



Model N0150 pump shown with Kynar®-coated head.

Type: N0150, N0150.1.2 N0150.3

Diaphragm Vacuum Pump & Compressor

**Single or Twin-Head Design
OEM Installation Model
with 1Ø or 3Ø AC Motor**

Free-Flow Capacity (.1.2AN): 280 liters/minute (9.9 SCFM)
Maximum End Vacuum (.3AN): 29.3 in. Hg (15.7 Torr)
Maximum Continuous Pressure (all): 30 psig

Description

These diaphragm pumps are designed for efficient, uncontaminated evacuation, transfer and compression of air, gases and vapors. They are leaktight, suitable for handling both vacuum and pressure simultaneously, and are also available in KNF's double-diaphragm configuration for use when pumping valuable or dangerous gases.

Pump Features

- **Compact Performance** - These new pumps are approximately 35% smaller than earlier models of equivalent performance. The resulting flow and efficiency are increased along with improved reliability.
- **Handles Vacuum and Pressure** - Curves showing performance with a vacuum at the suction port and simultaneous pressure at the discharge port are available.
- **Flexible Design** - With KNF's Project Pump program, we can suggest a variety of modifications to meet your OEM design requirements, with possible cost savings.
- **Double Diaphragm System** - This pump is available in KNF's double-diaphragm configuration for increased safety and leaktightness when pumping valuable or dangerous gases.
- **Oil-Free, Contamination-Free Transfer** is possible because the diaphragm seals the pump chamber from the drive components. The pumped medium remains pure and system reliability is increased, as there are no sliding seals to wear away.
- **Heavy Duty Components** - The cast aluminum compressor housing is extremely rigid and stable for continuous performance. The pump is quiet and smooth running. The heavy-duty motor is equipped with sealed ball bearings to assure quiet, trouble-free operation.
- **Leaktight Construction** - Leak rate from $<6 \times 10^{-3}$ mbar lit./sec. (standard models) to $<6 \times 10^{-6}$ mbar lit./sec. (double-diaphragm (.12) models)
- **Variety of Materials & Accessories** - This pump is available in corrosion-resistant versions. Available accessories include noise & dust filters, hose connectors and shock mounts.

Applications

- Air/Gas Samplers
- Process Control Equipment
- Pneumatic Air Source
- Vapor Recovery
- Helium & Hydrogen Handling
- Analytical Instruments
- Liquid Degassing
- Vehicle Emission Analyzers
- Solvent Recovery
- Hydrocarbon Gas Handling

N0150, N0150.1.2, N0150.3

KNF Performance Specifications

| Model Number | Free-Flow | Max. End Vacuum | Max. Oper. Pressure | Net Weight |
|--------------|-------------------------|-------------------------|---------------------|---------------|
| N0150ANI | 150 lit/min. (5.3 SCFM) | 27 in. Hg (74.2 Torr) | 30 psig | 21.5 kg/50 lb |
| N0150.3ANI | 150 lit/min. (5.3 SCFM) | 29.3 in. Hg (15.7 Torr) | 30 psig | 28.5 kg/63 lb |
| N0150.1.2ANI | 280 lit/min. (9.9 SCFM) | 27 in. Hg (74.2 Torr) | 30 psig | 28.5 kg/63 lb |
| N0150ATI | 120 lit/min. (4.2 SCFM) | 26.5 in. Hg (86.9 Torr) | 30 psig | 21.5 kg/50 lb |
| N0150.3ATI | 120 lit/min. (4.2 SCFM) | 29.2 in. Hg (18.3 Torr) | 30 psig | 28.5 kg/63 lb |
| N0150.1.2ATI | 220 lit/min. (7.8 SCFM) | 26.5 in. Hg (86.9 Torr) | 30 psig | 28.5 kg/63 lb |
| N0150STI | 120 lit/min. (4.2 SCFM) | 26.5 in. Hg (86.9 Torr) | 30 psig | 25.5 kg/56 lb |
| N0150.3STI | 120 lit/min. (4.2 SCFM) | 29.2 in. Hg (18.3 Torr) | 30 psig | 36 kg/80 lb |
| N0150.1.2STI | 220 lit/min. (7.8 SCFM) | 26.5 in. Hg (86.9 Torr) | 30 psig | 36 kg/80 lb |

Electrical

| Motor Voltage, Frequency & Phase | 115 V (60 Hz) 1Ø | 230 V (60 Hz) 3Ø | 230 V (50 Hz) 1Ø | 230/400 V (50 Hz) 3 Ø |
|---|--|------------------|------------------|-----------------------|
| Full Load Motor Current (single head) | 9.2 Amps | 4.5 Amps | 3.3 Amps | 4.8/2.7 Amps |
| Full Load Motor Current (.1.2 & .3 heads) | 8.0 Amps | 3.5 Amps | 4.2 Amps | 4.8/2.7 Amps |
| Motor Types Available | Permanent Split-Capacitor 1Ø AC or 3Ø AC | | | |
| Motor Protection | Thermal Reset (IP 54) | | | |

Environmental

| | |
|---------------------------|--|
| Leak Rate | <6 x 10 ⁻³ mbar lit/sec. (<6 x 10 ⁻⁶ mbar lit/sec. models are available) |
| Ambient Temperature Range | +5°C to +40°C / +40°F to +104°F |
| Medium Temperature Range | +5°C to +40°C / +40°F to +104°F |

Materials of Construction

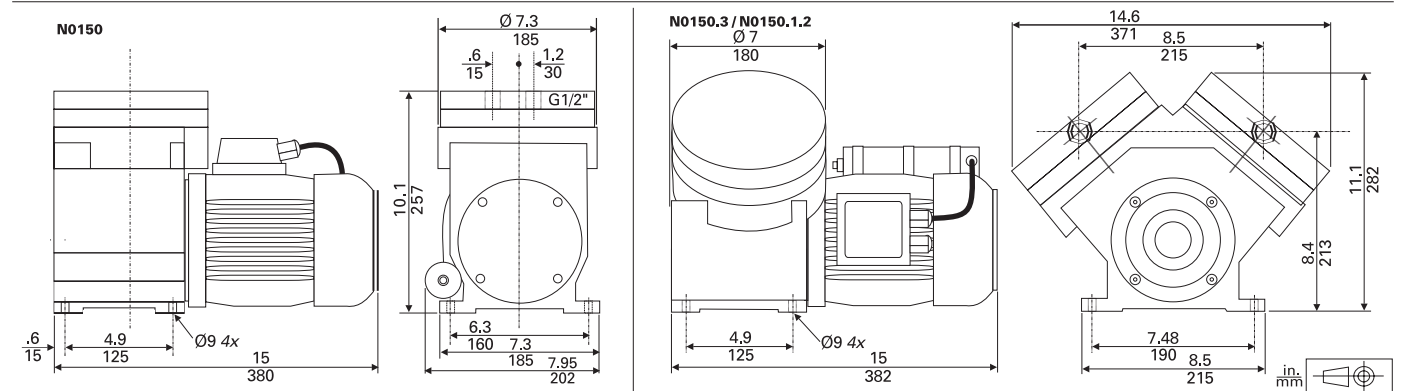
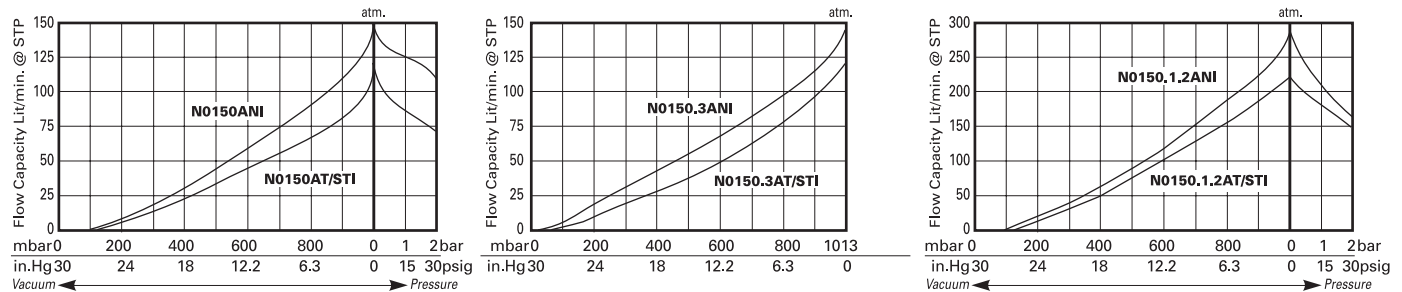
| Type | Head | Diaphragm | Valves |
|-----------|---------------------|-------------|---------------------|
| AN models | Aluminum | Neoprene | 316 Stainless Steel |
| AT models | Aluminum | PTFE-coated | 316 Stainless Steel |
| ST models | 316 Stainless Steel | PTFE-coated | 316 Stainless Steel |

Notes: Standard continuous performance ratings, based on technical data and test results of nominal units at sea level with an ambient temperature of 70° F (21° C) and nominal electrical supply, are listed above. Dimensions and performance characteristics given are for reference only. Higher performance models, cost efficient OEM modifications, a wide variety of motor options and different materials of construction are available. Viton® is a registered trademarks of DuPont Dow Elastomers, L.L.C. Ryton® is a registered trademark of the Phillips 66 Company. Specifications subject to change without notice.



Accessories/Options: Double-diaphragm system (.12), hose connectors, noise & dust filters, shock mounts

Performance Characteristics/Outline Dimensions:



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