

I/P® HIGH-PERFORMANCE PUMP HEADS

FEATURES/BENEFITS

- For higher volume fluid transfer applications
- Deliver flow rates from 0.01 to 19 LPM
- Highest flow rates of any I/P pump head
- Ideal for viscous fluid transfer
- To fit application needs, pump head can be mounted upright or on its side
- C-shaped—allows tubing to enter and exit the same side of pump head
- Easy to load: accepts Masterflex® I/P High-Performance Precision tubing
- Tubing enables better pressure generation and suction lift
- Adjustable tubing retention prevents tubing movement in head
- Compatible with all Masterflex I/P drives that accept two or more pump heads
- Model 77600-82 is ATEX Zone 2 rated EEx II 3 G c IIC T6; NEC rated for Class I Division 2, Groups A, B, C, D T6



I/P high-performance pump head 77600-62

SELECTION CRITERIA

1. Flow rate desired.
 2. Tubing size desired.
 3. Compatibility with drives.
- See specifications for more information.

Order tubing and drives separately.

COMPATIBILITY WITH DRIVES

- Mount pumps on all Masterflex I/P drives

PUMP HOUSING SPECIFICATIONS

- Stainless steel rotor plates/shaft, rollers, and bearings
- Thermoset polyester occlusion bed

MULTICHANNEL CAPABILITIES

- I/P High-performance pump heads are not designed to be stacked

ROLLER/ROTOR SPECIFICATIONS

- Stainless steel with PTFE shielded ball bearing
- Operating temperature: 0 to 40°C (32 to 104°F)
- Storage temperature: -40 to 60°C (-40 to 140°F)
- Humidity: 5 to 95% (noncondensing)



I/P high-performance pump head 77600-62 mounted on I/P process drive 77411-00

ATEX
Zone 2
77600-82

ISO 9001:2000
CERTIFIED SUPPLIER

2 year warranty

ORDERING INFORMATION

Pump tubing size	Flow rates (at 1 to 650 rpm)	Polyester and SS housing, SS rotor	ATEX-approved; Polyester and SS housing, SS rotor
I/P 70	0.01 to 8 LPM		
I/P 88	0.02 to 17 LPM		
I/P 89	0.03 to 19 LPM		
		RX-77600-62	New RX-77600-82

I/P PUMP TUBING FLOW RATE INFORMATION

Order Masterflex I/P High-performance Precision pump tubing separately on page 128.

Tubing cross sections	I/P High-performance Precision tubing		
	I/P 70	I/P 88	I/P 89
Flow rate—mL/rev	12.3	20.0	26.2
Flow rate @ 650 rpm	8 LPM (2.1 GPM)	17 LPM (4.5 GPM)	19 LPM (5.0 GPM)
Max pressure†	2.7 bar (40 psi)	2.4 bar (35 psi)	1.4 bar (20 psi)
Max vacuum†	660 mm Hg (26" Hg)		610 mm Hg (24" Hg)
Suction lift	8.8 m H ₂ O (29 ft H ₂ O)		8.2 m H ₂ O (27 ft H ₂ O)

†Actual performance varies depending upon tubing materials—see pages 20–23 and 172–192 for more information.

NOTES

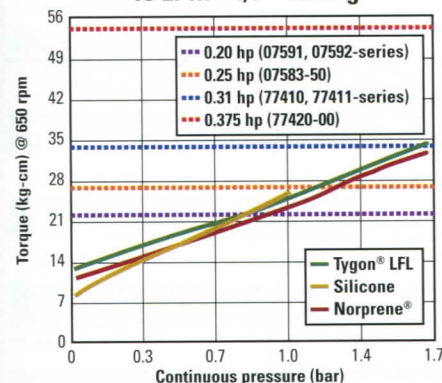
Use only Masterflex pump tubing with Masterflex pumps to ensure optimal performance. Use of other tubing may void applicable warranties.

SPECIFICATIONS for I/P High-Performance Pump Head

Catalog number	RX-77600-62 and RX-77600-82		
Performance Specifications			
Flow capacity	0.01 to 19 LPM (0.002 to 4.5 GPM)		
Max rpm	650		
Number of rollers	3		
Max pressure	2.7 bar (40 psi)		
Max vacuum	660 mm Hg (26" Hg)		
Max suction lift	8.8 m H ₂ O (29 ft H ₂ O)		
Torque Specifications [pumping water at 0 psi, 21°C (70°F)]			
Norprene®, PharMed® BPT	Starting torque	67.1 kg-cm (930 oz-in)	
	Running torque	13.7 kg-cm (190 oz-in)	
Tygon®, Viton®	Starting torque	47.6 kg-cm (660 oz-in)	
	Running torque	13.3 kg-cm (185 oz-in)	
C-FLEX®, Silicone	Starting torque	36.4 kg-cm (480 oz-in)	
	Running torque	11.1 kg-cm (155 oz-in)	
Physical Specifications			
Roller/rotor assembly materials	Stainless steel		
Occlusion bed materials	Thermoset polyester		
Operating temperature	0 to 40°C (32 to 104°F)		
Shipping weight	3.2 kg (7 lb)		

DRIVE TORQUE REQUIREMENTS TO OBTAIN 19 LPM

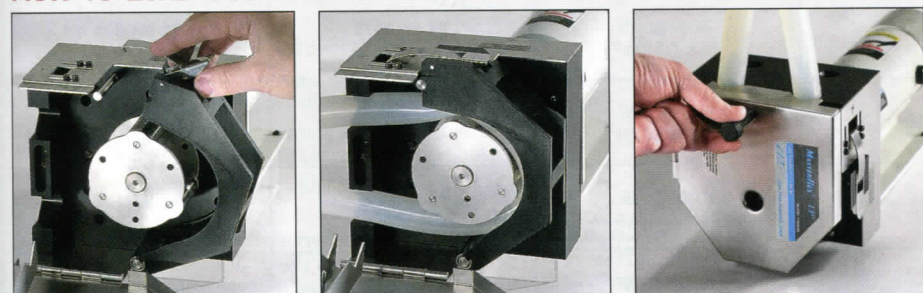
19 LPM – I/P® Tubing



Choose your drive based on desired flow rate, pressure in your application, and type of tubing used. For example, if you need 19 LPM at 1.4 bar and are using Norprene® tubing, you need a drive that supplies 0.25 hp (07583-50).

Some flow rate/pressure combinations are not possible with all drives. High-performance pump head is designed exclusively for use with High-performance Precision tubing.

HOW TO LOAD YOUR PUMP HEAD



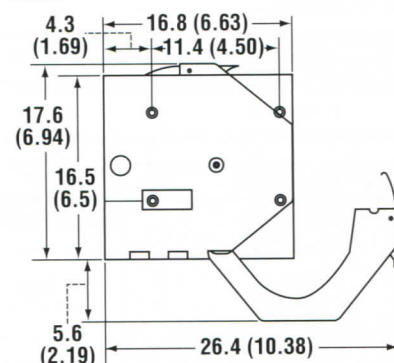
1. Rotate tubing retainer knob counterclockwise to release retainer, then open cover. Lift latch to open occlusion bed.

2. Insert tubing into bed with both ends of the tubing extending through notches as shown.

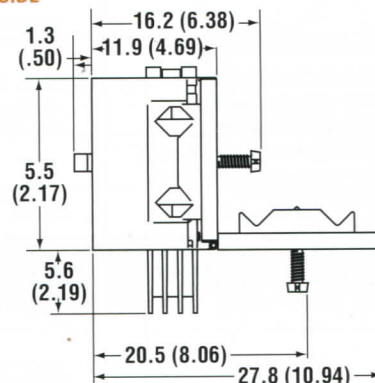
3. Press occlusion bed against the tubing and snap the latch closed. Pull the tubing snug around the rotor, close the cover, and rotate the tubing retainer knob clockwise until the tube no longer moves.

Dimensional Drawings cm (in.) 77600-62

FRONT



SIDE



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