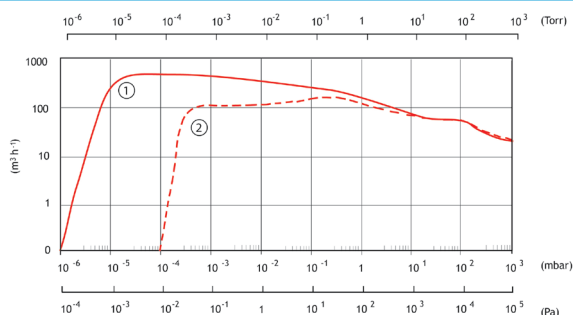
< 1 x 10⁻⁴ Pa



Ordering information

Product description	Order no:
EPX500LE Dry pump 208 V No TIM ¾ water connector	A41953012
EPX500LE Dry pump 400 V No TIM ¾ water connectors	A41953014
EPX500LE Dry pump 208 V MCM TIM ¾ water connector	A41953712

EPX500 Performance Curve



- 1 Comparative pumping speeds from back to back testing
- 2 ISO pumping speed obtained using total pressure gauges

EPX500N Dry Pump

EPX500NE

Peak speed

500 m³h⁻¹

295 ft³min⁻¹

8338 lmin⁻¹

Ultimate vacuum

< 1 x 10⁻⁶ mbar

< 7.5 x 10⁻⁷ Torr

< 1 x 10⁻⁴ Pa



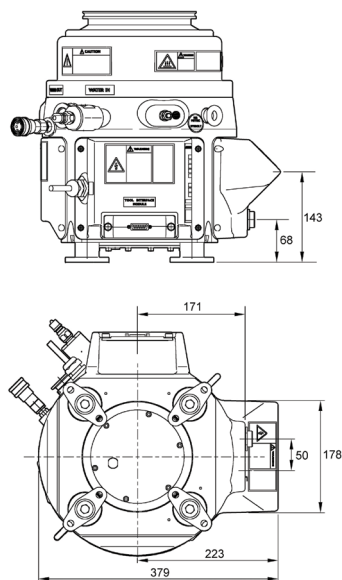
Ordering information

Product description	Order no:
EPX500NE 208 V No TIM ¾ water connector	A41954012
EPX500NE 400 V No TIM ¾ water connector	A41954014
EPX500NE 208 V No TIM ¼ water connector	A41954022
EPX500NE 208 V MCM TIM ¾ water connector	A41954712
EPX500NE 400 V MCM TIM ¾ water connectors	A41954714

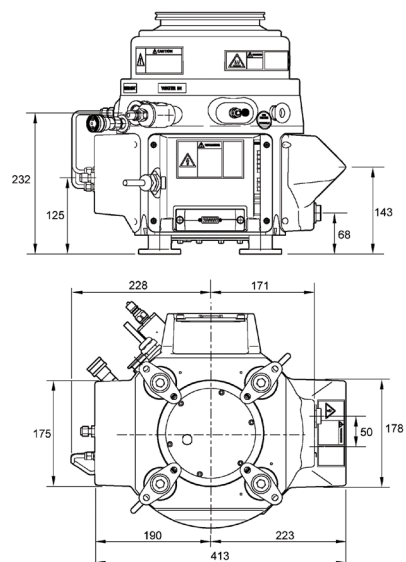


Dimensions

LE variant Dimensions



NE variant Dimensions



Technical Data



	Units	EPX180 LE	EPX180NE	EPX500LE	EPX500NE
Peak speed	m ³ h ⁻¹	170	170	500	500
	ft ³ min ⁻¹	105	105	295	295
	lmin ⁻¹	2835	2835	8338	8338
Ultimate vacuum	mbar	< 1 x 10 ⁻⁴	< 1 x 10 ⁻⁴	< 1 x 10 ⁻⁶	< 1 x 10 ⁻⁶
	Torr	< 7.5 x 10 ⁻⁵	< 7.5 x 10 ⁻⁵	< 7.5 x 10 ⁻⁷	< 7.5 x 10 ⁻⁷
	Pa	< 1 x 10 ⁻²	< 1 x 10 ⁻²	< 1 x 10 ⁻⁴	< 1 x 10 ⁻⁴
Warm-up time (to nominal performance)	min	30	30	30	30
Inlet flange		ISO63	ISO63	ISO160	ISO160
Outlet flange		NW25	NW25	NW25	NW25
Noise	dB(A)	< 59	< 59	< 59	< 59
Water connectors		¾ in Quick	¾ in Quick		
Minimum cooling water flow rate	lmin ⁻¹	2	2	2	2
Cooling water temperature	°C	15-35	15-35	15-35	15-35
Electrical Supply		200/208 V, 50/60 Hz 3 phase	400 V, 50/60 Hz 3 phase	200/208 V, 50/60 Hz 3 phase	200/208 V, 50/60 Hz 3 phase
Power at ultimate	kW	1.4	1.4	1.4	1.4
Rated motor power	kW	3.0	3.0	3.0	3.0
TIM		none	None	None	None
Weight	kg	43.5	43.5	45.2	45.2
Nitrogen supply interface		-	¼ in (6.5 mm) tube	-	¼ in (6.5 mm) tube
Nitrogen supply pressure	Pa	-	3 x 10 ⁵ -7 x 10 ⁵	-	3 x 10 ⁵ -7 x 10 ⁵
Minimum nitrogen purity		-	99.95%	-	99.95%

Service, Spares and Accessories

Foot Adapter

Product description	Order no:
IPX-EPX foot adapter	A41900186

Pump Display Terminal (PDT)

Product description	Order no:
Pump Display Terminal (PDT)	D37272000

Protection Box Accessory

Product description	Order no:
200/208 V, 50/60 Hz	D37330000
400 V, 50/60 Hz	D37331000

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