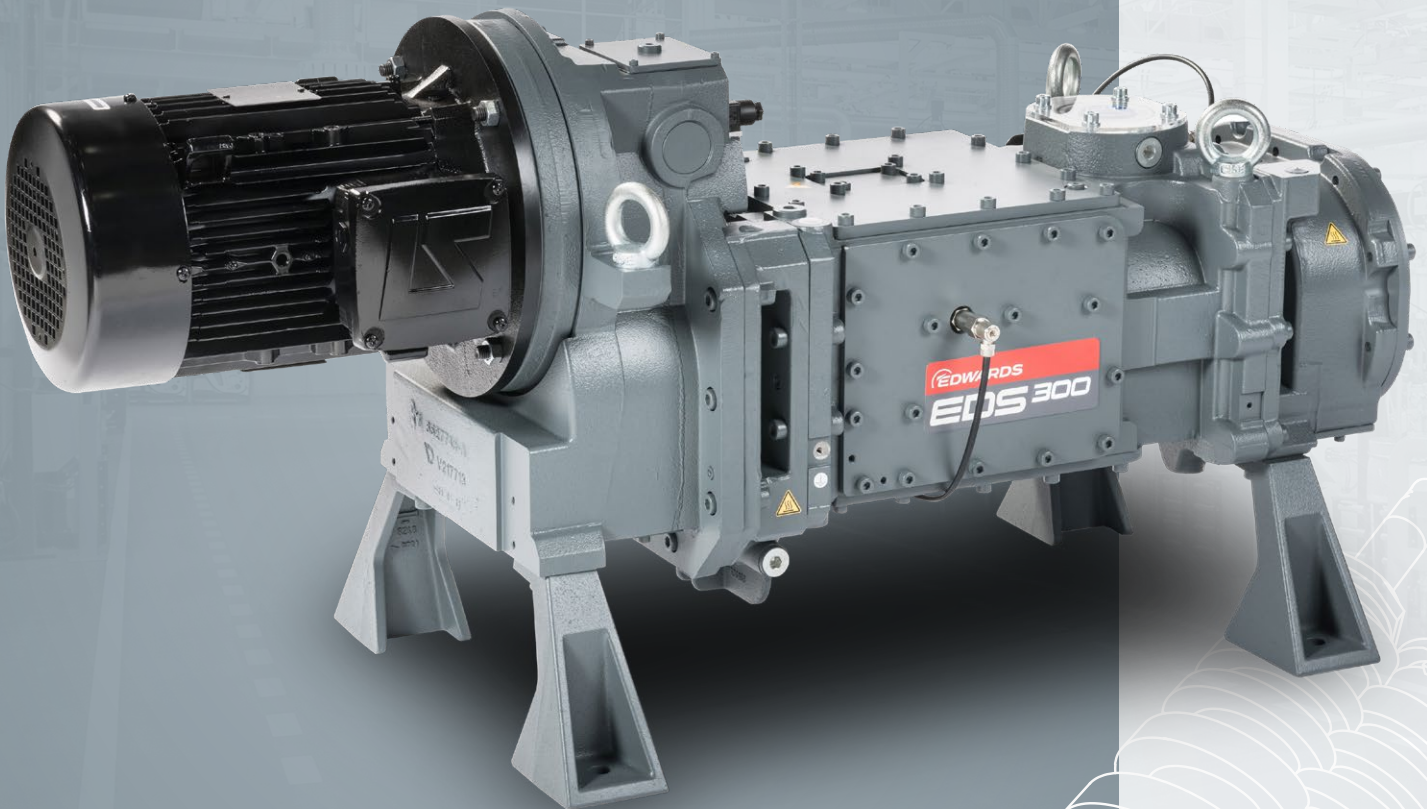


# EDS INDUSTRIAL DRY SCREW VACUUM PUMPS

 **EDWARDS**



# STATE-OF-THE-ART TECHNOLOGY MADE SIMPLE

We are known for providing our customers with robust vacuum solutions that include superior products with application and process expertise comprised of decades of real-world, real-scenario experience. Edwards' new range of EDS Industrial Dry Screw pumps continues that tradition.

The EDS range is developed in the UK and designed for a global market, it creates a new benchmark in the screw pump market with its innovative design. Featuring tapered variable pitch dry screws, the EDS is an intricate piece of engineering built to the exacting standards and quality that Edwards is recognised for.

Available in water-cooled and air-blasted variants, the EDS range - EDS200, EDS300 and EDS480 - has second-to-none contaminant handling capabilities in the harshest industrial conditions and dirtiest industrial installations. Housed in a modern outer enclosure, the EDS offers robust performance standards that most production processes demand. The EDS vacuum pumps offer all the extra performance you need for the harshest and toughest industrial applications.

## PUMP TECHNOLOGY



### SIMPLE

Industry-leading, simply packaged, state-of-the art screw vacuum technology

- **Trouble-free peace of mind:** Ease of installation, systemisation, support and service
- **Pumping:** Designed to be simply reliable



### INNOVATIVE AND STURDY DESIGN

A plug and play system with a high tolerance for particulates

- **Tapered variable pitch dry screws**
- **Robust water cooling system**



### FASTER

Extra performance to meet modern technologies

- **Quick pump down times:** Higher roughing speeds get the job done quicker
- **High pumping speeds:** Gives more throughput where it matters



### PROCESS CAPABLE

Mechanism proven in the most demanding applications

- **Extended MTBS:** Purge protection options to prolong life on harsh processes
- **Increased process uptime:** Survives process mishaps and contaminant ingestion



### FLEXIBLE

Designed for a changing global market

- **Safe and compliant:** Easily configured for hazardous area installations
- **Engineer to order:** Basic modular building blocks for special pumping systems



### ROBUST

A truly industrial machine for the most challenging installations

- **Installation options:** Highly tolerant water-cooled and air blast-cooled standard products
- **Protection:** High IP ratings and easily cleanable protective canopies

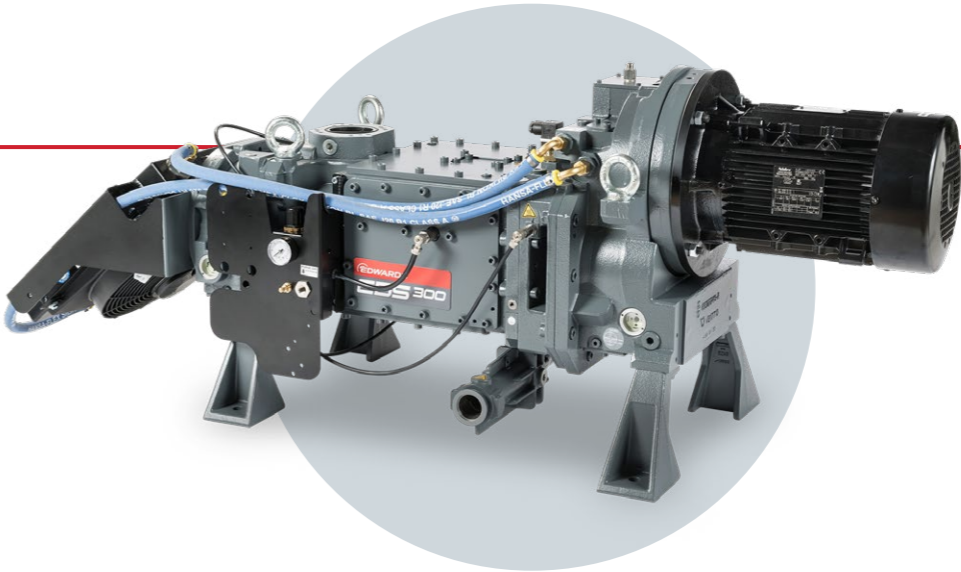
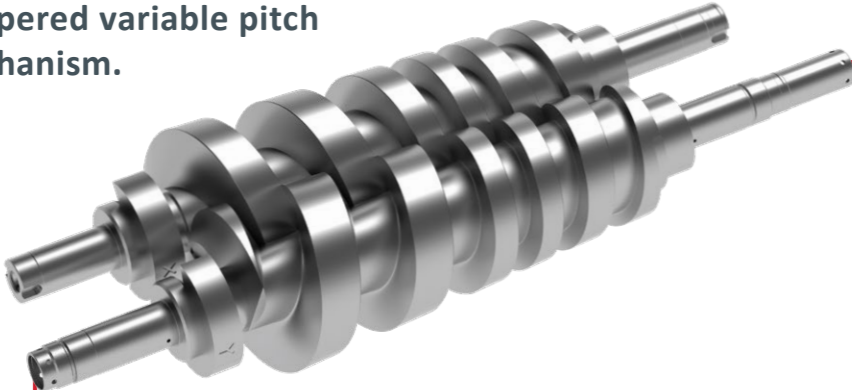
## EDWARDS THE PARTNER OF CHOICE

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

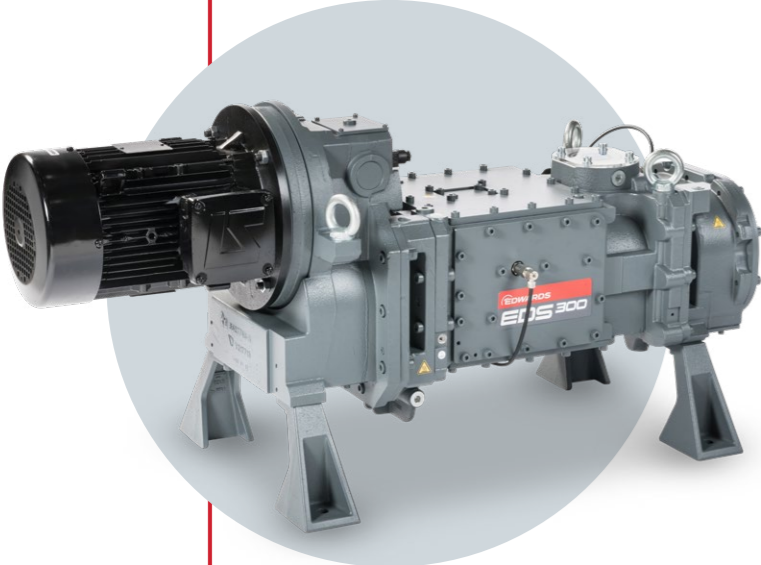
We believe in delivering results that bring value to our customers. Using our breadth of industry experience, we identify and apply effective solutions. Using the most innovative and up-to-date modelling techniques, we can optimise the pumping configuration for customers to provide a system design that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

# EDS SERIES AT A GLANCE

At the heart of the EDS Dry Screw pump is the tapered variable pitch dry screw mechanism.

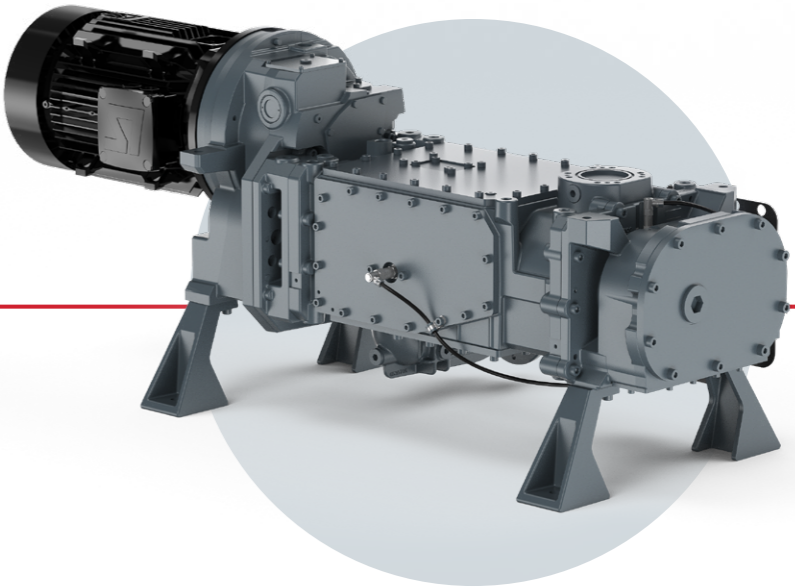
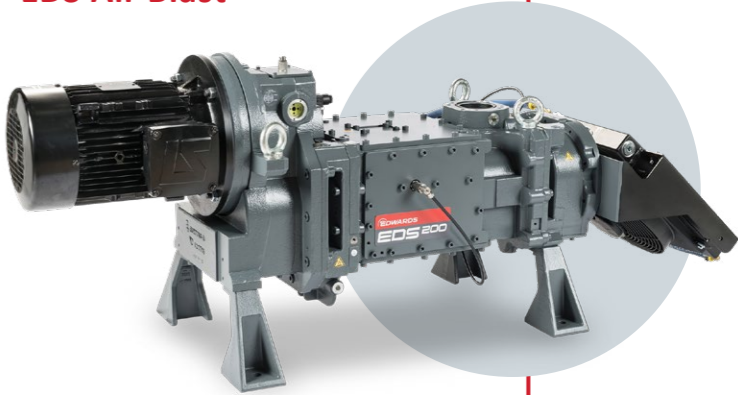


**EDS Air Blast**



**EDS Water Cooled**

- Direct and Indirect air blast heat exchanger cooling options (Air blast version available for EDS200 and EDS300)
- Direct mount motor options for any region
- Modern enclosure design (Enclosure available as optional)
- Simple thermal protection
- Wide range of standard accessories available
- Simple, robust seal purge system
- Atmospheric air gas ballast

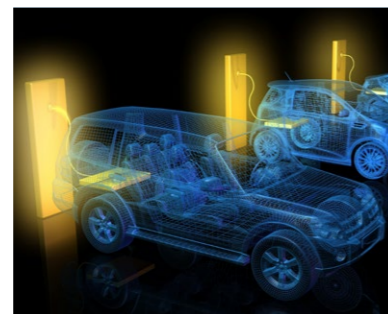


**EDS480**  
 The cutting-edge hybrid rotor design uses a combination of parallel and tapered rotor profiles. This optimises performance while limiting the footprint and power consumption to a market-leading minimum.

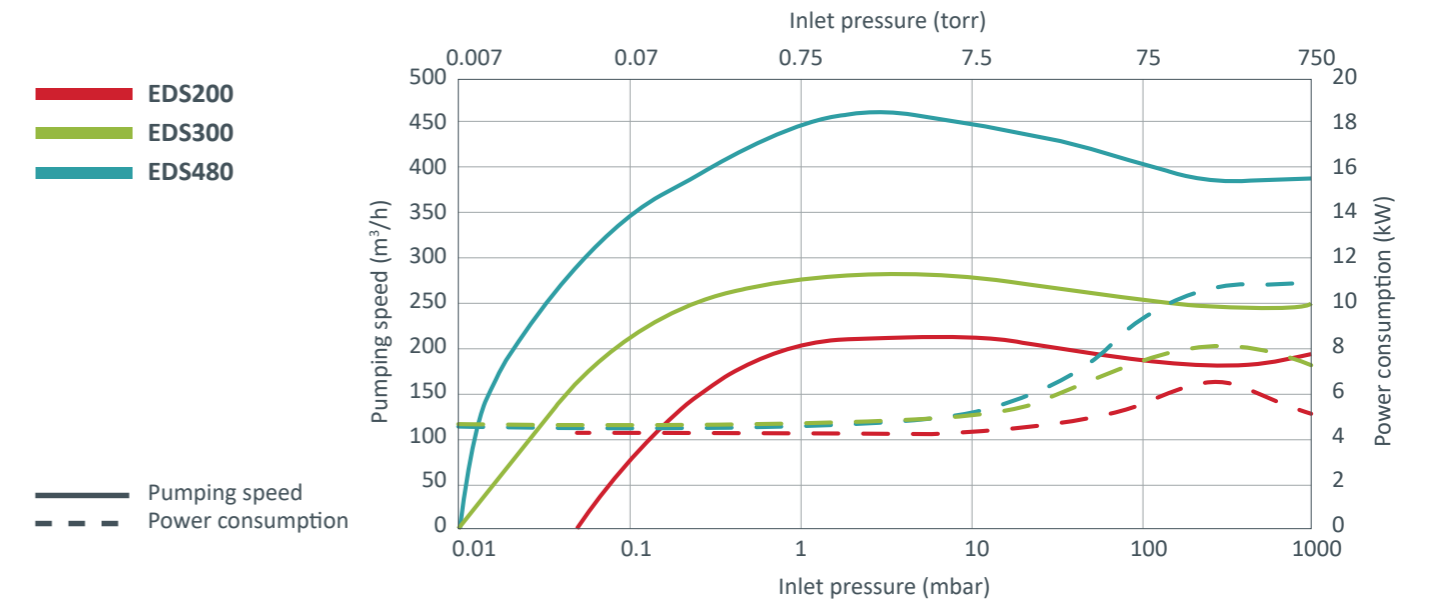
# APPLICATIONS

The EDS range is suitable for a range of applications in various industries, including:

- Lithium-ion batteries
- Automotive coating
- Freeze drying
- Industrial glass coating
- Solar cell manufacturing
- Heat treatment
- Brazing
- Thin film deposition
- Plastic extrusion
- Pharmaceuticals
- Renewable energy



# PERFORMANCE CURVES

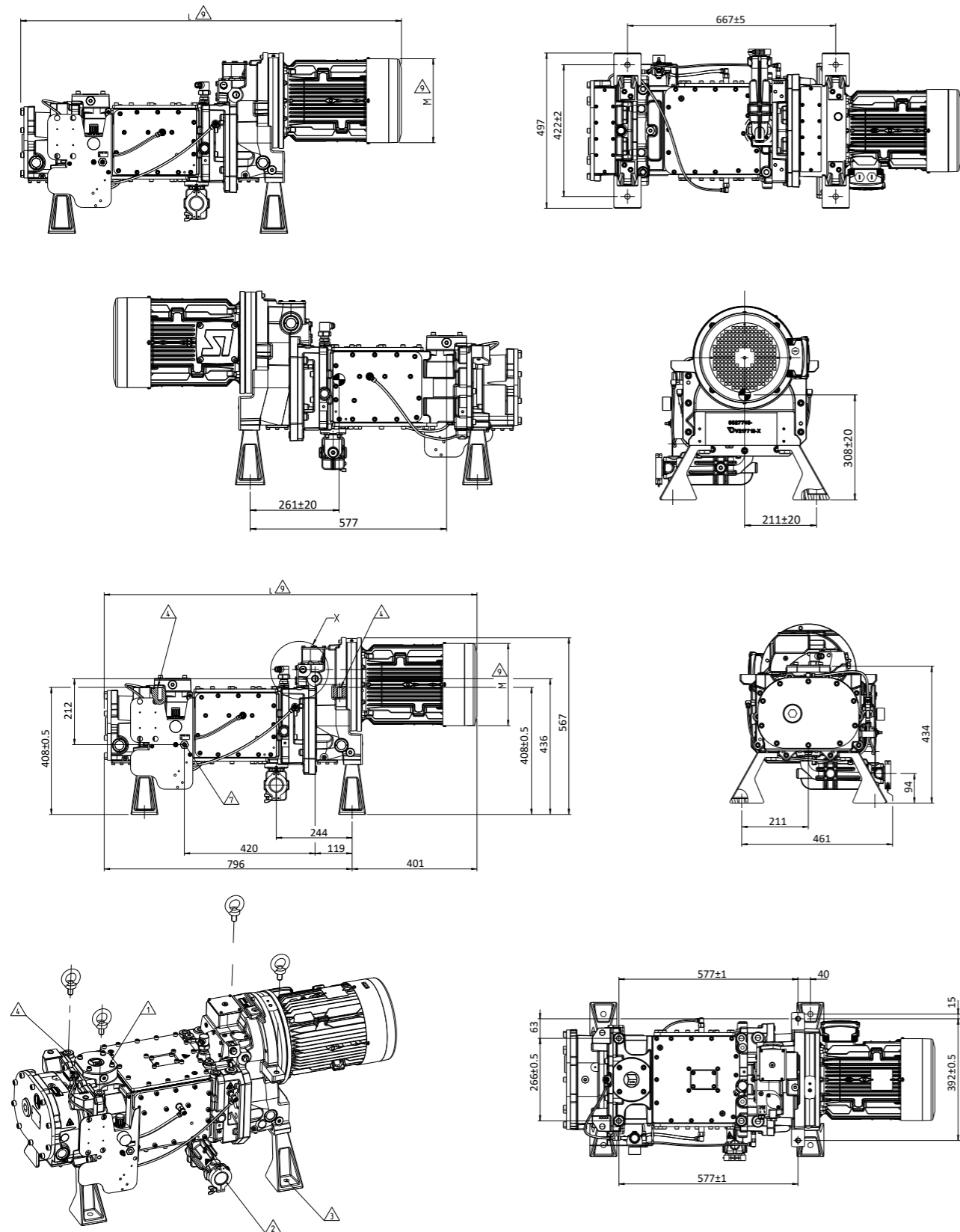


# TECHNICAL SPECIFICATIONS

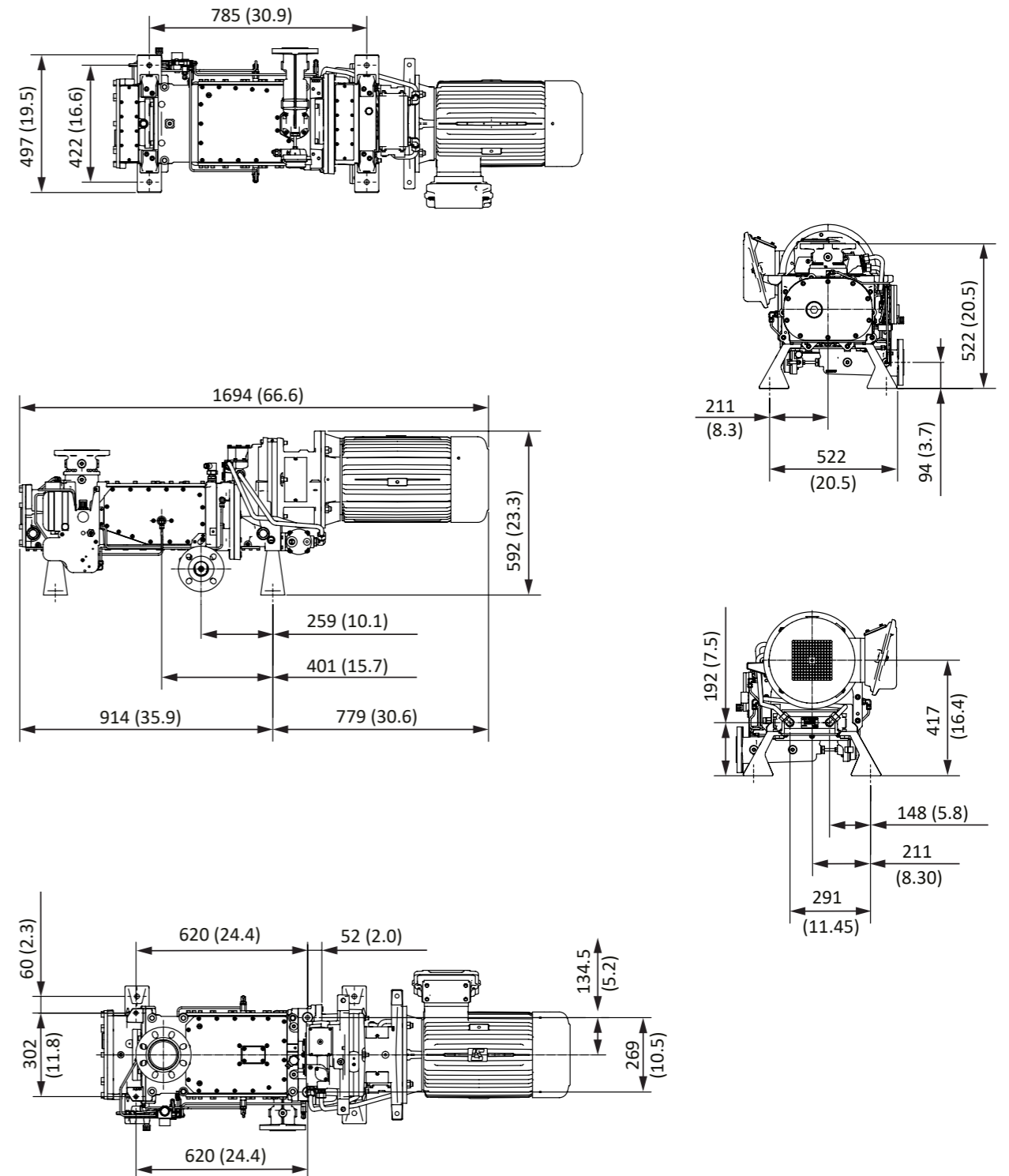
		Water Cooled and Air Blast			
		Units	EDS200	EDS300	EDS480
Performance	Peak pumping speed	m <sup>3</sup> h <sup>-1</sup> / CFM	>210 / >124	>280 / >165	>460 / >271
	Ultimate pressure	mbar / Torr	<0.05 / <0.04	<0.01 / <0.007	<0.01 / 0.007
Full load power	@ ultimate pressure	kW / hp	4.1 / 5.5	4.5 / 6	4.5 / 6
	@ peak pumping load	kW/hp	6.4 / 8.6	8.2 / 11	11 / 15
Vacuum connections	Inlet connection		ISO63		
	Exhaust connection		NW40		ISO 63
Cooling water	Connection		G1/4" female thread		
	Flow	L/min <sup>-1</sup> / Gal/min <sup>-1</sup>	<4 / <1.05		<8 / <2.1
	Supply pressure (max)	bar / psig	7 / 100		
	DP across pump (min)	bar / psig	0.2 / 2.9		
	Temperature	°C / °F	5-35 / 41-95		
Purge gas	Primary cooling circuit volume (Glycol water mixture volume in case of variant with indirect cooling)	l / gal	6 / 1.6		NA
	Connection		G1/4" female threads		
Operating data	Pressure	bar / psig	4-10 / 58-145		
	SSP flow	lmin <sup>-1</sup>	<12		
	Gas ballast flow*	lmin <sup>-1</sup>	0-50		
Operating data	Noise	dB(A)	<71		
	Operating temperature	°C / °F	5-40 / 41-104		
	Exhaust back pressure (max)**	mbar / psia	1200 / 17.4		
	System IP rating		IP54		
Lubrication (as supplied)			Extend 110		

# DIMENSIONS

## EDS200/300



## EDS480 (Water Cooled)



## ORDERING INFORMATION

Part Number	Size	Cooling	Motor Voltage	Motor Desc.	Freq
A41820945	200	Direct Water	380-400V 50 Hz, 230/460V 60 Hz	EU/US/CN	50 Hz
A41820946	200	Direct Water	380-400V 50 Hz, 230/460V 60 Hz	EU/US/CN	60 Hz
A41820934	200	Direct Water	200V 50 Hz, 200/380V 60 Hz	Asia	50 Hz
A41820936	200	Direct Water	200V 50 Hz, 200/380V 60 Hz	Asia	60 Hz
A41820957	200	Direct Water	575V	Canada	60 Hz
A41821945	200	Air Blast	380-400V 50 Hz, 230/460V 60 Hz	EU/US/CN	50 Hz
A41821946	200	Air Blast	380-400V 50 Hz, 230/460V 60 Hz	EU/US/CN	60 Hz
A41821934	200	Air Blast	200V 50 Hz, 200/380V 60 Hz	Asia	50 Hz
A41821936	200	Air Blast	200V 50 Hz, 200/380V 60 Hz	Asia	60 Hz
A41821957	200	Air Blast	575V	Canada	60 Hz
A41830945	300	Direct Water	380-400V 50 Hz, 230/460V 60 Hz	EU/US/CN	50 Hz
A41830946	300	Direct Water	380-400V 50 Hz, 230/460V 60 Hz	EU/US/CN	60 Hz
A41830934	300	Direct Water	200V 50 Hz, 200/380V 60 Hz	Asia	50 Hz
A41830936	300	Direct Water	200V 50 Hz, 200/380V 60 Hz	Asia	60 Hz
A41830957	300	Direct Water	575V	Canada	60 Hz
A41831945	300	Air Blast	380-400V 50 Hz, 230/460V 60 Hz	EU/US/CN	50 Hz
A41831946	300	Air Blast	380-400V 50 Hz, 230/460V 60 Hz	EU/US/CN	60 Hz
A41831934	300	Air Blast	200V 50 Hz, 200/380V 60 Hz	Asia	50 Hz
A41831936	300	Air Blast	200V 50 Hz, 200/380V 60 Hz	Asia	60 Hz
A41831957	300	Air Blast	575V	Canada	60 Hz
A41840945	480	Direct Water	200/400V 50 Hz, 230/460 V 60 Hz	EU/US/CN	50 Hz
A41840946	480	Direct Water	200/400V 50 Hz, 230/460 V 60 Hz	EU/US/CN	60 Hz
A41840934	480	Direct Water	200/380V 50/60 Hz	Asia	50 Hz
A41840936	480	Direct Water	200/380V 50/60 Hz	Asia	60 Hz
A41840957	480	Direct Water	575V 60 Hz	Canada	60 Hz

## ACCESSORIES

Part Number	Description	Pump Compatibility
A41890000	TCV Kit Direct Cooled	All direct cooled EDS pumps
A41890001	TCV Kit Indirect Cooled	All indirect cooled EDS pumps
A41891001	Solenoid Valve Accessory	All EDS pumps
A41893000	EDS to EH 1200/2600/4200 Connection Kit	EDS200/300
A41893001	EDS to EH500 Connection Kit	EDS200/300
A41894000	Exhaust Pressure Transmitter	All EDS pumps
A41895000	Pt100 Stator Temperature Transmitter	All EDS pumps
A41895001	Pt100 Exhaust Temperature Transmitter	All EDS pumps
A41896009	EDS Dry Silencer	EDS200/300
A41897000	BoV Plug Kit	All EDS pumps
A41896005	Industrial Enclosure	EDS200/300
A41893002	Roots Adapter	EDS480

## SERVICE AND SUPPORT

To ensure your EDS Dry Screw vacuum pump maintains optimal performance and reliability, we offer a wide range of service solutions, tailored to meet your needs. Through Field Service intervention, Managed Maintenance agreements and Overhaul service in our Service Technology Centres (STC), we will take care of your pump to ensure that it continues to deliver clean, consistent, efficient performance, with lower running costs and optimum total cost of ownership for its operating life.

Selecting original spare parts, maintenance kits and oil ensures that every critical part performs as it was intended. Our services engineers only fit 100% genuine parts to ensure that you receive the best result from each service.

Our Preventative Maintenance service packages include:

- **Health Check and Routine Service Check** - Various flexible services – including visual inspections, pump vitals checks and replacement/cleaning of components – to keep your pump running in an optimal condition for your application.
- **Overhaul** - The overhaul service includes multiple service options to ensure high performance and minimal downtime.
  - » **Complete Remanufacturing**, including full decontamination of the pump, replacement of consumables and testing of components to factory specifications.
  - » **Clean and Overhaul**, including cleaning of pump interior, repair/replacement of pipework, replacement of consumables and reassembly.
  - » **Module Exchange**, including removal and assembly of motor, gearbox, gas and water systems onto the replacement pump module.
  - » **Pump Exchange**, including exchange of the whole pump (including motor, gear box, gas and water systems) with a remanufactured pump.





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