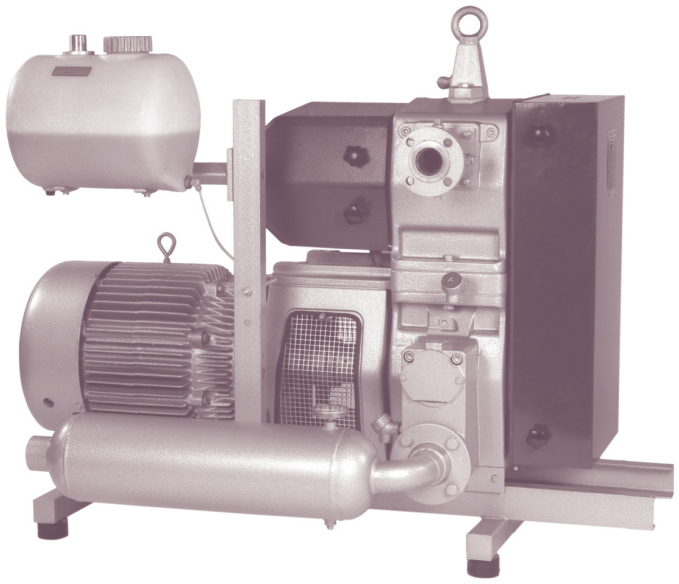
Huckepack Mark 4
HO 0429-0441



HO 0429

Description

The Huckepack Mark 4 vacuum pump is the latest evolution of the Busch two-stage, Once-Through-Sealing (OTS), rotary vane design. The Mark 4 model is a design that allows engineers the flexibility and performance they need for their particular process. The sealant, for example, does not need to be oil. Other fluids with appropriate lubricating properties and vapor pressure can be used.

The Mark 4 is available in single-pass, water-cooled or radiator-cooled versions. It reaches an end vacuum of 0.5 torr (29.9" Hg), and comes in four sizes, from 113 CFM to 444 CFM displacement.

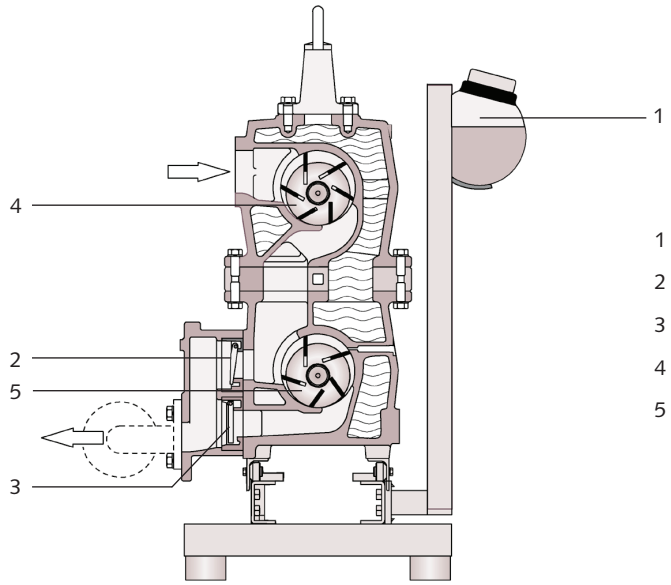
Also available are blower/pump systems for higher capacities and lower end pressures.

Features

- Coolant temperature control system
- Gas-tight seal designs available
- Provision for optional gas ballast in bottom stage to aid in pumping high boiling compounds
- Carbon fiber reinforced composite vanes - no asbestos
- Graphite PTFE exhaust valve and bypass valve for roughing
- Adjustable sealant metering pump
- Grease-lubricated bearings
- Sealant reservoir and optional flushing tank for feeding different fluids during flushing cycle
- Wide selection of sealing fluids possible - consult factory
- PTFE sealant lines
- Center support plate between stages for quick access to stages for easy maintenance
- Standard NEMA C-Face motor, explosion-proof, Class 1, Group D, Division 1, Service Factor 1.15
- Protective instrumentation
- Ductile iron construction
- Discharge Muffler

Rotary Vane Vacuum Pumps

Operating Principle



1 Seal fluid tank
2 Bypass valve
3 Flap valve
4 ND-rotor
5 HD-rotor

Operating Principle

The Huckepack vacuum pump is a two stage pump working according to the rotary vane principle. As a two stage pump, the first pumping stage is positioned above the second stage and the direction of gas flow is downwards.

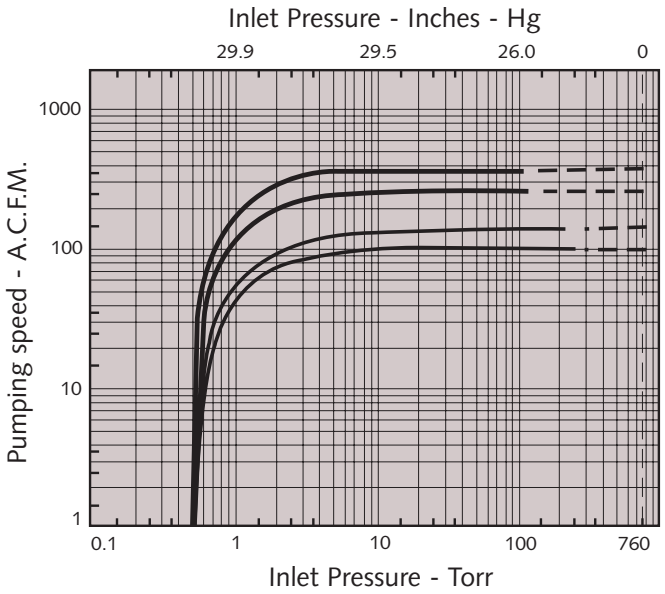
The stages are modular in construction, and within each module there is an eccentrically mounted rotor (4) which rotates within a cylinder. The centrifugal force of the rotation pushes the vanes, which are gliding in slots in the rotor, towards the wall of the cylinder. The vanes separate the sickle-shaped space between rotor and cylinder into chambers. As the vanes pass the intake, gas is sucked in, then compressed by the rotation of the first stage, compressed again by the rotation of the second stage, and finally discharged.

A seal fluid is constantly pumped into the pumping chamber to seal and lubricate the vanes. The bearings are lubricated separately from the pumping chamber, therefore different seal fluids may be used in the pumping chamber. The pump is available with either direct water cooling or by a radiator cooling with a recirculation pump.

Available Options

- Sleeved cylinders-special materials available
- TEFC and special motors
- Motor starter
- Junction box
- Instrumentation
- Control Panel
- Chemical duty exhaust mist eliminator for 99.9% sealant/air separation
- Modifications to meet special needs
- Auto purge and auto flush
- Fully integrated systems
- Annunciator and control panel

Technical Data



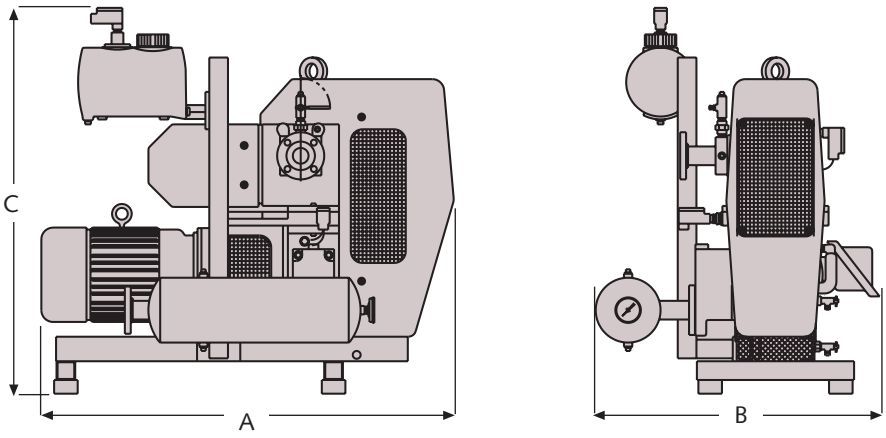
Performance data based on 60 cycle motor.

Consult factory for operation in dashed line areas.

Technical Data		HO 0429	HO 0433	HO 0437	HO 0441
Nominal pumping speed*	ACFM	100	155	265	390
Free air displacement	CFM	113	176	282	444
End vacuum	Torr	0.5	0.5	0.5	0.5
Motor size 3 phase	H.P.	10	15	20	25
Motor rotational speed	RPM	1800	1800	1200	1200
Inlet connection	ANSI	2″	2″	3″	3″
Outlet connection	ANSI	2″	2″	3″	3″
Sound level at one meter (max)	dBA	79	79	80	81
Standard sealant capacity	Qts.	12	12	25	25
Sealant usage rate (min-max)	Qts./24 hrs	4-6.3	4.8-6.3	5.6-11.2	7-11.2
Cooling water consumption	GPM	0.5	0.75	0.9	1.6
Shipping weight - Water-cooled	Lbs.	1000	1180	2050	2430
Shipping weight - Radiator-cooled	Lbs.	1090	1270	2150	2550

*Refer to curve for actual pumping speed. Consult factory for higher pumping speeds and lower ultimate pressures.

Dimensions



Dimensions	HO 0429	HO 0433	HO 0437	HO 0441
A Length	45 (50 7/8*)	46 5/8 (52 1/2*)	62 (66 3/8*)	63 3/4 (68 1/4*)
B Width	33 5/8	36 1/8	41 1/2	44 1/4
C Height	49 3/8	49 3/8	52	52

*Radiator-Cooled Version Dimensions in inches-consult factory for certified dimensions

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