



# Clean, robust dry screw vacuum pump for demanding applications

The Atlas Copco DWS range of dry screw vacuum pumps features an innovative design with variable pitch dry screws. Engineered to deliver clean and reliable vacuum flow in demanding industrial applications and industries, the DWS series are one of the most robust series of dry vacuum pumps.

Available in water-cooled and air-cooled variants, the DWS range - DWS 200, DWS 300, and DWS 500 is built to handle harsh contaminants in challenging and harsh industrial environments.



#### IT'S JUST SIMPLE

- Easy to install and customize for your process
- Reliable vacuum pump flow



#### **INNOVATIVE AND STURDY DESIGN**

- Tapered variable pitch dry screws
- Robust water cooling system
- Air-cooled variant available



### **FASTER**

- Higher roughing speeds and quick pump-down times
- Benefit from higher throughput for your process



### **BUILT FOR DEMANDING APPLICATIONS**

- Purge protection help extend service intervals and prolong the life of your pump
- Built to handle harsh contaminant ingress



### A ROBUST SOLUTION

- Highly tolerant water-cooled and air blast-cooled standard products
- Easy to clean and service



### **FLEXIBLE AND CUSTOMIZABLE**

- Configuration options for hazardous process environments available
- Can be customized into a dry vacuum pumping system depending on your process

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







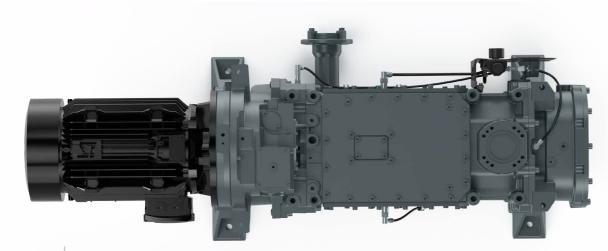
**DWS Air-Cooled** 



Direct and indirect air-cooled cooling options. (DWS 200 and DWS 300 available as air-cooled option)



Direct mount motor options for any region



### **DWS 500**

The hybrid rotor design uses a combination of parallel and tapered rotor profiles. This optimizes performance while limiting the footprint and power consumption



Simple thermal protection



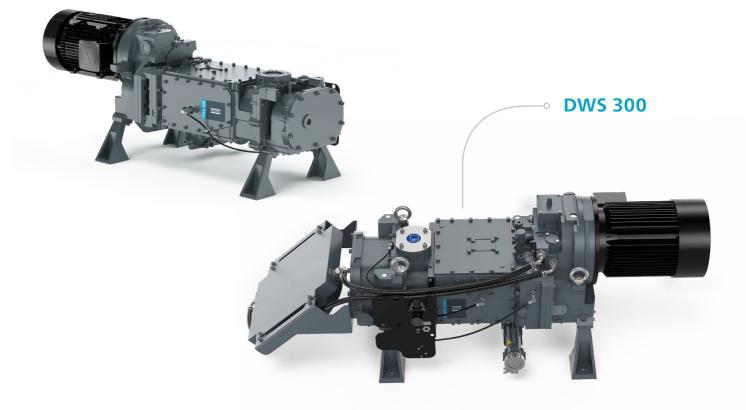
Wide range of standard accessories available



Simple, robust seal purge system



Atmospheric air gas ballast



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# **Applications**

The Atlas Copco DWS 200-500 range is suitable for a wide range of applications, 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











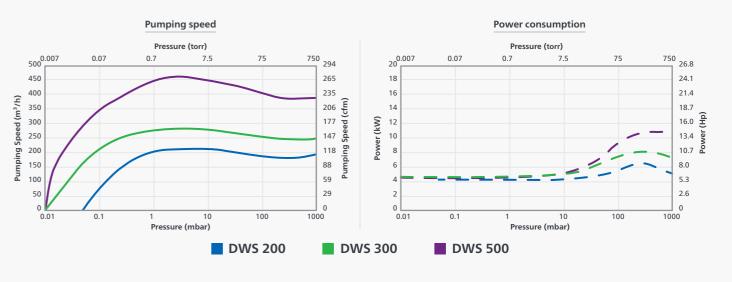








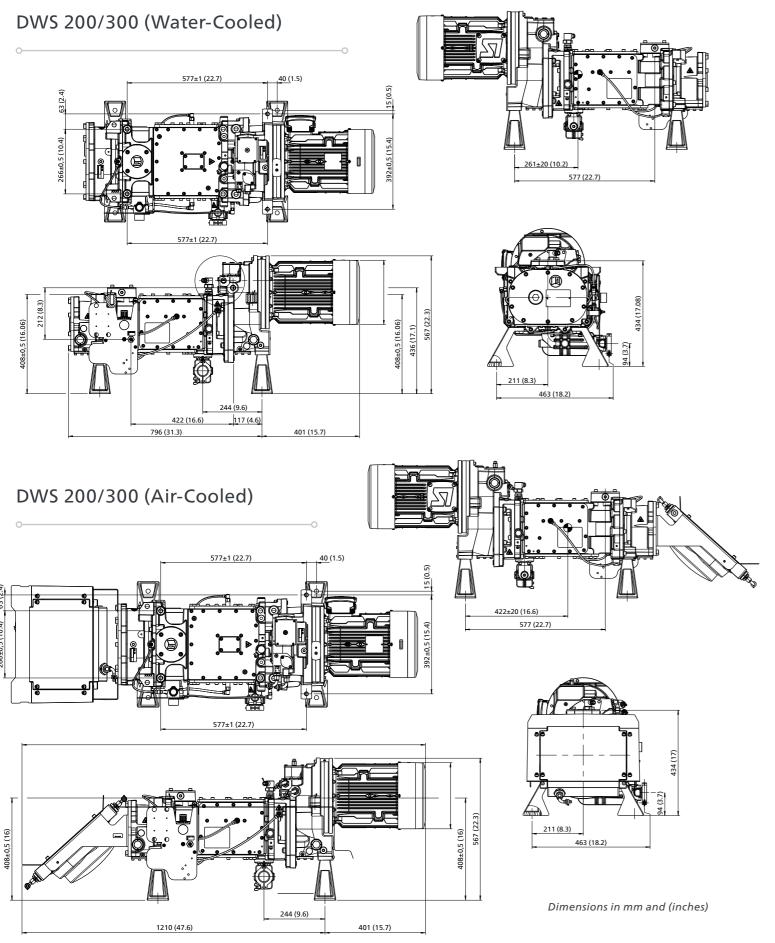
# **Performance curves**



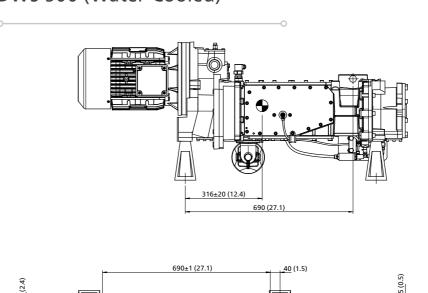
# **Technical specifications**

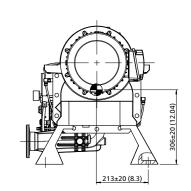
		Unit	DWS 200	DWS 300	DWS 500
Performance	Peak Pumping Speed	m³h-1 / CFM	210 / 124	>280 / >165	>460 / 271
	Ultimate Pressure	mbar / Torr	<0.05 / <0.04	<0.01 / <0.008	<0.01 / <0.008
Full Load Power	@ ultimate pressure	kW / hp	4.1 / 5.5	4.5 / 6	4.6 / 6.5
	@ peak pumping load	kW / hp	6.4 / 8.6	8.2 / 11	11 / 15
Vacuum Connections	Inlet connection		ISO63		
	Exhaust connection		NW40 ISO 63		
Cooling Water	Connection		G1/2" female threads		
	Flow	L/min <sup>-1</sup> / Gal/min <sup>-1</sup>	<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		
	Primary cooling circuit volume (Glycol water mixture volume in case of variant with indirect cooling)	I / gal	6 / 1.6		NA
Purge Gas	Connection		G1/4" female threads		
	Pressure	bar / psig	2.5-6.9 / 36-100		
	SSP flow	lmin <sup>-1</sup>	<12		
	Gas Ballast flow*	lmin <sup>-1</sup>	0-50		
Operating data	Noise	dB(A)	<76		
	Operating Temperature	°C / °F	5-40 / 41-104		
	Exhaust Back Pressure (Max)**	mbar / psia	1200 / 17.4		
	System IP rating		IP54		

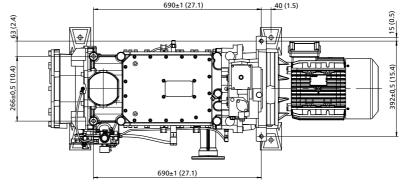
# **Dimensions**

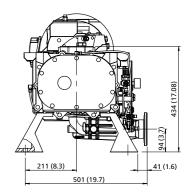


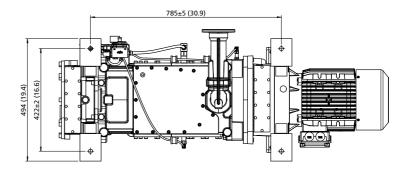
# DWS 500 (Water-Cooled)

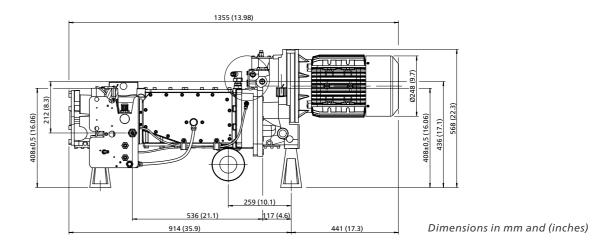






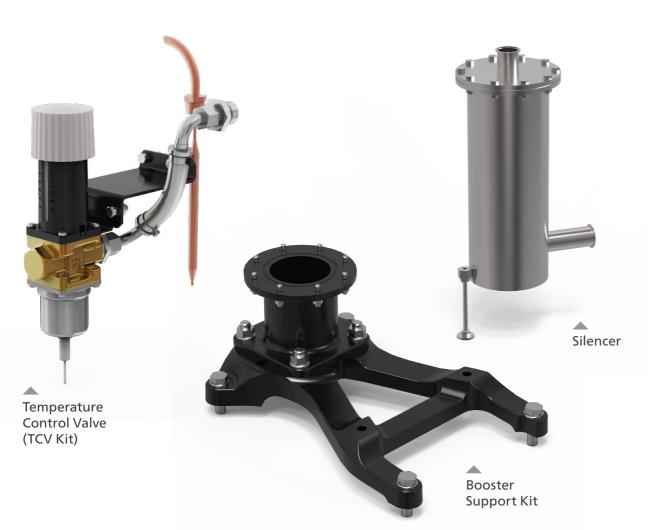






## **Accessories**

Pump model	Description
All	TCV accessory water-cooled
All	Exhaust pressure transmitter (PS1)
All	Stator temperature transmitter (PT100)
All	Exhaust gas temperature transmitter (TS3)
All	BoV PLUG DWS 200/300
200-300	DWS 200-300 to ZRS 1200/ZRS 2600 booster support kit
200-300	DWS 200-300 to ZRS 500 booster support kit
200-300	TCV accessory indirect-cooled
200-300	Exhaust silencer kit DN40 KF 90DEG
200-300	Service kit for cooling fluid
200-300	DWS 200-300 to DRB 500 booster support kit
200-300	DWS 200-300 to DRB 1000 booster support kit
200-300	DWS 200-300 to DRB 2000 booster support kit
500	DWS 500 to ZRS 1200/ZRS 2600/ZRS 4200 booster support kit
500	DWS 500 to DRB 500 booster support kit
500	DWS 500 to DRB 1000 booster support kit
500	DWS 500 to DRB 2000 booster support kit



# **Preventive Care**

### **Service solutions**



## **Complete service with our Preventive Care plan**

We take over the maintenance planning and responsibility for servicing your vacuum pump on a regular basis. Our Preventive Care plan is tailored to your pump's needs. As your pump is serviced with the latest technology, high levels of energy efficiency are achieved. We will also optimize service events to reduce your total cost of ownership and increase your productivity. This allows you to focus fully on your production.



### **Cost-effective approach**

Regular scheduled maintenance can identify potential problems before they occur and plans can be structured around your individual production situation. Preventive Care enables cost management as you can plan your maintenance costs in advance. In this way, expenses associated with unplanned downtime are minimized.



## Maximize lifetime of your vacuum pumps

Our vacuum specialists are well trained and experts in the field. They will help you to improve uptime and protect your processes. Regular maintenance conducted by one of our vacuum specialists reduces the risk of deterioration. Damaged or worn parts will be replaced with genuine Atlas Copco spare parts to protect your investment and increase the lifespan of your vacuum pumps.



## Reliability meets non-stop productivity

We use genuine Atlas Copco spare parts and oil and our services are conducted by vacuum specialists according to manufacturer's recommendations. This enhances your vacuum pump performance, reducing the risk of downtime and enabling your production to run more smoothly.

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