



304 HEAVY DUTY VACUUM PUMPS

PRODUCT CATALOG

Challenger Series
VACUUM PUMPS & BLOWERS



Designed. Built. Supported in The USA.

800-253-5500 | www.natvac.com

304 Vacuum Pump **3**

304 Pump Stand Complete Packages **4**

304 Horizontal Packages..... **5**

304 Combination Moisture Trap/Muffler Packages..... **6**

304 Engine Drive Packages..... **7**

Components & Accessories..... **8**

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/>



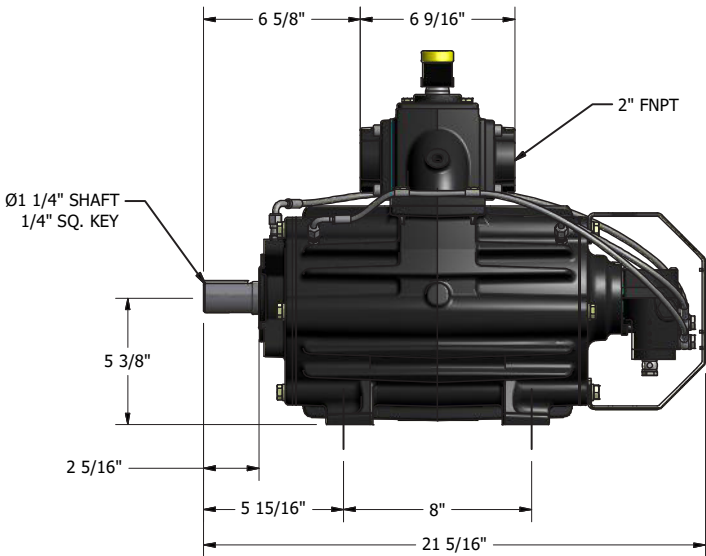
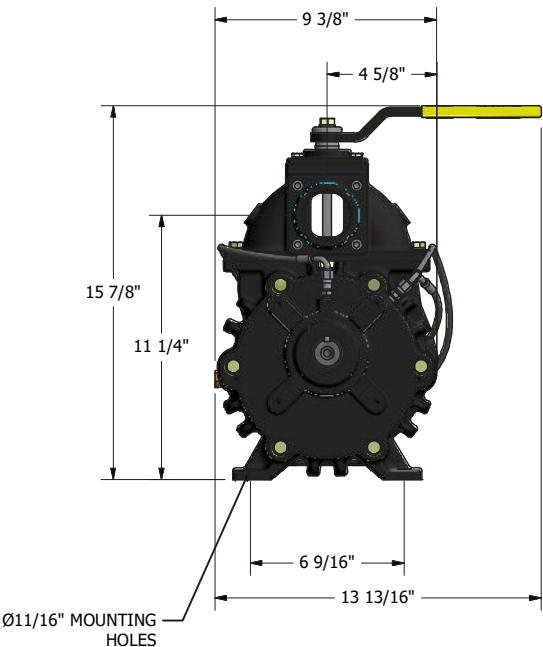
304 Heavy Duty Vacuum Pumps

Features

- Exclusive NVE automatic oil pump
- Rugged braided stainless steel oil delivery lines
- Ductile iron housing
- On truck serviceability
- Remote mount 5 quart see through oil tank for constant oil level monitoring
- Available in both clockwise and counter-clockwise rotation
- Two year warranty against manufacturer defect
- Designed, built, and supported in the USA

AIR COOLED 304 CHALLENGER SPECIFICATIONS

| | |
|--------------------------------|-------------------------|
| Air Flow - Free Air | 210 CFM |
| *Full Intermittent Vacuum | 27" HG |
| Maximum Intermittent Pressure | 20 PSI |
| *Operating Range - RPM | 1200 1300 1400 |
| HP Required @ Full Vacuum | 8.35 9.24 10.16 |
| HP Required @ 10 PSI | 10.08 11.14 12.24 |
| Porting Size (Optional 1-1/2") | 2" |
| Shaft Size (1/4" Key) | 1 1/4" |



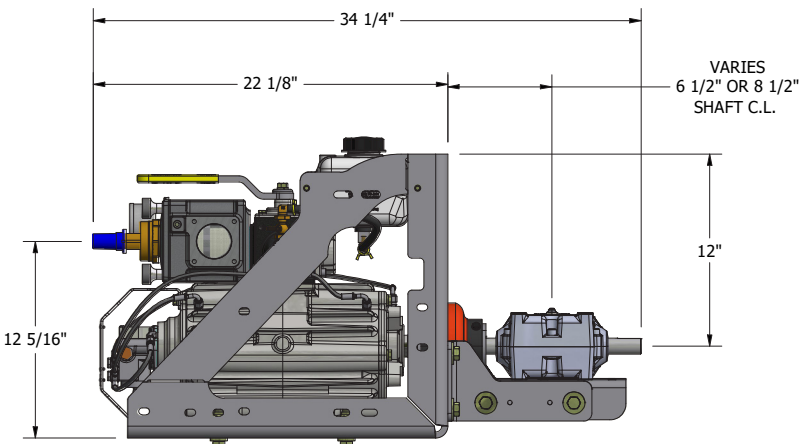
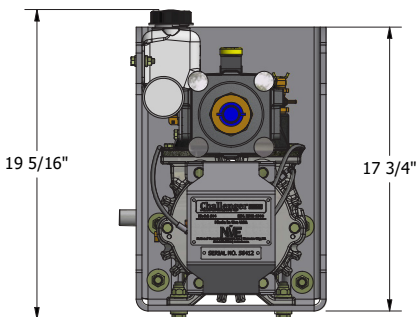
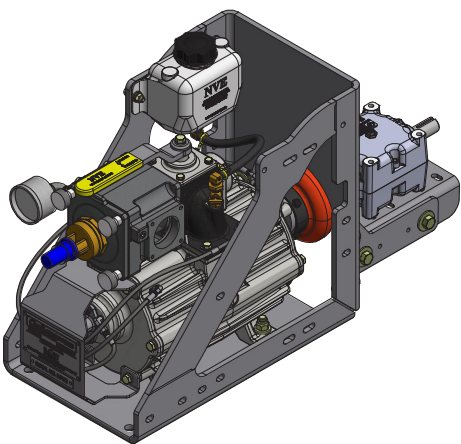
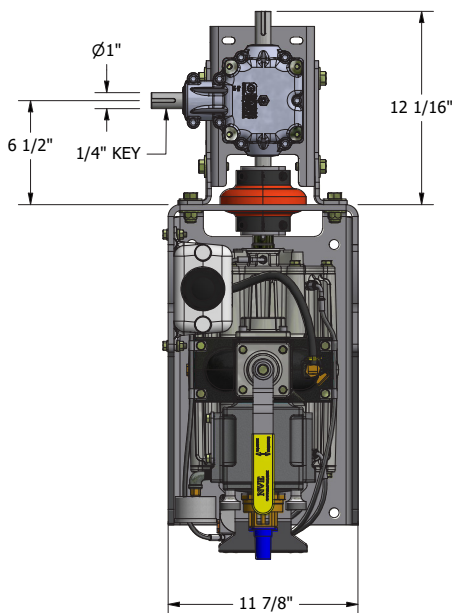
PRODUCT DESCRIPTION

| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|------------------------------------|---------------|---------|
| Challenger 304 CW (Pictured Above) | 110-304-D | 179 lbs |
| Challenger 304 CCW | 110-304-S | 179 lbs |
| Challenger 304 CCW W/HYD Adapter | 117-304-HYD-S | 182 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 304 pump we recommend a normal R.P.M. of 1200-1400. Other speeds are ok as long as exhaust gas temperatures read on the supplied thermometer do not exceed 380 degrees F.

Features

- 304 counter clockwise vacuum pump
- Pre-filter
- Heavy duty 3/8” steel gusseted frame
- Durable powder coat finish
- Lightweight aluminum gearbox for cool operation
- Flushing flush kit included
- Reliable Rexnord E5 Coupler
- Remote mount 5 quart see through oil tank for constant oil level monitoring
- Two year warranty against manufacturer defect
- Designed, built, and supported in the USA



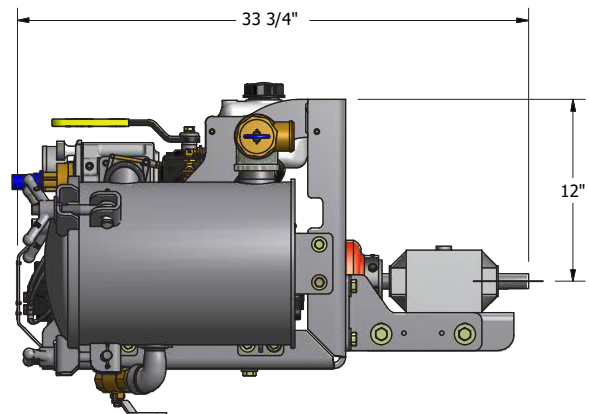
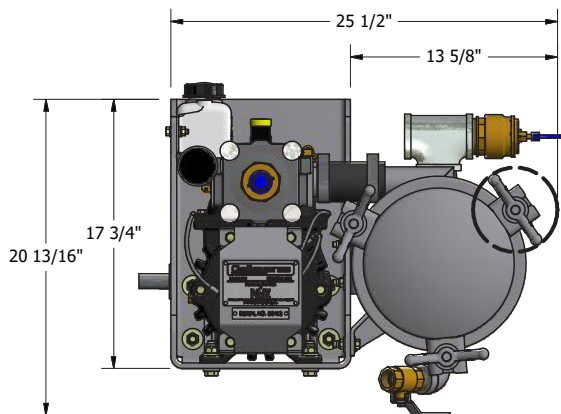
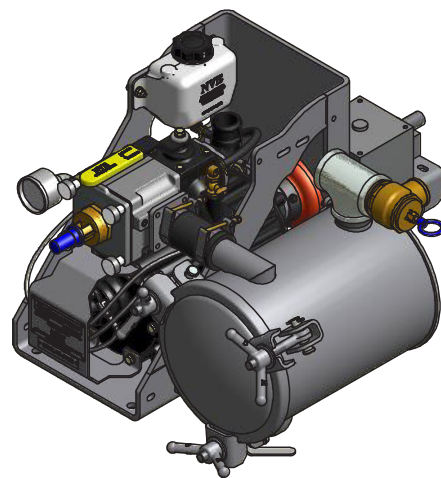
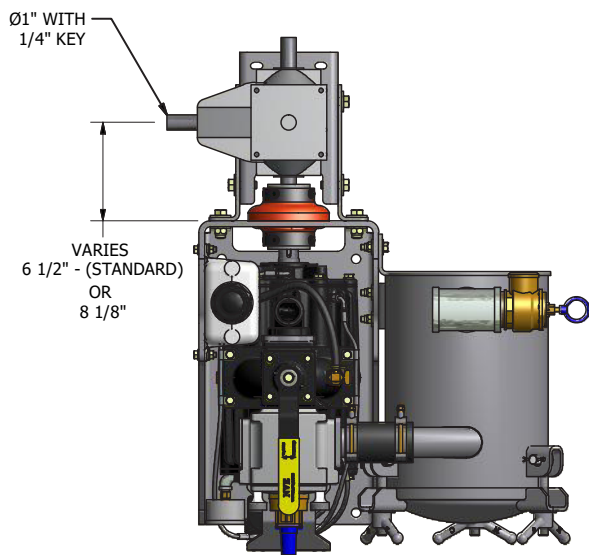
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|---------------|---------|
| Challenger 304 Pump Stand Complete (Pictured Above) | 117-304-001-S | 297 lbs |

304 Horizontal Packages

Features

All features included in the pump stand complete plus:

- 304 counter clockwise vacuum pump and stand
- Gearbox or hydraulic adaptor options available
- Pre-filter
- Horizontal moisture trap
- Flushing flush kit included
- Vacuum relief valve and vacuum pressure gauge
- Two year warranty against manufacturer defect
- Designed, built, and supported in the USA



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|---------------|---------|
| Challenger 304 Right Hand Horizontal Package (Pictured Above) | 117-304-002-D | 392 lbs |

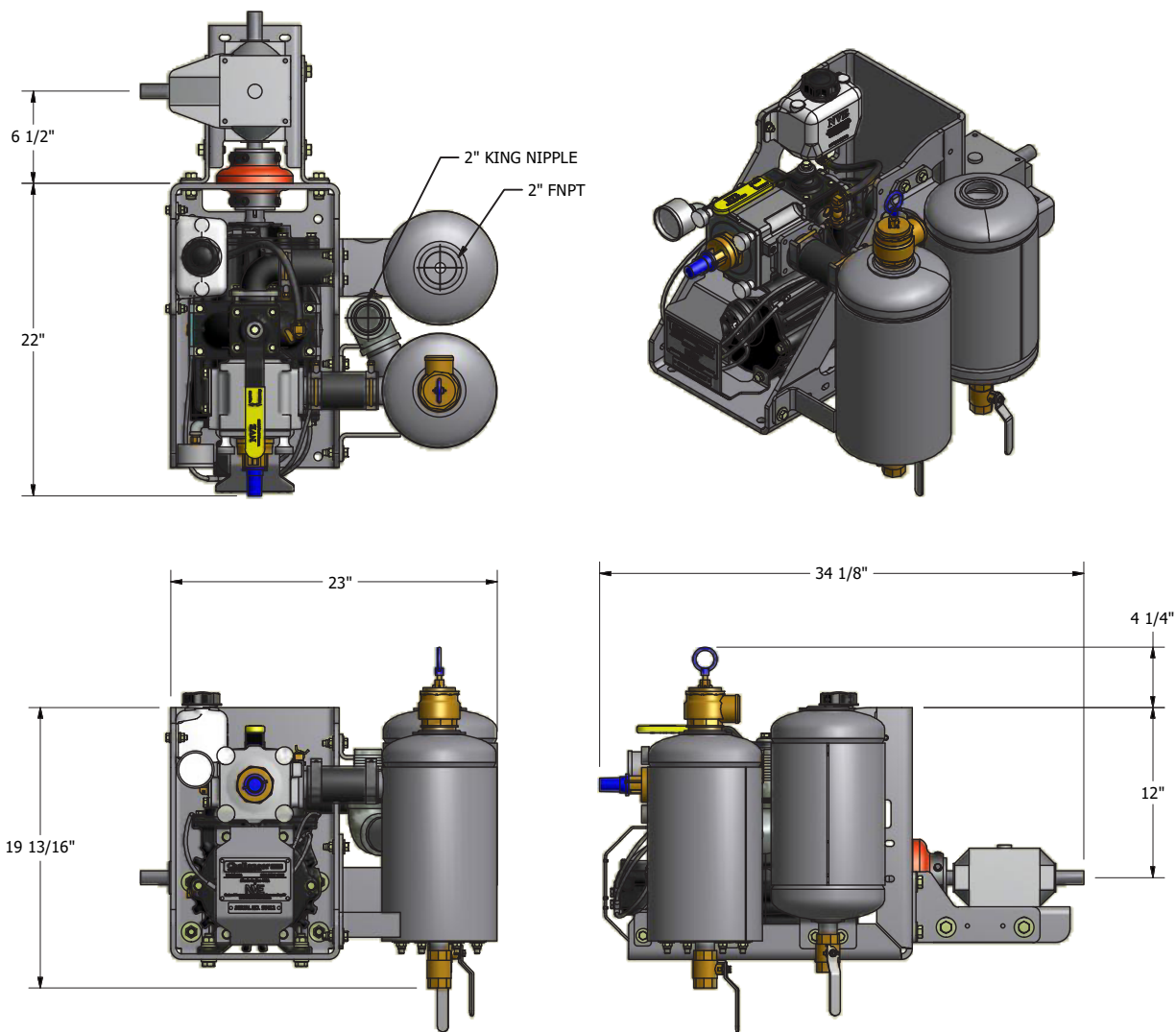
304 Combination Moisture Trap/Muffler Packages

Challenger Series

Features

All features included in the pump stand complete plus:

- 304 counter clockwise vacuum pump and stand
- Combination moisture trap and muffler
- Vacuum and pressure relief valves with gauge
- Flushing flush Kit included
- Right or left mounting options
- Two year warranty against manufacturer defect
- Designed, built, and supported in the USA



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|--|---------------|---------|
| Challenger 304 Right Hand Combination Moisture Trap/Muffler (Pictured Above) | 117-304-007-D | 404 lbs |

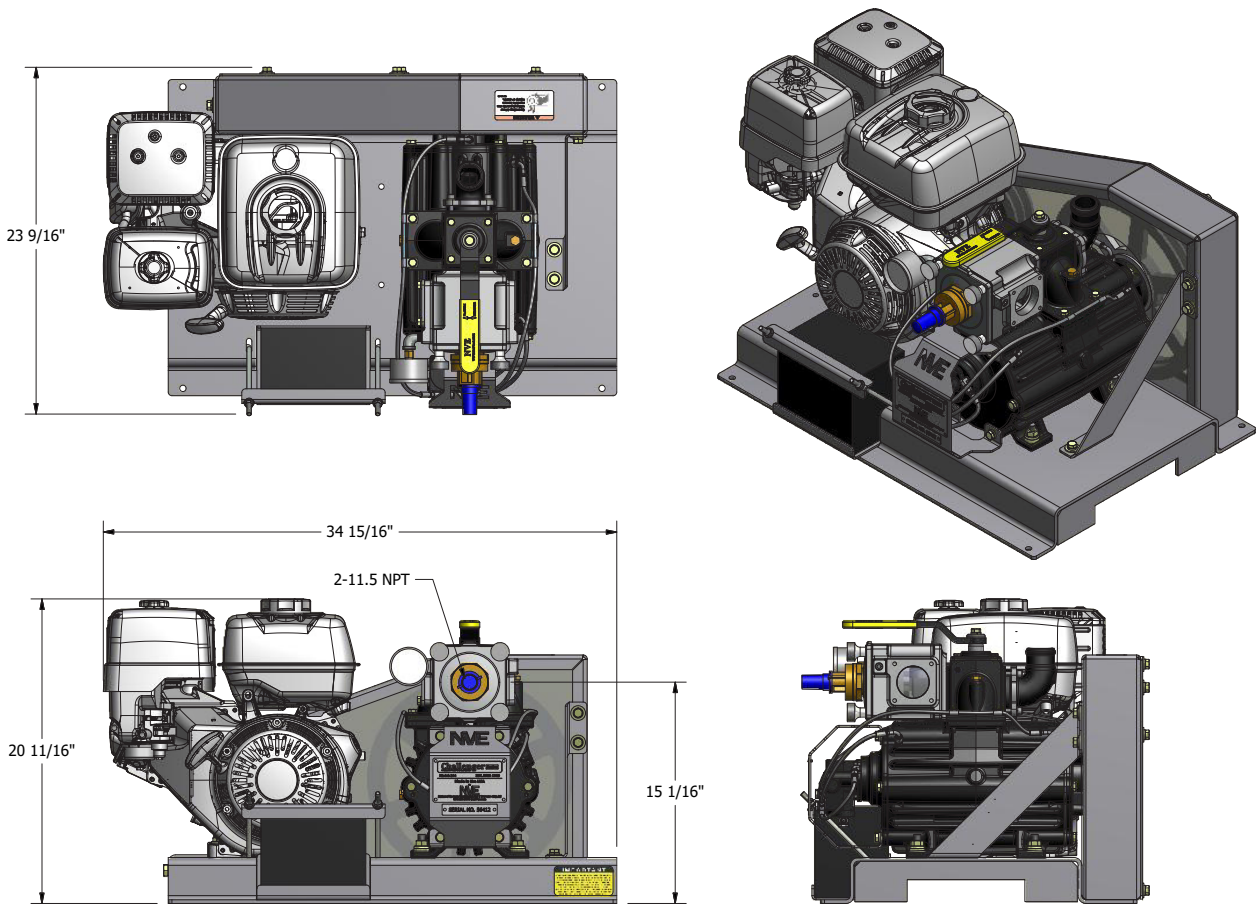
304 Engine Drive Package



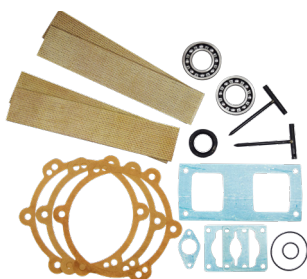
MADE IN THE USA

Features

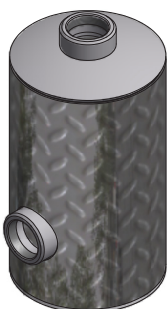
- 304 counter clockwise vacuum pump and stand
- Honda 13 HP Electric Start Motor
- Battery included
- Two year warranty against manufacturer defect
- Designed, built, and supported in the USA



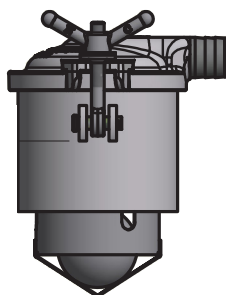
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|---------------|---------|
| Challenger 304 Honda Engine Drive Package | 117-EDR-304-1 | 400 lbs |



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|-------------------------------|-------------|--------|
| Repair Kit 304 | 115-304-0 | 3 lbs |
| Repair Kit 304 (W/O Bearings) | 115-304-0B | 2 lbs |



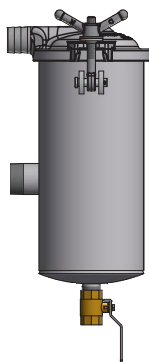
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|--|---------------|-----------|
| Oil Catch Muffler | 212-800-2FP-A | 12.55 lbs |
| <ul style="list-style-type: none"> - 8" Aluminum tread plate exterior with 2" NPT. - Compact Design - Rated to 250 CFM - 2" Port - 1" Drain Valve | | |



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|--------------|-----------|
| Primary Shutoff 8" X 6" Carbon Base Cast 2" Hb | 200-0806-2HB | 25 lbs |
| Primary Shutoff 8" X 6" Alu Base Cast Alu Lid 2" HB | 204-0806-2HB | 17.25 lbs |
| Primary Shutoff 8" X 6" SS Base Cast Alu Lid 2" HB | 208-0806-2HB | 25.35 lbs |

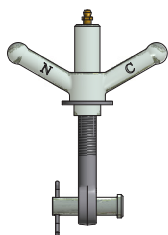


| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|--|-------------|--------|
| Portal Carbon 12" X 6" GOL | 200-1206-C | 37 lbs |
| Portal 12" X 6", Alu Base SS Lid GOL | 204-1206-A | 21 lbs |
| Manway Carbon 17" X 6" GOL | 202-1706-C | 48 lbs |
| Manway Carbon 20" X 6" GOL | 202-2006 | 72 lbs |
| Manway Alu 20" X 6" W/ Cast Al Lid GOL | 206-2006-A | 42 lbs |

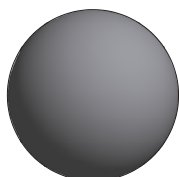


| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|--|-----------------|--------|
| Secondary Shutoffs Mt 4 Gal Alu 2" HB | 216-400-2NPT-A | 23 lbs |
| Secondary Shutoffs Mt 4 Gal 2" NPT | 216-400-2NPT-C1 | 30 lbs |
| Secondary Shutoffs Mt 4 Gal SS Alu Lid 2" HB | 216-400-2NPT-S | 30 lbs |

304 Components & Accessories



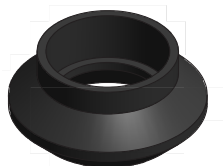
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|-------------|----------|
| Wingnut, Eyebolt Clevis & Cotter Pin (Qty 6) | 284-KIT-C | 1.45 lbs |
| Lubenut, Eyebolt, Clevis & Cotter Pin (Qty 6) | 284-KIT-CLN | 1.55 lbs |



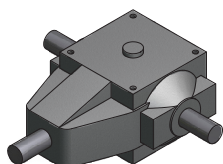
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---------------------|-------------|---------|
| Float Balls 4" SS | 414-400-SS | 0.5 lbs |



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|------------------------------|-------------|----------|
| Gasket 12" Lid And Neck Buna | 286-706-12L | 0.65 lbs |
| Gasket 17" Lid Buna | 286-706-17L | 1 lbs |
| Gasket 19.5" Lid Buna | 286-706-20L | 1 lbs |



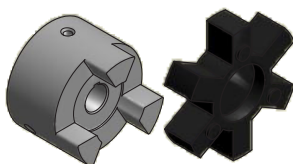
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|--------------------------|-------------|----------|
| Ball Seat 3" Buna | 416-300-B | 0.55 lbs |
| Clamp Worm 3" Ball Seats | 416-300-1WC | 0.08 lbs |



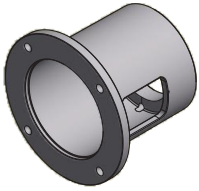
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---------------------|-------------|----------|
| Gear Boxes | 422-200-1 | 14.3 lbs |
| - 200 Series 1:1 | | |



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|-------------------------------------|-------------|--------|
| Coupler Hub E5 1" Bore 1/4" Key | 424-050-100 | 3 lbs |
| Coupler Hub E5 1 1/4" Bore 1/4" Key | 424-050-125 | 3 lbs |
| Coupler Flex Element E5 | 424-050-E5 | 2 lbs |



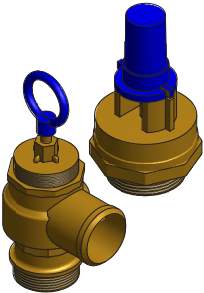
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|--------------|----------|
| Spider Lovejoy 100 NBR | 424-100-S | 0.25 lbs |
| Coupler Flange Lovejoy 100 - 1.25" X 1/4" Key | 424-100-125 | 3 lbs |
| Coupler Flange Lovejoy 100 - 0.625" X 5/32" Key | 424-100-0625 | 3 lbs |



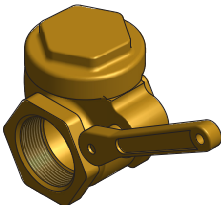
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---------------------|-------------|--------|
| Hydraulic Adapter | 120-400-004 | 3 lbs |



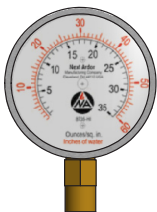
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|-------------|----------|
| Flange 2" Adjustable Elbow | 280-355-116 | 0.25 lbs |
| O-Ring for Elbow | 120-064-012 | 0.01 lbs |
| Elbow 2" 90 Degree Alum Hose Barb X Hose Barb | 803-063-014 | 0.5 lbs |
| Elbow 2" 90 Degree Aluminum Hose Barb X Oring | 803-063-013 | 0.5 lbs |



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|--------------------------|--------------|----------|
| Vacuum Relief 1 1/2" NPT | 366-150 | 1.1 lbs |
| Pressure Relief 1.50" | 364-306-015 | 1.85 lbs |
| Pressure Relief 1.25" | 364-306-1.25 | 1.45 lbs |
| Pressure Relief 2" | 364-306-2 | 2.7 lbs |



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|-------------------------|-------------|---------|
| Lever Valve 2" | 362-301-2 | 3.9 lbs |
| Lever Valve 3" | 362-301-3 | 8.7 lbs |
| Lever Valve 3" TTMA/NPT | 362-301-3T | 10 lbs |
| Lever Valve 4" | 362-301-4 | 12 lbs |

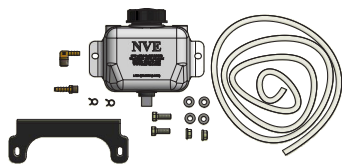


| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|-------------|----------|
| Gauge 2.5" Vac/Pres Liq Bot Conn 1/4" NPT | 408-250-LF | 0.45 lbs |



| 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 |

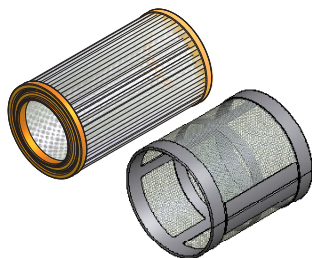
304 Components & Accessories



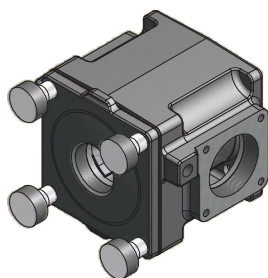
| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---------------------|-------------|---------|
| Flushing Fluid Kit | 320-081-002 | 1.9 lbs |



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|-------------------|----------|
| Oil Vacuum Pump R&O ISO 150/SAE 40 ND. Price Per Gallon. 6 Gallons Per Case. | 150-220-VPOIL-150 | 7.35 lbs |



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|---|-------------|---------|
| Intake Filter 304 - 3.75" ID x 4.43" | 120-314-004 | .35 lbs |
| Intake Filter 304 - 4.44" OD x 3.0" ID x 8.125" | 120-314 | .90 lbs |
| <i>*Please Verify Size Before Buying</i> | | |



| PRODUCT DESCRIPTION | PART NUMBER | WEIGHT |
|-------------------------|-------------|--------|
| Filter Box Assembly 304 | 120-318-001 | 5 lbs |

DESIGNED. BUILT. SUPPORTED.

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NVE

National Vacuum Equipment, Inc.

Challenger Series

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