L/S® High-Performance Pump Heads

Features/Benefits

- Delivers the highest flow rate of any L/S pump head
- Flow rates from 0.006 to 3400 mL/min
- To fit application needs, pump head can be mounted upright or on its side
- Tubing enters/exits same side of pump head
- Adjustable tubing retention holds tubing firmly in place
- Ideal for viscous fluid transfer
- Adapts easily to OEM applications
- Model 77250-82 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

Selection Criteria

1. Flow rate/tube size desired.
2. Materials of construction.
3. Compatibility with drives.

- 38 cm (15") of E-LFL tubing and mounting hardware are supplied

See specifications for more information.

Order tubing and drives separately.

Compatibility with Drives

- Compatible with all Masterflex L/S drives that accept two or more pump heads

Pump Housing Specifications

- Rollers, bearings, rotor plates, and rotor shaft are made of stainless steel
- Occlusion bed: polyphenylene sulfide
- Retainer adjusting knob: polypropylene
- Main body: polyester

Roller/Rotor Specifications

Stainless Steel (SS)

- Operating temperatures from 0 to 40°C (32 to 104°F)
- Storage temperature range: –40 to 60°C (–40 to 140°F)
- Humidity: 95% maximum, 5% minimum (noncondensing)
- Continuous duty up to 600 rpm

High-performance pump head 77252-72

High-performance pump head 77250-62 shown mounted on an L/S modular drive 07557-00

ISO 9001:2008 CERTIFIED SUPPLIER · 2 year warranty · ATEX Zone 2 77250-82

Ordering Information

Pump tubing size	High-Performance pump head	ATEX-approved High-Performance pump head
L/S 15 L/S 24 L/S 35 L/S 36	HL-77252-72	HL-77252-82
L/S 14HP L/S 16HP L/S 15HP L/S 24HP		

Multichannel Capabilities

- L/S High-Performance pump heads are not designed to be stacked

See page 117
For Masterflex 100 psi high-pressure pump system.

L/S Pump Tubing Flow Rate Information

Order Masterflex L/S pump tubing separately on pages 68–73; order high-pressure tubing on facing page.

	L/S High-performance Precision pump tubing				L/S High-pressure Precision pump tubing			
Tubing cross sections	L/S 15	L/S 24	L/S 35	L/S 36	L/S 14HP	L/S 16HP	L/S 15HP	L/S 24HP
Flow rate–mL/rev	1.8	3.0	4.3	5.8	0.3	0.9	1.7	2.4
mL/min @ 100 rpm	180	300	430	580	30	90	170	240
mL/min @ 600 rpm	1100	1800	2600	3400	Not recommended		Not recommended	
Max pressure†	2.7 bar (40 psi)		2.4 bar (35 psi)	1.4 bar (20 psi)	10.2 bar (150 psi)	8.5 bar (125 psi)	6.8 bar (100 psi)	5.5 bar (80 psi)
Max vacuum†	660 mm Hg (26" Hg)			610 mm Hg (24" Hg)	660 mm Hg (26" Hg)			
Suction lift	8.8 m H_2O (29 ft H_2O)			8.3 m H_2O (27 ft H_2O)	8.8 m H_2O (29 ft H_2O)			

†Actual performance varies depending upon tubing materials—see pages 20–24 and 172–192 for more information.

US Toll-free: 800-323-4340 • Outside the US: 847-549-7600 • www.coleparmer.com
KOREA P&S Tel 042-934-2555 Fax 042-934-3555 www.hosepump.co.kr

SPECIFICATIONS for L/S High-Performance Pump Heads

Catalog number		HL-77252-72, HL-77252-82
Performance Specifications		
Flow capacity		0.006 to 3400 mL/min (0 to 54 GPH)
Max rpm		600
Number of rollers		3
Torque Specifications [pumping water at 0 psi, 21°C (70°F)]†		
Norprene®, PharMed® BPT	Starting torque	13.8 kg-cm (192 oz-in)
	Running torque	3.6 kg-cm (50 oz-in)
Tygon®, Viton®	Starting torque	11.5 kg-cm (160 oz-in)
	Running torque	5.4 kg-cm (75 oz-in)
C-FLEX®, Silicone	Starting torque	5.4 kg-cm (75 oz-in)
	Running torque	2.7 kg-cm (37 oz-in)
Norprene® HP, PharMed® BPT HP	Starting torque	43.9 kg-cm (610 oz-in)
	Running torque	7.2 kg-cm (100 oz-in)
Physical Specifications		
Roller, bearings, rotor plates, and rotor shaft materials		Stainless steel
Operating temperature		0 to 40°C (32 to 104°F)
Shipping weight		1.6 kg (3.5 lb)

†For L/S 36 tubing.

ACCESSORIES

HL-77250-01 Replacement mounting hardware, stainless steel.

NOTES

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

ORDERING INFORMATION for L/S High-Pressure Pump Tubing

Tubing size	Catalog number	Tubing ID	Flow range (1 to 100 rpm)	Maximum pressure (continuous)	Length/pk
PharMed BPT					
L/S 14HP	**HL-95664-14**	1/16"	0.3 to 30 mL/min	10.2 bar (150 psi)	7.6 m (25 ft)
L/S 16HP	**HL-95664-16**	1/8"	0.9 to 90 mL/min	8.5 bar (125 psi)	
L/S 15HP	**HL-95664-15**	3/16"	1.7 to 170 mL/min	6.8 bar (100 psi)	
L/S 24HP	**HL-95664-24**	1/4"	2.4 to 240 mL/min	5.5 bar (80 psi)	
Norprene					
L/S 16HP	**HL-06504-16**	1/8"	0.9 to 90 mL/min	8.5 bar (125 psig)	7.6 m (25 ft)
L/S 15HP	**HL-06504-15**	3/16"	1.7 to 170 mL/min	6.8 bar (100 psig)	

HOW TO LOAD YOUR PUMP HEAD

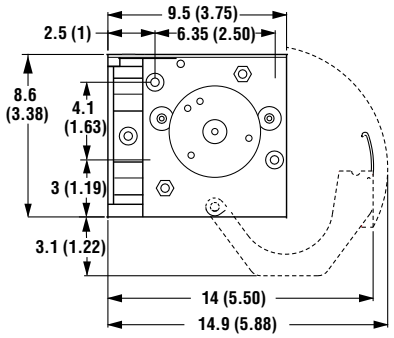
1. Rotate tubing retainer knob counterclockwise to release retainer, then open cover. Lift latch to open occlusion bed.

2. Insert tubing into occlusion bed, so that the tubing ends extend out of the tubing entrance and exit as shown.

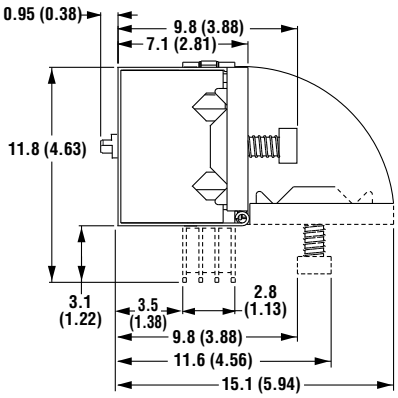
3. Press occlusion bed against tubing and snap latch closed. Pull the tubing snug around rotor, close cover, and rotate tubing retainer knob clockwise. Tighten tubing retainer knob to secure tubing.

Dimensional Drawings cm (in.)
77250-62, -82

FRONT



SIDE



FREE TUBING TEST KIT!

Can't find your chemical in the tables?

Request your FREE tubing kit to test compatibility of your chemicals against different tubing formulations. Request item HL-00101-10.

Call or go online to request your FREE test kit today!

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