

## I/P® STANDARD PUMP HEADS

### FEATURES/BENEFITS

- ▶ Deliver flow rates up to 13 LPM
- ▶ Precision-molded housing
- ▶ Each pump head is designed for one size of tubing, ensuring optimal occlusion and repeatable performance
- ▶ Ideal for dedicated pump applications
- ▶ Adapts easily to OEM use
- ▶ Interchangeable
- ▶ Dual-channel pumping capability—stack heads with optional dual-channel mounting hardware. Order hardware on page 121.

### SELECTION CRITERIA

1. Flow rate/tube size desired.
  2. Materials of construction.
  3. Compatibility with drives.
- Includes 50.8 cm (20") of silicone tubing, loading key, and mounting hardware.
- See specifications for more information.

Order tubing and drives separately.

### COMPATIBILITY WITH DRIVES

- ▶ Mount on all drives accepting Masterflex® I/P pump heads

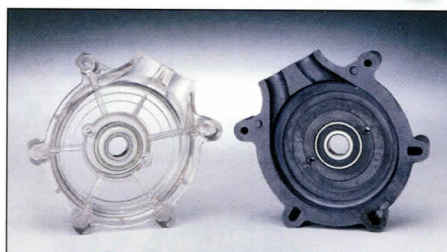
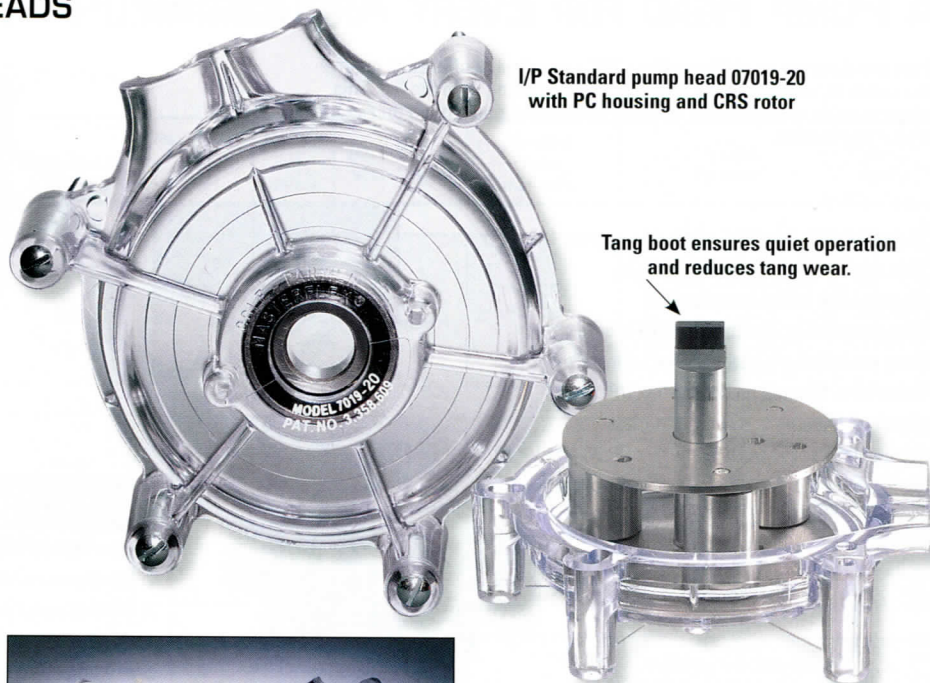
### PUMP HOUSING SPECIFICATIONS

#### Clear Polycarbonate (PC)

- ▶ General-purpose applications
- ▶ View operation through the housing
- ▶ Select from CRS/Buna N or 304 SS/PTFE shielded ball-bearing

#### Polyphenylene Sulfide (PPS)

- ▶ Best protection from corrosive liquids/vapors
- ▶ 300-series SS/PTFE shielded ball-bearing



I/P Standard pump head is available with either PC (left) or PPS (right) housing.

### ROLLER/ROTOR SPECIFICATIONS

#### Plated Cold-Rolled Steel (CRS)

- ▶ General-purpose applications
- ▶ Buna N shielded ball-bearing

#### 300-Series Stainless Steel (SS)

- ▶ Corrosive fluid applications
- ▶ Shielded ball-bearing construction (highest life expectancy)

ISO 9001:2000  
CERTIFIED SUPPLIER

2 year  
warranty

### ORDERING INFORMATION

Pump tubing size	PC housing		PPS housing
	CRS rotor	SS rotor	SS rotor

#### For Precision pump tubing

I/P 73	RX-07019-20	RX-07019-21	RX-07019-43
I/P 82	RX-07019-32	RX-07019-31	RX-07019-53

PC = polycarbonate

CRS = cold-rolled steel

PPS = polyphenylene sulfide



SS = stainless steel

### ACCESSORIES

RX-77600-03 Replacement tang boots. Pack of 10.

### I/P PUMP TUBING FLOW RATE INFORMATION

Order Masterflex I/P Precision pump tubing separately on pages 126–127.

Tubing cross sections	I/P Precision pump tubing	
	 I/P 73	 I/P 82
Flow rate—mL/rev	12.3	20.0
Flow rate @ 650 rpm	8 LPM (2.1 GPM)	13 LPM (3.5 GPM)
Max pressure†	2.7 bar (40 psi)	1.4 bar (20 psi)
Max vacuum†	610 mm Hg (24" Hg)	510 mm Hg (20" Hg)
Suction lift	7.6 m H <sub>2</sub> O (25 ft H <sub>2</sub> O)	7.0 m H <sub>2</sub> O (23 ft H <sub>2</sub> 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.

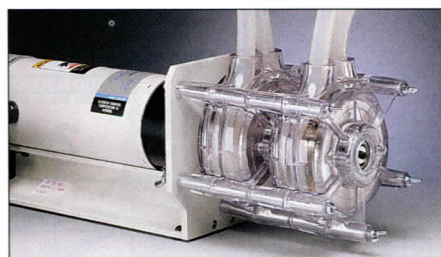


## SPECIFICATIONS for I/P Standard Pump Heads

Catalog number	RX-07019					
	-20	-21	-43	-31	-32	-53
Performance Specifications						
Flow capacity	0.01 to 13 LPM (0.002 to 3.5 GPM)					
Max rpm	650					
Number of rollers	3					
Max pressure	2.7 bar (40 psi)			1.4 bar (20 psi)		
Max vacuum	610 mm Hg (24" Hg)			510 mm Hg (20" Hg)		
Torque Specifications [a single pump head pumping water at 0 psi, 21°C (70°F)]						
Norprene®, PharMed® BPT	Starting torque	23.4 kg-cm (325 oz-in)				
	Running torque	9.4 kg-cm (130 oz-in)				
Tygon®, Viton®	Starting torque	36.0 kg-cm (500 oz-in)				
	Running torque	15 kg-cm (208 oz-in)				
C-FLEX®, Silicone	Starting torque	20.9 kg-cm (290 oz-in)				
	Running torque	8.6 kg-cm (120 oz-in)				
Physical Specifications						
Housing material	PC		PPS	PC		PPS
Rotor material	CRS	SS		CRS	SS	
Operating temperature	0 to 40°C (32 to 104°F)					
Shipping weight	1.8 kg (4 lb)					

## MULTICHANNEL CAPABILITIES

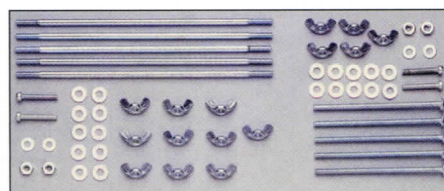
Stack up to to two Standard pump heads on a single drive when using C-FLEX® or silicone tubing, depending on drive specifications. Order hardware depending on number of pump heads to be mounted.



Two Standard pump heads mounted on drive 07591-00

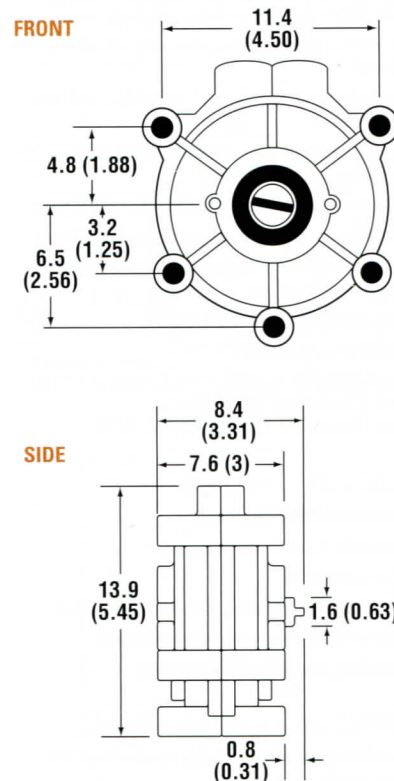
## MOUNTING HARDWARE

Heads to be mounted	Catalog number/set
One	RX-07019-95
Two	RX-07019-96

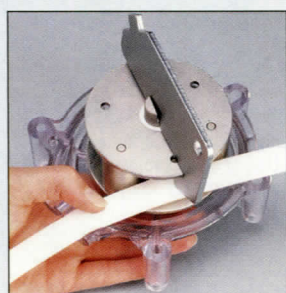


Mounting hardware 07019-95 for one pump head and 07019-96 for two pump heads.

Dimensional Drawings cm (in.)  
07019-series



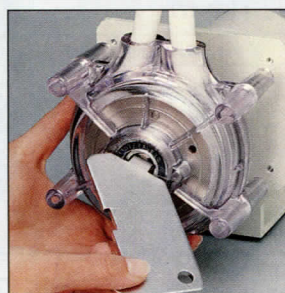
## HOW TO LOAD YOUR PUMP HEAD



1. Disassemble pump head to open. Load tubing.



2. Use tube loading key for simpler, more consistent loading.



3. Reassemble two halves and mount on drive.

I/P® TUBING ..... 126-130  
I/P® DRIVES..... 131-145  
I/P® PUMP SYSTEMS..... 146-151

ACCESSORIES ..... 160-171

TECHNICAL DATA ..... 172-206