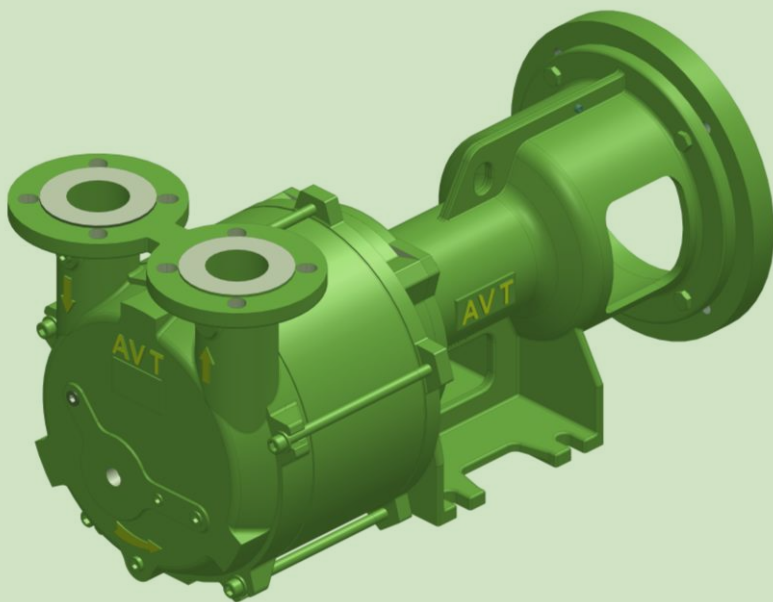


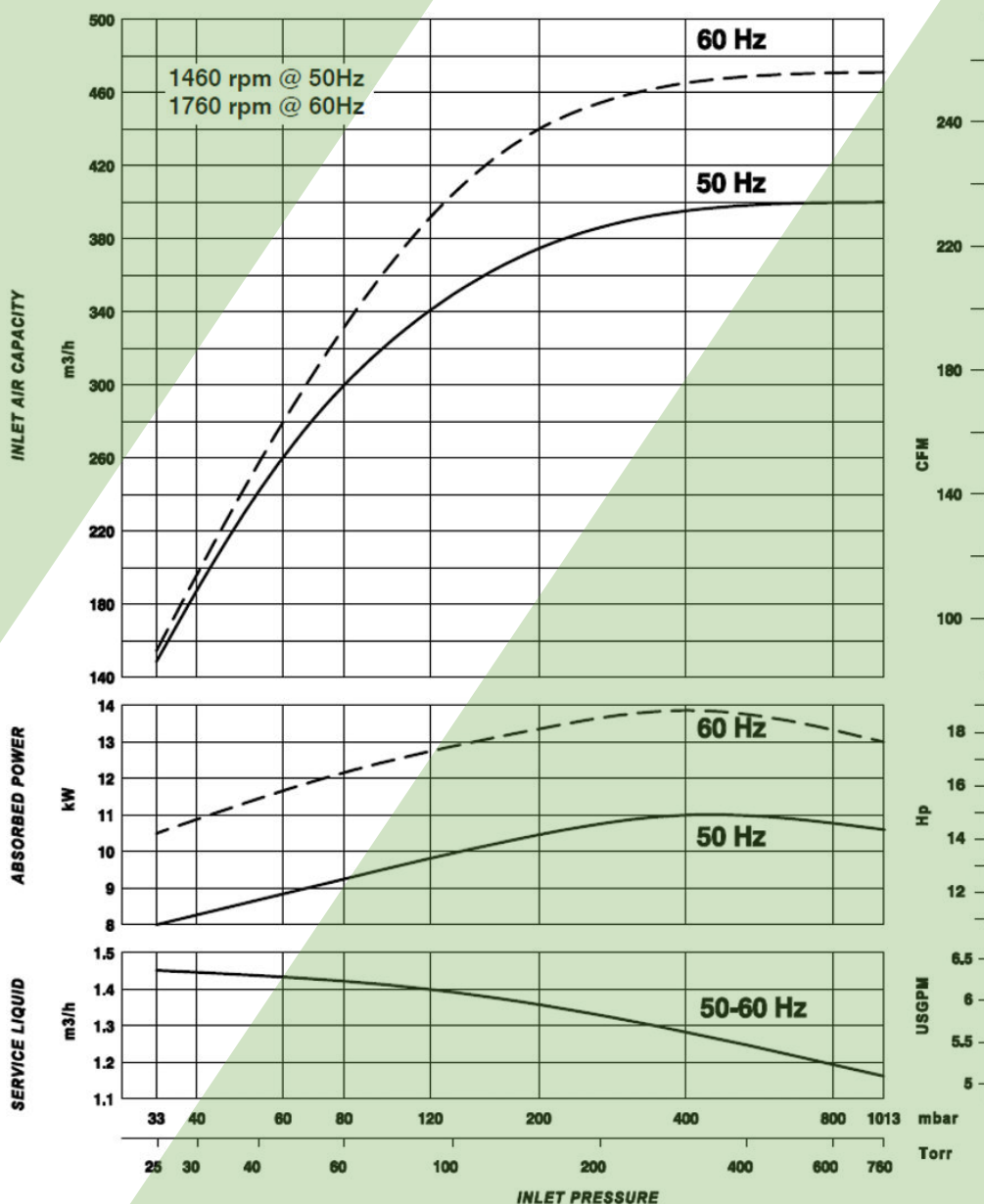


Vacuum Technologies
A Unit of ASCO POMPE

LIQUID RING VACUUM PUMP Model AVL 456

PERFORMANCE FEATURES

- Vary port valve design for optimum efficiency across all inlet pressures.
- Near-isothermal compression to safely handle any thermally sensitive and explosive gas.
- Right choice for any wet process.
- **ATEX** TR CU 010/2011 certification.
- **ATEX** TR CU 012/2011 certification.
- Flexibility in motor selection for special and hazardous applications (ATEX).



NOTES :

The given data are referred to dry air at the temperature of 20°C, at the atmospheric discharge pressure (1013 mbar), and of supply of service water at 15°C temperature. Performances tolerance $\pm 10\%$.

Product specifications and data are subject to change without notice.

TÜV IT 19 ATEX 049 AR



Performance test in compliance with PNEUROP 6612

LIQUID RING VACUUM PUMP

Model AVL 456



APPLICATIONS

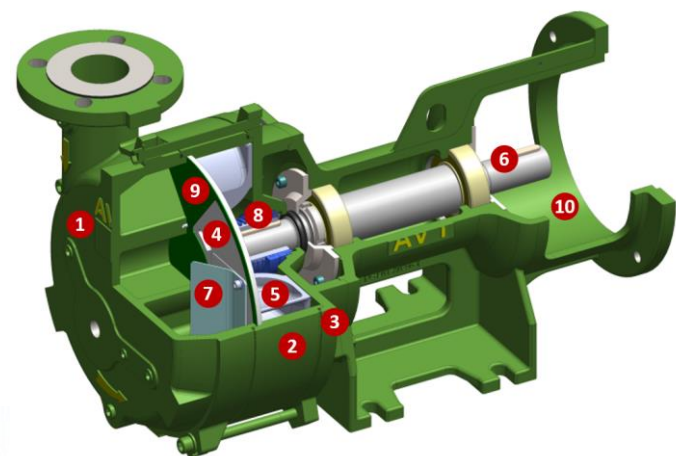
- Vacuum industrial processing
- Sterilization
- Extrusion
- Degassing
- Evaporation and distillation
- Priming
- Vacuum sewage
- Bottling
- Depoultry
- Fish farming

FEATURES

AVL 456 is a simple, versatile and reliable liquid ring pump capable to handle almost any gas mixture including vapors in vacuum or overpressure. The operating principle combined to its accurate design allow for severe duty with high tolerance of liquid carry over. The wide range of suction pressure (down to 33 mbar abs) makes the AVL series suitable for many industrial applications including those ones requesting special or ex-ex-proof motors. The stainless-steel port plate and impeller are designed and manufactured with accurate process to reach outstanding and steady performance. The low operating speed associated with the robust and simplified construction grant long service life with minimal maintenance. AVL 456 is available in standard version or full stainless-steel AISI 316 (wetted parts). Other material options, on request.

MATERIALS OF CONSTRUCTION

#	PART	CS	SS
1	Suction and discharge casing	CAST IRON (ASTM A278 CL.250)	SS 316 (ASTM A351-CF8M)
2	Housing (part A)	CARBON STEEL (ASTM S355)	SS 316 (ASTM A240)
3	Housing (part B)	CAST IRON (ASTM A278 CL.250)	SS 316 (ASTM A351-CF8M)
4	Port plate	SS 316 (ASTM A240)	SS 316 (ASTM A240)
5	Impeller	SS 316 (ASTM A351-CF8M)	SS 316 (ASTM A351-CF8M)
6	Shaft	AISI 420 (ASTM A276 TY420)	AISI 420 (ASTM A276 TY420)
7	Vary port valve	PTFE	PTFE
8	Mechanical seal	CARBON/SIC/VITON/SS316	CARBON/SIC/FEP/SS316
9	Gasket	ARAMIDIC FIBER	ARAMIDIC FIBER
10	Lantern	CAST IRON (ASTM A278 CL.250)	CAST IRON (ASTM A278 CL.250)

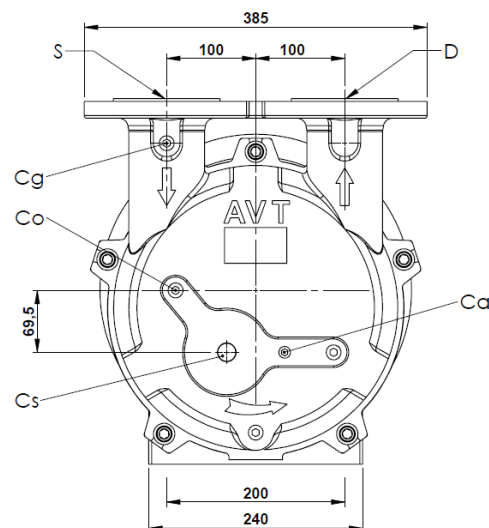
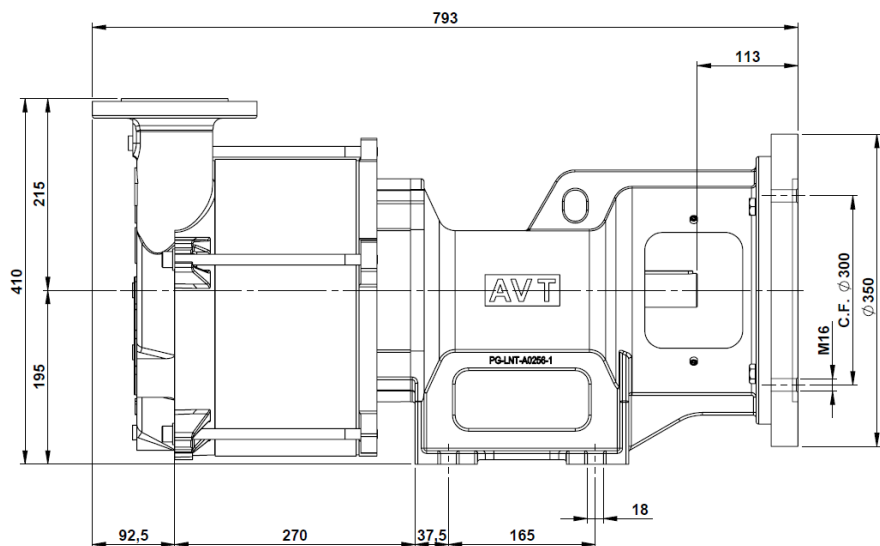




Model AVL 456

LIQUID RING VACUUM PUMP

2D DRAWING



CONNECTIONS

S	DN65-2"1/2 *	Suction
D	DN65-2"1/2 *	Discharge
Cs	G 1/2"	Service liquid
Cd	G 3/8"	Pump drain
Co	G 3/8"	Overflow
Ca	G 1/4"	Anti-cavitation
Cg	G 3/8"	Vacuum gauge

*

FLANGE - FLANGES EN 1092/1 PN10 - ANSI 150#

TECHNICAL SPECIFICATIONS

	AVL 456-50	AVL 456-60
Nominal capacity	400 m ³ /h	470 m ³ /h
Ultimate pressure	33 mbara	33 mbara
Dry weight	146 kg	146 kg
Max gas temperature	120°C	120°C
Max liquid temperature	50°C	50°C
Casing design pressure	3 barg	3 barg

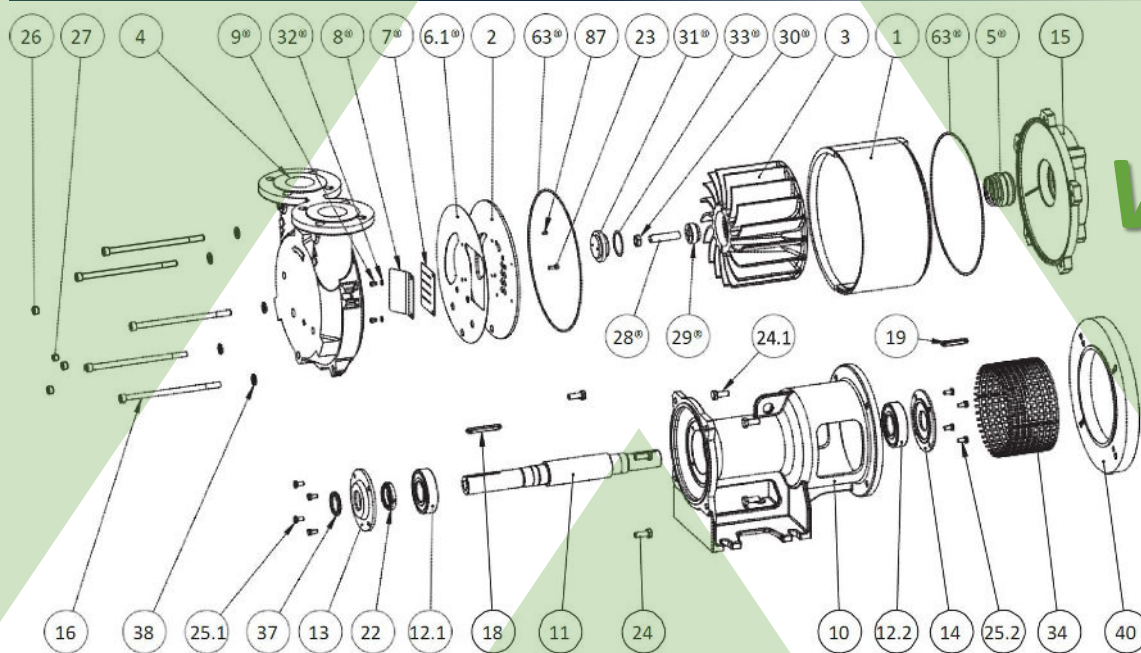
	AVL 456-50	AVL 456-60
Noise level	72 dBA	72 dBA
Motor power *	11 kW	15 kW
Motor speed *	1450 rpm	1750 rpm
Motor frame size *	160	160
Motor mounting *	B5	B5
Volt./Ph/Frequency *	230-400V/ 3/50Hz	277-480V/ 3/60Hz

*electric motor not included

Product specifications and data are subject to change without notice

SPARE PARTS AVAILABLE

LIQUID RING VACUUM PUMP Model AVL 456



Pos.	Description	Q.ty
1	Casing	1
2	Port plate	1
3	Impeller	1
4	Suction/discharge casing	1
5 [®]	Mechanical seal	1
6.1 [®]	Suction/discharge casing-port plate gasket	1
7 [®]	Vari-port valve	1
8 [®]	Valve plate	1
9 [®]	Screw	2
10	Bearing housing	1
11	Shaft	1
12.1	Bearing drive end	1
12.2	Bearing non drive end	1

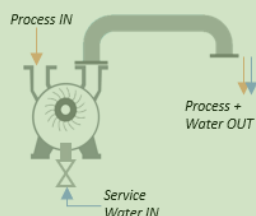
Pos.	Description	Q.ty
13	Bearing cover drive end	1
14	Bearing cover non drive end	1
16	Screw	5
18	Impeller key	1
19	Coupling key	1
22	Bearing nut	1
23	Screw	1
24	Screw	4
24.1	Screw	4
25.1	Screw	4
25.2	Screw	4
26	Plug	4
27	Plug	1

Pos.	Description	Q.ty
28 [®]	Stud	1
29 [®]	Adjusting nut	1
30 [®]	Nut	1
31 [®]	Impeller nut	1
32 [®]	Washer	2
33 [®]	O-Ring	1
34	Coupling guard	1
37 [®]	V-Ring	1
38	Washer	5
40	Adaptor flange	1
63 [®]	O-Ring	2
87	Locating pin	1

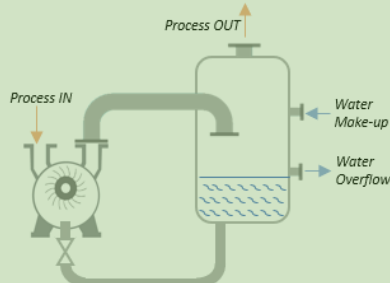
[®] Repair kit part

OPERATION MODES

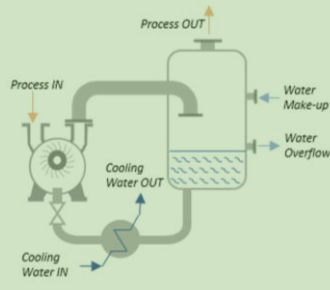
Once-through



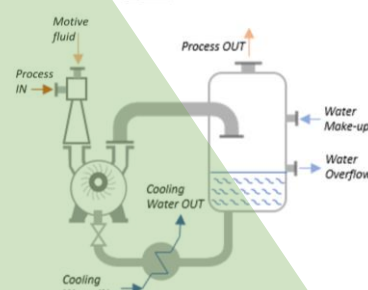
Partial Recirculation



Total Recirculation



Hybrid



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