



# Challenger Series

VACUUM PUMPS & BLOWERS

866

Heavy Duty Vacuum Pumps

**520 CFM**



866 Max Pak

Our Challenger Series pumps are designed and built with the customer in mind – resulting in dependable, high performing pumps that are easy to install, operate and service. As the only industrial grade rotary vane vacuum pump designed, built and supported in the USA we are committed to also being the best pump period. Therefore each Challenger series vacuum pump features:

- Superior cooling for extended operations in severe conditions.
- Proven crash protection allowing all major components to survive a catastrophic failure.
- Oversized heavy duty roller bearings allowing more drive options.
- Precision pinned endplates for exact reassembly alignment.
- High strength castings poured in the USA.
- High temp Teflon oil lines allowing visual oil flow inspection.
- Remote mount 5 quart see through oil tank for constant oil level monitoring.
- Four point automatic lubrication system.
- Liquid or fan cooled versions of each model.
- Multiple drive options (gearbox, belt, hydraulic, direct).
- Integral, easily accessible final filter.
- Vane flush port with valve.
- Vane wear inspection port.
- Thermometer to monitor exhaust temperature.
- Vacuum/pressure change over valve.
- Flanged vacuum/pressure ports.
- Available in right hand or left hand rotation.
- Built in one way flow valve eliminates back spin.
- **Replacement parts always available.**

RPM		Pressure (PSI)				Free flow	Vacuum (inches of Mercury)					
		20	15	10	5	0	6	12	15	18	21	27
1150	Hp.	NA	36	27	25	18	21	23	23	24	26	29
	CFM	NA	438	447	457	506	470	543	440	438	425	351
1000	Hp.	38	32	24	20	15	18	20	21	22	23	25
	CFM	375	381	389	398	452	409	394	390	381	370	306
800	Hp.	32	25	19	15	13	14	16	17	18	19	21
	CFM	319	324	331	342	385	348	333	331	324	315	242

Maximum 1150 RPM Intermittent operation only

The maximum allowable operating vacuum will vary depending on R.P.M., ambient temperature, altitude and time running. The basic principle to keep in mind is - faster R.P.M., higher air temperature and longer run time all equal more heat in the pump. When installing an NVE 866 we recommend a normal R.P.M. of 900. Exhaust gas temperatures read on the supplied thermometer must not exceed 375 degrees F.



# Challenger Series

VACUUM PUMPS & BLOWERS

4307 & 4310

High Vacuum Tri-lobe Blowers

## 940 CFM



*4310 Blower*

### 4307 Challenger Specifications

Air Flow @ Free Air .....	560 CFM
Maximum Vacuum .....	27" Hg
Maximum Intermittent Pressure .....	15 PSI
Operating Speed - Recommended .....	4,000 RPM
HP Required @ 27" Hg .....	36.4
HP Required @ 10 PSI .....	28.4
HP Required @ 15 PSI .....	47.9
Porting Size .....	4"
Shaft Size (3/8" Key) .....	1 1/2
Approximate Weight .....	421 lbs

### 4310 Challenger Specifications

Air Flow @ Free Air .....	940 CFM
Maximum Vacuum .....	27" Hg
Maximum Intermittent Pressure .....	15 PSI
Operating Speed - Recommended .....	4,000 RPM
HP Required @ 27" Hg .....	51.4
HP Required @ 10 PSI .....	39.7
HP Required @ 15 PSI .....	39.5
Porting Size .....	4"
Shaft Size (3/8" Key) .....	1 1/2"
Approximate Weight .....	456 lbs