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Vooner Conical Port Liquid Ring Vacuum Pumps

General Specifications

Vooner VG and V4 Series Vacuum Pumps are single stage liquid sealed, non-pulsating, rotary devices. The pumps are equipped with two conical ports and a one piece enclosed rotor, dynamically balanced, and keyed to the shaft. The rotor has a shroud in the center and the rotor housing has a rib in the center effectively providing two separate pumps with an inlet and discharge port located in each end head. The end heads are independently bolted to the rotor housing – no tie rods are used. A self-aligning removable bearing carrier bolts to each head. Shaft sealing is provided by braided packing with two-piece cast 316 stainless steel packing glands, studs and nuts.

Pump performance is defined by specifications as actual volume of dry air (ACFM flow rate) at the vacuum level (in. Hg vacuum) when operated at a given speed (RPM) consuming a certain amount of brake horsepower (BHP), at standard conditions of temperature and pressure. The pump performance curves provide a graphic representation of the specifications for a particular pump model. Individual pumps with rotor diameters greater than 15 in. (VG10 and larger) are guaranteed to perform according to these curves with a tolerance of 95% ACFM and 105% BHP at the standard conditions of 50% relative humidity, 60° F inlet air temperature, 60° F sealing liquid temperature, and 29.92” Hg absolute barometric pressure. Individual pumps with rotor diameters equal to or less than 15 in. (VG7 or smaller) are guaranteed to perform according to these curves with a tolerance of 90% ACFM and 110% BHP at 50% relative humidity, 60° F inlet air temperature, 60° F sealing liquid temperature, 29.92” Hg absolute barometric pressure. Performance is confirmed by individual testing and recorded by pump serial number.

MODEL IDENTIFICATIONS

Pumps models are designed by alphanumeric code Design style + nominal capacity size (ACFM) in hundreds + material construction features + vacuum level cone opening designation.

DESIGN STYLE

Model (Series):	Bolt in Replace:
VG, VaneGard	CL
V4, FloGard	904

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MATERIAL CONSTRUCTION FEATURES

Model	Rotor	Cones	Heads	Bearing Carrier	Housing	Shaft	Pkg Gland, Studs, Nuts
A	Ductile Iron	Cast Iron	Cast Iron	Carbon Steel	Cast Iron	Carbon Steel	316 SS
C	304 SS	304 SS	Cast Iron	Carbon Steel	Cast Iron	410 HT SS	316 SS
XVE4	304 SS	304 SS	*316 SS	Carbon Steel	**304L SS	410 HT SS	316 SS
XVE6	316 SS	316 SS	*316 SS	Carbon Steel	**316L SS	410 HT SS	316 SS
XVS	304 SS	304 SS	*316 SS	Carbon Steel	304 SS	410 HT SS	316 SS
SS4	304 SS	304 SS	304 SS	Carbon Steel	304 SS	316 SS	316 SS
SS6	316 SS	316 SS	316 SS	Carbon Steel	316 SS	316 SS	316 SS

(SS – cast stainless steel) (HT – heat treated) (* Replaceable 316 SS Wear Plates on cast iron heads)
(**Stainless steel liner in cast iron housing)

CONE OPENING DESIGNATION

L-Low vacuum level, 4-16 in. Hg vacuum
M-Medium vacuum level, 12-24 in. Hg vacuum
H-High vacuum level, 24-26 in. Hg vacuum

EXAMPLES

VG4C-L 400 ACFM nominal capacity, “C” construction, Low vacuum level.
VG20XVS-M 2,000 ACFM nominal capacity, “XVS” construction, Medium vacuum level
V4P75A-L 7,500 ACFM nominal capacity, “A” construction, Low vacuum level