

EXTRUDER DEGASSING MODULE FOR THE PLASTICS INDUSTRY

EDWARDS



EDWARDS THE PARTNER OF CHOICE

Edwards is a world leader in the design, technology and manufacture of vacuum pumps for industrial applications with over 100 years' history.

We believe in delivering results that bring value to our customers by using our breadth of industry experience to identify and apply solutions. Using the most innovative and up-to-date modelling techniques, we can optimise the pumping configuration for customers to provide a system design giving the maximum performance in the most reliable and cost-effective way.

EDWARDS EXDM FOR DEGASSING APPLICATIONS

Edwards is a global leader in vacuum pump design and manufacturing, with over a century of expertise supporting industries around the world. For the plastics industry, our Edwards Extruder Degassing Module (EXDM), provides a powerful and modular solution designed specifically for degassing in extrusion and plastics recycling processes.

Our EXDM system integrates the trusted performance of dry vacuum technology with an array of intelligent features and robust components tailored to the most demanding degassing environments. It is a fully modular, easy-to-integrate vacuum solution for both new and existing installations, offering outstanding reliability, long service intervals and low total cost of ownership.

Modular EXDM system

Every component is purpose-built to maximise efficiency and protect the pump from harsh process conditions. Optional accessories such as inlet isolation valves, temperature sensors and solvent collection tanks are available based on your process needs.



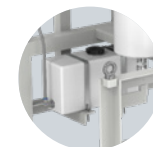
nEDC dry vacuum pump

Stainless steel mechanism for corrosion-free operations.



Inlet filtration options

Option of single filter with a bypass line or two filters for continuous operations.



Integrated solvent flush system

In-built to keep the pump clean and free of contaminants.



Exhaust Tee

For safe removal of discharged vapours and liquids.



Inlet purge

Regulates process pressure and speeds up pump warm-up and cool-down.



Standard control options

Three options of manual control operations, junction box or fully automatic logic controls available to choose from.



CORE TECHNOLOGY OF THE EXDM SYSTEM

nEDC next-generation dry claw vacuum pump

At the core of every EXDM system is the Edwards nEDC dry vacuum pump. The claw technology is engineered for rugged performance, long life and superior efficiency in handling a variety of demanding plastics and polymer processes.



Advanced design

The nEDC's modular claw configuration delivers superior pumping speeds and consistent vacuum levels across a wide range of operating pressures.



Maintenance simplicity

With contact-free internals and an accessible pumping chamber, cleaning and maintenance can be completed on-site without special tools.



Quiet operation

The in-house developed silencer significantly reduces noise for a safer, more comfortable workplace.



Corrosion-resistant build

Stainless steel claws and coated chambers are standard, ensuring excellent compatibility with condensable and chemically aggressive vapours.



High-efficiency motors

Equipped with IE4-rated motors for energy savings and optimised performance.



THE EDWARDS DRY TECHNOLOGY ADVANTAGE

Edwards' dry vacuum technology is a proven alternative to traditional oil-sealed and liquid ring systems, delivering clear operational, environmental and economic benefits.



Zero contamination

No oil migration into the process stream means cleaner production and safer working environments.



Reduced maintenance

Fewer moving parts, isolated pumping elements, and built-in solvent management reduce the need for frequent intervention.



Lower operating costs

Significantly lower energy usage and reduced downtime result in an improved return on investment.



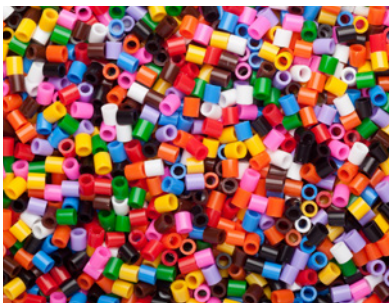
Sustainability focused

Our dry technology helps meet global environmental regulations by eliminating wastewater and oil disposal.

APPLICATIONS

The EXDM system is well suited for a broad range of degassing applications in various industries, especially in the plastics applications.

- Compounding and Masterbatch processing
- Film and sheet extrusion
- Mould venting or Injection moulding
- Vacuum forming
- EPS foaming and Thermoforming
- Plastics recycling and reprocessing
- Ceramics degassing
- Resin degassing
- Transformer degassing
- Composite degassing
- Food and Beverage degassing
- Container glass degassing
- Adhesive degassing

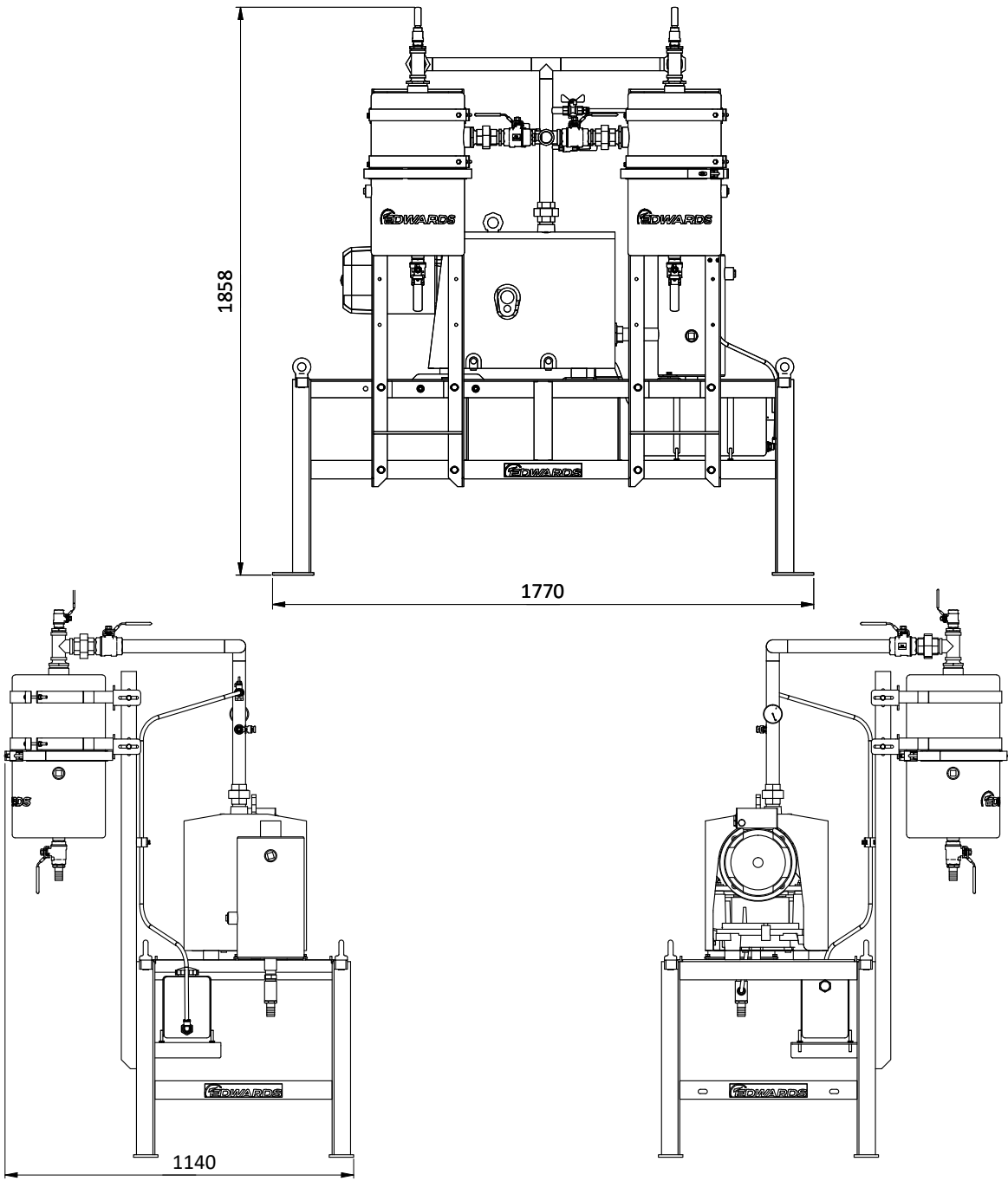


DIMENSIONS

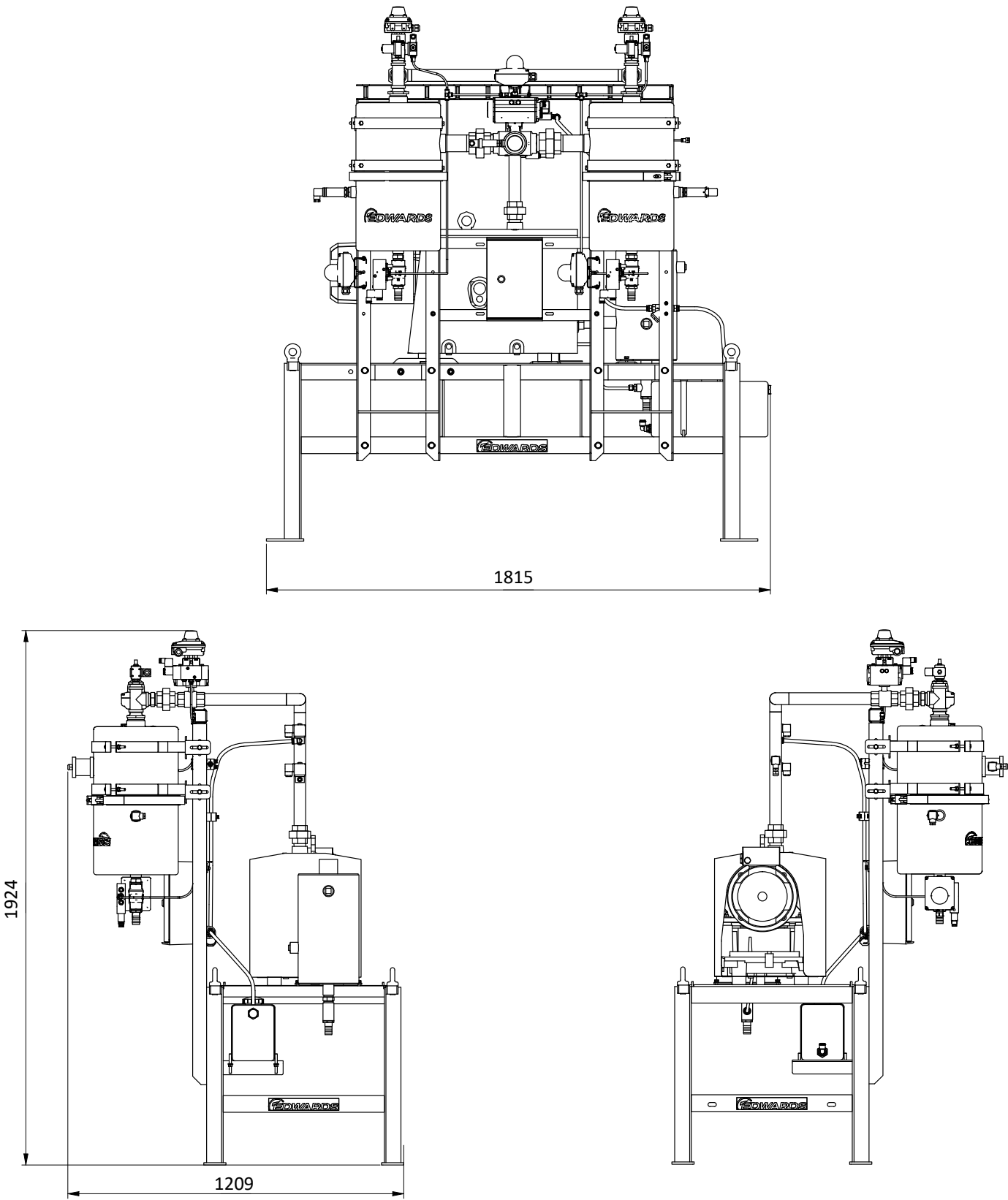
	Units	EXDM system with manual control	EXDM system with automatic junction box	EXDM system with automatic control panel
L X W X H	mm	1770 X 1140 X 1858	1815 X 1209 X 1924	2039 X 1209 X 1924.5
	in	69.68 X 44.88 X 73.14	71.45 X 47.59 X 75.74	80.27 X 47.59 X 75.76
Inlet connection size	BSP*	1¼"	2"	2"
Outlet connection size	BSP*	2"	2"	2"

* Process connections supplied as BSP threads as standard. NPT available on request.

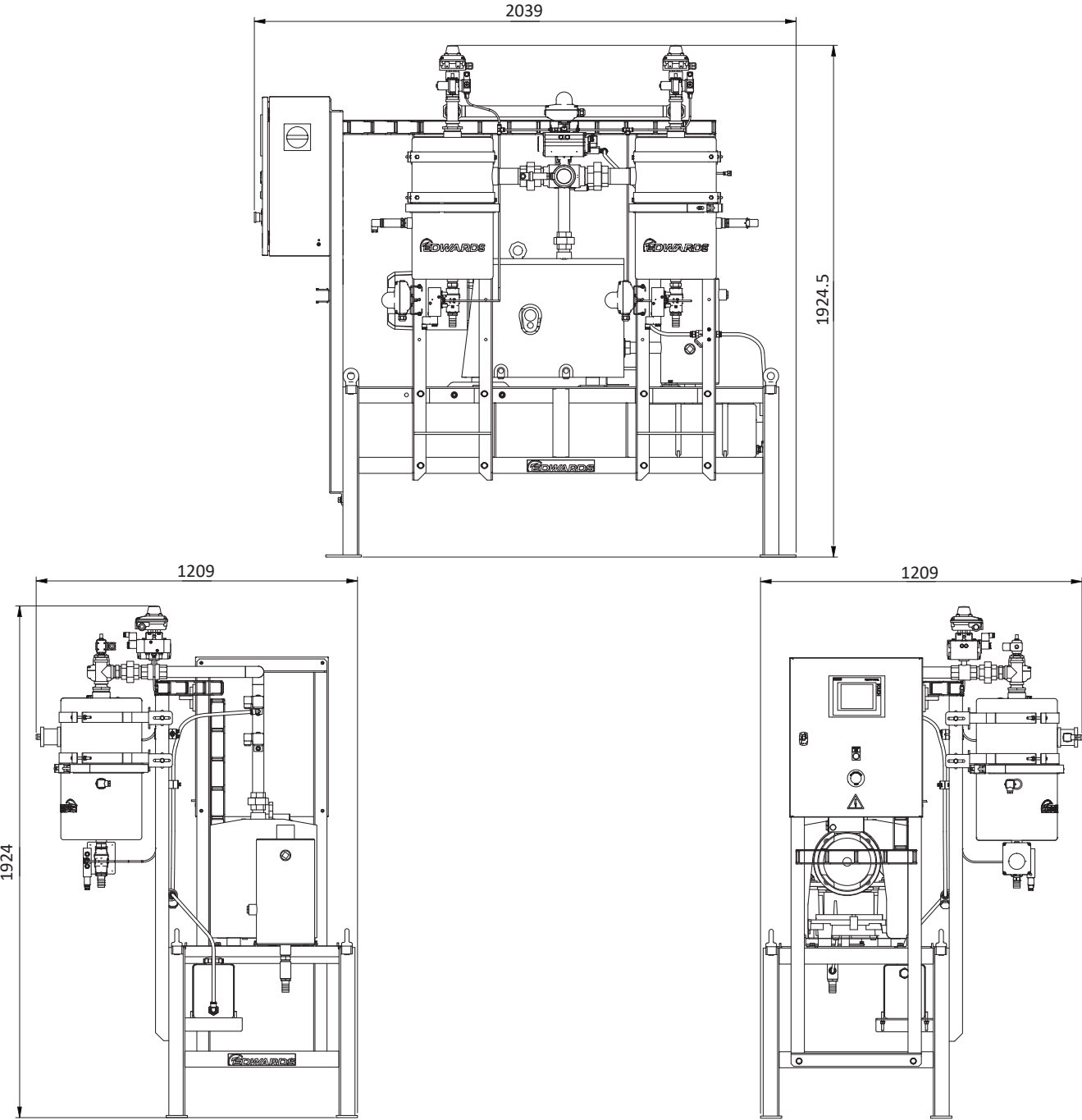
EXDM system - Manual control



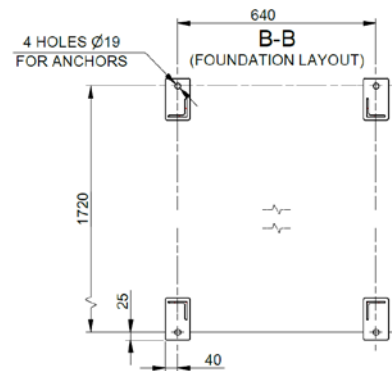
EXDM system - Automatic junction box



EXDM system - Automatic control panel



Frame footprint of EXDM system



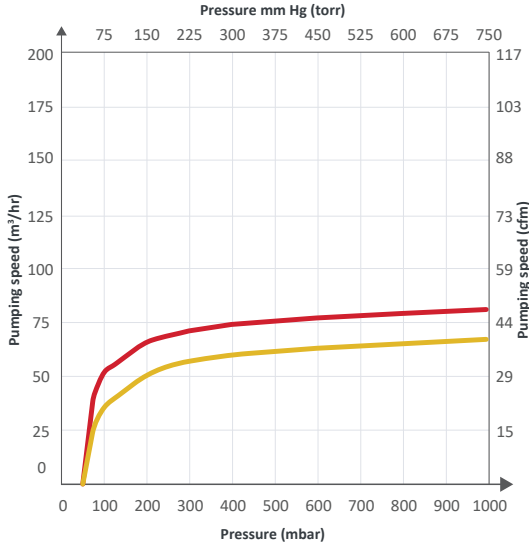
TECHNICAL SPECIFICATIONS

		Unit	nEDC65	nEDC150	nEDC300
Performance	Peak pumping speed (50Hz)	m ³ h ⁻¹ /cfm	65/38	150/88	300/176
	Peak pumping speed (60Hz)		78/47	180/104	340/200
	Ultimate vacuum continuous	mbar/torr	50/37.5	50/37.5	140/105
Nominal motor power	@ 50Hz	kW/hp	1.8/2.0	3.7/5.0	6.2/8.3
	@ 60Hz		2.2/3.0	3.7/5.0	7.5/10.0
	@ RPM	50Hz/60Hz	3000/3600		
Operating data	Noise (50Hz / 60Hz)	dB(A)	66/72	72/75	72/75
	Operating temperature (50Hz / 60Hz)	°C/°F	0 to 40/ 32 to 104	0 to 40/ 32 to 104	0 to 40/ 32 to 104
	Oil capacity (Gear box)	l/gal	1.5/0.30		

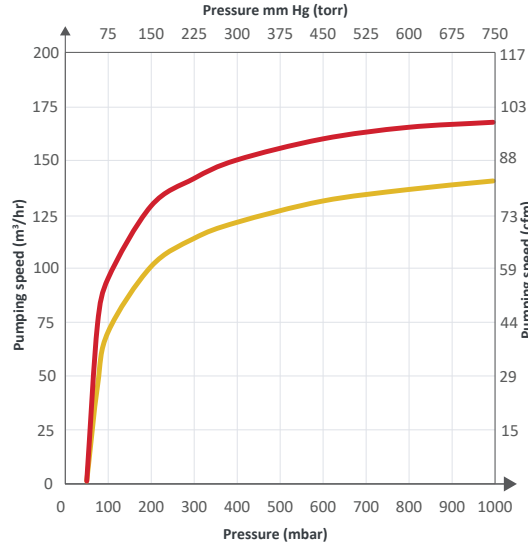
Pumping speed based on air at 20°C / 70°F. Tolerance +/-10%

PERFORMANCE CURVES

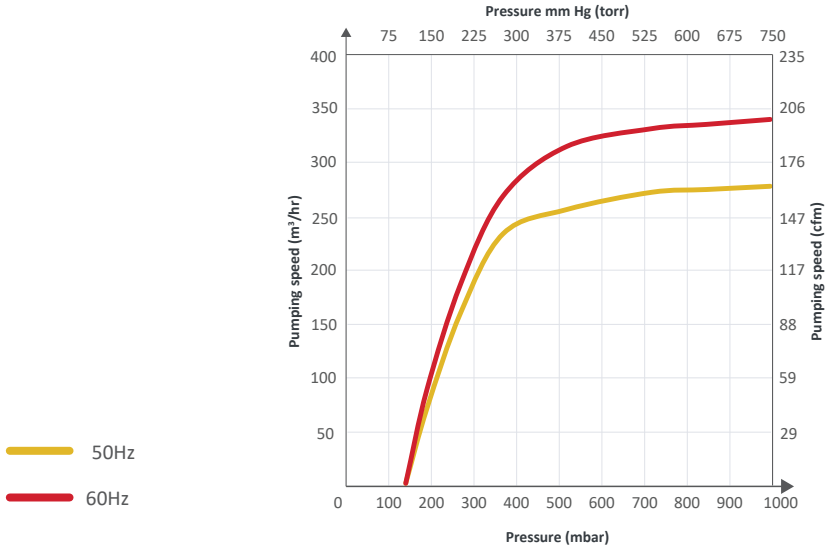
nEDC65



nEDC150



nEDC300



ORDERING INFORMATION

Part number	Product description
NZA579000	EXDM nEDC150 50/400 M 2
NZA582000	EXDM nEDC150 50/400 A/JB 2
NZA583000	EXDM nEDC150 50/400 A/CP 2
NZA588000	EXDM nEDC300 50/400 A/JB 2
NZA589000	EXDM nEDC300 50/400 A/CP 2

ACCESSORIES

Edwards standard systems typically include a dry vacuum pump and a series of accessory modules such as:

- Filters to capture the solids and liquids from the process
- Additional reliability- solvent flush, gas purges and inlet isolation valves
- Exhaust Tee to capture solvents and liquids form the pump exhaust
- Monitors and controls from gauges to fully enclosed bespoke control units



Your local sales representative will discuss your process needs to configure the EXDM system from the options below.

EXDM system	nEDC65	nEDC150	nEDC300	EDS200	EDS300	EDS480
Energy supply	200 / 220 V, 380 V, 400 V, 230 / 460 V, 500 / 575 V					
Frequency	50 Hz and 60 Hz					
Controls	Manual and automatic					
Electronics	Automatic - Junction box, Automatic- Control panel					
Number of filters	Single filter with bypass or two filters					

For processes that need higher capacities or further systemisation, we will design the system as your individual package from modules and accessories built as per your specifications.

SERVICE AND SUPPORT



To ensure your EXDM system maintains optimal performance and reliability, we offer a wide range of service solutions, tailored to meet your needs. From Field Service intervention to Managed Maintenance agreements, we will take care of your pump to ensure that it continues to deliver clean, consistent, efficient performance, with lower running cost and optimum total cost of ownership for it’s entire operating life.

Selecting original spare parts, maintenance kits and oil, means that each critical part performs as it was intended. Form, fit and function are guaranteed. Our service engineers’ fit genuine parts to ensure you receive the best result from each service.



Managed maintenance agreements

Regular scheduled maintenance can identify potential problems before they occur and plans can be structured around different levels of care. It enables cost management and will help you to avoid the risk and expense associated with unplanned downtime. Managed Maintenance let’s you focus on your business; we will take care of your maintenance.



Service at your convenience

Our highly trained service technicians carry out commissioning, vacuum health check, routine maintenance, troubleshooting and repair for many types of vacuum equipment. We invest in the tools, training and inventory to enable service in a timely, safe and consistent manner, utilising our best known methods.



Service and remanufacturing

No matter the condition of your pump our vacuum specialists can handle it. We are experts in vacuum pump maintenance and support pumps from virtually every type of application.



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