



## 866 HEAVY DUTY VACUUM PUMPS

### PRODUCT CATALOG

**Challenger** Series  
VACUUM PUMPS & BLOWERS



Designed. Built. Supported in The USA.

800-253-5500 | [www.natvac.com](http://www.natvac.com)

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**CONDITION OF SALES**

To view NVE’s Condition of Sales, scan the QR Code to the right of this text with your phone’s camera or visit <https://natvac.com/ordering-information/>





MADE IN THE USA

# 886 Heavy Duty Vacuum Pumps

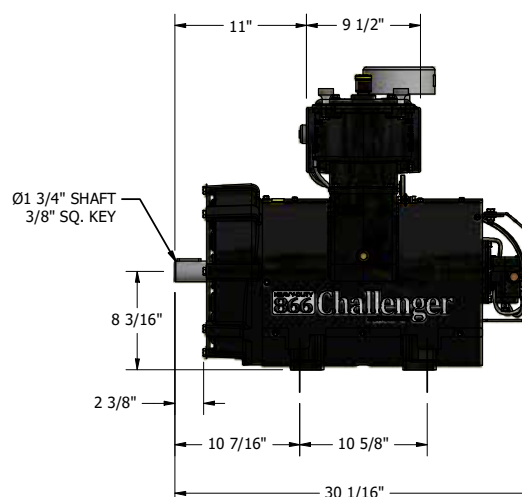
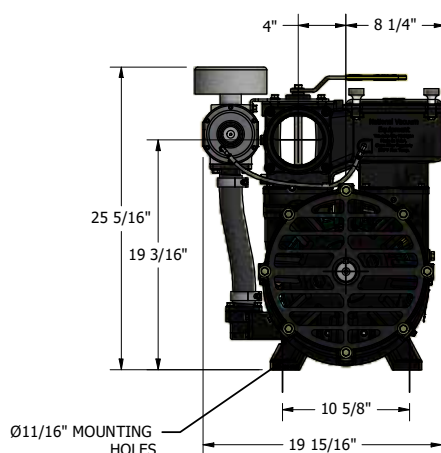
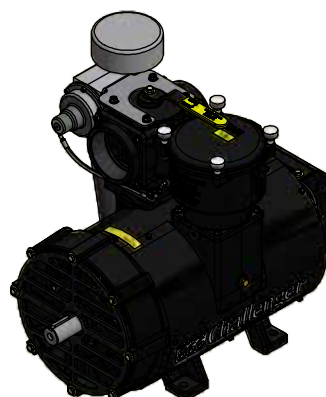


## Features

- Lifetime warranty on the housing against cracking
- Ductile iron housing
- The NVE bi-rotational, four port oil pump is exclusive to our “oil management system” delivering the precise amount of oil required for any job. Easily adjustable to 5-24 ounces per hour.
- Rugged braided stainless steel oil delivery lines
- Vane flush port with valve
- Vane wear inspection port
- Integral, easily accessible & cleanable, stainless final filter
- Proven crash protection allowing all major components to survive a catastrophic failure
- Multiple drive options (gearbox, belt, hydraulic, and direct)
- Two year warranty against manufacturer defect
- Designed, built, and supported in the USA

## FAN-COOLED 866 PRO CHALLENGER | SPECIFICATIONS

Air Flow - Free Air	520 CFM
*Maximum Vacuum	
Maximum Intermittent Pressure	20 PSI
*Operating Range - Rpm	1000
HP Required @ Full Vacuum	25
HP Required @ 20 PSI	38
Porting Size	4"
Shaft Size (3/8" Key)	1 3/4"



## PRODUCT DESCRIPTION

Challenger 866 CW Liquid Cooled

## PART NUMBER

102-866-LD

## WEIGHT

533 lbs

Challenger 866 CCW Liquid Cooled

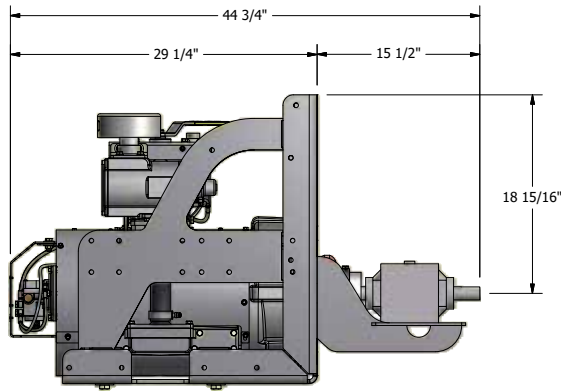
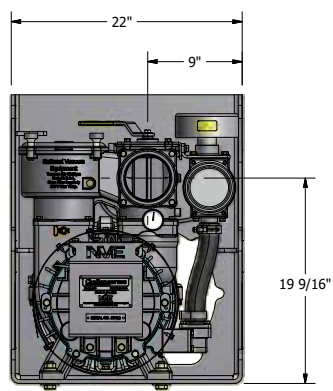
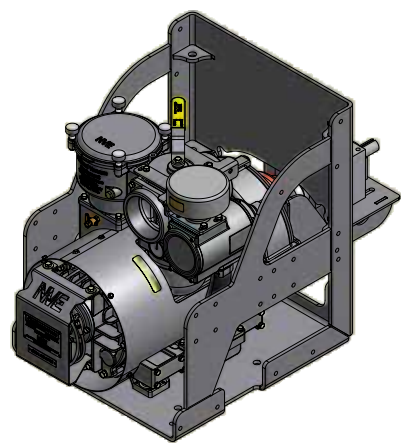
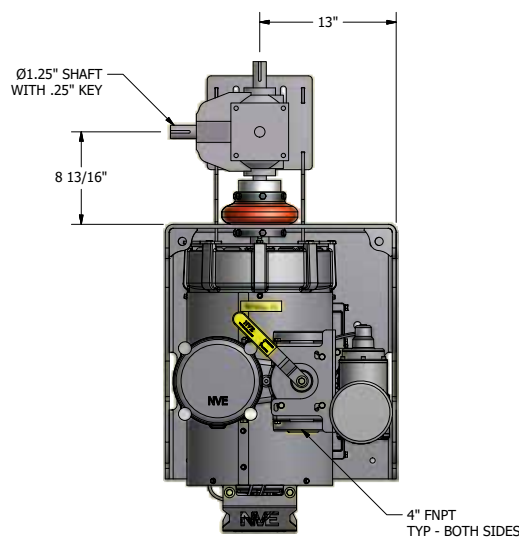
102-866-LS

533 lbs

\*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 pump. When installing an NVE 866 pump we recommend a normal R.P.M. of 1000. Other speeds are ok as long as exhaust gas temperatures read on the supplied thermometer do not exceed 380 degrees F.

Features

- Vacuum pump included; specify rotation and cooling type
- Available for fan cooled and liquid cooled models
- Rugged 3/8" construction, powder coat painted, pump stand
- 400 series three-shaft gearbox accommodates clockwise and counter clock wise rotation
- Coupler set with shear protection
- Easy-align, adjustable gearbox bracket
- Also available with hydraulic drive
- Designed, built, and supported in the USA



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
866 Liquid Cooled CW Pump Stand Complete W/ Gearbox Drive	117-866-001-LD	565 lbs
866 Liquid Cooled CCW Pump Stand Complete W/Gearbox Drive	117-866-001-LS	565 lbs
866 Liquid Cooled CW Pump Stand Complete W/Hydraulic Adapter Only	117-866-001H-LD-A	571 lbs
866 Liquid Cooled CCW Pump Stand Complete W/Hydraulic Adapter Only	117-866-001H-LS-A	571 lbs
866 Liquid Cooled CW W/Hydraulic Adapter Only	117-866-HYD-LD-A	538 lbs
866 Liquid Cooled CCW W/Hydraulic Adapter Only	117-866-HYD-LS-A	538 lbs

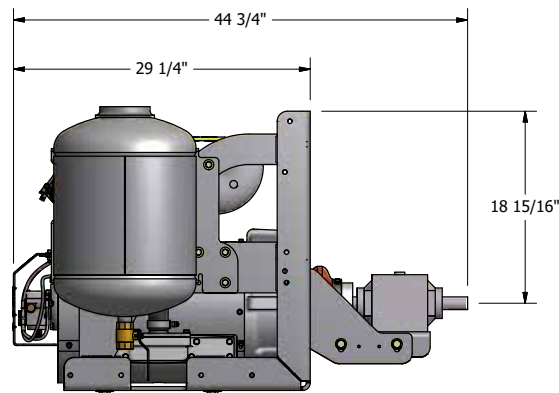
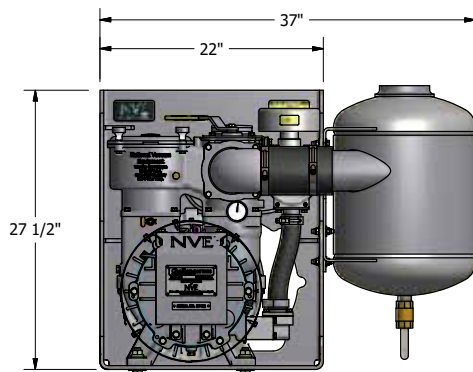
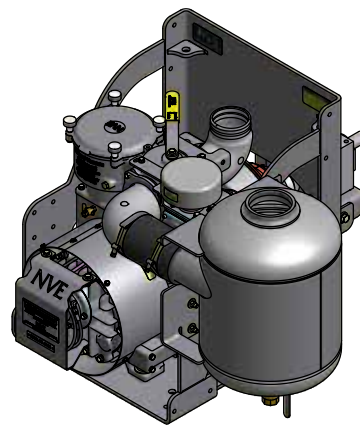
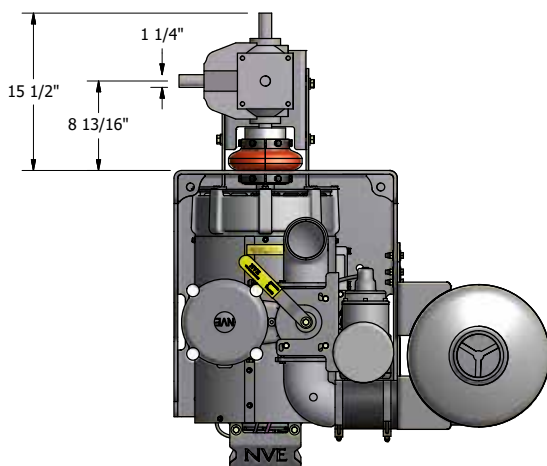
# 866 Muffler Packages



## Features

All features included in the Pump Stand Complete plus:

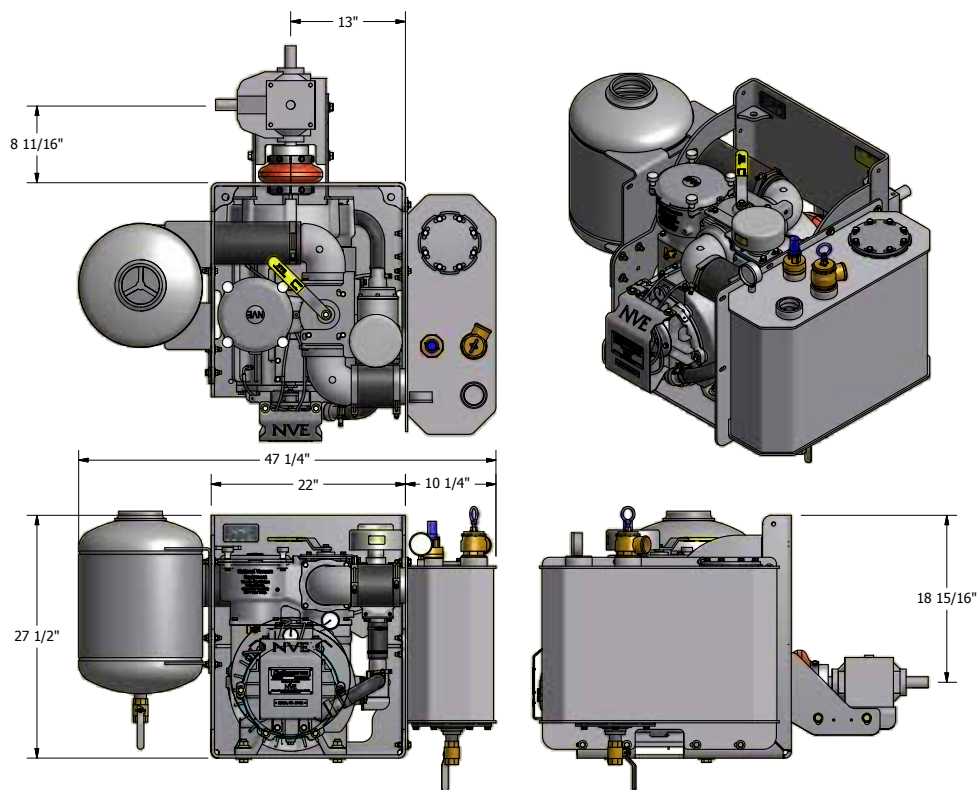
- Vacuum pump included; specify rotation, cooling type and muffler location (left or right).
- 14" round oil catch muffler
- Stainless steel mesh filter
- All elbows, fittings and high temp hoses are factory connected
- Right-hand or left-hand muffler location available
- Designed, built, and supported in the USA



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
866 Liquid Cooled CW Muffler PKG	117-866-MUF-LD	851 lbs
866 Liquid Cooled CCW Muffler PKG	117-866-MUF-LS	851 lbs
866 Liquid Cooled CW With Muffler PKG W/Hydraulic Adapter Only	117-866-MUF-LDH-A	790 lbs

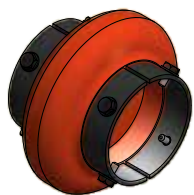
### Features

- Vacuum pump included; specify rotation, cooling type and muffler location (left or right).
- Compact design round oil catch muffler
- Stainless steel mesh filter
- All elbows, fittings and high temp hoses are factory connected
- Right-hand or left-hand muffler location available
- Designed, built, and supported in the USA



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
866 Liquid Cooled CW Max PKG	117-866-MAX-LD	966 lbs
866 Liquid Cooled CCW Max PKG	117-866-MAX-LS	966 lbs
866 Liquid Cooled CW With Max PKG W/Hydraulic Adapter Only	117-866-MAX-LDH-A	873 lbs

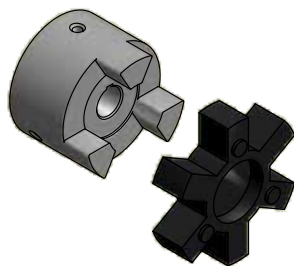
# 866 Components & Accessories



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
Coupler Hub E20 1 1/4"	424-200-125	7.25 lbs
Coupler Hub E20 1 3/4"	424-200-175	7.25 lbs
Coupler Flex Element E20	424-200-E20	4.15 lbs



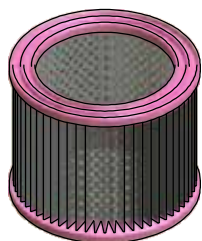
PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
Hydraulic Adapter	120-400-001	17 lbs
- Easily convert from gear box drive to hydraulic drive with the use of this adapter.		



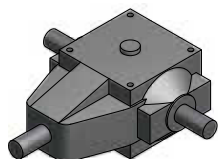
PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
Coupler Flange L150 x 1 1/4" with 1/4" Keyway	424-150-125-HYD	5.10 lbs
Coupler Flange L150 x 1 3/4" with 3/8" Keyway	424-150-175	4.55 lbs
Coupler Spider L150 NBR	424-150-S	.20 lbs



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
4" Adjustable Elbow	150-063-014	1.50 lbs
O-Ring for Elbow	120-064-012	.01 lbs
Elbow 4" 90 Degree Alum Hose Barb X Hose Barb	803-063-001	2.15 lbs
Elbow 4" 90 Degree Aluminum Hose Barb X Oring	803-063-012	2.15 lbs



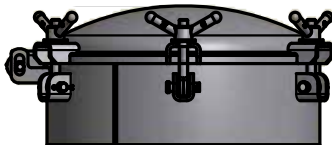
PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
Filter Element 607/866	120-314-001	.80 lbs
Filter Element Remote Ballast	120-009-506-5	- - - -



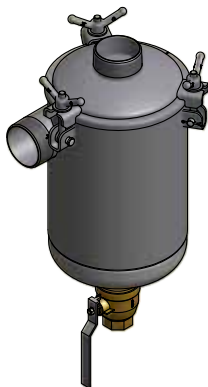
PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
Gearbox	422-400-1	28.3 lbs
- 400 Series 1:1 - Mounting brackets available.		



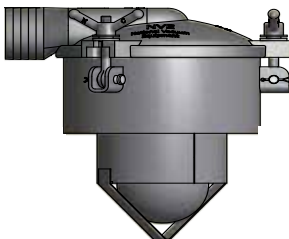
PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
OCM 14" DIA 4" NPT W/HB RH	212-140-4NPT-2	95 lbs
OCM 14" DIA 4" NPT W/HB LH	212-140-4NPT-3	95 lbs
OCM 14" DIA 4" NPT RH	212-140-4NPT	90 lbs
OCM 14" DIA 4" NPT LH	212-140-4NPT-1	90 lbs



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
Manway Carbon 20" X 6" GOL	202-2006	72 lbs



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
14 Gal Moisture Trap Alu 4" NPT	216-140-4NPT-A	70 lbs
14 Gal Moisture Trap Carbon 4" NPT	216-140-4NPT-C	131 lbs
14 Gal Moisture Trap SS 4" NPT	216-140-4NPT-S	131 lbs



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
12" Primary Shutoff Carbon	200-1206-4HB	47 lbs



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
Remote Oil Tank	320-082-001	1.6 lbs
Oil Tank Kit	320-081	2.30 lbs
Oil Tank Cap Black W/Tether	320-083-002	0.10 lbs

# 866 Maintenance Items



## Features

- The NVE Challenger repair kits come with or without bearings and include the seals, gaskets, and vanes required for repair.
- The NVE Challenger flush kits come with all the required items to properly flush your Challenger vacuum pumps.
- The NVE Challenger Pump Oil is ISO 150; though this oil is not required, it is recommended to keep your vacuum pump lubricated properly, particularly in extreme conditions. Sold by the case, six (6) gallons per case.



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
Tool Kit for 506/866	120-0T	4 lbs
Repair Kit 866	115-866-0	11 lbs
Repair Kit 866 (without bearings)	115-866-0B	6 lbs
Flush Fluid Kit	320-081-002	2 lbs
Oil Vacuum Pump R&O ISO 150/SAE 40 ND Price per Gallon - 6 Gallons per Case	150-220-VPOIL-150	7 lbs

[illegible]

## Notes

[illegible]

# DESIGNED. BUILT. SUPPORTED.

Produced in the USA | Distributed World-Wide

Toll Free 800-253-5500

24-Hour Fax 800-998-6834

P.O. Box 685 | Traverse City, MI 49685



**NVE**

National Vacuum Equipment, Inc.

**Challenger** **Series**  
VACUUM PUMPS & BLOWERS