

FLEX-PRO A3

Tube Failure Detection**Feed Rates to 33.3 GPH @ 125 PSI****Automated PPM Dosing System****Brushless DC Motor****NEMA 4X (IP 66) Washdown****2 Year Warranty****NEMA 4X** **CE**

Exclusive:



Patents: 4,496,295 7,001,153 and other patents pending

Applications:

- Chemical
- Wastewater treatment
- Chlorination
- Pulp & Paper Slurries
- Printing inks
- Oil based fluids
- Gaseous fluids
- Shear sensitive fluids
- Caustics
- Chemical Slurries
- Food and Beverage

Features:

- Peristaltic pump design does not have valves that can clog requiring maintenance.
- Self priming - even against maximum line pressure. By-pass valves are not required. Cannot vapor lock or lose prime.
- Output rates to: 33.3 GPH (126 LPH) @ 125 PSI (8.6 Bar).
- Output volume is not effected by changes in back pressure.
- No maintenance brushless variable speed motor.
- Specially engineered tubing for long life at high pressures.
- Two pump tubes supplied with each pump. No extra tubing required.
- Inputs include: 4-20mA, 0-10Vdc, and Pulse inputs for external speed control and 0-30 VDC contact closure remote start/stop.
- Operator friendly digital touch pad with menu driven software.
- VGA Graphic backlit LCD displays motor speed, input signal values, service and alarm status.
- Outputs include: Scalable 4-20mA and pulse, One 10 amp relay and three 30 VDC contact closures assignable to monitor TFD, FVS, motor on, operating mode error.
- Two CNC machined squeeze rollers and two alignment rollers for optimum squeeze, unparalled accuracy, and tube life.
- Heavy duty rotor - single piece rotor design means no flexing and increased accuracy (no springs or hinges).
- Pump can handle same maximum PSI in either direction (clockwise and counter clockwise).
- Motor reverse feature to increase tube life.
- Patented Tube Failure Detection (TFD) system. Senses tube failure by detecting chemical in the pump head.

Specifications:**Maximum working pressure:**

125 psig (8.6 bar)

Maximum Fluid temperature:

130° F (54° C)

Operating Temperature

14°F to 115°F (-10°C to 46°C)

Storage Temperature

-40°F to 158°F (-40°C to 70°C)

Operating Voltage (Model Specific):

115VAC/60Hz, 1ph (2 Amp)

230VAC/60Hz, 1ph (1.1 Amp)

220VAC/50Hz, 1ph (1.1Amp)

Power Cord Plug Type (Model Specific):

115V60Hz = NEMA 5/15 (USA)

230V60Hz = NEMA 6/15 (USA)

220V50Hz = CEE 7/VII (EU)

Accuracy:

+/- 0.5% of flow

Repeatability +/- 0.5%

Duty cycle:

Continuous

Output adjustment range:

1-100% in 0.1% increments

Maximum viscosity:

5,000 Centipoise

Maximum suction lift:

30 ft. Water, 0 psig (4.5 m, 0 bar)

Display

VGA backlit LCD, UV resistant.

Display Languages

English, Spanish, French or German selectable.

Keypad

Ten button positive action tactile switch keypad.

Security

Programmable 4-digit password.

Enclosure:

NEMA 4X (IP66), Powder coated aluminum.

Dimensions: 8.00W x 10.50H x 14.63D inches (203W x 267H x 371D mm)

Approximate shipping wt:

30 lb. (13.5 Kg)

Materials of Construction:**Wetted components:****Pump Tube Assembly (Model Specific):**

Tubing:Norprene® or Tygothane®

Adapter fittings:PVDF

Ancillary Items:**Suction Tubing:**

3/8" OD x 1/4" ID x 10 feet Clear PVC

Discharge Tubing:

3/8" OD x 1/4" ID x 10 feet Natural Polyethylene (LLDPE)

Suction Strainer:

Polypropylene

Injection/Check valve:

Body & insert:PVDF

Check Ball:Ceramic

Spring:Hastelloy C-276

Ball Seat O-ring:Viton® (optional EP)

Static Seal O-ring:Viton® (optional EP)

Duckbill anti-scale valve: ..Santoprene®

Included Items:

Two pump tube assemblies (one pre-installed), tube installation tool, suction tube strainer, ceramic tubing weight, 3/8" OD Suction tube 10 feet (3.05 m), 3/8" OD discharge tube 10 feet (3.05 m), injection fitting/quill with check valve, foot valve, and mounting brackets.

Non-Wetted components:**Enclosure:**

413 Aluminum (powder coated)

Pump Head:

Valox® (PBT) thermoplastic

Pump Head Cover:

Clear Acrylic - Annealed for added strength and chemical resistance.

Permanently lubricated sealed motor shaft support ball bearing.

Brass shaft support bearing retainer.

Cover Screws:

Stainless Steel

Roller Assembly:

Rotor:Valox® (PBT)

Rollers:Nylon

Roller Bearings:SS Ball Bearings

Motor Shaft:

Chrome plated steel

TFD System Sensor pins:

Hastelloy C-276

Power Cord:

3 conductor, SJTW-A Water-resistant

Series Comparison:

| Feature | A3F Series | A3V Series |
|---|------------|------------|
| TFD (Tube Failure Detection) System Alarm | • | • |
| FVS (Flow Verification System) Alarm * | • | • |
| Motor Reverse (Rotor Reversible) | • | • |
| Tube Life Timer | • | • |
| Output: One 10 Amp Alarm Relay | • | • |
| Output & Input: Programmable 4-20mA Signal | | • |
| Output & Input: Programmable Frequency Signal | | • |
| Output: Three 30VDC Assignable Contact Closures | | • |
| Input: One Contact Closure (remote start / stop) | • | • |
| Display in English, Spanish, German, French | | • |
| Password Protection | | • |
| Display % of motor speed | • | • |
| Display units: ml/min, oz/min, L/hr, Gal/hr, Gal/day, RPM | | • |
| Automated PPM Chemical Dosing | | • |
| Menu Driven Software | | • |
| Operating Modes: | | |
| Manual Adjust Only (speed adjustment) | • | • |
| 4-20 mA Input Signal | | • |
| 0-10 VDC Input Signal | | • |
| High Speed Frequency Input | | • |
| Pulse Triggered Batch Dispensing | | • |
| Manually Triggered Batch Dispensing | | • |
| Repeating Time Cycle | | • |
| Fixed Speed Parts per Million Dosing | | • |
| Proportional Input PPM Dosing | | • |

* Requires Micro-Flo Sensor sold separately

Norprene® A3 Tube Pumps | Maximum 125 PSIG (8.6 bar)

Meets FDA criteria for food | Superior chemical resistance

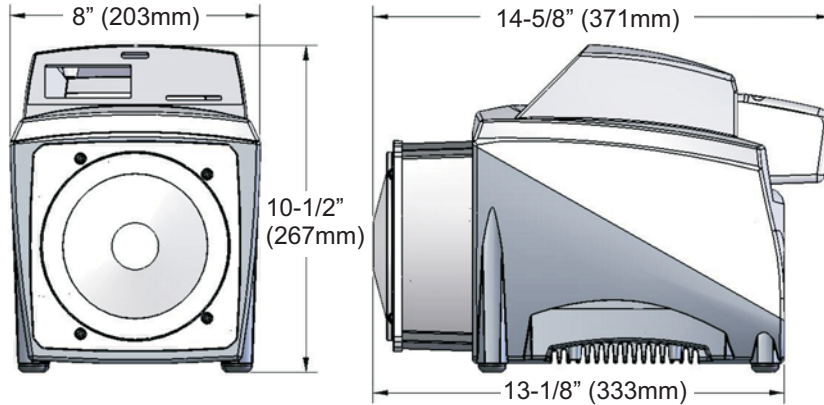
| Feed Rate | | | Max Speed | A3F Model Numbers | | | A3V Model Numbers | | |
|------------|-------------|----------------|-----------|-------------------|-----------|-----------|-------------------|-----------|-----------|
| GPH | LPH | ML/Min | RPM | 115V AC | 230V AC | 220V AC | 115V AC | 230V AC | 220V AC |
| .01 - 1.0 | .03 - 3.9 | .63 - 63.1 | 62 | A3F14-SND | A3F15-SND | A3F16-SND | A3V14-SND | A3V15-SND | A3V16-SND |
| .02 - 2.1 | .07 - 7.8 | 1.32 - 132.5 | 125 | A3F24-SND | A3F25-SND | A3F26-SND | A3V24-SND | A3V25-SND | A3V26-SND |
| .04 - 4.0 | .15 - 15.0 | 2.52 - 252.4 | 62 | A3F14-SNF | A3F15-SNF | A3F16-SNF | A3V14-SNF | A3V15-SNF | A3V16-SNF |
| .07 - 7.9 | .30 - 30.0 | 4.98 - 498.4 | 125 | A3F24-SNF | A3F25-SNF | A3F26-SNF | A3V24-SNF | A3V25-SNF | A3V26-SNF |
| .09 - 9.0 | .34 - 34.1 | 5.67 - 567.8 | 62 | A3F14-SNH | A3F15-SNH | A3F16-SNH | A3V14-SNH | A3V15-SNH | A3V16-SNH |
| .12 - 12.7 | .48 - 48.0 | 8.01 - 801.2 | 62 | A3F14-SNJ | A3F15-SNJ | A3F16-SNJ | A3V14-SNJ | A3V15-SNJ | A3V16-SNJ |
| .16 - 16.6 | .63 - 63.0 | 10.47 - 1047.3 | 62 | A3F14-SNK | A3F15-SNK | A3F16-SNK | A3V14-SNK | A3V15-SNK | A3V16-SNK |
| .17 - 17.4 | .66 - 66.0 | 10.97 - 1097.8 | 125 | A3F24-SNH | A3F25-SNH | A3F26-SNH | A3V24-SNH | A3V25-SNH | A3V26-SNH |
| .25 - 25.3 | .96 - 96.0 | 15.96 - 1596.2 | 125 | A3F24-SNJ | A3F25-SNJ | A3F26-SNJ | A3V24-SNJ | A3V25-SNJ | A3V26-SNJ |
| .33 - 33.3 | 1.2 - 126.0 | 21.00 - 2100.9 | 125 | A3F24-SNK | A3F25-SNK | A3F26-SNK | A3V24-SNK | A3V25-SNK | A3V26-SNK |

Tygothane® A3 Tube Pumps | Maximum 65 PSIG (4/5 bar)

Meets FDA criteria for food | Resistant to oils, greases and fuels

| Feed Rate | | | Max Speed | A3F Model Numbers | | | A3V Model Numbers | | |
|------------|------------|----------------|-----------|-------------------|-----------|-----------|-------------------|-----------|-----------|
| GPH | LPH | ML/Min | RPM | 115V AC | 230V AC | 220V AC | 115V AC | 230V AC | 220V AC |
| .02 - 2.4 | .09 - 9.0 | 1.51 - 151.41 | 62 | A3F14-SGE | A3F15-SGE | A3F16-SGE | A3V14-SGE | A3V15-SGE | A3V16-SGE |
| .04 - 4.6 | .17 - 17.4 | 2.90 - 290.2 | 125 | A3F24-SGE | A3F25-SGE | A3F26-SGE | A3V24-SGE | A3V25-SGE | A3V26-SGE |
| .05 - 5.0 | .18 - 18.9 | 3.15 - 315.45 | 62 | A3F14-SGG | A3F15-SGG | A3F16-SGG | A3V14-SGG | A3V15-SGG | A3V16-SGG |
| .10 - 10.1 | .38 - 38.4 | 6.37 - 637.2 | 125 | A3F24-SGG | A3F25-SGG | A3F26-SGG | A3V24-SGG | A3V25-SGG | A3V26-SGG |
| .12 - 12.0 | .45 - 45.6 | 7.57 - 757.1 | 62 | A3F14-SGH | A3F15-SGH | A3F16-SGH | A3V14-SGH | A3V15-SGH | A3V16-SGH |
| .24 - 24.9 | .94 - 94.2 | 15.70 - 1570.9 | 125 | A3F24-SGH | A3F25-SGH | A3F26-SGH | A3V24-SGH | A3V25-SGH | A3V26-SGH |

Engineering and Technical Data



Model Number Matrix:

| A3 Model Number | |
|---|---|
| A3 | Flex-Pro A3 Peristaltic Metering Pump |
| Series | |
| F | Single manual output control mode (manual control) |
| V | Multiple automatic input output control and alarm modes (remote control) |
| Maximum Motor Speed | |
| 1 | 62 RPM (maximum rotor rotation speed) |
| 2 | 125 RPM (maximum rotor rotation speed) |
| Power Cord (operating voltage requirement 96VAC to 264VAC) | |
| 4 | 115V / 60Hz, power cord NEMA 5/15 plug (US) |
| 5 | 230V / 60Hz, power cord NEMA 6/15 plug (US) |
| 6 | 220V / 50HZ, power cord NEMA 7/VII plug (EU) |
| Pump Tube Size, Material, Connection Type | |
| SND | .075 ID Norprene [®] tube, Natural PVDF (Kynar [®]) 3/8" OD compression fit tube connection |
| SNF | .155 ID Norprene [®] tube, Natural PVDF (Kynar [®]) 3/8" OD compression fit tube connection |
| SNH | .250 ID Norprene [®] tube, Natural PVDF (Kynar [®]) 3/8" OD compression fit tube connection |
| SNJ | .312 ID Norprene [®] tube, Natural PVDF (Kynar [®]) 3/8" OD compression fit tube connection |
| SNK | .375 ID Norprene [®] tube, Natural PVDF (Kynar [®]) 3/8" OD compression fit tube connection |
| SGE | .125 ID Tygothane [®] tube, Natural PVDF (Kynar [®]) 3/8" OD compression fit tube connection |
| SGG | .187 ID Tygothane [®] tube, Natural PVDF (Kynar [®]) 3/8" OD compression fit tube connection |
| SGH | .250 ID Tygothane [®] tube, Natural PVDF (Kynar [®]) 3/8" OD compression fit tube connection |
| Options (leave this blank for standard model) | |
| 1 | TI40-6V Threadless injection check valve, replaces A-104NK-6A threaded check valve |
| 2 | C340A Foot valve, replaces standard C-342 inlet strainer (no check valve) |
| R | Right facing pump head, input / output (Left facing fluid input / output is standard) |
| D | Down facing pump head, input / output (Left facing fluid input / output is standard) |
| A3 | V |
| 1 | 4 |
| - | SNH |
| Sample Model Number | |