

# nEDC & EDC DRY CLAW VACUUM PUMPS



# 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.

## INNOVATION AND RELIABILITY

Edwards nEDC and EDC range of robust single stage dry claw vacuum pumps.

Edwards range of nEDC and EDC dry claw pumps features an innovative design which creates a new benchmark in the claw pump market. The simplicity, robustness, efficiency and contaminant handling capability of these pumps make them the smart choice for your application. Built to the highest standards and quality demanded by our customers, Edwards dry claw pump provides you with a trouble-free and cost-effective solution to meet your needs.



### Built to last

Innovative construction materials and coatings for a lifetime of reliable operation even in harsh conditions.



### Easy maintenance with lower cost

Long life bearings and seals with a separate and isolated pumping element offering quick access for easy cleaning in the event of product carry-over.



### Reliability you can trust

Quiet and efficient operation with low failure rate over a long lifetime, even in the most challenging conditions.



### Improved productivity

Superior performance: excellent ultimate vacuum level, fast pumping speed and lower continuous vacuum level.



### Innovation driven

The durability of our claw is rooted in our expertise. We first introduced claw technology to vacuum applications in the high tech electronics industry. Now our knowledge and experience leads to low cost, efficient and reliable single stage claw products.



### Fully certified

Our dry claw machines come with a warranty and a strong service support network across the globe. You are assured that your pumps and processes are kept in the best possible working order.



# nEDC65-300 - NEXT-GENERATION DRY CLAW VACUUM PUMP

The nEDC range is the latest iteration of mono claw vacuum pumps which boasts a range of inventive attributes that not only boost performance but also minimize noise levels, improve reliability, and facilitate easy on-site maintenance.

## 1 Enhanced performance

- Modular design ensures efficiency during the operational lifecycle. You are ensured of improved performance for your process due to higher pumping speeds
- These pumps are available with premium efficiency IE4 motors

## 2 Reliable and long-lasting

- Lower internal temperatures increase lip seal life and prevents oil leaks

## 3 Lower noise levels

- Re-designed in-house silencer that significantly reduces noise levels

## 4 Built-in corrosion resistance (standard)

- Corrosion resistant claws
- Coated pumping chamber
- Suitable for many harsh applications



## 5 Innovative features

- Dry (oil-free) pumping chamber
- Simple maintenance with contact-free internals eliminating wear

## 6 Compact machine with a small footprint

- Suited for any type of industry be it OEM machinery or the end user market

## 7 Easy to maintain

- The nEDC claw pump can be easily cleaned on-site and re-started by customers without the need for specialized tools

## 8 Cleverly designed element

- Easily accessible pumping chamber for cleaning without accessing the gearbox and disturbing the timing





# EDC500-1000 - HIGH CAPACITY DRY CLAW VACUUM PUMPS

Compact dry claw pumps with latest claw technology that are reliable, clean, modular and energy efficient.



## 1 Reliable

- Suitable for demanding industrial applications as claws and rotor housing are coated with durable high temperature resistant material. It ensures excellent compatibility with a wide range of materials and prevent corrosion
- Pressure regulation on-board for continuous operation at 200 mbar
- Tolerant to water vapour, with a drain valve on the bottom silencer

## 2 Clean

- Dry (oil-free) pumping chamber, no mechanical contact between claws and nearly no maintenance required
- Inlet check valve to prevent back contamination when the pump stops

## 3 Modular

- Modular design with gears chamber separated from the pumping chamber by a labyrinth seal for extended lifetime
- Integrated bottom silencer to reduce footprint. It allows the connection of an external silencer at the pump exhaust for even more silent operation

## 4 Energy efficient

- High energy efficiency, at least 30% better than oil sealed pumps, for lower cost of ownership
- Built with an IE4 motor as standard. Possible use of a VSD for further energy savings

## APPLICATIONS

The nEDC and EDC claw pumps offers you complete flexibility, efficiency and control over your process. These machines designed with robustness, durability and superior materials of construction and technological advances to give you a trouble-free solution to your specific application.

The nEDC and EDC range is suitable for a range of applications in various industries including:

- House vacuum systems
- Plastic extrusion
- Wood working
- Vacuum conveying
- Pick and place
- Drying and degassing
- Printing and paper converting
- Medical systems
- Dairy industry for milking and milk transfer
- Thermoforming
- Waste removal

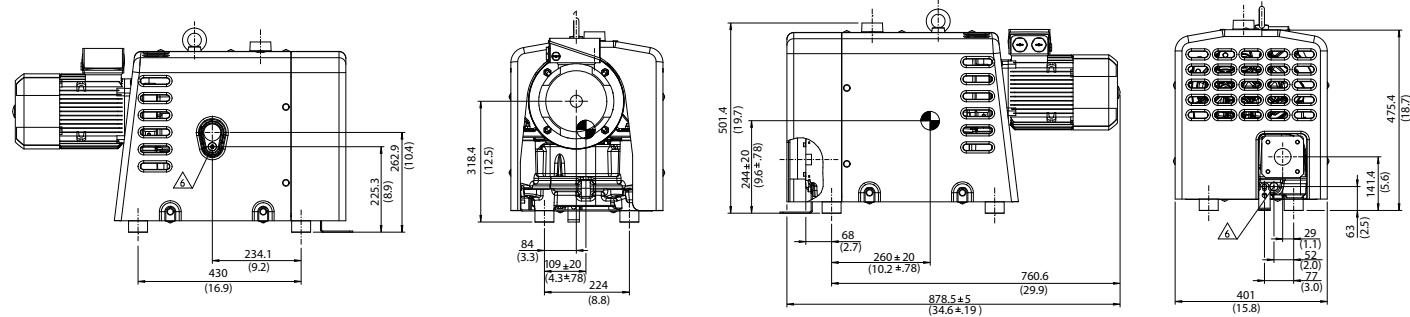


# DIMENSIONS

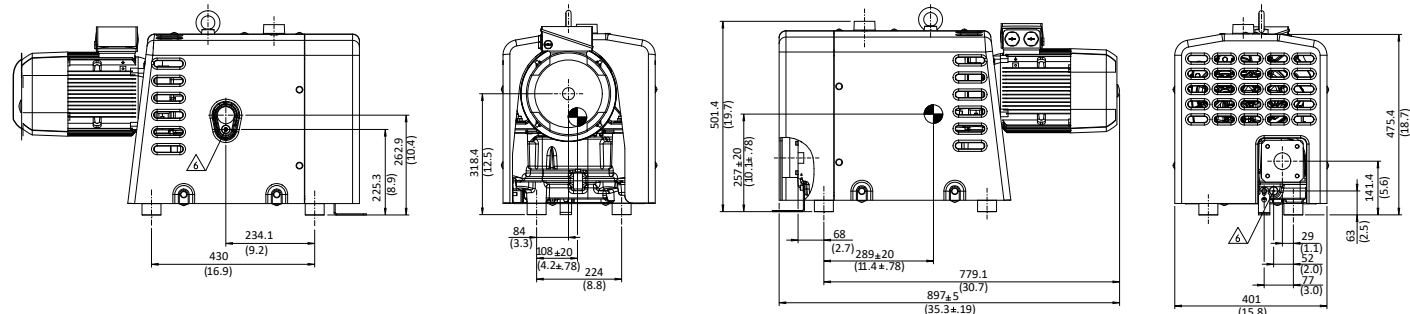
	Length		Width		Height		Inlet connection size	Outlet connection size
	mm	in	mm	in	mm	in		
nEDC65	878	34.6	401	15.7	501	19.7	G1 1/4" or NPT	G1 1/2" or NPT
nEDC150	897	35.3	401	15.7	501	19.7	G1 1/4" or NPT	G1 1/2" or NPT
nEDC300	1036	40.7	501	19.7	614	24.1	G2" or NPT	G1 1/4" or NPT
nEDC65 - Bareshaft 50Hz	610	24.01	401	15.8	501	19.7	G1 1/4" or NPT	G1 1/2" or NPT
nEDC65 - Bareshaft 60Hz	610	24.01	401	15.8	501	19.7	G1 1/4" or NPT	G1 1/2" or NPT
nEDC150 - Bareshaft 50Hz	809	31.8	501	19.7	614	24.1	G2" or NPT	G1 1/4" or NPT
nEDC150 - Bareshaft 60Hz	610	24.01	401	15.8	501	19.7	G1 1/4" or NPT	G1 1/2" or NPT
nEDC300 - Bareshaft 50Hz	610	24.01	401	15.8	501	19.7	G1 1/4" or NPT	G1 1/4" or NPT
nEDC300 - Bareshaft 60Hz	809	31.8	501	19.7	614	24.1	G2" or NPT	G1 1/4" or NPT
EDC500 - Bareshaft 50Hz	811	31.9	586	23.0	845	33.2	G3"	G2 1/2"
EDC500 - Bareshaft 60Hz	822	32.3	586	23.0	845	33.2	G3"	G2 1/2"
EDC1000 - Bareshaft 50Hz	1169	46.0	680	26.7	1274	50.1	DN100 PN6	DN100 PN6
EDC1000 - Bareshaft 60Hz	1169	46.0	680	26.7	1274	50.1	DN100 PN6	DN100 PN6
EDC500 - 400V 50Hz 3Ph IEC	1250	49.2	586	23.0	845	33.2	G3"	G2 1/2"
EDC500 - 380V 60Hz 3Ph IEC	1302	51.2	586	23.0	845	33.2	G3"	G2 1/2"
EDC500 - 460V 60Hz 3Ph IEC UL	1302	51.2	586	23.0	845	33.2	G3"	G2 1/2"
EDC1000 - 400V 50Hz 3Ph IEC	1468	57.7	680	26.7	1240	48.8	DN100 PN6	DN100 PN10
EDC1000 - 380V 60Hz 3Ph IEC	1424	56.0	680	26.7	1274	50.1	DN100 PN6	DN100 PN10
EDC1000 - 460V 60Hz 3Ph IEC UL	1424	56.0	680	26.7	1274	50.1	DN100 PN6	DN100 PN10

NPT adapters available on 60Hz USA specification machines.

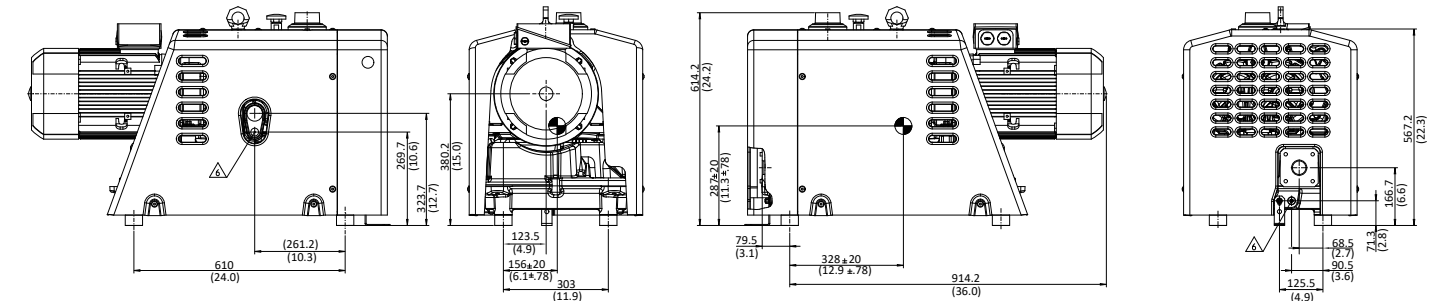
## nEDC65



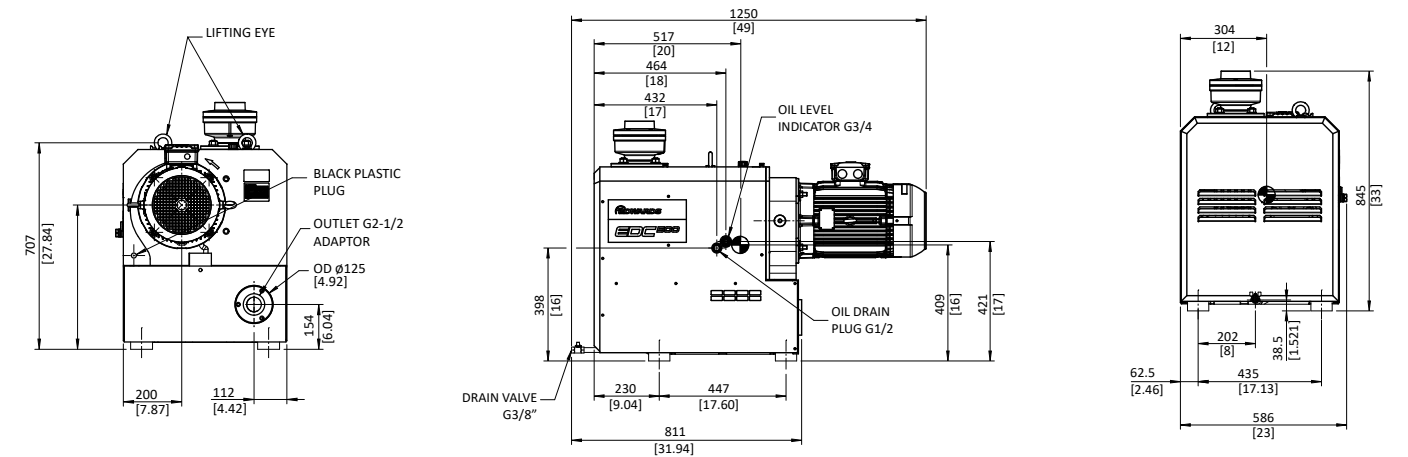
## nEDC150



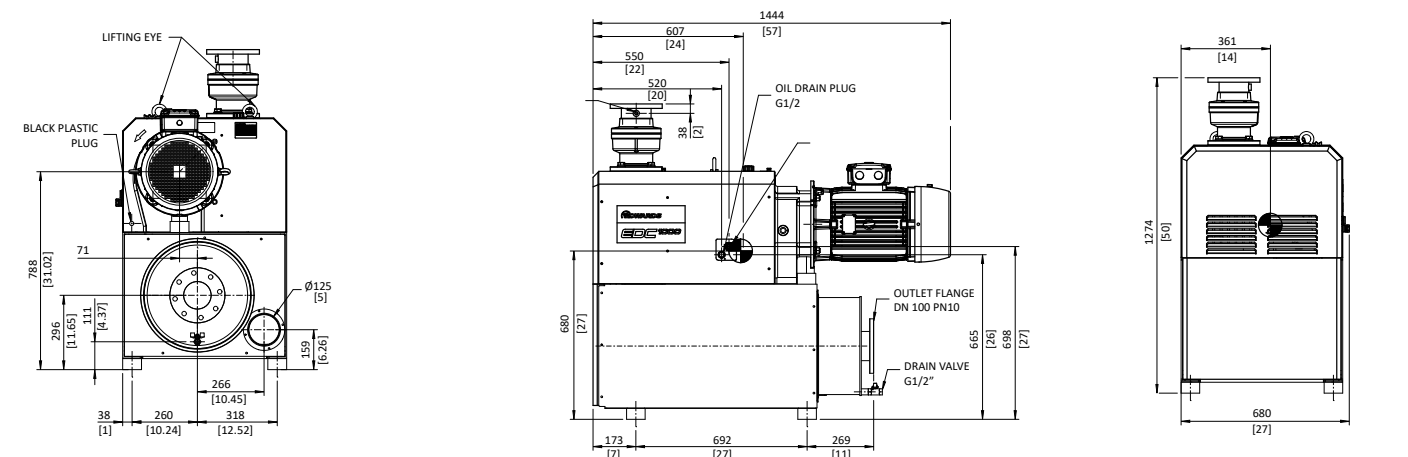
## nEDC300



## EDC500



## EDC1000





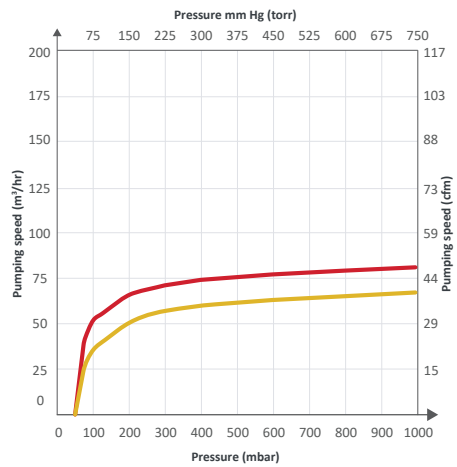
## TECHNICAL SPECIFICATIONS

		Unit	nEDC65	nEDC150	nEDC300	EDC500	EDC600
Performance	Peak pumping speed (50Hz)	m <sup>3</sup> h <sup>-1</sup> / cfm	65 / 38	150 / 88	300 / 340	500 / 294	950 / 559
	Peak pumping speed (60Hz)		78 / 47	180 / 104	176 / 200	600 / 353	1140 / 671
	Ultimate vacuum continuous	mbar / torr	50 / 37.5	50 / 37.5	140 / 105	200 / 150	200 / 150
Nominal motor power	@ 50Hz	kW / hp	1.8 / 2.0	3.7 / 5.0	6.2 / 8.3	9.2 / 12.3	18.5 / 24.8
	@ 60Hz		2.2 / 3.0	3.7 / 5.0	7.5 / 10.0	11 / 14.7	22 / 29.5
	@ RPM	50Hz / 60Hz	3600 / 3000				
Operating data	Noise (50Hz / 60Hz)	dB(A)	66 / 72	72 / 75	72 / 75	76 / 78	82 / 85
	Operating temperature (50Hz / 60Hz)	°C / °F	0 to 40 / 32 to 104	0 to 40 / 32 to 104	0 to 40 / 32 to 104	5 to 40 / 41 to 104	5 to 40 / 41 to 104
	Oil capacity (Gear box)	l / gal	1.5 / 0.30				

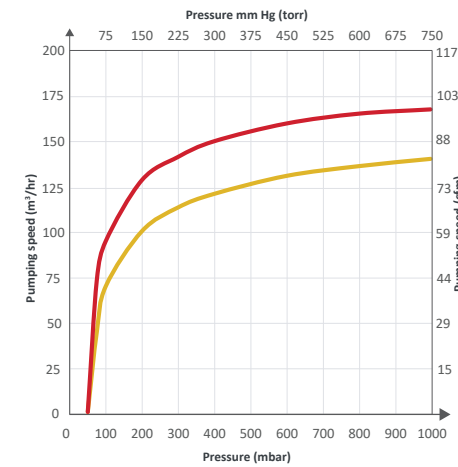
Pumping speed based on air at 20°C / 70°F. Tolerance +/-10%.

## PERFORMANCE CURVES

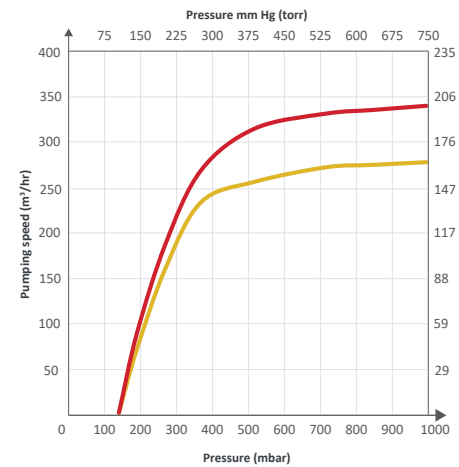
nEDC65



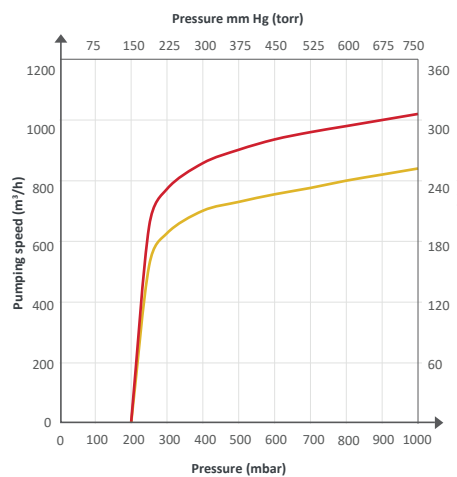
nEDC150



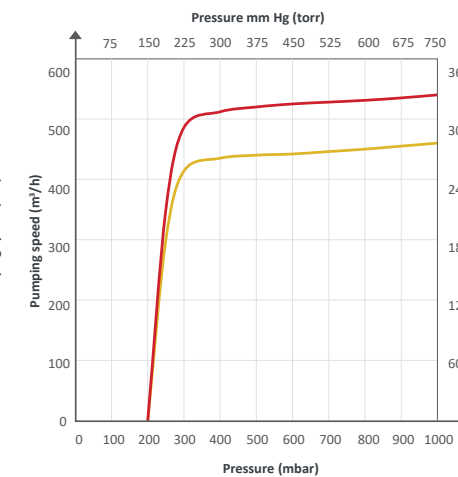
nEDC300



EDC500



EDC1000



— 50Hz  
— 60Hz

## ORDERING INFORMATION

Part number	Product description	Part number	Product description
A50875020	nEDC65V 200 / 230V 50Hz 3Ph IEC	A50876020	nEDC150 200 / 300V 50Hz 3Ph IEC
A50875120	nEDC65V 380V 60Hz 3Ph IEC	A50876021	nEDC150 Bareshaft 50Hz
A50875220	nEDC65V 400V 50Hz 3Ph IEC	A50876022	nEDC150 Bareshaft 60Hz
A50875620	nEDC65 230 / 460V 60Hz 3Ph UL / cUL	A50877120	nEDC300 380V 60Hz 3Ph IEC
A50875320	nEDC65 500 / 575V 50 / 60Hz 3Ph IEC-UL / cUL	A50877220	nEDC300 400V 50Hz 3Ph IEC
A50875021	nEDC65 Bareshaft 50Hz	A50877620	nEDC300 230 / 460V 60Hz 3Ph UL / cUL
A50875022	nEDC65 Bareshaft 60Hz	A50877020	nEDC300 200 / 230V 50Hz 3Ph IEC
A50876120	nEDC150 380V 60Hz 3Ph IEC	A50877320	nEDC300 500 / 575V 50 / 60Hz 3Ph IEC-UL / cUL
A50876220	nEDC150 400V 50Hz 3Ph IEC	A50877021	nEDC300 Bareshaft 50Hz
A50876620	nEDC150 230 / 460V 60Hz 3Ph UL / cUL	A50877022	nEDC300 Bareshaft 60Hz
A50876320	nEDC150 500 / 575V 50 / 60Hz 3Ph IEC-UL / cUL	A50877023	nEDC300 400V 50Hz 3Ph IEC IE4 motor

## ACCESSORIES

1905199910	Air inlet filter & elbow G3"	1905199912	Outlet silencer DN100
1905199911	Air inlet filter & elbow DN100	1905199915	Outlet silencer G2-1/2"

All suited for EDC500 and EDC1000 only

## SERVICE AND SUPPORT

Our expertise is in vacuum technology. We have been in the business since 1919 and our knowledge runs deep. We design, develop and manufacture vacuum equipment to the highest standards.

But it's not just the technology. With a global installed base of 750,000 pumps, we understand how vacuum pumps and systems perform in real life. We know how to get the best from our products, whatever the application. We know how to look after them. That's why a large section of our expert workforce is dedicated to service and support.

Our service solutions include; on-site service, repairs and exchange, and quality spares. All built on our world-class technical know-how and backed by our sophisticated logistics and supply chain infrastructure.





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