

NTRV Series

Two Stage Oil Flooded Rotary Vane Liquid Ring Vacuum Pumps

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



Description: Two Stage Oil Flooded Rotary Vane Vacuum Pump

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Power Range: 0.16 - 5 HP

Capacity Range: 1.76 - 63.6 CFM

Ultimate Vacuum Pressure:

- NTRV 5: 3×10^{-3} torr
- NTRV 10-180: 1×10^{-3} torr

OVERVIEW

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.

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

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NES Company Inc. 333 Route 46 West, Building A, Fairfield, NJ 07004

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GENERAL TECHNICAL DATA

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	1700	0.16	1.76	1/60/220 1/60/110	5×10^{-2}	3×10^{-3}	0.21
NTRV 10	1700	0.5	3.53	1/60/220 3/60/220,380	5×10^{-3}	1×10^{-3}	0.53
NTRV 20	1700	0.5	7.06	1/60/220 1/60/110	5×10^{-3}	1×10^{-3}	0.63
NTRV 40	1700	0.5	14.1	1/60/220 3/60/220,380	5×10^{-3}	1×10^{-3}	1.59
NTRV 60	1700	2	21.2	3/60/220,380 1/60/220,380	5×10^{-3}	1×10^{-3}	2.43
NTRV 80	1700	2	28.3	3/60/220,380 1/60/220,380	5×10^{-3}	1×10^{-3}	2.85
NTRV 100	1700	5	35.3	3/60/220,380 1/60/220,380	5×10^{-3}	1×10^{-3}	4.76
NTRV 150	1700	5	53.0	3/60/220,380	5×10^{-3}	1×10^{-3}	6.55
NTRV 180	1700	5	63.6	3/60/220,380	5×10^{-3}	1×10^{-3}	6.55

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Application table

Applications

Turbo Pump Backing

Thin Film Coating

Sputter & Deposition Systems

Resin Degassing

Prosthetic Raw Material Degassing

Vacuum Ovens & Furnaces

Lab Top Bench

Gel Drying

Distillation & Fractionation

Anesthetic Gas Extraction

...and more!

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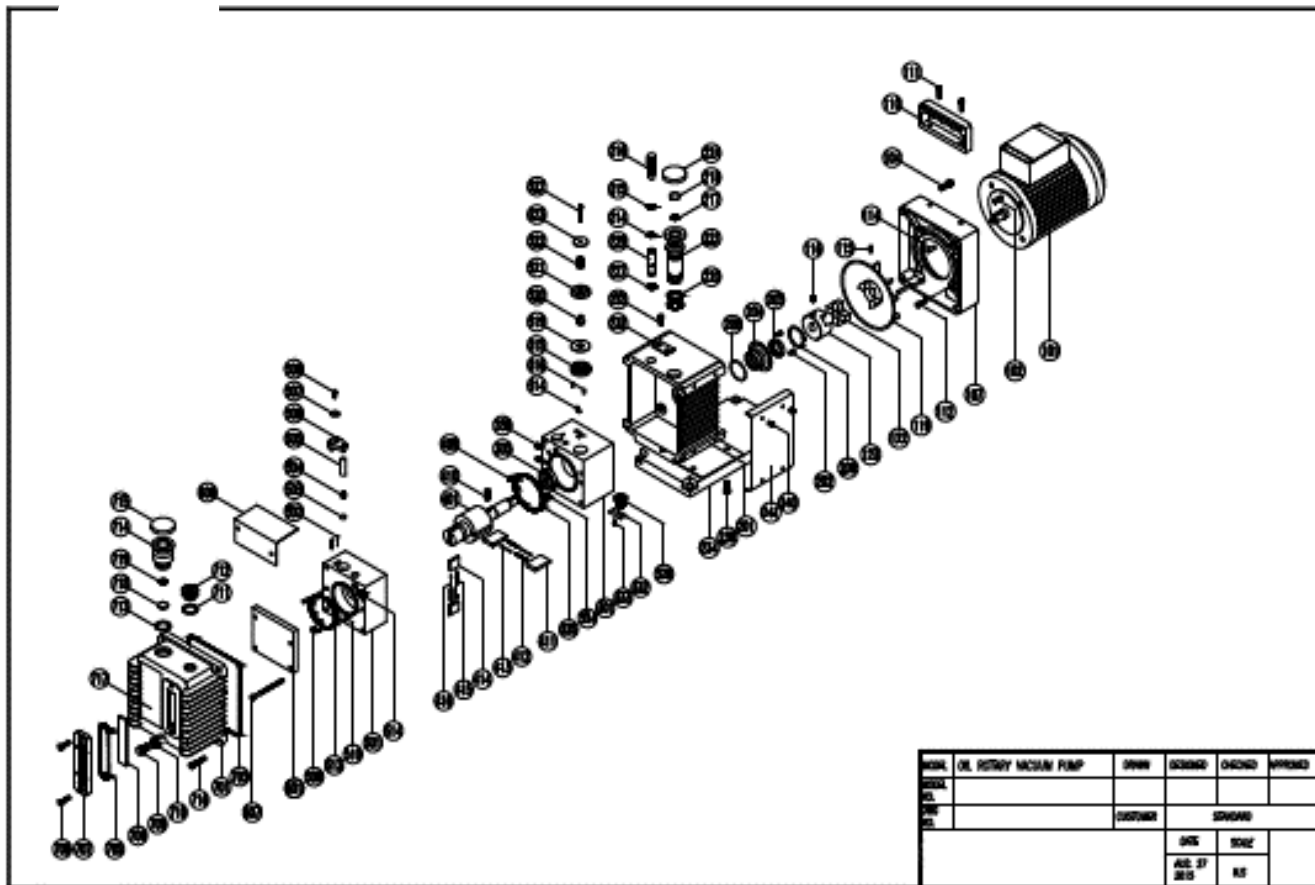
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Exploded View NTRV-5



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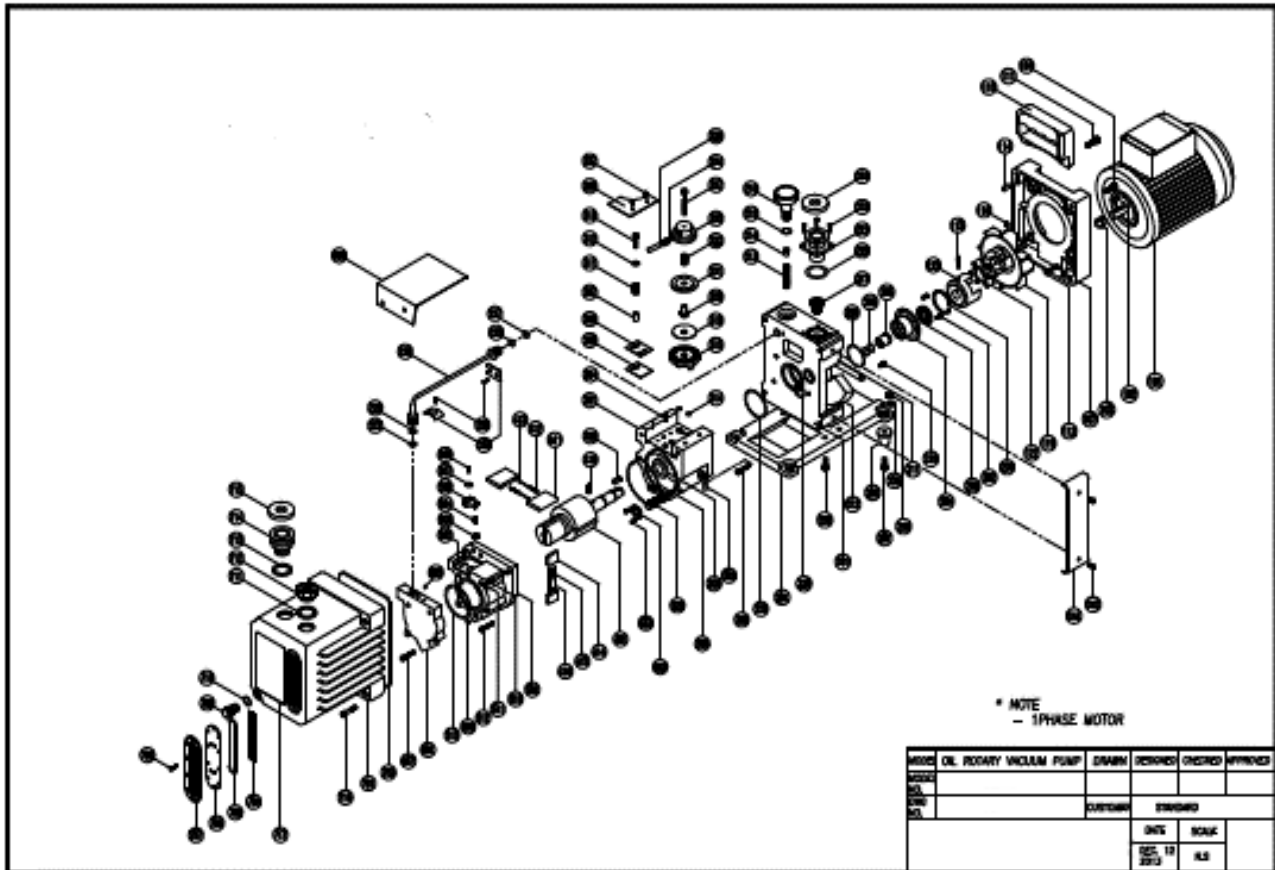
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Exploded View NTRV-10



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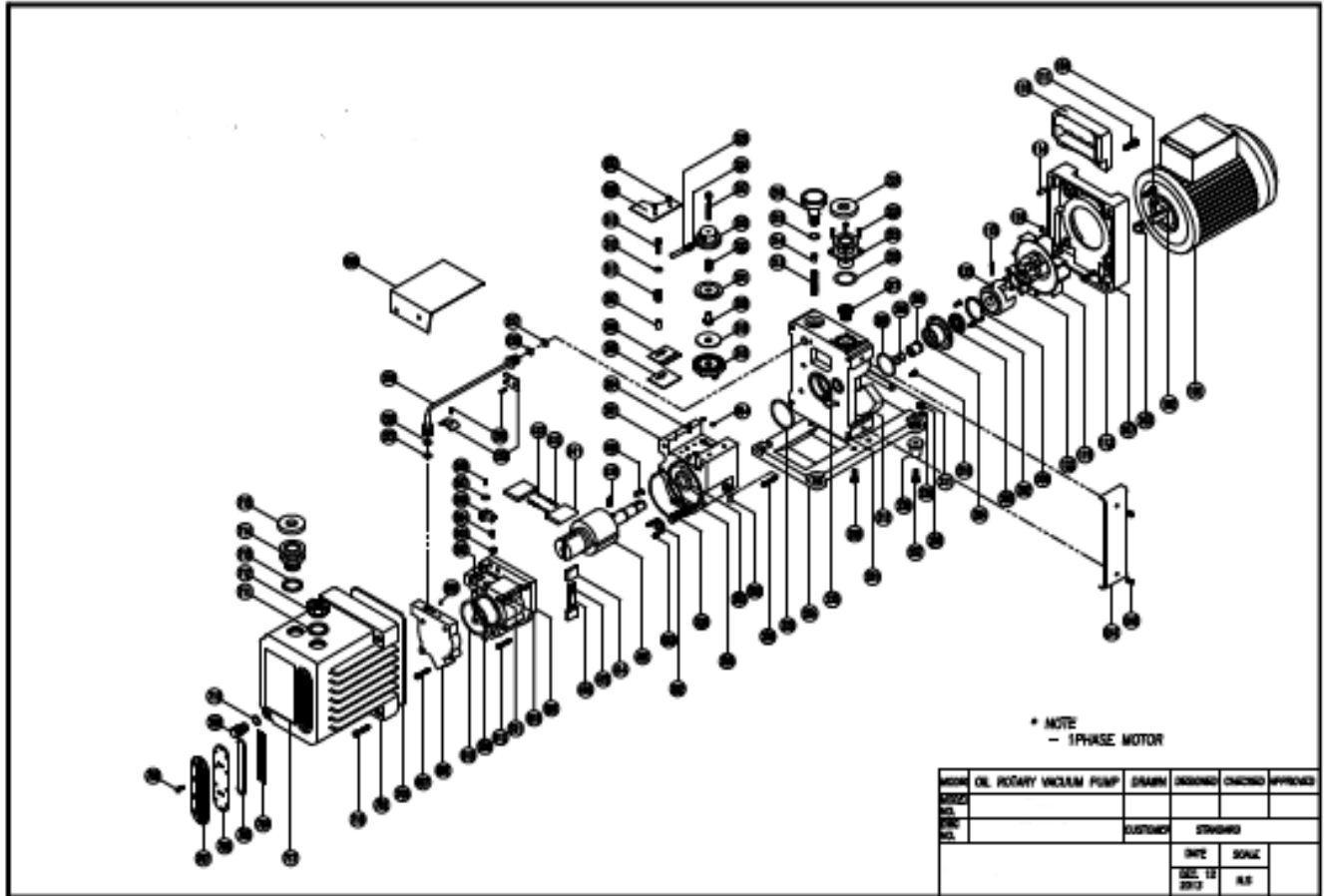
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Exploded View NTRV-20



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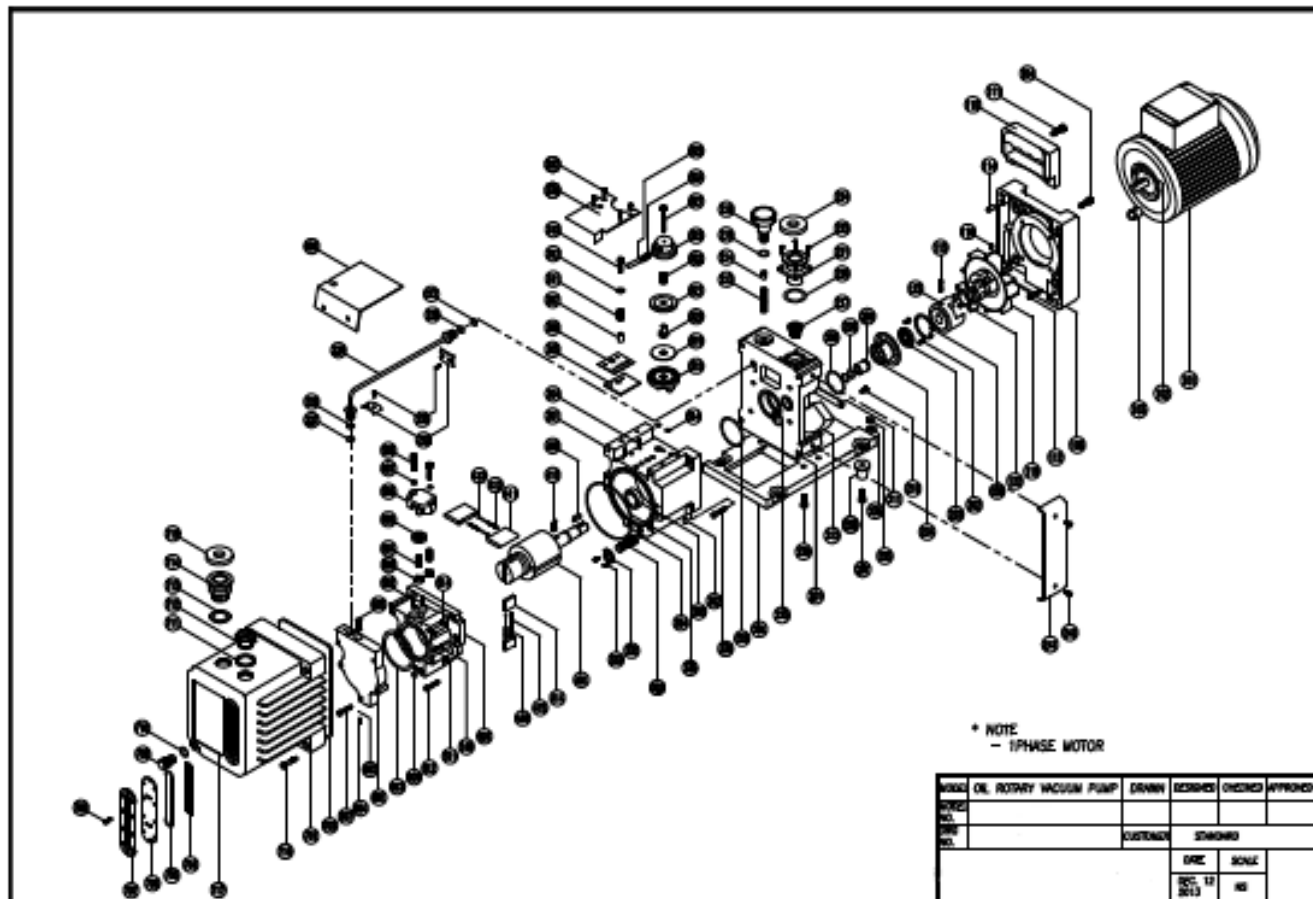
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Exploded View NTRV-40



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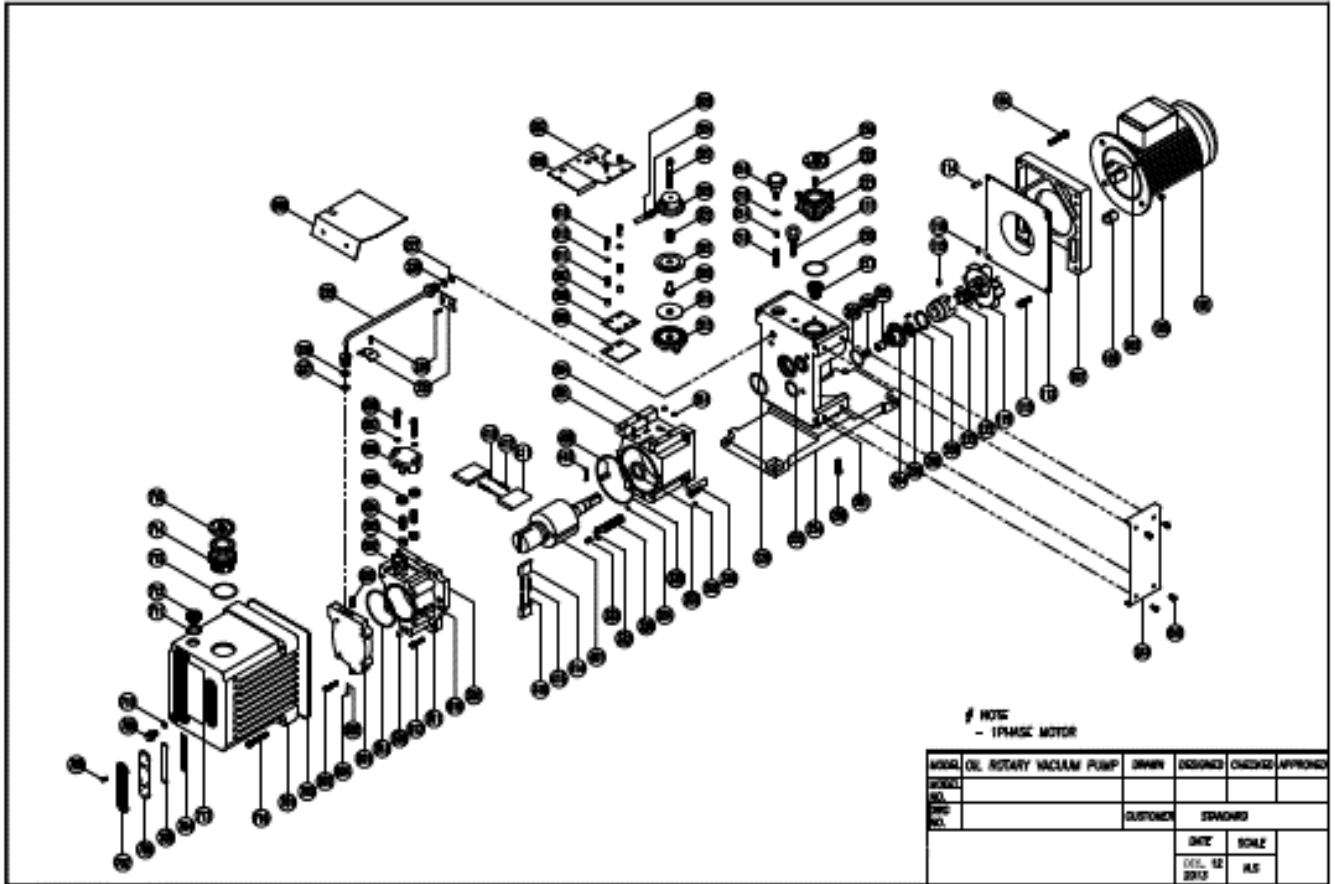
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Exploded View NTRV-60



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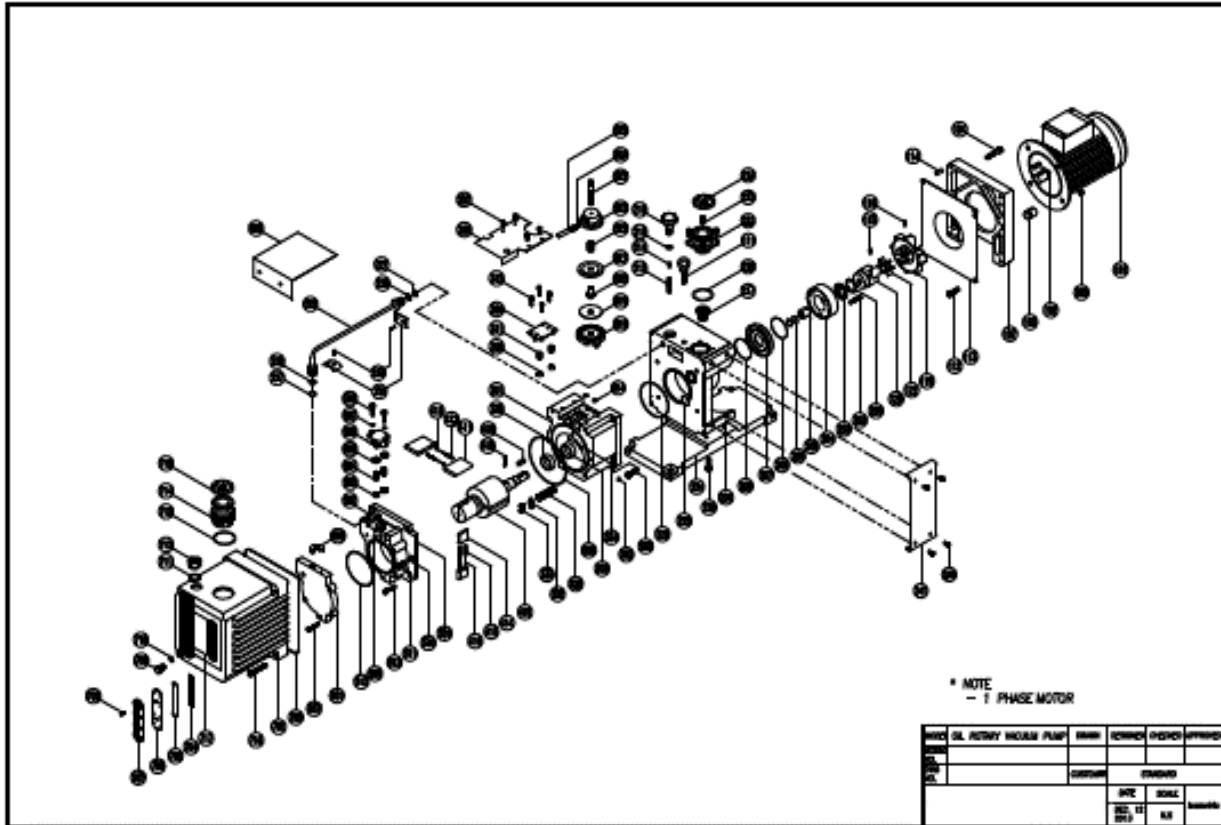
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Exploded View NTRV-80



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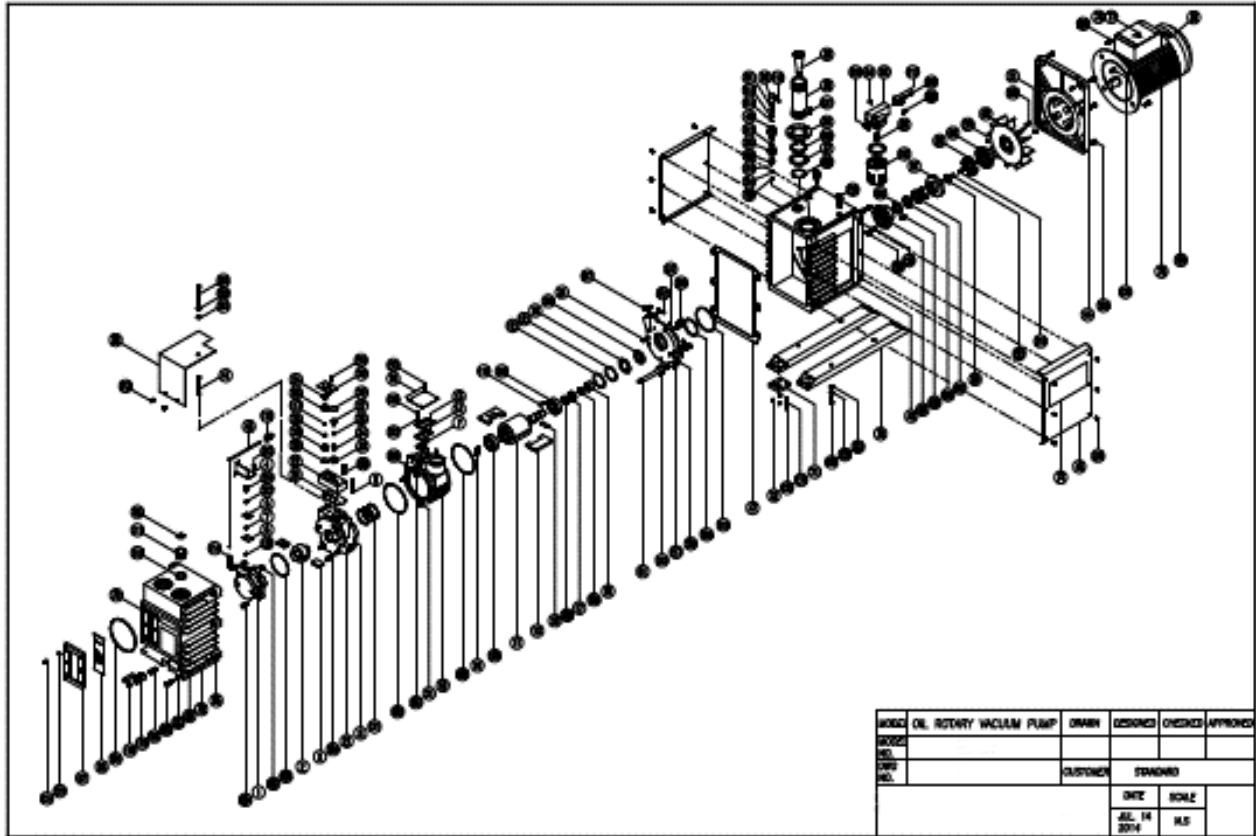
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Exploded View NTRV-100



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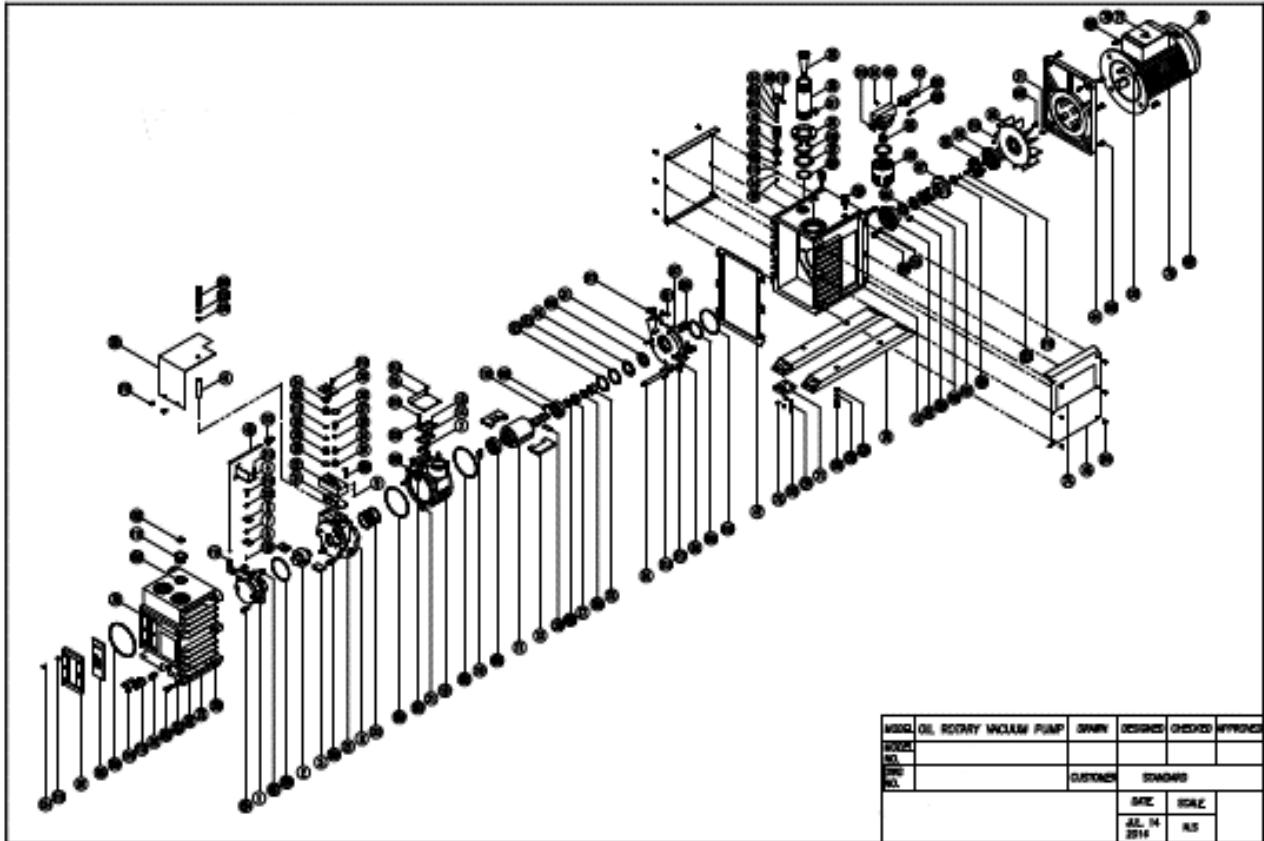
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Exploded View NTRV-180



MODEL	OIL	ROTARY	VACUUM	PUMP	OWNER	DESIGNED	CHECKED	APPROVED
					CUSTOMER	STANDARD		
						DATE	SCALE	
						ALL IN SIN	AS	

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Pump Weight

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

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