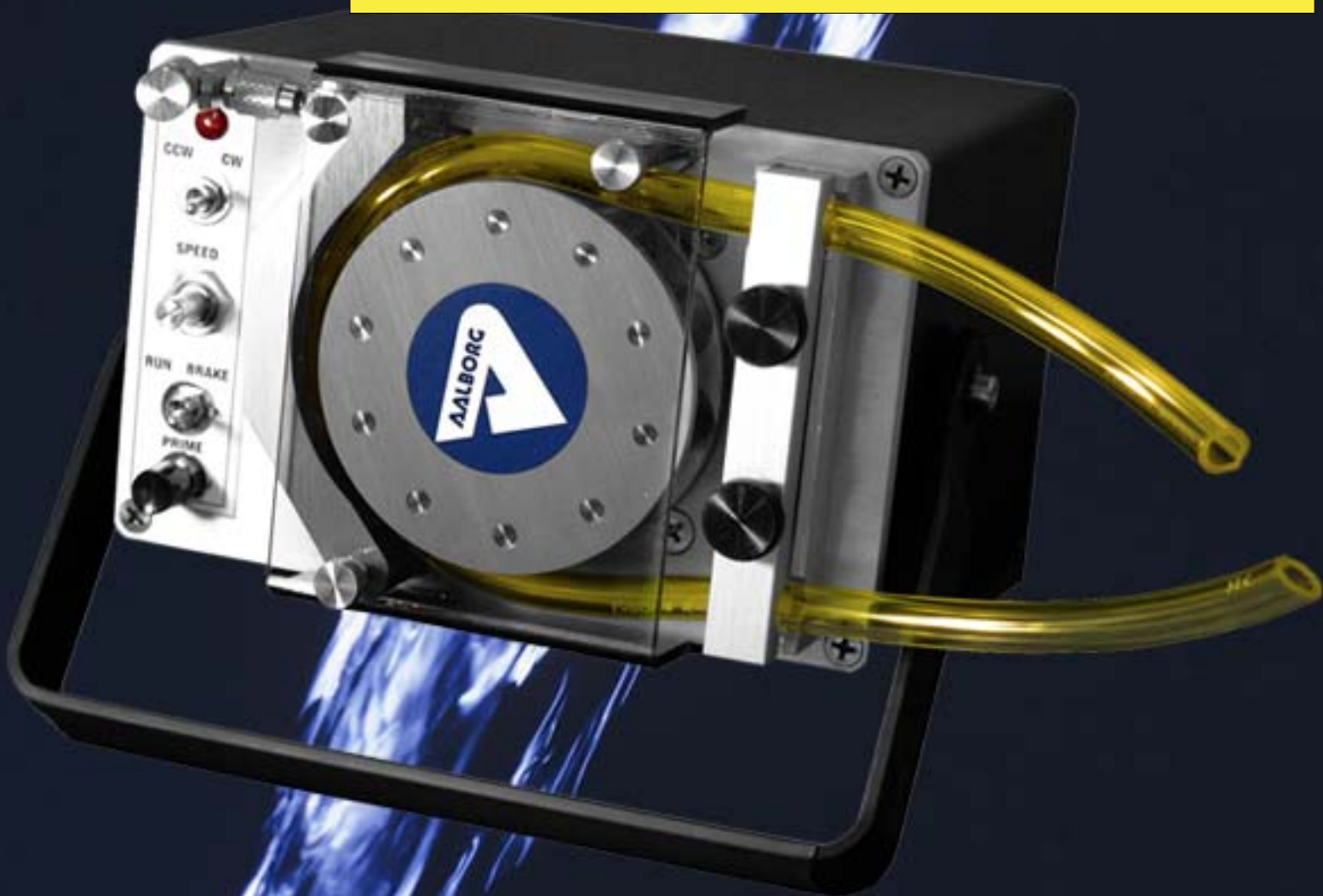
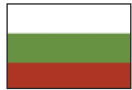


# AALBORG

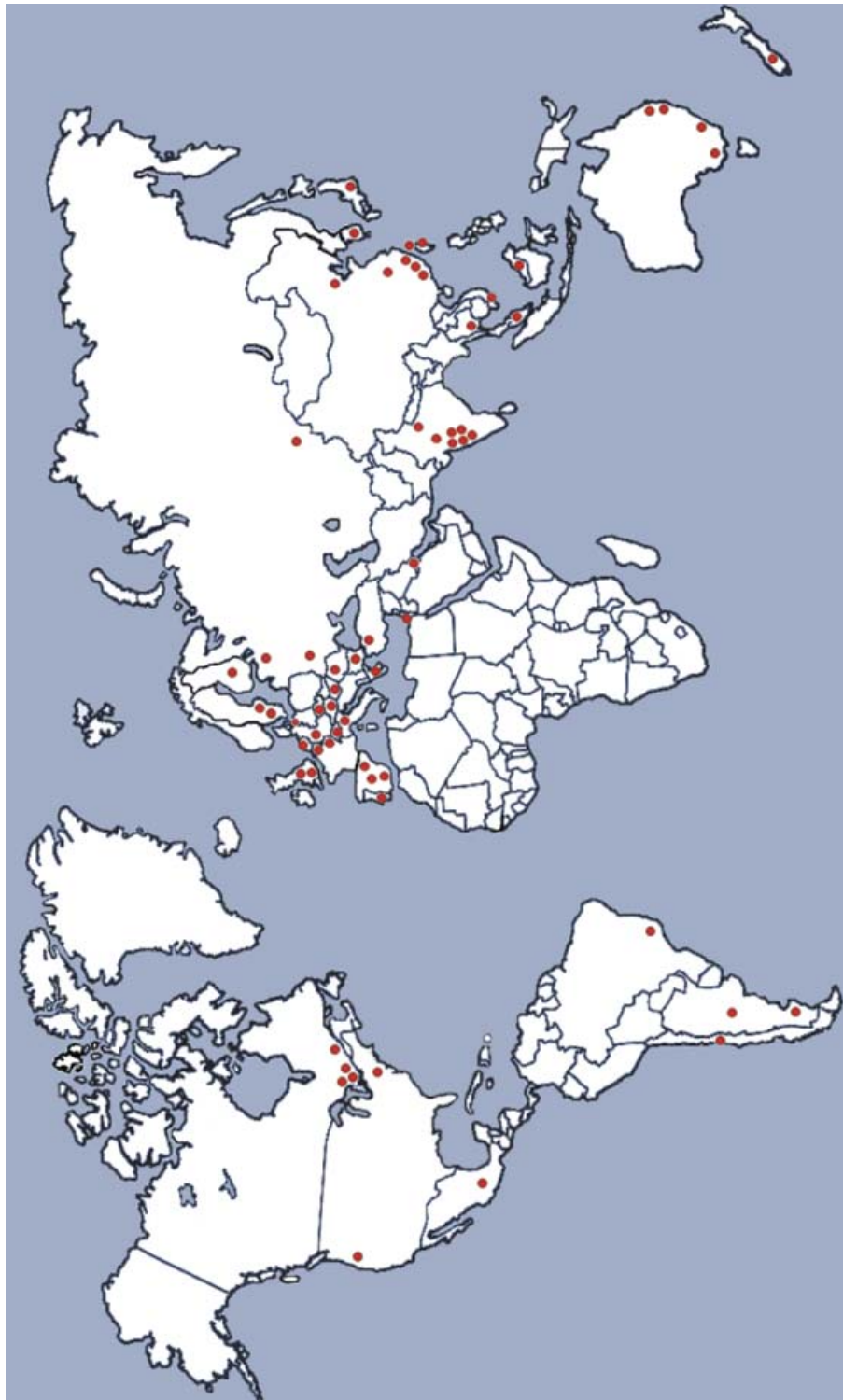
Астана +7(77172)727-132 Волгоград (844)278-03-48 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89  
Казань (843)206-01-48 Краснодар (861)203-40-90 Красноярск (391)204-63-61 Москва (495)268-04-70  
Нижний Новгород (831)429-08-12 Новосибирск (383)227-86-73 Ростов-на-Дону (863)308-18-15  
Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Уфа (347)229-48-12  
Единый адрес: alg@nt-rt.ru Веб-сайт: aalborg.nt-rt.ru



# pumps



# Worldwide Distribution



Visit our web site at: [www.aalborg.com](http://www.aalborg.com)





## About the Company

Founded in 1972, AALBORG® is well-known throughout the world as a primary manufacturer of precision instrumentation for flow measurement and control.

### We operate two divisions:

**The Electronics Division** produces a line of Peristaltic Pumps, Thermal Mass Flow Controllers, Vortex Shedding Flow Meters, Proportioning Solenoid and Motor driven control valves.

**The Variable Area Division** manufactures a complete line of glass tube rotameters. These flow meters are available with aluminum, brass, stainless steel or PTFE wetted components. AALBORG® also manufactures a unique line of PFA tube meters for ultrapure or corrosive applications. Precision barstock stainless steel or brass needle valves, as well as PTFE valves, are also manufactured in this division.

## NIST Traceable

NIST traceable flow meter calibrations are performed in our state of the art laboratories.

## Technical Assistance

Technical Assistance is readily available. Customers are invited to contact the company or our distributors to discuss individual requirements. OEM applications are welcome.

## ISO9001 /2008 Certification

AALBORG® has been ISO 9001 certified since April of 1995. We are very proud of the design features and the exceptionally high quality for which our products which have been known since 1972. It is our policy that through strict enforcement of exacting manufacturing standards the AALBORG® brand name continues to be associated with a reputation of high quality and reliability. Our products are backed by meticulous innovative engineering combined with efficient manufacturing practices and a highly skilled work force guaranteeing total customer satisfaction.

## Our Mission

It is the policy of AALBORG® to develop, produce and deliver products and services which consistently conform to or exceed customer requirements.

Our commitment is to provide cutting-edge technology combined with a sincere desire to serve our customers and produce the highest quality products attainable.

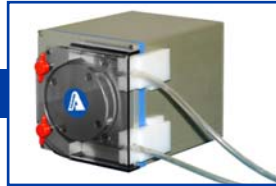
# Table of Contents

**GENERAL DESCRIPTION / PRINCIPLES OF OPERATION**

**Page 1**

## **TPT**

**TPT MODEL**



**Page 2**

## **TPU**

**TPUFX MODEL**



**TPU SPECIFICATIONS**

**Page 4**

**TPUAD MODEL**



**Page 5**

**Page 6**

**TPUDP MODEL**



**Page 7**

**TPURP MODEL**



**Page 8**

**TPU PUMP HEADS**



**Page 12**

## **TPV**

**TPVAD MODELS**



**TPV SPECIFICATIONS**

**Page 17**

**TPVDP MODELS**



**Page 21**

**Page 22**

**TPVRP MODELS**



**Page 23**

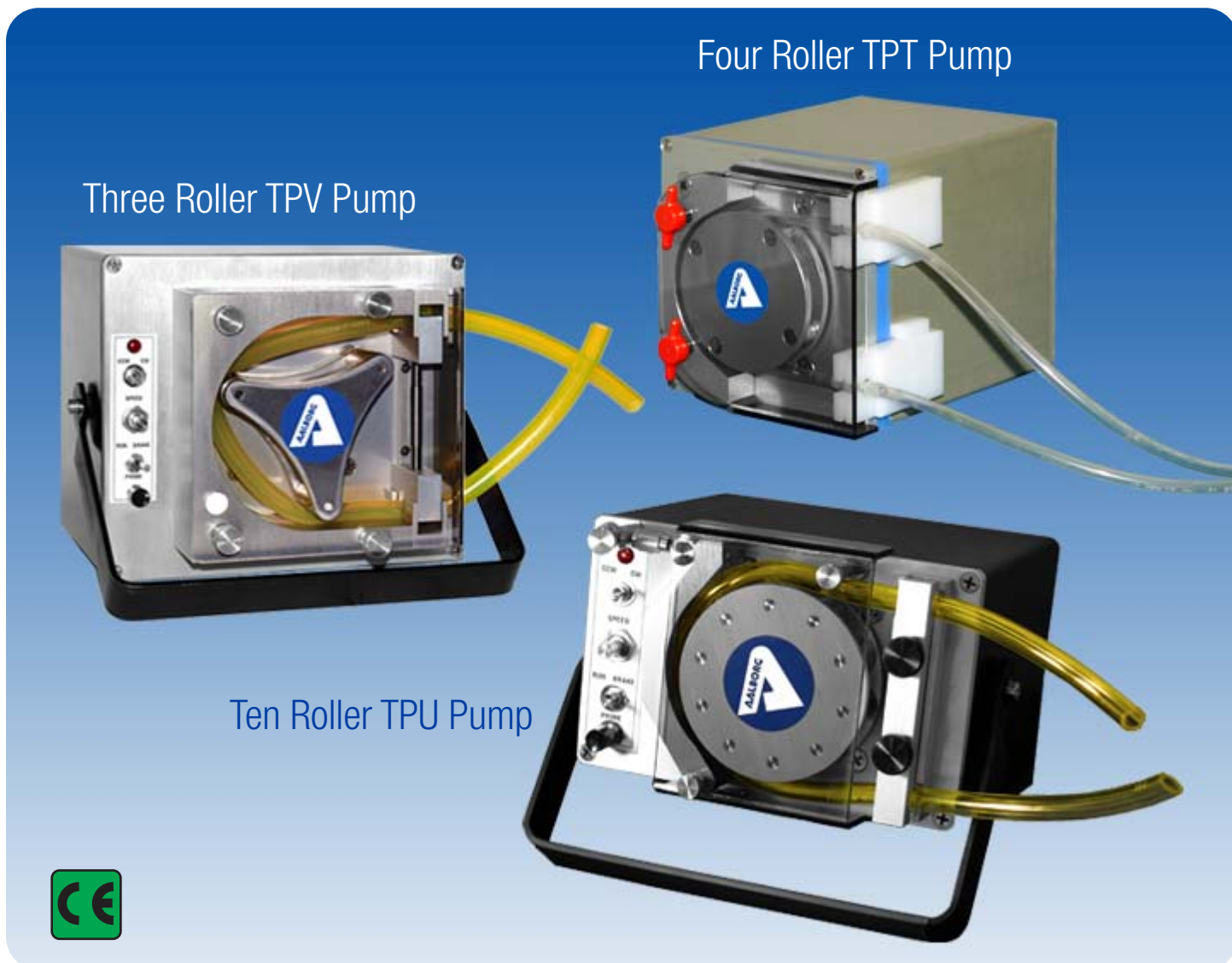
**TPV PUMP HEADS**



**Page 24**

**FLEXIBLE TUBING**

**Page 27**



### General Description

Aalborg's TPT, TPU and TPV model peristaltic pumps are designed for safety and long tubing life. They are economical, easy to load, sturdy, and compact with small footprints. Designed for use with liquids of widely diverse viscosities, they are suitable for laboratory, processing, and OEM applications, including fuel with the appropriate tubing. Power supplies for all pumps (except TPUFX) need to be ordered separately. For power supply part numbers please consult the Accessories tables on pages 3, 15 and 26.

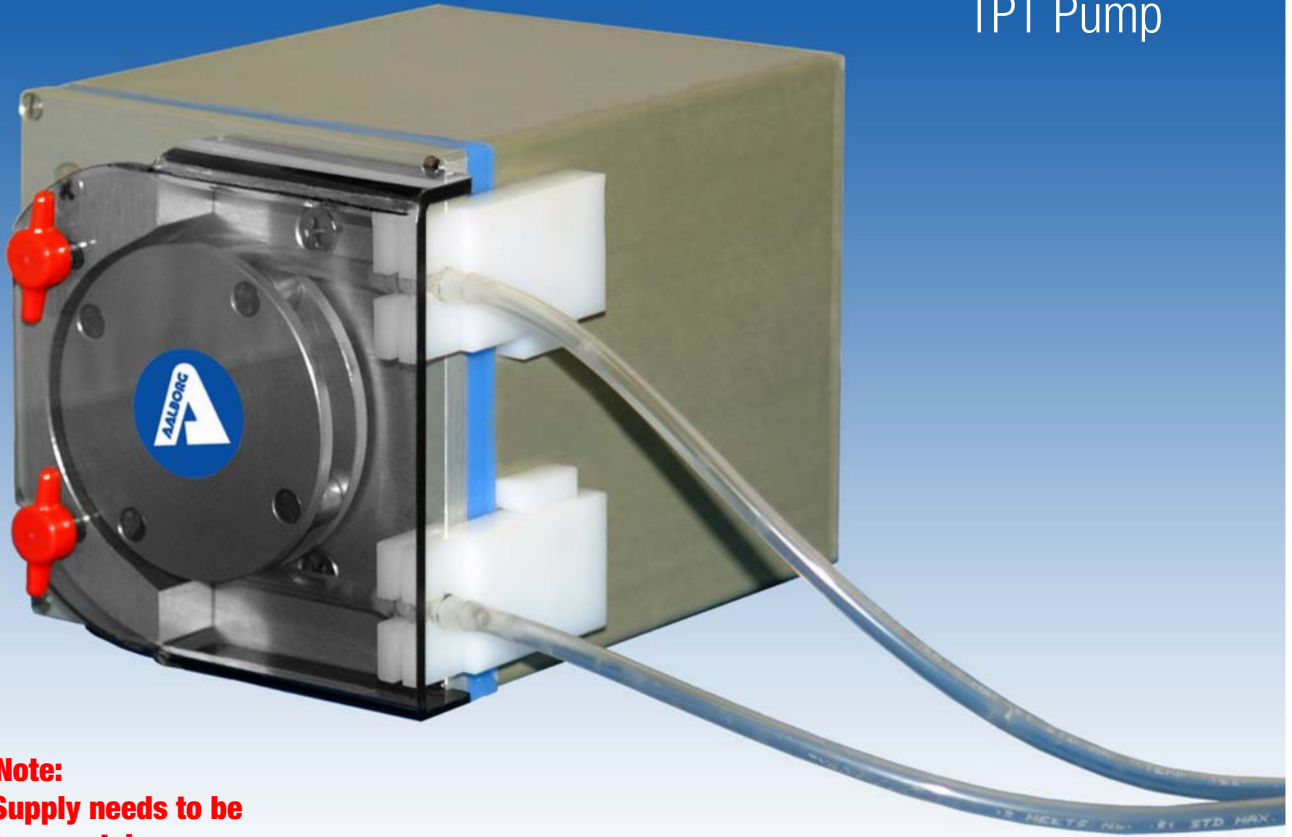
### Principles of Operation

Flexible tubing, which conveys fluid from source to destination, is squeezed inside the pump head by rotating rollers against a rigid, crescent-shaped Occlusion Wall. The rollers induce suction in a pulsing rhythm. TPT and TPU models offer adjustable occlusion for increased pressure, or decreased pressure to extend tubing life.

TPU and TPV pumps are comprised of front panels with controls, pump heads, motors, rigid cases with rubber feet and handles. The moveable handles are practical for carrying the pump, lifting and angling the pump face plate, and making the controls more user accessible.



TPT Pump



**Please Note:**  
Power Supply needs to be  
ordered separately

## TPT Mini Peristaltic Pumps

Economical Model TPT Mini Peristaltic Pumps are designed for liquids. Simple to load and operate, two plastic thumb-screws allow easy Occlusion Wall adjustments, provide longer tubing life, and secure the safety shield. Two plastic slide on/off tube holders assure quick tubing loop replacements.

User-selectable flow rates from 1.90 mL/min. to 25 mL/min. are dependent on the tubing material and ID; 1/32" wall tubing is required. Power supplies for all TPV pumps need to be ordered separately. For power supply part numbers please consult the Accessories table on pages 3. TPT Pumps are CE compliant.

### Typical Flow Rates Based on Tubing Sizes:

TUBING SIZE	FLOW mL/min
1/32" ID x 1/32" wall.	1.9
1/16" ID x 1/32" wall.	7.0
1/8" ID x 1/32" wall.	25.0



For dependable  
and safe pumping  
of liquids  
at very low  
flow rates.

## Design Features

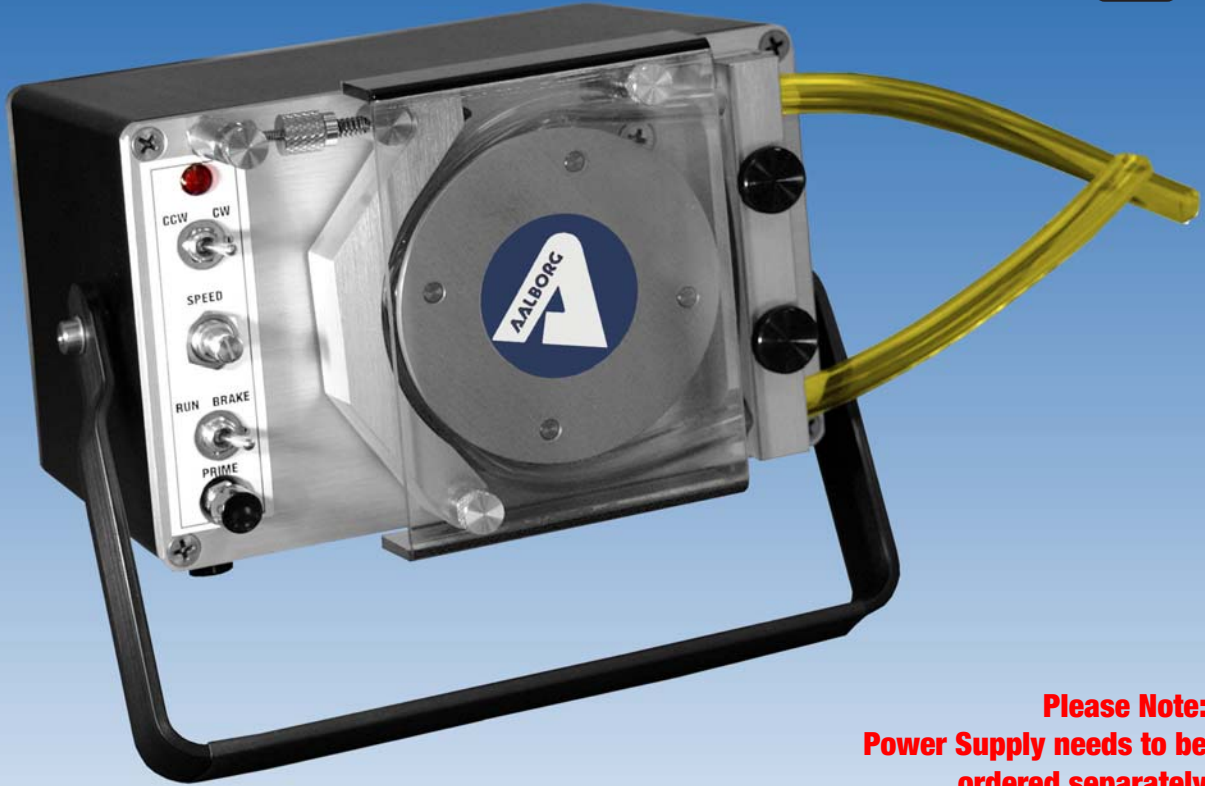
- ◆ 4 roller aluminum pump head.
- ◆ Cast bronze self-lubricating rollers..
- ◆ Continuous duty 24 VDC brush style gear motor with internal permanent magnet.
- ◆ CW-OFF-CCW switch.
- ◆ Safety shield to prevent finger contact with moving parts.
- ◆ Lightweight 3.5 lb.
- ◆ Compact 5" x 4" footprint.
- ◆ Tubing Loops of different materials and sizes including fittings are available.
- ◆ Manual or pre-set Counter feature indicates the number of revolutions. (not included).

## ACCESSORIES

PS-13A-24	Power Supply 24 VDC, 1.08 Amp, and 2.1 mm center- positive DC jack (needs to be ordered separately).
LOOPT1/32	Tubing and fittings 1/32" ID x 1/32" wall E- 3603.
LOOPT1/16	Tubing and fittings 1/16" ID x 1 /32" wall E- 3603.
LOOPT1/8	Tubing and fittings 1/8" ID x 1/32" wall E- 3603.
LOOPL1/16	Tubing and fittings 1/16" ID x 1 /32" wall surgical rubber.
LOOPL1/8	Tubing and fittings 1/8" ID x 1/32" wall surgical rubber.
LOOPS1/16	Tubing and fittings 1/16" ID x 1 /32" wall silicon rubber.
LOOPS1/8	Tubing and fittings 1/8" ID x 1/32" wall silicon rubber.

TPT Pumps are ideal for laboratory, processing, pH control, nutrient dosing, environmental sampling functions, R&D, aggressive fluids, and OEM applications.

## Four Roller TPU Pump



**Please Note:  
Power Supply needs to be  
ordered separately**

## General Description

Aalborg's TPU four and ten roller model peristaltic pumps are designed for safety and long tubing life. They are economical, easy to load, sturdy, and compact for a small footprint. Designed for use with liquids of widely diverse viscosities, they are suitable for laboratory, processing, and OEM applications, including fuel with the appropriate tubing. A Remote Start option is available on Dispenser Pumps using the 9-pin female D-connector located on the rear panel.

Power supplies for all TPU pumps (except TPUFX) need to be ordered separately. For power supply part numbers please consult the Accessory table on pages 15. TPU Pumps are CE compliant (except TPUFX).

## Principles of Operation

Flexible tubing, which conveys fluid from source to destination, is squeezed inside the pump head by rotating rollers against a rigid, crescent-shaped Occlusion Wall. The rollers induce suction in a pulsing rhythm. TPU models offer adjustable occlusion for increased pressure, or decreased pressure to extend tubing life.

TPU four and ten roller pumps are comprised of front panels with controls, pump heads, motors, rigid cases with rubber feet and handles. The moveable handles are practical for carrying the pump, lifting and angling the pump face plate, and making the controls more user accessible.



**TPU SPECIFICATIONS**

	<b>TPU FX FIXED RPM</b>	<b>TPU AD ADJUSTABLE RPM</b>	<b>TPU DP or RP ADJUSTABLE RPM DISPENSING</b>	<b>TPU1 PUMP HEAD</b>	<b>TPU2 PUMP HEAD</b>
<b>ROLLERS</b>	4 standard, 10 optional.			4	10
<b>PUMPING SPEEDS</b>	Preset to 3, 10, 20, 30, 40 or 50 RPM.	0 – 60 RPM.		Speeds depend on the motor you add to the pump head.	
<b>MOTOR</b>	AC Shaded Pole.	Brushless DC.		Motor (including mounting kit) available for separate purchase; factory mounting optional.	
<b>POWER SUPPLY*</b>	Optional desktop power supply and cord. See ordering on page 15 (needs to be ordered separately).			N/A	
<b>ELECTRICAL REQUIREMENT</b>	110 or 240 VAC	90-264 VAC		N/A	
<b>DIMENSIONS</b>	6.50 in. (165 mm) WIDE x 6.57 in. (167 mm) DEEP x 4.12 in. (105 mm) HIGH excluding handle.			6.50 in. (165 mm) WIDE x 1.61 in. (41 mm) DEEP x 4.12 in. (105 mm) HIGH.	
<b>MAXIMUM LIFT, PUMP HEAD</b>	340 in. H <sub>2</sub> O (12.3 psig).				
<b>MAXIMUM SUCTION, HEAD</b>	350 in. H <sub>2</sub> O (12.6 psig).				
<b>RECOMMENDED TUBING MATERIALS 1/16 IN. WALL</b>	Tygon® E-3603, peroxide-treated silicone, platinum-treated silicone, PharMed® Versilic® silicone, Tygon® Sanitary silicone, Norprene® Tygon® Long Flex Life, and Hypalon®.				
<b>TUBING SIZES (INSIDE Ø )</b>	1/8 in., 3/16 in. , 1/4 in. or 5/16 in.				
<b>FUSES</b>	Two 2-Amp, 250 V, fast-acting, glass, 5 x 20 mm, UL-listed.	N/A	N/A	N/A	
<b>REVERSIBLE FLOW</b>	No	Yes	Yes	No	
<b>PRIMING FUNCTION</b>	No	Yes	Yes	No	
<b>TIMING FUNCTION</b>	No	No	Yes	No	
<b>CE COMPLIANT</b>	No	Yes	Yes	Yes	

**TPU \*\*MATERIALS OF CONSTRUCTION**

**ANODIZED ALUMINUM**

**316 STAINLESS STEEL PRECISION ROLLERS AND SHAFTS**

\* Specific power cords are available for North America, Europe, UK and Australia.

\*\* The selection of tubing materials is the responsibility of the customer; the company accepts no liability.

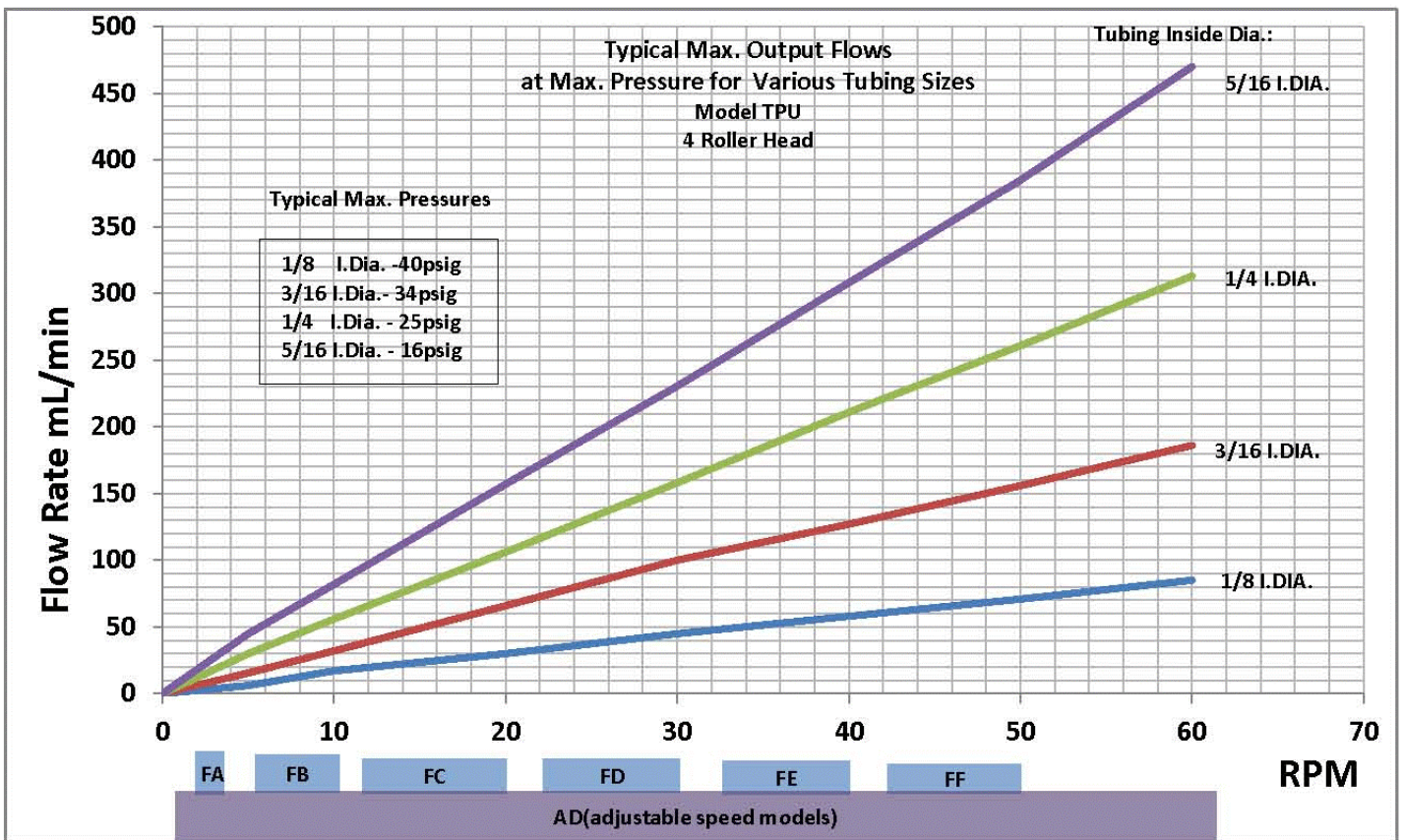
## Flow Rate Graphs

To select the pump that best corresponds to your needs using the Flow Rate graphs:

1. Locate the desired flow rate where it intersects with the tubing diameter plot lines.
2. Project the intersections to the RPM axis at the bottom of the graph.
3. If your chosen flow rate falls between the fixed RPM choices (the blue boxes labeled FA, FB, etc.), pick the next larger speed or order an adjustable RPM pump, represented by the purple AD (adjustable speed models) box.

Armed with this information, consult the features sections that follow, then use the tables on page 15 to identify the ordering number for the pump(s) you have selected.

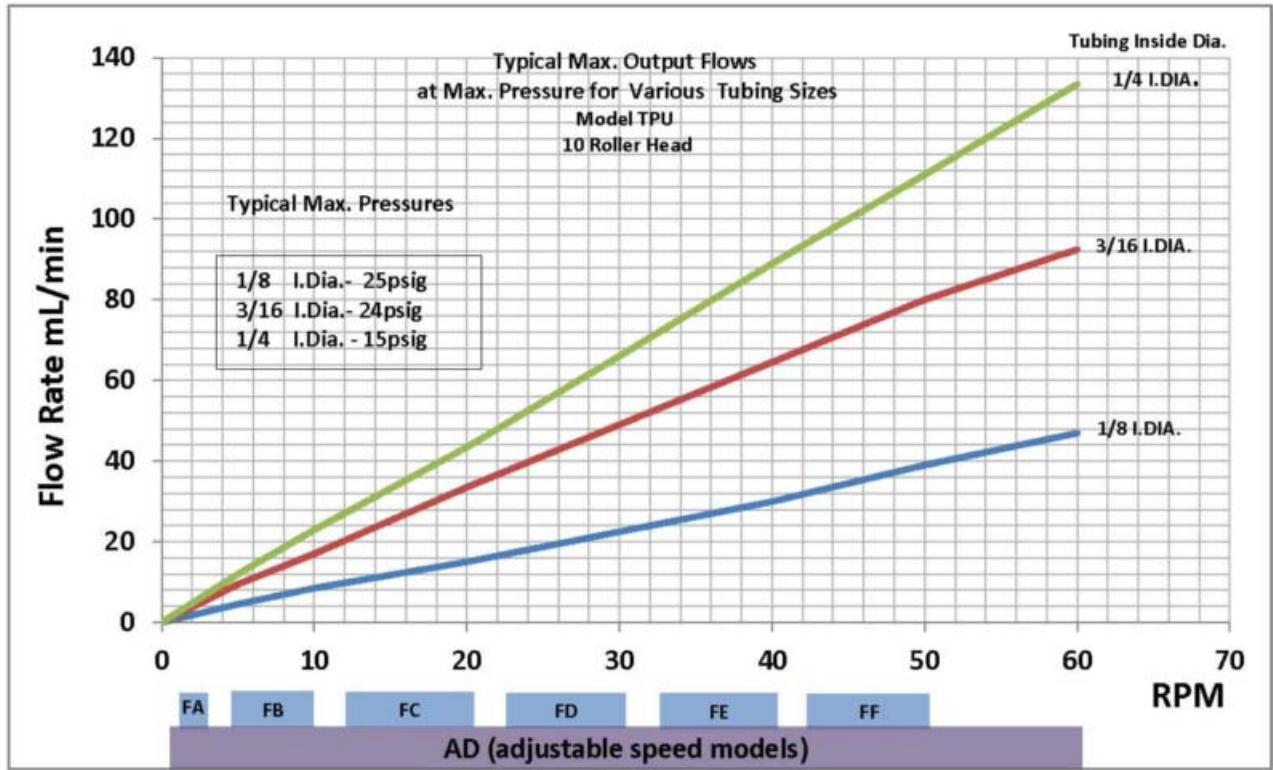
### TPU1 Four-Roller Pumps:



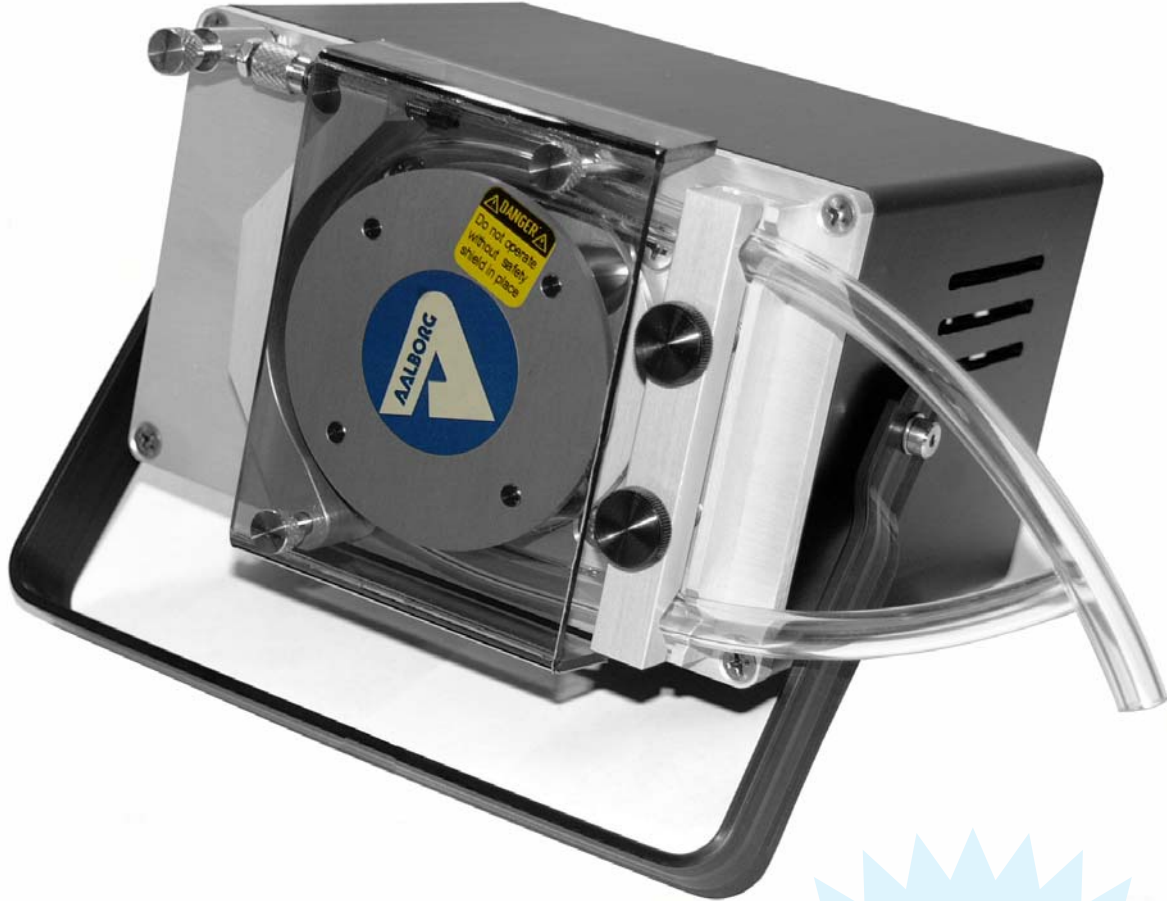
The Flow Rate graph for 10-roller pumps is on the following page.

## TPU2 Ten Roller Pumps:

Note that 5/16-inch I.D. tubing is not recommended for use with the 10-roller pumps.



## FX Model Fixed RPM Tubing Pumps



### Design Features

- ◆ Economical & compact.
- ◆ Adjustable Occlusion Wall.
- ◆ Stainless Steel Rollers and Shafts.
- ◆ Compact design for small foot print.
- ◆ Can Be Mounted In Any Direction.
- ◆ Long Tubing Life.
- ◆ 4 Rollers, 10 optional to minimize pulsing.
- ◆ Adjustable handle to carry, stand or hang.
- ◆ Wide choice of preset speeds.

Peristaltic Pumps  
designed for liquids  
of low to high viscosity:

Ideal for laboratory,  
processing and  
OEM applications.

AD Model Adjustable RPM Tubing Pumps with Prime



**Please Note:**  
**Power Supply needs to be**  
**ordered separately**

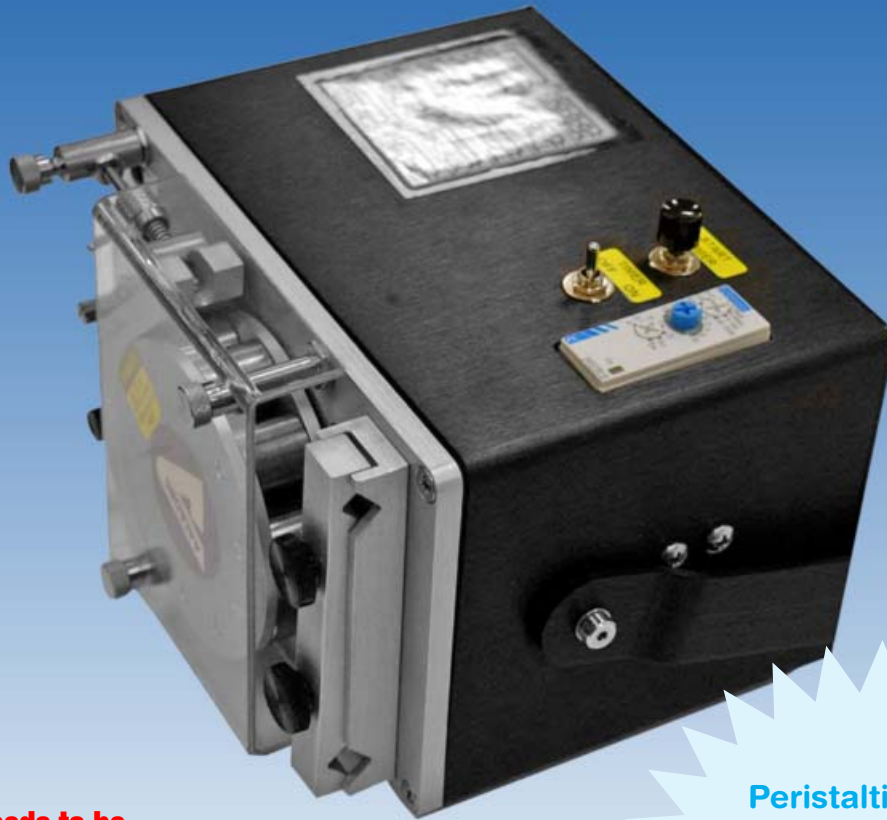
Peristaltic Pumps  
 designed for liquids  
 of low to high viscosity:

Ideal for laboratory,  
 processing and  
 OEM applications.

## Design Features

- ◆ Economical & compact.
- ◆ Adjustable Occlusion Wall.
- ◆ Stainless Steel Rollers & Shafts
- ◆ Controls for Prime, Brake, RPM, Reverse flow direction, Power LED.
- ◆ Maintenance-free 24 VDC brushless motor.
- ◆ Safety cover.
- ◆ Can be mounted in any direction.
- ◆ Long tubing life.
- ◆ 4 Rollers, 10 optional to minimize pulsing.
- ◆ Adjustable handle to carry, hang or stand.
- ◆ Speed adjustable from 0 to 60 RPM.

## DP Model Adjustable RPM Dispenser Pumps



**Please Note:**  
Power Supply needs to be  
ordered separately

Peristaltic Pumps  
designed for liquids  
of low to high viscosity:

Ideal for laboratory,  
processing and  
OEM applications.

## Design Features

- ◆ Economical & compact.
- ◆ Adjustable Occlusion Wall, long tubing life.
- ◆ Stainless Steel Rollers & Shafts.
- ◆ Programmable timer.
- ◆ The TPUDP timer relay can be set to dispense or stop dispensing liquids over a selected time period to either single shot mode or continuous pulse mode.
- ◆ Controls for Prime, Brake, RPM, Reverse flow direction, Power LED.
- ◆ A Remote Start option is available using the 9-pin female D-connector located on the rear panel, via pins 1 and 5.
- ◆ Maintenance-free 24 VDC brushless motor.
- ◆ Can be mounted in any direction.
- ◆ 4 Rollers, 10 optional to minimize pulsing.
- ◆ Adjustable handle to carry, hang or stand.
- ◆ Safety cover.
- ◆ Speed adjustable from 0 to 60 RPM.

## RP Model Adjustable RPM Dispenser Pumps



**Please Note:**  
**Power Supply needs to be ordered separately**

**Peristaltic Pumps designed for liquids of low to high viscosity:**

**Ideal for laboratory, processing and OEM applications.**

### Design Features

- ◆ Economical & compact.
- ◆ Adjustable Occlusion Wall, long tubing life.
- ◆ Stainless Steel Rollers & Shafts.
- ◆ Programmable timer.
- ◆ The TPURP timer relay can be set to dispense liquids over a selected time period, and to stop dispensing for another selected time period.
- ◆ Controls for Prime, Brake, RPM, Reverse flow direction, Power LED.
- ◆ A Remote Start option is available using the 9-pin female D-connector located on the rear panel, via pins 1 and 5.
- ◆ Maintenance-free 24 VDC brushless motor.
- ◆ Can be mounted in any direction.
- ◆ 4 Rollers, 10 optional to minimize pulsing.
- ◆ Adjustable handle to carry, hang or stand.
- ◆ Safety cover.
- ◆ Speed adjustable from 0 to 60 RPM.

TPU1 Four Roller Pump Heads



The simplicity of the pump head design provides users with the flexibility to connect their own motor or to purchase one from our catalog.

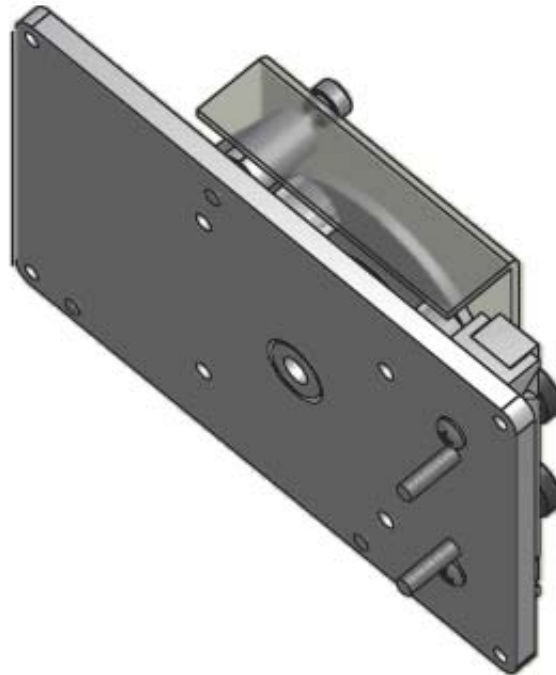
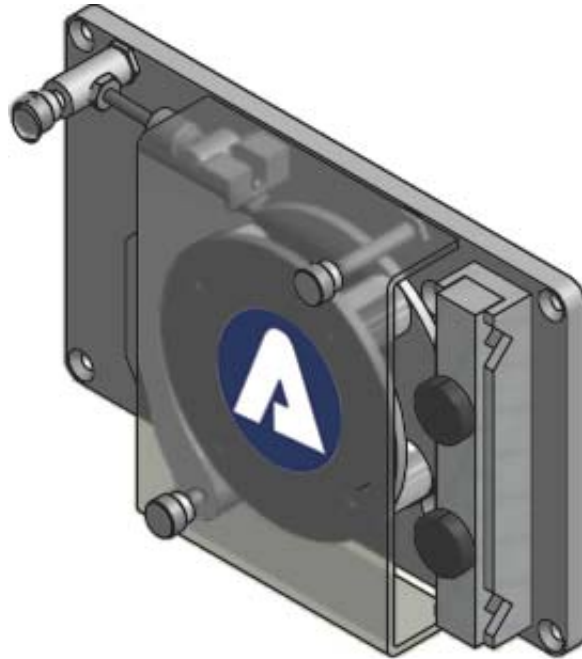
## Design Features

- ◆ Economical & compact.
- ◆ Adjustable Occlusion Wall for long tubing life.
- ◆ Stainless Steel Rollers & Shafts.
- ◆ Safety cover.
- ◆ Can be mounted in any direction.
- ◆ 4 Rollers or 10 Rollers to minimize pulsing.
- ◆ Maximum Lift: 340 in. H<sub>2</sub>O (12.3 psig).
- ◆ Maximum Suction: 350 in. H<sub>2</sub>O (12.6 psig).



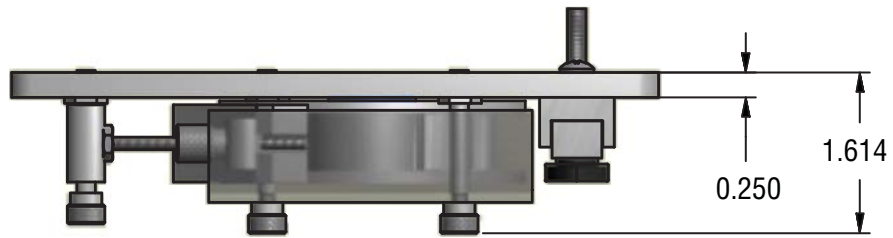
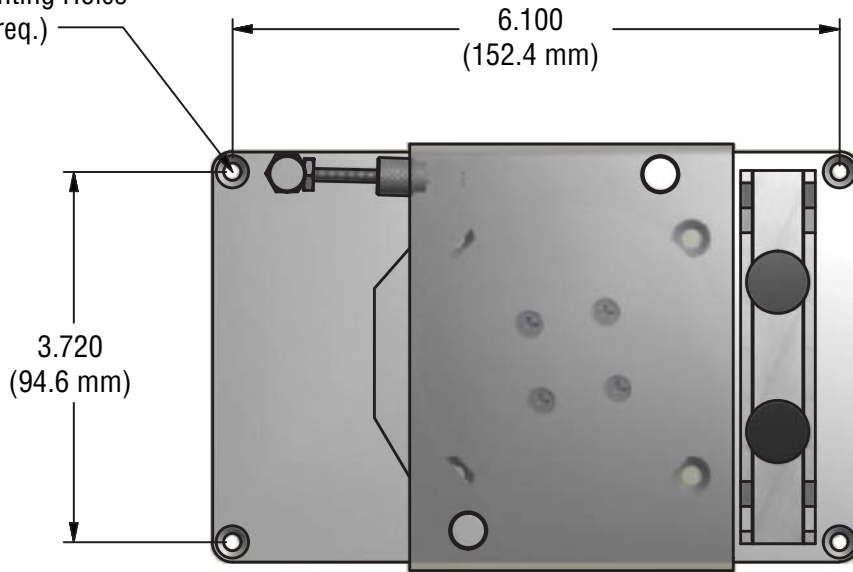
CODE	PUMP HEAD STYLES
TPU1	Pump Head 4 Rollers for 1/16" wall tubing.
TPU2	Pump Head 10 Rollers for 1/16" wall tubing.

Front View

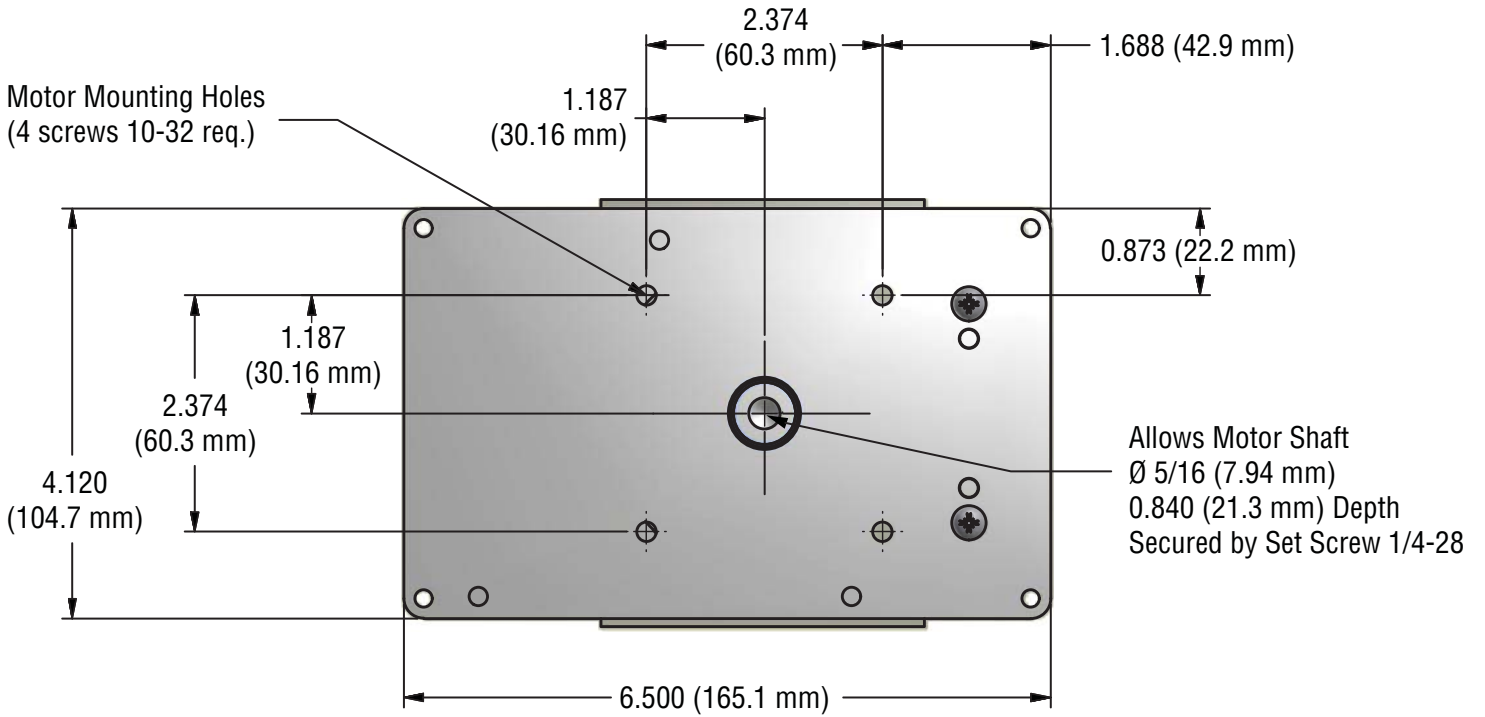


Rear View

Front Plate Mounting Holes  
(4 screws 8-32 req.)



Motor Mounting Holes  
(4 screws 10-32 req.)



TP	MODEL																						
	<table border="1"> <tr> <td>CODE</td> <td>HEAD STYLE</td> </tr> <tr> <td>U1</td> <td>4 rollers</td> </tr> <tr> <td>U2</td> <td>10 rollers</td> </tr> </table>	CODE	HEAD STYLE	U1	4 rollers	U2	10 rollers																
CODE	HEAD STYLE																						
U1	4 rollers																						
U2	10 rollers																						
	<table border="1"> <tr> <td>CODE</td> <td>MOTOR &amp; CONTROLS</td> </tr> <tr> <td>FA1</td> <td>Fixed speed motor, nominal 3 RPM, 115 VAC, no controls</td> </tr> <tr> <td>FA2</td> <td>Fixed speed motor, nominal 3 RPM, 240 VAC, no controls</td> </tr> <tr> <td>FB1</td> <td>Fixed speed motor, nominal 10 RPM, 115 VAC, no controls</td> </tr> <tr> <td>FB2</td> <td>Fixed speed motor, nominal 10 RPM, 240 VAC, no controls</td> </tr> <tr> <td>FC1</td> <td>Fixed speed motor, nominal 20 RPM, 115 VAC, no controls</td> </tr> <tr> <td>FC2</td> <td>Fixed speed motor, nominal 20 RPM, 240 VAC, no controls</td> </tr> <tr> <td>FD1</td> <td>Fixed speed motor, nominal 35 RPM, 115 VAC, no controls</td> </tr> <tr> <td>FD2</td> <td>Fixed speed motor, nominal 35 RPM, 240 VAC, no controls</td> </tr> <tr> <td>FF1</td> <td>Fixed speed motor, nominal 50 RPM, 115 VAC, no controls</td> </tr> <tr> <td>FF2</td> <td>Fixed speed motor, nominal 50 RPM, 240 VAC, no controls</td> </tr> </table>	CODE	MOTOR & CONTROLS	FA1	Fixed speed motor, nominal 3 RPM, 115 VAC, no controls	FA2	Fixed speed motor, nominal 3 RPM, 240 VAC, no controls	FB1	Fixed speed motor, nominal 10 RPM, 115 VAC, no controls	FB2	Fixed speed motor, nominal 10 RPM, 240 VAC, no controls	FC1	Fixed speed motor, nominal 20 RPM, 115 VAC, no controls	FC2	Fixed speed motor, nominal 20 RPM, 240 VAC, no controls	FD1	Fixed speed motor, nominal 35 RPM, 115 VAC, no controls	FD2	Fixed speed motor, nominal 35 RPM, 240 VAC, no controls	FF1	Fixed speed motor, nominal 50 RPM, 115 VAC, no controls	FF2	Fixed speed motor, nominal 50 RPM, 240 VAC, no controls
CODE	MOTOR & CONTROLS																						
FA1	Fixed speed motor, nominal 3 RPM, 115 VAC, no controls																						
FA2	Fixed speed motor, nominal 3 RPM, 240 VAC, no controls																						
FB1	Fixed speed motor, nominal 10 RPM, 115 VAC, no controls																						
FB2	Fixed speed motor, nominal 10 RPM, 240 VAC, no controls																						
FC1	Fixed speed motor, nominal 20 RPM, 115 VAC, no controls																						
FC2	Fixed speed motor, nominal 20 RPM, 240 VAC, no controls																						
FD1	Fixed speed motor, nominal 35 RPM, 115 VAC, no controls																						
FD2	Fixed speed motor, nominal 35 RPM, 240 VAC, no controls																						
FF1	Fixed speed motor, nominal 50 RPM, 115 VAC, no controls																						
FF2	Fixed speed motor, nominal 50 RPM, 240 VAC, no controls																						
	<table border="1"> <tr> <th colspan="2">OPTIONAL TPU POWER CORDS FOR FIXED SPEED MOTORS</th> </tr> <tr> <th>MODEL NO.</th> <th>DESCRIPTION</th> </tr> <tr> <td>POWCOR</td> <td>Power Cord for TPU, 115 VAC, North America</td> </tr> <tr> <td>POWCOR230</td> <td>Power Cord for TPU, 230 VAC, Europe</td> </tr> <tr> <td>POWCOR240UK</td> <td>Power Cord for TPU, 240 VAC, United Kingdom</td> </tr> <tr> <td>POWCOR240A</td> <td>Power Cord for TPU, 240 VAC, Australia</td> </tr> </table>	OPTIONAL TPU POWER CORDS FOR FIXED SPEED MOTORS		MODEL NO.	DESCRIPTION	POWCOR	Power Cord for TPU, 115 VAC, North America	POWCOR230	Power Cord for TPU, 230 VAC, Europe	POWCOR240UK	Power Cord for TPU, 240 VAC, United Kingdom	POWCOR240A	Power Cord for TPU, 240 VAC, Australia										
OPTIONAL TPU POWER CORDS FOR FIXED SPEED MOTORS																							
MODEL NO.	DESCRIPTION																						
POWCOR	Power Cord for TPU, 115 VAC, North America																						
POWCOR230	Power Cord for TPU, 230 VAC, Europe																						
POWCOR240UK	Power Cord for TPU, 240 VAC, United Kingdom																						
POWCOR240A	Power Cord for TPU, 240 VAC, Australia																						
	<table border="1"> <tr> <td>CODE</td> <td>MOTOR &amp; CONTROLS</td> </tr> <tr> <td>AD0</td> <td>Brushless DC motor, 0 – 60 RPM, RPM counter, Brake switch, Reverse Flow switch, Prime function</td> </tr> <tr> <td>DPO</td> <td>Brushless DC motor, 0 – 60 RPM, RPM counter, Brake switch, Reverse Flow switch, Prime function, Dispense function (Timer)</td> </tr> <tr> <td>RPO</td> <td>Brushless DC motor, 0 – 60 RPM, RPM counter, Brake switch, Reverse Flow switch, Prime function, Auto-Cycle Dispense function (Timer)</td> </tr> </table>	CODE	MOTOR & CONTROLS	AD0	Brushless DC motor, 0 – 60 RPM, RPM counter, Brake switch, Reverse Flow switch, Prime function	DPO	Brushless DC motor, 0 – 60 RPM, RPM counter, Brake switch, Reverse Flow switch, Prime function, Dispense function (Timer)	RPO	Brushless DC motor, 0 – 60 RPM, RPM counter, Brake switch, Reverse Flow switch, Prime function, Auto-Cycle Dispense function (Timer)														
CODE	MOTOR & CONTROLS																						
AD0	Brushless DC motor, 0 – 60 RPM, RPM counter, Brake switch, Reverse Flow switch, Prime function																						
DPO	Brushless DC motor, 0 – 60 RPM, RPM counter, Brake switch, Reverse Flow switch, Prime function, Dispense function (Timer)																						
RPO	Brushless DC motor, 0 – 60 RPM, RPM counter, Brake switch, Reverse Flow switch, Prime function, Auto-Cycle Dispense function (Timer)																						
	<table border="1"> <tr> <th colspan="2">OPTIONAL TPU POWER SUPPLIES FOR ADJUSTABLE SPEED MOTORS</th> </tr> <tr> <th>MODEL NO.</th> <th>DESCRIPTION</th> </tr> <tr> <td>PS-TP-110NA</td> <td>Power Supply for TPU, 110 Vac North America</td> </tr> <tr> <td>PS-TP-230EU</td> <td>Power Supply for TPU, 230 Vac Europe</td> </tr> <tr> <td>PS-TP-240UK</td> <td>Power Supply for TPU, 240 Vac United Kingdom</td> </tr> <tr> <td>PS-TP-240AU</td> <td>Power Supply for TPU, 240 Vac Australia</td> </tr> </table>	OPTIONAL TPU POWER SUPPLIES FOR ADJUSTABLE SPEED MOTORS		MODEL NO.	DESCRIPTION	PS-TP-110NA	Power Supply for TPU, 110 Vac North America	PS-TP-230EU	Power Supply for TPU, 230 Vac Europe	PS-TP-240UK	Power Supply for TPU, 240 Vac United Kingdom	PS-TP-240AU	Power Supply for TPU, 240 Vac Australia										
OPTIONAL TPU POWER SUPPLIES FOR ADJUSTABLE SPEED MOTORS																							
MODEL NO.	DESCRIPTION																						
PS-TP-110NA	Power Supply for TPU, 110 Vac North America																						
PS-TP-230EU	Power Supply for TPU, 230 Vac Europe																						
PS-TP-240UK	Power Supply for TPU, 240 Vac United Kingdom																						
PS-TP-240AU	Power Supply for TPU, 240 Vac Australia																						
TP	U1	FC1																					

**EXAMPLE: TPU1FC1**

The example shown above is TPU1FC1: TPU pump with 4 rollers, fixed speed set at 20 RPM.

To order a pump head alone, select TPU1 or TPU2. It is neither fixed or adjustable RPM as it is provided with no motor. Motors are available for purchase (see page 15).

For more technical details (Specifications and Materials of Construction), see page 5.

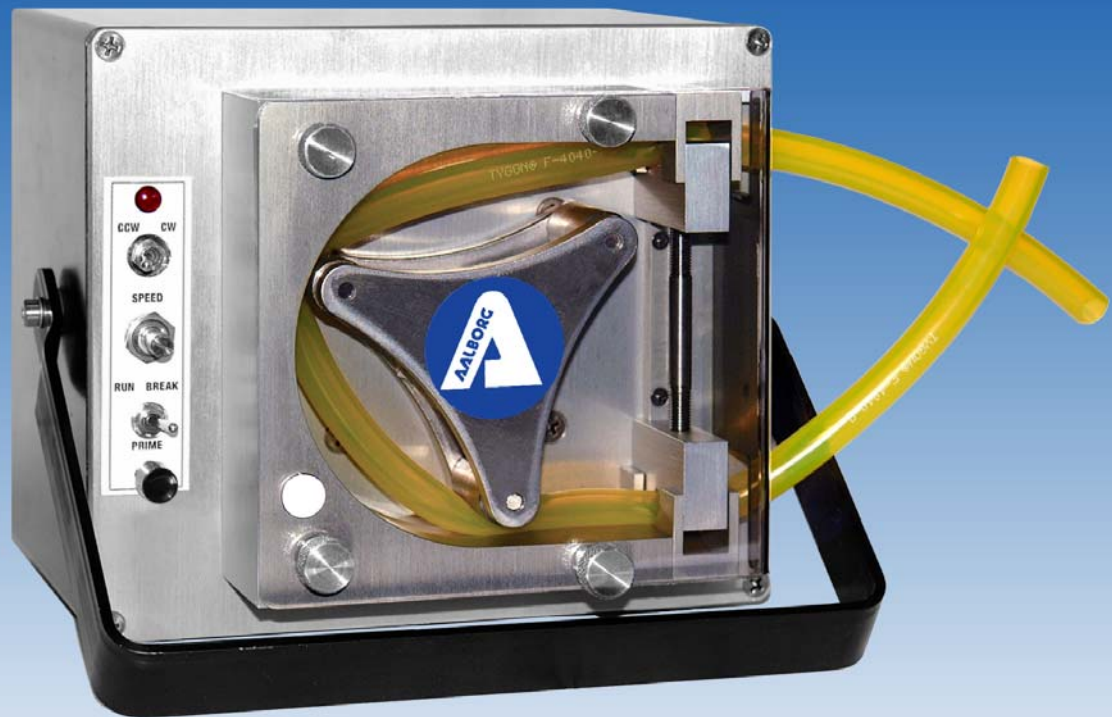
The following motors are available for purchase for use with TPU1 and TPU2 pump heads:

<b>CODE</b>	<b>MOTOR &amp; CONTROLS</b>
FA1	Fixed speed, nominal 3 RPM, 120 VAC
FB1	Fixed speed, nominal 10 RPM, 120 VAC
FC1	Fixed speed, nominal 20 RPM, 120 VAC
FD1	Fixed speed, nominal 30 RPM, 120 VAC
FE1	Fixed speed, nominal 40 RPM, 120 VAC
FF1	Fixed speed, nominal 50 RPM, 120 VAC
FA2	Fixed speed, nominal 3 RPM, 240 VAC
FB2	Fixed speed, nominal 10 RPM, 240 VAC
FC2	Fixed speed, nominal 20 RPM, 240 VAC
FD2	Fixed speed, nominal 30 RPM, 240 VAC
FE2	Fixed speed, nominal 40 RPM, 240 VAC
FF2	Fixed speed, nominal 50 RPM, 240 VAC
AD0*	Adjustable speed, 0 – 60 RPM, 24 VDC
AD3*	Adjustable speed, 0 – 300 RPM, 24 VDC
KIT-TPUMTG	Optional Mounting Kit

\*These motors have an RPM counter.

Optionally, the motor can be mounted for you at the factory.

## Typical Three Roller TPV Pump



**Please Note:  
Power Supply needs to be  
ordered separately**

## General Description

Aalborg's TPV model peristaltic pumps are designed for safety and long life. They are economical, easy to load, sturdy, and compact for a small footprint. Designed for use with liquids of widely diverse viscosity, they are suitable for laboratory, processing and OEM applications, even fuel with the appropriate tubing. Power supplies for all TPV pumps need to be ordered separately. For power supply part numbers please consult the Accessories table on pages 26. TPV Pumps are CE compliant.

## Principles of Operation

Flexible tubing, which conveys fluid from source to destination, is squeezed inside the pump head by rotating rollers against a rigid, crescent-shaped occlusion wall. The rollers induce suction in a pulsing rhythm.

Each pump is comprised of a front panel with controls, a pump head, a motor, a rigid case with four rubber feet and a handle. The handle is practical both to carry the pump and, when rotated beneath the pump, to serve as a base that lifts and angles the pump face, making the controls even more easily accessible to the user.

**TPV SPECIFICATIONS**

	TPV AD ADJUSTABLE RPM	TPV DP OR RP ADJUSTABLE RPM DISPENSING
<b>ROLLERS</b>	3.	
<b>PUMPING SPEEDS</b>	0 – 300 RPM.	
<b>MOTOR</b>	Brushless DC.	
<b>*POWER SUPPLY</b>	Optional desktop power supply and power cord. See ordering information on page 26 (needs to be ordered separately).	
<b>ELECTRICAL REQUIREMENT</b>	110 – 250 V.	
<b>DIMENSIONS</b>	7.7 in. (196 mm) WIDE x 7.45 in. (189 mm) DEEP x 6.56 in. (167 mm) HIGH excluding handle.	
<b>MAXIMUM LIFT, PUMP HEAD</b>	310 in. H2O (11.2 psig).	
<b>MAXIMUM SUCTION, HEAD</b>	310 in. H2O (11.2 psig).	
<b>RECOMMENDED TUBING MATERIALS 1/16 IN. WALL</b>	Tygon® E-3603, peroxide-treated silicone, platinum-treated silicone, PharMed®, Versilic, silicone, Tygon, Sanitary silicone, Norprene®, Tygon® Long Flex Life, and Hypalon®.	
<b>TUBING SIZES (INSIDE Ø )</b>	1/4 in. , 5/16 in., 3/8 in., 7/16 in. or 1/2 in.	
<b>REVERSIBLE FLOW</b>	Yes.	
<b>PRIMING FUNCTION</b>	Yes.	
<b>TIMING FUNCTION</b>	No.	Yes.
<b>CE COMPLIANT</b>	Yes.	Yes.

**TPV \*\*MATERIALS OF CONSTRUCTION**

**ANODIZED ALUMINUM**

**316 STAINLESS STEEL PRECISION ROLLERS AND SHAFTS**

\* Optional: Specific power cords are available for North America, Europe, UK and Australia.

\*\*The selection of materials of construction, is the responsibility of the customer. The company accepts no liability.

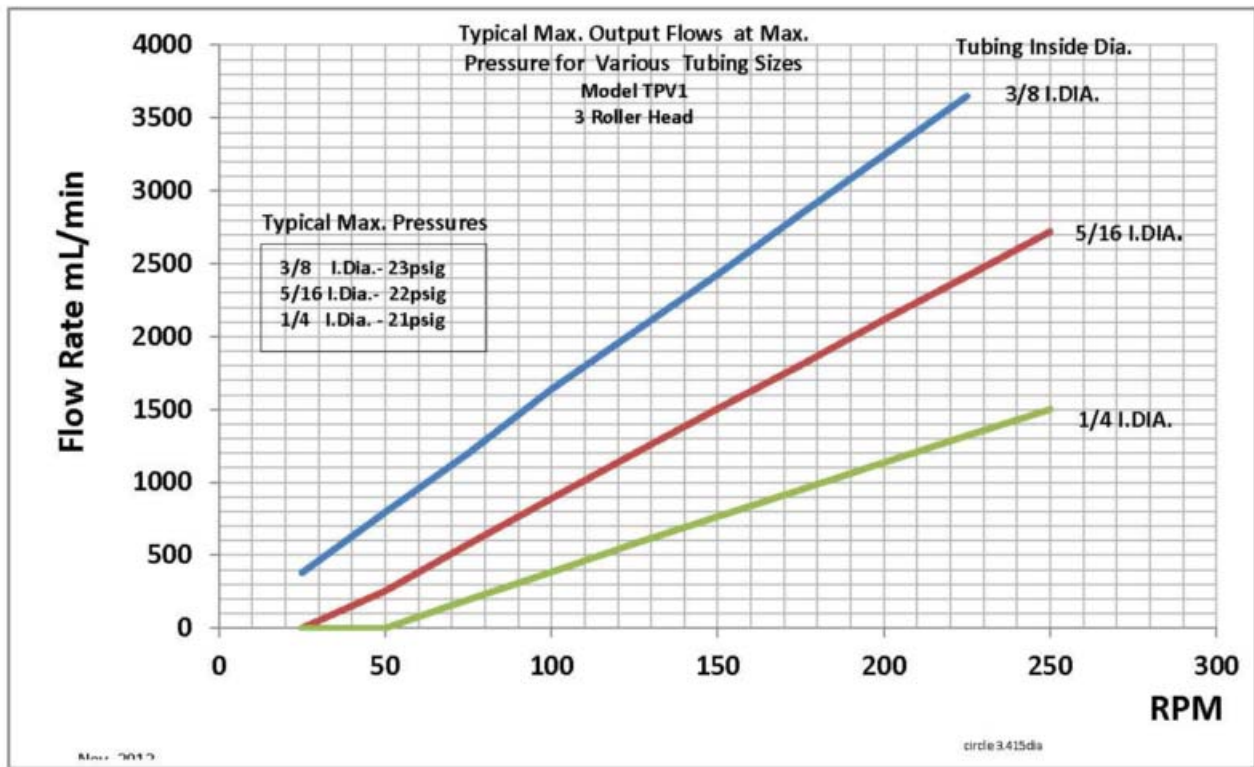
## Flow Rate Graphs

To select the pump that best corresponds to your needs using the Flow Rate graphs:

1. Locate the desired flow rate where it intersects with the tubing diameter plot lines.
2. Project the intersections to the RPM axis at the bottom of the graph.

Armed with this information, consult the features sections that follow, then use the tables on page 26 to identify the ordering number for the pump(s) you have selected.

### TPV1 Pumps (1/4 to 3/8 in. ID):



The Flow Rate graph for TPV2 pumps (7/16 to 1/2 in. ID) are on the following page.

**TPV2 Pumps (7/16 to 1/2 in. ID):**





## AD Model Adjustable RPM Pumps



**Please Note:**  
**Power Supply needs to be**  
**ordered separately**

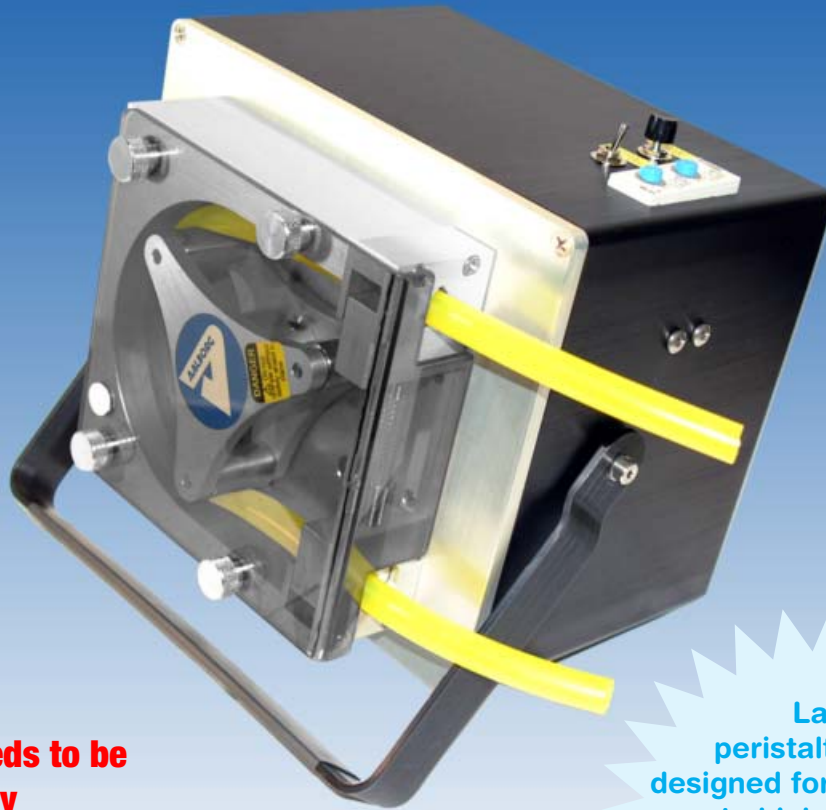
Peristaltic Pumps  
 designed for liquids  
 of low to high viscosity:

Ideal for laboratory,  
 processing and  
 OEM applications.

## Design Features

- ◆ Economical & compact.
- ◆ Unique adjustable tubing holder assembly.
- ◆ Stainless Steel Rollers & Shafts.
- ◆ Controls for Prime, Brake, RPM, Reverse flow direction, Power LED.
- ◆ Maintenance-free 24 VDC brushless motor.
- ◆ Can be mounted in any direction.
- ◆ 3 Rollers.
- ◆ Adjustable handle to carry, hang or stand.
- ◆ Safety cover.
- ◆ Speed adjustable from 0 to 300 RPM.

## DP Model Adjustable RPM Pumps with Dispensing



**Please Note:  
Power Supply needs to be  
ordered separately**

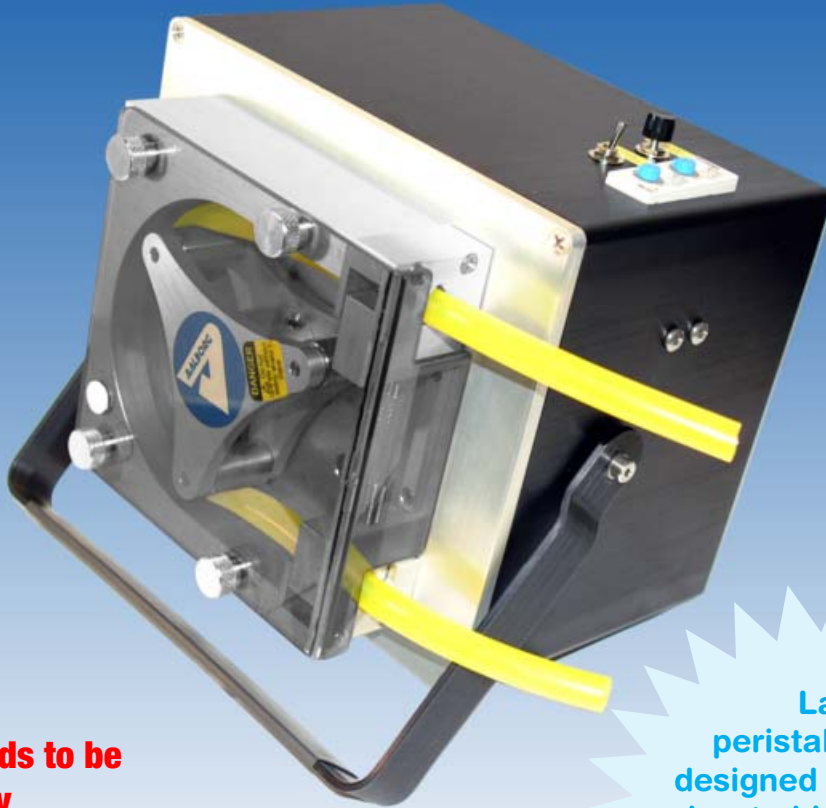
Larger  
peristaltic Pumps  
designed for liquids of low  
to high viscosity:

Ideal for laboratory,  
processing and  
OEM applications.

### Design Features

- ◆ Economical & compact.
- ◆ Unique adjustable tubing holder subassembly.
- ◆ Fixed Occlusion Wall.
- ◆ 3 Stainless Steel Rollers & Stainless Steel Shafts.
- ◆ Controls for Prime, Brake, RPM, Reverse flow direction, Power LED.
- ◆ A Remote Start option is available using the 9-pin female D-connector located on the rear panel, via pins 1 and 5.
- ◆ Programmable timer.
- ◆ The TPVDP timer relay can be set to dispense or stop dispensing liquids over a selected time period to either single shot mode or continuous pulse mode.
- ◆ Maintenance-free 24 VDC brushless motor.
- ◆ Speed adjustable from 0 to 300 RPM.
- ◆ Can be mounted in any direction.
- ◆ Long tubing life.
- ◆ Adjustable handle to carry, hang or stand.
- ◆ Safety cover.

## RP Model Adjustable RPM Pumps with Dispensing



**Please Note:**  
Power Supply needs to be  
ordered separately

Larger  
peristaltic Pumps  
designed for liquids of  
low to high viscosity:

Ideal for laboratory,  
processing and  
OEM applications.

### Design Features

- ◆ Economical & compact.
- ◆ Unique adjustable tubing holder subassembly.
- ◆ Fixed Occlusion Wall.
- ◆ 3 Stainless Steel Rollers & Stainless Steel Shafts.
- ◆ Controls for Prime, Brake, RPM, Reverse flow direction, Power LED.
- ◆ Programmable timer.
- ◆ The TPVRP timer relay can be set to dispense liquids over a selected time period, and to stop dispensing for another selected time period.
- ◆ Maintenance-free 24 VDC brushless motor.
- ◆ Speed adjustable from 0 to 300 RPM.
- ◆ Can be mounted in any direction.
- ◆ Long tubing life.
- ◆ Adjustable handle to carry, hang or stand.
- ◆ Safety cover.



## TPV Three Roller Pump Head

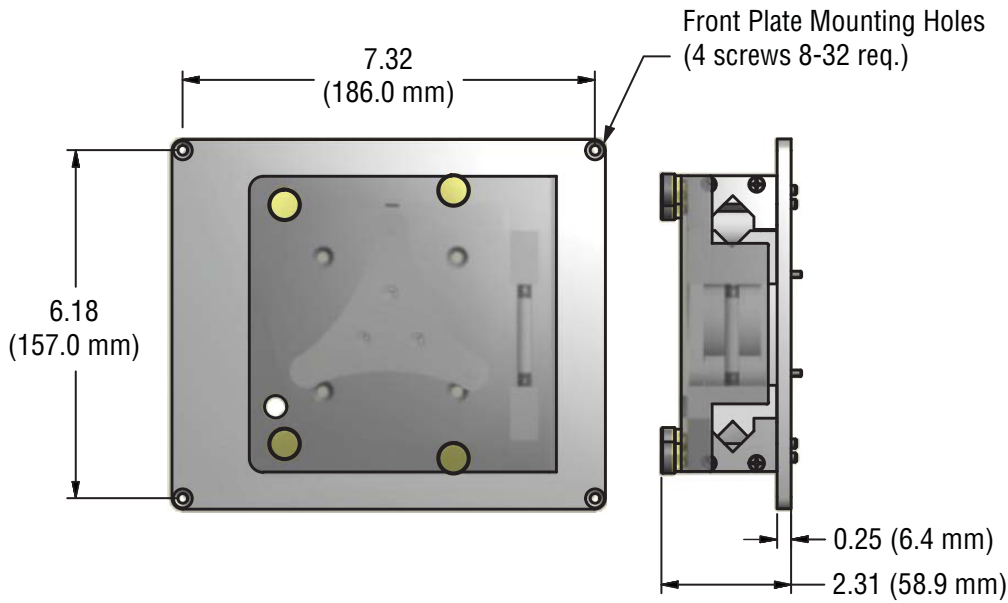


## Design Features

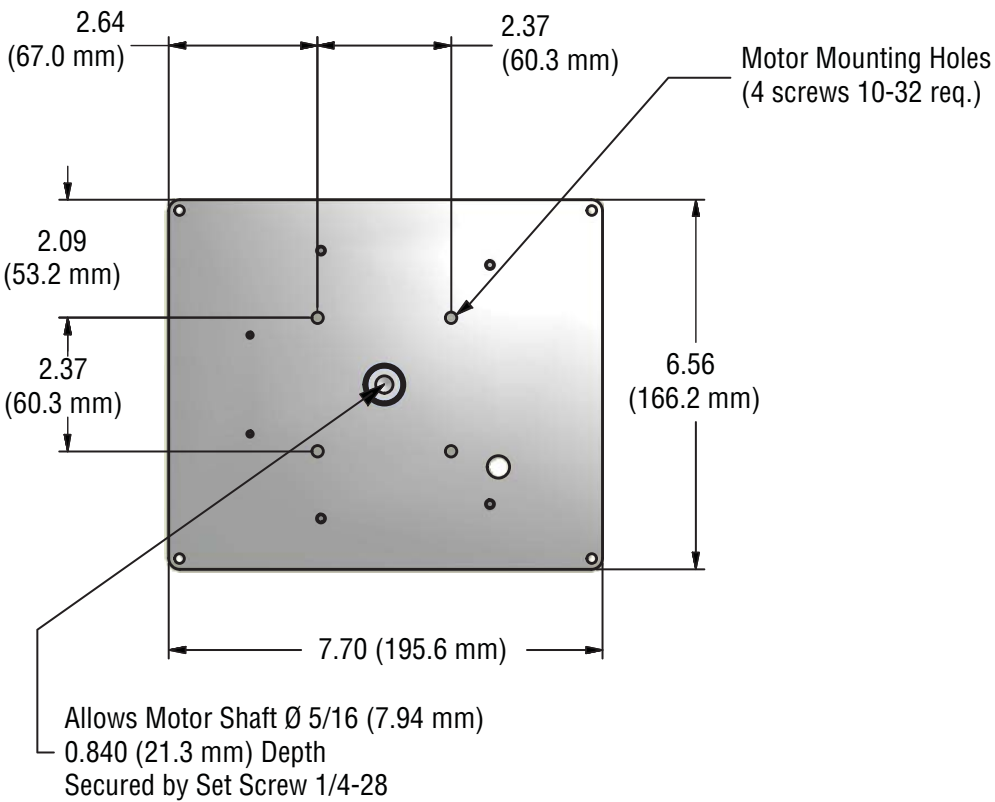
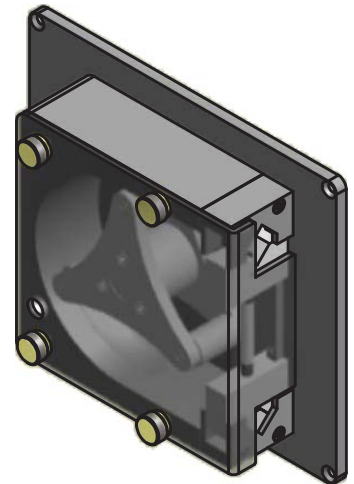
- ◆ Economical & compact.
- ◆ Stainless Steel Rollers & Shafts.
- ◆ Safety cover.
- ◆ Can be mounted in any direction.
- ◆ 3 Rollers.
- ◆ Maximum Lift: 340 in. H<sub>2</sub>O (12.3 psig).
- ◆ Maximum Suction: 350 in. H<sub>2</sub>O (12.6 psig).

The simplicity of the pump head design provides users with the flexibility to connect their own motor or to purchase one from our catalog.

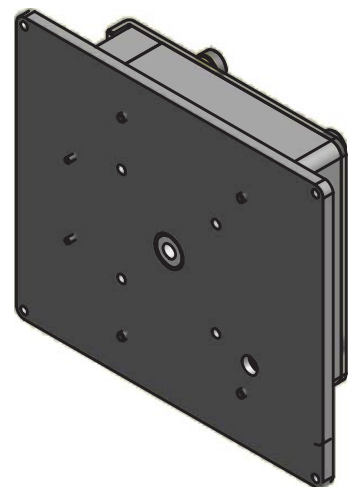
CODE	PUMP HEAD STYLES
TPV1	Pump Head 3 Rollers for 1/16" wall tubing.
TPV2	Pump Head 3 Rollers for 1/16" wall tubing.



**Front View**



**Rear View**



TP	MODEL								
	<table border="1"> <thead> <tr> <th>CODE</th> <th>HEAD STYLE STYLES</th> </tr> </thead> <tbody> <tr> <td>V1</td> <td>3 rollers on pump head for tubing I.D. 1/4 - 3/8 in.</td> </tr> <tr> <td>V2</td> <td>3 rollers on pump head for tubing I.D. 7/16 – 1/2 in.</td> </tr> </tbody> </table>	CODE	HEAD STYLE STYLES	V1	3 rollers on pump head for tubing I.D. 1/4 - 3/8 in.	V2	3 rollers on pump head for tubing I.D. 7/16 – 1/2 in.		
CODE	HEAD STYLE STYLES								
V1	3 rollers on pump head for tubing I.D. 1/4 - 3/8 in.								
V2	3 rollers on pump head for tubing I.D. 7/16 – 1/2 in.								
	<table border="1"> <thead> <tr> <th>CODE</th> <th>MOTOR &amp; CONTROLS</th> </tr> </thead> <tbody> <tr> <td>AD</td> <td>Brushless DC 0 – 300 RPM motor, RPM counter, Brake switch, Reverse Flow switch, Prime function.</td> </tr> <tr> <td>DP</td> <td>Brushless DC 0 – 300 RPM motor, RPM counter, Brake switch, Reverse Flow switch, Prime function, Dispense function (Timer).</td> </tr> <tr> <td>RP</td> <td>Brushless DC 0 – 300 RPM motor, RPM counter, Brake switch, Reverse Flow switch, Prime function, Auto-Cycle Dispense function (Timer).</td> </tr> </tbody> </table>	CODE	MOTOR & CONTROLS	AD	Brushless DC 0 – 300 RPM motor, RPM counter, Brake switch, Reverse Flow switch, Prime function.	DP	Brushless DC 0 – 300 RPM motor, RPM counter, Brake switch, Reverse Flow switch, Prime function, Dispense function (Timer).	RP	Brushless DC 0 – 300 RPM motor, RPM counter, Brake switch, Reverse Flow switch, Prime function, Auto-Cycle Dispense function (Timer).
CODE	MOTOR & CONTROLS								
AD	Brushless DC 0 – 300 RPM motor, RPM counter, Brake switch, Reverse Flow switch, Prime function.								
DP	Brushless DC 0 – 300 RPM motor, RPM counter, Brake switch, Reverse Flow switch, Prime function, Dispense function (Timer).								
RP	Brushless DC 0 – 300 RPM motor, RPM counter, Brake switch, Reverse Flow switch, Prime function, Auto-Cycle Dispense function (Timer).								

ACCESSORIES	
OPTIONAL TPV POWER SUPPLIES	
MODEL NO.	DESCRIPTION
PS-TP-110NA	Power Supply for TPV, 110 Vac North America
PS-TP-230EU	Power Supply for TPV, 230 Vac Europe
PS-TP-240UK	Power Supply for TPV, 240 Vac United Kingdom
PS-TP-240AU	Power Supply for TPV, 240 Vac Australia

**EXAMPLE: TPV1AD**

The example shown above is TPV1AD: Is a TPV pump with the 3-roller head sized for use with 1/4 - 3/8 in. tubing, an adjustable speed 0 – 300 motor with the prime function and reversable speed.

To order a pump head alone, select TPV1 or TPV2. Adjustable RPM provided with no motor.

**ORDERING INFORMATION FOR TPU and TPV PUMP TUBING**

<b>TUBING ORDER NUMBER</b>	<b>DESCRIPTION</b>
<b>TB1LA2</b>	Tygon® E-3603 Lab grade, 1/8 in. ID x 1/16 in. wall, 50 feet
<b>TB1LA3</b>	Tygon® E-3603 Lab grade, 3/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1LA4</b>	Tygon® E-3603 Lab grade, 1/4 in. ID x 1/16 in. wall, 50 feet
<b>TB1LA5</b>	Tygon® E-3603 Lab grade, 5/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1LA6</b>	Tygon® E-3603 Lab grade, 3/8 in. ID x 1/16 in. wall, 50 feet
<b>TB1LA7</b>	Tygon® E-3603 Lab grade, 7/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1LA8</b>	Tygon® E-3603 Lab grade, 1/2 in. ID x 1/16 in. wall, 50 feet
<b>TB1LF2</b>	Tygon® S3 (E-LFL) 1/8 in. ID x 1/16 in. wall, 25 feet
<b>TB1LF3</b>	Tygon® S3 (E-LFL) 3/16 in. ID x 1/16 in. wall, 25 feet
<b>TB1LF4</b>	Tygon® S3 (E-LFL) 1/4 in. ID x 1/16 in. wall, 25 feet
<b>TB1LF5</b>	Tygon® S3 (E-LFL) 5/16 in. ID x 1/16 in. wall, 25 feet
<b>TB1N02</b>	Norprene® Food grade (FDA, 3A, NSF), 1/8 in. ID x 1/16 in. wall, 50 feet
<b>TB1N03</b>	Norprene® Food grade (FDA, 3A, NSF), 3/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1N04</b>	Norprene® Food grade (FDA, 3A, NSF), 1/4 in. ID x 1/16 in. wall, 50 feet
<b>TB1N05</b>	Norprene® Food grade (FDA, 3A, NSF), 5/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1N06</b>	Norprene® Food grade (FDA, 3A, NSF), 3/8 in. ID x 1/16 in. wall, 50 feet
<b>TB1NI2</b>	Norprene® Industrial grade (FDA, 3A, NSF), 1/8 in. ID x 1/16 in. wall, 50 feet
<b>TB1NI3</b>	Norprene® Industrial grade (FDA, 3A, NSF), 3/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1NI4</b>	Norprene® Industrial grade (FDA, 3A, NSF), 1/4 in. ID x 1/16 in. wall, 50 feet
<b>TB1NI5</b>	Norprene® Industrial grade (FDA, 3A, NSF), 5/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1NI6</b>	Norprene® Industrial grade (FDA, 3A, NSF), 3/8 in. ID x 1/16 in. wall, 50 feet
<b>TB1NI7</b>	Norprene® Industrial grade (FDA, 3A, NSF), 7/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1NI8</b>	Norprene® Industrial grade (FDA, 3A, NSF), 1/2 in. ID x 1/16 in. wall, 50 feet
<b>TB1PH2</b>	PharMed®, 1/8 in. ID x 1/16 in. wall, 25 feet
<b>TB1PH3</b>	PharMed®, 3/16 in. ID x 1/16 in. wall, 25 feet
<b>TB1PH4</b>	PharMed®, 1/4 in. ID x 1/16 in. wall, 25 feet
<b>TB1PH5</b>	PharMed®, 5/16 in. ID x 1/16 in. wall, 25 feet
<b>TB1PH6</b>	PharMed®, 3/8 in. ID x 1/16 in. wall, 25 feet
<b>TB1SI2</b>	Silicone (SPX-50) peroxide-cured, 1/8 in. ID x 1/16 in. wall, 50 feet
<b>TB1SI3</b>	Silicone (SPX-50) peroxide-cured, 3/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1SI4</b>	Silicone (SPX-50) peroxide-cured, 1/4 in. ID x 1/16 in. wall, 50 feet
<b>TB1SI5</b>	Silicone (SPX-50) peroxide-cured, 5/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1SI6</b>	Silicone (SPX-50) peroxide-cured, 3/8 in. ID x 1/16 in. wall, 50 feet
<b>TB1SI8</b>	Silicone (SPX-50) peroxide-cured, 1/2 in. ID x 1/16 in. wall, 50 feet
<b>TB1SA2</b>	Silicone (3350), sanitary, 1/8 in. ID x 1/16 in. wall, 50 feet
<b>TB1SA3</b>	Silicone (3350), sanitary, 3/16 in. ID x 1/16 in. wall, 50 feet
<b>TB1SA4</b>	Silicone (3350), sanitary, 1/4 in. ID x 1/16 in. wall, 50 feet
<b>TB1SA5</b>	Silicone (3350), sanitary, 5/16 in. ID x 1/16 in. wall, 50 feet

*Continued*

*Continued*
**ORDERING INFORMATION FOR TPU and TPV PUMP TUBING**

TUBING ORDER NUMBER	DESCRIPTION
TB1SA6	Silicone (3350), sanitary, 3/8 in. ID x 1/16 in. wall, 50 feet
TB1SA7	Silicone (3350), sanitary, 7/16 in. ID x 1/16 in. wall, 50 feet
TB1SA8	Silicone (3350), sanitary, 1/2 in. ID x 1/16 in. wall, 50 feet
TB1TY2	Tygon <sup>™</sup> (XL-60), Long Life Pump Tubing, 1/8 in. ID x 1/16 in. wall, 50 feet
TB1TY3	Tygon <sup>™</sup> (XL-60), Long Life Pump Tubing 3/16 in. ID x 1/16 in. wall, 50 feet
TB1TY4	Tygon <sup>™</sup> (XL-60), Long Life Pump Tubing 1/4 in. ID x 1/16 in. wall, 50 feet
TB1TY5	Tygon <sup>™</sup> (XL-60), Long Life Pump Tubing 5/16 in. ID x 1/16 in. wall, 50 feet
TB1TY6	Tygon <sup>™</sup> (XL-60), Long Life Pump Tubing, 3/8 in. ID x 1/16 in. wall, 50 feet
TB1FR2	Fluran <sup>®</sup> (F-5500-A), Severe Environmental Tubing, 1/8 in. ID x 1/16 in. wall, 50 feet
TB1FR3	Fluran <sup>®</sup> (F-5500-A), Severe Environmental Tubing, 3/16 in. ID x 1/16 in. wall, 50 feet
TB1FR4	Fluran <sup>®</sup> (F-5500-A), Severe Environmental Tubing, 1/4 in. ID x 1/16 in. wall, 50 feet
TB1FR5	Fluran <sup>®</sup> (F-5500-A), Severe Environmental Tubing, 5/16 in. ID x 1/16 in. wall, 50 feet
TB1FR6	Fluran <sup>®</sup> (F-5500-A), Severe Environmental Tubing, 3/8 in. ID x 1/16 in. wall, 50 feet
TB1FL2	Tygon <sup>®</sup> F4040-A Fuel and Lubricant Appl., 1/8 in. ID x 1/16 in. wall, 50 feet
TB1FL3	Tygon <sup>®</sup> F4040-A Fuel and Lubricant Appl., 3/16 in. ID x 1/16 in. wall, 50 feet
TB1FL4	Tygon <sup>®</sup> F4040-A Fuel and Lubricant Appl., 1/4 in. ID x 1/16 in. wall, 50 feet
TB1FL5	Tygon <sup>®</sup> F4040-A Fuel and Lubricant Appl., 5/16 in. ID x 1/16 in. wall, 50 feet
TB1FL6	Tygon <sup>®</sup> F4040-A Fuel and Lubricant Appl., 3/8 in. ID x 1/16 in. wall, 50 feet
TB1FL7	Tygon <sup>®</sup> F4040-A Fuel and Lubricant Appl., 7/16 in. ID x 1/16 in. wall, 50 feet
TB1FL8	Tygon <sup>®</sup> F4040-A Fuel and Lubricant Appl., 1/2 in. ID x 1/16 in. wall, 50 feet

**ORDERING INFORMATION FOR TPT PUMP TUBING**

TUBING ORDER NUMBER	DESCRIPTION
TB2LA1	Tygon <sup>®</sup> E-3603 Lab grade, 1/16 in. ID x 1/32 in. wall, 25 feet
TB2LA2	Tygon <sup>®</sup> E-3603 Lab grade, 1/8 in. ID x 1/32 in. wall, 25 feet
TB2LA9	Tygon <sup>®</sup> E-3603 Lab grade, 1/32 in. ID x 1/32 in. wall, 25 feet
TB2SI1	Silicone (SILCON), 1/16 in. ID x 1/32 in. wall, 25 feet
TB2SI2	Silicone (SILCON), 1/18 in. ID x 1/32 in. wall, 25 feet
TB2SU1	Surgical rubber (Latex) 1/16 in. ID x 1/32 in. wall, 25 feet
TB2SU2	Surgical rubber (Latex) 1/8 in. ID x 1/32 in. wall, 25 feet

Астана +7(77172)727-132 Волгоград (844)278-03-48 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89  
 Казань (843)206-01-48 Краснодар (861)203-40-90 Красноярск (391)204-63-61 Москва (495)268-04-70  
 Нижний Новгород (831)429-08-12 Новосибирск (383)227-86-73 Ростов-на-Дону (863)308-18-15  
 Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Уфа (347)229-48-12  
 Единый адрес: alg@nt-rt.ru Веб-сайт: aalborg.nt-rt.ru