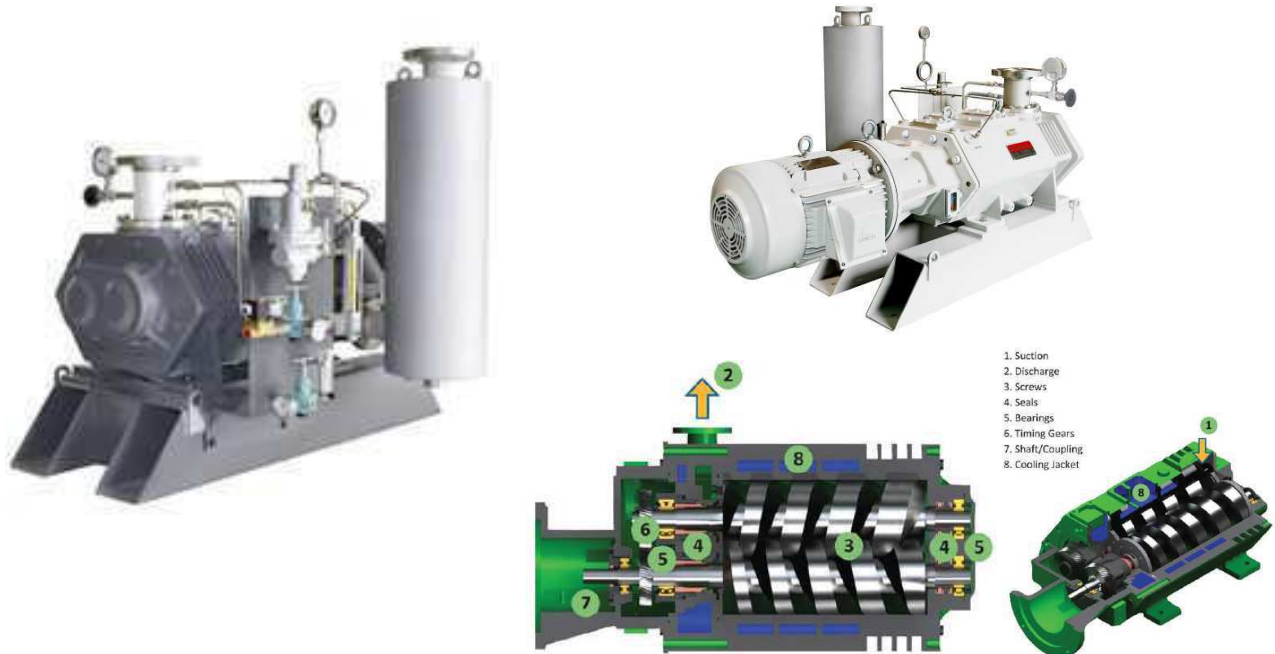


Vacuum Pumps America Inc.

Dry Screw Vacuum Pumps VPA-SS series





VPA-SS150, VPA-SS300, VPA-SS400, VPA-SS800, VPA-SS1500, VPA-SS3000

Features of VPA-SS series:

- Single stage design enables solid wastes easily discharged and eliminate residue in the pump. Inlet filters are available upon request.
- Suitable for pumping Toxic, Corrosive and condensable gas by use of special coatings for working chamber and screw rotors.
- No use of Oil or Water as pumping medium, low operation costs.
- No metal to metal contact between Screw and Casing ensures long pump life.
- Screw type rotors have high volume efficiency and robustness.
- Short gas path through the pump make quick gas discharge.
- Simple design results easy maintenance and run up time.
- Water cooled close to T4 requirements.
- Different internal coatings are available based on application like Teflon.
- VPA-SS Dry Screw Vacuum Pumps are available in ATEX and Explosion Proof version with ATEX motors

at different voltages .

- Explosion Proof Dry Screw Vacuum Pumps VPA-SS series .
- ATEX approved Dry Screw Vacuum Pumps VPA-SS series .
- Standard 3 phase motors at 380V@50Hz, 208V, 230V 460V, 575V@60Hz are available with CSA, cUL, CE approval for all VPA-SS Dry Screw Vacuum Pumps.

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Advantages of C-Flange model:

For simplicity and space saving, model VPA-SS150, VPA-SS300, VPA-SS400, VPA-SS800, VPA-SS1500, VPA-SS 3000, are available with C-flange adaptors for motor mounting. Various standards C-face motor can be attached directly to the screw pump.

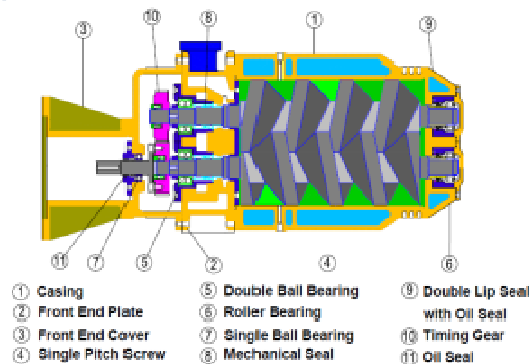
- Reduced installation space
- Simplified mounting
- Low vibration
- Reduced noise level
- No alignment required

Design Characteristics:

- Higher efficiency
- Higher compression ratio
- Higher pumping speed
- Lower cost of ownership
- Over sized bearings
- Gear: Double Ball Bearing
- Shaft: Single Ball Bearing
- Non-derive end shafts: Roller Bearings
- Seals: Mechanical or leap seal
- Seal Purging: Air or N₂ in front of back Seals are available
- No cooling gas up to VPA-SS800 is necessary.

Material of Construction:

- **Casing: Coated Ductile Iron,**
- **Screws: Coated Ductile iron**
- **Lip Seal: Polyimid in Stainless Steel**
- **Slip Sleeve: Ceramic Coated Stainless Steel**
- **Shaft Seals:**
 - **Suction Side: Double Leap Seal + Double Leap seal**
 - **Discharge Side: Lip & Mechanical Seal Oil seal**



Optional materials and coatings:

Standard construction materials for Casing and Screw rotors are cast iron and ductile Iron respectively. Special coatings like Teflon (PFA), available upon request. However, the following materials are also available for mechanical seals:

Special materials for special applications:

- Special O-ring such as Kalrez, Teflon
- Special mechanical seals like Hastelloy, Ni-resist

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Specifications of VPA-SS Dry Screw Vacuum Pumps:

Model	Pumping Speed m ³ /h (CFM) 50Hz/60Hz		Ultimate Pressure Torr 50Hz/60Hz	Power (kW) 50Hz/60Hz		Rotational Speed (min ⁻¹) 50Hz/60Hz		Port Size † (mm) Inlet / Outlet		Oil Capacity (L)	Cooling Water (L/ min)	Weight (kg) Pump only Approx.
VPA-SS150	110 (65)	130 (80)	7.5 x 10 ⁻³	2.2	3.7	2900	3500	1.5B (40A)	1.5B (40A)	1	5 to 10	200
VPA-SS300	250 (148)	300 (176)	7.5 x 10 ⁻³	7.5	7.5	2900	3500	2B (50A)	1.5B (40A)	2	10 to 15	300
VPA-SS400	330 (195)	400 (237)	7.5 x 10 ⁻³	7.5	11	2900	3500	2.5B (65A)	2B (50A)	2	10 to 15	380
VPA-SS800	660 (390)	800 (473)	7.5 x 10 ⁻³	15	15	2900	3500	4B (100A)	2.5B (65A)	2.5	15 to 20	600
VPA-SS1500	1250 (740)	1500 (888)	1.5 x 10 ⁻²	30	37	1450	1750	5B (125A)	3B (80A)	8	30 to 40	1200
VPA-SS3000	2250 (1331)	2700 (1598)	1.5 x 10 ⁻²	37	55	1450	1750	6B (150A)	4B (100A)	10	40 to 50	1500



*Specifications are subjected to change without notice to improve product quality.

** To convert m³/h to cfm, divide by 1.69

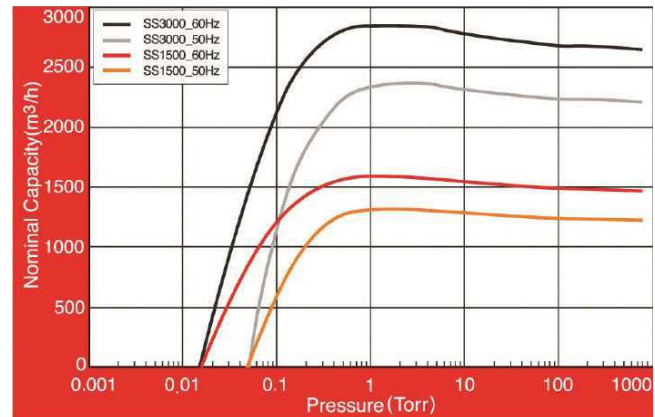
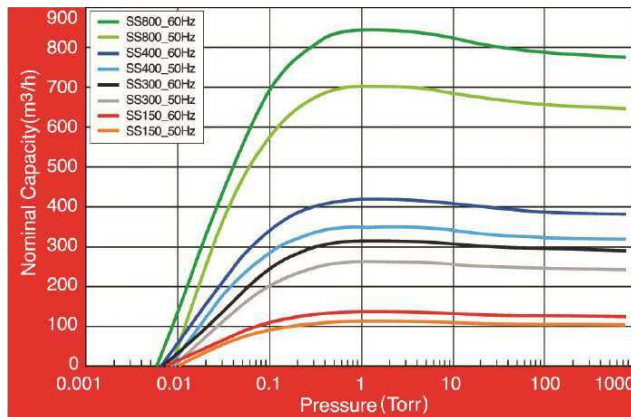
Example: 800 m³/h ÷ 1.69= 473.37 cfm

† All types of inlet and outlet port size based on ISO and ANSI standards available upon request.

Different types of motors are available for VPA-SS Dry Screw Vacuum Pumps as follows:

- Conventional
- ATEX 
- Energy efficient
- Explosion proof 
- Wash down
- All the above Motors are compatible with EISA and IE2 standards




Performance curves:



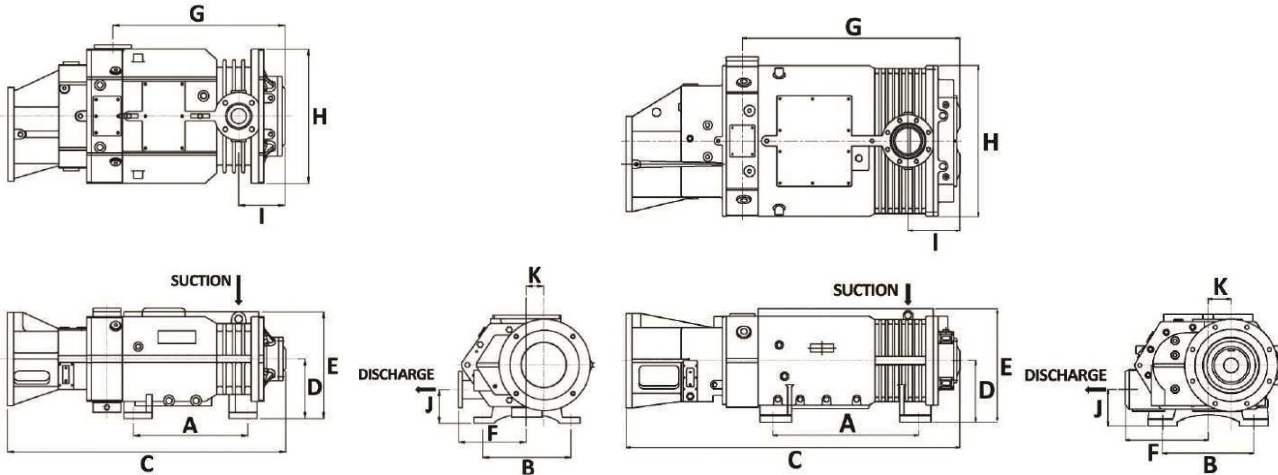
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Applications of VPA-SS Dry Screw Vacuum Pumps:

- Autoclaves
- Automotive
- Backing pump for Turbomolecular pumps
- Brake Fluid Filling Systems
- Brazing
- Casting
- Chemical Distillation 
- Chemical Processing 
- Chemical Vapour Deposition 
- Chemical Laboratories 
- Chemical Coating
- Central Vacuum Systems
- Debinderization
- Degassers 
- Degassing 
- Drying 
- Drying Chambers
- Evacuating of Refrigeration Systems
- Evacuation of Process 
- Chambers 
- Forming
- Food Processing
- Food Industry
- Fermentation
- Freeze Drying
- Heat Treatment
- Heat Exchanger Drying in Power Plants
- Hazardous Area 
- Impregnating 
- Investment Casting
- Impregnation
- Laboratory Experimentation
- Leak Detection of dry systems
- Light Bulb Manufacturing
- Liquid Gas Storage
- Metallurgy
- Metals Processing
- Packaging
- PET Processing
- Pharmaceutical Processes 
- Physical Vapour Deposition
- Physics Laboratories
- Potting
- Research & Development
- Roll Coating
- Refineries 
- Silicon Crystal Growing
- Sintering
- Solvent Recovery 
- Spray Dryers
- Transformer Drying 
- Vacuum Coating
- Vacuum Furnaces
- Vacuum Heat Treating
- Vacuum Melting
- Vacuum Metalizing
- Vacuum Packaging
- Vacuum Metallurgy

Overall Dimensions:



VPA-SS150, VPA-SS300, VPA-SS400, VPA-SS800

VPA-1500 & VPA-SS3000

Model	A	B	C	D	E	F	G	H	I	J	K
VPA-SS150	282	210	723	144	260	170	421	316	124	74	425
VPA-SS300	367	290	893	190	342	222	552	432	148	109	58
VPA-SS400	416	310	1016	202	367	260	626	483	161	106	63.5
VPA-SS800	463	348	1140	212	391	295	704	544	193	116	73
VPA-SS1500	694	440	1592	290	538	400	1037	717	248	180	110
VPA-SS3000	728	444	1727	320	585	446	1074	820	348	210	125

*Specifications are subjected to change without notice to improve product quality.

**Length of the pump can be changed by use of different types of motors.

All dimensions are in millimeter.