



**Model NDT300.23AA with available shock mounts.**

## Types: ND300, ND1.300 NDT300, NDT1.300

### Liquid Diaphragm Pump

#### Single and Twin-Head OEM Installation Models with AC or DC Motor

Max. Flow Rate per Head: 3 liter/min. (47 GPH)  
Max. Suction Head/Vacuum: 10 ft. H<sub>2</sub>O (9 in. Hg)  
Max. Continuous Pressure Head: 130 ft. H<sub>2</sub>O (60 psig)

#### Description

KNF's ND series of corrosion-resistant pumps are self-priming, can pump air, gases, liquids and slurries, and simultaneously create a vacuum. Cavitation is negligible. They feature a unique one-piece Teflon® coated molded diaphragm that eliminates the need for a clamping disk. They are capable of pumping highly aggressive and abrasive liquids without attack to the pump or contamination of the medium. A wide choice of wetted materials are available, including PEEK, PVDF and PTFE for maximum contamination-free transfer. Access to valves for occasional cleaning is quick and easy and requires no special tools.

#### ND Pump Features

- **KNF Modular Construction** - Selecting the pump you need has never been easier. OEM models are available in a variety of wetted materials, motor enclosures, motor types including brushless DC, and other voltages and frequencies. KNF's Project Pump program permits us to make a variety of inexpensive modifications to match your design requirements, rather than force a compromise with a standard product.
- **Fixed Flow Model (.23)** - Our basic design, this pump is available at any fixed flow up to the maximum rated flow.
- **Adjustable Over Pressure Relief Model (.27)** - Fully integrated into the pump, this feature senses a pressure buildup at the outlet port and allows liquid to recirculate through an internal bypass passage, preventing system damage. Adjustable from 20-60 PSIG.
- **Adjustable Flow Model** - Provides an external control to vary the flow rate. An adjustable resonant chamber in the pump head uses kinetic energy of the liquid to regulate the flow. Changing the volume of the chamber causes a change in the pump's flow rate.
- **Twin-Head OEM Models** - We will mount a choice of any two pump heads on the same motor shaft to pump two separate liquids or connect them in parallel for more flow.
- **Portable Models for the Laboratory** - Self-priming, these pumps are a convenient way to transfer, dose or circulate corrosive liquids. Enclosed in a stainless cabinet, they are equipped with a switch, cord set and rubber feet, and are available in 1 and 3 LPM models.
- **Variety of Accessories** - Available accessories include a variety of hose connectors, diaphragm pressure control valves, check valves and shock mounts. Contact KNF applications department for details.

#### Applications

- Transfer of Corrosive Liquids
- Electrophoresis Analyzers
- Water Sampling & Treatment
- Blood Analyzer Waste Removal
- Industrial Washing Machines
- Probe, Pipette & Plate Washers
- Blood Protein Analyzers
- pH Measuring Equipment
- Film/Photo Processing
- Ink Jet Printers
- Chemical Mechanical Planarization
- Filtration Units

# ND300, ND1.300

## KNF Performance Specifications

Model Number	ND300KTE	NDT300KTE	ND1.300KTDC	NDT1.300KTDC
Head Configuration	Single Head	Twin Head	Single Head	Twin Head
Maximum Flow per Head	3 lit/min. (47 GPH)		3 lit/min. (47 GPH)	
Maximum Suction Head	9 in. Hg / 10 ft H <sub>2</sub> O / 3 mWg		9 in. Hg / 10 ft H <sub>2</sub> O / 3 mWg	
Maximum Cont. Pressure Head	15 psig / 33 ft. H <sub>2</sub> O / 10 mWg		60 psig / 130 ft H <sub>2</sub> O / 40 mWg	

## Standard Model Numbers

Adjustable-flow Head	ND300KTE	NDT300KTE	ND1.300KT	NDT1.300KT
Fixed-flow Head	ND300KT.23	NDT300KT.23	ND1.300KT.23	NDT1.300KT.23
Adj. Overpressure Relief Head	ND300KT.27	NDT300KT.27	ND1.300KT.27	NDT1.300KT.27
Portable Models (With Stainless Steel Cabinet) Add Suffix P (eg. ND300KTP)				

## Electrical

(Brushless DC motors available on a project basis)

Motor Voltage & Frequency	115 VAC (60 Hz)	230 VAC (50 Hz)	6 / 12 / 24 VDC
Full Load Motor Current	2.1 Amps	0.65 Amps	4 / 2 / 1 Amps
Motor Type	Shaded Pole	Shaded Pole	Permanent Magnet Brush Type
Motor Protection	Thermal Reset	Thermal Reset	None

## Environmental

(Models available for medium temperatures to +135°C)

Maximum Ambient Temperature	40°C (105°F)
Maximum Medium Temperature Range	-10°C to +80°C (+14°F to +176°F)

## Materials of Construction

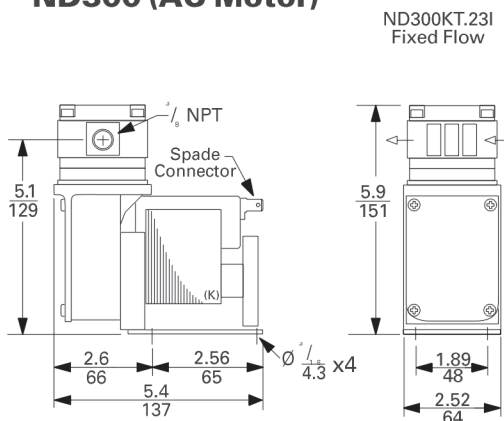
Standard Model Number	Head	Valves	O-Rings/Seals	Diaphragm
ND300KTE, ND300KTP	Polypropylene	PTFE	Viton®	PTFE
ND300KTSE*, ND300KTSP*	Polypropylene	PTFE & Stainless Steel	Viton®	PTFE
ND300TTE, ND300TTP	PVDF	PTFE	PTFE	PTFE
ND300TTSE*, ND300TTSP*	PVDF	PTFE & Stainless Steel	PTFE	PTFE

**Notes:** \*KTS, TTS suction height is 75% of KT, TT model ratings. Standard continuous performance ratings listed above are per head and are based on technical data and test results of nominal units at sea level with water at 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 including brushless DC, and different materials of construction are available. Teflon® is a registered trademark of DuPont. Viton® is a registered trademark of DuPont Dow. Specifications subject to change without notice.

**Accessories:** Hose Connectors, Diaphragm Pressure Control Valves, Check Valves, Shock Mounts

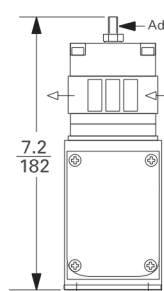
## Performance Characteristics/Outline Dimensions:

### ND300 (AC Motor)

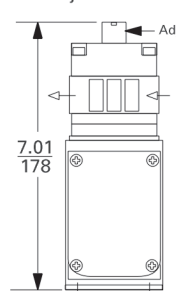


ND300KT.231  
Fixed Flow

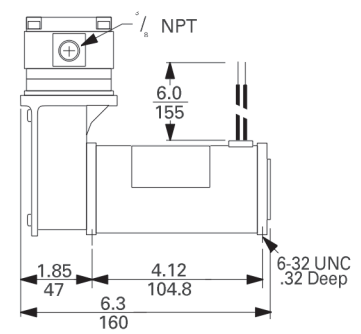
ND300KT.271  
Over Pressure Relief



ND300KT1  
Adjustable Flow



### ND300 (DC Motor)



in.  
mm

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