

AWS 180-5500 single-stage liquid ring vacuum pumps

Atlas Copco



Atlas Copco AWS liquid ring vacuum pumps feature a single-stage design for reliable performance from atmospheric pressure down to ultimate vacuum.

Atlas Copco liquid ring pumps are ideal for pumping either dry or wet gases, with a high tolerance to liquid carryover, especially in condensable processes. The pumps are available in a variety of materials that can be selected to suit the pumped process media. AWS liquid ring pumps are available as part of standard preconfigured modules manufactured according to Atlas Copco design principles for easy installation, use and service.

AWS single-stage liquid ring vacuum pumps feature a high-efficiency impeller design and state-of-the-art compression technology to achieve reliable and efficient vacuum performance from atmospheric down to ultimate vacuum.

The AWS series is ideal for filtration, vacuum forming and rapid evacuation functions.

Flexible product offering

Atlas Copco takes the hassle out of selecting your vacuum system. All AW liquid ring pumps are offered in a variety of configurations to suit your needs. They can be installed in a single- or multi-pump set-up as required. Well suited to end-user and original equipment manufacturer (OEM) applications alike, the AW range of liquid ring pumps will

meet your needs. With 50 years of experience in LRVP technology and customers spanning the globe, we know how to put together a liquid ring system that works for you. Reap all the benefits of liquid ring technology while saving water and energy. Add easy-to-install accessories from our standard range to complete your installation.

Engineered systems

For more complex requirements, our project team is here to develop a unique engineered system tailored to your needs. Atlas Copco liquid ring pumps form the backbone of multistage systems in materials of your choice and to the specifications you need. With the help of Atlas Copco vacuum engineers, the possibilities are endless.



Suitable for a wide range of applications

Liquid ring vacuum pumps are ideal for specific, humid, dirty and/or high-capacity applications in heavy industries, a selection of which can be found below.

- Tires
- Filtration
- Evaporation
- Pulp and paper
- ePS
- Drying
- Chicken evisceration

The AWC, AWS and AWD series are the workhorses: proven, strong and reliable machines that deliver utility or process vacuum.

Summary of key features

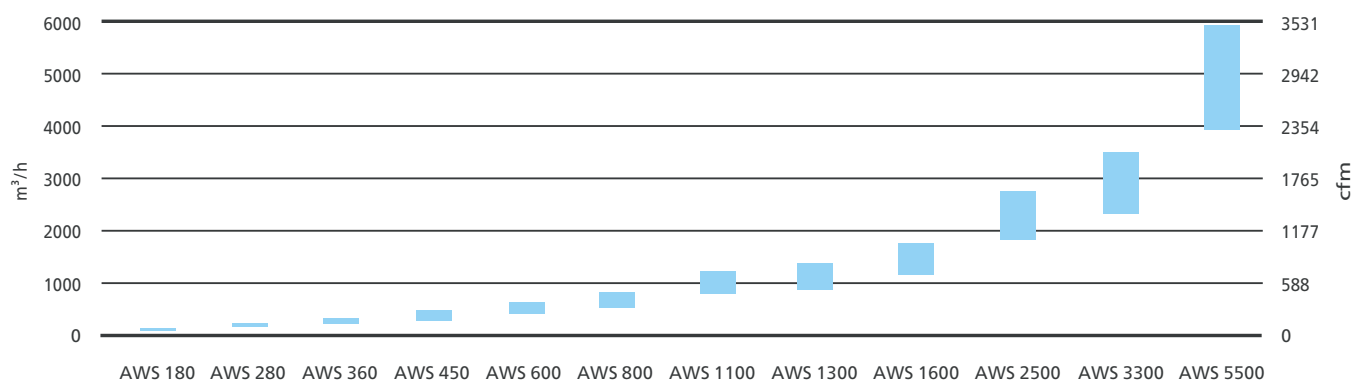
- State-of-the-art bearing design allowing for reduced clearances and improved suction performance
- Variable area discharge porting for optimum efficiency across all inlet pressures
- Mechanical seals as standard
- Internal and external seal flush options possible
- Internal water recirculation for reduced water consumption
- Inlet manifold and discharge separator manifold included as standard for reduced footprint

Materials of construction

Component	Version		
	Cast iron	Stainless steel full	Stainless steel fitted
Casing	Cast iron	304 stainless steel	Cast iron
Port plate	Cast iron	304 stainless steel	Cast iron
Impeller	SG iron	304 stainless steel	304 stainless steel
Shaft or Sleeve*	Carbon steel	Stainless steel	Stainless steel
Mechanical seal	SiC/C/PTFE	SiC/C/PTFE	SiC/C/PTFE

*for AWS 800 ~ 5500 shaft is carbon steel fitted with stainless steel shaft sleeve

Performance range



Summary of key benefits



Application flexibility through modularity



Time savings through easy installation



Up to 95% reduction of water consumption with total recovery



High reliability for a long lifetime



Cost savings through quick and easy maintenance



Low noise for a comfortable working environment

Technical specifications

		AWS 180	AWS 280	AWS 360	AWS 450	AWS 600	AWS 800
60 Hz							
Nominal capacity	Dry-cfm	118	182	224	309	406	515
	Saturated-cfm	123	193	250	318	417	530
Ultimate pressure	inch HgV	25	25	25	25	25	25
Nominal installed motor	hp	10	15	20	25	30	40
Approximate block dimensions (W x D x H)	inch	25x19x25	29x19x25	31x19x25	32x22x29	35x22x29	38x28x39
Dry weight	lbs	311	439	459	452	487	904

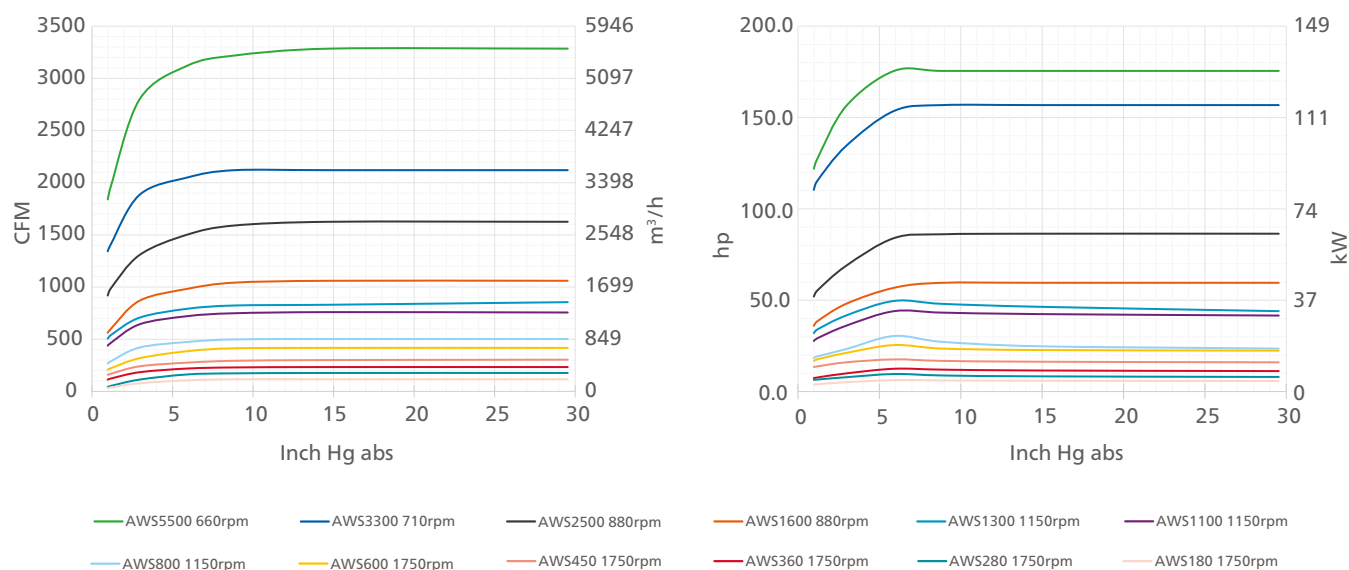
		AWS 1100	AWS 1300	AWS 1600	AWS 2500	AWS 3300	AWS 5500
60 Hz							
Nominal capacity	Dry-cfm	736	824	1059	1665	2060	3461
	Saturated-cfm	786	873	1190	1708	2275	3569
Ultimate pressure	inch HgV	25	25	25	25	25	25
Nominal installed motor	hp	60	60	75	120	120	250
Approximate block dimensions (W x D x H)	inch	43x29x39	45x29x39	48x33x49	54x33x49	62x40x54	69x46x62
Dry weight	lbs	1023	1504	2571	2919	4674	5037

		AWS 180	AWS 280	AWS 360	AWS 450	AWS 600	AWS 800
50 Hz							
Nominal capacity	Dry-m ³ /h	165	250	330	440	590	725
	Saturated-m ³ /h	178	264	348	465	600	769
Ultimate pressure	mbar(a)	30	30	30	30	30	30
Nominal installed motor	kW	5.5	7.5	11	15	18.5	22
Approximate block dimensions (W x D x H)	mm	638x485x645	740x485x645	794x485x645	825x550x745	885x550x745	975x707x985
Dry weight	kg	141	199	208	205	221	410

		AWS 1100	AWS 1300	AWS 1600	AWS 2500	AWS 3300	AWS 5500
50 Hz							
Nominal capacity	Dry-m ³ /h	1100	1200	1500	2300	3000	5000
	Saturated-m ³ /h	1133	1230	1700	2450	3200	5300
Ultimate pressure	mbar(a)	30	30	30	30	30	30
Nominal installed motor	kW	37	37	45	75	75	132
Approximate block dimensions (W x D x H)	mm	1095x738x985	1131x730x985	1225x850x1245	1375x850x1245	1580x1010x1360	1745x1160x1570
Dry weight	kg	464	682	1166	1324	2120	2285

AWS single-stage capacity performance

Performance range (60 Hz)



Performance range (50 Hz)

