

A-100NE Series Pumps

Chemical Metering Pumps for Water and Wastewater treatment



Description

The A-100NE Chemical Metering Pumps are loaded with features that make them the ideal choice for a variety of water, wastewater, and industrial chemical metering applications. The pumps can easily handle higher viscosity liquids up to 5,000 cps, as well as liquids with up to a 50% solids content.

Low Maintenance Design

The A-100NE's low maintenance peristaltic pump is designed to be naturally clog resistant and self priming – even against the maximum rated line pressure. The pump has a de-gassing design which eliminates gas or air accumulation and also prevents vapor lock or losing its priming, so no bypass system is required. Built to last, each A-100NE pump is housed in a weatherproof NEMA 3R housing and has a continuous duty motor with advanced cooling to ensure a long service life.

User Friendly Touch Pad and Display

The user friendly touch pad and bright LCD display make the A-100NE easy to operate with service and alarm indicator icons, motor speed or input signal values, and a prime mode for quick priming without program changes. The pumps have four operating modes including manual on time per cycle adjustment, pulse input batching, 4-20mA on time per cycle adjustment, and 0-10VDC on time per cycle adjustment. The repeating interval on time cycle timer is programmable in seconds, minutes, hours, and days, resulting in a near infinite turndown ratio. The 4-20mA on time per cycle adjustment mode allows the pumps to have their timing cycle adjusted via a 4-20mA input signal. The digital interval timer allows you to set up a high frequency of small injections per minute.

Pump Failure Detection System

These pumps include an exclusive Tube Failure

Detection system (TFD), which senses chemical in the pump head, shuts off the pump and activates an alarm relay (dry contact closure). The TFD system is able to detect a wide range of chemicals (ie. chlorine, acids, soaps, etc.). The TFD will disregard pump compatible fluids; such as water and lubricants. The activated alarm relay permits communications with external equipment, such as an alarm or a SCADA system. The pumps are also compatible with the output flow verification sensor system which can shut down the pump and alert you if chemical stops flowing for any reason.

Specifications

Max. Working Pressure	100 psig (6.9 bar)
Max. Fluid Temperature	130°F (54°C)
Max. Ambient Temperature	14 to 115°F (-10 to 46.1°C)
Output Adjustment Range	Adjustable 0.1 to 99 seconds
Duty Cycle	Continuous
Maximum Viscosity	5,000 Centipoise
Maximum Suction Lift	30 ft water, 0 psig
Maximum Solids	50% by volume
Enclosure	NEMA type 3R, (IP23)
Shipping Weight (Approx.)	10 lbs (4.5 kg)
Dimensions	6-1/4 x 10 x 9-1/4" (158.7 x 254 x 235mm)

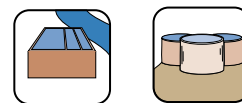
Materials

Pump Head & Enclosure	Valox (PBT) thermoplastic
Pump Head Cover	Clear PVC
Cover Screws	300 stainless w/polypropylene cap
Roller Assembly	Rotor: Valox (PBT) Rollers: Nylon Roller Bearings: Bronze Motor Shaft: Nickel plated steel
TFD System Sensor Pins	Hastelloy C-276
Pump Tubing	Norpene
Tube Connection Fittings	PVDF
Suction Tubing	Clear PVC
Suction Strainer	Natural Polypropylene
Discharge Tubing	Natural Polyethylene (LLDPE)
Injection/Check Valve Assembly	Body & insert: Polypropylene (optional PVDF) Check Ball: Ceramic Spring: Hastelloy C-276 Ball Seat O-ring: TFE/P Static Seal O-ring: Viton

Features

- Auto-detects tube failure
- Self priming
- Programmable repeating interval on-time cycle timer
- Digital interval timer for high frequency of small injections per minute

Applications



Ideal for a variety of water, wastewater, and industrial chemical metering applications.

Ordering & Options

A-100NE 115 VAC/60 Hz Models

Order No.	Max GPD ¹	Max PSI ²	Tube OD (inch)
A1N10E-4T	4.9	100	1/4
A1N20E-4T	8.0	100	1/4
A1N10E-6T	16.0	100	3/8
A1N20E-6T	24.0	100	3/8
A1N10E-7T	52.5	50	7/16
A1N30E-7T	95.1	50	7/16

A-100NE 220 VAC/50 Hz Models

Order No.	Max ¹ ml/min	Max BAR ²	Tube OD (cm)
A1N11E-4T	13	6.9	0.635
A1N21E-4T	21	6.9	0.635
A1N11E-6T	42	6.9	0.953
A1N21E-6T	63	6.9	0.953
A1N11E-7T	138	3.4	1.11
A1N31E-7T	250	3.4	1.11

1) Maximum liquid output at zero backpressure.

2) Maximum pressure output.

Replacement Pump Tubes

Order No.	Pump Suffix	Tube OD
A-002N-4T	-4T	1/4" (0.635 cm)
A-002N-6T	-6T	3/8" (0.953 cm)
A-002N-7T	-7T	7/16" (1.11 cm)

Replacement Parts

Order No.	Description
A-014N-6A	Injection/Check Valve Assembly for 3/8 in (0.953 cm) OD tubing
C-340A	Strainer/Foot Valve Assembly for 1/4 in (0.635 cm) or 3/8 in (0.953 cm) OD tubing



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