



**Vacuum Technologies**  
A Unit of ASCO POMPE

# LIQUID RING VACUUM PUMP

## Model AVA 600SS-800SS



### 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.
- ENEC TR CU 010/2011 certification.
- ENEC TR CU 012/2011 certification.
- Flexibility in motor selection for special and hazardous applications (ATEX).

TÜV IT 19 ATEX 049 AR

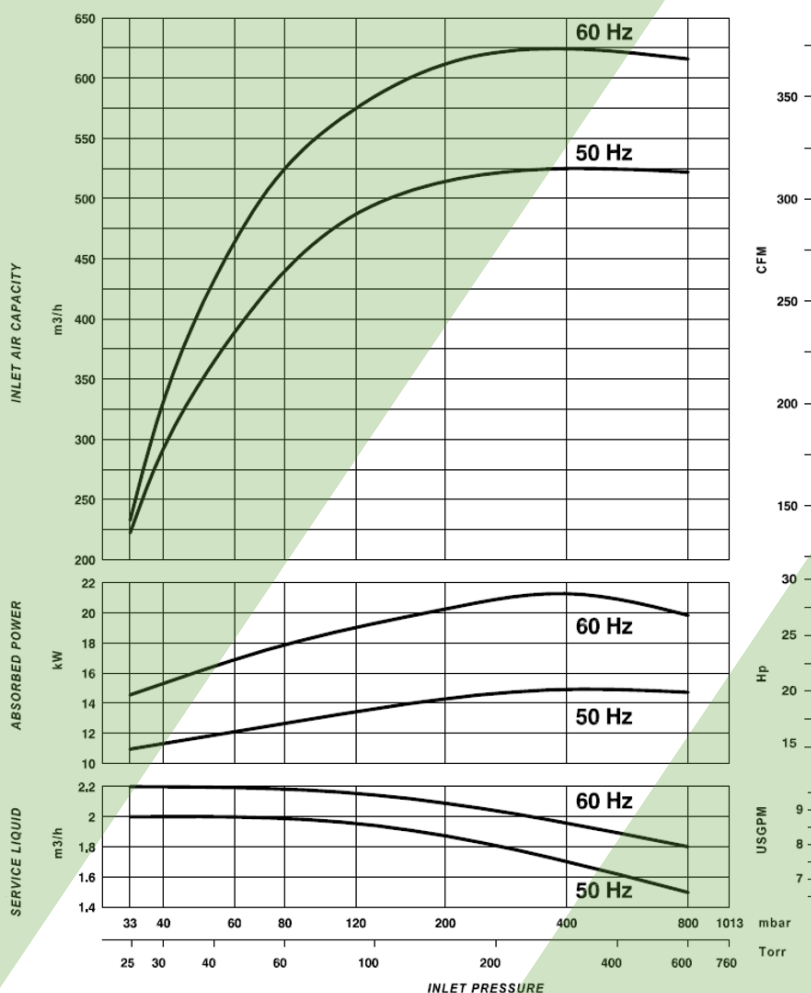


#### NOTES :

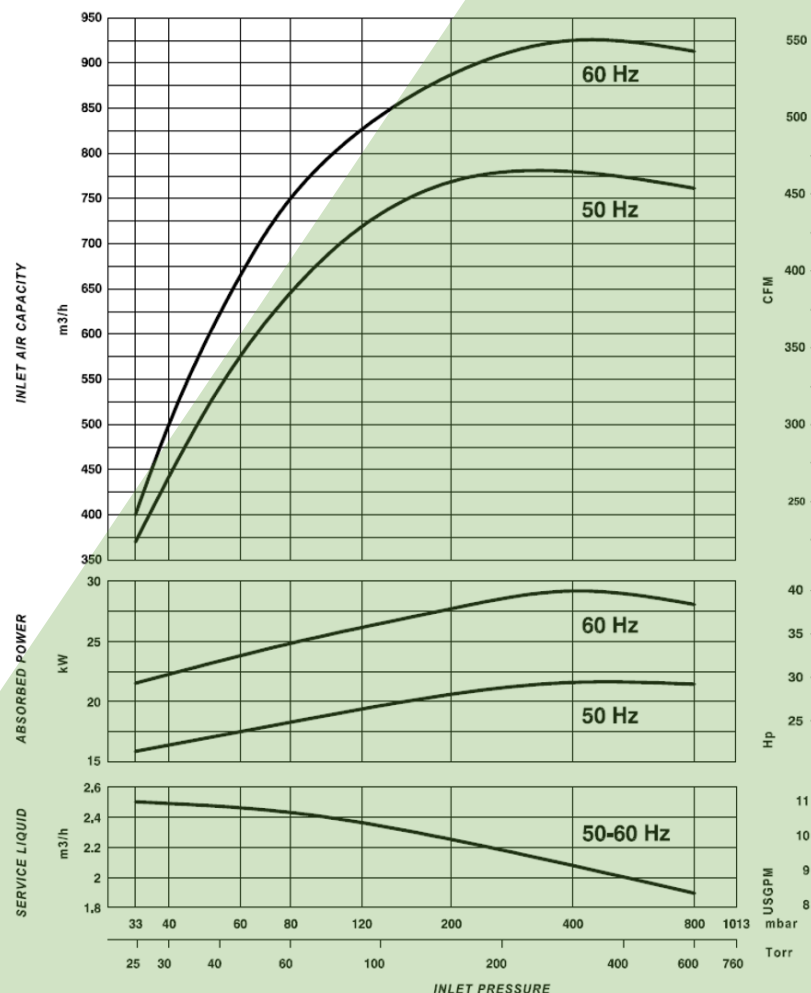
The given data are referred to dry air at the temperature of 20°C, at the atmospheric discharge pressure (1013 mbar), and of supply of service water at 15°C temperature. Performances tolerance  $\pm 10\%$ .

Product specifications and data are subject to change without notice.

### Model AVA 600SS



### Model AVA 800SS



Performance test in compliance with PNEUROP 6612

# LIQUID RING VACUUM PUMP

**Model AVA 600SS-800SS**



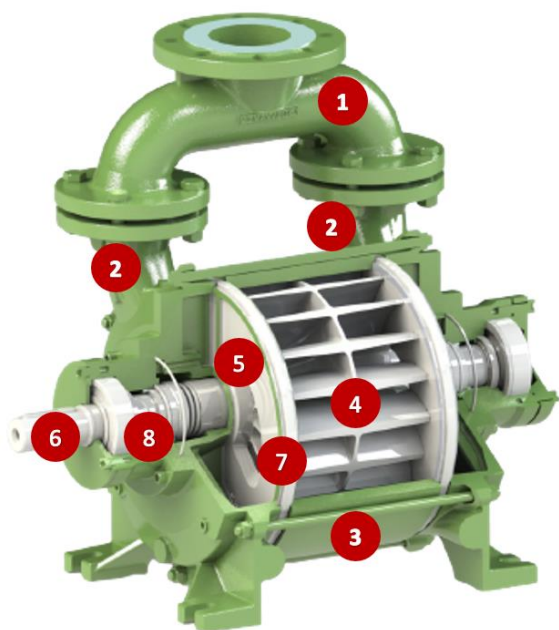
## APPLICATIONS

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

## FEATURES

AVA 600SS-800SS are single stage liquid ring vacuum pumps, suitable to achieve deep vacuum (down to 33 mbar abs). All AVA models are characterized by being bare shaft pumps, so that the drive is secured by a flexible coupling that makes the pump shaft integral with the motor shaft. For AVA 600SS-800SS the reference operating speed is the 4-pole motor speed. The pumps are characterized by the presence of two big manifolds, that allow distributing/collecting the gas to/from the end casing located on both impeller ends. AVA 600SS-800SS are made in Stainless Steel. The shaft seal is made by means of a simple acting mechanical seal according to DIN24960, one each pump end. Shaft sealing devices other than the standard require a technical assessment that can be carried out on request. ATEX version is also available, on request.

## MATERIALS OF CONSTRUCTION



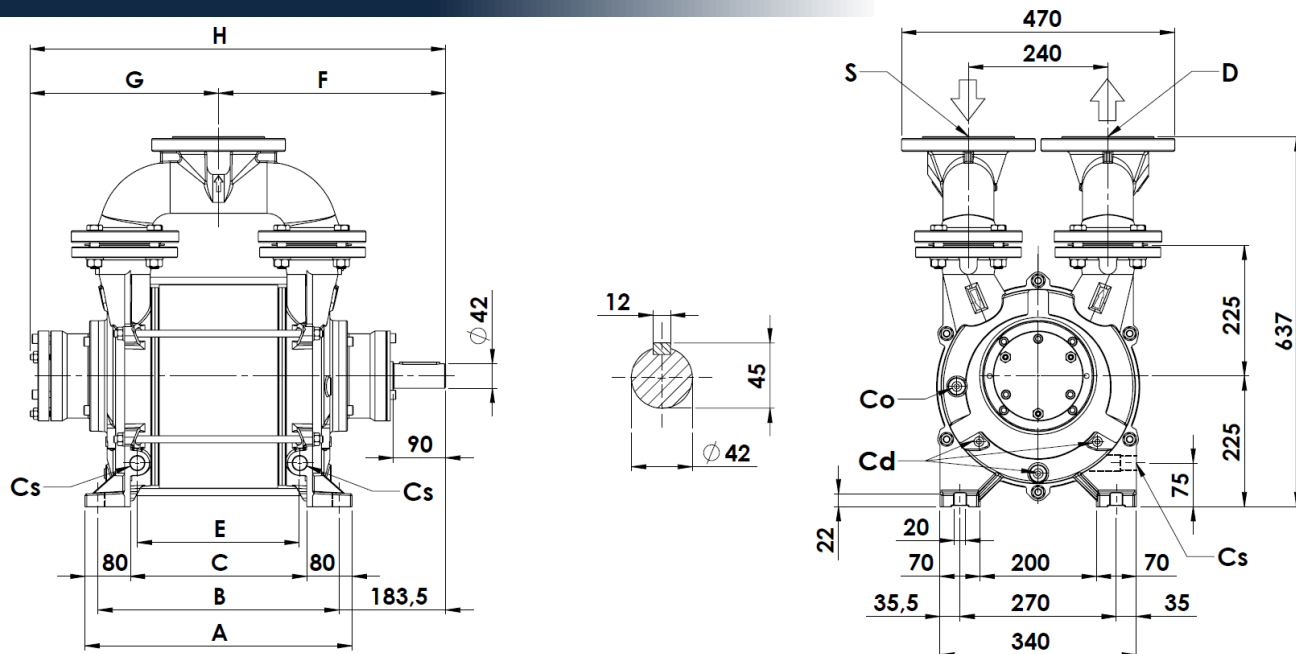
#	Part	SS Material
1	Top manifolds	SS 316 (ASTM A351-CF8M)
2	Suction-discharge casings	SS 316 (ASTM A351-CF8M)
3	Impeller housing	SS AISI 316
4	Impeller	SS 316 (ASTM A351-CF8M)
5	Port plates	SS AISI 316
6	Shaft	SS AISI 316
7	Gaskets/O-Rings	Aramid fiber & FEP
8	Mechanical seal	DIN 24960 - carbon/silicon carbide/FEP (metallic parts in AISI 316)



**Model AVA 600SS-800SS**

# LIQUID RING VACUUM PUMP

## 2D DRAWING



### CONNECTIONS

S	Gas inlet	ND 100/4"	EN 1092-1 PN10/ANSI 150#
D	Gas outlet	ND 100/4"	EN 1092-1 PN10/ANSI 150#
Cs	Service liquid inlet	G 3/4"	
Cd	Pump drain	G 3/8"	
Co	Overflow	G 3/8"	

PUMP	A	B	C	E	F	G	H	Weight [Kg]
AVA 600SS	460	415	304	278	391	324	715	215
AVA 800SS	564	519	408	382	443	376	819	250

## TECHNICAL SPECIFICATIONS

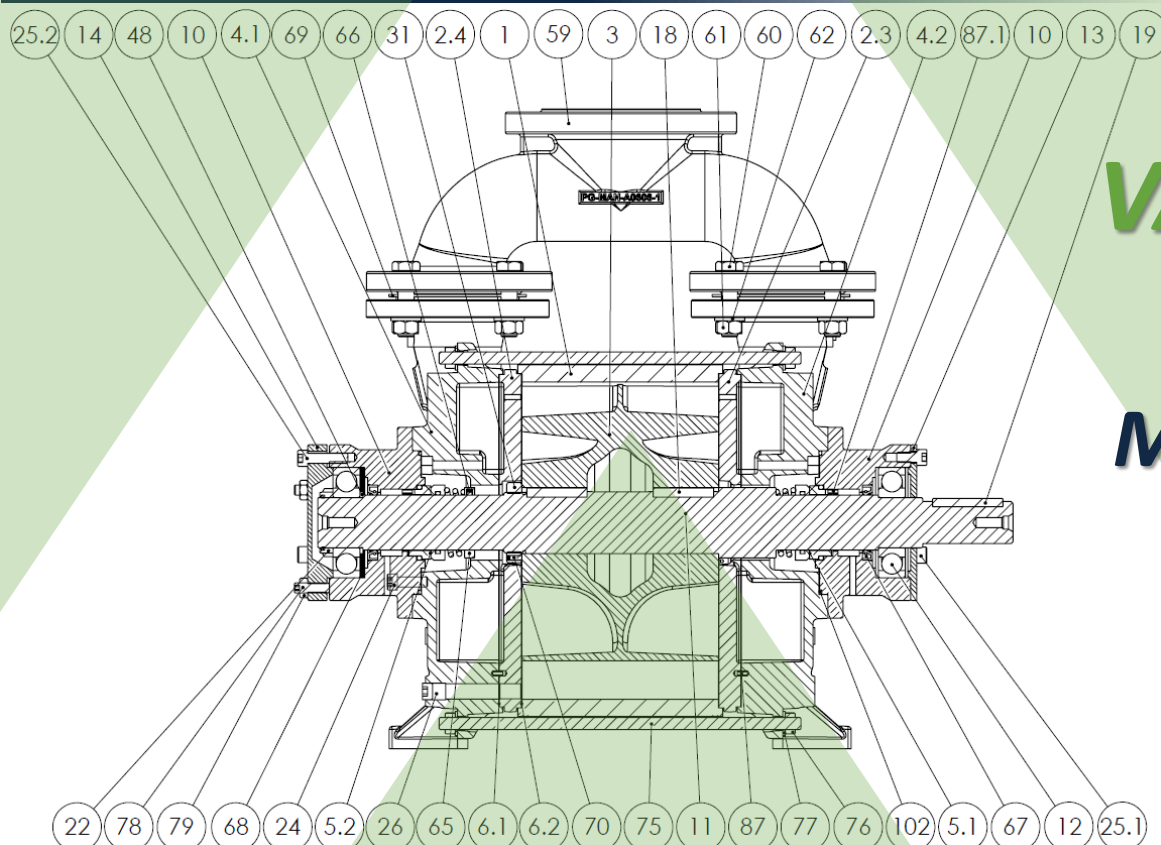
	AVA 600 SS	AVA 800 SS
Max inlet air capacity	540 m <sup>3</sup> /h @50Hz 640 m <sup>3</sup> /h @60Hz	790 m <sup>3</sup> /h @50Hz 900 m <sup>3</sup> /h @60Hz
Max suction pressure	33 mbara	33 mbara
Dry weight	215 kg	250 kg
Max gas temperature	100°C	100°C
Test pressure	3 barg	3 barg
Design pressure	5 barg	5 barg

	AVA 600 SS	AVA 800 SS
Noise level @80mbara	75 ± 3 dB(A)	76 ± 3 dB(A)
Motor power	15 kW @50Hz 18,5 kW @60Hz	22 kW @50Hz 30 kW @60Hz
Standard speed	1450 rpm @50Hz 1750 rpm @60Hz	1450 rpm @50Hz 1750 rpm @60Hz
Min/max motor speed	1150 rpm @40Hz 2040 rpm @60Hz	1150 rpm @40Hz 2040 rpm @60Hz
Vibrations	< 4 mm/s	< 4 mm/s
Max service liquid flow	2 m <sup>3</sup> /h @50Hz 2,2 m <sup>3</sup> /h @60Hz	2,5 m <sup>3</sup> /h @50Hz 2,5 m <sup>3</sup> /h @60Hz



# SPARE PARTS AVAILABLE

# LIQUID RING VACUUM PUMP Model AVA 600SS 800SS



Pos	Description	Q.ty
3	Impeller	1
2.3	Port plate, drive end	1
2.4	Port plate, non drive end	1
1	Intermediate casing	1
4.1	Suction/discharge casing, drive end	1
4.2	Suction/discharge casing, non drive end	1
10	Bearing housing	2
13	Bearing cover, drive end	1
14	Bearing cover, non drive end	1
59	Top manifold	2
11	Shaft	1
31 <sup>®</sup>	Impeller nut	1
75	Tie rod	6
7 <sup>®</sup>	Vari-port valve	2
8 <sup>®</sup>	Vari-port valve plate	2
6.1 <sup>®</sup>	Suc./dis. Casing-port plate gasket	2

Pos	Description	Q.ty
6.2 <sup>®</sup>	Plate-casing gasket	2
65	Mechanical seal spacer	1
5.1 <sup>®</sup>	Mechanical seal, drive end	1
5.2 <sup>®</sup>	Mechanical seal, non drive end	1
12	Bearing	2
22 <sup>®</sup>	Bearing nut	1
102 <sup>®</sup>	O-Ring	2
67 <sup>®</sup>	Radial lip seal	2
68	Compensating ring	4
60	Screw	16
25.2	Screw	3
25.1	Screw	3
9 <sup>®</sup>	Screw	4
24	Screw	8
78	Screw	3
70	Screw	3

Pos	Description	Q.ty
66	Screw	2
79	Nut	3
76	Nut	12
61	Nut	16
62	Washer	16
77	Washer	12
87	Locating pin	2
87.1	Locating pin	2
32 <sup>®</sup>	Washer	4
18	Key	2
19	Key	1
69 <sup>®</sup>	Flange gasket	4
48 <sup>®</sup>	Spacer ring	1
80/64/26/27.1	Screw-plug	7
<sup>®</sup> Repair kit part		



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