TWO STAGE OIL FLOODED ROTARY VANE LIQUID RING VACUUM PUMPS

NTRV SERIES

Pumps. Systems. Service. Support. — One Source.

TWO STAGE OIL FLOODED ROTARY VANE VACUUM PUMP

MODELS: NTRV-5, NTRV-10, NTRV-20, NTRV-40, NTRV-60, NTRV-80, NTRV-100, NTRV-150, NTRV-180



Two stage oil-flooded rotary vane vacuum pumps — up to 1 × 10^{-3} torr for high vacuum applications.

— VACUUM

1 × 10^{-3} torr max vacuum for high vacuum applications.

— OPERATION

Low noise and vibration for increased stability and comfort.

— MAINTENANCE

Simple, sparse parts for easy internal access and quick maintenance.

— WARRANTY

1-year factory warranty against manufacturer's defects.

Compact and precise. High vacuum from a small footprint.

NES Company is proud to offer our NTRV Series Two Stage Oil Flooded Rotary Vane Vacuum Pump. These pumps are factory performance tested and include a 1-year warranty.

CAPACITY RANGE	POWER RANGE	ULTIMATE VACUUM	MODELS
1.76–63.6	0.16–5 HP	1×10^{-3} torr	9 Models
CFM capacity range	Motor power range	NTRV 10–180 (NTRV 5: 3×10^{-3})	NTRV-5 through NTRV-180

Overview / Features / Notes

SPECIFICATION SUMMARY

Type	Two Stage, Oil Flooded Rotary Vane
Models	NTRV-5, NTRV-10, NTRV-20, NTRV-40, NTRV-60, NTRV-80, NTRV-100, NTRV-150, NTRV-180
Power Range	0.16 – 5 HP
Capacity Range	1.76 – 63.6 CFM
Ultimate Vacuum — NTRV 5	3×10^{-3} torr
Ultimate Vacuum — NTRV 10-180	1×10^{-3} torr

DESCRIPTION

The compact NTRV two-stage oil-flooded rotary vane pumps are able to generate levels of vacuum up to 1×10^{-3} torr at flow rates between 1.76 and 63.6 CFM and 0.16 to 5 HP. The NTRV Series is meticulously machined and carefully crafted for tight tolerances resulting in low noise and low vibration designs that create a safe and comfortable environment for both pump and operator.

FEATURES

- **Max vacuum pressure of 1×10^{-3} torr for high vacuum applications.**
- **Low noise and low vibration levels for increased stability and comfort.**
- **Simple and sparse parts make for easy internal access and quick maintenance.**
- **Available inlet port wire mesh dirt trap designed to sieve coarse particles.**
- **Cast iron or aluminum cast die constructed robust and compact pump.**
- **Oil lubrication acts as protective barrier for chamber and vanes against friction and harsh process gasses.**
- **1-year factory warranty against manufacturer's defects.**

NOTES

NES Company is proud to offer our NTRV Series Two Stage Oil Flooded Rotary Vane Vacuum Pump. NES NTRV Series pumps are factory performance tested and include a 1-year warranty against manufacturer's defects.

FULL TECHNICAL DATA

The following pages cover technical data for every model, the application table, exploded views by model, and pump weights. **Contact NES** at info@nescompany.com or 800-297-3550 for application support.



Technical Data / Performance by Model

TWO STAGE OIL FLOODED ROTARY VANE VACUUM PUMP

Series Name	Nominal Motor Speed [RPM]	Motor Power [HP]	Suction Capacity [CFM]	Power Rating [Φ/HZ/VAC]	Ultimate Vacuum, Gas Ballast Open [Torr]	Ultimate Vacuum, Gas Ballast Closed [Torr]	Oil Capacity [qts.]
NTRV 5	1800	0.16	1.76	1/60/220 1/60/110	5×10^{-2}	3×10^{-3}	0.21
NTRV 10	1800	0.5	3.53	1/60/220 3/60/220,380	5×10^{-3}	1×10^{-3}	0.53
NTRV 20	1800	0.5	7.06	1/60/220 1/60/110	5×10^{-3}	1×10^{-3}	0.63
NTRV 40	1800	0.5	14.1	1/60/220 3/60/220,380	5×10^{-3}	1×10^{-3}	1.59
NTRV 60	1800	2	21.2	3/60/220,380 1/60/220,380	5×10^{-3}	1×10^{-3}	2.43
NTRV 80	1800	2	28.3	3/60/220,380 1/60/220,380	5×10^{-3}	1×10^{-3}	2.85
NTRV 100	1800	5	35.3	3/60/220,380 1/60/220,380	5×10^{-3}	1×10^{-3}	4.76
NTRV 150	1800	5	53.0	3/60/220,380	5×10^{-3}	1×10^{-3}	6.55
NTRV 180	1800	5	63.6	3/60/220,380	5×10^{-3}	1×10^{-3}	6.55

Application Table

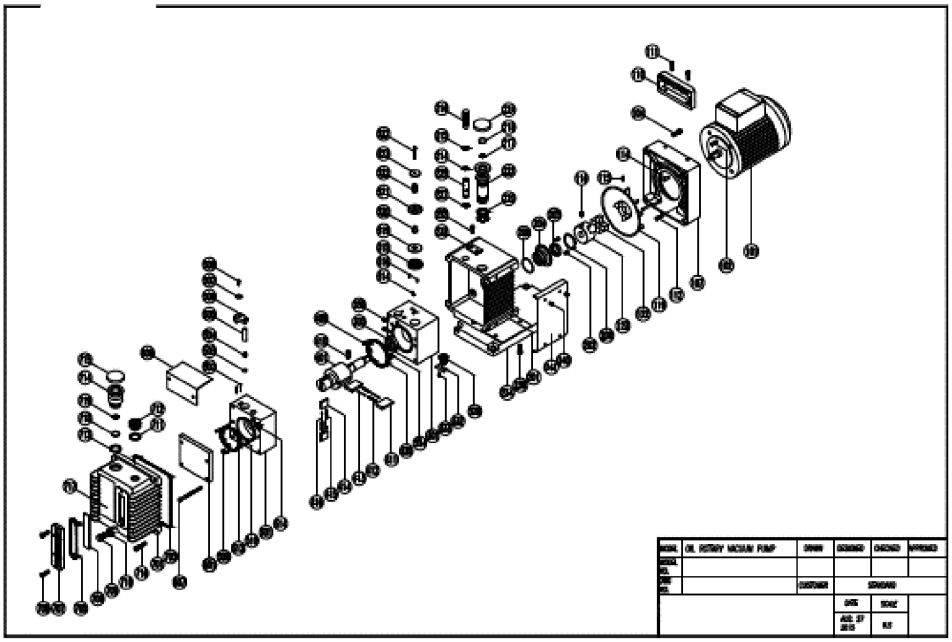
Applications	
Turbo Pump Backing	Lab Top Bench
Thin Film Coating	Gel Drying
Sputter & Deposition Systems	Distillation & Fractionation
Resin Degassing	Anesthetic Gas Extraction
Prosthetic Raw Material Degassing	…and more!
Vacuum Ovens & Furnaces	

Pump Weight

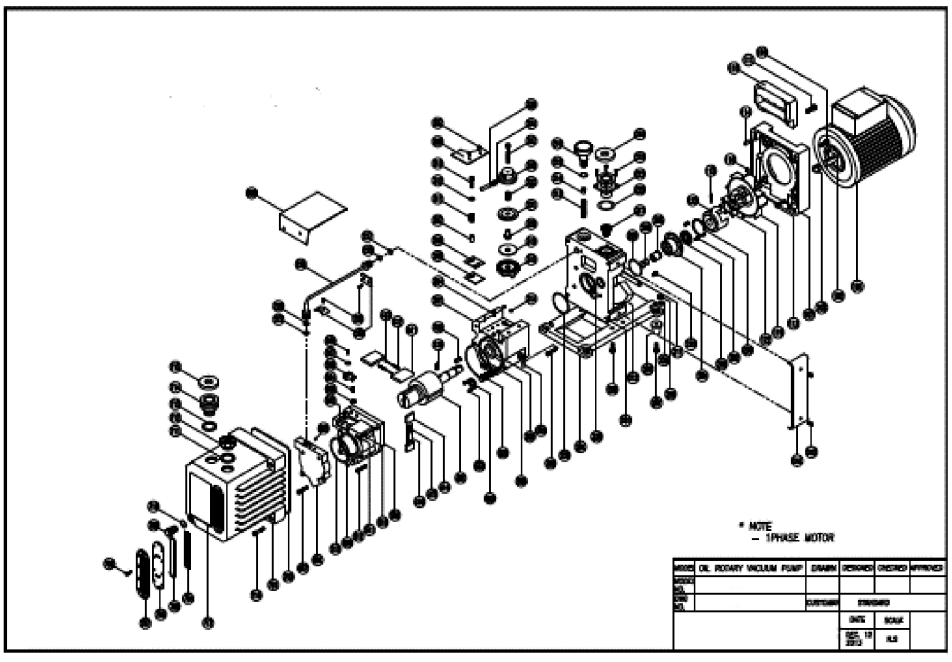
Series Name	Weight (Lbs.)
NTRV 5	31.3
NTRV 10	49.6
NTRV 20	51.4
NTRV 40	76.7
NTRV 60	(1ϕ) 117.9 (3ϕ) 110.5
NTRV 80	(1ϕ) 151.0 (3ϕ) 143.5
NTRV 100	(1ϕ) 181.2 (3ϕ) 173.7
NTRV 150	(3ϕ) 223.8
NTRV 180	(3ϕ) 223.8

Exploded Views / Reference Drawings

EXPLODED VIEW — NTRV-5

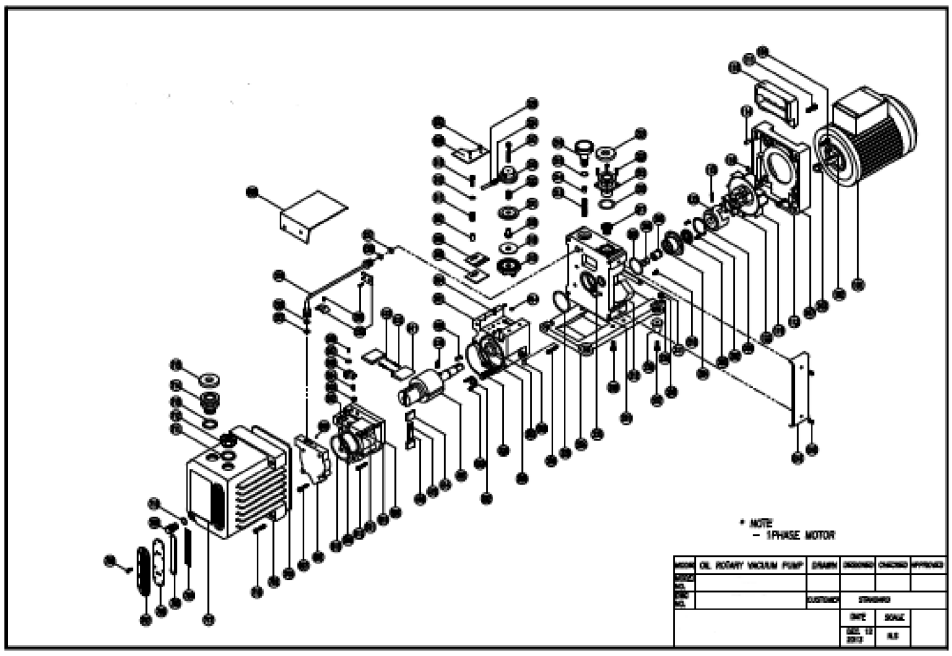


EXPLODED VIEW — NTRV-10

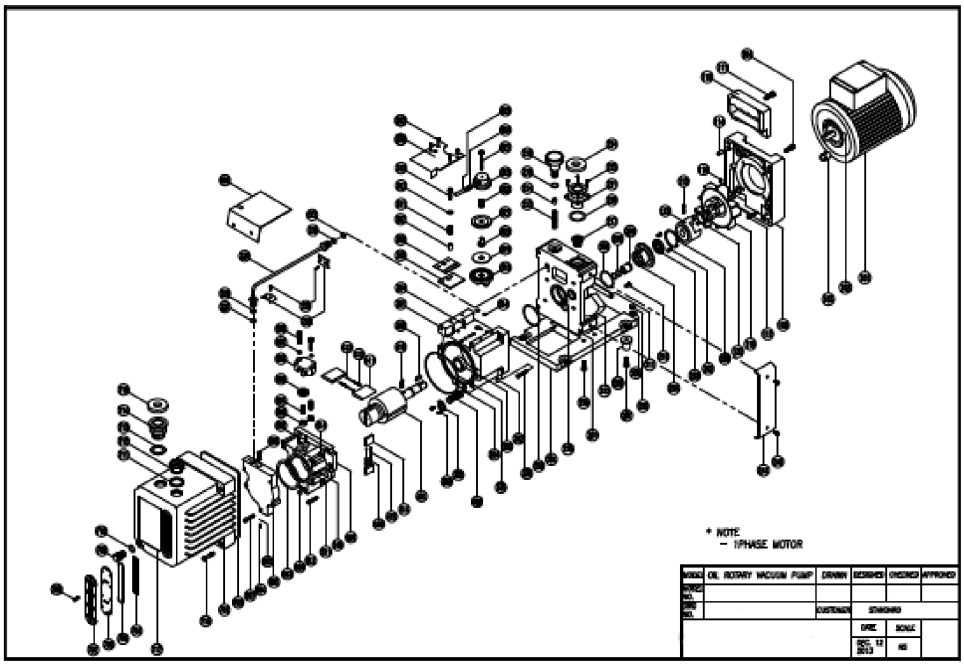


Exploded Views / Reference Drawings

EXPLODED VIEW — NTRV-20

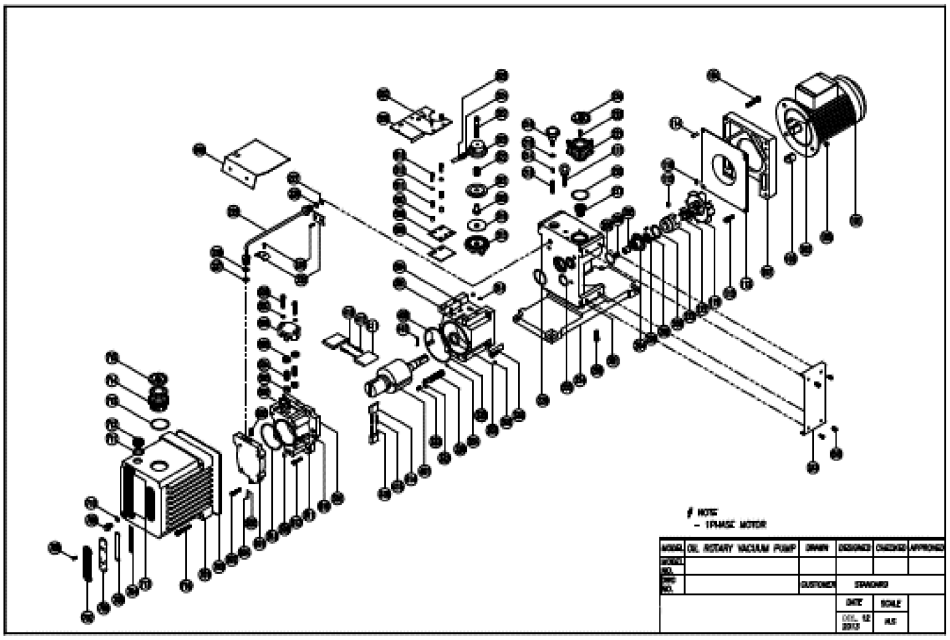


EXPLODED VIEW — NTRV-40

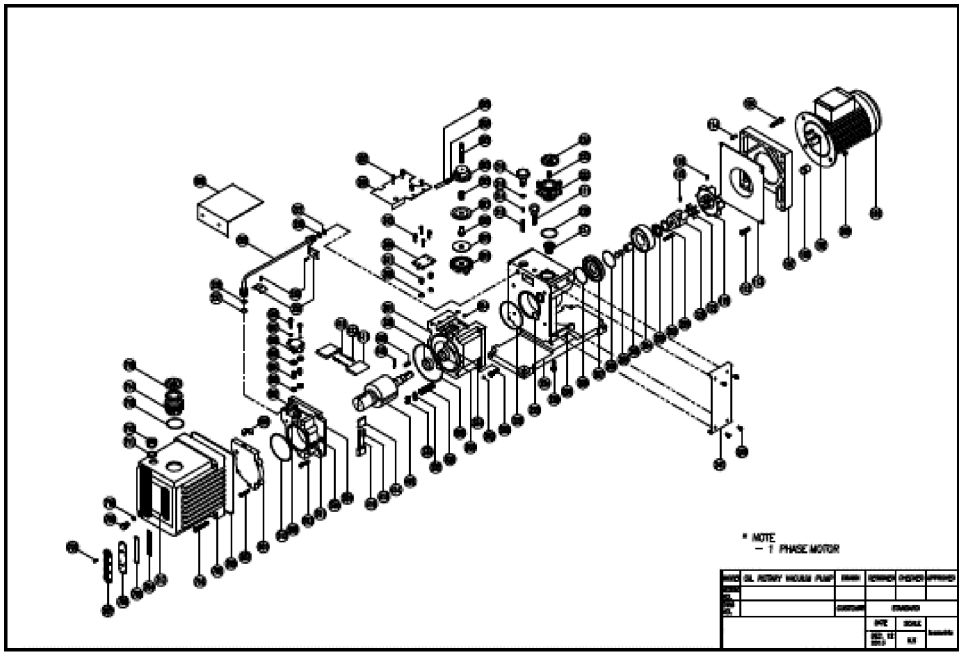


Exploded Views / Reference Drawings

EXPLODED VIEW — NTRV-60

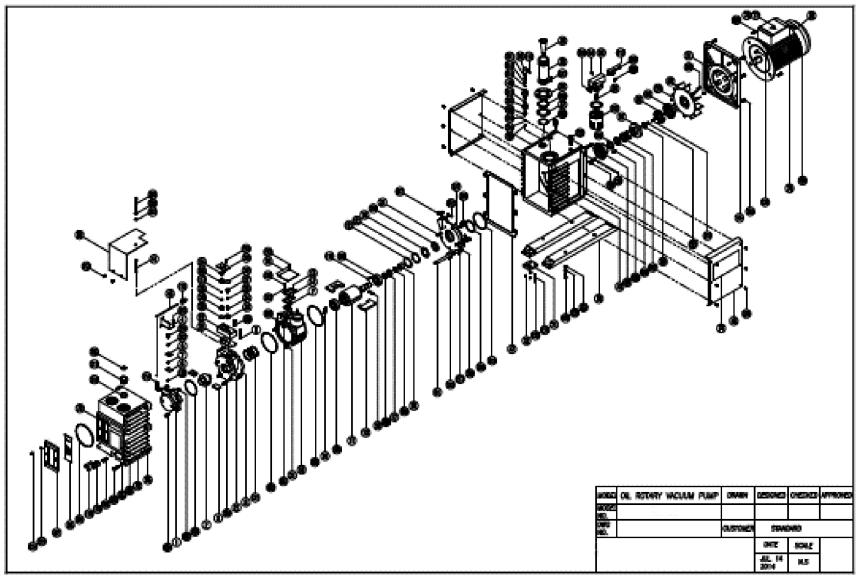


EXPLODED VIEW — NTRV-80

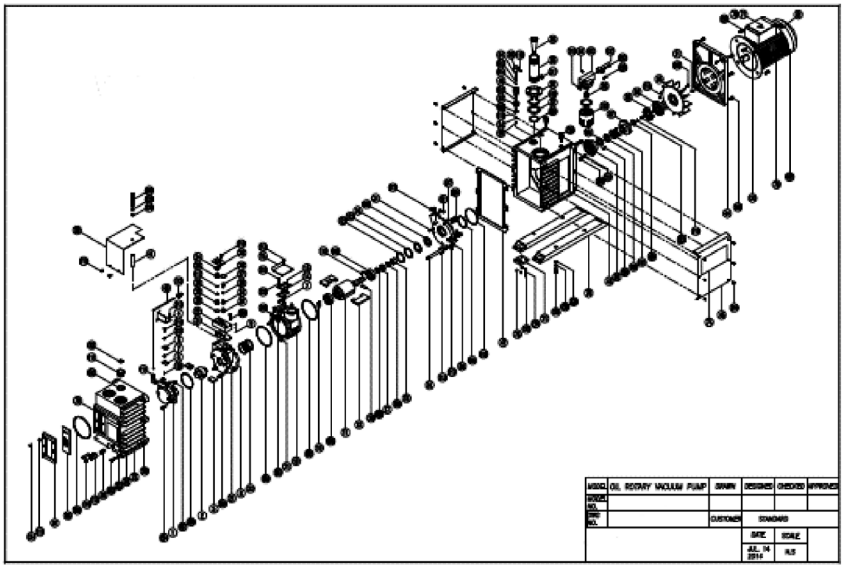


Exploded Views / Reference Drawings

EXPLODED VIEW — NTRV-100



EXPLODED VIEW — NTRV-180



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