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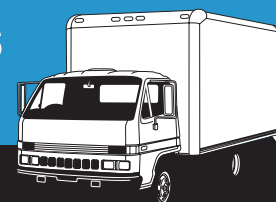
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Selecting a **Masterflex**[®] Pump: As Easy As

Application Requirements

- What is my required flow rate?
- What chemical am I pumping?
- Do conditions such as viscosity or back pressure play an important role in my decision?

Base a Pump Series on Your Flow Rate

- Use the table below to find the pump series that best fits your flow rate needs

Complete Your System

- L/S and I/P pump series are divided into three components—pump head, tubing, and drive
- Select the three components from the same series or choose a complete preconfigured system

Masterflex pump series	Features	Flow range	Speed		Remote control capability	Multichannel capabilities	Page(s)
			Fixed	Variable			
C/L [®]	Compact, low-flow pump that easily fits on benchtop or mounts within a panel	0.002 to 43 mL/min		✓	Yes	Yes	3
L/S [®]	High-accuracy drives for precise flow control and dispensing	0.0006 to 3400 mL/min	✓	✓	Yes	Yes	4–11
I/P [®]	Powerful systems that provide better protection from possible hazards such as dust and water	0.012 to 19 LPM	✓	✓	Yes	Yes	12–14
B/T [®]	Highest flow rates—ideal for large batch fluid transfer with excellent hazard protection	0.3 to 42 LPM	✓	✓	Yes	Yes	ColeParmer.com

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Pump Selection | Troubleshooting | And More...

Not sure what to choose?

Our expert Application Specialists can help you find the right pump for your application.

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C/L® Variable-Speed Compact Pumps Pump in even the tightest spaces!

- Pump fluids in either direction—easily switchable reversing motor
- Stop/start remotely via contact closure
- MAX button quickly primes or purges tubing
- Both pumps include 5 ft (1.5 m) of 0.89-mm ID Tygon® E-LFL tubing.

A. C/L Single-Channel Pumps

- Quick and easy tubing changes—open cover and release occlusion bed in one motion
- Pump from 0.002 to 43 mL/min
- Pump head made from polyphenylene sulfide, acetal, and copolyester; stainless steel rollers

B. C/L Dual-Channel Pumps

- Pump from 0.002 to 12.3 mL/min per channel, depending on drive and tubing
- Pump head made of polyphenylene sulfide and stainless steel; rollers made of acetal co-polymer



FEATURES

- ✓ Flow range: 0.002 to 43 mL/min
- ✓ ¼-DIN housing is perfect for panel mounting
- ✓ Reversible pumping
- ✓ Stop/start remote control capabilities

Power supplies are:

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Catalog number	rpm	Speed control (repeatability)	Number of channels	Number of rollers	Reversible motor	IP rating	Dimensions—¼ DIN (L x W x H)	Power		Price
								VAC, Hz	Amps	
A. C/L single-channel compact pumps										
LD-77122-04 LD-77122-06 LD-77122-14 LD-77122-16	1.7 to 10	±5%	1	4	Yes	IP22	7" x 3¼" x 3½" (17.8 x 9.5 x 8.9 cm)	90 to 260, 50/60 12 VDC†	110 mA at 115 VAC	
LD-77122-24 LD-77122-26	13 to 80							90 to 260, 50/60 12 VDC†	175 mA at 115 VAC	
	50 to 300							90 to 260, 50/60 12 VDC†	400 mA at 115 VAC	
B. C/L dual-channel compact pumps										
LD-77120-32 LD-77120-52 LD-77120-42 LD-77120-62	1 to 6	±5%	2	6	Yes	IP22	7½" x 3¼" x 3½" (19 x 9.5 x 8.9 cm)	90 to 260, 50/60 12 VDC†	110 mA at 115 VAC	
	10 to 60							90 to 260, 50/60 12 VDC†	175 mA at 115 VAC	

†Power supply not included with 12 VDC models.

[LD-77120-03](#) Brackets for panel mounting. Set of 2

[LD-77200-07](#) Replacement power supply, 100 to 240 VAC, for pump 77122-24

[LD-77120-11](#) Replacement power supply, 100 to 240 VAC, for pumps 77122-04, -14; 77120-32 and -42

Microbore Pump Tubing Ordering Information

Tube ID (mm)	Tygon® E-Lab	Silicone (platinum-cured)	Silicone (peroxide-cured)	PharMed® BPT	Tygon E-LFL (long flex life)	Viton®	Puri-Flex™	C-Flex®	Solvent/hydrocarbon
0.19	NEW 				NEW 				
0.25	LD-06460-10	—	—	—	—	—	LD-96418-10	LD-95718-10	LD-95712-10
0.51	LD-06460-12	—	—	LD-95809-12	—	—	LD-96418-12	LD-95718-12	LD-95712-12
0.89	LD-06460-18	LD-95590-18	—	LD-95809-18	LD-06449-18	—	LD-96418-18	LD-95718-18	LD-95712-18
1.14	LD-06460-26	LD-95590-26	LD-07625-26	LD-95809-26	LD-06449-26	LD-97632-26	LD-96418-26	LD-95718-26	LD-95712-26
1.42	LD-06460-30	LD-95590-30	LD-07625-30	LD-95809-30	LD-06449-30	LD-97632-30	LD-96418-30	LD-95718-30	LD-95712-30
2.06	LD-06460-34	LD-95590-34	LD-07625-34	LD-95809-34	LD-06449-34	LD-97632-34	LD-96418-34	LD-95718-34	LD-95712-34
2.79	LD-06460-42	LD-95590-42	LD-07625-42	LD-95809-42	LD-06449-42	LD-97632-42	LD-96418-42	LD-95718-42	LD-95712-42
Quantity/pack	100 ft (30.4 m)	50 ft (15.2 m)	50 ft (15.2 m)	100 ft (30.4 m)	100 ft (30.4 m)	50 ft (15.2 m)	50 ft (15.2 m)	50 ft (15.2 m)	50 ft (15.2 m)
Price/pk									

Flow Rates in mL/min

rpm	Microbore pump tubing size (ID)								
	0.19 mm	0.25 mm	0.51 mm	0.89 mm	1.14 mm	1.42 mm	2.06 mm	2.79 mm	
1 to 6	0.002 to 0.013	0.0028 to 0.017	0.012 to 0.07	0.036 to 0.20	0.057 to 0.34	0.08 to 0.49	0.15 to 0.88	0.22 to 1.3	
1.7 to 10	0.002 to 0.013	0.004 to 0.022	0.015 to 0.087	0.041 to 0.25	0.064 to 0.39	0.09 to 0.57	0.18 to 1.05	0.28 to 1.65	
10 to 60	0.02 to 0.13	0.03 to 0.18	0.12 to 0.70	0.36 to 2.1	0.55 to 3.3	0.8 to 4.9	1.5 to 8.9	2.1 to 12.3	
13 to 80	0.017 to 0.10	0.03 to 0.18	0.12 to 0.70	0.33 to 2.0	0.52 to 3.1	0.75 to 4.5	1.4 to 8.5	1.8 to 11.0	
50 to 300	0.06 to 0.38	0.11 to 0.67	0.43 to 2.6	1.2 to 7.4	1.9 to 11.5	2.8 to 17.0	5.3 to 32	7.2 to 43	

L/S® Easy-Load® II Pump Heads

No more slipping of tubing—automatic retention system holds it securely in place

- Reduced pulsation and improved pressure performance and mechanical stability with standard four-roller rotor
- Pump heads made of durable PPS housing
- Choice of rotors—economical CRS rotors or SS rotors for better chemical resistance and durability
- Don't let pressure get to you. Choose models with adjustable occlusion—tighten for higher pressure, loosen for longer tubing life

A. Pump Heads for Precision Pump Tubing

- Wide flow range for wider range of applications from 0.06 to 2300 mL/min

B. Pump Heads for High-Performance Precision Pump Tubing

- Pump viscous liquids and get better pressure generation and suction lift

C. Two-Channel Pump Heads for Precision Pump Tubing

- No need to stack heads, get two channels in one head!

What's included: single-channel mounting hardware and a 15" (38-cm) length of silicone pump tubing. Pump head comes ready to mount to drive. Hardware for mounting two or more heads is available below.



C



B

FEATURES

- ✓ Load tubing easily
- ✓ Accepts several tubing sizes for a wide flow range
- ✓ Stack up to four heads

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Pump tubing size accepted	mL per rev	Flow rates in mL/min		Maximum system pressure† psi (bar)	Catalog number‡					
		1 to 100 rpm	6 to 600 rpm		Fixed occlusion		Adjustable occlusion			
					CRS rotor	SS rotor	SS rotor			
Cat. no.	Price	Cat. no.	Price	Cat. no.	Price					
A. Easy-Load II pump heads for precision pump tubing										
L/S 13	0.06	0.06 to 6	0.36 to 36	40 (2.7)	LD-77200-50		LD-77200-60		LD-77201-60	
L/S 14	0.21	0.21 to 21	1.3 to 130	40 (2.7)						
L/S 16	0.8	0.8 to 80	4.8 to 480	40 (2.7)						
L/S 25	1.7	1.7 to 170	10 to 1000	35 (2.4)						
L/S 17	2.8	2.8 to 280	17 to 1700	20 (1.4)						
L/S 18	3.8	3.8 to 380	23 to 2300	15 (1.0)						
B. Easy-Load II pump heads for high-performance precision pump tubing										
L/S 15	1.7	1.7 to 170	10 to 1000	40 (2.7)	LD-77200-52		LD-77200-62		LD-77201-62	
L/S 24	2.8	2.8 to 280	17 to 1700	40 (2.7)						
L/S 35	3.8	3.8 to 380	23 to 2300	35 (2.4)						
L/S 36	4.8	4.8 to 480	29 to 2900	20 (1.4)						
C. Two-channel Easy-Load II pump heads for precision pump tubing										
L/S 13	0.06	0.06 to 6	0.36 to 36	40 (2.7)	LD-77202-50		LD-77202-60		—	—
L/S 14	0.21	0.21 to 21	1.3 to 130	40 (2.7)						
L/S 16	0.8	0.8 to 80	4.8 to 480	40 (2.7)						
L/S 25	1.7	1.7 to 170	10 to 1000	35 (2.4)						

†Actual performance varies depending on pump tubing formulation—values shown are for firm pump tubing.

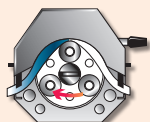
‡CRS = cold-rolled steel SS = stainless steel

Teky's Tips



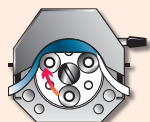
How Masterflex Pump Heads Work

1



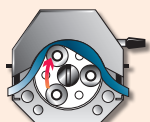
Tubing is placed in the tubing bed—between the rotor and housing—where it is occluded (squeezed).

2



The rollers on the rotor move across the tubing, pushing the fluid. The tubing behind the rollers recovers its shape, creates a vacuum, and draws fluid in behind it.

3



A "pillow" of fluid is formed between the rollers. This is specific to the ID of the tubing and the geometry of the rotor. Flow rate is determined by multiplying speed by the size of the pillow. This pillow stays fairly constant except with extremely viscous fluids.

Mounting Hardware for Easy-Load II Heads

Mount up to four L/S Easy-Load II pump heads on a single drive; see individual drive specifications for maximum number of heads to be mounted. Mounting hardware is stainless steel.

Heads to be mounted	Catalog number	Price/st
One	LD-77200-01	
Two	LD-77200-02	
Three	LD-77200-03	
Four	LD-77200-04	

L/S® Easy-Load® 3 Pump Heads

No tools or hardware needed

- Mount and stack heads in seconds with twist-lock mounting feature
- CRS rotor is more economical while SS offers greater durability and chemical resistance
- Mount up to four pump heads without tools or hardware when using mounting plate
- Included mounting plate adapts Easy-Load 3 pump heads to L/S drives

FEATURES

- ✓ Same side tubing entry/exit for space-limited applications
- ✓ Twist-lock mounting—mount and stack heads in seconds
- ✓ Stack up to four heads

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Pump tubing sizes accepted	mL per rev	Flow rates in mL/min		Maximum system pressure† psi (bar)	Catalog number‡	
		1 to 100 rpm	6 to 600 rpm		CRS rotor	SS rotor
A. Easy-Load 3 pump heads for precision pump tubing						
L/S 13	0.06	0.06 to 6	0.36 to 36	40 (2.7)	LD-77800-50	LD-77800-60
L/S 14	0.22	0.22 to 22	1.3 to 130	40 (2.7)		
L/S 16	0.8	0.8 to 80	4.8 to 480	40 (2.7)		
L/S 25	1.7	1.7 to 170	10 to 1000	35 (2.4)		
L/S 17	2.8	2.8 to 280	17 to 1700	20 (1.4)		
L/S 18	3.8	3.8 to 380	23 to 2300	15 (1.0)		
B. Easy-Load 3 pump heads for high-performance precision pump tubing						
L/S 15	1.7	1.7 to 170	10 to 1000	30 (2.0)	LD-77800-52	LD-77800-62
L/S 24	2.8	2.8 to 280	17 to 1700	30 (2.0)		
L/S 35	3.8	3.8 to 380	23 to 2300	25 (1.7)		
L/S 36	4.8	4.8 to 480	29 to 2900	20 (1.4)		
				Price		

†Actual performance varies depending on pump tubing formulation—values shown are for firm pump tubing.

‡CRS = cold-rolled steel SS = stainless steel

LD-77800-00 Replacement mounting kit, for mounting Easy-Load 3 pump head to Masterflex L/S pump drives. Includes mounting plate and four screws



A

Wait!

There's More at
ColeParmer.com

Find all the
product specs
you need!

L/S® Easy-Load® Pump Heads

Save time with fast tubing changes and reduced maintenance

- No need to remove head to change tubing
- PPS housing offers improved chemical resistance; SS rotor offers increased durability and chemical resistance
- Get four separate pumping channels by mounting up to four heads on one drive
- ATEX Zone 2 approved models rated to EEx II 3 G c II C T6
- Ready to use—include single-channel mounting hardware and 15" (38 cm) of silicone tubing

FEATURES

- ✓ Fixed occlusion averaged for several tubing sizes
- ✓ Stack up to four heads
- ✓ ATEX Zone 2 rated models available

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CERTIFIED SUPPLIER

ATEX
Zone 2
07518-40, -42



Pump tubing sizes accepted	mL per rev	Flow rates in mL/min		Maximum system pressure psi (bar)	Catalog number‡			
		1 to 100 rpm	6 to 600 rpm		PSF housing		PPS housing	ATEX-approved PSF housing
					CRS rotor	SS rotor	SS rotor	SS rotor
A. Easy-Load pump heads for precision pump tubing								
L/S 13	0.06	0.06 to 6	0.36 to 36	40 (2.7)	LD-07518-00	LD-07518-10	LD-07518-60	LD-07518-40
L/S 14	0.21	0.21 to 21	1.3 to 130	40 (2.7)				
L/S 16	0.8	0.8 to 80	4.8 to 480	40 (2.7)				
L/S 25	1.7	1.7 to 170	10 to 1000	35 (2.4)				
L/S 17	2.8	2.8 to 280	17 to 1700	20 (1.4)				
L/S 18	3.8	3.8 to 380	23 to 2300	15 (1.0)				
B. Easy-Load pump heads for high-performance precision pump tubing								
L/S 15	1.7	1.7 to 170	10 to 1000	40 (2.7)	LD-07518-02	LD-07518-12	LD-07518-62	LD-07518-42
L/S 24	2.8	2.8 to 280	17 to 1700	40 (2.7)				
				Price				

‡PSF = polysulfone PPS = polyphenylene sulfide CRS = cold-rolled steel SS = stainless steel



A

Mounting Hardware

for Easy-Load Heads

Stack up to four L/S Easy-Load pump heads on one drive. Order mounting hardware based on number of mounted pump heads. Hardware is stainless steel.

Heads to be mounted	Catalog number	Price/st
One	LD-07013-04	
Two	LD-07013-05	
Three	LD-07013-08	
Four	LD-07013-09	

L/S® Multichannel Pump Heads

Get low-pulsation synchronous flow in multiple channels without cartridges

- Load the tubing, latch the occlusion bed, and run the pump—two-stop tubing gives you optimal tension with no adjustment
- Stackable two-, four-, or eight-channel heads for up to 24 channels
- Six roller heads deliver low-pulsation flow; three-roller heads offer higher flow rates
- Machined stainless steel (SS) and anodized aluminum with SS rotor, bearings, and rollers for reliable, continuous-duty operation
- Flow range: 0.045 to 2300 mL/min per channel depending on drive rpm and tubing size
- Heads for L/S precision pump tubing accept two-stop tubing set sizes L/S 13, L/S 14, and L/S 16; heads for L/S high-performance precision pump tubing accept two-stop tubing set sizes L/S 15, L/S 24, and L/S 35
- Compatible with L/S drives that accept two or more pump heads; 1/10 hp min



FEATURES

- ✓ Stackable for up to 24 synchronous flow channels
- ✓ Models for L/S two-stop tubing sets available
- ✓ Durable stainless steel and anodized aluminum construction



Stack heads for even more channels!

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Catalog number	Number of channels	Number of rollers	Max channels with stacked heads†		Price
			100 rpm drive	600 rpm drive	
A. L/S Multichannel pump heads for precision pump tubing, sizes L/S 13, L/S 14, L/S 16					
LD-07535-04	4	6	24	12	
LD-07535-08	8				
B. L/S Multichannel pump heads for high-performance precision pump tubing, sizes L/S 15, L/S 24, L/S 35					
LD-07536-02	2	3	12	6	
LD-07536-04	4				

†Maximum channel capacity depends on drive torque capability and tubing formulation used.

L/S Two-Stop Precision Tubing Sets Ordering Information for 07535- and 07536-series pump heads

Pump tubing formulation	L/S Precision pump tubing			L/S High-performance precision pump tubing		
	L/S 13	L/S 14	L/S 16	L/S 15	L/S 24	L/S 35
Tygon® E-LFL	LD-06447-13 /pk of 8	LD-06447-14 /pk of 8	LD-06447-16 /pk of 8	LD-06447-15 /pk of 4	LD-06447-24 /pk of 4	LD-06447-35 /pk of 4
Silicone (platinum-cured)	LD-06421-13 /pk of 8	LD-06421-14 /pk of 8	LD-06421-16 /pk of 8	LD-06421-15 /pk of 4	LD-06421-24 /pk of 4	LD-06421-35 /pk of 4
BioPharm Plus Silicone (platinum-cured)	LD-96116-13 /pk of 8	LD-96116-14 /pk of 8	LD-96116-16 /pk of 8	LD-96116-15 /pk of 4	LD-96116-24 /pk of 4	LD-96116-35 /pk of 4
PharMed® BPT	LD-96114-13 /pk of 8	LD-96114-14 /pk of 8	LD-96114-16 /pk of 8	LD-96114-15 /pk of 4	LD-96114-24 /pk of 4	LD-96114-35 /pk of 4
Chem-Durance® Bio	LD-96117-13 /pk of 8	LD-96117-14 /pk of 8	LD-96117-16 /pk of 8	LD-96117-15 /pk of 4	LD-96117-24 /pk of 4	LD-96117-35 /pk of 4
Viton®	LD-96428-13 /pk of 8	LD-96428-14 /pk of 8	LD-96428-16 /pk of 8	LD-96428-15 /pk of 4	LD-96428-24 /pk of 4	LD-96428-35 /pk of 4

Flow Rates per Channel in mL/min with L/S Two-Stop Precision Pump Tubing Sets above

Drive rpm	Precision pump tubing			High-performance precision pump tubing		
	L/S 13	L/S 14	L/S 16	L/S 15	L/S 24	L/S 35
1 to 100	0.045 to 4.5	0.16 to 16	0.47 to 47	1.6 to 160	2.8 to 280	3.8 to 380
6 to 600	0.27 to 27	0.96 to 96	2.8 to 280	10 to 1000	17 to 1700	23 to 2300

L/S® Precision Pump Tubing Ensure optimal pump performance

Find even more online! Go to ColeParmer.com
for additional tubing formulations.

- Custom extruded to fit Masterflex pumps
- Engineered for long life in peristaltic pump applications

Tubing size	L/S 13	L/S 14	L/S 16	L/S 25	L/S 17	L/S 18
Inner diameter	0.8 mm (0.03")	1.6 mm (0.06")	3.1 mm (0.12")	4.8 mm (0.19")	6.4 mm (0.25")	7.9 mm (0.31")
Hose barb size	1.6 mm (1/16")	1.6 mm (1/16")	3.2 mm (1/8")	4.8 mm (3/16")	6.4 mm (1/4")	9.5 mm (3/8")

Pump tubing formulation	Description						
 Silicone (platinum-cured)	<ul style="list-style-type: none"> – Complies with USP Class V, EP, FDA, REACH, RoHS, ADCF – Low protein binding, fungus-resistant, phthalate & latex free – Accommodates a wide temperature range 	LD-96410-13	LD-96410-14	LD-96410-16	LD-96410-25	LD-96410-17	LD-96410-18
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Silicone (peroxide-cured)	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, 3A, REACH, RoHS, ADCF – Greater physical compression capability – Economical, longer tubing life 	LD-96400-13	LD-96400-14	LD-96400-16	LD-96400-25	LD-96400-17	LD-96400-18
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 BioPharm Plus Silicone (platinum-cured)	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, 3A, REACH, RoHS, ADCF – Ultra-smooth inner surface minimizes particle entrapment – Low extractables—ideal for lab, biotech, pharma applications 	LD-96440-13	LD-96440-14	LD-96440-16	LD-96440-25	LD-96440-17	LD-96440-18
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Puri-Flex™	<ul style="list-style-type: none"> – Complies with USP Class VI, FDA, REACH, RoHS, ADCF – Heat sealable, weldable, and economical – Long life when compared to silicone or many TPE tubings 	LD-96419-13	LD-96419-14	LD-96419-16	LD-96419-25	LD-96419-17	LD-96419-18
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 C-Flex®	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, REACH, RoHS, ADCF – Heat sealable, weldable, economical – Better resistance to pH fluctuations 	LD-06424-13	LD-06424-14	LD-06424-16	LD-06424-25	LD-06424-17	LD-06424-18
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 C-Flex® ULTRA NEW	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, REACH, RoHS, ADCF – Longest life of any C-Flex formulation – Lowest spallation and reduced residue 	—	LD-06434-14	LD-06434-16	LD-06434-25	LD-06434-17	LD-06434-18
		—	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 PharMed® BPT	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, NSF, REACH, RoHS – Over 10,000 hours of tubing life – Ideal for tissue and cell culture work 	LD-06508-13	LD-06508-14	LD-06508-16	LD-06508-25	LD-06508-17	LD-06508-18
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Tygon® E-LFL NEW	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, EU Food, REACH, RoHS, ADCF – Longest life of Tygon formulations; broad chemical resistance 	LD-06440-13	LD-06440-14	LD-06440-16	LD-06440-25	LD-06440-17	LD-06440-18
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Tygon E-Food (B-44-4X) NEW	<ul style="list-style-type: none"> – Complies with FDA, EU Food, NSF, 3A, REACH, RoHS, ADCF – Smooth inner surface unaffected by commercial sanitizers – Nontoxic, will not affect taste or odor 	LD-06418-13	LD-06418-14	LD-06418-16	LD-06418-25	LD-06418-17	LD-06418-18
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk
 Tygon E-Lab (E-3603) NEW	<ul style="list-style-type: none"> – USP Class VI, FDA, EU Food, NSF, REACH, RoHS, ADCF compliant – Nonaging, nonoxidizing, low gas permeability 	LD-06509-13	LD-06509-14	LD-06509-16	LD-06509-25	LD-06509-17	LD-06509-18
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk
 Norprene® Food (A 60 F)	<ul style="list-style-type: none"> – Complies with FDA, 3A, NSF, REACH, RoHS – Ideal for high-temperature food applications – Resists heat, ozone, acids, and alkalis 	LD-06402-13	LD-06402-14	LD-06402-16	LD-06402-25	LD-06402-17	LD-06402-18
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk
 Viton®	<ul style="list-style-type: none"> – Complies with FDA, ADCF – Perfect for when FDA and chemical compatibility are needed – Resists corrosives, solvents, & oils at elevated temperatures 	LD-96412-13	LD-96412-14	LD-96412-16	LD-96412-25	LD-96412-17	LD-96412-18
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Norprene® (A-60 G)	<ul style="list-style-type: none"> – Complies with NSF, REACH, RoHS – Up to 10,000 hours of tubing life – Best choice for pressure/vacuum applications 	LD-06404-13	LD-06404-14	LD-06404-16	LD-06404-25	LD-06404-17	LD-06404-18
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk
 Chem-Durance® Bio	<ul style="list-style-type: none"> – Complies with USP Class VI, FDA, REACH, RoHS – Excellent chemical compatibility and biocompatibility – Excellent pump life and durability under pressure 	LD-06442-13	LD-06442-14	LD-06442-16	LD-06442-25	LD-06442-17	LD-06442-18
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk

L/S® High-Performance Precision Pump Tubing








Thicker wall compared to our Precision pump tubing

- Best choice for applications involving pressure, suction lift, viscous fluids, or long tubing life
- More formulations available: ColeParmer.com/MasterflexTubing

Tubing size	L/S 15	L/S 24	L/S 35	L/S 36
Inner diameter	4.8 mm (0.19")	6.4 mm (0.25")	7.9 mm (0.31")	9.7 mm (0.38")
Hose barb size	4.8 mm (3/16")	6.4 mm (1/4")	9.5 mm (3/8")	9.5 mm (3/8")

Pump tubing formulation	Description				
 Silicone (platinum-cured)	<ul style="list-style-type: none"> – Complies with USP Class V, EP, FDA, REACH, RoHS, ADCF – Low protein binding, fungus-resistant, phthalate and latex free – Accommodates a wide temperature range 	LD-96410-15	LD-96410-24	LD-96410-35	LD-96410-36
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Silicone (peroxide-cured)	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, 3A, REACH, RoHS, ADCF – Greater physical compression capability – Economical, longer tubing life 	LD-96400-15	LD-96400-24	LD-96400-35	LD-96400-36
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 BioPharm Plus Silicone (platinum-cured)	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, 3A, REACH, RoHS, ADCF – Ultra-smooth inner surface minimizes particle entrapment – Very low extractables—ideal for lab, biotech, pharma applications 	LD-96440-15	LD-96440-24	LD-96440-35	LD-96440-36
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Puri-Flex™	<ul style="list-style-type: none"> – Complies with USP Class VI, FDA, REACH, RoHS, ADCF – Heat sealable, weldable, and economical – Long pump life when compared to silicone or many TPE tubings 	LD-96419-15	LD-96419-24	LD-96419-35	LD-96419-36
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 C-Flex®	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, REACH, RoHS, ADCF – Heat sealable, weldable, economical – Better resistance to pH fluctuations 	LD-06424-15	LD-06424-24	LD-06424-35	LD-06424-36
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 C-Flex® ULTRA	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, REACH, RoHS, ADCF – Longest life of any C-Flex formulation – Lowest spallation and reduced residue 	LD-06434-15	LD-06434-24	LD-06434-35	LD-06434-36
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 PharMed® BPT	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, NSF, REACH, RoHS – Over 10,000 hours of tubing life – Ideal for tissue and cell culture work 	LD-06508-15	LD-06508-24	LD-06508-35	LD-06508-36
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Tygon® E-LFL	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, EU Food, REACH, RoHS, ADCF – Longest life of all Tygon formulations – Broad chemical resistance 	LD-06440-15	LD-06440-24	LD-06440-35	LD-06440-36
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Tygon E-Food (B-44-4X)	<ul style="list-style-type: none"> – Complies with FDA, EU Food, NSF, 3A, REACH, RoHS, ADCF – Smooth inner surface unaffected by commercial sanitizers – Nontoxic, will not affect taste or order 	LD-06418-15	LD-06418-24	LD-06418-35	LD-06418-36
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk
 Tygon E-Lab (E-3603)	<ul style="list-style-type: none"> – Complies with USP Class VI, FDA, EU Food, NSF, REACH, RoHS, ADCF – Nonaging, nonoxidizing, low gas permeability 	LD-06509-15	LD-06509-24	LD-06509-35	LD-06509-36
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk
 Norprene® Food (A 60 F)	<ul style="list-style-type: none"> – Complies with FDA, 3A, NSF, REACH, RoHS – Ideal for high-temperature food applications – Resists heat, ozone, acids, and alkalis 	LD-06402-15	LD-06402-24	LD-06402-35	LD-06402-36
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk
 Viton®	<ul style="list-style-type: none"> – Complies with FDA, ADCF – Perfect for when FDA and chemical compatibility are needed – Resists corrosives, solvents, and oils at elevated temperatures 	LD-96412-15	LD-96412-24	LD-96412-35	LD-96412-36
		7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk	7.6 m (25 ft)/pk
 Norprene® (A-60 G)	<ul style="list-style-type: none"> – Complies with NSF, REACH, RoHS – Up to 10,000 hours of tubing life – Best choice for pressure/vacuum applications 	LD-06404-15	LD-06404-24	LD-06404-35	LD-06404-36
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk
 Chem-Duranc® Bio	<ul style="list-style-type: none"> – Complies with USP Class VI, FDA, REACH, RoHS – Excellent chemical compatibility and biocompatibility – Excellent pump life and durability under pressure 	LD-06442-15	LD-06442-24	LD-06442-35	LD-06442-36
		15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk	15.2 m (50 ft)/pk

L/S® Drives Selection Guide

Description	Flow rates (mL/min)	Special features	Page number
Fixed-Speed			
	Lowest: 0.06 Highest: 290	<ul style="list-style-type: none"> ✓ Consistent repeatable flow rates ✓ Economical and compact ✓ UL, cUL, and CE listed models 	ColeParmer.com
Variable-Speed Economy Console			
	Lowest: 0.42 Highest: 2900	<ul style="list-style-type: none"> ✓ Economical variable flow ✓ Simple speed control ✓ UL, cUL, and CE listed models ✓ Accept stacked pump heads for multiple channels 	ColeParmer.com
Precision Modular			
	Lowest: 0.06 Highest: 3400	<ul style="list-style-type: none"> ✓ Separate motor and controller up to 15 ft (4.6 m) ✓ Models available with IP66-rated wall-mount controllers ✓ Pump heads can be stacked 	ColeParmer.com
Precision Variable-Speed Console			
	Lowest: 0.06 Highest: 3400	<ul style="list-style-type: none"> ✓ Economical variable flow ✓ Simple speed control ✓ ETL and CE listed ✓ Accept stacked pump heads for multiple channels ✓ Drives are stackable 	10
Variable-Speed Digital and Computer Compatible			
	Lowest: 0.001 Highest: 3400	<ul style="list-style-type: none"> ✓ Four-line graphical LCD with menu-driven programming ✓ Maintenance-free brushless motor ✓ PWM speed control with 6000:1 turndown ✓ Tachometer feedback for ±0.1% speed control ✓ Calibration capability 	11 and ColeParmer.com
Digital Process			
	Lowest: 0.006 Highest: 3400	<ul style="list-style-type: none"> ✓ Four-line graphical LCD with menu-driven programming ✓ Sealed housing; IP66 and NEMA 4X rated for washdown ✓ Maintenance-free brushless motor; PWM speed control ✓ Dispensing features include delay interval and cumulative volume ✓ Remote control capability 	ColeParmer.com
Digital Modular Dispensers			
	Lowest: 0.001 Highest: 3400	<ul style="list-style-type: none"> ✓ Maintenance-free brushless motor ✓ Precise repetitive dispensing with antidrip ✓ Precise PWM speed control ✓ Quiet operation ✓ Tachometer feedback for ±0.1% speed control ✓ Available with washdown wall-mount controller ✓ Calibration capability 	ColeParmer.com

L/S® Compact Variable-Speed Pumps

Make low-flow pumping easy!



- No confusing menus—easy-to-use speed controller and reversing switch get you pumping quicker
- No stress loading of tubing—new easy-loading Miniflex™ pump head with automatic tubing retention keeps tubing in place
- Easier on the budget—complete system accepts continuous tubing, no need to buy two-stop tubing
- Dual-channel model delivers synchronous flow from two separate channels

FEATURES

- ✓ Flow rates: 1.8 to 220 mL/min
- ✓ Remote start/stop via contact closure on back of pump
- ✓ Stack for smaller overall footprint

These easy-to-use complete pumps offer a wide occlusion angle, which prevents fluid backflow up to the rated pressure of the tubing. Prime or flush tubing quickly by depressing the MAX button. Self-lubricating thermoplastic polyester rollers are low friction and long wearing for smooth operation and long life.

What's included: L/S Miniflex pump head and dual-voltage (115/230 VAC) benchtop power supply.

Flow Rates in mL/min

rpm	Precision pump tubing			
	L/S 13	L/S 14	L/S 16	L/S 25†
Single-channel pump 77240-20				
35 to 200	1.8 to 10	6.3 to 36	21 to 118	40 to 220
Dual-channel pump 77240-30				
35 to 200	1.8 to 10	6.3 to 36	21 to 118	—

†Recommended for use with silicone or C-Flex® formulations only.



Specifications

Speed control (repeatability): ±5%	Dimensions (L x W x H): 8 5/8" x 5 1/4" x 4 1/2" (22 x 13.3 x 11.4 cm)
Reversible motor: yes	Power: 90 to 260 VAC, 50/60 Hz

Number of channels	rpm	IP rating	Catalog number	Price
1	35 to 200	IP22	LD-77240-20	
2			LD-77240-30	

Accessories

- [LD-77200-07](#) Replacement power supply, dual-voltage 115/230 VAC
- [LD-17050-01](#) NIST-traceable calibration with data for peristaltic pump drive

L/S® Precision Variable-Speed Console Drives

Don't lose control of your metering applications—digital display gives you precise control

- Accurate and repeatable settings with 3-digit LED display
- Pump fluid in either direction with reversible motor—perfect for purging tubing
- Save space and increase productivity by stacking 2 or 4 pump heads on the same drive to create a multichannel pump system
- Maximize processes in a minimal footprint by stacking splash-resistant, IP33-rated drives
- Two ways to control speed, direction, and start/stop—use either the membrane keypad or remote control capabilities
- Customize for your application—drives accept nine pump head types: Standard, Easy-Load®, Easy-Load® II, Easy-Load® 3, Multichannel, High-Performance, Cartridge, PTFE-Tubing, and PTFE-Diaphragm

FEATURES

- ✓ Flow rates: 0.06 to 3400 mL/min
- ✓ Variable speed from 1 to 600 rpm
- ✓ Reversible motor accepts up to four pump heads



Stack up to 4 heads to maximize productivity in less space

Flow Rates in mL/min (flow rates in parentheses can only be obtained with the High-Performance pump head—at ColeParmer.com)

rpm	Precision pump tubing						High-performance precision pump tubing				
	L/S 13	L/S 14	L/S 16	L/S 25	L/S 17	L/S 18	L/S 15	L/S 24	L/S 35	L/S 36	
	Standard†, Easy-Load, Easy-Load II, Easy-Load 3						Multichannel‡, Standard†, Easy-Load II, Easy-Load 3, High-Performance				
	Cartridge, Multichannel			Cartridge			Easy-Load				
6 to 600	0.36 to 36	1.3 to 130	4.8 to 480	10 to 1000	17 to 1700	23 to 2300	10 to 1000 (11 to 1100)	17 to 1700 (18 to 1800)	23 to 2300 (26 to 2600)	29 to 2900 (34 to 3400)	
1 to 100	0.06 to 6	0.21 to 21	0.8 to 80	1.7 to 170	2.8 to 280	3.8 to 380	1.7 to 170 (1.8 to 180)	2.8 to 280 (3.0 to 300)	3.8 to 380 (4.3 to 430)	4.8 to 480 (5.8 to 580)	

†The Standard pump head is not available for L/S 25. ‡Multichannel head is not available for L/S 36. Multichannel and Cartridge heads are available for microbore tubing.

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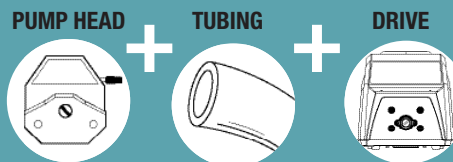
rpm	Speed control (resolution)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	Power (50/60 Hz)		Catalog number	Price
						VAC	Amps		
6 to 600	±0.25% (1 rpm at 600 rpm; 0.1 rpm at 100 rpm)	2	1/10 hp (75 W)	IP33	10" x 8.5" x 8.5" (25.4 x 21.6 x 21.6 cm)	90 to 260	1.8 at 115 VAC, 1.2 at 230 VAC	LD-07528-10	
3 to 300		2						LD-07528-20	
1 to 100		4						LD-07528-30	

Accessories

- [LD-07595-45](#) Connector, DB9 male. Use for 4 to 20 mA remote control
- [LD-07595-47](#) Cable assembly, DB9 male connector and 25-ft (7.9-m) cable with stripped wire terminal ends. Use for remote control
- [LD-77595-35](#) Foot switch, DB9 male

- [LD-07528-80](#) Handheld remote controller; for remote control of start/stop, route tubing through handle for dispensing into containers
- [LD-17050-01](#) NIST-traceable calibration with data for peristaltic pump drive

Choose a Complete System
One catalog number includes all 3 components!



System	Catalog number	Flow range	What's included			Power	Price
			Pump head	Tubing	Drive		
	LD-77916-10	4.8 to 480 mL/min	Easy-Load® 3 77800-60	C-Flex® ULTRA L/S 16 tubing 06434-16 10 ft (3 m)	Precision console drive 07528-10 6 to 600 rpm	90 to 260 VAC, 50/60 Hz	
	LD-77916-20	17 to 1700 mL/min	Easy-Load II 77200-62	C-Flex® ULTRA L/S 24 tubing 06434-24 10 ft (3 m)			

L/S® Variable-Speed Digital Drives

Versatile, worry-free operation

- Brushless, maintenance-free motor provides ±0.1% speed control accuracy with 6000:1 turndown ratio
- Bright graphical LCD offers easy programming, four operating modes, and seven languages
- Get more accurate dispensing with preprogrammed calibration
- Change based on your needs—drives accept all L/S pump heads for more pumping versatility
- Choose how you want to dispense: volume, copy cycles, or time
- Operate remotely via DB25 female connector

FEATURES

- ✓ Flow rates: 0.001 to 3400 mL/min
- ✓ Variable speed from 0.02 to 600 rpm
- ✓ Programmable, reversible motor accepts up to four pump heads

Four operating modes for more functionality: continuous run, time dispense, copy dispense, and volume dispense



Flow Rates in mL/min (flow rates in parentheses can only be obtained with the High-Performance pump head—at ColeParmer.com)

rpm	Precision pump tubing						High-performance precision pump tubing			
	L/S 13	L/S 14	L/S 16	L/S 25	L/S 17	L/S 18	L/S 15	L/S 24	L/S 35	L/S 36
	Standard†, Easy-Load, Easy-Load II, Easy-Load 3						Multichannel‡, Standard, Easy-Load II, Easy-Load 3, High-Performance			
	Cartridge, Multichannel			Cartridge			Easy-Load			
0.1 to 600	0.006 to 36	0.021 to 130	0.08 to 480	0.17 to 1000	0.28 to 1700	0.38 to 2300	0.17 to 1000 (0.18 to 1100)	0.28 to 1700 (0.30 to 1800)	0.38 to 2300 (0.43 to 2600)	0.48 to 2900 (0.57 to 3400)
0.02 to 100	0.001 to 6	0.004 to 21	0.016 to 80	0.033 to 170	0.057 to 280	0.077 to 380	0.033 to 170 (0.036 to 183)	0.057 to 280 (0.057 to 300)	0.077 to 380 (0.086 to 433)	0.096 to 480 (0.113 to 566)

†The Standard pump head is not available for L/S® 25.

‡Multichannel head is not available for L/S 36. Multichannel and Cartridge heads are available for microbore tubing.



rpm	Speed control (resolution)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	Power (50/60 Hz)		Catalog number	Price
						VAC	Amps		
0.1 to 600	±0.1% (0.1 rpm at 600 rpm; 0.01 rpm at 100 rpm)	2	1/10 hp (75 W)	IP33	10" x 8.5" x 8.5" (25.4 x 21.6 x 21.6 cm)	90 to 260	2.2 at 115 VAC, 1.1 at 230 VAC	LD-07522-20	
0.02 to 100		4						LD-07522-30	

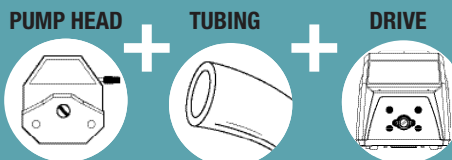
Accessories

- [LD-07523-92](#) Foot switch, momentary start/stop; 6-ft (1.8-m) cable
- [LD-07523-94](#) DB25 male connector. Use to create your own cable
- [LD-07523-95](#) Cable assembly, DB25 male connector and 25 ft (7.9 m) cable with stripped wire ends for remote control

- [LD-07523-97](#) Handheld remote controller; route tubing through handle for dispensing into containers
- [LD-17050-01](#) NIST-traceable calibration with data for peristaltic pump drive

Choose a Complete System

One catalog number includes all 3 components!



System	Catalog number	Flow range	What's included			Power	Price
			Pump head	Tubing	Drive		
	LD-77921-65	0.08 to 480 mL/min	Easy-Load® 3 77800-60	C-Flex® ULTRA L/S 16 tubing 06434-16 10 ft (3 m)	Digital drive 07522-20 0.1 to 600 rpm	90 to 260 VAC, 50/60 Hz	
	LD-77921-75	0.28 to 1700 mL/min	Easy-Load II 77200-62	C-Flex ULTRA L/S 24 tubing 06434-24 10 ft (3 m)			



I/P® Easy-Load® Pump Heads

Minimize downtime with faster tubing changes

- Optimize pressure capabilities and tubing life with adjustable occlusion
- Less maintenance and quieter operation with included tang boot
- No more loose pump heads—five-screw mounting for more secure attachment
- Adjust flow rate to your needs—can pump from 0.6 to 13 LPM
- PSF housing with CRS or SS rotor, or PPS housing with SS rotor available. PPS has better chemical resistance than PSF. CRS rotors have sealed bearings; SS rotors have PTFE-sealed bearings

FEATURES

- ✓ Load tubing without removing pump head from drive
- ✓ Automatic tubing retention
- ✓ Stack up to two pump heads
- ✓ ATEX Zone 2 rated model available

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ATEX
Zone 2
77601-80



Pump tubing sizes accepted	mL per rev	Flow rates (LPM) at indicated rpm			Maximum system psi (bar)	Catalog number†			
		100	540	20 to 650		PSF housing, CRS rotor	PSF housing, SS rotor	PPS housing, SS rotor	ATEX-approved; PSF housing, SS rotor
I/P 26	6.15	0.6	3.2	0.12 to 4	40 (2.7)	LD-77601-00	LD-77601-10	LD-77601-60	LD-77601-80
I/P 73	12.3	1.2	6.8	0.2 to 8					
I/P 82	20.0	2.0	11.0	0.4 to 13	20 (1.4)				
Price									

†PSF = polysulfone PPS = polyphenylene sulfide CRS = cold-rolled steel SS = stainless steel

[LD-77601-96](#) Dual-channel mounting hardware for two pump heads, stainless steel



I/P® High-Performance Pump Heads

Get higher flow rates and pressure ratings

- Easily transfer viscous fluids
- Pump up to 19 LPM for higher volume processing
- Durable design for longer life—made of stainless steel rollers, bearings, rotor plates, and rotor shaft. Occlusion bed is made of thermoset polyester
- Compatible with I/P drives that accept two or more pump heads; pump head is not stackable

FEATURES

- ✓ Easy to load tubing
- ✓ Adjustable tubing retention
- ✓ “C”-shaped design—tubing enters/exits the same side
- ✓ ATEX Zone 2 rated model available

ISO9001:2008
CERTIFIED SUPPLIER

ATEX
Zone 2
77600-82



Pump tubing sizes accepted	mL per rev	Flow rates (LPM) at 20 to 650 rpm	Maximum system psi (bar)	Catalog number†	
				Polyester and SS housing, SS rotor	ATEX-approved; polyester and SS housing, SS rotor
I/P 70	12.3	0.26 to 8	40 (2.7)		
I/P 88	26.2	0.4 to 17	35 (2.4)	LD-77600-62	LD-77600-82
I/P 89	29.2	0.52 to 19	20 (1.4)		
Price					

†SS = stainless steel

Wait!







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to help you choose







I/P® Precision and High-Performance Precision Pump Tubing

Engineered for long life in peristaltic pumps





- Ensure optimal Masterflex pump performance
- Custom extruded to fit Masterflex pumps
- Lot-to-lot consistency provides superior accuracy and repeatability
- High-Performance Precision tubing has a thicker wall for applications involving pressure, suction lift, and highly viscous fluids

Pump tubing cross sections	I/P Precision pump tubing			I/P High-performance precision pump tubing		
						
	I/P 26	I/P 73	I/P 82	I/P 70	I/P 88	I/P 89
Inside diameter (nominal)	6.4 mm (0.25")	9.5 mm (0.37")	12.7 mm (0.5")	9.5 mm (0.37")	12.7 mm (0.5")	15.88 mm (0.62")
Hose barb size (nominal)	6.4 mm (1/4")	9.5 mm (3/8")	12.7 mm (1/2")	9.5 mm (3/8")	12.7 mm (1/2")	15.88 mm (5/8")



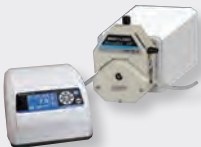

I/P Precision Pump Tubing

Pump tubing formulation	Description	I/P 26	I/P 73	I/P 82
 Silicone (platinum-cured)	<ul style="list-style-type: none"> – Complies with USP Class V, EP, FDA, REACH, RoHS, ADF – Low protein binding, fungus-resistant, phthalate and latex free – Accommodates a wide temperature range 	LD-96410-26 7.6 m (25 ft)/pk	LD-96410-73 7.6 m (25 ft)/pk	LD-96410-82 7.6 m (25 ft)/pk
 Silicone (peroxide-cured)	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, 3A, REACH, RoHS, ADF – Greater physical compression capability – Economical, long tubing life 	LD-96400-26 7.6 m (25 ft)/pk	LD-96400-73 7.6 m (25 ft)/pk	LD-96400-82 7.6 m (25 ft)/pk
 Puri-Flex™	<ul style="list-style-type: none"> – Complies with USP Class VI, FDA, REACH, RoHS, ADF – Heat sealable, weldable, and economical – Long pump life when compared to silicone or many other TPE tubings 	LD-96419-26 7.6 m (25 ft)/pk	LD-96419-73 7.6 m (25 ft)/pk	LD-96419-82 7.6 m (25 ft)/pk
 C-Flex®	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, REACH, RoHS, ADF – Heat sealable, weldable, economical – Better resistance to pH fluctuations 	LD-06424-26 7.6 m (25 ft)/pk	LD-06424-73 7.6 m (25 ft)/pk	LD-06424-82 7.6 m (25 ft)/pk
 Tygon® E-LFL	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, FDA, EU Food, REACH, RoHS, ADF – Longest life of all Tygon formulations – Broad chemical resistance 	LD-06440-26 7.6 m (25 ft)/pk	LD-06440-73 7.6 m (25 ft)/pk	LD-06440-82 7.6 m (25 ft)/pk
 Tygon E-Lab	<ul style="list-style-type: none"> – Complies with USP Class VI, FDA, EU Food, NSF, REACH, RoHS, ADF – Ideal for general transfer applications – Nonaging, nonoxidizing, low gas permeability 	LD-06509-26 7.6 m (25 ft)/pk	LD-06509-73 7.6 m (25 ft)/pk	LD-06509-82 7.6 m (25 ft)/pk

I/P High-Performance Precision Pump Tubing

Pump tubing formulation	Description	I/P 70	I/P 88	I/P 89
 Silicone (platinum-cured)	<ul style="list-style-type: none"> – Complies with USP Class V, EP, FDA, REACH, RoHS, ADF – Low protein binding, fungus-resistant, phthalate and latex free – Accommodates a wide temperature range 	LD-96510-70 3 m (10 ft)/pk	LD-96510-88 3 m (10 ft)/pk	LD-96510-89 3 m (10 ft)/pk
 Puri-Flex™	<ul style="list-style-type: none"> – Complies with USP Class VI, FDA REACH, RoHS, ADF – Heat sealable, weldable, and economical – Long pump life when compared to silicone or many other TPE tubings 	LD-96419-70 3 m (10 ft)/pk	LD-96419-88 3 m (10 ft)/pk	LD-96419-89 3 m (10 ft)/pk
 C-Flex®	<ul style="list-style-type: none"> – Complies with USP Class VI, EP, REACH, RoHS, ADF – Heat sealable, weldable, and economical – Better resistance to pH fluctuations 	LD-06424-70 7.6 m (25 ft)/pk	LD-06424-88 7.6 m (25 ft)/pk	LD-06424-89 7.6 m (25 ft)/pk
 Tygon E-Lab (E-3603)	<ul style="list-style-type: none"> – Complies with USP Class VI, FDA, EU Food, NSF, REACH, RoHS, ADF – Ideal for general transfer applications – Nonaging, nonoxidizing, low gas permeability 	LD-06509-70 3 m (10 ft)/pk	LD-06509-88 3 m (10 ft)/pk	LD-06509-89 3 m (10 ft)/pk

I/P® Drives Selection Guide

Description	Special features	Page number
Brushless Process		
	<ul style="list-style-type: none"> ✓ Compact and powerful ✓ Maintenance-free brushless motor ✓ IP55 rated 	14
Precision Variable-Speed Modular		
	<ul style="list-style-type: none"> ✓ Separate motor and controller for convenient setup ✓ Model available with wall-mount controller and IP66 protection 	ColeParmer.com
Variable-Speed Modular Digital Dispensing		
	<ul style="list-style-type: none"> ✓ Digital dispensing with calibration ✓ Separate motor and controller for convenient setup ✓ Model available with wall-mount controller and IP66 protection 	ColeParmer.com
Digital Brushless Process		
	<ul style="list-style-type: none"> ✓ Digital dispensing with calibration ✓ Sealed housing; IP66 and NEMA 4X rated for washdown ✓ Maintenance-free brushless motor 	ColeParmer.com

I/P® Brushless Process Drives

Powerful, low-maintenance drives keep you pumping

- Don't worry about moisture, chemicals, or dust—IP55-rated nonchip epoxy-coated steel housing
- Goes where you need it—compact and light enough to carry with one hand, powerful enough to drive two pump heads
- Get up to speed quickly—easy to adjust speed knob and LED display for improved repeatability



FEATURES

- ✓ Flow rates: 0.2 to 19 LPM
- ✓ Accuracy of ±0.25% speed control
- ✓ LED display
- ✓ Reversible motor and remote control capabilities
- ✓ Accept up to 2 pump heads



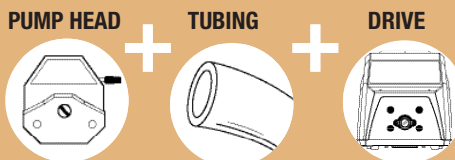
Motor speed (rpm)	Speed control (repeatability)	Pump heads accepted	Motor size	Power (50/60 Hz)		Catalog number	Price
				VAC	Amps		
Variable-speed brushless process drive; 14"L x 10"W x 9"H (35.6 x 25.4 x 22.9 cm)							
33 to 650	±0.25% (2% of max rpm)	2	1/8 hp (0.25 kW)	90 to 260	4.5 at 115 VAC, 2.6 at 230 VAC	LD-77410-10	
Variable-speed brushless process drive with remote input/output; 14"L x 10"W x 9"H (35.6 x 25.4 x 22.9 cm)							
33 to 650	±0.25% (2% of max rpm)	2	1/8 hp (0.25 kW)	90 to 260	4.5 at 115 VAC, 2.6 at 230 VAC	LD-77411-00	



[LD-07595-43](#) Washdown foot switch for model 77411-00

[LD-77300-32](#) Remote cable kit. Required for model 77411-00 to operate the remote inputs and outputs

Choose a Complete System

One catalog number includes all 3 components!



System	Catalog number	Flow range	What's included			Power	Price
			Pump head	Tubing	Drive		
	LD-77963-10	0.4 to 8 LPM	Easy-Load® 77601-10	C-Flex® ULTRA I/P 73 tubing 06434-73 10 ft (3 m)	Brushless process drive 77410-10 33 to 650 rpm	90 to 260 VAC, 50/60 Hz	
	LD-77963-20	0.7 to 17 LPM	High-Performance 77600-62	Tygon® E-LFL I/P 88 tubing 06440-88 3 ft (1 m)			

WHY MASTERflex® Peristaltic Pumps?

1

Easy

- Quick installation
- Low maintenance
- Easy tubing changeover

2

Durable

- Trusted for over 45 years
- Broad chemical compatibility
- High pumping speeds

3

Versatile

- From research to process
- Handles just about any fluid
- Multichannel capabilities

4

Customizable

- Configurable systems
- Many tubing options
- Easy scale-up

5

Accurate

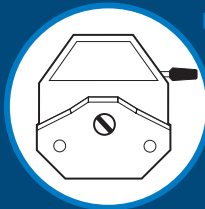
- Flow ranges from 0.0006 mL/min to 42 L/min
- Rigorous design and testing standards



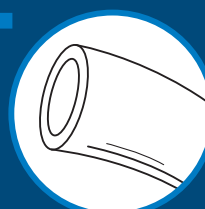
Configurable to your needs

Masterflex pumps allow you to choose each component for your unique demands—change out components as your needs change

PUMP HEAD



TUBING



DRIVE



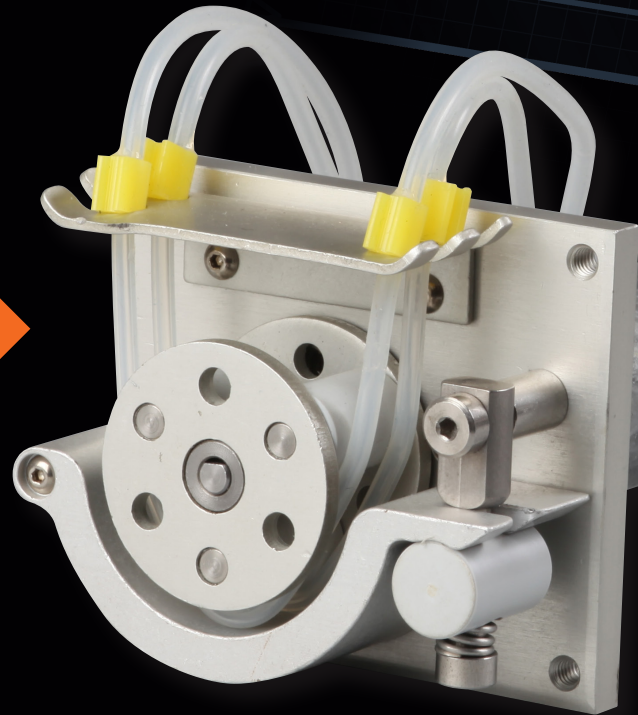
Why D.I.Y.?

We D.I.F.Y.

(Do It For You)



Affordable
custom-engineered
pumps.



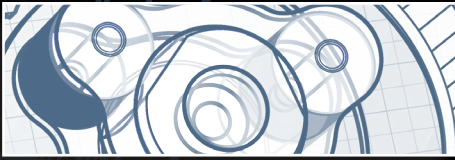
***When an off-the-shelf pump just won't cut it,
you need a solution custom-built for your requirements.***

Why try to build it on your own? With more than 100 years of combined experience, our design engineers will partner with you to create the exact pump you need.



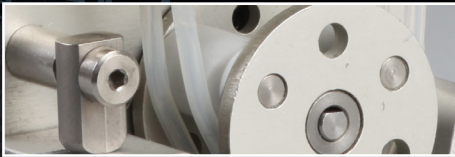
Concept

Complete product specifications developed according to your needs



Design

Innovative solution created with our advanced systems



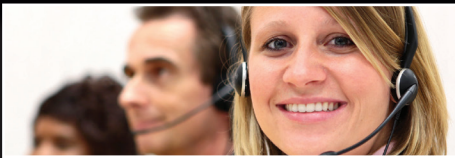
Engineering

Product prototype and fabrication for your approval



Testing

Tested under actual conditions; products comply with UL, ETL, and CE under ISO:9001 and ISO:13485 standards



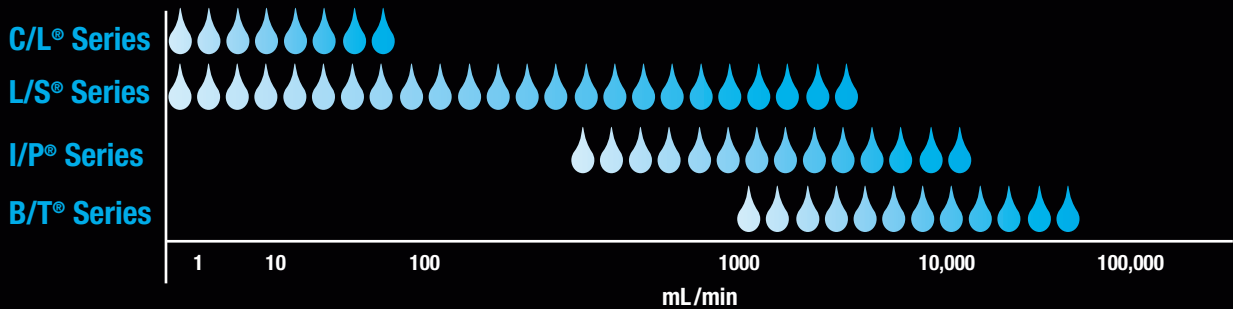
Service

After sale support, quality assurance audits, and additional services

Custom Capabilities, Custom Performance

From volumes less than a teardrop to flow rates more than a fire hose, we can create a custom pump solution for your specific fluid transfer needs.

Flow rates: less than 10 $\mu\text{L}/\text{min}$ to more than 400 LPM
Pressure performance: up to 10.2 bar



Contact us today!

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FluidHandling@coleparmer.com

Gear Pump Systems

Easy ordering—one part number for drive and pump head

Benchtop Analog Systems

Analog drives provide continuous-duty operation with Micropump® A-mount pump heads. Gradual, one-second acceleration offers smooth control of drive speed and flow rate.

The permanent-magnet, direct-current (PMDC) drive is built to last—excellent for long-term applications.

What's included: drive, pump head, and a 1.8-m modular line cord with IEC 320/CEE 22 connector—specify country to obtain correct line cord.

Benchtop Digital Systems

Calibrate, copy, and dispense features produce precise, pulseless batching and dispensing. Displacement and flow values for all Micropump A-mount pump heads are stored in memory—simply enter the pump head size (gear code) to retrieve the displacement per revolution. IP33-rated enclosure protects the internal components.

Drive has a DB25 connection for the optional foot switch for hands-free on/off control (order foot switch separately below).

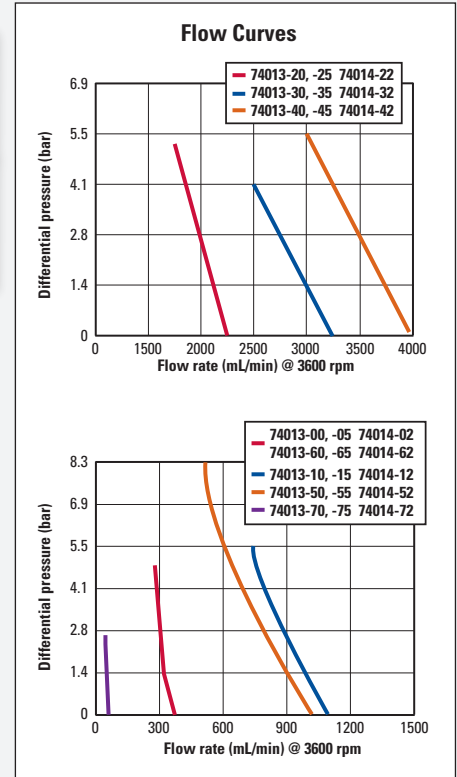
What's included: drive, pump head, and a 1.8-m modular line cord with IEC 320/CEE 22 connector—specify country to obtain correct line cord.



Benchtop analog system 74013-45



Benchtop digital system 74014-32



Specifications

Viscosity: 0.2 to 1500 cp
Suction lift: 0.6 m of H₂O (at 1750 rpm)
Duty cycle: continuous
Port size: 1/8" NPT(F)

Remote control:
 Analog drives: none
 Digital drives: (input) on/off by contact closure
 0 to 10 VDC, 0 to 20 mA,
 4 to 20 mA, and remote output

Max operating temperature: 60°C (104°F)
Speed:
 Analog drives: 50 to 5000 rpm
 Digital drives: 36 to 3600 rpm



Flow rates (mL/min) [†]			Max pressure		Wetted parts			Benchtop analog systems			Benchtop digital systems			Service kits	
mL/rev	at 50 rpm	at 3600 rpm	Diff (bar)	System (bar)	Body	Gears	Seals	Catalog number	Power (VAC)	Price	Catalog number	Power (VAC)	Price	Catalog number	Price
0.017	0.85	85	1.38	20.68	316 SS	Graphite	PTFE	LD-74013-70	115		LD-74014-72	90 to 260		LD-07144-42	
								LD-74013-75	220						
0.092	4.60	331.2	5.17	20.68	316 SS	PPS	PTFE	LD-74013-00	115		LD-74014-02	90 to 260		—	—
								LD-74013-05	220						
0.092	4.60	331.2	5.17	20.68	316 SS	PPS	PPS	LD-74013-60	115		LD-74014-62	90 to 260		—	—
								LD-74013-65	220						
0.261	13.05	939.6	8.61	20.68	316 SS	PEEK	Viton®	LD-74013-50	115		LD-74014-52	90 to 260		LD-74012-52	
								LD-74013-55	220						
0.316	15.8	1137.6	5.17	20.68	316 SS	PPS	PTFE	LD-74013-10	115		LD-74014-12	90 to 260		—	—
								LD-74013-15	220						
0.64	32.0	2304	5.17	20.68	316 SS	PPS	PTFE	LD-74013-20	115		LD-74014-22	90 to 260		LD-74012-22	
								LD-74013-25	220						
0.91	45.5	3276	5.17	20.68	316 SS	PPS	PTFE	LD-74013-30	115		LD-74014-32	90 to 260		—	—
								LD-74013-35	220						
1.17	58.5	4212	4.14	20.68	316 SS	PPS	Viton	LD-74013-40	115		LD-74014-42	90 to 260		—	—
								LD-74013-45	220						

[†]Flow rates in mL/min are based on water at room temperature and no back pressure.

Accessories

[LD-07595-42](#) Foot switch, momentary start/stop, 1.8-m cable
[LD-06385-10](#) Male pipe adapter (straight); PP, 1/4" OD x 1/8" NPT(M), 10/pk

[LD-30621-31](#) Male pipe adapter; HDPE, 1/8" NPT(M) x 1/4" ID, 10/pk
[LD-40610-36](#) Male pipe adapter; natural PP, 1/8" NPT(M) x 1/4" ID, 10/pk

Ismatec® Low-Flow High-Accuracy Pumps

Fewer tubing changes—planetary drive for less pulsation and longer tubing life

- Smooth rotation and accurate liquid flow provided by eight SS rotors
- Easy repeatability with four-digit LED
- Simple to use—automatic occlusion cartridges provide reproducible results

A. Standard Variable-Speed Pumps

- Ideal for continuous pumping—enter speeds via keypad or control remotely
- Remote capabilities include speed, start/stop, reverse, and autostart

B. Programmable Variable-Speed Dispensing Pumps

- Five modes for pumping or dispensing including flow rate, time, batches, drip-free, and volume
- Control via computer or remote control



See page 16.

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Flow range per channel	Channels	Speed	Rollers	Tubing	A. Standard variable-speed pumps		B. Programmable variable-speed dispensing pumps	
					Cat. no.	Price	Cat. no.	Price
Low-speed planetary gear-driven pumps								
0.0004 to 11 mL/min	4	0.11 to 11.25 rpm	8	Two-stop (Page 16)	LD-78023-02		LD-78001-00	
	8				LD-78023-12		LD-78001-10	
	12				LD-78023-22		LD-78001-20	
	16				LD-78023-32		LD-78001-30	
	24				LD-78023-42		LD-78001-40	
Standard-speed planetary gear-driven pumps								
0.002 to 44 mL/min	4	0.4 to 45 rpm	8	Two-stop (Page 16)	LD-78023-00		LD-78001-02	
	8				LD-78023-10		LD-78001-12	
	12				LD-78023-20		LD-78001-22	
	16				LD-78023-30		LD-78001-32	
	24				LD-78023-40		LD-78001-42	



A

Specifications

Accuracy: better than $\pm 1\%$
 Pressure: up to 22 psi (1.5 bar)
 Power: 115/230 VAC, 50/60 Hz (selectable)

Replacement Cartridges

Order extra cartridges and adapters when fast tubing changes are crucial.

LD-78001-95 Replacement Click'n'go™ cartridge

LD-78001-90 Replacement adjustable occlusion cartridge

LD-07618-71 Replacement adapters hold two-stop color-coded tubing in cartridge. Two adapters required per cartridge. Pack of 12

Ismatec® Compact Multichannel Pumps

No more inconsistent results—consistent flow and reduced tubing wear for improved results

- Get more productivity in a compact unit—up to four channels provide more fluid transfer simultaneously
- No maintenance—rollers are self-lubricating
- Easy channel changes—Click'n'go™ minicartridges snap in place
- Get smoother flow with 12-roller pumps

A. Variable-Speed Pumps

Speed is adjustable in 1% steps (0 to 99%). Control speed remotely. Start/stop pump or change direction via contact closure; monitor speed through frequency output.

B. Programmable Variable-Speed Digital Pumps

Continuously pump or dispense in any of four modes—flow rate, time, batches, or drip-free. Pumps feature analog input and output controls, as well as an RS-232 interface for control by a computer. Remote control capable.

ISO9001:2008
CERTIFIED SUPPLIER



Flow range per channel (mL/min)	Channels	Speed	Rollers	Tubing	A. Standard variable-speed pumps		B. Programmable variable-speed digital pumps	
					Cat. no.	Price	Cat. no.	Price
0.005 to 59	2	1.6 to 160 rpm	6	Three-stop (Page 16)	LD-78016-00		LD-78016-40	
0.004 to 50			8		LD-78016-10		LD-78017-00	
0.004 to 34			12		LD-78017-25		LD-78016-45	
0.003 to 37	4	1.0 to 100 rpm	6	Three-stop (Page 16)	LD-78017-30		—	—
0.003 to 31			8		LD-78016-30		LD-78017-10	
0.003 to 21			12		LD-78017-35		LD-78017-20	



B

Digital pump 78017-00 is fully programmable.



See page 16.

Specifications

Pressure: up to 22 psi (1.5 bar)
 Power: 115/230 VAC, 50/60 Hz (selectable)

Minicartridges

Optional minicartridges with adjustable occlusion manually vary pressure on each channel.

LD-07624-64 Optional adjustable occlusion minicartridge

LD-78016-98 Replacement Click'n'go™ minicartridge



You're Out? We're Not!

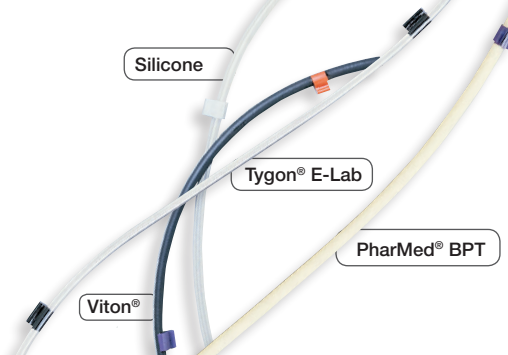
Thousands of highlighted items

Fluid Handling

Pumps, Ismatec®

Two- and Three-Stop Color-Coded Tubing for Ismatec® Pumps

Don't confuse your tubing—color-coded stops for easy identification



STEP 1:

Choose tubing material and select the catalog number prefix

STEP 3: Complete your system with extension tubing

Connect stopped tubing and extension tubing with hose barb fittings or splicing.

Type	Description	Suffixes for the available sizes	Tubes/pk (length)	Two-Stop Tubing		Three-Stop Tubing		Extension Tubing		
				Catalog number prefix	Price/pk	Catalog number prefix	Price/pk	Catalog number prefix	Length/pk	Price/pk
Tygon® E-LFL	<ul style="list-style-type: none"> Complies with USP Class VI, EP, FDA, EU food, REACH, RoHS, ADCF Longest life of all Tygon formulations Broad chemical resistance 	10, 12, 18, 26, 30, 34, 42, 48	12 (16")	LD-96449-XX		LD-96450-XX		LD-06449-XX	100 ft	
Tygon® E-Food	<ul style="list-style-type: none"> Complies with FDA, EU Food, NSF, 2A, REACH, RoHS, ADCF Smooth inner surface; nontoxic 	10, 12, 18, 26, 30, 34, 42, 48	12 (16")	LD-96457-XX		LD-96458-XX		LD-06457-XX	100 ft	
Tygon® E-Lab	<ul style="list-style-type: none"> Complies with USP Class VI, FDA, EU Food, NSF, REACH, RoHS, ADCF Ideal for general transfer applications Nonaging, nonoxidizing, low gas permeability 	10, 12, 18, 26, 30, 34, 42, 48	12 (16")	LD-96460-XX		LD-96461-XX		LD-06460-XX	100 ft	
Silicone (peroxide cured)	<ul style="list-style-type: none"> Complies with USP Class VI, EP, FDA, 3A, REACH, RoHS, ADCF Greater physical compression capability Economical, long tubing life 	22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48	6 (16")	LD-07616-XX		LD-07624-XX		LD-07625-XX	50 ft	
Silicone (platinum cured)	<ul style="list-style-type: none"> Complies with USP Class V, EP, FDA, REACH, RoHS, ADCF Low protein binding, fungus-resistant, phthalate and latex free 	22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48	6 (16")	LD-95602-XX		LD-95603-XX		LD-95612-XX	50 ft	
Viton®	<ul style="list-style-type: none"> Complies with FDA, ADCF Resists corrosives, solvents, and oils at elevated temperatures 	26, 30, 34, 38, 42, 46, 48	12 (12")	LD-97628-XX		LD-97629-XX		LD-97632-XX	50 ft	
PharMed® BPT	<ul style="list-style-type: none"> Complies with USP Class VI, EP, FDA, NSF, REACH, RoHS Over 10,000 hours of tubing life, sealable, weldable Ideal for tissue and cell culture work 	12, 18, 26, 32, 36, 40, 42, 44, 48	12 (16")	LD-95713-XX		LD-95714-XX		LD-95809-XX	100 ft	
Autoclavable PharMed® BPT		12, 32, 48	6 (16")	LD-95692-XX		LD-95693-XX				
PVC Solvent/hydrocarbon	<ul style="list-style-type: none"> Resistant to ozone and UV light Resists to cracking, swelling, hardening Ideal for fuels, distillates, lubricants, and glycol-based coolants 	10, 12, 14, 18, 26, 30, 32, 34, 36, 40, 42, 48	12 (16")	LD-95606-XX		LD-95605-XX		LD-95712-XX	50 ft	
MHLL	<ul style="list-style-type: none"> Suitable for acetone, MEK, and other highly aggressive chemicals Long life and outstanding fatigue resistance 	24, 30, 36, 42, 48	6 (16")	LD-96427-XX		LD-96425-XX		None (PharMed BPT recommended for extension tubing; see 95809-XX above)		

STEP 2:

Find your desired flow rate and select the catalog number suffix

Flow rates by pump model (for pumps on page 15)								Color-coded stops	ID (mm)	Catalog number suffix
78023-00, -10, -20, -30, -40; 78001-02, -12, -22, -32, -42	78023-02, -12, -22, -32, -42; 78001-00, -10, -20, -30, -40	78017-10	78016-40	78016-30	78016-45	78017-00	78017-20			
0.003 to 0.26	0.0007 to 0.066	0.003 to 0.23	0.005 to 0.45	0.006 to 0.28	0.004 to 0.34	0.004 to 0.37	0.003 to 0.21	Orange/red	0.19	-10
0.005 to 0.41	0.001 to 0.1	0.005 to 0.41	0.008 to 0.76	0.010 to 0.48	0.007 to 0.61	0.007 to 0.65	0.004 to 0.38	Orange/blue	0.25	-12
0.009 to 0.86	0.003 to 0.22	0.010 to 0.94	0.017 to 1.7	0.022 to 1.1	0.014 to 1.4	0.015 to 1.5	0.009 to 0.88	Orange/green	0.38	-14
0.011 to 1.1	0.003 to 0.28	0.013 to 1.3	0.023 to 2.3	0.029 to 1.4	0.019 to 1.9	0.020 to 2.0	0.12 to 1.2	Green/yellow	0.44	-16
0.015 to 1.5	0.004 to 0.38	0.017 to 1.7	0.031 to 3.1	0.038 to 1.9	0.025 to 2.5	0.027 to 2.7	0.016 to 1.6	Orange/yellow	0.51	-18
0.023 to 2.3	0.006 to 0.58	0.026 to 2.6	0.048 to 4.8	0.060 to 3.0	0.039 to 3.9	0.042 to 4.2	0.024 to 2.4	Orange/white	0.64	-22
0.032 to 3.2	0.009 to 0.81	0.036 to 3.6	0.067 to 6.7	0.084 to 4.2	0.053 to 5.3	0.058 to 5.8	0.033 to 3.3	Black/black	0.76	-24
0.044 to 4.4	0.011 to 1.1	0.049 to 4.9	0.090 to 9.0	0.11 to 5.7	0.071 to 7.1	0.079 to 7.9	0.044 to 4.4	Orange/orange	0.89	-26
0.057 to 5.7	0.014 to 1.4	0.063 to 6.3	0.12 to 12	0.15 to 7.3	0.090 to 9.0	0.10 to 10	0.056 to 5.6	White/white	1.02	-28
0.07 to 7	0.017 to 1.7	0.078 to 7.8	0.14 to 14	0.18 to 9.0	0.11 to 11	0.12 to 12	0.067 to 6.7	Red/red	1.14	-30
0.089 to 8.9	0.022 to 2.2	0.10 to 10	0.18 to 18	0.23 to 11	0.13 to 13	0.16 to 16	0.083 to 8.3	Gray/gray	1.30	-32
0.11 to 11	0.026 to 2.6	0.11 to 11	0.21 to 21	0.27 to 13	0.15 to 15	0.18 to 18	0.094 to 9.4	Yellow/yellow	1.42	-34
0.12 to 12	0.03 to 3	0.13 to 13	0.24 to 24	0.30 to 15	0.17 to 17	0.20 to 20	0.10 to 10	Yellow/blue	1.52	-36
0.14 to 14	0.035 to 3.5	0.15 to 15	0.28 to 28	0.35 to 17	0.19 to 19	0.23 to 23	0.12 to 12	Blue/blue	1.65	-38
0.17 to 17	0.043 to 4.3	0.17 to 17	0.34 to 34	0.42 to 21	0.21 to 21	0.28 to 28	0.13 to 13	Green/green	1.85	-40
0.21 to 21	0.052 to 5.2	0.20 to 20	0.40 to 40	0.50 to 25	0.24 to 24	0.33 to 33	0.15 to 15	Purple/purple	2.06	-42
0.25 to 25	0.062 to 6.2	0.24 to 24	0.46 to 46	0.58 to 29	0.27 to 27	0.38 to 38	0.17 to 17	Purple/black	2.29	-44
0.3 to 30	0.075 to 7.5	0.24 to 27	0.53 to 53	0.66 to 33	0.31 to 31	0.44 to 44	0.19 to 19	Purple/orange	2.54	-46
0.35 to 35	0.088 to 8.8	0.31 to 31	0.59 to 59	0.74 to 37	0.34 to 34	0.50 to 50	0.21 to 21	Purple/white	2.79	-48



Cole-Parmer® Low-Flow Peristaltic Pumps

Don't sacrifice space for performance—compact pump provides flows to 13 mL/min

- Easy-reversing motor
- Low maintenance—runs dry without damaging pump
- Ready to use—includes silicone tubing sets

Select from three motor speeds and three tubing sizes. Norprene® and Viton® tubing sets are available at right.



Accessories

LD-73160-50 Power supply, wall mount; 115 VAC/12 VDC, US standard plug

LD-73160-52 Power supply, wall mount; 115 VAC/12 VDC, EU plug

LD-73160-54 Replacement tubing sets, 0.8-, 1.6-, and 3-mm silicone, polypropylene fittings

LD-73160-56 Tubing sets, 0.8-, 1.6-, and 3-mm Norprene, polypropylene fittings

LD-73160-58 Tubing sets, 0.8-, 1.6-, and 3-mm Viton, polypropylene fittings

Specifications

Wetted parts: silicone tubing **Suction lift:** 12 ft for 0.8 and 1.6 mm tubing sets; 25 ft for 3.0 mm tubing set **Duty cycle:** intermittent

Min flow mL/min	Max flow mL/min	Max psi (bar)	Pump tubing ID (mm)			Power	Manual control on/off, variable speed		Manual control on/off, reverse, remote, variable speed	
			Small	Medium	Large		Cat. no.	Price	Cat. no.	Price
0.03	1	10†	0.8	1.6	3	12 VDC	LD-73160-00		LD-73160-05	
0.06	1.9	(0.69)					LD-73160-10		LD-73160-15	
0.14	4						LD-73160-20		LD-73160-25	

†Silicone. Max psi for Norprene and Viton is 30 psi (2 bar).

Cole-Parmer® Syringe Pumps

Ideal for low-flow, low-pressure applications where precision is needed

- Backlit alphanumeric LCD guides you through setup and operating procedures
- Don't lose your settings—nonvolatile memory retains settings even after pump is turned off

A. Single-Syringe Infusion Pump

automatically selects display units based on syringe used, obtaining precise flow rates down to 0.2 µL/hr. A wide dynamic range (6000:1) provides excellent flexibility.

B. Multi-Syringe Pumps

achieve flow rates down to 0.001 µL/hr. Easy programming via keypad—infusion/withdrawal pumps sequence operations. Control from a computer with RS-232 interface†.

C. Multi-Step Multi-Syringe Pumps

allow flow rates to vary from a slow trickle to a steady stream down to 0.001 µL/hr. Program up to 8 commands and repeat up to 10 times. Pumps allow you to program flow rate hold, pause, and change of direction; each program can be run up to 12 hours. Pumps can also sequence operations. Operate your pump from a computer—great for daisy-chaining pumps!



Pump continuously and automatically delivers exact quantities of liquid.

Specifications

Accuracy: ±<1% **Reproducibility:** ±0.1%



Description	Number of syringes accepted	Flow rate per syringe	Syringe size accepted	Linear force	Power (VAC, Hz)	Catalog number	Price
A. Single-syringe pump							
Infusion	1	0.2 µL/hr to 500 mL/hr	10 µL to 60 mL	20 lb (9.1 kg)	115, 50/60 230, 50/60	LD-74900-00 LD-74900-05	
B. Multi-syringe pumps							
Infusion	2	0.001 µL/hr to 147 mL/min	10 µL to 140 mL	40 lb (18.1 kg)	115, 50/60	LD-74900-10	
	10				230, 50/60	LD-74900-15	
Infusion/withdrawal	2	0.001 µL/hr to 147 mL/min	10 µL to 140 mL	40 lb (18.1 kg)	115, 50/60	LD-74900-30	
	10				230, 50/60	LD-74900-35	
Infusion/withdrawal	2	0.001 µL/hr to 147 mL/min	10 µL to 140 mL	40 lb (18.1 kg)	115, 50/60	LD-74900-20	
	10				230, 50/60	LD-74900-25	
Infusion/withdrawal	2	0.001 µL/hr to 147 mL/min	10 µL to 140 mL	40 lb (18.1 kg)	115, 50/60	LD-74900-40	
	10				230, 50/60	LD-74900-45	
C. Multi-step multi-syringe pumps							
Infusion	2	0.001 µL/hr to 147 mL/min	10 µL to 140 mL	40 lb (18.1 kg)	115, 50/60	LD-74900-60	
	10				230, 50/60	LD-74900-65	
Infusion/withdrawal	2	0.001 µL/hr to 147 mL/min	10 µL to 140 mL	40 lb (18.1 kg)	115, 50/60	LD-74900-80	
	10				230, 50/60	LD-74900-85	
Infusion/withdrawal	2	0.001 µL/hr to 147 mL/min	10 µL to 140 mL	40 lb (18.1 kg)	115, 50/60	LD-74901-00	
	10				230, 50/60	LD-74901-05	
Infusion/withdrawal	2	0.001 µL/hr to 147 mL/min	10 µL to 140 mL	40 lb (18.1 kg)	115, 50/60	LD-74901-10	
	10				230, 50/60	LD-74901-15	

†Order RS-232 cables separately online or call our Application Specialists.



You're Out? We're Not!

Thousands of **highlighted** items

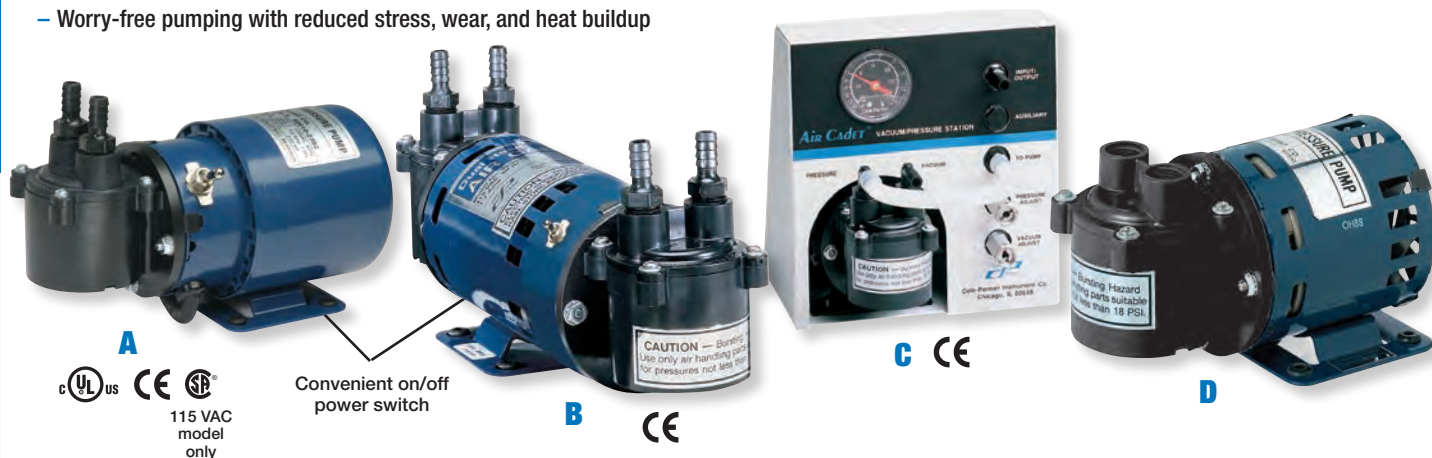
Fluid Handling

Pumps, Vacuum

Air Cadet® Vacuum/Pressure Pumps

Get better results with minimal dead space

- Minimizes dead space and air entrapment with unique cavity configuration
- No maintenance needed—AC motors are brushless with sealed ball bearings and overload protection
- Worry-free pumping with reduced stress, wear, and heat buildup



A–B. Single- and Dual-Head Pumps

- Handle tough applications easily
- Increase your capacity with dual-head models independently pumping or connected in series
- Easy shut-off with power switch on all models except 07532-65

What's included: PTFE thread tape and polyethylene 3/8" NPT(M) x 3/8" hose barb adapters.

C. Vacuum/Pressure Stations

- Increase productivity—evacuate or pressurize two systems simultaneously with auxiliary port
- Get control with built-in bronze and brass gauge and stainless steel regulator

What's included: PTFE thread tape, two polyethylene 3/8" NPT(M) x 3/8" hose barb adapters, and one polyethylene 1/4" NPT(M) x 3/8" hose barb adapter (for auxiliary port).

D. OEM Vacuum/Pressure Pumps

- Get long, reliable operation—continuous operation up to 18 psi for 4000 service hours
- Provides pumping with minimal stress and heat buildup

ISO 9001:2008 CERTIFIED SUPPLIER



Free-air capacity cfm (LPM)	Max vacuum " Hg (Torr)	Max pressure psi (bar)	Wetted parts	Noise rating	Port size	Power	Catalog number	Price
A Single-head pumps								
0.54 (15.5)	20 (508)	18 (1.24)	Noryl® pump head, FKM diaphragm, PTFE valves, and polyethylene (PE) adapters	72 dB(A)	3/8" hose barb	115 VAC, 60 Hz	LD-07532-40	
0.45 (13)						230 VAC, 50 Hz	LD-07532-45	
B Dual-head pumps								
1.1 (31) [†]	20 (508)	18 (1.24)	Noryl pump head, FKM diaphragm, PTFE valves, and PE adapters	76 dB(A)	3/8" hose barb	115 VAC, 60 Hz	LD-07532-60	
0.91 (26) [†]						230 VAC, 50 Hz	LD-07532-65[‡]	
C Vacuum/pressure stations								
0.5 (14.1)	20 (508)	18 (1.24)	FKM diaphragm, SS regulator, bronze/brass gauge, and PE adapters	73 dB(A)	3/8" hose barb	115 VAC, 60 Hz	LD-07532-80	
0.4 (11.3)						230 VAC, 50 Hz	LD-07532-85	
D OEM vacuum/pressure pumps								
0.6 (17)	20 (508)	18 (1.24)	Noryl pump head, FKM diaphragm, PTFE valves	72 dB(A)	3/8" NPT(F)	115 VAC	LD-07530-85	
	18 (457.2)	15 (1.03)	Noryl pump head, FKM diaphragm, PTFE valves, and PE adapters			12 VDC	LD-07532-25	

[†] Total free-air capacity. Single-channel capacity is half this value. [‡]Power switch not available on 230 VAC models. **Note:** Do not use metal fittings with any Air Cadet pump.



Kim, 12 years of experience

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Fluid Handling

Tubing

Cole-Parmer® Peroxide-Cured Reinforced Silicone Tubing

Low tackiness formulation keeps its shape and cleanliness



Applications: Demanding high-pressure pharmaceutical, biotechnology, aerospace, and food and beverage applications.

Characteristics: Excellent heat resistance, low compression set, odorless, nontoxic, low tackiness, translucent.

Certifications: Elastomer is FDA-compliant (21 CFR 177.2600) and meets USP Class VI. Tubing is manufactured according to GMP.

Temperature range: -60 to 400°F (-51 to 204°C)

Sterilize: Autoclave or gamma irradiation.

Buy More...Save More!

20% off on 20+
15% off on 10 to 19
10% off on 4 to 9 packs



Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/pk
ID	OD	Wall			
1/16 (1.8)	5/16 (8.0)	1/8 (3.2)	175 (12.1)	LD-95623-00	/25-ft
1/8 (3.2)	3/8 (9.6)	1/8 (3.2)	175 (12.1)	LD-95623-01	/25-ft
1/4 (6.4)	9/16 (14.4)	5/32 (4.0)	155 (10.7)	LD-95623-03	/25-ft
5/16 (8.0)	19/32 (15.1)	9/64 (3.6)	145 (10.0)	LD-95623-04	/25-ft
3/8 (9.6)	11/16 (17.6)	5/32 (4.0)	138 (9.5)	LD-95623-05	/25-ft
1/2 (12.8)	13/16 (20.8)	5/32 (4.0)	125 (8.6)	LD-95623-06	/25-ft
3/4 (19.1)	1 1/8 (28.6)	3/16 (4.8)	57 (3.9)	LD-95623-08	/25-ft
7/8 (22.2)	1 1/4 (31.8)	3/16 (4.8)	119 (8.2)	LD-95623-09	/25-ft
1 (25.4)	1 3/8 (35.0)	3/16 (4.8)	113 (7.8)	LD-95623-10	/10-ft

Cole-Parmer® Platinum-Cured Reinforced Silicone Tubing

Won't crack under pressure— withstands pressures to 312 psi



Formulation: Tygon® 3370 I. B., silicone, platinum cured.

Applications: Demanding sanitary high-pressure pharmaceutical, biotechnology, food and beverage, and cosmetic applications.

Characteristics: Excellent heat resistance, low compression set, odorless, and nontoxic, translucent.

Certifications: Elastomer is FDA-compliant (21 CFR 177.2600) and USP Class V extractables; exceeds Class VI implant; exceeds 3A Sanitary Standards; produced to Bulk Pharmaceutical cGMPs (FDA 21 CFR 210, 211). Tubing is manufactured according to GMP.

Temperature range: -60 to 320°F (-51 to 160°C)

Sterilize: Autoclave, ethylene oxide, or gamma irradiation.

Buy More...Save More!

20% off on 20+
15% off on 10 to 19
10% off on 4 to 9 packs



Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/pk
ID	OD	Wall			
3/16 (4.8)	7/16 (11.2)	1/8 (3.2)	312 (21.5)	LD-95703-00	
1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	248 (17.1)	LD-95703-01	
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	180 (12.4)	LD-95703-02	
1/2 (12.8)	13/16 (20.8)	5/32 (4.0)	168 (11.6)	LD-95703-03	
5/8 (16.0)	15/16 (24.0)	5/32 (4.0)	144 (9.9)	LD-95703-04	
3/4 (19.1)	1 1/8 (28.6)	3/16 (4.8)	144 (9.9)	LD-95703-05	
1 1/4 (31.8)	1 5/8 (41.4)	3/16 (4.8)	96 (6.6)	LD-95703-07	

Cole-Parmer® Silicone Tubing

No need to worry about the heat— use up to 460°F

Peroxide Silicone



Applications: Pharmaceutical, biotechnology, food and beverage, aerospace, and general lab applications.

Characteristics: Peroxide-cured, excellent heat resistance, low compression set, odorless, nontoxic, translucent.

Certifications: Elastomer is FDA-compliant (21 CFR 177.2600) and meets USP Class VI requirements. Tubing is manufactured according to GMP.

Temperature range: -60 to 460°F (-51 to 238°C)

Sterilize: Autoclave or gamma irradiation.

Platinum Silicone



Applications: Pharmaceutical, biotechnology, aerospace, food and beverage, and general lab applications.

Characteristics: Platinum-cured, excellent heat resistance, low compression set, odorless, nontoxic, translucent.

Certifications: Elastomer is FDA-compliant (21 CFR 177.2600) and meets USP Class VI. Tubing is manufactured according to GMP.

Temperature range: -58 to 446°F (-50 to 230°C)

Sterilize: Autoclave or gamma irradiation.

Buy More...Save More!

20% off on 20+
15% off on 10 to 19
10% off on 4 to 9 packs



Dimensions: in. (mm)			Max psi at 70°F (21°C)	Peroxide silicone		Platinum silicone	
ID	OD	Wall		Catalog number	Price/25-ft pk	Catalog number	Price/25-ft pk
1/50 (0.5)	1/12 (2.1)	1/32 (0.8)	30	LD-06411-59		LD-95802-00	
1/32 (0.8)	3/32 (2.4)	1/32 (0.8)	30	LD-06411-60		LD-95802-01	
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	15	LD-06411-62		LD-95802-02	
3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	15	LD-06411-63		LD-95802-03	
1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	10	LD-06411-64		LD-95802-04	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	20	LD-06411-67		LD-95802-05	
1/8 (3.2)	3/8 (9.6)	1/8 (3.2)	25	LD-06411-68		LD-95802-06	
5/32 (4.0)	5/32 (4.0)	1/32 (0.8)	10	LD-06411-65		LD-95802-07	
3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	9	LD-06411-66		LD-95802-08	
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	13	LD-06411-03		LD-95802-09	
3/16 (4.8)	7/16 (11.2)	1/8 (3.2)	22	LD-06411-69		LD-95802-10	
1/4 (6.4)	5/16 (8.0)	1/32 (0.8)	9	LD-06411-70		LD-95802-11	
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	10	LD-06411-71		LD-95802-12	
1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	17	LD-06411-72		LD-95802-13	
1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	17	LD-06411-74		LD-95802-14	
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	10	LD-06411-75		LD-95802-15	
5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	16	LD-06411-76		LD-95802-16	
5/16 (8.0)	9/16 (14.4)	1/8 (3.2)	20	LD-06411-77		LD-95802-17	
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	10	LD-06411-78		LD-95802-18	
3/8 (9.6)	9/16 (14.4)	3/32 (2.4)	12	LD-06411-12		LD-95802-19	
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	15	LD-06411-79		LD-95802-20	
1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	9	LD-06411-80		LD-95802-21	
1/2 (12.8)	11/16 (17.6)	3/32 (2.4)	10	LD-06411-19		LD-95802-22	
1/2 (12.8)	3/4 (19.2)	1/8 (3.2)	12	LD-06411-55		LD-95802-23	
5/8 (16.0)	13/16 (20.8)	3/32 (2.4)	10	LD-06411-82		LD-95802-24	
5/8 (16.0)	7/8 (22.4)	1/8 (3.2)	12	LD-06411-58		LD-95802-25	
3/4 (19.2)	1 (25.4)	1/8 (3.2)	9	LD-06411-83		LD-95802-26	

Free Certificate of Compliance

Cole-Parmer will provide a certificate of resin or elastomer compliance FREE at your request with each order of fittings or tubing. Certificates list your company's PO number, order reference number, catalog number, formulation, compound number, lot number (where applicable), and the regulations and agencies the tubing or fitting complies with, including FDA, USP, USDA, National Formulary, NSF International, GMP, and 3A. Look for the blue "check" icon throughout this catalog to identify when a certificate of compliance is available.



Silastic® Laboratory Tubing

Resists bacteria and fungus growth



Applications: Pharmaceutical, biotech, filtration, and environmental analysis.
Characteristics: Platinum-cured silicone, nonpyrogenic, bacteria and fungus-resistant, extremely low extractables, and does not impart a taste or odor.
Certifications: Exceeds USP Class VI Plastics Test requirements, elastomer and tubing are manufactured under Bulk Pharmaceutical cGMPs in an FDA-registered, ISO-9002-certified facility.
Temperature range: -65 to 480°F (-54 to 249°C)
Sterilize: Autoclave or radiation.

Buy More...Save More!
 \$ 20% off on 20+
 15% off on 10 to 19
 10% off on 4 to 9 packs

Dimensions: in. (mm)			Catalog number	Price/50-ft pk
ID	OD	Wall		
0.012 (0.3)	0.025 (0.6)	0.0065 (0.2)	LD-96115-00	
0.02 (0.5)	0.037 (0.9)	0.0085 (0.22)	LD-96115-02	
0.025 (0.6)	0.047 (1.2)	0.011 (0.3)	LD-96115-04	
0.03 (0.8)	0.065 (1.7)	0.0175 (0.4)	LD-96115-06	
0.04 (1)	0.085 (2.2)	0.0225 (0.6)	LD-96115-08	
0.058 (1.5)	0.077 (2.0)	0.0095 (0.2)	LD-96115-10	
0.062 (1.6)	0.095 (2.4)	0.0165 (0.4)	LD-96115-12	
0.062 (1.6)	0.125 (3.2)	0.0315 (0.8)	LD-96115-14	
0.078 (2)	0.125 (3.2)	0.0235 (0.6)	LD-96115-16	
0.104 (2.6)	0.192 (4.9)	0.044 (1.1)	LD-96115-18	
0.132 (3.4)	0.183 (4.6)	0.0255 (0.6)	LD-96115-20	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	LD-96115-22	
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	LD-96115-24	
3/16 (4.8)	3/8 (9.5)	3/32 (2.4)	LD-96115-26	
1/4 (6.4)	3/8 (9.5)	1/16 (1.6)	LD-96115-28	
1/4 (6.4)	9/16 (11.1)	3/32 (2.4)	LD-96115-30	
1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	LD-96115-32	
5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	LD-96115-34	
3/8 (9.5)	1/2 (12.8)	1/16 (1.6)	LD-96115-36	
3/8 (9.5)	9/16 (14.3)	3/32 (2.4)	LD-96115-38	
3/8 (9.5)	5/8 (15.9)	1/8 (3.2)	LD-96115-40	
1/2 (12.8)	11/16 (17.5)	3/32 (2.4)	LD-96115-42	
1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	LD-96115-44	
5/8 (15.9)	7/8 (22.2)	1/8 (3.2)	LD-96115-46	

Norprene® Tubing

UV-light resistant for sensitive samples



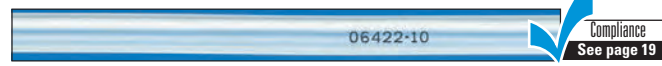
Applications: For applications requiring excellent chemical, heat, ozone, and ultraviolet (UV) light resistance.
Characteristics: Nonconductive, heat-sealable, nonaging, nonoxidizing, with superior acid and alkali resistance. Opaque black.
Certifications: Tubing is manufactured according to GMP.
Temperature range: -75 to 275°F (-60 to 135°C)
Sterilize: Autoclave.

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 \$ 20% off on 20+
 15% off on 10 to 19
 10% off on 4 to 9 packs

Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/50-ft pk
ID	OD	Wall			
1/16 (1.6)	3/16 (4.8)	1/16 (1.6)	34 (2.3)	LD-06410-01	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	19 (1.3)	LD-06410-02	
1/8 (3.2)	3/8 (9.6)	1/8 (3.2)	34 (2.3)	LD-06410-03	
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	13 (0.9)	LD-06410-04	
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	10 (0.7)	LD-06410-05	
1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	15 (1.0)	LD-06410-06	
1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	19 (1.3)	LD-06410-07	
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	8 (0.6)	LD-06410-08	
5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	12 (0.8)	LD-06410-09	
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	7 (0.5)	LD-06410-10	
3/8 (9.6)	9/16 (14.4)	3/32 (2.4)	10 (0.7)	LD-06410-11	
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	13 (0.9)	LD-06410-12	
7/16 (11.2)	9/16 (14.4)	1/16 (1.6)	6 (0.4)	LD-06410-13	
1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	6 (0.4)	LD-06410-14	
1/2 (12.8)	11/16 (17.6)	3/32 (2.4)	8 (0.6)	LD-06410-15	
5/8 (16.0)	13/16 (20.8)	3/32 (2.4)	7 (0.5)	LD-06410-16	
5/8 (16.0)	7/8 (22.4)	1/8 (3.2)	8 (0.6)	LD-06410-17	
3/4 (19.1)	1 (25.4)	1/8 (3.2)	7 (0.5)	LD-06410-18	
1 (25.4)	1 1/4 (31.8)	1/8 (3.2)	6 (0.4)	LD-06410-19	

Clear C-Flex® Tubing

Get high performance without high cost



Applications: Pharmaceutical, biotech, and general-purpose lab uses requiring high performance. Economical alternative to platinum silicone.
Characteristics: Exceptional tensile and tear strength, good biocompatibility, excellent chemical resistance, low gas permeability, smooth surface. Transparent.
Certifications: Product is manufactured in accordance with quality regulations CFR Title 21, Part 820 Quality System Requirements (GMP).
Temperature range: -50 to 275°F (-45 to 135°C)
Sterilize: Autoclave, ethylene oxide, or gamma irradiation.

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 15% off on 10 to 19
 10% off on 4 to 9 packs

Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/25-ft pk
ID	OD	Wall			
1/50 (0.5)	1/12 (2.1)	1/32 (0.8)	50 (3.4)	LD-06422-00	
1/32 (0.8)	3/32 (2.4)	1/32 (0.8)	51 (3.5)	LD-06422-01	
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	25 (1.7)	LD-06422-02	
3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	23 (1.6)	LD-06422-03	
1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	17 (1.2)	LD-06422-04	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	35 (2.4)	LD-06422-05	
5/32 (4.0)	7/32 (5.6)	1/32 (0.8)	17 (1.5)	LD-06422-06	
3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	15 (1.0)	LD-06422-07	
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	22 (1.5)	LD-06422-08	
3/16 (4.8)	7/16 (11.2)	1/8 (3.2)	36 (2.5)	LD-06422-09	
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	20 (1.4)	LD-06422-10	
1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	28 (1.9)	LD-06422-11	
1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	28 (1.9)	LD-06422-12	
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	17 (1.2)	LD-06422-13	
5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	27 (1.9)	LD-06422-14	
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	17 (1.2)	LD-06422-15	
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	23 (1.6)	LD-06422-16	
1/2 (12.8)	11/16 (17.6)	3/32 (2.4)	17 (1.2)	LD-06422-17	
1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	17 (1.2)	LD-06422-18	

Tygon® BioPharm Silicone Tubing

Reduced particle entrapment with ultra-smooth inner surface



Formulation: Tygon® 3350 silicone, platinum cured.
Applications: Pharmaceutical, cosmetic, industrial, and auto-analysis applications.
Characteristics: Ultra-smooth inner surface reduces particle entrapment and minimizes bacterial growth. Good for mild to medium concentration bases, salts, and alcohols; is odorless, tasteless, and nontoxic. Transparent.
Certifications: Elastomer is FDA-compliant (21 CFR 177.2600) and meets USP Class VI requirements, NSF criteria and EP 3.2.9 requirements. Tubing is manufactured according to GMP.
Temperature range: -112 to 392°F (-80 to 200°C)
Sterilize: Ethylene oxide, gamma irradiation, or autoclave for 30 min, 15 psi (1.0 bar).

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 15% off on 10 to 19
 10% off on 4 to 9 packs

Dimensions: in. (mm)			Max psi at 73°F (bar at 23°C)	Catalog number	Price/50-ft pk
ID	OD	Wall			
1/32 (0.8)	3/32 (2.4)	1/32 (0.8)	16 (1.1)	LD-95702-00	
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	10 (0.7)	LD-95702-01	
1/16 (1.6)	3/16 (4.8)	1/16 (1.6)	15 (1.0)	LD-95702-02	
3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	7 (0.5)	LD-95702-03	
3/32 (2.4)	7/32 (5.6)	1/16 (1.6)	12 (0.8)	LD-95702-04	
1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	7 (0.5)	LD-95702-05	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	9 (0.6)	LD-95702-06	
3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	5 (0.3)	LD-95702-08	
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	7 (0.5)	LD-95702-09	
3/16 (4.8)	3/8 (9.6)	3/32 (2.4)	9 (0.6)	LD-95702-10	
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	5 (0.3)	LD-95702-13	
1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	7 (0.5)	LD-95702-14	
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	5 (0.3)	LD-95702-16	
5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	6 (0.4)	LD-95702-17	
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	4 (0.3)	LD-95702-18	
3/8 (9.6)	5/8 (16.0)	3/32 (2.4)	5 (0.3)	LD-95702-19	
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	7 (0.5)	LD-95702-20	



Fluid Handling

Tubing

Tygon® Microbore Autoanalysis Tubing

Crystal clear formulation for easier sample viewing



Formulation: ND-100-80
Applications: General laboratory and pharmaceutical use, especially with precision injection or dispensing applications. Also excellent with low-flow peristaltic pump applications.
Characteristics: Extremely flexible. Nontoxic; nonpyrogenic; biocompatible. Crystal clear.
Certifications: FDA-compliant. Resin meets USP Class VI requirements. Tubing is manufactured according to GMP.
Temperature range: -25 to 185°F (-31 to 85°C)
Sterilize: Autoclave, ethylene oxide, or gamma irradiation.

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 15% off on 10 to 19
 10% off on 4 to 9 packs

Dimensions: in. (mm)			Fits needle gauge	Catalog number	Price/100-ft
ID	OD	Wall			
0.010 (0.25)	0.030 (0.76)	0.010 (0.25)	30	LD-06419-00	
0.020 (0.51)	0.060 (1.52)	0.020 (0.51)	25	LD-06419-01	
0.030 (0.76)	0.090 (2.29)	0.030 (0.76)	20 to 21	LD-06419-03	
0.040 (1.02)	0.070 (1.78)	0.015 (0.38)	18 to 19	LD-06419-04	
0.050 (1.27)	0.090 (2.29)	0.020 (0.51)	17 to 18	LD-06419-05	

LD-06418-10 Tygon® microbore tubing assortment pack. One 100-ft (30.4-m) roll of 06418-01, -02, -03, -04, and -05 (500-ft [152.4-m] total)

PharMed® BPT Tubing

Protect your light-sensitive samples



Applications: Cell and tissue culture work and pharmaceutical uses. Also good for light-sensitive samples.
Characteristics: Nontoxic; nonhemolytic; extremely low permeability; resists acids, alkalis, oxidizing agents, and animal and vegetable oils; heat-sealable, bondable, and formable. Opaque beige.
Certifications: Elastomer is FDA-compliant (21 CFR 177.2600) and meets USP Class VI and NSF (Standard 51) requirements. Meets EP requirements. Tubing is manufactured according to GMP.
Temperature range: -60 to 275°F (-51 to 135°C)
Sterilize: Autoclave, ethylene oxide, or gamma irradiation.

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 15% off on 10 to 19
 10% off on 4 to 9 packs

Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/25-ft pk
ID	OD	Wall			
1/50 (0.5)	9/64 (3.7)	1/16 (1.6)	50 (3.4)	LD-96880-00	
1/32 (0.8)	5/32 (4.0)	1/16 (1.6)	40 (2.8)	LD-96880-02	
1/16 (1.6)	3/16 (4.8)	1/16 (1.6)	34 (2.3)	LD-96880-04	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	19 (1.3)	LD-96880-06	
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	13 (0.9)	LD-96880-08	
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	10 (0.7)	LD-96880-10	
1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	19 (1.3)	LD-96880-12	
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	8 (0.6)	LD-96880-14	
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	13 (0.9)	LD-96880-16	
1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	11 (0.8)	LD-96880-18	
5/8 (16.0)	7/8 (22.4)	1/8 (3.2)	8 (0.6)	LD-96880-20	
3/4 (19.1)	1 (25.4)	1/8 (3.2)	7 (0.5)	LD-96880-22	

Microbore PharMed BPT Tubing

Dimensions: in. (mm)			Fits needle gauge	Catalog number	Price/100-ft pk
ID	OD	Wall			
0.010 (0.25)	0.082 (2.08)	0.036 (0.91)	30	LD-95809-12	
0.020 (0.51)	0.096 (2.44)	0.038 (0.97)	24	LD-95809-18	
0.035 (0.89)	0.111 (2.82)	0.038 (0.97)	20	LD-95809-26	
0.045 (1.14)	0.121 (3.07)	0.038 (0.97)	18	LD-95809-30	
0.051 (1.30)	0.127 (3.23)	0.038 (0.97)	18	LD-95809-32	
0.056 (1.42)	0.132 (3.35)	0.038 (0.97)	17	LD-95809-34	
0.060 (1.52)	0.136 (3.45)	0.038 (0.97)	16	LD-95809-36	
0.073 (1.85)	0.149 (3.78)	0.038 (0.97)	15	LD-95809-40	

Tygon® Non-DEHP Lab Tubing

Pliable formulation for sharp radius bending



Formulation: Tygon E-3603
Applications: General lab, food & beverage, biopharm, analytical instruments.
Characteristics: Non-DEHP, phthalate free. Long-life, chemical resistant, nonoxidizing; able to bend to sharp radius curves and easily works with fittings. Transparent.
Certifications: FDA-compliant (21 CFR 175.300); meets USP Class VI and NSF 51 requirements.
Temperature range: -51 to 165°F (-46 to 74°C)
Sterilize: Autoclave or ethylene oxide.

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 10% off on 4 to 9 packs

Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/50-ft pk
ID	OD	Wall			
1/32 (0.8)	3/32 (2.4)	1/32 (0.8)	69 (4.8)	LD-06407-70	
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	36 (2.5)	LD-06407-71	
1/16 (1.6)	3/16 (4.8)	1/16 (1.6)	69 (4.8)	LD-06407-72	
3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	25 (1.7)	LD-06407-73	
3/32 (2.4)	7/32 (5.6)	1/16 (1.6)	47 (3.2)	LD-06407-74	
1/8 (3.2)	9/16 (4.8)	1/32 (0.8)	20 (1.4)	LD-06407-75	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	36 (2.5)	LD-06407-76	
5/32 (4.0)	7/32 (5.6)	1/32 (0.8)	17 (1.2)	LD-06407-77	
3/16 (4.8)	9/16 (8.0)	1/16 (1.6)	25 (1.7)	LD-06407-78	
3/16 (4.8)	3/8 (9.6)	3/32 (2.4)	36 (2.5)	LD-06407-79	
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	20 (1.4)	LD-06407-80	
1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	28 (1.9)	LD-06407-81	
1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	35 (2.5)	LD-06407-82	
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	17 (1.2)	LD-06407-83	
5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	23 (1.6)	LD-06407-84	
5/16 (8.0)	9/16 (14.4)	1/8 (3.2)	30 (2.1)	LD-06407-85	
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	14 (1.0)	LD-06407-86	
3/8 (9.6)	9/16 (14.4)	3/32 (2.4)	20 (1.4)	LD-06407-87	
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	25 (1.7)	LD-06407-88	
7/16 (11.2)	9/16 (14.4)	1/16 (1.6)	13 (0.9)	LD-06407-89	
1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	12 (1.8)	LD-06407-90	
1/2 (12.8)	11/16 (1.6)	3/32 (2.4)	15 (1.0)	LD-06407-91	
1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	20 (1.4)	LD-06407-92	
1/2 (12.8)	13/16 (20.8)	3/32 (2.4)	24 (1.7)	LD-06407-93	
5/8 (16.0)	13/16 (20.8)	3/32 (2.4)	13 (0.9)	LD-06407-94	
5/8 (16.0)	7/16 (11.2)	1/8 (3.2)	17 (1.2)	LD-06407-95	
3/4 (19.1)	1 (25.4)	1/8 (3.2)	14 (1.0)	LD-06407-96	
3/4 (19.1)	1 1/8 (28.6)	3/16 (4.8)	20 (1.4)	LD-06407-97	
1 (25.4)	1 1/4 (31.8)	1/8 (3.2)	12 (0.8)	LD-06407-98	
1 (25.4)	1 1/2 (66.8)	1/4 (6.4)	20 (1.4)	LD-06407-99	

Microbore/Autoanalysis Tubing

Dimensions: in. (mm)			Fits needle gauge	Catalog number	Price/100-ft pk
ID	OD	Wall			
0.008 (0.19)	0.080 (2.03)	0.036 (0.91)	33	LD-06460-10	
0.010 (0.25)	0.082 (2.08)	0.036 (0.91)	30	LD-06460-12	
0.017 (0.44)	0.093 (2.36)	0.036 (0.91)	26	LD-06460-16	
0.020 (0.51)	0.096 (2.44)	0.036 (0.91)	24	LD-06460-18	
0.025 (0.64)	0.101 (2.57)	0.036 (0.91)	23	LD-06460-22	
0.035 (0.89)	0.111 (2.82)	0.036 (0.91)	20	LD-06460-26	
0.040 (1.02)	0.116 (2.95)	0.036 (0.91)	19	LD-06460-28	
0.045 (1.14)	0.121 (3.07)	0.036 (0.91)	18	LD-06460-30	
0.056 (1.42)	0.132 (3.35)	0.036 (0.91)	17	LD-06460-34	
0.073 (1.85)	0.149 (3.78)	0.036 (0.91)	15	LD-06460-40	
0.081 (2.06)	0.157 (3.99)	0.036 (0.91)	14	LD-06460-42	
0.110 (2.79)	0.186 (4.72)	0.036 (0.91)	12	LD-06460-48	

Handheld Tubing Cutter

Cut tubing easily and cleanly

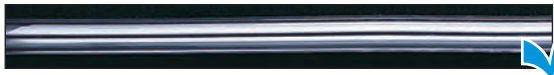
This handheld tubing cutter features a steel blade coated with PTFE resin to produce clean, straight cuts through tubing up to 1 1/4" OD (cuts polyethylene tubing up to 1 1/2" OD).



Description	Catalog number	Price
Handheld tubing cutter	LD-06438-90	
Carrying pouch	LD-06438-81	
Replacement blade	LD-06438-92	

Cole-Parmer® Vinyl Tubing

Ideal for general-purpose applications



Compliance
See page 19

Applications: General-purpose lab use.

Characteristics: Fair chemical and abrasion resistance, odorless, nontoxic and transparent.

Certifications: Tubing is manufactured according to GMP.

Temperature range: -45 to 180°F (-43 to 82°C)

Sterilize: Ethylene oxide.



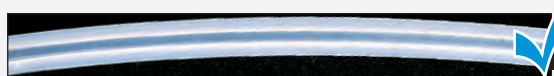
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Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/pk
ID	OD	Wall			
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	40 (2.8)	LD-06405-01	/50-ft
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	59 (4.0)	LD-06405-02	/50-ft
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	51 (3.5)	LD-06405-03	/50-ft
3/16 (4.8)	7/16 (11.2)	1/8 (3.2)	46 (3.2)	LD-06405-04	/100-ft
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	51 (3.5)	LD-06405-06	/50-ft
1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	55 (3.8)	LD-06405-07	/100-ft
1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	64 (4.4)	LD-06405-08	/50-ft
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	46 (3.2)	LD-06405-09	/50-ft
5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	55 (3.8)	LD-06405-10	/100-ft
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	41 (2.8)	LD-06405-12	/50-ft
3/8 (9.6)	9/16 (14.4)	3/32 (2.4)	46 (3.2)	LD-06405-15	/100-ft
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	55 (3.8)	LD-06405-16	/100-ft
1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	28 (1.9)	LD-06405-18	/50-ft
1/2 (12.8)	11/16 (17.6)	3/32 (2.4)	36 (2.5)	LD-06405-19	/100-ft
1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	41 (2.8)	LD-06405-20	/50-ft
5/8 (16.0)	13/16 (20.8)	3/32 (2.4)	32 (2.2)	LD-06405-25	/100-ft
5/8 (16.0)	7/8 (22.4)	1/8 (3.2)	36 (2.5)	LD-06405-27	/50-ft
3/4 (19.1)	1 (25.4)	1/8 (3.2)	32 (2.2)	LD-06405-31	/50-ft
1 (25.4)	1 1/4 (31.8)	1/8 (3.2)	23 (1.6)	LD-06405-36	/50-ft
1 1/4 (31.8)	1 3/4 (44.5)	1/4 (6.4)	41 (2.8)	LD-06405-46	/50-ft

Cole-Parmer® FEP Tubing

Does not deteriorate with age



Compliance
See page 19

Applications: Demanding lab, chemical, electrical, mechanical, pharmaceutical, and automotive applications. Excellent for the transfer of extreme temperature or highly corrosive materials. Also good for high-purity work.

Characteristics: Chemically inert, nontoxic, heat resistant, with a low coefficient of friction. Doesn't deteriorate with age. Tough, but bends even at -454°F (-270°C). Translucent.

Certifications: Resin is FDA-compliant (21 CFR 177.1550). Tubing is manufactured in ISO 9001-2008 approved facility.

Temperature range: -454 to 400°F (-270 to 205°C)

Sterilize: With autoclave, ethylene oxide, or dry heat.



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20% off on 20+
15% off on 10 to 19
10% off on 4 to 9 packs

Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/ 25-ft pk
ID	OD	Wall			
1/32 (0.8)	1/16 (1.6)	1/64 (0.4)	500 (34.5)	LD-06406-60	
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	444 (30.6)	LD-06406-62	
3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	353 (24.3)	LD-06406-63	
1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	289 (19.9)	LD-06406-64	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	450 (31.0)	LD-06450-05	
5/32 (4.0)	1/4 (6.4)	3/64 (1.2)	329 (22.7)	LD-06450-04	
3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	209 (14.4)	LD-06406-66	
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	353 (24.3)	LD-06450-06	
1/4 (6.4)	5/16 (8.0)	1/32 (0.8)	150 (10.3)	LD-06406-72	
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	288 (19.9)	LD-06450-07	
19/64 (7.5)	3/8 (9.6)	5/128 (1.0)	172 (11.9)	LD-06450-02	
5/16 (8.0)	3/8 (9.6)	1/32 (0.8)	140 (9.7)	LD-06406-74	
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	243 (16.8)	LD-06450-08	
3/8 (9.6)	7/16 (11.2)	1/32 (0.8)	110 (7.6)	LD-06406-12	
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	210 (14.5)	LD-06450-09	
7/16 (11.1)	1/2 (12.8)	1/32 (0.8)	102 (7.0)	LD-06406-76	
7/16 (11.1)	9/16 (14.3)	1/16 (1.6)	185 (12.8)	LD-06450-14	
1/2 (12.8)	9/16 (14.3)	1/32 (0.8)	88 (6.1)	LD-06406-18	
1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	165 (11.4)	LD-06450-15	
9/16 (14.3)	5/8 (16.0)	1/32 (0.8)	77 (5.3)	LD-06406-78	
5/8 (16.0)	11/16 (17.5)	1/32 (0.8)	71 (4.9)	LD-06450-00	
5/8 (16.0)	3/4 (19.2)	1/16 (1.6)	135 (9.3)	LD-06450-17	
11/16 (17.5)	3/4 (19.1)	1/32 (0.8)	65 (4.5)	LD-06450-01	
3/4 (19.2)	7/8 (22.2)	1/16 (1.6)	115 (7.9)	LD-06450-19	

Cole-Parmer® PTFE Tubing

Won't crack under heat or pressure



Compliance
See page 19

Applications: Demanding lab, chemical, electrical, mechanical, pharmaceutical, and automotive applications. Good for high-purity work. PTFE tubing withstands extreme temperatures.

Characteristics: Chemically inert, nontoxic, and virtually nonporous. Excellent crack- and stress-resistance. Low coefficient of friction. Translucent.

Certifications: Resin is FDA-compliant (21 CFR 177.1550).

Temperature range: -400 to 500°F (-240 to 260°C)

Sterilize: Autoclave, ethylene oxide, or dry heat.



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20% off on 20+
15% off on 10 to 19
10% off on 4 to 9 packs

Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/ 25-ft pk
ID	OD	Wall			
1/32 (0.8)	1/16 (1.6)	1/64 (0.4)	370 (25.5)	LD-06407-41	
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	370 (25.5)	LD-06605-27	
3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	294 (20.3)	LD-06605-28	
1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	240 (16.5)	LD-06605-29	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	375 (25.9)	LD-06605-30	
5/32 (4.0)	1/4 (6.4)	3/64 (1.2)	274 (18.9)	LD-06605-31	
3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	175 (12.1)	LD-06605-32	
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	294 (20.3)	LD-06605-33	
1/4 (6.4)	5/16 (8.0)	1/32 (0.8)	137 (9.4)	LD-06605-34	
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	240 (16.5)	LD-06605-35	
19/64 (7.5)	3/8 (9.6)	1/25 (1.0)	143 (9.9)	LD-06605-36	
5/16 (8.0)	3/8 (9.6)	1/32 (0.8)	113 (7.8)	LD-06605-37	
3/8 (9.6)	7/16 (11.2)	1/32 (0.8)	96 (6.6)	LD-06605-39	
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	175 (12.1)	LD-06605-40	
5/8 (16.0)	1/2 (12.8)	1/20 (1.4)	137 (9.4)	LD-06605-41	
7/16 (11.2)	1/2 (12.8)	1/32 (0.8)	83 (5.7)	LD-06605-42	
1/2 (12.8)	9/16 (14.3)	1/32 (0.8)	73 (5.0)	LD-06605-44	
1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	137 (9.4)	LD-06605-45	
9/16 (14.3)	5/8 (16.0)	1/32 (0.8)	66 (4.6)	LD-06605-46	
5/8 (16.0)	1 1/16 (17.5)	1/32 (0.8)	59 (4.1)	LD-06605-48	
5/8 (16.0)	3/4 (19.2)	1/16 (1.6)	113 (7.8)	LD-06605-49	
3/4 (19.2)	7/8 (22.2)	1/16 (1.6)	96 (6.6)	LD-06605-51	

Cole-Parmer® PFA Tubing

Stands up to highly corrosive materials



Compliance
See page 19

Applications: Demanding lab, chemical, electrical, mechanical, pharmaceutical, and automotive applications. For the transfer of high-temperature or highly corrosive materials. Also good for high-purity work.

Characteristics: Chemically inert, nontoxic, and virtually nonporous. Excellent crack- and stress-resistance. Low coefficient of friction. Translucent.

Certifications: Resin is FDA-compliant (21 CFR 177.1550). Tubing is manufactured in ISO 9001-2008 approved facility.

Temperature range: -320 to 500°F (-195 to 260°C)

Sterilize: Autoclave, ethylene oxide, or dry heat.



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20% off on 20+
15% off on 10 to 19
10% off on 4 to 9 packs

Dimensions: in. (mm)			Max psi at 70°F (bar at 21°C)	Catalog number	Price/ 25-ft pk
ID	OD	Wall			
1/32 (0.8)	1/16 (1.6)	1/64 (0.4)	600 (41.4)	LD-06371-00	
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	592 (40.8)	LD-06375-01	
3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	471 (32.5)	LD-06371-01	
1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	385 (26.5)	LD-06371-02	
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	600 (41.4)	LD-06371-21	
5/32 (4.0)	1/4 (6.4)	3/64 (1.2)	421 (29.0)	LD-06375-02	
1/4 (6.4)	1/4 (6.4)	1/32 (0.8)	280 (19.3)	LD-06371-03	
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	471 (32.5)	LD-06371-22	
1/4 (6.4)	5/16 (8.0)	1/32 (0.8)	220 (15.2)	LD-06371-04	
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	388 (26.8)	LD-06371-05	
19/64 (7.5)	3/8 (9.6)	5/128 (1.0)	229 (15.8)	LD-06371-23	
5/16 (8.0)	3/8 (9.6)	1/32 (0.8)	180 (12.4)	LD-06371-06	
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	324 (22.3)	LD-06371-24	
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	283 (19.5)	LD-06375-07	
5/8 (16.0)	1/2 (12.8)	1/20 (1.2)	220 (9.5)	LD-06371-25	
7/16 (11.2)	1/2 (12.8)	1/32 (0.8)	133 (9.2)	LD-06371-07	
1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	220 (15.2)	LD-06371-26	
5/8 (16.0)	3/4 (19.0)	1/16 (1.6)	150 (10.3)	LD-06375-08	
11/16 (17.5)	3/4 (19.0)	1/32 (0.8)	87 (6.0)	LD-06371-28	
3/4 (19.0)	7/8 (22.2)	1/16 (1.6)	153 (10.5)	LD-06371-29	



Tubing Accessories

Handheld Tubing Cutter

Steel blade coated with PTFE resin produces clean, straight cuts through tubing up to 1 1/4" OD (cuts polyethylene tubing up to 1 1/2" OD). Order carrying pouch and replacement blade separately below.



- [LD-06438-90](#) Handheld tubing cutter
- [LD-06438-81](#) Tubing cutter pouch
- [LD-06438-92](#) Replacement blade for handheld tubing cutter 06438-90

Benchtop Tubing Cutter

Steel blade makes right-angle cuts in plastic tubing 1/16" to 5/8" OD.



- [LD-06438-10](#) Benchtop cutter
- [LD-06438-11](#) Replacement blade

Plastic Clamp Ties



Perfect for flexible fuel line, water line, and vacuum line applications. Special curved clamp tie head ensures a tight seal. Ties measure 8"L x 0.18"W; maximum diameter of 1 3/4". Black resin resists UV degradation.

- [LD-95615-00](#) Clamp ties, white. 100/pk
- [LD-95615-10](#) Clamp ties, black. 100/pk

SS Hose Clamps

SS strap and screw housing with a steel screw. Band-type worm drive.



Clamp diameter		Catalog number	Price/pk of 10*
Min	Max		
7/32"	5/8"	LD-06403-11	
11/16"	1 1/4"	LD-06403-12	
13/16"	1 3/4"	LD-06403-13	
1 1/16"	2"	LD-06403-14	
1 5/16"	2 1/4"	LD-06403-15	
2"	2 3/4"	LD-06403-16	
2 3/4"	3 1/2"	LD-06403-21	
3 1/2"	4 3/8"	LD-06403-22	
4 3/8"	5 1/8"	LD-06403-23	
5 1/8"	5 7/8"	LD-06403-24	
5 1/2"	6 1/4"	LD-06403-25	

*Discounts: Save 10% on 5-24 pks, 15% on 25-99 pks, and 20% on 100+ pks.

Cole-Parmer® Plastic Hose Clamps and Kits

Reusable white acetal copolymer or white or black nylon clamps will not rust or corrode. Recommended for continuous use from ambient temperature for the acetal copolymer to 200°F (93°C); ambient temperature for nylon clamps is 180°F (82°C). Clamps are nonconducting and stable in a wide variety of chemicals; black clamps resist UV degradation.

Once set, clamps stay put. To use, just position clamp on hose or tubing bundle and press the jaws together with a pair of pliers. Order clamps individually or in kits. Kits include 170 assorted clamps from 0.228" to 1.405" ID.

- [LD-06832-99](#) White acetal copolymer hose-clamp kit
- [LD-06420-99](#) White nylon hose-clamp kit
- [LD-06430-49](#) Black nylon hose-clamp kit



White Acetal Hose Clamps

Inside diameter				Catalog number	Qty/pk	Price/pk**
Decimal inches		Millimeters				
Min	Max	Min	Max			
0.228	0.256	5.8	6.5	LD-06832-01	100	
0.269	0.291	6.8	7.4	LD-95614-00	100	
0.307	0.342	7.8	8.7	LD-06832-03	100	
0.351	0.394	8.9	10.0	LD-06832-02	100	
0.387	0.440	9.8	11.2	LD-95614-01	100	
0.404	0.452	10.3	11.5	LD-06832-04	100	
0.449	0.511	11.4	13.0	LD-06832-06	100	
0.513	0.586	13.0	14.9	LD-06832-08	100	
0.569	0.650	14.5	16.5	LD-06832-10	100	
0.616	0.707	15.7	18.0	LD-06832-12	100	
0.702	0.801	17.8	20.4	LD-06832-14	100	
0.759	0.848	19.3	21.5	LD-06832-16	100	
0.779	0.899	19.8	22.8	LD-06832-18	100	
0.859	0.989	21.8	25.1	LD-06832-20	100	
0.928	1.072	23.6	27.2	LD-06832-22	100	
0.985	1.135	25.0	28.8	LD-06832-24	100	
1.123	1.296	28.5	32.9	LD-06832-28	50	
1.218	1.405	30.9	35.7	LD-06832-32	50	
1.338	1.566	34.0	39.8	LD-06832-34	50	
1.472	1.724	37.4	43.8	LD-06832-36	50	
1.594	1.862	40.5	47.3	LD-06832-38	50	
1.999	2.277	50.8	57.8	LD-06832-50	25	
2.259	2.582	57.4	65.6	LD-06832-60	25	
2.507	2.897	63.7	73.6	LD-06832-70	25	

**Discounts: Save 10% on 4-19 pks, 15% on 20-79 pks, and 20% on 80+ pks.

Nylon Hose Clamps

Inside diameter				Qty/pk	White		Black	
Decimal inches		Millimeters			Catalog number	Price/pk**	Catalog number	Price/pk**
Min	Max	Min	Max					
0.246	0.290	5.95	7.5	100	LD-06420-50		LD-06430-07	
0.283	0.312	7.1	7.9	100	LD-06420-52		LD-06430-02	
0.350	0.395	9.1	9.9	100	LD-06420-56		LD-06430-06	
0.360	0.410	9.3	10.5	100	LD-06420-58		LD-06430-08	
0.430	0.480	11.11	12.3	100	LD-06420-60		LD-06430-10	
0.500	0.545	12.7	13.8	100	LD-06420-62		LD-06430-12	
0.525	0.605	13.3	15.4	100	LD-06420-64		LD-06430-14	
0.580	0.660	15.0	16.9	100	LD-06420-66		LD-06430-46	
0.650	0.750	16.6	19.0	100	LD-06420-68		LD-06430-18	
0.750	0.875	19.05	22.2	100	LD-06420-70		LD-06430-20	
0.779	0.899	19.7	22.6	100	LD-06420-72		LD-06430-22	
0.859	0.989	21.8	25.0	100	LD-06420-74		LD-06430-44	
0.900	0.989	23.0	25.0	100	LD-06420-76		LD-06430-26	
0.990	1.135	25.0	28.5	100	LD-06420-78		LD-06430-28	
1.123	1.296	28.5	32.9	50	LD-06420-80		LD-06430-30	
1.250	1.425	31.7	35.9	50	LD-06420-82		LD-06430-32	
1.406	1.610	35.7	40.8	50	LD-06420-84		LD-06430-34	
1.593	1.812	40.4	46.0	50	LD-06420-86		LD-06430-36	
1.790	2.110	45.6	53.5	50	LD-06420-88		LD-06430-38	
1.870	2.125	47.0	52.0	50	LD-06420-90		LD-06430-40	
2.119	2.390	53.5	60.7	25	LD-06420-92		LD-06430-42	

**Discounts: Save 10% on 4-19 pks, 15% on 20-79 pks, and 20% on 80+ pks.



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Fittings

Cole-Parmer® Premium Luer Fittings

Premium luer fittings for critical applications

- Manufactured from 100% virgin raw materials in a Class 100,000 environment
- Full material traceability on all items

These luer fittings are ideal for a variety of applications, including syringes or small tubing. Manufactured in compliance with ISO 594-1 standards, these fittings are inspected to be free from contaminants, and are fully traceable. All parts meet tight dimensional tolerances for increased reliability and process purity. Choose from a range of sizes, 1/16" to 1/4", with a variety of connection options. **Pack of 25.**

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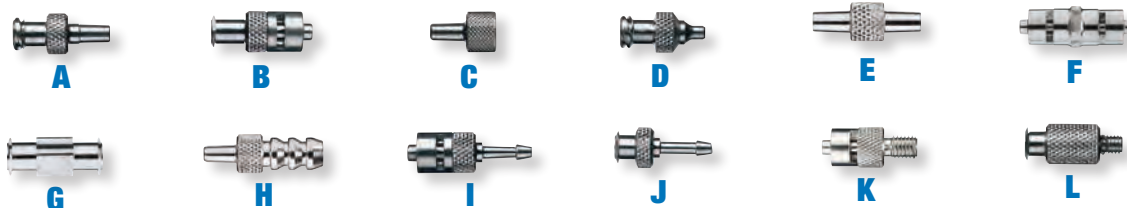


Key	Description	Polypropylene		Polycarbonate		Nylon	
		Cat. no.	Price/pk	Cat. no.	Price/pk	Cat. no.	Price/pk
Female luer x hose barb adapters							
A	Female luer x 1/16" hose barb	LD-45508-00		LD-45501-00		LD-45502-00	
	Female luer x 3/32" hose barb	LD-45508-02		LD-45501-02		LD-45502-02	
	Female luer x 1/8" hose barb	LD-30800-08		LD-45501-04		LD-45502-04	
	Female luer x 3/32" hose barb	LD-45508-06		LD-45501-06		LD-45502-06	
	Female luer x 3/16" hose barb	LD-45508-08		LD-45501-08		LD-45502-08	
	Female luer x 1/4" hose barb	LD-30800-06		LD-45501-20		LD-45502-20	
Female luer x hose barb adapters (smooth bore)							
B	Female luer x 1/16" hose barb (smooth bore)	LD-45508-50		LD-45501-50		LD-45502-50	
	Female luer x 3/32" hose barb (smooth bore)	LD-45508-52		LD-45501-52		LD-45502-52	
	Female luer x 1/8" hose barb (smooth bore)	LD-45508-54		LD-45501-54		LD-45502-54	
Female luer x thread adapters							
C	Female luer x 10-32 special tapered thread	LD-45508-70		LD-45501-70		LD-45502-70	
	Female luer x 10-32 UNF thread	LD-45508-60		LD-45501-60		LD-45502-60	
	Female luer x 1/4-28 UNF thread	LD-45508-66		LD-45501-66		LD-45502-66	
	Female luer x 1/4-28 UNF bottom sealing thread	LD-45508-76		—	—	LD-45505-76	
	Female luer x 1/8-27 NPT thread	LD-30800-00		—	—	LD-45505-78	
D	Female luer x 1/8-27 NPT thread elbow	LD-45508-80		—	—	LD-45505-80	
Female luer bulkhead x hose barb adapters							
E	Female luer x 1/4-28 UNF thread to 1/16" hose barb	LD-45508-30		LD-45501-30		LD-45502-30	
	Female luer x 1/4-28 UNF thread to 3/32" hose barb	LD-45508-32		LD-45501-32		LD-45502-32	
	Female luer x 1/4-28 UNF thread to 1/8" hose barb	LD-45508-34		LD-45501-34		LD-45502-34	
Female adapters							
F	Female luer x female luer	LD-45508-22		LD-45501-22		LD-45502-22	
G	Female tee	LD-45508-56		LD-45501-56		LD-45502-56	
H	Female elbow	LD-45508-26		LD-45501-26		LD-45502-26	
I	Female luer x cap	LD-30800-12		LD-45501-28		LD-45502-28	
J	Female luer x cap with tether loop	LD-45508-64		LD-45501-64		LD-45502-64	
Male x female adapters							
K	Male luer x female luer coupler	LD-45508-82		LD-45501-82		LD-45502-82	
L	Male luer x female luer coupler with lock ring	LD-45508-80		LD-45501-80		LD-45502-80	
M	Male luer x female luer elbow	LD-45508-84		LD-45501-84		LD-45502-84	
N	Male x female x female tee	LD-45508-85		LD-45501-85		LD-45502-85	
O	Male x male x female tee	LD-45508-75		LD-45501-75		LD-45502-75	
Male luer lock x hose barb adapters							
P	Male luer lock x 1/16" hose barb	LD-45518-00		LD-45504-00		LD-45505-00	
	Male luer lock x 3/32" hose barb	LD-45518-02		LD-45504-02		LD-45505-02	
	Male luer lock x 1/8" hose barb	LD-30800-24		LD-45504-04		LD-45505-04	
	Male luer lock x 3/32" hose barb	LD-45518-06		LD-45504-06		LD-45505-06	
	Male luer lock x 3/16" hose barb	LD-45518-08		LD-45504-08		LD-45505-08	
	Male luer lock x 1/4" hose barb	LD-30800-22		LD-45504-19		LD-45505-19	
Male luer x hose barb adapters (for use with separate rotating lock ring "R")							
Q	Male luer x 1/16" hose barb	LD-45518-40		LD-45504-40		LD-45505-40	
	Male luer x 3/32" hose barb	LD-45518-42		LD-45504-42		LD-45505-42	
	Male luer x 1/8" hose barb	LD-45518-44		LD-45504-44		LD-45505-44	
	Male luer x 3/32" hose barb	LD-45518-46		LD-45504-46		LD-45505-46	
	Male luer x 3/16" hose barb	LD-45518-48		LD-45504-48		LD-45505-48	
	Male luer x 1/4" hose barb	LD-45518-50		LD-45504-50		LD-45505-50	
R	Snap luer lock ring	LD-45518-74		LD-45504-74		LD-45505-74	
Male slip luer x hose barb adapters (no lock ring)							
S	Male luer x 1/16" hose barb	LD-45518-22		LD-45504-22		LD-45505-22	
	Male luer x 3/32" hose barb	LD-45518-24		LD-45504-24		LD-45505-24	
	Male luer x 1/8" hose barb	LD-45518-26		LD-45504-26		LD-45505-26	
	Male luer x 3/32" hose barb	LD-45518-28		LD-45504-28		LD-45505-28	
	Male luer x 3/16" hose barb	LD-45518-52		LD-45504-52		LD-45505-52	
	Male luer x 1/4" hose barb	LD-45518-54		LD-45504-54		LD-45505-54	

Metal Luer Fittings

Worry-free cleaning with easy disassembly

- Select 316 stainless steel fittings for your harsh chemical environments
- Autoclavable



Key	Description	316 stainless steel		Nickel-plated brass	
		Cat. no.	Price/ea	Cat. no.	Price/ea
A	Female luer x male luer	LD-41507-20		LD-41507-50	
B	Female luer x male luer lock	LD-41507-21		LD-41507-51	
C	Male luer plug	LD-41507-22		LD-41507-54	
	Male luer lock plug	LD-41507-23		LD-41507-52	
D	Female luer plug	LD-41507-24		LD-41507-53	
E	Male luer x male luer	—	—	LD-41507-57	
F	Male luer lock x male luer lock	LD-41507-90		LD-41507-55	
G	Female luer x female luer	LD-41507-89		LD-41507-56	
H	Male luer x 1/4" hose barb	—	—	LD-41507-60	
I	Male luer lock x 1/16" hose barb	LD-41507-26		LD-41507-62	
	Male luer lock x 1/8" hose barb	LD-41507-25		LD-41507-61	
	Male luer lock x 1/4" hose barb	LD-41507-27		LD-41507-66	

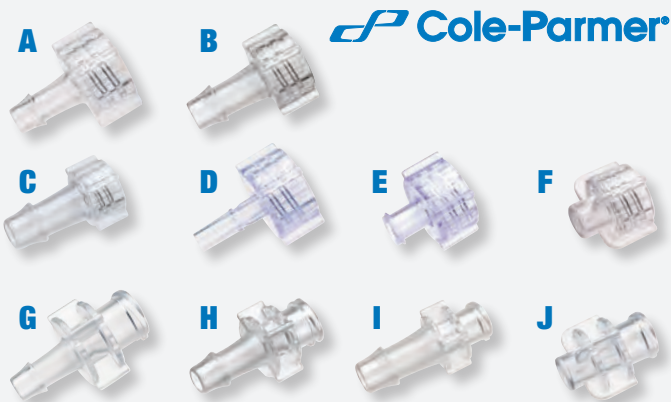
Key	Description	316 stainless steel		Nickel-plated brass	
		Cat. no.	Price/ea	Cat. no.	Price/ea
J	Female luer x 1/16" hose barb	LD-41507-29		LD-41507-64	
	Female luer x 1/8" hose barb	LD-41507-28		LD-41507-63	
	Female luer x 3/16" hose barb	LD-41507-30		LD-41507-65	
K	Male luer lock x 10-32 UNF thread	LD-41507-31		LD-41507-70	
	Male luer lock x 1/4-28 UNF thread	LD-41507-32		LD-41507-73	
	Male luer lock x 1/8" NPT	LD-41507-44		LD-41507-84	
	Male luer lock x 1/4" NPT	LD-41507-45		LD-41507-85	
L	Female luer x 10-32 UNF thread	LD-41507-33		LD-41507-71	
	Female luer x 1/4-28 UNF thread	LD-41507-34		LD-41507-72	
	Female luer x 1/8" NPT	LD-41507-46		LD-41507-86	
	Female luer x 1/4" NPT	LD-41507-48		LD-41507-87	

Cole-Parmer® Large-Bore Slip-Fit Adapters

Enhance fluid flow with larger bore

Large-bore adapters are perfect for handling higher flow volumes in process while using connections similar to luer systems. Manufactured in an ISO Class 8 (formerly Class 100,000) environment. Inspected to be free of contaminants and are fully lot traceable.

Note: These are not compatible with standard luer fittings.



Specifications

	Polycarbonate (PC)	Radiation-stable PC	Nylon
Body material	Polycarbonate (PC)	Radiation-stable PC	Nylon
Max temp	266°F (130°C)	252°F (122°C)	194°F (90°C)
Sterilization	Gamma, ETO	Gamma, ETO	Gamma, ETO, autoclave

Key	Description	Polycarbonate (PC)		Radiation-stable PC		Nylon	
		Catalog number	Price/pk of 25	Catalog number	Price/pk of 25	Catalog number	Price/pk of 25
A	Male large bore to 3/16" hose barb	LD-45509-50		—	—	LD-45509-70	
B	Male large bore to 1/4" hose barb	LD-45509-52		—	—	LD-45509-72	
C	Male large bore to 5/16" hose barb	LD-45509-54		—	—	LD-45509-74	
D	Male large bore with lock ring to male luer	—	—	LD-45509-90		—	—
E	Male large bore with lock ring to female luer	—	—	LD-45509-91		—	—
F	Male large bore connector plug	LD-45509-64		—	—	LD-45509-84	
G	Female large bore to 3/16" hose barb	LD-45509-56		—	—	LD-45509-76	
H	Female large bore to 1/4" hose barb	LD-45509-58		—	—	LD-45509-78	
I	Female large bore to 5/16" hose barb	LD-45509-60		—	—	LD-45509-80	
J	Female large bore connector cap	LD-45509-62		—	—	LD-45509-82	



You're Out? We're Not!

Thousands of highlighted items

Fluid Handling

Fittings

Cole-Parmer® Barbed Fittings

No tools needed for assembly

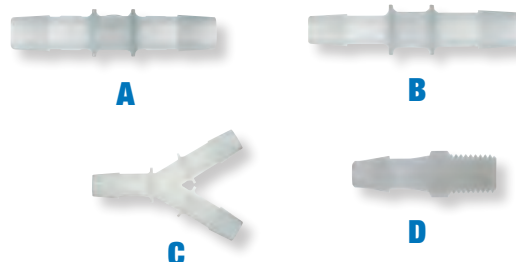
Combine these fittings with our flexible tubing for use in your low-pressure applications (less than 30 psi).

High-Density Polyethylene (HDPE). Very good chemical resistance. Temp range: -65 to 150°F (-53 to 65°C). Sterilize by ethylene oxide.

Nylon. Good chemical resistance. Temp range: -50 to 250°F (-46 to 121°C). Sterilize by ethylene oxide.

Polypropylene (PP). Very good chemical resistance. Temp range: 9 to 180°F (-13 to 66°C). Sterilize by ethylene oxide or gamma irradiation.

PVDF. Excellent chemical resistance. Temp range: -80 to 265°F (-62 to 129°C). Sterilize by ethylene oxide or autoclave.



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15% off on 50 to 99
10% off on 10 to 49 packs



Tubing ID	HDPE			Nylon			Polypropylene			PVDF		
	Catalog number	Qty/pk	Price/pk	Catalog number	Qty/pk	Price/pk	Catalog number	Qty/pk	Price/pk	Catalog number	Qty/pk	Price/pk
A. Straight connectors												
1/16"	LD-30622-47	10		LD-30622-48	10		LD-40622-49	10		LD-30703-00	10	
3/32"	LD-30622-44	10		LD-30622-45	10		LD-40622-46	10		LD-30703-01	10	
1/8"	LD-30622-53	10		LD-30622-54	10		LD-41518-05	10		LD-30703-02	10	
3/16"	LD-30622-55	10		LD-30622-56	10		LD-40622-57	10		LD-30703-04	10	
1/4"	LD-30621-85	10		LD-30621-86	10		LD-40610-00	10		LD-30703-05	10	
3/8"	LD-30621-89	10		LD-30621-90	10		LD-40610-02	10		LD-30703-07	10	
1/2"	LD-30621-92	10		LD-30621-93	10		LD-40610-03	10		LD-30703-08	10	
5/8"	LD-30621-79	10		LD-30621-80	10		LD-40610-04	10		LD-30703-09	10	
3/4"	LD-30621-81	10		LD-30621-82	10		LD-40610-05	5		LD-30703-10	5	
1"	LD-30621-83	10		LD-30621-84	10		LD-40610-06	5		LD-30703-11	5	
B. Reducing connectors												
1/8" x 1/16"	LD-31518-29	10		LD-30622-22	25		LD-40622-23	25		LD-30703-41	10	
1/4" x 1/8"	LD-30622-27	10		LD-30622-28	10		LD-41518-36	10		LD-30703-50	10	
1/4" x 3/16"	LD-30622-29	10		LD-30622-30	10		LD-40622-32	10		LD-30703-52	10	
3/8" x 1/4"	LD-30622-35	10		LD-30703-99	10		LD-40610-08	10		LD-30703-54	10	
1/2" x 1/4"	LD-30622-38	10		LD-30622-39	10		LD-40610-10	10		LD-30703-56	10	
1/2" x 3/8"	LD-30622-42	10		LD-30622-43	10		LD-40610-12	10		LD-30703-58	10	
5/8" x 1/4"	LD-30621-96	10		LD-30621-97	10		LD-40610-13	10		LD-30703-59	10	
5/8" x 1/2"	LD-30622-03	10		LD-30622-04	10		LD-40610-16	10		LD-30703-62	10	
3/4" x 1/2"	LD-30622-09	5		LD-30622-10	5		LD-40610-18	5		LD-30703-64	5	
1" x 1/2"	LD-30622-15	5		LD-30622-16	5		LD-40610-20	5		LD-30703-66	5	
1" x 3/4"	LD-30622-13	5		LD-30622-14	5		LD-40610-22	5		LD-30703-68	5	
C. Y connectors												
1/16"	LD-30726-01	10		LD-30726-21	10		LD-40726-41	10		LD-30703-90	10	
3/32"	LD-30726-02	10		LD-30726-22	10		LD-40726-42	10		LD-30703-91	10	
1/8"	LD-30726-03	10		LD-30726-23	10		LD-40726-43	10		LD-30703-92	10	
3/16"	LD-30726-04	10		LD-30726-24	10		LD-40726-44	10		LD-30726-64	10	
1/4"	LD-30726-05	10		LD-30726-25	10		LD-40726-45	10		LD-30726-65	10	
3/8"	LD-30726-06	10		LD-30726-26	10		LD-40726-46	10		LD-30703-93	10	
1/2"	LD-30726-07	10		LD-30726-27	10		LD-40726-47	10		LD-30703-94	10	
5/8"	LD-30726-08	10		LD-30726-28	10		LD-40726-48	10		LD-30726-68	10	
D. NPT male threaded adapters, NPT(M) x tubing ID												
1/8" x 1/8"	LD-30621-26	10		LD-30621-27	10		LD-40621-28	25		LD-30704-07	10	
1/8" x 1/4"	LD-30621-31	10		LD-30621-32	10		LD-40610-36	10		LD-30704-09	10	
1/4" x 1/8"	LD-30621-42	10		LD-30621-44	10		LD-40621-45	10		LD-30621-43	10	
1/4" x 1/4"	LD-30621-46	10		LD-30621-47	10		LD-40610-38	10		LD-30704-11	10	
3/8" x 1/4"	LD-30621-56	10		LD-30621-57	10		LD-40610-41	10		LD-30704-14	10	
3/8" x 3/8"	LD-30621-62	10		LD-30621-63	10		LD-40610-42	10		LD-30704-15	10	
1/2" x 1/4"	LD-30621-73	10		LD-30621-74	10		LD-40610-44	10		LD-30704-17	10	
1/2" x 3/8"	LD-30621-75	10		LD-30621-76	10		LD-40610-45	10		LD-30704-18	10	
1/2" x 1/2"	LD-30621-77	10		LD-30621-78	10		LD-40610-46	10		LD-30704-19	10	
3/4" x 1/2"	LD-30621-20	10		LD-30621-21	10		LD-40610-50	5		LD-30704-23	5	
3/4" x 3/4"	LD-30621-12	10		LD-30621-13	10		LD-40610-51	5		LD-30704-24	5	
1" x 1"	LD-31517-18	10		LD-30401-34	10		LD-40610-53	5		LD-30704-26	5	



Free Certificate of Compliance

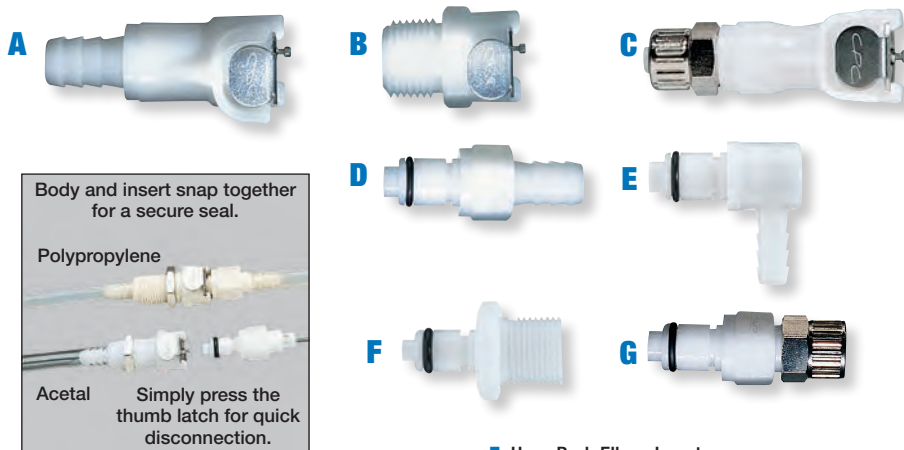
Cole-Parmer will provide a certificate of resin or elastomer compliance FREE at your request with each order of fittings, gaskets, or tubing. Certificates list your company's PO number, order reference number, catalog number, formulation, compound number, lot number (where applicable), and the regulations and agencies the fitting, tubing, or gasket complies with, including FDA, USP, USDA, National Formulary, NSF International, GMP, and 3A. Look for the blue "check" icon throughout this catalog to identify when a certificate of compliance is available.

CPC™ Quick-Disconnect Couplings

No more struggling—just press thumb latch to disconnect

- Valved fittings shut off flow when disconnected
- Available in three styles—hose barb, compression, and pipe adapter—with standard in-line configurations

For each complete quick-disconnect fitting, order one body and one insert with the same flow size. Plug insert into body to connect fitting—fitting halves lock in place immediately. To disconnect, simply press the lever on the coupling body. All fitting bodies have 316 stainless steel springs and latches.



Specifications

Body material	Acetal	Polysulfone (PSF)
Seal material	Buna N	EPR
Max temp	180°F (-82°C)	160°F (71°C)
Max pressure	120 psi	100 psi
Max vacuum	28" Hg	28" Hg
Sterilization	Autoclave or ETO	Gamma or ETO

Buy More...Save More!

- 20% off on 100+
- 15% off on 50 to 99
- 10% off on 10 to 49 packs

Quick-Disconnect Bodies

(Female Coupling Halves)

A. Hose Barb Bodies

Catalog number	Tubing ID	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
LD-06360-19	1/16"	1/8"	1.41"	Acetal	
LD-06360-20	1/8"	1/8"	1.65"	Acetal	
LD-06360-22	3/16"	1/8"	1.85"	Acetal	
LD-06360-25	1/4"	1/8"	1.85"	Acetal	
LD-06360-65	1/4"	1/4"	1.95"	Acetal	
LD-06360-67	5/16"	1/4"	1.95"	Acetal	
LD-06360-70	3/8"	1/4"	1.95"	Acetal	
LD-06364-19	1/16"	1/8"	1.41"	PP	
LD-06364-20	1/8"	1/8"	1.67"	PP	
LD-06364-25	1/4"	1/8"	1.87"	PP	
LD-06364-65	1/4"	1/4"	1.97"	PP	
LD-06364-70	3/8"	1/4"	1.97"	PP	
Straight-through fittings					
LD-06361-09	1/16"	1/8"	1.41"	Acetal	
LD-06361-11	1/8"	1/8"	1.65"	Acetal	
LD-06361-12	3/16"	1/8"	1.85"	Acetal	
LD-06361-13	1/4"	1/8"	1.85"	Acetal	
LD-06361-51	1/4"	1/4"	1.95"	Acetal	
LD-06361-52	5/16"	1/4"	1.95"	Acetal	
LD-06361-53	3/8"	1/4"	1.95"	Acetal	

B. NPT(M) Pipe Adapter Bodies

Catalog number	NPT(M)	Flow size	Resin	Price/pk of 1
Valved fittings				
LD-06359-70	1/8"	1/8"	Acetal	
LD-06359-71	1/4"	1/8"	Acetal	
LD-06359-72	1/4"	1/4"	Acetal	
LD-06359-73	3/8"	1/4"	Acetal	
LD-06359-80	1/8"	1/8"	PP	
LD-06359-81	1/4"	1/8"	PP	
LD-06359-82	1/4"	1/4"	PP	
LD-06359-83	3/8"	1/4"	PP	
Straight-through fittings				
LD-06361-00	1/8"	1/8"	Acetal	
LD-06361-01	1/4"	1/8"	Acetal	
LD-06361-42	1/4"	1/4"	Acetal	
LD-06361-43	3/8"	1/4"	Acetal	

C. Compression Bodies

Catalog number	Tubing OD	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
LD-06360-98	1/4"	1/8"	1.73"	Acetal	
LD-06359-90	1/4"	1/4"	1.82"	Acetal	
LD-06359-91	3/8"	1/4"	1.95"	Acetal	
LD-06364-90	1/4"	1/8"	1.74"	PP	
LD-06364-91	3/8"	1/4"	1.97"	PP	
Straight-through fittings					
LD-06361-08	1/4"	1/8"	1.73"	Acetal	
LD-06361-49	3/8"	1/4"	1.95"	Acetal	

Quick-Disconnect Inserts

(Male Coupling Halves)

D. Hose Barb Inserts

Catalog number	Tubing ID	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
LD-06360-36	1/16"	1/8"	1.35"	Acetal	
LD-06360-40	1/8"	1/8"	1.55"	Acetal	
LD-06360-43	3/16"	1/8"	1.75"	Acetal	
LD-06360-45	1/4"	1/8"	1.58"	Acetal	
LD-06360-80	1/4"	1/4"	1.86"	Acetal	
LD-06360-83	3/16"	1/4"	1.86"	Acetal	
LD-06360-85	3/8"	1/4"	1.86"	Acetal	
LD-06364-38	1/16"	1/8"	1.35"	PP	
LD-06364-40	1/8"	1/8"	1.55"	PP	
LD-06364-45	1/4"	1/8"	1.58"	PP	
LD-06364-80	1/4"	1/4"	1.86"	PP	
LD-06364-85	3/8"	1/4"	1.67"	PP	
Straight-through fittings					
LD-06360-38	1/16"	1/8"	0.80"	Acetal	
LD-06360-42	1/8"	1/8"	1.05"	Acetal	
LD-06360-44	3/16"	1/8"	1.25"	Acetal	
LD-06360-47	1/4"	1/8"	1.25"	Acetal	
LD-06360-82	1/4"	1/4"	1.35"	Acetal	
LD-06360-84	3/16"	1/4"	1.35"	Acetal	
LD-06360-87	3/8"	1/4"	1.35"	Acetal	
LD-06364-39	1/16"	1/8"	0.80"	PP	
LD-06364-42	1/8"	1/8"	1.05"	PP	
LD-06364-47	1/4"	1/8"	1.25"	PP	
LD-06364-82	1/4"	1/4"	1.35"	PP	
LD-06364-87	3/8"	1/4"	1.35"	PP	

E. Hose Barb Elbow Inserts

Catalog number	Tubing ID	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
LD-06361-39	1/8"	1/8"	1.09"	Acetal	
LD-06361-41	1/4"	1/8"	1.09"	Acetal	
LD-06361-75	1/4"	1/4"	1.22"	Acetal	
LD-06361-76	3/8"	1/4"	1.22"	Acetal	
LD-06361-98	1/8"	1/8"	1.09"	PP	
LD-06361-99	1/4"	1/8"	1.09"	PP	
LD-06362-00	1/4"	1/4"	1.21"	PP	
LD-06362-01	3/8"	1/4"	1.21"	PP	
Straight-through fittings					
LD-06361-27	1/8"	1/8"	0.85"	Acetal	
LD-06361-28	1/4"	1/8"	1.00"	Acetal	
LD-06361-63	1/4"	1/4"	1.10"	Acetal	
LD-06361-64	3/8"	1/4"	1.20"	Acetal	
LD-06361-85	1/8"	1/8"	1.09"	PP	
LD-06361-86	1/4"	1/8"	1.09"	PP	
LD-06361-87	1/4"	1/4"	1.21"	PP	
LD-06361-88	3/8"	1/4"	1.21"	PP	

F. NPT(M) Pipe Adapter Inserts

Catalog number	NPT(M)	Flow size	Resin	Price/pk of 1
Valved fittings				
LD-06361-29	1/8"	1/8"	Acetal	
LD-06361-31	1/4"	1/8"	Acetal	
LD-06361-65	1/4"	1/4"	Acetal	
LD-06361-66	3/8"	1/4"	Acetal	
LD-06361-89	1/8"	1/8"	PP	
LD-06361-91	1/4"	1/4"	PP	
Straight-through fittings				
LD-06361-17	1/8"	1/8"	Acetal	
LD-06361-18	1/4"	1/8"	Acetal	
LD-06361-54	1/4"	1/4"	Acetal	
LD-06361-55	3/8"	1/4"	Acetal	
LD-06361-79	1/8"	1/8"	PP	
LD-06361-81	1/4"	1/4"	PP	

G. Compression Inserts

Catalog number	Tubing OD	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
LD-06360-30	1/4"	1/8"	1.45"	Acetal	
LD-06360-35	3/8"	1/8"	1.40"	Acetal	
LD-06360-74	1/4"	1/4"	1.75"	Acetal	
LD-06360-75	3/8"	1/4"	1.68"	Acetal	
LD-06364-30	1/4"	1/8"	1.45"	PP	
LD-06364-75	3/8"	1/4"	1.68"	PP	
Straight-through fittings					
LD-06360-32	1/4"	1/8"	1.15"	Acetal	
LD-06360-37	3/8"	1/8"	1.30"	Acetal	
LD-06360-76	1/4"	1/4"	1.25"	Acetal	
LD-06360-77	3/8"	1/4"	1.38"	Acetal	
LD-06364-32	1/4"	1/8"	1.15"	PP	
LD-06364-77	3/8"	1/4"	1.38"	PP	



You're Out? We're Not!

Thousands of **highlighted** items

Fluid Handling

Fittings

CPC™ Plastic Quick-Disconnect Fittings

Fittings connect in a snap

- Acetal fittings are ideal for use with corrosive fluids
- Polycarbonate and polysulfone materials meet USP Class VI requirements

Simply press the thumb latch to disconnect coupling halves. Polycarbonate and polysulfone materials meet USP Class VI requirements and pass all physicochemical, cytotoxicity, leachables, and extractables tests. Order complete couplings or separate bodies and inserts from the tables below.

Note: Standard bodies and inserts fit together; won't work with large bodies and inserts and vice versa.



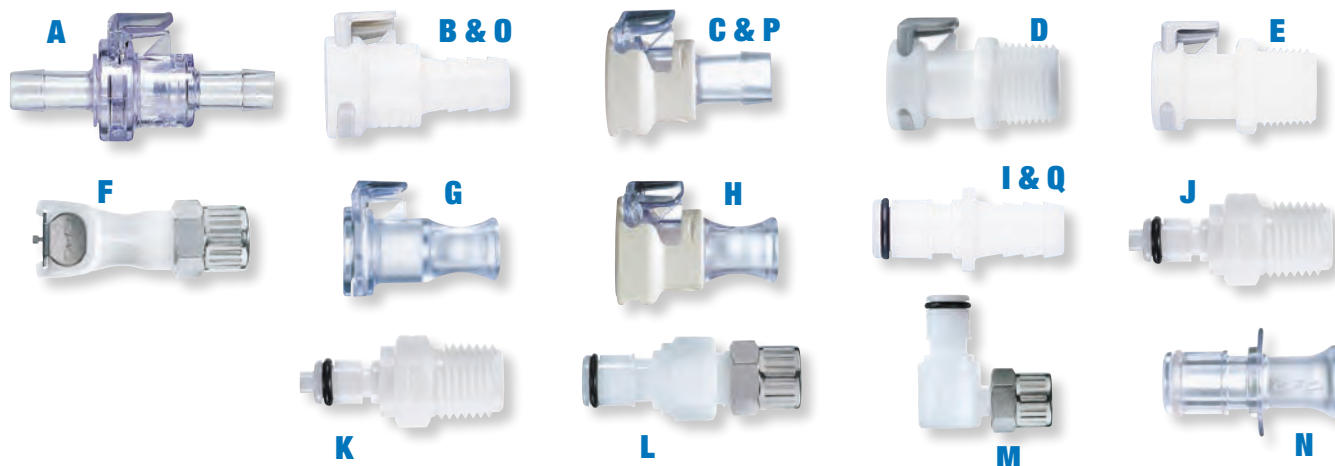
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15% off on 50 to 99
10% off on 10 to 49 packs

Specifications

Body material	Acetal	Polycarbonate (PC)	Polysulfone (PSF)
Temperature range	-40 to 180°F (-40 to 82°C)	-40 to 250°F (-40 to 121°C)	-40 to 300°F (-40 to 148°C)
Max pressure	120 psi	125 psi†	120 psi
Max vacuum	28" Hg	25" Hg	25" Hg
Sterilization	Autoclave or ETO	Autoclave, ETO, or gamma irradiation	Autoclave, ETO, or gamma irradiation

†Max pressure for 1/2" polycarbonate fittings is 60 psi.



Complete Couplings

Key	Catalog number	Size	Material	Length	Qty/pk	Price/pk
A	LD-06360-90	1/4" tubing ID	Acetal	—	10	
	LD-31305-00		PC	—	10	
	LD-06360-91		Acetal	—	10	
	LD-31305-05	3/8" tubing ID	PC	—	10	
	LD-31306-05		PSF	—	10	

Standard Bodies and Caps

Key	Catalog number	Size	Material	Length	Qty/pk	Price/pk
Barbed bodies						
B	LD-06360-94	1/4" tubing ID	Acetal	1.31" (33.3 mm)	10	
	LD-31311-11		PC		5	
	LD-31311-21		PSF		5	
	LD-06360-95	3/8" tubing ID	Acetal	1.31" (33.3 mm)	10	
	LD-31311-12		PC		5	
	LD-31311-22		PSF		5	
Hose barb coupling bodies with lock						
C	LD-31311-16	1/4" tubing ID	PC	1.31" (33.3 mm)	5	
	LD-31311-26		PSF		5	
	LD-31311-17	3/8" tubing ID	PC	1.31" (33.3 mm)	5	
	LD-31311-27		PSF		5	
BSP straight-through bodies						
D	LD-06360-01	1/4" BSP	Acetal	1.31" (33.3 mm)	10	
	LD-06360-02	3/8" BSP			10	
NPT(M) bodies						
E	LD-06360-00	1/4" NPT	Acetal	1.31" (33.3 mm)	10	
	LD-06360-96	3/8" NPT			10	
Compression coupling bodies						
F	LD-06360-06	1/4" OD	Acetal	1.31" (33.3 mm)	10	
	LD-06360-08	3/8" OD			10	
Sealing caps						
G	LD-31311-64	1/4"	PC	1.31" (33.3 mm)	5	
	LD-31311-74	1/4"	PSF		5	
Sealing caps with lock						
H	LD-31311-67	1/4"	PC	1.31" (33.3 mm)	5	
	LD-31311-77	1/4"	PSF		5	

Standard Inserts and Plugs

Key	Catalog number	Size	Material	Length	Qty/pk	Price/pk
Barbed inserts						
I	LD-06360-92	1/4" tubing ID	Acetal	1.28" (32.5 mm)	10	
	LD-31311-61		PC		5	
	LD-31311-71		PSF		5	
	LD-06360-93	3/8" tubing ID	Acetal	1.28" (32.5 mm)	10	
	LD-31311-62		PC		5	
	LD-31311-72		PSF		5	
BSP straight-through inserts						
J	LD-06360-27	1/4" BSP	Acetal	1.28" (32.5 mm)	10	
	LD-06360-97	3/8" BSP			10	
NPT(M) inserts						
K	LD-06360-16	1/4" NPT	Acetal	1.28" (32.5 mm)	10	
	LD-06360-18	3/8" NPT			10	
Compression coupling inserts						
L	LD-06360-21	1/4" OD	Acetal	1.28" (32.5 mm)	10	
	LD-06360-24	3/8" OD			10	
Sealing caps						
M	LD-06360-31	1/4" OD	Acetal	1.28" (32.5 mm)	10	
	LD-06360-34	3/8" OD			10	
Plugs with lock						
N	LD-31311-68	1/4"	PC	1.20" (30.5 mm)	5	
	LD-31311-78	1/4"	PSF		5	

Large Bodies and Inserts (use these bodies and inserts together)

Key	Catalog number	Size	Material	Length	Qty/pk	Price/pk
Barbed bodies						
O	LD-31311-13	1/2" tubing ID	PC	1.96" (49.8 mm)	5	
	LD-31311-23		PSF		5	
Hose barb coupling bodies with lock						
P	LD-31311-18	3/8" tubing ID	PC	1.96" (49.8 mm)	5	
	LD-31311-28		PSF		5	
Barbed inserts						
Q	LD-31311-63	1/2" tubing ID	PC	1.90" (48.3 mm)	5	
	LD-31311-73		PSF	1.40" (35.6 mm)	5	



CPC™ High-Flow Quick-Disconnect Couplings

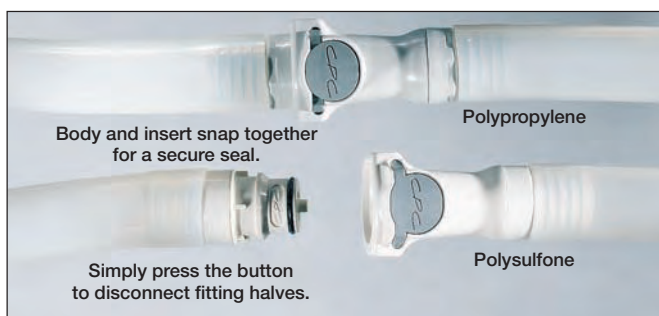
No more leaks—valved couplings automatically shut off flow

A complete quick-disconnect fitting consists of a body and an insert (order fitting halves separately). Plug insert into coupling body to connect—fitting halves lock into place immediately. To disconnect, simply press the button on the coupling body.

Valved models have a spring-operated 316 SS valve that seals the flow path when fitting halves are disengaged. All fitting bodies have 316 SS latch springs and EPDM seals.

Specifications

	Polypropylene	Polysulfone
Body material	Polypropylene	Polysulfone
Temperature range	32 to 160°F (0 to 71°C)	-40 to 280°F (-40 to 137°C)
Max pressure	60 psi	125 psi
Max vacuum	27.5" Hg	27.5" Hg
Sterilization	ETO or gamma	Autoclave, ETO, or gamma



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Fluid Handling

Fittings



A. 31303-00



D. 31303-30



B. 31303-10



E. 31303-40



C. 31303-20



F. 31303-50

Quick-Disconnect Bodies (Female Coupling Halves)

A. Threaded Adapter Bodies

Flow size	NPT(M)	Polypropylene		Polysulfone	
		Catalog number	Price/pk of 1	Catalog number	Price/pk of 1
Valved fittings					
3/8"	3/8"	LD-31303-00		LD-31307-00	
3/8"	1/2"	LD-31303-01		LD-31307-01	
3/8"	3/4"	LD-31303-02		LD-31307-02	
Straight-through fittings					
3/8"	3/8"	LD-31303-05		LD-31307-05	
3/8"	1/2"	LD-31303-06		LD-31307-06	
3/8"	3/4"	LD-31303-07		LD-31307-07	

B. Hose Barb Bodies

Flow size	Tube ID	Polypropylene		Polysulfone	
		Catalog number	Price/pk of 1	Catalog number	Price/pk of 1
Valved fittings					
3/8"	3/8"	LD-31303-10		LD-31307-10	
3/8"	1/2"	LD-31303-11		LD-31307-11	
3/8"	5/8"	LD-31303-12		LD-31307-12	
3/8"	3/4"	LD-31303-13		LD-31307-13	
Straight-through fittings					
3/8"	3/8"	LD-31303-15		LD-31307-15	
3/8"	1/2"	LD-31303-16		LD-31307-16	
3/8"	5/8"	LD-31303-17		LD-31307-17	
3/8"	3/4"	LD-31303-18		LD-31307-18	

C. Bulkhead Panel Mount Hose Barb Bodies

Flow size	Tube ID	Polypropylene		Polysulfone	
		Catalog number	Price/pk of 1	Catalog number	Price/pk of 1
Valved fittings					
3/8"	3/8"	LD-31303-20		LD-31307-20	
3/8"	1/2"	LD-31303-21		LD-31307-21	
3/8"	5/8"	LD-31303-22		LD-31307-22	
3/8"	3/4"	LD-31303-23		LD-31307-23	
Straight-through fittings					
3/8"	3/8"	LD-31303-25		LD-31307-25	
3/8"	1/2"	LD-31303-26		LD-31307-26	
3/8"	5/8"	LD-31303-27		LD-31307-27	
3/8"	3/4"	LD-31303-28		LD-31307-28	

Quick-Disconnect Inserts (Male Coupling Halves)

D. Male Threaded Inserts

Flow size	NPT(M)	Polypropylene		Polysulfone	
		Catalog number	Price/pk of 1	Catalog number	Price/pk of 1
Valved fittings					
3/8"	3/8"	LD-31303-35		LD-31307-35	
3/8"	1/2"	LD-31303-36		LD-31307-36	
3/8"	3/4"	LD-31303-37		LD-31307-37	
Straight-through fittings					
3/8"	3/8"	LD-31303-30		LD-31307-30	
3/8"	1/2"	LD-31303-31		LD-31307-31	
3/8"	3/4"	LD-31303-32		LD-31307-32	

E. Hose Barb Inserts

Flow size	Tube ID	Polypropylene		Polysulfone	
		Catalog number	Price/pk of 1	Catalog number	Price/pk of 1
Valved fittings					
3/8"	3/8"	LD-31303-45		LD-31307-45	
3/8"	1/2"	LD-31303-46		LD-31307-46	
3/8"	5/8"	LD-31303-47		LD-31307-47	
3/8"	3/4"	LD-31303-48		LD-31307-48	
Straight-through fittings					
3/8"	3/8"	LD-31303-40		LD-31307-40	
3/8"	1/2"	LD-31303-41		LD-31307-41	
3/8"	5/8"	LD-31303-42		LD-31307-42	
3/8"	3/4"	LD-31303-43		LD-31307-43	

F. Elbow Hose Barb Inserts

Flow size	Tube ID	Polypropylene		Polysulfone	
		Catalog number	Price/pk of 1	Catalog number	Price/pk of 1
Valved fittings					
3/8"	3/8"	LD-31303-55		LD-31307-55	
3/8"	1/2"	LD-31303-56		LD-31307-56	
Straight-through fittings					
3/8"	3/8"	LD-31303-50		LD-31307-50	
3/8"	1/2"	LD-31303-51		LD-31307-51	

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Fittings

CPC™ Miniature Quick-Disconnect Couplings

No more kinked tubing— allows tubing to rotate freely

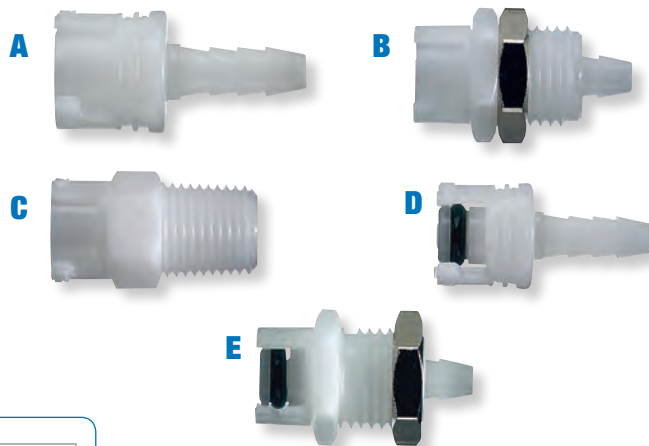
Able to handle 1/16" inner-diameter tubing, these fittings offer a more secure connection alternative to luer fittings. Fittings halves engage and seal with a twist.

For a complete coupling, order one fitting body and one insert. As an alternative, complete couplings are available below.

Note: All acetal fittings on this page are available in black as well as natural white. Please contact an Application Specialist for more information.

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Specifications

Body material	Acetal	Brass	Polypropylene (PP)	Polycarbonate (PC)
Color	Natural white	Chrome and black	Almond	Purple tint
Locking sleeve	Acetal	Acetal	Acetal	Polycarbonate
Valve	Acetal	Acetal	Acetal	Acetal
Valve spring	316 SS	316 SS	316 SS	316 SS
O-ring	Buna N	Buna N	EPDM	Buna N
Temperature range	-40 to 180°F (-40 to 82°C)	-40 to 180°F (-40 to 82°C)	32 to 180°F (0 to 82°C)	-40 to 160°F (-40 to 71°C)

Fitting Bodies (Female Fitting Halves)

A. Hose Barb Bodies

Catalog number	Tube ID	Length	Material	Price/pk of 10
Valved fittings				
LD-06363-55	1/16"	0.90"	Acetal	
LD-06363-61	3 mm	1.00"		
LD-06363-57	1/8"	0.90"		
Straight-through fittings				
LD-06363-54	1/16"	0.75"	Acetal	
LD-06363-59	3 mm	1.00"		
LD-06363-56	1/8"	0.90"		
LD-06363-62	1/16"	0.75"	PP	
LD-06363-86	1/8"	0.90"	PC	

B. Panel-Mount Hose Barb Bodies

Catalog number	Tube ID	Length	Material	Price/pk of 10
Valved fittings				
LD-06363-67	1/16"	0.90"	Acetal	
LD-06363-63	3 mm	1.00"		
LD-06363-69	1/8"	0.90"		
Straight-through fittings				
LD-06363-66	1/16"	0.75"	Acetal	
LD-06363-68	1/8"	1.00"		
LD-06363-78	1/8"	0.90"		
LD-06363-76	1/16"	0.75"	PP	
LD-06363-97	3 mm	0.75"	PC	

C. Threaded Adapter Bodies

Catalog number	NPT (M)	Length	Material	Price/pk of 10
Valved fittings				
LD-06363-75	1/8"	0.86"	Acetal	
Straight-through fittings				
LD-06363-66	1/8"	0.86"	Acetal	
LD-06363-76	1/8"	0.86"	PP	

Fitting Inserts (Male Fitting Halves)

D. Hose Barb Inserts

Catalog number	Tube ID	Length	Material	Price/pk of 10
Straight-through fittings				
LD-06363-50	1/16"	0.75"	Acetal	
LD-06363-65	3 mm	0.80"		
LD-06363-52	1/8"	0.90"		
LD-06363-77	1/8"	0.90"	Brass	
LD-06363-58	1/16"	0.75"	PP	
LD-06363-60	1/8"	0.90"		
LD-06363-83	1/16"	0.75"	PC	
LD-06363-84	1/8"	0.90"		

E. Panel-Mount Hose Barb Inserts

Catalog number	Tube ID	Length	Material	Price/pk of 10
Straight-through fittings				
LD-06363-70	1/16"	0.75"	Acetal	
LD-06363-71	3 mm	0.80"		
LD-06363-72	1/8"	0.90"		
LD-06363-81	1/8"	0.90"	Brass	
LD-06363-82	1/8"	0.90"	PP	
LD-06363-80	1/16"	0.75"		

Hose Barb Complete Couplings (not shown)

Catalog number	Tube ID	Length	Material	Price/pk of 10
Valved fittings				
LD-06363-87	1/16"	1.46"	Acetal	
LD-06363-96	3 mm	1.62"		
LD-06363-92	1/8"	1.61"		
Straight-through fittings				
LD-06363-88	1/16"	1.32"	Acetal	
LD-06363-95	3 mm	1.62"		
LD-06363-91	1/8"	1.61"		
LD-06363-89	1/16"	1.32"	PP	
LD-06363-93	1/8"	1.61"		
LD-06363-90	1/16"	1.32"	PC	
LD-06363-94	1/8"	1.61"		

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Polypropylene (PP) and PVDF Sanitary Clamp Fittings

Maintain sanitary conditions in your processes

- Meet USP Class VI for pharmaceutical use and FDA, USDA, and 3A standards for food contact
- All fittings are compatible with Tri-Clamp® fittings
- Excellent chemical resistance; low leachable characteristics

Note: Though both materials may be autoclaved, PVDF tolerates high temperatures better than PP does and will perform more consistently after repeated autoclaving.



Specifications

Clamp size	Inner dimension (based on SS tube ID)
¾" mini	9/16"
1" maxi	7/8"
1" ladish†	7/8"
1½"	1⅜"
2"	1⅞"
2½"	2⅜"
3"	2⅞"

†Choose 1" ladish fittings for a direct match with 1" stainless steel sanitary connections.

Chemical resistance

PP: very good PVDF: excellent

Temperature range

PP: 15 to 180°F (-9 to 82°C)
PVDF: -40 to 280°F (-40 to 138°C)

Max pressure

In ambient conditions, using plastic true union style clamp
PP: 125 psi PVDF: 150 psi

Sterilization: ETO or autoclave

Clamp size	PP		PVDF	
	Cat. no.	Price	Cat. no.	Price
A. Eccentric reducers				
1½" x ¾" mini	LD-31805-01		LD-31808-01	
B. Concentric reducers				
1" ladish x ¾" mini	LD-31805-05		LD-31808-05	
1½" x ¾" mini	LD-31805-06		LD-31808-06	
1½" x 1" ladish	LD-31805-10		LD-31808-10	
2" x 1" ladish	LD-31805-11		LD-31808-11	
2" x 1½"	LD-31805-14		LD-31808-14	
C. Barbed adapters, clamp x tubing ID				
¾" mini x ⅛"	LD-31805-24		LD-31808-24	
¾" mini x ¼"	LD-31805-25		LD-31808-25	
¾" mini x ⅜"	LD-31805-26		LD-31808-26	
¾" mini x ½"	LD-31805-27		LD-31808-27	
¾" mini x ⅝"	LD-31805-28		LD-31808-28	
¾" mini x ¾"	LD-31805-29		LD-31808-29	
1" ladish x ⅛"	LD-31805-30		LD-31808-30	
1" ladish x ¼"	LD-31805-31		LD-31808-31	
1" ladish x ⅜"	LD-31805-32		LD-31808-32	
1" ladish x ½"	LD-31805-33		LD-31808-33	
1" ladish x ¾"	LD-31805-34		LD-31808-34	
1" ladish x 1"	LD-31805-35		LD-31808-35	
1½" x 1"	LD-31805-41		LD-31808-41	
2" x 1"	LD-31805-47		LD-31808-47	
D. Pipe thread adapters, clamp x NPT(M)				
1" ladish x ⅛"	LD-31805-56		LD-31808-56	
1" ladish x ¼"	LD-31805-57		LD-31808-57	
1" ladish x ⅜"	LD-31805-58		LD-31808-58	
1" ladish x ½"	LD-31805-59		LD-31808-59	
1" ladish x ¾"	LD-31805-60		LD-31808-60	
1" ladish x 1"	LD-31805-61		LD-31808-61	
1" ladish x 1¼"	LD-31805-62		LD-31808-62	
1" ladish x 1½"	LD-31805-63		LD-31808-63	
1½" x ¾"	LD-31805-68		LD-31808-68	
1½" x 1"	LD-31805-69		LD-31808-69	
1½" x 1¼"	LD-31805-70		LD-31808-70	
1½" x 1½"	LD-31805-71		LD-31808-71	
2" x 1"	LD-31805-77		LD-31808-77	
2" x 1¼"	LD-31805-78		LD-31808-78	
2" x 1½"	LD-31805-79		LD-31808-79	
2" x 2"	LD-31805-80		LD-31808-80	
E. Pipe thread adapters, clamp x NPT(F)				
1" ladish x ¾"	LD-31806-04		LD-31809-04	
1" ladish x 1"	LD-31806-05		LD-31809-05	
1½" x 1½"	LD-31806-15		LD-31809-15	
F. 90° elbows				
¾" mini	LD-31806-41		LD-31809-41	
1" ladish	LD-31806-42		LD-31809-42	
1½"	LD-31806-43		LD-31809-43	
2"	LD-31806-44		LD-31809-44	
G. 45° elbows				
¾" mini	LD-31806-51		LD-31809-51	
1" ladish	LD-31806-52		LD-31809-52	
1½"	LD-31806-53		LD-31809-53	
2"	LD-31806-54		LD-31809-54	
H. Standard tees				
¾" mini	LD-31806-61		LD-31809-61	
1" ladish	LD-31806-62		LD-31809-62	
1½"	LD-31806-63		LD-31809-63	
2"	LD-31806-64		LD-31809-64	
I. Clamps				
¾" mini	---	---	LD-31811-00	
1" and 1½"	---	---	LD-31811-01	
2"	---	---	LD-31811-02	
2½"	---	---	LD-31811-03	

J. Nylon Clamps

Clamp size	Catalog number	Price
½" to ¾"	LD-30508-21	
1" to 1½"	LD-30508-23	
2"	LD-30508-25	
3"	LD-30508-27	
4"	LD-30508-29	

Gaskets (not shown)

Gasket size	Catalog number	Price
Platinum-cured silicone		
¾" mini	LD-30548-00	
1" ladish	LD-30548-02	
1½"	LD-30548-04	
2"	LD-30548-06	
2½"	LD-30548-08	
Viton®		
¾" mini	LD-30548-20	
1" ladish	LD-30548-22	
1½"	LD-30548-24	
2"	LD-30548-26	
2½"	LD-30548-28	
Buna N		
¾" mini	LD-30548-40	
1" ladish	LD-30548-42	
1½"	LD-30548-44	
2"	LD-30548-46	
2½"	LD-30548-48	
EPDM		
¾" mini	LD-30548-60	
1" ladish	LD-30548-62	
1½"	LD-30548-64	
2"	LD-30548-66	
2½"	LD-30548-68	
PTFE		
¾" mini	LD-30548-80	
1" ladish	LD-30548-82	
1½"	LD-30548-84	
2"	LD-30548-86	
2½"	LD-30548-88	





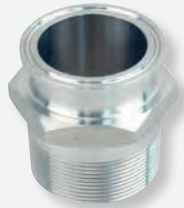
A



B



C



D



E



F



G



H



I

Cole-Parmer® 316L and 304 Stainless Steel Sanitary Clamp Couplings

Meet FDA requirements and 3A Sanitary Standards

All couplings are compatible with standard 304L fittings clamps.

316L Stainless Steel Couplings are ideal for the pharmaceutical industry; they offer great chemical compatibility for use with corrosive acids and bases.

304 Stainless Steel Couplings are ideal for the food, beverage, and dairy industries; they offer good chemical compatibility and are cost effective.



Key	Clamp size	316L stainless steel		304 stainless steel	
		Catalog number	Price	Catalog number	Price
Concentric reducers					
A	1" x ¾"	LD-30700-50	—	—	—
	1½" x 1"	LD-30700-51	—	LD-30700-95	—
	2" x 1"	LD-30700-52	—	LD-30700-96	—
	2" x 1½"	LD-30700-53	—	LD-30700-97	—
Eccentric reducers					
B	1" x ¾"	LD-30700-54	—	—	—
	1½" x 1"	LD-30700-55	—	LD-30700-98	—
	2" x 1"	LD-30700-56	—	LD-30700-99	—
	2" x 1½"	LD-30700-57	—	LD-30701-00	—
Barbed adapters					
C	¾" x ½"	LD-30700-58	—	—	—
	¾" x ¼"	LD-30700-59	—	—	—
	¾" x ⅜"	LD-30700-60	—	—	—
	¾" x ½"	LD-30700-61	—	—	—
	¾" x ¾"	LD-30700-62	—	—	—
	1" x 1"	LD-30700-63	—	LD-30800-50	—
	1½" x 1½"	LD-30700-64	—	LD-30800-51	—
	2" x 2"	LD-30700-65	—	LD-30800-52	—
Threaded adapters, clamp x NPT(M)					
D	¾" x ⅛"	LD-30700-66	—	—	—
	¾" x ¼"	LD-30700-67	—	—	—
	¾" x ⅜"	LD-30700-68	—	—	—
	¾" x ½"	LD-30700-69	—	—	—
	¾" x ¾"	LD-30700-70	—	—	—
	1" x ¾"	LD-30700-71	—	LD-30800-53	—
	1" x 1"	LD-30700-72	—	LD-30800-54	—
	1" x 1½"	LD-30700-74	—	LD-30800-55	—
	1" x 2"	LD-30700-75	—	LD-30800-56	—
	1½" x ¾"	LD-30700-76	—	LD-30800-57	—
	1½" x 1"	LD-30700-77	—	LD-30800-58	—
	1½" x 1¼"	LD-30700-78	—	LD-30800-59	—
	1½" x 1½"	LD-30700-79	—	LD-30800-60	—
	1½" x 2"	—	—	LD-30800-61	—
90° elbows					
E	¾"	LD-30700-80	—	—	—
	1"	LD-30700-81	—	LD-30800-62	—
	1½"	LD-30700-82	—	LD-30800-63	—
	2"	LD-30700-83	—	LD-30800-64	—
45° elbows					
F	¾"	LD-30700-84	—	—	—
	1"	LD-30700-85	—	LD-30800-65	—
	1½"	LD-30700-86	—	LD-30800-66	—
	2"	LD-30700-87	—	LD-30800-67	—
Tees					
G	¾"	LD-30700-88	—	—	—
	1"	LD-30700-89	—	LD-30800-68	—
	1½"	LD-30700-90	—	LD-30800-69	—
	2"	LD-30700-91	—	LD-30800-70	—
Crosses					
H	1"	LD-30700-92	—	LD-30800-71	—
	1½"	LD-30700-93	—	LD-30800-72	—
	2"	LD-30700-94	—	LD-30800-73	—
Clamps					
I	½" to ¾"	—	—	LD-30800-74	—
	1" to 1½"	—	—	LD-30800-75	—
	2"	—	—	LD-30800-76	—
	2½"	—	—	LD-30800-77	—
	3"	—	—	LD-30800-78	—
	4"	—	—	LD-30800-80	—



Advantec® Qualitative Filter Papers

Easily clarify solutions with pH up to 12

- Low ash alpha cotton cellulose—ash content of 0.1%
- Fits your range—use in pH of 0 to 12 and temperatures to 248°F (120°C)
- Packs of 100



Specifications

Grade	Nominal rating (µm)	Thickness (mm)	Weight (g/m ²)	Flow time† (sec)	Absorption speed‡ (cm)	Wet strength** (cm H ₂ O)
No. 1	Coarse (6)	0.2	90	45	9.0	15
No. 2	Medium (5)	0.26	125	80	8.0	18
No. 231	Medium	0.18	95	130	7.5	—
No. 232	Medium / medium-fine	0.18	90	250	5.0	—
No. 235	Very fine	0.17	95	1200	4.0	—
No. 131	Medium-fine (3)	0.25	140	240	6.0	20
No. 101	Coarse / gelatinous	0.21	80	50	8.0	15

Grade	Applications	55 mm	70 mm	90 mm	110 mm	125 mm	150 mm	185 mm
No. 1	Coarse retention; retains large crystalline particles and gelatinous precipitates. Fast flow rate, smooth surface, normal hardness	LD-81048-04 /pk	LD-81048-06 /pk	LD-81048-08 /pk	LD-81048-10 /pk	LD-81048-12 /pk	LD-81048-14 /pk	LD-81048-16 /pk
No. 2	Medium retention; retains medium crystalline precipitates, fast flow rate, smooth surface, normal hardness	LD-81048-34 /pk	LD-81048-36 /pk	LD-81048-38 /pk	LD-81048-40 /pk	LD-81048-42 /pk	LD-81048-46 /pk	LD-81048-48 /pk
No. 231	Medium retention; retains crystalline precipitates, moderate flow rate, smooth surface, normal hardness	LD-81048-64 /pk	LD-81048-66 /pk	LD-81048-68 /pk	LD-81048-70 /pk	LD-81048-72 /pk	LD-81048-74 /pk	LD-81048-80 /pk
No. 232	Retains medium to medium-fine particulates, slow flow rate, smooth, normal hardness	LD-81048-84 /pk	LD-81048-86 /pk	LD-81048-88 /pk	LD-81048-90 /pk	LD-81048-92 /pk	LD-81048-94 /pk	LD-81049-90 /pk
No. 235	Highest retention efficiency, retains very fine particulates, very slow flow rate, smooth	—	LD-81050-22 /pk	LD-81050-24 /pk	LD-81050-26 /pk	LD-81050-28 /pk	LD-81050-30 /pk	LD-81050-32 /pk
No. 131	High retention efficiency for medium-fine crystalline precipitates like barium sulfate, slow flow rate, smooth surface, normal hardness	LD-81050-04 /pk	LD-81050-10 /pk	LD-81050-12 /pk	LD-81050-14 /pk	LD-81050-16 /pk	LD-81050-18 /pk	LD-81050-20 /pk
No. 101	Coarse retention; seed germination, retains large particles	LD-81050-36 /pk	LD-81050-38 /pk	LD-81050-40 /pk	LD-81050-42 /pk	LD-81050-50 /pk	LD-81050-52 /pk	LD-81050-54 /pk

Advantec® Quantitative Filter Papers

Get accurate results—virtually ashless and ultrapure

- Get pure results—quality alpha cotton cellulose papers are double acid washed and neutralized for 0.01% ash content
- Packs of 100



Specifications

Grade	Nominal rating (µm)	Thickness (mm)	Weight (g/m ²)	Flow time† (sec)	Absorption speed‡ (cm)	Wet strength** (cm H ₂ O)
No. 3	Medium (5)	0.23	113	130	7.5	20
No. 4A	Very fine (1)	0.12	96	915	4.0	90
No. 5A	Coarse / gelatinous (7)	0.22	97	60	9.5	15
No. 5B	Medium (4)	0.21	108	195	7.0	20
No. 5C	Fine (1)	0.22	118	570	6.0	25
No. 6	Medium-fine (3)	0.2	103	300	6.0	15
No. 7	Medium (4)	0.18	87	200	7.0	12

Grade	Applications	55 mm	70 mm	90 mm	110 mm	125 mm	150 mm	185 mm
No. 3 Ashless	Medium retention (5 to 10 µm), fast flow rate analysis of soils, fertilizers, cement, and minerals	LD-81050-56 /pk	LD-81050-58 /pk	LD-81050-60 /pk	LD-81050-62 /pk	LD-81050-64 /pk	LD-81050-66 /pk	LD-81050-68 /pk
No. 4A Hardened ashless	High wet strength, suitable for use under high pressure, high chemical and pH resistance, retains fine crystalline precipitates (<5 µm), slow flow	LD-81051-90 /pk	LD-81051-92 /pk	LD-81051-94 /pk	LD-81051-96 /pk	LD-81051-98 /pk	LD-81052-00 /pk	LD-81052-02 /pk
No. 5A Ashless	Fast flow rate, retains coarse particulates and gelatinous precipitates (>10 µm); filter hydroxides and metallic aerosols, environmental monitoring, silica in steel	LD-81050-80 /pk	LD-81050-82 /pk	LD-81050-86 /pk	LD-81050-88 /pk	LD-81050-90 /pk	LD-81050-92 /pk	LD-81051-10 /pk
No. 5B Ashless	Retains medium particles (5 to 10 µm) such as CaCO ₃ , PbSO ₄ , CaCO ₃ , MnCO ₃ , ZnCO ₃ , ZnS, AgCl	LD-81051-12 /pk	LD-81051-14 /pk	LD-81051-16 /pk	LD-81051-18 /pk	LD-81051-20 /pk	LD-81051-22 /pk	LD-81051-24 /pk
No. 5C Ashless	Collect fine precipitates (<5 µm) such as SrSO ₄ , BaSO ₄ , HgCrO ₄ , and colloidal dispersions; gravimetric analysis	LD-81051-42 /pk	LD-81051-44 /pk	LD-81051-46 /pk	LD-81051-48 /pk	LD-81051-50 /pk	LD-81051-52 /pk	LD-81051-54 /pk
No. 6 Ashless	Retains medium-fine particulates (2 to 10 µm), trace and precious metals	LD-81051-56 /pk	LD-81051-58 /pk	LD-81051-60 /pk	LD-81051-62 /pk	LD-81051-70 /pk	LD-81051-72 /pk	LD-81051-74 /pk
No. 7 Ashless	Highest purity for retaining medium particles (5 to 10 µm), precise gravimetric analysis	LD-81051-76 /pk	LD-81051-78 /pk	LD-81051-80 /pk	LD-81051-82 /pk	LD-81051-84 /pk	LD-81051-86 /pk	LD-81051-88 /pk

†Flow time is the time in seconds required to filter 100 mL of distilled water at 68°F (20°C) under pressure supplied by a 10-cm water column through a 10 cm² section of filter paper.

‡Absorption speed is the distance in cm that water will travel in an upright strip of filter paper in ten minutes at 68°F (20°C).

**Wet strength is the height in cm of a water column that will rupture a 10 cm² section of filter paper.



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Filtration, Laboratory

Cole-Parmer® Syringe Filters

Get easy, reliable filtration—just slip on and twist

- Easy identification—membrane type and pore size printed on each filter
- Filter more confidently—filters are 100% integrity tested and manufactured in accordance with ISO 9002 standards
- Get a secure fit—bidirectional membrane support and luer lock inlet/outlet
- Sterile filters are sterilized by gamma irradiation and certified nonpyrogenic, noncytotoxic, and blister packed

Glass Prefilters with Final Filter

- Save time—borosilicate glass fiber prefilter and cellulose filter in one
- Prefilter extends life of final filter by removing particulates from sample
- Reduces retention volume and sample loss



Membrane Type	Membrane Dia	Pore size	Housing	Retention volume	Qty/ bx	Catalog number	Price/ bx
Nonsterile filters							
Cellulose acetate	26 mm	0.20 µm	Acrylic	0.23 mL	100	LD-02915-90	
		0.45 µm				LD-02915-92	
		0.80 µm				LD-02915-94	
Sterile filter							
Cellulose acetate	26 mm	0.20 µm	Acrylic	0.23 mL	50	LD-02915-40	

Cellulose Acetate Filters

- Low protein binding—ideal for biological solutions
- Use for sterilization and clarification of aqueous solutions



Pore size	Membrane dia	Housing	Color	Qty/bx	Catalog number	Price/bx
Nonsterile filters						
0.22 µm	26 mm	Acrylic	Blue	100	LD-02915-60	
0.45 µm			Clear		LD-02915-58	
0.80 µm			Green		LD-02915-62	
Sterile filters						
0.22 µm	26 mm	Acrylic	Blue	50	LD-02915-12	
0.45 µm			Clear		LD-02915-00	
0.80 µm			Green		LD-02915-10	

Nylon Filters

- Low levels of extractables with no wetting agents
- Hydrophilic nylon for good chemical resistance—ideal for aqueous and most organics



Pore size	Membrane dia	Housing	Color	Qty/bx	Catalog number	Price/bx
Nonsterile filters						
0.22 µm	25 mm	PP	Natural	100	LD-02915-16	
0.45 µm					LD-02915-14	
Sterile filters						
0.20 µm	25 mm	PP	Red	50	LD-02915-04	
0.45 µm			Natural		LD-02915-02	

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Teky's Tips

Choose the Right Filter!

Membrane type	Applications
Glass prefilter	One-step prefiltration and filtration. Choose the final membrane to meet your application needs. High particle loading capacity.
Cellulose acetate	Sterilization and clarification of aqueous solutions. Low protein binding.
Nylon	Filtration of organic and aqueous solutions. Low extractables.
PTFE	Sterilization of gases and alcohols; cleaning acids, alkalies, and organic solvents; venting purposes. For aggressive chemicals.
Nitrocellulose	High protein retention; microbiological analysis, waste water treatment; sterilization of aqueous solutions.

Specifications

Membrane dia	Housing type	Sample volume	Retention volume [†]	Pressure limit at 25°C	Max temp	Effective filtration area
15 mm	PP	≤5 mL	10 µL	87 psi	127°C	1.7 cm ²
25 mm	PP	≤100 mL	0.1 mL	87 psi	127°C	4.8 cm ²
26 mm	Acrylic	≤100 mL	0.1 mL	87 psi	50°C	5.3 cm ²
50 mm	PP	≤2 L	0.5 mL	60 psi	134°C	20 cm ²

[†]Varies for glass prefilters; see glass prefilter table below.

PTFE Filters

- Ideal for aggressive chemicals—organic solvents, concentrated acids and bases, propellants and more
- Use for gas/air filtration
- 50-mm membranes have stepped hose barb connectors for 1/4" to 1/2" ID tubing



Pore size	Membrane dia	Housing	Color	Qty/bx	Catalog number	Price/bx
Nonsterile filters						
0.20 µm	15 mm	PP	Natural	100	LD-29550-08	
0.45 µm					LD-29550-10	
0.20 µm	25 mm	PP	Natural	100	LD-02915-20	
0.45 µm					LD-02915-22	
0.20 µm	50 mm	PP	Natural	20	LD-02915-28	
0.45 µm					LD-02915-30	
Sterile filters						
0.20 µm	25 mm	PP	Natural	50	LD-02915-08	
0.50 µm					LD-02915-06	

Nitrocellulose Filters

- Good for macromolecules—highest protein retention
- Get fast flow rates with aqueous solutions
- Ideal for microbiological analysis, waste water treatment, and sterilization of aqueous solutions



Pore size	Membrane dia	Housing	Color	Qty/bx	Catalog number	Price/bx
Nonsterile filter						
0.20 µm	26 mm	Acrylic	Blue	100	LD-02915-56	
Sterile filters						
0.20 µm	26 mm	Acrylic	Blue	50	LD-02915-52	
0.45 µm					LD-02915-53	

Cole-Parmer® Valved Acrylic Variable-Area Flowmeters for Bench or Panel Mount

Don't sacrifice durability for precision

- Easily and precisely control flow of your application via manual valve
- Durable acrylic bodies with integral metering tubes for accurate readings
- Stand up to even aggressive plant environments
- Versatile—easy panel installation or move from bench to bench with optional tripod base



Easily bench mount flowmeters with optional tripod base

Specifications

Accuracy
2" and 50-mm flowmeters: ±5% full-scale
4" and 100-mm flowmeters: ±3% full-scale
5" and 127-mm flowmeters: ±2% full-scale

Media type: liquids or gases

Max pressure: 100 psi (6.9 bar)
Max operating temp: 150°F (65°C)

Connections
2", 4", 50-mm, and 100-mm flowmeters: 1/8" NPT(F)[†]
5" and 127-mm flowmeters: 1" NPT(F)

Materials of construction

Part	2" and 50 mm	4" and 100 mm	5" and 127 mm
Body	Acrylic		
Fittings	Brass		PVC
Valve	Brass		
O-rings	Buna N		
Float (for air)	Black glass (BG)	316 SS (SS)	

Metric-Unit Scales

For liquid applications				For air applications		
Catalog number	Float [‡]	Flow range (mL/min)	Price	Catalog number	Flow range (LPM)	Price
Flowmeters with 50-mm scale						
LD-32460-30	BG	5 to 50		LD-32460-40	0.04 to 0.5	
LD-32460-32	SS	10 to 100		LD-32460-42	0.1 to 1	
LD-32460-34	SS	20 to 240		LD-32460-44	0.4 to 5	
—	—	—	—	LD-32460-46	1 to 10	
—	—	—	—	LD-32460-48	2 to 25	
—	—	—	—	LD-32460-50	4 to 50	
—	—	—	—	LD-32460-52	10 to 100	
Flowmeters with 100-mm scale						
LD-32461-30	SS	4 to 50		LD-32461-50	0.4 to 5	
LD-32461-32	SS	10 to 120		LD-32461-52	1 to 10	
LD-32461-34	BG	25 to 225		LD-32461-54	2 to 20	
LD-32461-36	SS	40 to 400		LD-32461-56	3 to 30	
LD-32461-38	SS	40 to 660		LD-32461-58	4 to 50	
LD-32461-40	SS	100 to 1500		LD-32461-60	10 to 100	
LD-32461-42	SS	200 to 3000		LD-32461-62 [†]	14 to 140	
LD-32461-44 [†]	SS	0.8 to 9 LPM		LD-32461-64 [†]	30 to 280	
LD-32461-46 [†]	SS	1.5 to 20 LPM		—	—	—
Flowmeters with 127-mm scale						
LD-32466-54	SS	4 to 36 LPM		LD-32466-66	100 to 700	
LD-32466-56	SS	5 to 75 LPM		LD-32466-68	100 to 1400	
—	—	—	—	LD-32466-70	400 to 3400	

Accessories

[LD-17080-00](#) NIST-traceable calibration with data for air/gas flowmeter

[LD-17080-12](#) NIST-traceable calibration with data for liquid flowmeter

Tripod Bases

Durable acrylic base with three leveling screws and spirit level.

Catalog number	Description	Price
LD-32462-50	For one flowmeter with 2" or 50-mm scale	
LD-32462-55	For one flowmeter with 4" or 100-mm scale	
LD-32462-60	For one flowmeter with 1/4" connections	

English-Unit Scales

For liquid applications				For air applications		
Cat. no.	Float [‡]	Flow range	Price	Cat. no.	Flow range	Price
Flowmeters with 2" scale						
LD-32460-00	BG	0.2 to 2 GPH		LD-32460-10	0.1 to 1 scfh	
LD-32460-02	SS	0.4 to 5 GPH		LD-32460-12	0.2 to 2 scfh	
LD-32460-04	BG	1 to 10 GPH		LD-32460-14	0.4 to 5 scfh	
LD-32460-06	SS	2 to 20 GPH		LD-32460-16	0.5 to 10 scfh	
LD-32460-08	SS	4 to 40 GPH		LD-32460-18	2 to 20 scfh	
—	—	—	—	LD-32460-20	3 to 30 scfh	
—	—	—	—	LD-32460-22	4 to 50 scfh	
—	—	—	—	LD-32460-24	10 to 100 scfh	
—	—	—	—	LD-32460-26	20 to 200 scfh	
Flowmeters with 4" scale						
LD-32461-00	SS	1 to 10 GPH		LD-32461-10	0.4 to 5 scfh	
LD-32461-02	SS	2 to 25 GPH		LD-32461-12	1 to 10 scfh	
LD-32461-04	SS	4 to 50 GPH		LD-32461-14	2 to 20 scfh	
LD-32461-06	SS	6 to 60 GPH		LD-32461-16	4 to 40 scfh	
LD-32461-07 [†]	SS	0.2 to 2.5 GPM		LD-32461-18	10 to 100 scfh	
LD-32461-08 [†]	SS	0.4 to 5 GPM		LD-32461-20	14 to 150 scfh	
—	—	—	—	LD-32461-22	20 to 200 scfh	
—	—	—	—	LD-32461-24 [†]	0.5 to 5 scfm	
—	—	—	—	LD-32461-26 [†]	1 to 10 scfm	
Flowmeters with 5" scale						
LD-32466-50	SS	1 to 10 GPM		LD-32466-60	3 to 25 scfm	
LD-32466-52	SS	2 to 20 GPM		LD-32466-62	4 to 50 scfm	
—	—	—	—	LD-32466-64	10 to 100 scfm	

[†]These models have dual scale: GPM/GPH, scfm/scfh, LPM/LPH; they also have 1/4" NPT(F) connections and use tripod base 32462-60 sold at left.

[‡]Float material key: BG = black glass, SS = stainless steel

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Fluid Handling

Flowmeters

Cole-Parmer® Panel-Mount Flowmeters

No more eye strain—front shield magnifies scale 16% for easier readings

- Scale will not wear off—made of fused ceramic for durability
- More accurate readings—vertical tangential locator with hairline accuracies

Aluminum is economical and good for general use with noncorrosive gases and liquids. A 150-mesh inlet screen is included.

316 Stainless Steel (SS) withstands higher temperatures and pressures, and features excellent chemical compatibility. A 150-mesh inlet screen is included.



150-mm flowmeter 32005-14 with valve

65-mm Direct-Reading Flowmeters

Max flow	Float [‡]	Flowmeters without valve				Flowmeters with valve			
		Aluminum fittings		316 SS fittings		Aluminum fittings		316 SS fittings	
		Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price
For air									
7 mL/min	G	LD-32010-15		LD-32012-15		LD-32013-15		LD-32015-15	
50 mL/min	SS	LD-32010-01		LD-32012-01		LD-32013-01		LD-32015-01	
100 mL/min	G	LD-32010-03		LD-32012-03		LD-32013-03		LD-32015-03	
250 mL/min	C	LD-32010-05		LD-32012-05		LD-32013-05		LD-32015-05	
500 mL/min	C	LD-32010-07		LD-32012-07		LD-32013-07		LD-32015-07	
1.0 LPM	G	LD-32010-09		LD-32012-09		LD-32013-09		LD-32015-09	
2.0 LPM	SS	LD-32010-11		LD-32012-11		LD-32013-11		LD-32015-11	
5.0 LPM	G	LD-32010-13		LD-32012-13		LD-32013-13		LD-32015-13	
10.0 LPM	SS	LD-32010-17		LD-32012-17		LD-32013-17		LD-32015-17	
16.0 LPM	SS	LD-32010-16		LD-32012-16		LD-32013-16		LD-32015-16	

150-mm Direct-Reading Flowmeters

Max flow	Float [‡]	Flowmeters without valve				Flowmeters with valve			
		Aluminum fittings		316 SS fittings		Aluminum fittings		316 SS fittings	
		Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price
For air									
25 mL/min	Sa	LD-32030-00		LD-32032-00		LD-32033-00		LD-32035-00	
50 mL/min	Sa	LD-32000-00		LD-32002-00		LD-32003-00		LD-32005-00	
75 mL/min	C	LD-32000-02		LD-32002-02		LD-32003-02		LD-32005-02	
100 mL/min	C	LD-32000-04		LD-32002-04		LD-32003-04		LD-32005-04	
200 mL/min	SS	LD-32000-06		LD-32002-06		LD-32003-06		LD-32005-06	
300 mL/min	C	LD-32000-08		LD-32002-08		LD-32003-08		LD-32005-08	
500 mL/min	Sa	LD-32030-08		LD-32032-08		LD-32033-08		LD-32035-08	
800 mL/min	G	LD-32030-09		LD-32032-09		LD-32033-09		LD-32035-09	
1.25 LPM	C	LD-32030-10		LD-32032-10		LD-32033-10		LD-32035-10	
2.5 LPM	G	LD-32000-10		LD-32002-10		LD-32003-10		LD-32005-10	
5.0 LPM	Sa	LD-32000-12		LD-32002-12		LD-32003-12		LD-32005-12	
10.0 LPM	G	LD-32000-14		LD-32002-14		LD-32003-14		LD-32005-14	
23 LPM	G	LD-32030-14		LD-32032-14		LD-32033-14		LD-32035-14	
42 LPM	SS	LD-32030-15		LD-32032-15		LD-32033-15		LD-32035-15	
60 LPM	C	LD-32030-16		LD-32032-16		LD-32033-16		LD-32035-16	

[‡]Sa = sapphire, C = carboly, SS = 316 stainless steel, and G = glass

Specifications

- Accuracy:** ±5% full-scale
- Minimum flow rate:** approximately 10% of maximum flow rate
- Maximum pressure:** 200 psi
- Operating temperature:** -15 to 250°F (-26 to 121°C)
- Connections:** 1/8" NPT(F)
- Materials of Construction**

Part	Aluminum	316 SS
Flowtube	Borosilicate glass	
Fittings, valves	Aluminum	316 SS
O-rings	Buna N	Viton®
Float	Glass, 316 SS, carboly, sapphire, or tantalum	
Frame	Aluminum, acrylic, polycarbonate	



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Cole-Parmer® Low-Pressure Mechanical Gauges

Perfect for accurately measuring pressures below 10 psi

- Manufactured with a chrome-plated case, use these gauges to measure low pressure in filter systems, cleanrooms, or fluidic systems



Specifications

Accuracy: ±1½% full scale
Dial size: 2½" (64 mm)
Operating temp: 0 to 150°F (0 to 66°C)
Wetted materials: brass
Lens: polycarbonate
Process connection: ¼" NPT(M)
Casing: black steel

Range	Catalog number	Price
0 to 10" H ₂ O	LD-68357-00	
0 to 15" H ₂ O	LD-68357-02	
0 to 30" H ₂ O	LD-68357-04	
0 to 60" H ₂ O	LD-68357-06	
0 to 100" H ₂ O	LD-68357-08	
0 to 3 psi	LD-68357-14	
0 to 5 psi	LD-68357-16	
0 to 10 psi	LD-68357-18	

[LD-17040-10](#) NIST-traceable calibration with data

Ashcroft® Filled Pressure Gauges

Unique Powerflex™ movement isolates vibrations in gauge

- Glycerin fill and pressure snubber minimize needle fluctuations caused by rapid pressure changes, vibrations, or surges



Specifications

Accuracy: ±1% full-scale
Dial size: 2½" (64 mm)
Operating temp: –50 to 180°F (–45 to 82°C)
Wetted materials: 316 SS
Lens: polycarbonate
Process connection: ¼" NPT(M)



Range	Catalog number	Price
30 to 0" Hg	LD-68022-00	
30" Hg to 30 psi	LD-68022-01	
0 to 30 psi	LD-68022-02	
0 to 60 psi	LD-68022-03	
0 to 100 psi	LD-68022-04	
0 to 200 psi	LD-68022-05	
0 to 1000 psi	LD-68022-07	
0 to 3000 psi	LD-68022-09	

[LD-17040-10](#) NIST-traceable calibration with data

High-Accuracy Miniature Digital Gauges

Don't sacrifice accuracy in small places

- Accuracy of ±1% full-scale in a 1¾" (44.5 mm) gauge
- No difficult programming—single button functionality for on/units/off
- Get more life out of your gauge—five-minute auto power-off for longer battery life
- Brass center-back process connections



Specifications

Accuracy: ±1% full-scale
Resolution: 0.1 psi
Dial size: 1¾" (44.5 mm)
Units of measure: psi, bar, mPa, kg/cm²
Operating temp: 30 to 165°F (0 to 73°C)
Wetted materials: brass
Case: ABS plastic
Lens: polycarbonate
Power: 3 V lithium battery (included)

Range	Process connection	Catalog number	Price
Vac to 100 psi	½" NPT(M)	LD-68950-25	
0 to 145 psi	½" NPT(M)	LD-68950-30	
0 to 145 psi	¼" NPT(M)	LD-68950-35	

[LD-17040-10](#) NIST-traceable calibration with data

Ashcroft® Digital Pressure Gauges with Backlight

Simple three-button programming

- Easy-to-read, 5-digit display with backlight and 20-segment bar graph
- IP67-rated case

Stainless steel sensor makes this gauge suitable for many applications. Case material is made of PC/ABS. Features tare, min/max memory, and nine engineering plus one custom engineering units. Sensor is welded to the socket for added durability.



Specifications

Accuracy: ±0.5% full-scale
Dial size: 2½" (64 mm)
Units of measure: psi, " Hg, cm Hg, mm Hg, kPa, mPa, bar, kg/cm², ft H₂O, and user-defined unit
Operating temp: –4 to 140°F (–20 to 60°C)
Wetted materials: 17-4 ph and 316L stainless steel
Lens: polycarbonate
Process connection: ¼" NPT(M)
Power: two AA batteries (included)



Range	Resolution	Catalog no.	Price
0 to 30" Hg	0.01" Hg	LD-68334-01	
30" Hg to 30 psi	0.01" Hg	LD-68334-03	
30" Hg to 100 psi	0.01" Hg	LD-68334-07	
0 to 15 psi	0.001 psi	LD-68334-09	
0 to 30 psi	0.001 psi	LD-68334-11	
0 to 60 psi	0.001 psi	LD-68334-13	
0 to 100 psi	0.01 psi	LD-68334-15	
0 to 200 psi	0.01 psi	LD-68334-17	
0 to 300 psi	0.01 psi	LD-68334-19	
0 to 500 psi	0.01 psi	LD-68334-21	
0 to 1000 psi	0.1 psi	LD-68334-25	
0 to 5000 psi	0.1 psi	LD-68334-27	
0 to 10,000 psi	1 psi	LD-68334-31	

[LD-09376-01](#) Batteries, AA. Pk of 4

[LD-17040-10](#) NIST-traceable calibration with data



You're Out? We're Not!

Thousands of **highlighted** items

Fluid Handling

Valves

Cole-Parmer® Two- and Three-Way Direct Lift Solenoid Valves

Ideal with high-purity or corrosive fluids—made of inert PTFE

- Minimize trapped liquids with minimal dead volume
- Mount almost anywhere—lightweight and compact

Models with a 1/16" orifice have mounting holes at the bottom only and models with a 3/32" or 5/32" orifice have mounting holes at the top and bottom. Optional mounting clip 01540-50 can be used to mount valves with a 1/16" orifice in any position.



Mounting clip
01540-50



Mounting flange
01540-55



Specifications

Vacuum rating: 26" Hg

Lead wire length: 15" (38 cm)

Maximum fluid temperature: 158°F (70°C)

Ports NPT(F)	Orifice	Max psi	Response time	Watts	12 VDC		24 VDC	
					Catalog number	Price	Catalog number	Price
Two-way solenoid valves; normally closed								
1/4-28	1/16"	30	20 ms	4.0	LD-01540-01		LD-01540-02	
1/4-28	1/16"	60	25 ms	8.0	LD-01540-03		LD-01540-04	
1/4-28	3/32"	20	20 ms	5.1	LD-01540-05		LD-01540-06	
1/8	5/32"	18	30 ms	8.0	LD-01540-07		LD-01540-08	
Two-way solenoid valves; normally open								
1/4-28	1/16"	30	20 ms	4.0	LD-01540-09		LD-01540-10	
Three-way solenoid valves								
1/4-28	1/16"	30	20 ms	4.0	LD-01540-11		LD-01540-12	
1/4-28	1/16"	60	25 ms	8.0	LD-01540-13		LD-01540-14	
1/8	5/32"	18	30 ms	8.0	LD-01540-17		LD-01540-18	

[LD-01540-50](#) Mounting clip for two- and three-way valves

[LD-01540-55](#) Mounting flange for two- and three-way valves

Can't choose?

Trust our **expert** Application Specialists to help you find the right product.

Jeevan, 25+ years of experience

Call: 800-323-4340 E-mail: sales@coleparmer.com

Miniature Check Valves

Install in any position—use with liquids and gases



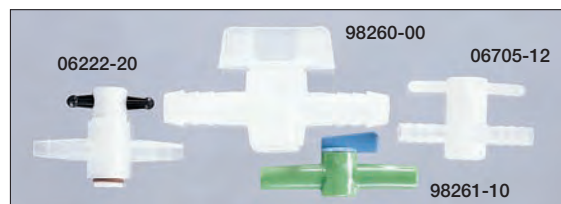
Breaking pressure is 0.18 psi, closing pressure is 0.014 psi. Maximum temperature (at maximum psi) is 250°F (121°C) for "A" and "C"; 200°F (93°C) for "B."

Note: Valves require 1 psi back pressure for a tight seal.

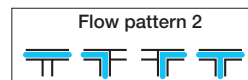
Tubing ID	C _v	Working pressure	Catalog number	Price
A. Nylon body and fluorosilicone diaphragm				
1/8"	0.12	3 to 5 psi (0.2 to 0.3 bar)	LD-98553-00	
3/16"	0.13		LD-98553-01	
1/4"	0.13		LD-98553-02	
B. PP body and Viton® diaphragm				
1/8"	0.11	3 to 5 psi (0.2 to 0.3 bar)	LD-98553-10	
3/16"	0.12		LD-98553-11	
1/4"	0.12		LD-98553-12	
5/16"	0.13		LD-98553-13	
C. PVDF body and Viton diaphragm				
3/16"	0.12	3 to 5 psi (0.2 to 0.3 bar)	LD-98553-21	
1/4"	0.12		LD-98553-22	
3/8"	0.12		LD-98553-34	

Two- and Three-Way Stopcocks with Hose Barb Connections

Easily adjust flow



PP stopcocks have plugs made of PTFE and are autoclavable. Maximum temperature is 275°F (135°C); maximum pressure is 2 psi. **LDPE stopcocks** are rated for 167°F (75°C); maximum pressure is 7 psi. **HDPE stopcocks** are rated for 203°F (95°C); maximum pressure is 7 psi. **PVDF stopcocks** are rated for 464°F (240°C); maximum pressure is 5 psi.



Tube ID	Orifice	Material	Cat. no.	Price
Two-way stopcocks				
1/4" to 5/16"	2 mm	PP	LD-06222-20	
1/4" to 5/16"	4 mm		LD-06222-40	
3/8"	1/4"	LDPE	LD-98260-00	
1/2"	3/8"		LD-98260-10	
10 mm	6.8 mm	HDPE	LD-98261-10	
14 mm	10.7 mm		LD-98261-20	
16 mm	12.7 mm		LD-98261-30	
Three-way stopcocks; follow flow pattern 2				
1/4" to 5/16"	2 mm	PP	LD-06225-20	
1/4" to 5/16"	4 mm		LD-06225-40	
6 mm	4 mm	PVDF	LD-06705-10	
8 mm	6 mm		LD-06705-12	
10 mm	8 mm		LD-06705-14	

Oakton® Meters for Any Application

Oakton pH 700 Meter, page 45



Testers—
simply dip and read

Conductivity 40
pH 42–43

Handheld Meters—
take it where you need it

Conductivity 41
pH/Ion 43–44
Dissolved Oxygen Online
Multiparameter Online

Benchtop Meters—
higher precision for
more accurate results

Conductivity Online
pH/Ion 45–46
Dissolved Oxygen Online
Multiparameter 46

MORE ONLINE ► ColeParmer.com/Oakton

Product Selection | Troubleshooting | And More...

Not sure what to choose?
Our expert Application Specialists can help you find the
right product for your application.

800-323-4340
ColeParmer.com/tapps





You're Out? We're Not!

Thousands of highlighted items

Oakton® Waterproof EcoTestr™ TDS and EC Pocket Meters

Simply dip and read

- Rugged, chemical-resistant stainless steel sensors
- Easy push-button electronic single-point calibration
- Read measurements easily—ergonomic display for easy viewing at a glance
- Waterproof, floating meter—ideal for damp or dirty conditions
- Save money—ideal for education or field use
- No sensor to replace—price allows you to just replace meter



Choose from four models depending on your parameter. TDS models include a self-adjusting TDS factor from 0.40 to 1.0.

Description	EcoTestr TDS Low	EcoTestr TDS High	EcoTestr EC Low	EcoTestr EC High
Catalog number	LD-35462-10	LD-35462-15	LD-35462-30	LD-35462-35
Range	Conductivity TDS	— 0 to 10.0 ppt	0 to 1990 µS	0 to 19.90 mS
Resolution	Conductivity TDS	— 10 ppm	10 µS	0.1 mS
Accuracy	Conductivity TDS	— ±1% FS	±1% FS	±2% FS
Temperature compensation	Automatic, 0 to 50°C, 2% per °C			
Calibration	One-point digital calibration			
Power	Four 1.5 V batteries (included), >200 hours life			
Price				

Accessories

LD-09377-16 Replacement batteries, 1.5 V button cell. Pack of 6

Oakton® Dual-Range Waterproof TDSTestr® 11 and ECTestr® 11 Meters

Get longer life out of your handheld meter with a replaceable sensor

- Don't worry about losing your meter—floats if dropped in water and included lanyard keeps it close
- Get more out of your meter—dual range measurements for a wider application range
- Easy calibration—up to one point per range
- Stands up to whatever you throw at it—Valox® housing and stainless steel electrodes for good chemical compatibility



Description	TDSTestr 11 Dual Range	ECTestr 11 Dual Range
Catalog number	LD-35662-10	LD-35662-30
Range	Conductivity Temperature	0 to 2000 µS; 0 to 20.00 mS 32 to 122°F (0 to 50°C)
Resolution	Conductivity Temperature	10 ppm; 0.10 ppt 0.1°F (0.1°C)
Accuracy	Conductivity Temperature	±1% full scale ±0.9°F (±0.5°C)
Temperature compensation	Automatic, 0 to 50°C; 2% per °C	
Calibration	One or two points	
Power	Four 1.5 V alkaline batteries (included), approximately 150 hours continuous use	
Price		

Accessories

LD-35661-17 Replacement sensor for above pin-style testers

LD-09377-16 Replacement batteries, 1.5 V button cell. Pack of 6

LD-35624-45 Carrying case

LD-35661-70 Calibration kit, includes two each of TDS calibration solution pouches (447, 1413, 2764, and 15,000 µS), two rinse water pouches, sample jar, and foam-lined carrying case. Use with any Oakton TDS/ECTestr meter

LD-17090-30 NIST-traceable calibration for conductivity meter



Replaceable sensor

Electrochemistry

Conductivity

Oakton® CON 6+ and TDS 6+ Meter Kits

Easy, push-button calibration

- High accuracy at an affordable price, ±1% across full scale
- Five auto-ranging measurement modes—up to 200.0 mS (200.0 ppt)
- Get more accurate calibration for all five ranges
- Get temperature readings at the touch of a button



Rubber boot protects meter and doubles as a convenient stand

Additional features include a convenient Hold function and auto-off function that shuts meter off after 20 minutes of nonuse. Programming functions allow customization of meter for temperature compensation, temperature coefficient, normalization, cell constant, and conductivity-to-TDS conversion factor (TDS 6+) for better accuracy in varying applications.

What's included: protective rubber boot with stand, conductivity/ TDS/ temperature probe (K = 1.0), calibration solutions, sample bottles, rinse bottle, hard plastic carrying case, and four AAA batteries.

Save time, save money!

Choose Precalibrated

Includes a data-rich, ISO 17025 certificate—no additional charge!

Precalibrated by **INNOCAL**
INNOVATIVE CALIBRATION SOLUTIONS

OAKTON

ISO 9001:2008
CERTIFIED SUPPLIER

CE

Meter only

Description	CON 6+ Kit	Precalibrated CON 6+ Kit	TDS 6+ Kit	Precalibrated TDS 6+ Kit
Catalog number	LD-35604-04	LD-35604-05	LD-35604-24	LD-35604-25
Range	0 to 20.00, 0 to 200.0, 0 to 2000 µS; 0 to 20.00, 0 to 200.0 mS	—	0 to 10.00, 10 to 100.0, 100 to 1000 ppm; 1.00 to 10.00, 10.0 to 100.0, up to 200.0 ppt†	—
Accuracy	±1% full-scale	—	±0.5°C	—
Temp. compensation	Automatic or manual from 0.0 to 50.0°C	—	±0.5°C	—
Cell constant (K)	Selectable, 0.1, 1, and 10	—	—	—
Conductivity-to-TDS conversion factor	—	—	0.4 to 1.00 adjustable	—
Calibration points	5 maximum, one per range	—	—	—
Power	Four AAA batteries (included)	—	—	—
Price				

†With K = 10 probe

Accessories

LD-35606-53 Conductivity probe, K = 0.1

LD-35606-55 Replacement conductivity probe, K = 1.0

LD-35606-57 Conductivity probe, K = 10

LD-09376-00 Replacement batteries, AAA. Pk of 12

LD-17090-30 NIST-traceable calibration with data for conductivity meters

Cole-Parmer® Conductivity Solutions, NIST-Traceable Reference Materials

Reference Materials

Trust your standards—highest accuracy available

- Up to ±0.25% accuracy verified by an ISO Guide 34 and ISO 17025 accredited lab



A. Batch-Tested Bottles, 16-oz

- Easy calibration with included instructions and temperature compensation chart
- Includes NIST-traceable certificate and batch testing information

B. Individually Tested Bottles, 16-oz

- Each bottle individually calibrated—NIST-traceable certificate included with serial number and testing information

- Easy calibration with step-by-step instructions and included temperature compensation chart

C. One-Shot® Vials, pack of six 3.4-oz. vials

- Fresh solution each time you calibrate—single-use vials eliminate contamination
- Grab it and go—convenient for field use; calibrate right in vial
- Includes NIST-traceable calibration report and temperature compensation chart

Cole-Parmer

Conductivity (µS)	Resistivity (MΩ)	TDS (ppm)	Catalog number	Price
A. Batch tested, one 16-oz (473-mL) glass bottle				
1	1	0.66	LD-00652-20	
5	0.2	3.3	LD-00652-22	
10	0.1	6.6	LD-00652-24	
100	0.01	66	LD-00652-26	
1000	0.001	666	LD-00652-28	
1413	0.00071	933	LD-00652-30	
10,000	0.0001	6666	LD-00652-32	
100,000	0.00001	66,666	LD-00652-34	
150,000	0.0000066	100,000	LD-00652-53	
200,000	0.000005	133,333	LD-00652-55	
B. Individually tested, one 16-oz (473-mL) glass bottle				
1	1	0.66	LD-00652-40	
5	0.2	3.3	LD-00652-42	
10	0.1	6.6	LD-00652-44	
100	0.01	66	LD-00652-46	
1000	0.001	666	LD-00652-48	
1413	0.00071	933	LD-00652-50	
10,000	0.0001	6666	LD-00652-52	
100,000	0.00001	66,666	LD-00652-54	
150,000	0.0000066	100,000	LD-00652-56	
200,000	0.000005	133,333	LD-00652-58	
C. One-Shot®, pack of six 3.4-oz (100-mL) vials				
5	0.2	3.3	LD-00652-60	
10	0.1	6.6	LD-00652-62	
100	0.01	66	LD-00652-64	
1000	0.001	666	LD-00652-66	
1413	0.00071	933	LD-00652-68	
10,000	0.0001	6666	LD-00652-70	
100,000	0.00001	66,666	LD-00652-72	
150,000	0.0000066	100,000	LD-00652-76	
200,000	0.000005	133,333	LD-00652-78	
Assortment†	—	—	LD-00652-74	

†Assortment has one 100-mL vial each of 10, 100, 1000, 1413, 10,000, and 100,000 µS.



You're Out? We're Not!

Thousands of highlighted items

Electrochemistry

pH/Ion Meters



Oakton® Waterproof EcoTestr™ pH 2 Pocket Meter

No more replacing electrodes

- Easy to use—simply dip and read results on the ergonomic display
- Waterproof housing is ideal for dirty or damp conditions—even floats if dropped in water

Single-junction electrode is recessed to protect against breakage. Meter offers up to three-point calibration with autobuffer recognition for quick calibrations. Automatic temperature compensation ensures accurate reading under changing conditions. Hold function allows you to lock a measured value. Auto-off feature prolongs battery life.

OAKTON®

ISO9001:2008
CERTIFIED SUPPLIER



Model	EcoTestr pH2
Catalog number	LD-35423-10
Range	0 to 14.0 pH
Resolution	0.1 pH
Accuracy	±0.1 pH
Temperature compensation	Automatic
Calibration	Up to 3 points
Buffer recognition	4.0, 7.0, or 10.0
Power	Four 1.5 V button cell batteries (included)
Price	

Accessories

[LD-09377-16](#) Replacement batteries, 1.5 V. Pack of 6

[LD-17101-45](#) NIST-traceable calibration for pH pocket meters (non-BNC)

Oakton® Waterproof Multiparameter Testr™ 35-Series Pocket Meters

Save time and money—like three meters in one!

- Parameters include pH, conductivity, TDS, salinity, and temperature
- Compatible with a wide range of samples with long-life pH electrode and stainless steel pin-style conductivity sensor
- Save money by replacing sensor module

Advanced features include up to 5 point pH calibration with NIST or USA autobuffer recognition, auto-shutoff, user-adjustable temperature coefficient, self-adjusting TDS and salinity factor, and low-battery indicator. The IP67-rated housing floats if accidentally dropped into water.

OAKTON®

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Model	PCTestr 35	PTTestr 35	PCSTestr 35	
Catalog number	LD-35425-00	LD-35425-05	LD-35425-10	
Range	pH	0 to 14.0	0.00 to 14.00	
	Conductivity	0 to 2000 µS/cm; 2.00 to 20.00 mS/cm	—	0.0 to 200.0, 200 to 2000 µS/cm; 2.00 to 20.00 mS/cm
	TDS	—	0 to 1000 ppm; 1.00 to 10.00 ppt	0.0 to 100.0 ppm, 100 to 1000 ppm; 1.00 to 10.00 ppt
	Salinity	—	—	0.0 to 100.0 ppm, 100 to 1000 ppm; 1.00 to 10.00 ppt
	Temperature	32 to 112°F (0 to 50.0°C)	32 to 112°F (0 to 50.0°C)	32 to 112°F (0 to 50.0°C)
Resolution	pH	0.1	0.01	
	Conductivity	0.1 µS/cm; 0.01 mS/cm	—	0.1 µS, 1 µS/cm; 0.01 mS/cm
	TDS	—	1 ppm; 0.01 ppt	0.1 ppm, 1 ppm; 0.01 ppt
	Salinity	—	—	0.1 ppm, 1 ppm; 0.01 ppt; 0.01%
Accuracy	Temperature	0.1°F (0.1°C)	0.1°F (0.1°C)	0.1°F (0.1°C)
	pH	±0.1	±0.1	±0.01
	Conductivity	1% full scale	—	1% full-scale
	TDS	—	1% full-scale	1% full-scale
	Salinity	—	—	1% full-scale
Temperature	±0.9°F (±0.5°C)	±0.9°F (±0.5°C)	±0.9°F (±0.5°C)	
Temperature compensation	Automatic or manual, 32 to 122°F (0 to 50°C)			
Calibration	pH	3 to 5 pH points		
	Conductivity	1 to 3 point standard/manual calibration		
Buffer recognition	USA: 1.68, 4.01, 7.00, 10.01, 12.45; NIST: 1.68, 4.01, 6.86, 9.18, 12.45			
Power	Four 1.5 V button cell batteries (included)			
Price				

Accessories

[LD-35425-50](#) Replacement pH/conductivity/TDS/salinity sensor module

[LD-09377-16](#) Replacement batteries, 1.5 V button cell. Pack of 6

[LD-17101-45](#) NIST-traceable calibration for pH pocket meters (non-BNC)

[LD-17090-30](#) NIST-traceable calibration for conductivity meters

Oakton® Waterproof ORPTestr® 10 and ORPTestr® 10 BNC Meters

Get quick and easy ORP readings

- Easy-to-read large, horizontal readout
- IP67-rated housing floats in water and sits flat on a hard surface
- Feature ± 2 mV accuracy and a ± 150 mV offset
- Additional features include a hold function, auto-off function, self-diagnostic error messages, and a three-segment battery-life indicator
- Attach a lanyard (included) for easy retrieval

ORPTestr 10 Meter features a replaceable double-junction platinum electrode—ideal for checking dirty water, heavy metals, sulfides, and organics. Valox® electrode body resists most chemicals.

ORPTestr 10 BNC Meter allows you the convenience of using any ORP electrode with a BNC connection. Order electrode separately below.



35650-14

35650-10

“Lightweight and portable.”

TM, Corpus Christi, TX



Specifications

Range: -999 mV to 1000 mV

Resolution: 1 mV

Accuracy: ± 2 mV

Temperature compensation: none

Calibration: ± 150 mV offset adjustment

Power: four 1.5 V button cell batteries (included)

Description	Catalog number	Price
ORPTestr 10	LD-35650-10	
ORPTestr 10 BNC	LD-35650-14	

Accessories

[LD-35650-09](#) Replacement sensor for 35650-10

[LD-59001-75](#) ORP single-junction electrode for 35650-14

[LD-59001-77](#) ORP double-junction electrode for 35650-14

[LD-05478-60](#) YSI® Zobell solution, 1.25 g

[LD-09377-16](#) Replacement batteries, 1.5 V. Pack of 6

Wait!

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Oakton® pH 5+ and pH 6+ Meters

Get high accuracy at low prices

- Autobuffer recognition for up to five-point calibration provides ± 0.01 pH accuracy
- Take this compact unit anywhere
- Get pH and temperature readings at the push of a button
- Improve your accuracy with automatic temperature compensation (ATC) from 0 to 100°C
- Protect your unit with protective rubber boot that doubles as a stand
- Choose the pH 6+ meter to also read mV



Meter includes: ATC probe, protective rubber boot, and batteries.

Meter with probe adds: pH electrode 59001-65

Meter kit adds: “All-in-one” pH electrode, pH buffer solutions, sample bottles, rinse bottle, and carrying case.

Save time, save money!

Choose Precalibrated

Includes a data-rich, ISO 17025 certificate—**no additional charge!**

Precalibrated by **INNOCAL**
INNOVATIVE CALIBRATION SOLUTIONS



Meter only

Specifications

Temp compensation: automatic with ATC probe, 0 to 100°C

Power: four AAA batteries (included)

Mode	pH	mV (pH 6+ only)	Temperature
Range	0.00 to 14.00 pH	± 1000 mV or rel mV	0 to 100.0°C
Resolution	0.01 pH	1 mV	0.1°C
Accuracy	± 0.01 pH	± 2 mV	$\pm 0.5^\circ\text{C}$
Calibration	Up to five points: pH 1.68, 4.01, 7.00, 10.00, 12.45 (USA); pH 1.68, 4.01, 6.86, 9.18, 12.45 (NIST) pH 4.10, 6.97 (Pb)	± 20 mV	Offset 0.1°C increments

Model	Description	Meter		Precalibrated	
		Cat. no.	Price	Cat. no.	Price
pH 5+	Meter only	LD-35613-50		LD-35613-51	
pH 6+		LD-35613-20		LD-35613-41	
pH 5+	Meter with probe	LD-35613-52		LD-35613-53	
pH 6+		LD-35613-22		LD-35613-42	
pH 5+	Meter kit	LD-35613-54		LD-35613-55	
pH 6+		LD-35613-24		LD-35613-44	

Accessories

[LD-59001-65](#) Replacement pH electrode; single-junction, gel-filled. Epoxy body, BNC connector

[LD-35811-71](#) “All-in-one” combination pH probe with built-in ATC; single-junction sealed, epoxy body, BNC connector

[LD-35811-72](#) “All-in-one” combination pH probe with built-in ATC; double-junction sealed, epoxy body, BNC connector

[LD-35613-05](#) Replacement ATC probe, stainless steel

[LD-09376-00](#) Replacement batteries, AAA. Pack of 12

Thermo Scientific™ Orion™ Star A-Series Portable pH and pH/Ion Meters

Accuracy and reliability in a durable unit

- More information at a glance—display shows readings with temperature, electrode status, mode, calibration data, and more!
- Auto-recognition of USA, NIST, and DIN buffers for quicker calibrations
- Locks in readings with Auto-Read™ function
- Stands up to demanding needs—durable, waterproof IP67-rated housing

Star A121 pH Meter is a low-cost option that combines simplicity with accuracy—making it great for everyday pH measurements. Simple button layout and on-screen messages help with calibration and setup menu choices.

Star A221 pH and A324 pH/Ion Meters support a multi-language interface, improved stability algorithms, expanded data logging, and improved data security over the Star meters. Meters use RS-232 or USB for connectivity and include data analysis software.

Meters include: four AA batteries.

Star A121 meter kit adds: Orion Triode pH/ATC electrode 05719-14; 60 mL each of 4, 7, 10 buffers, storage solution, and cleaning solution; protective armor with electrode holder; and hard carrying case.

Star A221 and 324 meter kits add: ROSS Triode pH/ATC electrode 05718-28; 10 pouches each of 4, 7, 10 buffers and rinse solution; 457 mL of storage solution; protective armor with electrode holder; and hard carrying case.



Model	A121 pH meter only	A121 pH meter kit	A221 pH meter only	A221 pH meter kit	A324 pH/ion meter only	A324 pH/ion meter kit
Catalog number	LD-58825-06	LD-58825-08	LD-58825-16	LD-58825-18	LD-58825-64	LD-58825-66
Range	pH	–2.00 to 16.00	–2.000 to 20.000	–2.000 to 20.001	–2.000 to 20.001	–2.000 to 20.001
	mV	±1600.0 mV; ±1999.9 rel mV	±2000.0 mV	±2000.0 mV	±2000.0 mV	±2000.0 mV
	ISE	—	—	—	—	0 to 19,999
	Temperature	23 to 221°F (–5 to 105°C)	23 to 221°F (–5 to 105°C)	23 to 221°F (–5 to 105°C)	23 to 221°F (–5 to 105°C)	23 to 221°F (–5 to 105°C)
Resolution	pH	0.1, 0.01	0.1, 0.01, 0.001	0.1, 0.01, 0.001	0.1, 0.01, 0.001	0.1, 0.01, 0.001
	mV	0.1	0.1	0.1	0.1	0.1
	ISE	—	—	—	—	3 significant digits
	Temperature	0.1	0.1	0.1	0.1	0.1
Accuracy	pH	±0.01	±0.002	±0.002	±0.002	±0.002
	mV	±0.2 or 0.05% of reading	±0.2 or 0.05% of reading	±0.2 or 0.05% of reading	±0.2 or 0.05% of reading	±0.2 or 0.05% of reading
	ISE	—	—	—	—	±0.2 mV or 0.05% of reading
	Temperature	±0.1	±0.1	±0.1	±0.1	±0.1
Temp. compensation	Automatic or manual	Automatic or manual	Automatic or manual	Automatic or manual	Automatic or manual	Automatic or manual
Calibration points	Up to 3	Up to 3	Up to 5	Up to 5	Up to 5	Up to 5
Buffer recognition	USA, NIST, and DIN	USA, NIST, and DIN	USA, NIST, and DIN	USA, NIST, and DIN	USA, NIST, and DIN	USA, NIST, and DIN
Data logging	50 points	50 points	2000 points with time-and-date stamp	2000 points with time-and-date stamp	2000 points with time-and-date stamp	2000 points with time-and-date stamp
Output	—	—	RS-232, USB	RS-232, USB	RS-232, USB	RS-232, USB
Power	Four AA batteries or optional AC adapter	Four AA batteries or optional AC adapter	Four AA batteries or optional AC adapter	Four AA batteries or optional AC adapter	Four AA batteries or optional AC adapter	Four AA batteries or optional AC adapter
Price						

Accessories

[LD-58825-52](#) Hard carrying case

[LD-58825-53](#) Protective meter armor

[LD-58822-03](#) Universal AC power adapter

[LD-05719-14](#) Orion Triode pH/ATC electrode; refillable, epoxy body

[LD-05718-28](#) ROSS™ Triode pH/ATC electrode

[LD-55350-68](#) pH buffer kit. Includes 473 mL each of 4, 7, 10 buffers and storage solution, and 60 mL of cleaning solution

[LD-09376-01](#) Replacement batteries, AA. Pack of 4

[LD-17106-20](#) NIST-traceable calibration with data for pH meter

Search

For our entire selection of pH/ion meters, including handheld, benchtop, and tester models, go to...

ColeParmer.com/pHMeters

Thermo Scientific™ Orion™ pH Buffers

Color coded for ease of use

- Standardized against NIST-traceable pH references for superior accuracy

Available in a 475-mL (pint) bottle and portable 5 x 60-mL convenience packs. The All-in-One™ pH buffer kits include a pint each of 4, 7, and 10 buffer; either ROSS™ or standard electrode storage solution; and electrode storage bottle.



pH	5 x 60-mL bottles		475-mL bottles	
	Cat. no.	Price	Cat. no.	Price
1.68	LD-55350-26		LD-55350-28	
4.01	LD-55350-40		LD-55350-42	
5.00	—	—	LD-55350-38	
6.86	LD-55350-54		LD-55350-56	
7.00	LD-55350-44		LD-55350-46	
9.18	LD-55350-58		LD-55350-60	
10.01	LD-55350-48		LD-55350-52	
12.46	LD-55350-62		LD-55350-64	

[LD-55350-66](#) ROSS All-in-One pH buffer kit

[LD-55350-68](#) Standard All-in-One pH buffer kit

Oakton® Benchtop pH 700 and Ion 700 Meters

No more lost data—store and recall up to 100 data sets

- Takes up less bench space—40% smaller than comparable models
- Super-large dual-line display is easy to read
- Simple calibrations with 5-point automatic pH buffer recognition for USA and NIST buffers
- More accurate measurements with up to 5-point calibration for ion concentration on Ion 700 model
- Versatile—use with any pH, ORP, or ISE electrodes with BNC connector

pH 700 meter measures pH, mV, relative mV, and temperature. Ion 700 meter adds ion concentration measurement and reads directly in ppm for easy use. Automatic temperature compensation (ATC) maintains reading accuracy even with fluctuating temperatures.

Meters feature Auto-Hold, selectable °F or °C measurement, and easy recall of electrode slope or offset.



pH 700 meter
35419-12

Save time, save money!

Choose Precalibrated

Includes a data-rich, ISO 17025 certificate—no additional charge!

Precalibrated by **INNOCAL**
INNOVATIVE CALIBRATION SOLUTIONS

Keep procedures handy with quick-reference pull out

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For our complete selection of pH/ion meters, go to...
ColeParmer.com/pHMeters

OAKTON

ISO9001:2008
CERTIFIED SUPPLIER

CE
Meter only

Specifications

Model		pH 700	Ion 700
Range	pH	-2.00 to 16.00	-2.00 to 16.00
	mV/rel mV	±2000	±2000
	ISE	—	0.01 to 2000 ppm
	Temperature	32 to 100°F (0.0 to 100.0°C)	32 to 100°F (0.0 to 100.0°C)
Resolution	pH	0.01 pH	0.01 pH
	mV/rel mV	0.1 within ±199.9 mV, 1 beyond ±199.9 mV	0.1 within ±199.9 mV, 1 beyond ±199.9 mV
	ISE	—	0.01 to 2000 ppm
	Temperature	0.1°F or °C	0.1°F or °C
Accuracy	pH	±0.01 pH	±0.01 pH
	mV/rel mV	±0.2 within ±199.9 mV, ±2 beyond 199.9 mV	±0.2 within ±199.9 mV, ±2 beyond 199.9 mV
	ISE	—	±0.5% of reading (monovalent); ±1% of reading (divalent)
	Temperature	±0.9°F (±0.5°C)	±0.9°F (±0.5°C)
Calibration	pH	Up to 5 points with autobuffer recognition	Up to 5 points with autobuffer recognition
	mV	Up to ±150 mV offset adjustment	Up to ±150 mV offset adjustment
	ISE	—	From 2 to 5 consecutive points (0.1, 1.0, 10.0, 100.0, 1000 ppm)
	Temperature compensation	Automatic or manual from 32 to 100°F (0 to 100°C)	Automatic or manual from 32 to 100°F (0 to 100°C)
Buffer recognition		USA or NIST buffer sets	USA or NIST buffer sets
Data logging		100 data sets	100 data sets
Power		100/240 VAC, 50/60 Hz	100/240 VAC, 50/60 Hz

Model	Description	Meter		Precalibrated meter	
		Catalog number	Price	Catalog number	Price
pH 700	Meter only	LD-35419-00		LD-35419-01	
pH 700	Meter with "all-in-one" pH/ATC electrode	LD-35419-03		LD-35419-05	
Ion 700		LD-35419-23		LD-35419-27	
pH 700	Meter with double-junction pH electrode, ATC probe, and removable electrode holder	LD-35419-10		LD-35419-11	
Ion 700		LD-35419-20		LD-35419-24	
pH 700	Meter with removable electrode holder	LD-35419-12		LD-35419-15	
Ion 700		LD-35419-22		LD-35419-26	

Accessories

[LD-59001-65](#) **Combination pH electrode**; single junction, gel-filled, epoxy body

[LD-59001-70](#) **Combination pH electrode**; double junction, gel-filled, epoxy body

[LD-35811-71](#) **"All-in-one" combination pH electrode**; single junction, gel-filled, epoxy body

[LD-35805-04](#) **Replacement combination pH electrode**; double junction, refillable, glass body

[LD-35613-13](#) **Replacement ATC probe**, SS

[LD-35420-54](#) **Replacement electrode arm**

[LD-17106-20](#) **NIST-traceable calibration** with data for pH/ion meter



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Thousands of highlighted items

Oakton® Benchtop PC 700 and PC 2700 Meters

Get all the readings you need in one compact unit

- Economical PC 700 for basic laboratory use
- Advanced PC 2700 for research grade use with ion capability

PC 700 Meter features pH auto-buffer recognition for both USA and NIST buffer sets, automatic or manual temperature compensation, and selectable temperature units. Previous calibration points, electrode slope and offset, and conductivity/TDS cell constants are stored in memory for quick and easy retrieval. Store up to 100 data sets in the meter's memory for retrieval later.

PC 2700 Meter meets GLP requirements—meter stamps all calibration and stored data with time/date. Nonvolatile memory stores up to 500 data sets to simplify documenting large volumes of pH, mV, ISE, conductivity, TDS, salinity, or resistivity measurements. Data is easily exported to a computer via RS-232 port. Order RS-232 and optional RS-232-to-USB adapter separately below.

Meter only includes: universal 110/240 VAC power supply and electrode stand.

Meter with probes adds: combination pH electrode 35805-04 and conductivity/temperature probe 35608-74 (PC 700) or 35412-10 (PC 2700).

OAKTON®



Advanced features on PC 2700 for GLP compliance

ISO9001:2008 CERTIFIED SUPPLIER



Meter only

Specifications

Conductivity cell constant: fixed at K = 1.0 cm⁻¹

Conductivity-to-TDS factor: adjustable from 0.4 to 1.0

Model		PC 700	PC 2700
Range	pH	-2.00 to 16.00	-2.000 to 20.000
	mV/Rel mV	±2000	±2000.0
	ISE	—	0.001 to 19999 ppm
	Conductivity	0.0 µS to 200 mS	0.050 µS to 500.0 mS
	TDS	0.00 ppm to 100.0 ppt @ 0.5 factor (200.0 ppt @ 1.0 factor)	0.050 to 500.0 ppt
	Salinity	—	0.0 to 80.0 ppt
	Resistivity	—	2.000 Ω to 20.0 MΩ
Resolution	Temperature	32.0 to 212°F (0.0 to 100.0°C)	32.0 to 212°F (0.0 to 100.0°C)
	pH	0.01 pH	0.001, 0.01, 0.1 pH
	mV/Rel mV	0.1 within ±199.9 mV, 1 beyond ±199.9 mV	0.1 mV
	ISE	—	2 or 3 digits
	Conductivity	0.01, 0.1, 1 µS; 0.01, 0.1 mS	0.01, 0.1 µS; 0.001, 0.01, 0.1 mS
	TDS	0.01, 0.1, 1 ppm; 0.01, 0.1 ppt	0.01, 0.1 ppm; 0.001, 0.01, 0.1 ppt
	Salinity	—	0.1 ppt
Accuracy	Resistivity	—	0.01 mΩ, 0.001, 0.01 kΩ, 0.01, 0.1 Ω
	Temperature	0.1°F or °C	0.1°F or °C
	pH	±0.01 pH	±0.002 pH
	mV/Rel mV	±0.2 within ±199.9 mV, ±2 beyond 199.9 mV	±0.2 mV
	ISE	—	0.5% full scale (monovalent), 1% full scale (divalent)
	Conductivity	±1% full-scale	±1% full-scale
	TDS	±1% full-scale	±1% full-scale
Calibration	Salinity	—	±1% full-scale
	Resistivity	—	±1% full-scale
	Temperature	±0.9°F (±0.5°C)	±0.5°F (±0.3°C)
	pH	Up to 5 points (USA or NIST buffer sets)	Up to 6 (USA, NIST, DIN, or custom buffer sets)
	ISE	—	Up to 8 points
	Conductivity/TDS	5 points (one point per range)	5 points (one point per range)
	Temperature compensation	Automatic or manual	Automatic or manual
Data logging	100 data sets	500 data sets	
Output	—	RS-232	
Power	110/240 VAC universal adapter	110/240 VAC universal adapter	

Model	Description	Meters		Precalibrated meters	
		Catalog number	Price	Catalog number	Price
PC 700	Meter only	LD-35413-20		LD-35413-21	
	Meter with pH and conductivity/temperature probes	LD-35413-00		LD-35413-01	
PC 2700	Meter only	LD-35414-20		LD-35414-21	
	Meter with pH and conductivity/temperature probes	LD-35414-00		LD-35414-01	

Accessories

[LD-35805-04](#) Replacement combination pH electrode; double-junction, glass body, refillable, 3.3-ft (1-m) cable

[LD-35608-74](#) Replacement conductivity/temperature probe for 700-series meter; 2-cell, K = 1.0, Ultem®/stainless steel with ATC

[LD-35412-10](#) Replacement conductivity/temperature probe for 2700-series meter; 4-cell, K = 1.0, epoxy/graphite

[LD-35420-01](#) RS-232 cable for 2700-series meter

[LD-22050-58](#) RS-232 to USB adapter (requires 35420-01 cable)

[LD-17106-20](#) NIST-traceable calibration with data for pH meters

[LD-17090-30](#) NIST-traceable calibration with data for conductivity meters

Cole-Parmer® Epoxy-Body Combination pH and ORP Electrodes

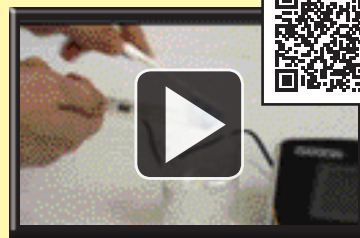
Get fast, stable readings

- Impact resistant—epoxy-body housing for added strength
- Ideal for your general-purpose applications in the lab or field
- Compatible with most brands of pH meter

These electrodes are ideal for prolonged pH or ORP readings. Electrodes with sealed, gel-filled design require virtually no maintenance. Electrodes with PTFE reference-junction offer extended electrode life. All listed electrodes have Ag/AgCl reference cells.

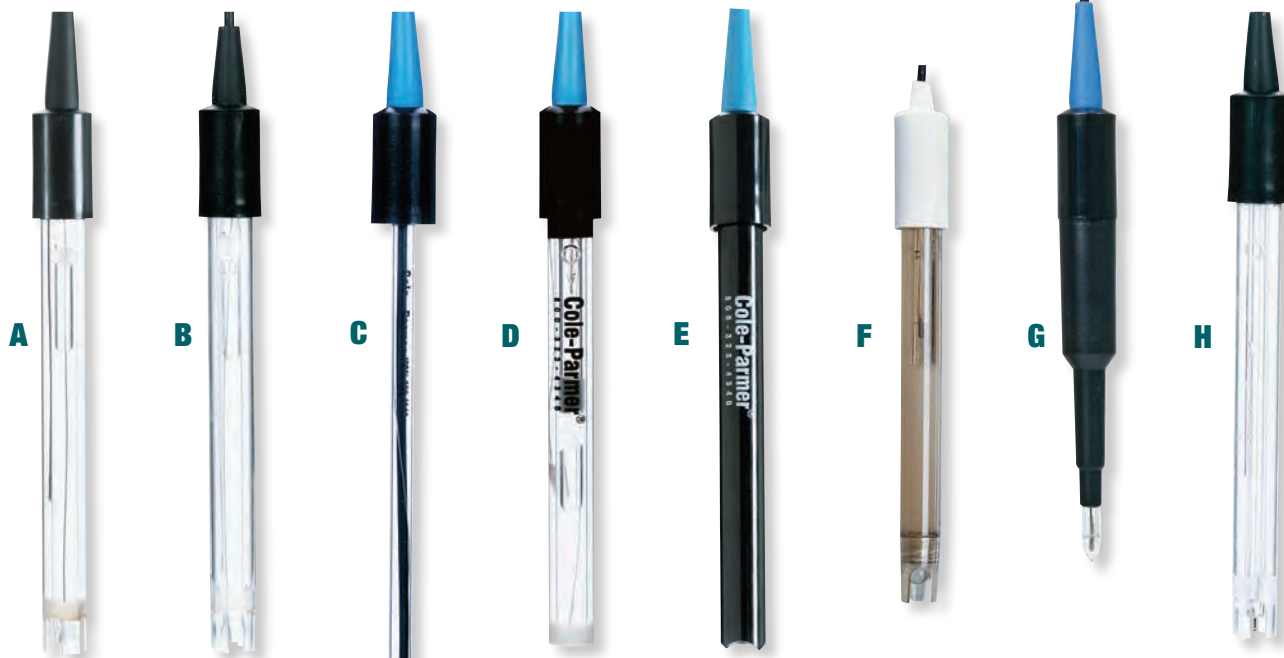
What's included: 3.3-ft (1-m) cable with BNC connector.

See How to...



Maintain it!

ColeParmer.com/pHmaintain



Key	Description	Reference junction	Type	Maximum temperature	Length x dia (mm)	Catalog number	Price
General-purpose pH electrodes							
A	General purpose	Single	Sealed	176°F (80°C)	127 x 12	LD-59001-65	
	For dirty samples	Double				LD-59001-70	
B	General purpose, refillable	Single	Refillable†	176°F (80°C)	148 x 12	LD-05992-30	
	For dirty samples, refillable	Double				LD-05991-12	
C	Extra-long neck for test tube sampling	Single	Sealed	176°F (80°C)	220 x 6	LD-05990-45	
D	Flat tip for surface or low-volume sampling	Single	Sealed	176°F (80°C)	127 x 12	LD-05990-65	
PTFE reference-junction pH electrodes (clog resistant)							
E	General purpose	Single	Sealed	212°F (100°C)	110 x 12	LD-05992-00	
	For dirty samples	Double				LD-05992-02	
Special-purpose pH electrodes							
F	Coiled-cable for dirty samples	Double	Sealed	176°F (80°C)	140 x 12	LD-05993-28	
G	Spear-tip for dirty samples				110 x 10	LD-59002-24	
ORP electrodes							
A	General purpose	Single	Sealed	176°F (80°C)	127 x 12	LD-59001-75	
	For dirty samples	Double				LD-59001-77	
H	General purpose, refillable	Single	Refillable††	176°F (80°C)	155 x 12	LD-05990-55	

†Use fill solution 05992-48 ††Use fill solution 05992-47

Accessories

- [LD-05992-48](#) Reference fill solution, 4 M KCl. Two 125-mL bottles
- [LD-05992-47](#) Reference fill solution, 3.8 M KCl with AgCl. Two 125-mL bottles
- [LD-05983-25](#) Adapter, BNC to US standard plug meter



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Thousands of **highlighted** items

Cole-Parmer® Glass-Body Combination pH and ORP Electrodes

Faster response and increased stability across 0 to 14 pH range

- More durable—dome bulb for better protection from breakage
- Withstand higher temperatures and chemical attack
- Get more stability in low-ionic strength solutions
- Resistant to Na⁺ ion interferences
- Compatible with most brands of pH meters

Available as refillable or sealed design for single, double, and annular Ag/AgCl junctions. Single-junction is ideal for clean samples; double junction is compatible with sulfates, Tris, and proteins; and annular junction is ideal for dirty samples.

What's included: 3.3-ft (1-m) cable and BNC connector.



Questions?

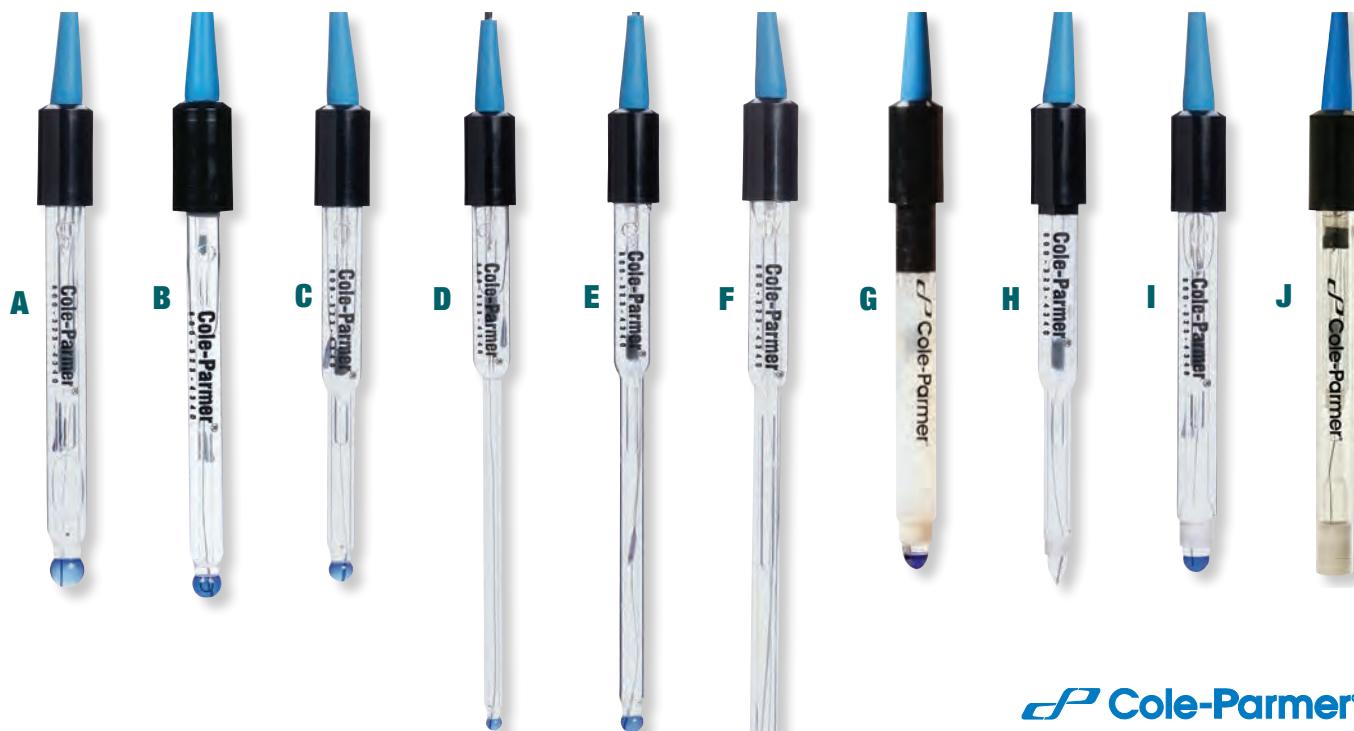
Trust our **expert** Application Specialists to help you find the right product.

Bob, 7 years of experience

Call: 800-323-4340 E-mail: sales@coleparmer.com

Electrochemistry

pH Laboratory Electrodes



Key	Description	Reference junction	Type	Maximum temperature	Length x dia (mm)	Catalog number	Price
General-purpose pH electrodes							
A	General-purpose, laboratory	Single	Refillable	212°F (100°C)	154 x 12	LD-05991-22	
	General-purpose for TRIS, sulfates, proteins	Double			154 x 12	LD-59001-34	
B	Rugged, low maintenance	Single	Sealed	212°F (100°C)	123 x 9.5	LD-05991-81	
	Rugged for TRIS, sulfates, proteins	Double			124 x 9.5	LD-59001-36	
C	General-purpose, thin neck	Single	Refillable†	212°F (100°C)	154 x 8	LD-05991-42	
D	Long neck for small test tubes				210 x 6	LD-05991-61	
E	Long neck for large test tubes				210 x 8	LD-05991-51	
F	Extra-long neck for flasks and bottles				326 x 8	LD-05990-40	
Special-purpose pH electrodes							
G	High temperature, KNO ₃ gel	Double	Sealed	248°F (120°C)	130 x 12	LD-05998-30	
H	Spear tip for piercing semisolids and foods	Single	Sealed	212°F (100°C)	159 x 8	LD-05998-20	
I	Soil electrode, eliminates "suspension effect"	Annular	Refillable†	212°F (100°C)	145 x 12	LD-05992-62	
J	Flat-tip for surface or low volume sampling	Double	Refillable†	212°F (100°C)	130 x 12	LD-05991-44	
ORP electrodes							
A	General purpose	Single	Sealed	212°F (100°C)	110 x 12	LD-05991-08	
	For dirty samples	Double				LD-05991-18	

†Use fill solution 05992-47.

Accessories

[LD-05992-47](#) Reference fill solution for refillable electrodes, 3.8 M KCl with AgCl. Two 125-mL bottles

[LD-05983-25](#) Adapter, BNC to US standard plug meter

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Thousands of highlighted items



Oakton® pH Buffer Solutions

Keep your readings accurate with these quality buffers

– Standardized against NIST-traceable pH references for meters with 0.01 resolution



Save by ordering larger sizes or by the case!

pH	500-mL bottles			1-L bottles		4-L bottles				
	Catalog number	Price/ea	Catalog number	Price/cs of 12	Catalog number	Price/ea	Catalog number	Price/ea	Catalog number	Price/cs of 4
1.68	LD-00654-01		—	—	—	—	—	—	—	—
4.01	LD-00654-00		LD-05942-21		LD-05942-22		LD-05942-24		LD-05942-25	
6.86	LD-00654-03		—	—	—	—	—	—	—	—
7.00	LD-00654-04		LD-05942-41		LD-05942-42		LD-05942-44		LD-05942-45	
9.18	LD-00654-07		—	—	—	—	—	—	—	—
10.00	LD-00654-08		LD-05942-61		LD-05942-62		LD-05942-64		LD-05942-65	
12.45	LD-00654-12		—	—	—	—	—	—	—	—



pHydrion® Plastic pH Test Strips

Just dip for immediate results

- Won't fold up like pH paper—made of premium plastic
- Easier matching—three times the matching area with cleaner color matching

NEW



pH range	Qty/pk	Catalog number	Price/pk
0 to 14	100 strips	LD-59200-40	
0 to 6		LD-59200-42	
5 to 9		LD-59200-44	
6.5 to 13		LD-59200-46	
5.5 to 8		LD-59200-48	

Oakton® pH Buffer Pouches

Keep your accuracy even on the go!

- Single-use pouch—just tear, dip, calibrate
- Standardized to NIST-traceable pH references
- Sold in pack of 20 pouches



pH	Catalog number	Price/pk
4.01	LD-35653-01	
7.00	LD-35653-02	
10.00	LD-35653-03	
Rinse solution	LD-35653-00	

LD-35653-04 Buffer pouch assortment pack; contains five pouches each of pH 4, 7, and 10 buffers and rinse solution

Oakton® pH Buffer and pH Solution Packs

Maintain accuracy and your budget

- Save money by purchasing buffer pack—includes 500 mL bottle of pH 4, 7, and 10 NIST-traceable buffers
- Keep electrodes clean and stored correctly—purchase solution pack which adds 500-mL bottles of cleaning and storage solutions



Description	Qty/pk	Catalog number	Price/pk
pH buffer pack	3 bottles	LD-05942-10	
pH solution pack	5 bottles	LD-05942-15	

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Cole-Parmer® pH Buffers, NIST-Traceable Reference Materials

Feel more confident about accuracies

NEW

- Calibrated by ISO Guide 34 and ISO 17025 accredited laboratory—includes NIST-traceable certificate supplied by manufacturer
- Easy calibrations—include instructions and temperature compensation chart



pH	500-mL bottles		1-L bottles		4-L bottles	
	Catalog number	Price	Catalog number	Price	Catalog number	Price
Colorless buffers						
4.01	LD-00651-00		LD-00651-30		LD-00651-70	
7.00	LD-00651-02		LD-00651-32		LD-00651-72	
10.00	LD-00651-04		LD-00651-34		LD-00651-74	
Color-coded buffers						
4.01 (red)	LD-00651-06		LD-00651-36		LD-00651-76	
7.00 (yellow)	LD-00651-08		LD-00651-38		LD-00651-78	
10.00 (blue)	LD-00651-10		LD-00651-40		LD-00651-80	



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Thousands of **highlighted** items

Oakton® Electrode Cleaning and Storage Solutions

Clean electrodes make clean measurements

- Easily remove grease, protein, and other deposits with cleaning solution
- Make electrode last longer—store in our storage solution
- Choose 500-mL bottle or case of 24 500-mL bottles



OAKTON®

Solution type	Catalog number	Price/ea	Catalog number	Price/cs
Cleaning	LD-00653-06		LD-35655-06	
Storage	LD-00653-04		LD-35655-04	

pH Buffer Tablets

No waste—make only what you need

- Stir tablet in 20 mL of distilled water
- Bag of 50 tablets



pH	Catalog number	Price/bg
4	LD-55200-00	
7	LD-55200-02	

Oakton® Flexible Electrode Holder

Keeps electrodes in position

- Holds up to four standard size electrodes and one ATC probe.
- Weighted base pivots 360° for added convenience



OAKTON®

Description	Catalog number	Price
Electrode holder	LD-35617-50	

Oakton® Reference Fill Solutions

Effortless refilling!

- Choose your solution: 3.8 KCl with AgCl for Ag/AgCl electrodes or 4 KCl for calomel
- Sold in packs of two 125-mL bottles



OAKTON®

Description	Catalog number	Price/pk
3.8 KCl with AgCl	LD-05992-47	
4 KCl	LD-05992-48	

Oakton® Waterproof pHTestr® Calibration Kits

Calibration made easy—everything in one kit!

- Grab and go—stores and organizes what you need for reliable calibrations
- Perfect for field use

What's included: one pHTestr (except model 35624-70); two single-use pouches of pH 4.01, pH 7.00, pH 10.00 each, and rinse solution; one sample jar; and sturdy carrying case.



OAKTON®

Meter included	Catalog number	Price
None	LD-35624-70	
Waterproof pHTestr 10	LD-35634-70	
Waterproof pHTestr 20	LD-35634-80	
Waterproof pHTestr 30	LD-35634-90	

Thermo Scientific™ Orion™ pH Buffers

Color-coded for ease of use

- Standardized against NIST-traceable pH references for superior accuracy

Available in a 475-mL (pint) bottle and portable 5 x 60-mL convenience packs. The All-in-One™ pH buffer kits include a pint each of 4, 7, and 10 buffer; either ROSS™ or standard electrode storage solution; and electrode storage bottle.



pH	5 x 60-mL bottles		475-mL bottles	
	Catalog number	Price	Catalog number	Price
1.68	LD-55350-26		LD-55350-28	
4.01	LD-55350-40		LD-55350-42	
5.00	—	—	LD-55350-38	
6.86	LD-55350-54		LD-55350-56	
7.00	LD-55350-44		LD-55350-46	
9.18	LD-55350-58		LD-55350-60	
10.01	LD-55350-48		LD-55350-52	
12.46	LD-55350-62		LD-55350-64	

LD-55350-66 ROSS All-in-One pH buffer kit

LD-55350-68 Standard All-in-One pH buffer kit

You're Out? We're Not!
Thousands of highlighted items



Cole-Parmer® Dye Tracers

Know your water flow

- Won't harm the environment—nontoxic and biodegradable
- Easy-to-use color in rapidly diffusing dye identifies dispersion patterns, flow rates, seepage, and more
- Noncarcinogenic fluorescent red dye is ideal for yellowed or heavily algaed water
- For silt-filled water, use fluorescent yellow/green dye
- Use a UV lamp to easily view results where visual detection is difficult with red, yellow/green, or orange dyes
- Brighten murky ponds with blue dye
- Minimum detectable concentration is 1 ppm



Description	Size	Max gallons of water to obtain 1 ppm	Fluorescent red dye		Fluorescent yellow/green dye		Blue dye		Fluorescent orange dye	
			Catalog number	Price	Catalog number	Price	Catalog number	Price	Catalog number	Price
Quick-dissolving tablets	200 tablets	60 (red, ylw/grn) 35 (orange) 20 (blue) all per tablet	LD-00295-16	*	LD-00295-17	*	LD-00295-18	*	LD-00295-19	*
Concentrate	Pint	3,125 (red) 12,500 (ylw/grn, blue) 4,000 (orange)	LD-00298-16		LD-00298-17		LD-00298-18		LD-00298-19	
Concentrate	Gallon	25,000 (red) 100,000 (ylw/grn, blue) 32,000 (orange)	LD-00298-06		LD-00298-07		LD-00298-08		LD-00298-09	
Powder	Pound	60,400 (red, orange) 120,000 (ylw/grn, blue)	LD-00298-26		LD-00298-27		LD-00298-28		LD-00298-29	

*Discount: Save 10% when you buy eight 200-tablet bottles.

LaMotte® Sanitizer Strength Test Strips

Quickly test your sanitizer strength

- No more waiting for results—simply compare color change to chart to get results
- Keep strips safe in included waterproof vial
- Get a longer shelf life from QAC strips 99535-30 with included desiccant cap



Parameter	Testing range	Qty/vial	Catalog number	Price/vial
QAC	50, 100, 200, and 400 ppm	100	LD-99532-30	
Chlorine	10, 50, 100, and 200 ppm	200	LD-99532-31	
Chlorine, HR	0, 50, 100, 250, 500, and 800 ppm	50	LD-99532-36	
Iodine	12, 25, 50, and 100 ppm	200	LD-99532-32	
Chlorine dioxide	0 to 10 ppm	50	LD-99532-33	
Chlorine dioxide	0 to 500 ppm	50	LD-99532-34	
Peracetic acid	0, 10, 20, 40, 60, 85, and 160 ppm	50	LD-99532-35	

EM Quant® Water Test Strips

Don't risk water quality—perfect for quick spot checks

- Simply dip and read against included color chart—get results in minutes



Testing parameter	Graduations	Qty/pk	Catalog number	Price/pk
Ammonium [†]	0, 10, 30, 60, 100, 200, 400 ppm	50	LD-99572-01	
Chloride	0, 500, 1000, 1500, 2000, 3000 ppm	100	LD-99572-03	
Copper	10 to 300 ppm	100	LD-99572-14	
Cyanide [†]	0, 1, 3, 10, 30 ppm	100	LD-99572-04	
Lead [†]	0, 20, 40, 100, 200, 500 ppm	100	LD-99572-06	
Nickel	0, 10, 25, 100, 250, 500 ppm	100	LD-99572-07	
Nitrate	10 to 500 ppm	100	LD-99572-13	
pH	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 pH	6 pks of 100	LD-99572-08	
Total hardness	0, 50, 70, 125, 250, 370 ppm	100	LD-99572-10	
Total hardness	90, 180, 270, 360, 450 ppm	100	LD-99572-11	
Zinc [†]	0, 10, 40, 100, 250 ppm	100	LD-99572-12	

[†]Kit includes reagent(s) to facilitate test.

Disposable Griffin Low-Form Beakers, PP

Molded-in graduations won't wear off

- No need to convert volumes—graduated in mL and oz
- Won't stick together—stacking rib for easier separation

Buy More...Save More!
20% off on 120+ 15% off on 30 to 119 10% off on 6 to 29 packs or cases



Capacity mL (oz)	Graduations (mL)	Qty/pk	Catalog number	Price/pk
15 (0.5)	5	100	LD-06006-12	
30 (1)	5	100	LD-06006-22	
50 (1.7)	5	100	LD-06006-32	
100 (3.5)	5	100	LD-06006-42	
150 (5)	5	100	LD-06006-52	
250 (8)	10	50	LD-06006-63	
400 (13)	25	50	LD-06006-72	
600 (20)	25	25	LD-06006-83	



You're Out? We're Not!

Thousands of **highlighted** items

Hach® Water Quality Test Strips

Results in less than a minute!

NEW



- Reduce risk by using as a pre-test validation tool
- No chemical handling or cleanup
- Vial label with color key for easy readings in lab or field

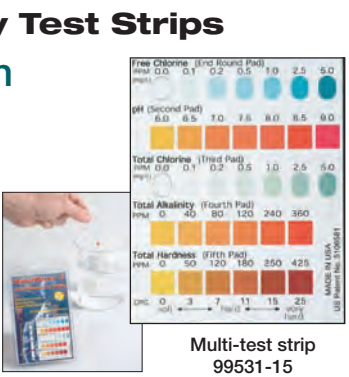
Testing parameter	Testing range	Qty	Catalog number	Price
5-in-1: Free and total chlorine; total hardness; total alkalinity; pH	0 to 10 ppm; 0 to 25 gpg; 0 to 240 ppm; 6.2 to 8.4 pH	50	LD-05546-02	
Alkalinity	0 to 240 ppm	50	LD-05546-04	
Ammonia (nitrogen)	0 to 6 ppm	25	LD-05546-06	
Arsenic (low level)	0 to 500 ppb	100	LD-05546-08	
Arsenic (dual range)	0 to 500 ppb; 0 to 4000 ppb	100	LD-05546-12	
Chloride (low level)	30 to 600 ppm	40	LD-05546-16	
Chloride	300 to 6000 ppm	40	LD-05546-18	
Free and total chlorine	0 to 10 ppm	250 [†]	LD-05546-20	
Free and total chlorine	1 to 10 ppm	50	LD-05546-22	
Free chlorine	0 to 600 ppm	100	LD-05546-24	
Free and total copper	0 to 3 ppm	25	LD-05546-26	
Total hardness, as CaCO ₃	0 to 425 ppm	250 [†]	LD-05546-28	
Total hardness, as CaCO ₃	1 to 425 ppm	50	LD-05546-30	
Total dissolved iron	0 to 5 ppm	25	LD-05546-32	
Nitrate and nitrite	0 to 50 ppm; 0 to 3 ppm	25	LD-05546-36	
pH (midrange)	4 to 9 pH	50	LD-05546-40	
pH (full range)	0 to 14 pH	100	LD-05546-42	
Phosphorous, o-phosphate	0 to 50 ppm	50	LD-05546-44	

[†]Individually wrapped test strips.

Water Quality Test Strips

Results within 90 seconds

- Bright, easy-to-read colors
- No hazardous reagents
- Test tap, lake, rain, or treated water



Multi-test strip 99531-15

Test	Testing range	Catalog number	Qty	Price
Free chlorine	0, 0.05, 0.1, 0.2, 0.4, 0.5, 0.8, 1.0, 2.0, 5.0 ppm	LD-99531-20	50	
Total chlorine	0, 0.05, 0.075, 0.1, 0.125, 0.15, 0.175, 0.2, 0.3, 0.5, 0.8, 4.0, 10.0 ppm	LD-99531-22	50	
Copper	0, 0.5, 1.0, 2.5, 5.0, 10.0 ppm	LD-99531-24	25	
Iron	0, 0.02, 0.05, 0.1, 0.2, 0.3, 0.5, 0.75, 1.0, 2.0, 5.0 ppm	LD-99531-26	25	
Peroxide	0, 0.5, 2.0, 5.0, 10, 25, 50, 100 ppm	LD-99531-30	50	
pH/Total alkalinity	pH: 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0 TA: 0, 80, 120, 180, 240, 360	LD-99531-28	50	
Total hardness	0, 50, 120, 250, 425 ppm	LD-99531-03	50	
Multi-test	Free chlorine 0 to 5 ppm, pH 6.0 to 9.0, total chlorine 0 to 5 ppm, total alkalinity 0 to 360 ppm, and total hardness 0 to 425 ppm	LD-99531-15	30	

Hach® Pocket Colorimeter™ II Kits

No need to calibrate—just zero and read

NEW

- Get quick, accurate results wherever you go
- Store and recall last ten data points and time
- Rugged, IP67-rated waterproof housing is ideal for field testing



Colorimetric readings couldn't be easier—simply zero the instrument with a blank, insert the reacted sample, and read the result.

What's included: reagents, sample cells, carrying case, and four AAA batteries.

Specifications

- Light source:** LED
- Detector:** silicon
- Wavelength:** fixed ±2 nm
- Pathlength:** 25 mm
- Power:** four AAA batteries (included)



Testing parameter	Testing range (ppm)	Catalog number	Price
Aluminum	0.02 to 0.80	LD-99574-30	
Ammonia	0.01 to 0.80	LD-99574-32	
Bromine	0.05 to 10.0	LD-99574-36	
Chlorine, free [†]	0.02 to 2.00	LD-99574-42	
Chlorine, total [†]	0.1 to 8.0	LD-99574-44	
Chlorine, free and total [†]	0.02 to 8.0	LD-99574-46	
Copper [†]	0.04 to 5.00	LD-99574-58	
Fluoride [†]	0.1 to 2.0	LD-99574-62	
Iron, ferro [†]	0.02 to 5.00	LD-99574-66	
Iron, TPTZ	0.01 to 1.70	LD-99574-68	
Manganese, high range [†]	0.2 to 20.0	LD-99574-72	
Manganese, low range	0.01 to 0.70	LD-99574-74	
Molybdate	0.02 to 12.00	LD-99574-76	
Nitrate	0.4 to 30.0	LD-99574-80	
Ozone	0.01 to 0.75	LD-99574-82	
Phosphate, ortho [†]	0.02 to 3.00	LD-99574-84	
Silica	1 to 100	LD-99574-90	
Sulfate [†]	2 to 70	LD-99574-92	

[†]US EPA accepted method.

Accessories

- [LD-99574-96](#) Speccheck standard for chlorine, DPD
- [LD-99574-95](#) Speccheck standard for fluoride
- [LD-09376-00](#) Replacement batteries, AAA. Pack of 12



Questions?

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Bob, 7 years of experience

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Electrochemistry

Water Testing

Cole-Parmer® Symmetry® ED Portable Balances

Take it where you need it—operates on AC or batteries

- No confusing menus—simple three-button design
- Get quick readings of samples in grams, carats, and ounces (≥1200 g units also have kilograms and pounds)
- Easily clean stainless steel weighing platform
- Save battery life with automatic shutoff

Specifications

Calibration: external, with calibration mass
Weighing units: g, kg†, ct, oz, lb†, dwt,
Power: AC adapter (included) or six AA batteries (not included)



Symmetry®



Capacity	Readability	Repeatability	Linearity	Pan size (dia)	115 VAC		220 VAC	
					Catalog number	Price	Catalog number	Price
150 g	0.01 g	±0.02 g	±0.02 g	5" (12.7 cm)	LD-10000-01		LD-10000-17	
300 g					LD-10000-02		LD-10000-18	
500 g	0.1 g	±0.1 g	±0.1 g	5" (12.7 cm)	LD-10000-03		LD-10000-19	
1200 g					LD-10000-04		LD-10000-20	
2000 g					LD-10000-05		LD-10000-21	
4000 g	1.0 g	±1 g	±1 g	5" (12.7 cm)	LD-10000-06		LD-10000-22	

†Present on 1200 g and higher models.

Accessories

[LD-09376-01](#) Batteries. AA. Pack of 4

[LD-17101-52](#) NIST-traceable calibration for balances

Adam Nimbus™ Toploading Balances

Don't sacrifice rugged design for performance

- Rugged design features all-metal housing
- Meet GLP requirements with printouts via RS-232 connection
- Easily read display of results in parts counting, check weighing, percent weighing, and more
- Awkward item weighing made easy with included below-balance hook

Specifications

Calibration: external, with calibration mass
Weighing units: g, kg, ct, oz, lb, N, dwt, gn, oz t, dr, custom
Output: RS-232 and USB interface
Power: 115 or 220 VAC power adapter or built-in rechargeable battery (included)



220 and 420 g models include convenient draft shield

11121-06



Capacity	Readability	Repeatability	Linearity	Platform size	115 VAC		220 VAC	
					Catalog number	Price	Catalog number	Price
220 g	0.001 g	±0.001 g	±0.002 g	5¾" (145 cm) dia	LD-11121-06		LD-11121-07	
420 g					LD-11121-08		LD-11121-09	
2600 g	0.01 g	±0.01 g	±0.02 g	6¼" (160 cm) dia	LD-11121-11		LD-11121-12	
3200 g					LD-11121-18		LD-11121-19	
3600 g					LD-11121-13		LD-11121-14	
4200 g					LD-11121-20		LD-11121-21	
4600 g					LD-11121-16		LD-11121-17	
8200 g					LD-11121-22		LD-11121-23	
12,000 g					LD-11121-24		LD-11121-25	
16,000 g					LD-11121-26		LD-11121-27	
22,000 g					LD-11121-28		LD-11121-29	
					0.1 g	±0.2 g	±0.4 g	11¾" L x 15¾" W (30 x 40 cm)

Accessories

[LD-10000-38](#) Compact thermal printer

[LD-10000-47](#) Kensington™-type security lock and cable

[LD-17101-52](#) NIST-traceable calibration with data for balances



You're Out? We're Not!
Thousands of **highlighted** items

Equipment & Instrumentation

Balances

Sartorius Practum® Toploading Balances

No need to worry—overload protection protects against damage

- Eliminate unintentional menu changes with supervisor lock
- Transfer data easily with USB port and included cable to PC or printer
- No more difficult calibrations—automatic calibration with external weight
- Get the readings you need—includes weighing, density, percentage, checkweighing, counting, and more



Specifications

Calibration: external, with calibration mass **Output:** mini-USB interface
Weighing units: g, ct, oz, lb, N, dwt, gn, oz t, parts/lb **Power:** 100 to 240 VAC universal power adapter (included)



Capacity	Readability	Repeatability	Linearity	Platform size (dia)	Catalog number	Price
210 g	0.001 g	±0.001 g	±0.002 g	4¾" (11.4 cm)	LD-11800-91	
310 g					LD-11800-90	
610 g					LD-11800-94	
1100 g	0.01 g	±0.01 g	±0.02 g	7" (17.8 cm)	LD-11800-93	
2100 g					LD-11800-92	
5100 g	0.1 g	±0.1 g	±0.2 g		LD-11800-95	
5100 g	1.0 g	±1.0 g	±2.0 g		LD-11800-96	

Accessories

- [LD-11800-65](#) Standard compact printer
- [LD-11800-75](#) External rechargeable battery kit
- [LD-11800-97](#) USB-to-RS-232 cable
- [LD-11200-50](#) Kensington™-type security lock and cable
- [LD-17101-52](#) NIST-traceable calibration with data for balances

Sartorius Quintix® Toploading Balances

No difficult navigation—intuitive touch-screen operation

- Improve your workflow while saving time with simple icons
- Reliable results guaranteed with durable monolithic weigh cell
- Meets ISO/GLP requirements with included recording feature
- No need to calibrate externally with isoCAL automatic internal calibration
- Transfer data to PC or printer with included USB port and cable



Specifications

Calibration: internal, fully automatic **Output:** mini-USB interface
Weighing units: g, ct, oz, lb, N, dwt, gn, oz t, parts/lb **Power:** 100 to 240 VAC with universal power adapter (included)



Capacity	Readability	Repeatability	Linearity	Platform size (dia)	Catalog number	Price
210 g	0.001 g	±0.001 g	±0.002 g	4¾" (12 cm)	LD-11800-80	
310 g					LD-11800-79	
510 g					LD-11800-78	
610 g	0.01 g	±0.01 g	±0.02 g	7" (17 cm)	LD-11800-85	
1100 g					LD-11800-84	
2100 g					LD-11800-83	
3100 g					LD-11800-82	
5100 g	0.1 g	±0.1 g	±0.2 g		LD-11800-81	
5100 g	1.0 g	±1.0 g	±2.0 g		LD-11800-86	
5100 g	1.0 g	±1.0 g	±2.0 g		LD-11800-87	

Accessories

- [LD-11800-66](#) GLP-compliant compact printer
- [LD-11800-65](#) Standard compact printer
- [LD-11800-75](#) External rechargeable battery kit
- [LD-11800-97](#) USB-to-RS-232 cable
- [LD-11200-50](#) Kensington™-type security lock and cable
- [LD-17101-52](#) NIST-traceable calibration with data for balances



Square Weigh Boats

No messy sample transfers

Description	Qty/pk	Catalog number	Price/pk
Medium, white	500	LD-01017-15	
Medium, blue		LD-01017-17	

Mettler Toledo NewClassic MS Toploading Balances

No more wasting time—programmable smart keys for application recall

- Get quick and accurate results—Advanced MonoBloc technology for fast, reliable measurement
- Don't overload your balance—overload protection and SmartTrac software safeguards your balance
- No more calibrating—automatic interval calibration is time and temperature controlled
- Easily transfer data to PC or printer with RS-232 or USB connectors

What's included: protective in-use cover and AC power adapter.
Models 11334-57, -58, -59, and -60 also include a draft shield.



Capacity	Readability	Repeatability	Linearity	Pan size (L x W)	Catalog number	Price
320 g	0.001 g	±0.001 g	±0.002 g	5" x 5" (12.7 x 12.7 cm)	LD-11334-57	
420 g	0.001 g	±0.001 g	±0.002 g		LD-11334-58	
620 g	0.001 g	±0.001 g	±0.002 g		LD-11334-59	
1020 g	0.001 g	±0.001 g	±0.002 g		LD-11334-60	
820 g	0.01 g	±0.01 g	±0.02 g	6 5/8" x 7 7/8" (16.8 x 20 cm)	LD-11334-61	
1620 g	0.01 g	±0.01 g	±0.02 g		LD-11334-62	
3200 g	0.01 g	±0.01 g	±0.02 g		LD-11334-63	
4200 g	0.01 g	±0.01 g	±0.02 g		LD-11334-64	
820/4200 g	0.1 g	±0.06 g	±0.2 g	6 5/8" x 7 7/8" (16.8 x 20 cm)	LD-11334-65	
6200 g	0.01 g	±0.01 g	±0.02 g		LD-11334-66	
1220/6200 g	0.1 g	±0.06 g	±0.2 g		LD-11334-67	
3200 g	0.1 g	±0.1 g	±0.2 g	7 1/2" x 8 7/8" (19.1 x 22.6 cm)	LD-11334-68	
6200 g	0.1 g	±0.1 g	±0.2 g		LD-11334-69	
8200 g	0.1 g	±0.1 g	±0.2 g		LD-11334-70	
12,200 g	0.1 g	±0.1 g	±0.2 g	13 7/8" x 9 5/8" (35.1 x 24.5 cm)	LD-11334-71	
16,200 g	0.1 g	±0.1 g	±0.2 g		LD-11334-72	
32,200 g	0.1 g	±0.1 g	±0.3 g		LD-11334-73	
32,200 g	1 g	±0.5 g	±1 g	13 7/8" x 9 5/8" (35.1 x 24.5 cm)	LD-11334-74	
6/15 kg	2 g	±1 g	±2 g		LD-11334-75	
15/24 kg	2 g	±2 g	±2 g		LD-11334-76	

[†]Models 11334-75 and -76 feature strain gauge weigh cell and external calibration.

Specifications

Calibration: FACT internal calibration[†]
Weighing units: g, kg, mg, ct, lb, oz, oz t, GN, dwt, mom, msg, tih, tls, tit, tola, baht
Output: RS-232, USB
Power: 120 VAC



Questions?

Trust our **expert** Application Specialists to help you find the right product.

Bob, 7 years of experience

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Cole-Parmer® Symmetry® MB Moisture Determination Balance

No need to monitor sample—auto test does the work for you

- No more burns with pan lifter for safe removal of hot sample pans
- Save time—automatic test setting for quickly running multiple tests
- Test up to 99 minutes at temperatures from 50 to 160°C
- No need to change screens—displays temperature, time, and moisture simultaneously
- Don't reprogram—stores test procedures for easy recall
- ¿No habla ingles? ¡No problema!—displays and prints in English, French, German, and Spanish
- Measures what you need—grams, % moisture, % solids, % moisture vs dry weight, and % solid vs dry weight

What's included: pan lifter, ten sample pans, and a 5-ft (1.5-m) power cord.

Specifications

Calibration: external, with calibration mass
Heater type: halogen lamp
Output: RS-232
Weighing units: g, % moisture, % solids, % moisture/dry bases, % solids/dry bases

Symmetry®



Accessories

- [LD-10000-46](#) Kensington-type security lock and cable
- [LD-11700-66](#) Disposable sample pans. Pack of 250
- [LD-17101-52](#) NIST-traceable calibration with data for balances

Capacity	Readability	Repeatability	Temperature range	Pan size (dia)	115 VAC		220 VAC	
					Catalog number	Price	Catalog number	Price
40 g	0.001 g	±0.005 g	50 to 160°C in 1°C intervals	3 1/2" (8.9 cm)	LD-11124-06		LD-11124-07	



NEW

Auto test feature automatically starts when lid closes, ends when moisture loss stabilizes

Adam Nimbus™ Analytical Balances

Don't worry about cleanup—doors disassemble for easy and thorough cleaning

- Be GLP compliant—print out results via USB or RS-232 connection
- More weighing options—below-balance hook for difficult weighing
- Rugged and easy-to-use design—all metal housing with intuitive keypad
- Maintain records easily—date and time stored in memory

Specifications

Calibration: external, with calibration mass
Weighing units: g, mg, ct, oz, dwt, gn, oz t, dr, custom

Output: RS-232 and USB interface
Power: 115 or 220 VAC power adapter or built-in rechargeable battery (included)



Capacity	Readability	Repeatability	Linearity	Platform size (dia)	115 VAC		220 VAC	
					Cat. no.	Price	Cat. no.	Price
80 g	0.0001 g	±0.0002 g	±0.0004 g	3½" (9.0 cm)	LD-11120-98		LD-11120-99	
100 g					LD-11121-01		LD-11121-02	
160 g					LD-11121-03		LD-11121-04	

Accessories

[LD-10000-38](#) Compact thermal printer
[LD-10000-47](#) Kensington™-type security lock and cable

[LD-17101-52](#) NIST-traceable calibration with data for balances



A&D Weighing Galaxy Analytical Balances

No more wasted space—rotary sliding doors need no space in rear

- Get quicker readings—stabilizes in just 2 seconds
- Safely handle challenging powders—antistatic coating on breeze break for easier handling
- Meet compliance—provides output so you are GLP/GMP/GCP/ISO compliant
- More functionality—counting mode, statistical calculator, comparator, below-balance weighing, and density determination

Specifications

Calibration: internal or external, with calibration mass
Weighing units: g, mg, ct, oz, mom, %, d, pcs, dwt, gn, oz t, tl, t, custom

Output: RS-232 or optional USB interface
Power: 120/240 VAC power adapter



Capacity	Readability	Repeatability	Linearity	Platform size (dia)	Catalog number	Price
Analytical balances with internal calibration (model HR-AZ)						
102 g	0.0001 g	0.0001 g	±0.0002 g	3½" (9.0 cm)	LD-11111-13	
152 g					LD-11111-14	
252 g					LD-11111-15	
Analytical balances with external calibration (model HR-A)						
102 g	0.0001 g	0.0001 g	±0.0002 g	3½" (9.0 cm)	LD-11111-16	
152 g					LD-11111-17	
252 g					LD-11111-18	

Accessories

[LD-01038-80](#) Compact statistical printer
[LD-11110-99](#) RS-232 cable for printer
[LD-11110-44](#) USB interface with cable
[LD-11110-46](#) Static eliminator

[LD-11111-20](#) Density determination kit
[LD-11110-47](#) External data logger
[LD-17101-52](#) NIST-traceable calibration with data for balances

Top breeze break pivots open for easier access to beakers and flasks



Search

Our Balance Store makes it easy to find the right balance, calibration masses, and accessories for your needs. Go to...

ColeParmer.com/BalanceStore

StableTemp® Economical Digital Utility Water Baths

Easy setting and repeatability

- Recall settings at the touch of a button
- Know when process is complete with built-in timer

Dual thermostat baths provide $\pm 0.1^\circ\text{C}$ precision and overtemperature safety feature prevents overheating. Seamless tank eliminates rusting and is easy to clean.

Specifications

Temperature range: 5°C above ambient to 100°C **High-temperature cutoff:** yes
Temperature uniformity: $\pm 0.2^\circ\text{C}$
Temperature stability: $\pm 0.1^\circ\text{C}$
Wetted materials: 304 stainless steel



Bath capacity	Bath opening (L x W)	Working depth	120 VAC, 60 Hz		240 VAC, 50 Hz	
			Cat. no.	Price	Cat. no.	Price
2 L	3 $\frac{1}{8}$ " x 4 $\frac{5}{16}$ " (9.9 x 10.9 cm)	5 $\frac{1}{2}$ " (14 cm)	LD-14576-00		LD-14576-02	
5 L	5" x 10 $\frac{13}{16}$ " (12.7 x 27.4 cm)	5 $\frac{1}{2}$ " (14 cm)	LD-14576-04		LD-14576-06	
10 L	10 $\frac{5}{8}$ " x 11 $\frac{5}{8}$ " (26.9 x 29.5 cm)	5 $\frac{1}{2}$ " (14 cm)	LD-14576-08		LD-14576-10	
20 L	9 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " (24.2 x 44.5 cm)	5" (12.7 cm)	LD-14576-12		LD-14576-14	
28 L	9 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " (24.2 x 44.5 cm)	7" (17.8 cm)	LD-14576-16		LD-14576-18	

NEW



Hinged polycarbonate lid allows condensation to flow back

Cole-Parmer® Polystat® Cooling/Heating Recirculators

Save time with quick ramp up and cool-down

- Don't lose valuable bench space—powerful unit in a compact design
- Internal circulating tank design was built to minimize fluid evaporation
- Easy cooling for smaller instruments, jacketed reactors, and rotary evaporators
- Reliable, robust system maintains temperature to $\pm 0.1^\circ\text{C}$ and pumps to 21 L/min
- Includes funnel and 8- and 12-mm hose barb fittings

Specifications

Internal reservoir capacity: 2.8 L **Temperature stability:** $\pm 0.1^\circ$
Temperature range: -10 to 80°C

polystat®



Cooling capacity at 20°C	Pump type	Max pump pressure psi (mbar)	Flow rate (L/min)	Power (VAC, Hz)	Catalog number	Price
250 W	Force	4.4 (300)	17	115, 60	LD-13042-01	
				230, 50	LD-13042-03	
250 W	Force/suction	11.7 (805)	21	115, 60	LD-13042-05	
				230, 50	LD-13042-07	
500 W	Force	4.4 (300)	17	115, 60	LD-13042-17	
				230, 50	LD-13042-19	
500 W	Force/suction	11.7 (805)	21	115, 60	LD-13042-21	
				230, 50	LD-13042-23	



Dow Corning® Bath Fluids

Get more out of your bath!

Use these bath fluids to maintain desired bath temperatures. Refer to the table below to select the appropriate bath fluid for your application. For operator safety, set the overtemperature cutoff of your bath/circulator below the flash point of the bath fluid you use.

Fluid type	Silicone 210	Dynalene® HK-50	Silicone 200 20 (hot)	Silicone 710 (hot)
Catalog number	LD-01294-60	LD-01297-00	LD-01294-40	LD-01294-00
Specific gravity	0.98	0.85	0.95	1.11
Temperature range	-65 to 280°C	-50 to 58°C	10 to 149°C	150 to 250°C
Freezing point	—	-60°C	-84°C	-22°C
Flash point	288°C	65°C	246°C	302°C
Viscosity	98 cp at 26°C	2.35 cp at 25°C	18.98 cp at 25°C	33 cp at 99°C
Quantity	1 gal. (3.8 L)	1 gal. (3.8 L)	1 gal. (3.8 L)	1 gal. (3.8 L)
Price				

Note: Do not use automotive antifreeze with circulating baths—additives can be harmful to the circulating pump. Silicone fluids are not compatible with silicone tubing.



Cole-Parmer® FS-3500 Portable Centrifuges

Don't be tied down—portable design goes where you need it

- No more struggling—stainless steel handle for easy carrying
- Easily plugs into car—included 12 volt adapter with optional AC adapter also available
- Spin more safely—dual latch lid for ensuring unit is secure
- Spin samples from 2 to 15 mL—fixed-angle rotor accepts optional adapters for other sizes



Specifications

Rotor (included): fixed angle; six-place for models 17415-01 and -02; eight-place for models 17415-11 and -12



Description	Speed range	Max RCF x g	Timer	Power	Catalog number	Price
Six-place portable centrifuge	3500 rpm	1640	0 to 30 minutes	12 VDC	LD-17415-01	
Six-place portable centrifuge with 18-place tube holder					LD-17415-02	
Eight-place portable centrifuge					LD-17415-11	
Eight-place portable centrifuge with 18-place tube holder					LD-17415-12	

[LD-17415-22](#) Power adapter, 110 VAC

[LD-17415-23](#) Power adapter, 220 VAC

[LD-17415-24](#) Short tube adapters for 4- to 7-mL tubes. Pack of 10

[LD-17415-26](#) Small tube adapters for 2-mL tubes. Pack of 2

[LD-17415-27](#) Greiner tube lift adapters. Pack of 12

[LD-17415-29](#) Optional tube holder, 18-place

Labnet Prism™ and Prism R Microcentrifuges

Keep your samples safe—auto shut-off if imbalance is detected

- Get spinning faster—powerful motor provides super fast acceleration and deceleration
- Won't dance on countertop—motor isolation system eliminates vibrations
- Autoclavable, solid-aluminum fixed-angle rotor included
- Keep samples cool to 10°C with refrigerated unit



Specifications

Rotor (included): fixed-angle, 24 x 1.5-/2.0-mL tubes

Temperature range: -10 to 40°C (refrigerated model)



Speed range	Max RCF x g	Timer	Power		Catalog number	Price
			VAC	Hz		
Prism microcentrifuge						
500 to 15,000 rpm	21,200	0.5 to 99 min	120	50/60	LD-17707-01	
			230	50/60	LD-17707-03	
Prism R refrigerated microcentrifuge						
500 to 13,500 rpm	17,135	0.5 to 99 min	120	50/60	LD-17707-07	
			230	50/60	LD-17707-09	

Optional Tube Adapters

Description	Catalog number	Qty/pk	Price/pk
StripSpin™ adapter for 0.2-mL tubes and 8-position PCR strips	LD-17707-11	1	
Individual adapter for 0.2-mL PCR tubes	LD-17707-13	6	
Individual adapter for 0.5-/0.6-mL tubes	LD-17707-17	6	
Individual adapter for 0.25- to 0.4-mL tubes	LD-17707-19	6	

Cole-Parmer® Microcentrifuge Tubes feature an attached cap, frosted writing surface, and graduations. Boil-proof 1.5-mL and 2.0-mL tubes are guaranteed to stay closed, even during boiling or autoclaving. Polypropylene.

Buy More... Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases



Capacity (mL)	Max RCF (x g)	Color	Sterile	Catalog number	Qty/pk	Price/pk
0.6	20,000	Natural	No	LD-06333-40	1000	
0.6	20,000	Natural	Yes	LD-06333-42	500	
1.5	20,000	Natural	No	LD-06333-50	500	
1.5	20,000	Assorted	No	LD-06333-51	500	
1.5	20,000	Natural	Yes	LD-06333-55	250	
1.7	20,000	Natural	No	LD-06333-60	500	
2.0	20,000	Natural	No	LD-06333-70	500	
2.0	20,000	Natural	Yes	LD-06333-72	250	
Maximum recovery microcentrifuge tubes						
1.5	20,000	Natural	No	LD-06333-53	250	



Assorted colors (tube and cap) for quick sample identification

StableTemp™ Digital Dry Block Heaters

Adjusts to your needs—interchangeable blocks for more flexibility

- Customizable to your needs—blocks available for microtubes, centrifuge tubes, vials, microplates, and PCR strips or tubes
- Get precise, repeatable results—digital display ensures temperature setting is accurate
- Set timer and walk away—no need to monitor reactions
- No hot spots—units have exceptional temperature uniformity and digital display shows set and actual temperature

Digital Dry Block Heaters feature a proportional integrative derivative (PID) controller which allows you to select a particular temperature with ease, enables rapid heat-up, and provides excellent stability to maintain results. Additional features include audible alarm and built-in temperature calibration mode. Models 36600-69 and -70 have a heated lid designed to reduce condensation and prevent cross-contamination.

External Temperature Probe Kit enables the unit to read block or sample temperature and display that temperature on the control panel. The RTD probe is designed to fit into the thermometer well located within each modular block.

Caution! To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed to run as a dry bath/incubator.



StableTemp



Number of blocks accepted	Uniformity	Temperature range	Power		Catalog number	Price
			VAC	Watts		
Digital dry block heaters						
1	±0.1° within the block at 98°F (37°C)	Ambient to 248°F (ambient to 120°C)	120	110	LD-36600-01	
2	±0.1° within the block at 98°F (37°C), ±0.1° across similar blocks at 98°F (37°C)		230	110	LD-36600-02	
			120	210	LD-36600-03	
3	±0.1° within the block at 98°F (37°C), ±0.15° across similar blocks at 98°F (37°C)		230	210	LD-36600-04	
			120	210	LD-36600-06	
4	±0.1° within the block at 98°F (37°C), ±0.2° across similar blocks at 98°F (37°C)		230	210	LD-36600-07	
			120	310	LD-36600-08	
6	±0.1° within the block at 98°F (37°C), ±0.3° across similar blocks at 98°F (37°C)		230	310	LD-36600-09	
			120	410	LD-36600-10	
			230	410	LD-36600-11	
Digital dry block heaters with heated lid						
2	±0.1° within the block at 98°F (37°C), ±0.1° across similar blocks at 98°F (37°C)	Ambient to 248°F (ambient to 120°C)	120	400	LD-36600-69	
			230	400	LD-36600-70	

[LD-36600-68](#) Optional external temperature probe kit

StableTemp™ Modular Blocks for Dry Block Heaters

No need to buy a new heater—easy switchout for new requirements

- Get maximum heat-up and retention with close contact of tubes to wall
- Constructed of solid anodized aluminum for durability
- Know the actual temperature of your wells—thermometer well for easy block temperature measurement

Single block dimensions (L x W x H): 3¾" x 3" x 2" (9.5 x 7.6 x 5.1 cm). Double block sizes are available online to fit 2/4/6-block heaters.

Microcentrifuge Tube Blocks (single block size)

Accommodates	No. of wells	Well dia.	Well depth	Catalog number	Price
0.5 mL tube	30	7.9 mm	27.6 mm	LD-36600-22	
1.5 mL tube	20	11.1 mm	39.1 mm	LD-36600-23	
1.5 mL Eppendorf® tube	20	11.5 mm	36.9 mm	LD-36600-24	
2 mL Eppendorf tube	20	11.5 mm	38.1 mm	LD-36600-25	
2 mL Corning® tube	20	10.9 mm	38.1 mm	LD-36600-26	



StableTemp

Conical-Bottom Centrifuge Tube Blocks (single block size)

Accommodates	No. of wells	Well dia.	Well depth	Catalog number	Price
15 mL tube	12	17.1 mm	44.5 mm	LD-36600-28	
50 mL tube	5	29 mm	47.6 mm	LD-36600-29	

CaptairFlex Portable Ductless Fume Hoods

NEW

Keeps you safe in your own environment

- Don't risk safety—remove toxic vapors and odors, while releasing highly purified air back into the room
- Eliminates toxic gases, fumes, odors, and powders
- Set up where you need it—relocate and reinstall in minutes
- Adaptable to your needs—configurable column design is easy to change as your needs change

These Captair Flex ductless fume hoods provide safe handling where you need it. The stackable design allows you to add a secondary level of filtration for larger scale quantities or different materials. The included BE+ filter removes organics, inorganics, solvents, and acids in one filter, giving you the convenience of a single filter type for most handling.

All hoods feature an air velocity meter allowing you to verify the face velocity of the moving air in the unit, a sampling port for manual testing for saturation of filters, and a 60-hour timer to remind the operator to test the filters.

What's included: BE+ filter, internal tubular lighting, and 8-ft (2.4-m) cord with plug.

Compliance: NFX 15 211:2009 and ASHRAE 110:1995 standards.



CE

Equipment & Instrumentation

Hoods

Filter type (carbon)	Exhaust volume (cfm)	Dimensions (W x H x D)		Power		Shpg wt		Catalog number	Price
		Interior	Overall	VAC	Hz	lb	kg		
Acids, organics, solvents	135	30 $\frac{1}{8}$ " x 29 $\frac{1}{8}$ " x 18 $\frac{7}{8}$ " (77 x 74 x 48 cm)	31 $\frac{1}{2}$ " x 39 $\frac{3}{4}$ " to 47" x 22" (80 x 101 to 119 x 56 cm)	115	60	150	68	LD-33520-30	
				230	50				
Acids, organics, solvents	135	30 $\frac{1}{8}$ " x 33 $\frac{3}{8}$ " x 21 $\frac{1}{4}$ " (77 x 86 x 54 cm)	31 $\frac{1}{2}$ " x 39 $\frac{3}{4}$ " to 47" x 22" (80 x 101 to 119 x 56 cm)	115	60	180	82	LD-33520-34	
				230	50				
Acids, inorganics	135	38" x 34" x 21 $\frac{1}{2}$ " (96.5 x 86 x 54.5 cm)	39 $\frac{3}{8}$ " x 45 $\frac{3}{4}$ " to 53" x 24 $\frac{3}{4}$ " (100 x 116 x 134.5 x 63 cm)	115	60	225	102	LD-33520-38	
				230	50				
Organics, solvents	135	38" x 34" x 21 $\frac{1}{2}$ " (96.5 x 86 x 54.5 cm)	39 $\frac{3}{8}$ " x 45 $\frac{3}{4}$ " to 53" x 24 $\frac{3}{4}$ " (100 x 116 x 134.5 x 63 cm)	115	60	225	102	LD-33520-42	
				230	50				
Acids, inorganics	135	48 $\frac{7}{8}$ " x 34" x 21 $\frac{1}{2}$ " (124 x 86 x 54.5 cm)	50 $\frac{1}{4}$ " x 45 $\frac{3}{4}$ " to 53" x 24 $\frac{3}{4}$ " (127.5 x 116 to 134.5 x 63 cm)	115	60	245	111	LD-33520-46	
				230	50				
Organics, solvents	135	48 $\frac{7}{8}$ " x 34" x 21 $\frac{1}{2}$ " (124 x 86 x 54.5 cm)	50 $\frac{1}{4}$ " x 45 $\frac{3}{4}$ " to 53" x 24 $\frac{3}{4}$ " (127.5 x 116 to 134.5 x 63 cm)	115	60	245	111	LD-33520-50	
				230	50				
Acids, inorganics	270	61 $\frac{3}{4}$ " x 34" x 21 $\frac{1}{2}$ " (157 x 86 x 54.5 cm)	63" x 45 $\frac{3}{4}$ " to 53" x 24 $\frac{3}{4}$ " (160 x 116 to 134.5 x 63 cm)	115	60	295	134	LD-33520-54	
				230	50				
Organics, solvents	270	61 $\frac{3}{4}$ " x 34" x 21 $\frac{1}{2}$ " (157 x 86 x 54.5 cm)	63" x 45 $\frac{3}{4}$ " to 53" x 24 $\frac{3}{4}$ " (160 x 116 to 134.5 x 63 cm)	115	60	295	134	LD-33520-58	
				230	50				

Accessories

[LD-33520-90](#) Replacement BE+ filter; can be used as optional second-level filter for acids, organics and solvents

[LD-33520-91](#) Optional HEPA filter to combine liquid and powder handling

Work Surfaces, Carts, and Panels

For use with models	Tempered glass work surface with framing		Work surface and rolling cart for mobile use		Transparent back panel for 360° viewing	
	Catalog number	Price	Catalog number	Price	Catalog number	Price
33520-30 and -32	LD-33520-92		LD-33520-96		LD-33520-93	
33520-34 and -36	LD-33520-94		LD-33520-97		LD-33520-95	

Benches and Work Surfaces

For use with models	Fixed metal bench		Tempered glass work surface with framing		Resin work surface with built-in spill tray	
	Catalog number	Price	Catalog number	Price	Catalog number	Price
33520-38 to -44	LD-33520-83		LD-33520-82		LD-33520-81	
33520-46 to -52	LD-33520-86		LD-33520-85		LD-33520-84	
33520-54 to -60	LD-33520-89		LD-33520-88		LD-33520-87	

Extech® Thermohygrometer with Built-in Calibration Function

No more toggling—get three readings simultaneously



- Choose your display—shows relative humidity and temperature with either dew point, wet bulb, or probe temperature as third parameter
- Flexible readings in °F or °C, min/max, and data hold
- Automatically calculate temperature differential with optional temperature probe

What's included: two AAA batteries. Kit 37803-11 adds on temperature probe 37803-18, RH calibration standard salts 37803-05, and carrying case.



Specifications

Response time: 60 seconds **Power:** two AAA batteries (included)

	Range	0 to 100%
Humidity	Resolution	0.10%
	Accuracy	±3% of reading
	Range	–4 to 122°F (–20 to 50°C)
Temperature	Resolution	0.1°F (0.1°C)
	Accuracy	±1.8°F (±1.0°C)
	Dew point	Included†
Wet bulb	Included†	

†Meter uses information from the sensors to calculate dew point and wet bulb.

Description	Catalog number	Price
Thermohygrometer only	LD-37803-10	
Thermohygrometer kit	LD-37803-11	

[LD-37803-18](#) Thermistor temperature probe

[LD-37803-05](#) Calibration salts

[LD-09376-00](#) Replacement batteries, AAA. Pack of 12

[LD-17030-28](#) NIST-traceable calibration with data for standard thermohygrometers

Wait!

**There's More at
ColeParmer.com**

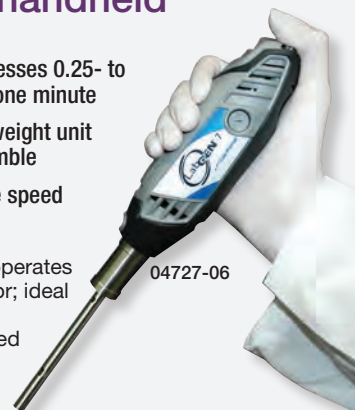
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Cole-Parmer® LabGEN® 7 Homogenizers

Don't be tied to a stand—unit can be mounted or handheld

- No more wasted time—processes 0.25- to 30-mL samples in less than one minute
- No more hand stress—lightweight unit is easy to clean and disassemble
- Powerful, yet quiet—variable speed from 5000 to 35,000 rpm

The LabGEN 7 homogenizer operates with a powerful 125-watt motor; ideal for most tissue samples. The portable LabGEN 7b is powered by a rechargeable battery for freedom of movement and to process soft tissues.



04727-06

What's included: 7-mm generator probe and tool kit.

Cole-Parmer®



Description	Probe included (L x dia)	Power	Catalog number	Price
LabGEN 7	3 1/8" x 7/64" (85 x 7 mm)	115 VAC	LD-04727-06	
Portable LabGEN 7b	3 1/8" x 7/64" (85 x 7 mm)	115 VAC	LD-04727-07	
		220 VAC	LD-04727-09	

[LD-04727-16](#) Homogenizer stand

[LD-04727-17](#) Spare rechargeable battery for LabGEN 7b

Cole-Parmer® LabGEN® 125 Homogenizer Kits

No more cross-contamination—disposable probes, easy cleanup

- Get done faster—powerful motor processes at 5000 to 30,000 rpm
- Versatile probes are easy to remove—ideal for RNA, DNA, or PCR samples to 30 mL
- Save money—plastic probes can be autoclaved and reused

For additional functionality and processing samples up to 10 L, units also accept stainless steel rotor-stator generators (order separately at ColeParmer.com).

What's included: 12 plastic tip probes, tip adapter, and storage case.



04727-11

Cole-Parmer®



Sample volume	Plastic tip probes included	Power	Catalog number	Price
0.25 to 30 mL	12 hard tissue	115 VAC, 50/60 Hz	LD-04727-11	
		220 VAC, 50/60 Hz	LD-04727-12	
	12 soft tissue	115 VAC, 50/60 Hz	LD-04727-13	
		220 VAC, 50/60 Hz	LD-04727-14	

[LD-04727-89](#) Homogenizer stand with support rod

[LD-04727-90](#) Additional motor support rod

Why Choose Digi-Sense™ Instruments?

- **Accurate**

Precision meters deliver the best accuracies

- **Reliable**

Many precalibrated to NIST-traceable standards—reliable results guaranteed

- **Durable**

Built to last—rugged design withstands your most demanding applications

- **Guaranteed**

We stand by our products! If you are not happy, let us know—we'll make it right!



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Don't Sweat It—Gain More Confidence in Your Readings

Digi-Sense™ Precalibrated Thermohygrometers

- Get more data—integrated humidity and thermistor (NTC) temperature sensor
- No more struggling to read measurements—large, backlit LCD makes reading measurements easy

These precalibrated thermohygrometers provide the readings you need in a rugged package. Each features Min/Max readings, Hold function, temperature in °F or °C, and auto-off to save battery life.

Model 20250-11 allows for one-handed measurements with side-button controls. Also measures absolute humidity.

Professional Model 20250-21 has a heavy-duty design for more rugged dependability and can also display absolute humidity.

Model 20250-12 is ideal for HVAC and IAQ industries with target superheat mode (TSH) and target evaporator exit temperature (TEET) calculation for balancing airflow systems. Additional features include external type K thermocouple input and dry bulb measurement.

What's included: carrying case, batteries, and NIST-traceable calibration report with data supplied by InnoCal. Model 20250-12 also includes a type K flexible probe.



20250-11

20250-21

20250-12



Description	Thermohygrometer	Professional thermohygrometer	Thermohygrometer with single type K input and superheat function	
Catalog number	LD-20250-11	LD-20250-21	LD-20250-12	
Range	Humidity	0 to 100% RH		
	Absolute humidity (calculated)	0 to 500 g/m ³ , 0 to 218.5 gr/ft ³		
	Temperature (NTC)	-22 to 212°F (-30 to 100°C)		
	Temperature (T/C)	32 to 140°F (0 to 60°C)		
	Dew point (calculated)	-22 to 212°F (-30 to 100°C)		
	Wet bulb (calculated)	32 to 176°F (0 to 80°C)		
Resolution	Humidity	0.1		
	Temperature (NTC)	0.1°F/°C		
	Temperature (T/C)	—		
Accuracy	Humidity	±2% from 40 to 60% RH; ±3% from 20 to 40% RH and 60 to 80% RH; ±4% from 0 to 20% RH and 80 to 100% RH	±2.5% from 10 to 90% RH; ±5% from 0 to 10% RH and 90 to 100% RH	
	Temperature (NTC)	±1.8°F (1°C) from -4 to 140°F (-20 to 60°C); ±1.8°F (1°C) from -22 to -4°F (-30 to 19°C) and 140 to 212°F (60 to 100°C)	±0.9°F (0.5°C) from -4 to 140°F (-20 to 60°C); ±2.7°F (1.5°C) from -22 to -4°F (-30 to 19°C) and 140 to 212°F (60 to 100°C)	±1.8°F (1°C)
	Temperature (T/C)	—		
Target superheat mode (TSH)	No		Yes	
Target evaporator exit temperature (TEET)	No		Yes	
Dimensions (L x W x H)	6½" x 2½" x 1¾" (16.5 x 5.4 x 3.4 cm)	11⅞" x 3" x 2" (30 x 7.5 x 5 cm)	7¼" x 2½" x 1" (18.5 x 6.3 x 2.6 cm)	
Price				

✓ **Save time and money**—pre-calibrated to NIST-traceable standards before you receive it

✓ **No need to buy multiple meters**—one meter displays

- Humidity
- Dew point
- Wet bulb
- Temperature

✓ **Accurate to ±2% basic RH**

✓ **Durable construction** stands up to your demands for longer life

Precalibration provided by

INNOCAL®

Precalibration | Recalibration | Onsite

866-InnoCal (866-466-6225)
InnoCalSolutions.com

H-B Instrument DURAC® Hydrometers

- Temperature standard is 60°F (15.6°C)
- Plain form hydrometers are individually serialized for easy identification
- Ensure accuracy with multi language statement of accuracy supplied by manufacturer
- All hydrometers are 100% nonmercury

Polycarbonate Hydrometers

Won't break when dropped



Type	Range	Divisions	Length	Catalog number	Price
Specific gravity	0.920 to 1.080	0.002	300 mm	LD-08298-39	
	1.000 to 1.180	0.002	300 mm	LD-08298-38	
	1.050 to 1.220	0.002	300 mm	LD-08298-40	
	1.200 to 1.420	0.002	300 mm	LD-08298-41	
	1.400 to 1.620	0.002	300 mm	LD-08298-42	
Baumé	0 to 12°	0.2°	255 mm	LD-08298-26	
	9 to 21°	0.2°	255 mm	LD-08298-28	
	19 to 31°	0.2°	255 mm	LD-08298-30	
Brix	0 to 35%	0.5%	300 mm	LD-08298-36	
	15 to 50%	0.5%	300 mm	LD-08298-37	
Salt brine	0 to 80%	1%	300 mm	LD-08298-43	
	10 to 100%	1%	300 mm	LD-08298-44	
Sodium chloride	4 to 26.5%	0.2%	300 mm	LD-08298-45	



Teky's Tips



How to read a hydrometer

1. Pour your sample into a smooth, clear cylinder or jar that is dry or well rinsed with a portion of the sample.
2. Make sure that your sample is thoroughly mixed before testing.
3. Immerse the hydrometer in the liquid to a point slightly below the place where it naturally floats. Make sure the hydrometer and liquid are at rest and free of air bubbles.
4. Measure the temperature of the sample. Ideally, the sample temperature should be equal to the temperature standard of the hydrometer, generally 60°F (15.6°C). If temperature differences are unavoidable, correction tables can help to adjust readings—call our Application Specialists for information.
5. Take your reading at the point where the surface of the liquid crosses the hydrometer.

Baumé Glass Hydrometers

Easy measurements of liquids heavier than water



Range	Divisions	Length	Catalog number	Price
0 to 12°	0.1°	300 mm	LD-08299-44	
9 to 21°	0.1°	300 mm	LD-08299-45	
19 to 31°	0.1°	300 mm	LD-08299-47	
29 to 41°	0.1°	300 mm	LD-08299-49	
39 to 51°	0.1°	300 mm	LD-08299-51	
49 to 61°	0.1°	300 mm	LD-08299-53	
59 to 71°	0.1°	300 mm	LD-08299-55	
0 to 35°	0.5°	300 mm	LD-08299-57	
35 to 70°	0.5°	300 mm	LD-08299-59	
0 to 50°	1°	300 mm	LD-08299-61	
0 to 70°	1°	300 mm	LD-08299-62	



Specific Gravity Glass Hydrometers

Easily determine specific gravity of your sample



Range	Divisions	Length	Catalog number	Price
0.600 to 0.670	0.0005	325 mm	LD-08298-51	
0.640 to 0.710	0.0005	325 mm	LD-08298-53	
0.700 to 0.770	0.0005	325 mm	LD-08298-55	
0.760 to 0.830	0.0005	325 mm	LD-08298-57	
0.820 to 0.890	0.0005	325 mm	LD-08298-59	
0.880 to 0.950	0.0005	325 mm	LD-08298-61	
0.940 to 1.010	0.0005	325 mm	LD-08298-63	
1.000 to 1.070	0.0005	325 mm	LD-08298-65	
1.060 to 1.130	0.0005	325 mm	LD-08298-67	
1.120 to 1.190	0.0005	325 mm	LD-08298-69	
1.180 to 1.250	0.0005	325 mm	LD-08298-71	
1.240 to 1.310	0.0005	325 mm	LD-08298-73	
1.300 to 1.370	0.0005	325 mm	LD-08298-75	
1.360 to 1.430	0.0005	325 mm	LD-08298-77	
1.420 to 1.490	0.0005	325 mm	LD-08298-79	
1.480 to 1.550	0.0005	325 mm	LD-08298-81	
1.540 to 1.610	0.0005	325 mm	LD-08298-83	
1.600 to 1.670	0.0005	325 mm	LD-08298-85	
1.660 to 1.730	0.0005	325 mm	LD-08299-01	
1.720 to 1.790	0.0005	325 mm	LD-08298-87	
1.780 to 1.850	0.0005	325 mm	LD-08298-89	
1.840 to 1.920	0.0005	325 mm	LD-08299-03	



Specific Gravity Glass Hydrometer Kit

Convenient kit has full range of hydrometers



Range	Divisions	Length	Catalog number	Price		
Specific gravity hydrometers, plain form						
0.700 to 0.810	0.001	300 mm	LD-08297-41			
0.800 to 0.910						
0.900 to 1.000						
1.000 to 1.220	0.002	300 mm				
1.200 to 1.420						
1.400 to 1.620						
1.600 to 1.820						
1.800 to 2.000	0.002					
Thermometer, total immersion						
-30 to 120°F	2°F	300 mm				

INNOCAL®
INNOVATIVE CALIBRATION SOLUTIONS

Calibrate to ensure accuracy

[LD-17107-00](#) NIST-traceable calibration
with data for hydrometer

Cole-Parmer® Digital Reversing Mixer

No more wasted time—timed cycles for more efficient mixing

- Won't lose speed—brushless, 142 in-oz torque motor maintains speed
- Minimize aeration and vortexing—reversing feature alters mixing pattern for better mixing
- No more moving mixer head to change impeller depth—through-shaft housing for easier positioning
- No more motor burn out—overload protection if torque exceeds ratings
- See what you're mixing—integrated sample light illuminates sample area

Mix samples up to 20,000 cps or up to 6.6 gallons (25 liters) easily and effectively. Repeat mixing conditions accurately with LED display, with control to ±1 rpm or 3% of reading. Set timer from 1 to 2000 minutes, with audible alert when complete.

Mixer includes: mixer head, adjustable chuck (accepts rod up to 3/8" [9.5 mm] dia), chuck key, mounting support rod, external power supply, and grounded power cord with plug assembly.

Complete system adds: propeller/shaft, support stand, and clamp.



Description	Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
Mixer only	40 to 2010	1/10	142	100 to 230, 50/60	LD-50004-00	
Complete system					LD-50004-10	

[LD-17050-03](#) NIST-traceable calibration for mixers



Complete system 50004-10 includes mixer, support stand, clamp, and mixer propeller.

Stir-Pak® Heavy-Duty Mixer Systems

No unnecessary features—customize to your needs

1. Speed Controller

- No difficult settings—speed adjustment knob and separate “forward/off/reverse” switch
- Reduce gear failure with torque limiting protection

2. Mixer Heads

- Don't limit your mixing angle—adjustable tilt from 0 to 30° for proper propeller placement
- Maintenance-free, rugged motor
- For more viscous or larger samples, choose a high-torque, low-speed mixer head with keyless chuck
- For lower viscosity samples, use a high-speed low-torque mixer head with through shaft for easy shaft positioning

Complete systems include: speed controller, mixer head, shaft, propeller, clamp and stand.



Stir-Pak high-speed, low-torque mixer system 50007-32



1. Speed controller			2. Mixer heads							Complete systems	
Power (VAC, Hz)	Catalog number	Price	Description	Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price	Catalog number	Price
115, 50/60	LD-50007-00		High torque, low speed; with keyless chuck	2 to 180	1/15	340	115, 50/60	LD-50007-10		LD-50007-12	
230, 50/60	LD-50007-05						230, 50/60	LD-50007-15		LD-50007-17	
115, 50/60	LD-50007-00			9 to 900	1/15	70	115, 50/60	LD-50007-20		LD-50007-22	
230, 50/60	LD-50007-05						230, 50/60	LD-50007-25		LD-50007-27	
115, 50/60	LD-50007-00		High speed, low torque; with adjustable through-shaft collet	23 to 2300	1/10	45	115, 50/60	LD-50007-30		LD-50007-32	
230, 50/60	LD-50007-05						230, 50/60	LD-50007-35		LD-50007-37	
115, 50/60	LD-50007-00			60 to 6000	1/10	17	115, 50/60	LD-50007-40		LD-50007-42	
230, 50/60	LD-50007-05						230, 50/60	LD-50007-45		LD-50007-47	



Complete system includes propeller, clamp, and stand



Four-Blade Propeller
Yours free!

Boss Head Clamp
Yours free!

Plate Stand
Yours free!

IKA® RW 20 Digital Dual-Range Mixer

No separate components to purchase—complete system is ready to go!

- No downtime—maintenance-free motor for continuous duty
- Fulfill all your lab mixing needs—two speed ranges for a variety of applications
- No need to move mixer head to reposition propeller—through-shaft design for easy movement
- No difficult controls—easy-to-use knob and LED display for accurate setting

Use this versatile, affordable mixer for liquid volumes up to 5 gallons (18.9 liters) and viscosities up to 10,000 cps (approximately the viscosity of honey). Select speed from 60 to 2000 rpm in two ranges for a variety of applications.

What's included: chuck (accepts up to 3/8" [10 mm] dia shafts), 6 1/4"L x 1/2" dia (159 mm L x 10 mm dia) mounting rod, four-blade propeller mixer stand, and clamp.



Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
60 to 500/ 240 to 2000	1/25	259	115, 50/60	LD-50705-00	
			230, 50/60	LD-50705-10	

IKA® EUROSTAR Digital Constant-Speed Mixers

Speed won't change even as viscosity does

- Automatic adjustment to desired speed with unique continuous speed comparison
- No need to move mixer head to remove samples—through-shaft design for impeller adjustments
- Worry-free operation—maintenance-free motor with overload protection
- Handle even large samples—up to 26.4 gallons (100 liters)

EUROSTAR 60 Digital Mixer (50704-20 and -25) handles volumes up to 10.6 gallons (40 liters) and viscosities up to 50,000 cps.

EUROSTAR 100 Digital Mixer (50704-30 and -35) will mix volumes up to 26.4 gallons (100 liters) and viscosities up to 70,000 cps.

What's included: chuck (accepts up to 3/8" [10 mm] dia shaft) and 6 1/4"L x 1/2" dia (159 mm x 13 mm) mounting rod.

NEW



Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
Eurostar 60 digital mixer					
30 to 2000	3/16	85	115, 50/60	LD-50704-20	
			230, 50/60	LD-50704-25	
Eurostar 100 digital mixer					
30 to 1300	1/8	142	115, 50/60	LD-50704-30	
			230, 50/60	LD-50704-35	

IKA® EUROSTAR Digital Mixers

Mix viscous samples up to 30,000 cps

- Speed won't change even as viscosity changes
- Won't overheat—thermal overload shut-off for safety
- Maintenance-free design for continuous duty

EUROSTAR 20 Digital Mixer handles volumes up to 4 gallons (15 liters) and viscosities up to 10,000 cps.

EUROSTAR 40 Digital Mixer will mix volumes up to 6.6 gallons (25 liters) and viscosities up to 30,000 cps.

What's included: chuck (accepts up to 3/8" [10 mm] dia shaft) and 6 1/4"L x 1/2" dia (159 mm x 13 mm) mounting rod.

NEW



Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
Eurostar 20 digital mixer					
30 to 2000	1/16	28.3	115, 50/60	LD-50702-30	
			230, 50/60	LD-50702-35	
Eurostar 40 digital mixer					
30 to 2000	1/8	56.6	115, 50/60	LD-50702-40	
			230, 50/60	LD-50702-45	

Accessories for Laboratory Mixers

A. Shafts. All $\frac{3}{16}$ " (10 mm) dia shafts are machined on one end to accept a $\frac{5}{16}$ " (8 mm) bore dia propeller.

Key	Shaft dimensions, dia x L, in. (mm)	Catalog number	Price
A	$\frac{5}{16}$ x 12 (8 x 305)	LD-04552-20	
	$\frac{5}{16}$ x 18 (8 x 457)	LD-04552-30	
	$\frac{3}{8}$ x 12 (10 x 305)	LD-04552-25	
	$\frac{3}{8}$ x 18 (10 x 457)	LD-04552-35	
	$\frac{3}{8}$ x 24 (10 x 610)	LD-04552-00	
	$\frac{3}{8}$ x 30 (10 x 762)	LD-04552-05	

B. Turbine Propellers are for airless mixing in deep containers.

C. Marine-Style Propellers are for general-purpose mixing. Use alone or mount several on a single shaft for thorough agitation.

D. Folding Propeller is for use in narrow-mouth vessels. Folded diameter is $1\frac{1}{16}$ " (18 mm).

Key	Description	Bore dia in. (mm)	Overall dia in. (mm)	Catalog number	Price
B	Turbine style	$\frac{3}{8}$ (9.5)	2 (51)	LD-04552-15	
		$\frac{5}{16}$ (8)	2 (51)	LD-04552-10	
C	Marine style	$\frac{5}{16}$ (8)	1 (25)	LD-04552-40	
		$\frac{5}{16}$ (8)	1½ (38)	LD-04552-45	
		$\frac{5}{16}$ (8)	2 (51)	LD-04552-50	
		$\frac{3}{8}$ (9.5)	2 (51)	LD-04552-55	
		$\frac{5}{16}$ (8)	3 (76)	LD-04552-60	
D	Folding style	$\frac{5}{16}$ (8)	2 (51) open	LD-04543-00	

E-G. Clamps ensure a sturdy connection between mixer and stands.

Key	Catalog number	Price
E	LD-08041-22	
F	LD-04340-50	
G	LD-04560-24	

H. Stand. Corrosion resistant, electropolished cast steel base; 303 SS support rod. Both legs accept an extra support rod.

I. Mixer Stand has a cast-iron base and a stainless steel rod.

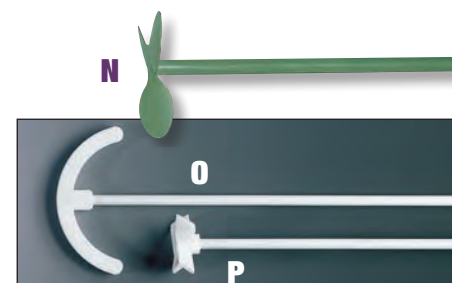
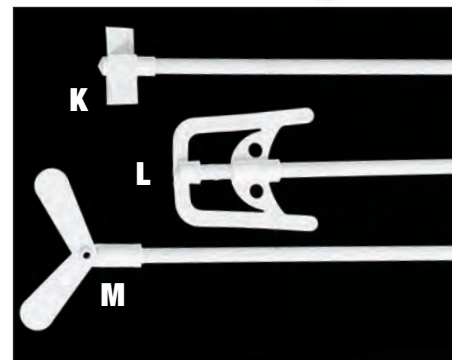
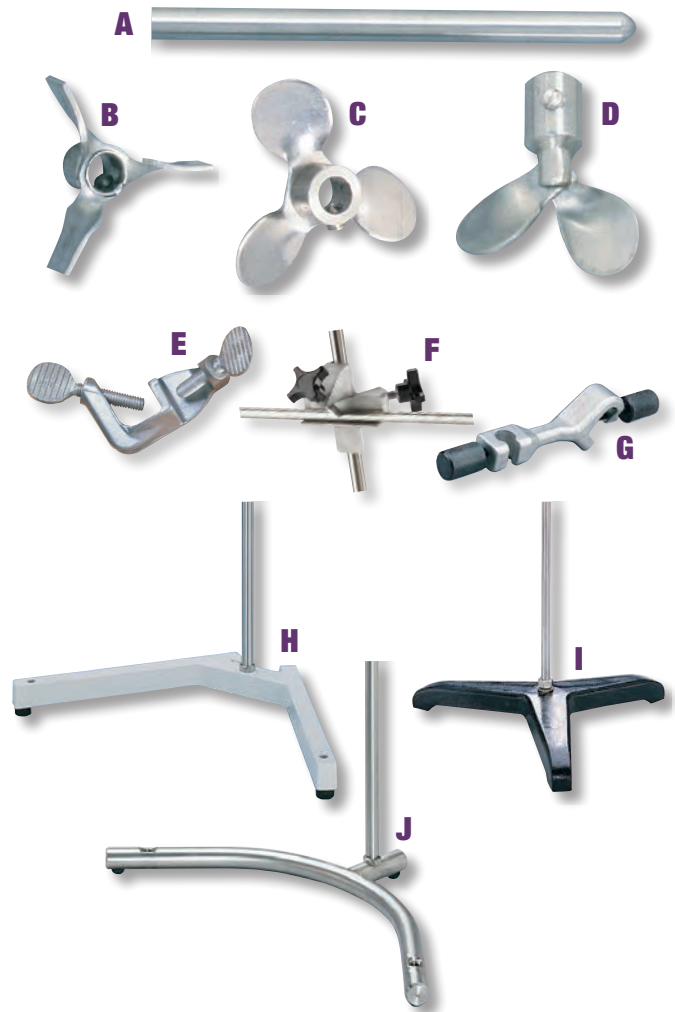
J. 316 SS Mixer Stand accepts extra screw-in support rods in both legs.

Key	Dimensions H x dia, in. (mm)	Stand		Extra support rod	
		Cat. no.	Price	Cat. no.	Price
H	29 x $\frac{5}{8}$ (737 x 16)	LD-04552-80		LD-04552-85	
I	24 x $\frac{5}{8}$ (610 x 16)	LD-04546-00		—	—
J	29 x $\frac{5}{8}$ (737 x 16)	LD-04344-00		LD-04344-10	

K-P. Plastic Mixing Paddle Assemblies

Use these plastic paddle assemblies for mixing most acids and corrosive solutions. Plastic-coated steel assemblies provide better chemical resistance than stainless steel alone.

Material	Shaft, dia x L, in. (mm)	Max paddle dia, in. (mm)	Catalog number	Price
K. Fixed, dual-blade paddle assembly —for mixing medium-viscosity liquids				
Polypropylene	$\frac{5}{16}$ x $13\frac{1}{16}$ (8 x 350)	1½ (41)	LD-06367-10	
L. A-shaped, blade paddle assembly —for mixing highly viscous liquids				
Polypropylene	$\frac{5}{16}$ x $13\frac{1}{16}$ (8 x 350)	2½ (67)	LD-06367-20	
M. Swing-out, dual-blade paddle assembly —for use in narrow-necked vessels				
Polypropylene	$\frac{5}{16}$ x $13\frac{1}{16}$ (8 x 350)	2½ (60)	LD-06367-40	
	$\frac{5}{16}$ x $13\frac{1}{16}$ (8 x 350)	4 (102)	LD-06367-60	
N. Three-blade paddle assembly —for general-purpose mixing				
PTFE	$\frac{5}{16}$ x 12 (8 x 305)	2 (51)	LD-04449-06	
PTFE	$\frac{5}{16}$ x 18 (8 x 457)	2 (51)	LD-04449-10	
O. Anchor-style paddle assembly —for mixing medium- to high-viscosity liquids				
PTFE	$\frac{3}{8}$ x 22 (10 x 559)	4 (102)	LD-06367-70	
P. Four-blade paddle assembly —for mixing low- to medium-viscosity liquids				
PTFE	$\frac{3}{8}$ x $22\frac{1}{2}$ (10 x 562)	2½ (60)	LD-06367-80	



StableTemp™ Microprocessor-Controlled Mechanical Convection Ovens

Get precise temperature control with PID controller

- Save time in drying applications—heats up to 275°C
- Be confident in your settings—backup controller if temperature exceeds 5°C above set point, with alarm indicator
- Easy-set temperature and monitoring for testing uniformity
- Don't lose your last setting when you lose power—battery backup saves setting



Specifications

Temperature range: 50 to 275°C
Resolution: 1°C

Temperature display: 3-digit LED

StableTemp



Capacity cu ft (L)	Temperature uniformity	Rise time to 275°C (minutes)	Shelf positions	Dimensions (W x H x D), in. (cm)		Power (VAC, Hz)	Shpg wt lb (kg)	Catalog number	Price
				Chamber	Overall				
2.5 (70.8)	±3°C at 200°C	80	5	18 x 13½ x 18 (46 x 34 x 46)	25¼ x 26 x 23½ (65 x 66 x 60)	120, 60	120 (54.5)	LD-52301-50	
				240, 50/60	LD-52301-55				
3.75 (106.2)	±3°C at 200°C	80	8	18 x 20 x 18 (46 x 51 x 46)	26 x 33 x 23½ (66 x 84 x 60)	120, 60	127 (57.6)	LD-52301-20	
				240, 50/60	LD-52301-25				
5.0 (141.6)	±3°C at 200°C	80	11	18 x 26½ x 18 (46 x 67 x 46)	26 x 39 x 23½ (66 x 99 x 60)	120, 60	135 (61.3)	LD-52301-30	
				240, 50/60	LD-52301-35				

LD-17002-30 NIST-traceable calibration with data for ovens

Thermo Scientific™ Heratherm™ General Protocol Mechanical Convection Ovens

Save energy—up to 20% more efficient than other units

- Maximize volume while minimizing lab space occupied
- Fast heating with superior temperature uniformity up to 250°C
- Accurate, even heating via convection system
- Easier access to samples and cleaning—door opens 180°

Large easy-to-view vacuum fluorescent display with built-in timer and touch-button controls allows quick and simple temperature setting. The exhaust vent doubles as an access port for external temperature sensors to ensure reliability. An automatic overtemperature alarm ensures your samples are always protected. The RS-232 interface lets you connect to your computer for documentation of parameters.

What's included: two adjustable shelves and power cord.

Specifications

Temperature range: 50 to 250°C

Temperature display: vacuum fluorescent

Temperature accuracy: ±0.3° at 150°C



Capacity cu ft (L)	Temperature uniformity	Shelf positions	Dimensions (W x H x D), in. (cm)		Power (VAC, Hz)	Shpg wt lb (kg)	Catalog number	Price
			Chamber	Overall				
2.3 (65.2)	±3.3°C at 150°C	13	13⅞ x 20 x 14½ (35 x 51 x 37)	20⅞ x 28⅞ x 22⅞ (53 x 72 x 57)	120, 60	93 (42)	LD-38800-36	
3.75 (106.2)		16	18⅞ x 23⅞ x 14½ (46 x 61 x 37)	25⅞ x 32⅞ x 22⅞ (64 x 82 x 57)	120, 60	117 (53)	LD-38800-37	
		208-240, 60	LD-38800-38					
6.2 (175.6)	19	18⅞ x 27⅞ x 21⅞ (46 x 71 x 54)	25⅞ x 36⅞ x 29⅞ (64 x 92 x 74)	120, 60	146 (66)	LD-38800-39		
				208-240, 60		LD-38800-40		

LD-17002-30 NIST-traceable calibration with data for ovens

Oakton® Minidrum Hygrothermograph

Ensure quality control—monitor humidity and temperature just about anywhere

- Durable, lightweight design includes corrosion-resistant acrylic cover
- No need to plug in—operates on one AA battery for six months

The humidity sensor features a human hair bundle coupled to the pens through a mechanical system of levers, and is designed with an aged bimetallic strip temperature sensor ensuring precision accuracy. The quartz-controlled drive mechanism rotates the drum at a constant speed. Rugged acrylic cover latches securely to protect paper and pens.



OAKTON®

What's included: two felt-tipped pens (one blue and one red), one 7-day sheet of chart paper, and one AA battery.

Specifications

Humidity	
Range†	5 to 90% RH
Accuracy†	±5% from 10 to 90% RH, ±7% from 5 to 10% RH
Sensor type	One human hair bundle
Chart graduations	5% RH
Temperature	
Range	22 to 104°F (-6 to 40°C)
Accuracy	±3.6°F (2°C)
Sensor type	Aged bimetallic strip
Chart graduations	2°F (2°C)
General	
Chart size (H x L)	3 3/8" x 8 3/8" (9.2 x 20.8 cm)
Chart rotation	7 day (172 hour)
Response time	15 minutes for 45% of reading
Power supply	One AA battery
Dimensions (W x H x D)	6" x 7 3/8" x 3 7/8" (15.2 x 18.7 x 9.8 cm)

†Exposure to RH levels above 90% can cause a decrease of about 7 to 10% RH in readings over the entire range due to temporary elongation of the hair bundle. When exposed to humidity levels below 80%, hair bundle will return to normal in about three weeks.



Description	Catalog number	Price
Minidrum hygrothermograph	LD-08369-70	

Chart Paper

Temp range	Rotation	Increments	Qty/pk	Catalog number	Price/pk
22 to 104°F -6 to 40°C	7-day	2-hour	100	LD-08369-61	
				LD-08369-56	

Accessories

- [LD-08368-75](#) Replacement pens, blue. Pack of 6 *
- [LD-08368-80](#) Replacement pens, red. Pack of 6 *
- [LD-09376-01](#) Replacement batteries, AA. Pack of 4

*Discount: Save 10% on two or more packs of pens.

Cole-Parmer® Economical 100- and 200-mm Flatbed Recorders

Cost-effective way to record your data



Cole-Parmer®

Cole-Parmer 100- and 200-mm flatbed recorders combine accuracy with value. Measure reliably using the recorders' zero control, 12 selectable input ranges, and adjustable 5:1 attenuation.

What's included: 115 VAC power adapter, one roll of paper, and pen.

Specifications

Input ranges: 1, 2, 5, 10, 20, 50, 100, 200, 500 mV; 1, 2, 5 V	Attenuation: 5:1
Accuracy: ± 0.5% full-scale	Pen response: 0.5 sec full-scale
Chart size: 100 or 200 mm	Power: 115 VAC, 12 VAC, or 12 to 15 VDC
Chart drive: crystal controlled	Dimensions (L x W x H):
Chart speeds: 1, 2, 5, 10, 20, 30 cm/min and cm/hr	100-mm models: 6 1/4" x 6" x 3 1/4" (15.9 x 15.2 x 8.3 cm)
Input impedance: >1 MΩ	200-mm models: 6 1/4" x 10 1/4" x 3 1/4" (15.9 x 26.0 x 8.3 cm)



Number of channels	Chart width	Catalog number	Price
One	100 mm	LD-80550-00	
Two		LD-80550-10	
One	200 mm	LD-80550-20	
Two		LD-80550-30	

Replacement Pens

Color	For channel one (short nib)		For channel two (long nib)	
	Catalog number	Price/pk of 6	Catalog number	Price/pk of 6
Red	LD-08498-54		LD-08498-56	
Blue	LD-08498-52		LD-08498-55	
Green	LD-08498-53		LD-08498-57	
Black	LD-08498-58		LD-08498-59	

Replacement Chart Paper

Width	Length/roll	Catalog number	Price/pk of 4 rolls
100 mm	50 ft (15.2 m)	LD-80550-80	
200 mm		LD-80550-82	

Find even more online!
Go to [ColeParmer.com](#) to see full product details.



You're Out? We're Not!

Thousands of highlighted items

W. S. Tyler® Ro-Tap® E, Ro-Tap®, and Ro-Tap II® Sieve Shakers

Get reproducible hand-sieving without the hand shaking

– Set the time and walk away—99-minute digital timer with 0.1-second accuracy

Ro-Tap® E Sieve Shakers for 8" dia sieves are stand-alone benchtop units that are virtually maintenance-free, offer quiet operation and can be operated directly on a laboratory countertop. Options include automatic controlled amplitude, and in fine and coarse analysis settings.

Ro-Tap Sieve Shakers for 8" dia sieves hold up to six full-height or 13 half-height sieves with top cover and receiving pan. Shakers for 12" dia sieves hold up to four full-height or ten half-height sieves with top cover and receiving pan.

Ro-Tap II Sieve Shakers double your shaking capacity while maintaining the accuracy of a single mechanical shaker. Dual-capacity shakers hold up to 12 full-height sieves or 26 half-height sieves.

ISO9001:2008
CERTIFIED SUPPLIER

rpm	Power (VAC/Hz)	Dimensions (W x H x D)	Shpg wt lb (kg)	Catalog number	Price
Ro-Tap E shakers for 8" dia sieves					
1750	110/60	18" x 18" x 30"	80 (36)	LD-59996-68	
1450	220/50	(45.7 x 45.7 x 76.2 cm)		LD-59996-70	
Ro-Tap shakers for 8" dia sieves					
1750	110/60	28" x 25" x 21"	226 (102)	LD-59986-60	
1450	220/50	(71.1 x 63.5 x 53.3 cm)	170 (77.2)	LD-59986-62	
Ro-Tap shakers for 12" dia sieves					
1750	110/60	28" x 25" x 21"	180 (81.7)	LD-59996-60	
1450	220/50	(71.1 x 63.5 x 53.3 cm)	225 (102)	LD-59996-62	
Ro-Tap II shakers for 8" dia sieves					
1750	110/60	30" x 26" x 27"	230 (104)	LD-59986-50	
1450	220/50	(76.2 x 66.0 x 68.6 cm)	220 (99.8)	LD-59986-52	



Ro-Tap E shaker
59996-68

Ro-Tap shaker
59986-60



Ro-Tap II
dual-capacity
shaker
59986-50

Equipment & Instrumentation

Sieves

Cole-Parmer® Brass and Stainless Steel Testing Sieves

Meet ASTM E11 specifications for compliance

These 8" diameter testing sieves are serialized and come with test sieve certificate. For our full selection of sieves, including 12" diameter sieves and sieves with NIST-traceable calibration report, go to www.coleparmer.com/sieves.



Cole-Parmer

ISO9001:2008
CERTIFIED SUPPLIER

Sieve opening (mm)	US standard	Tyler standard	Brass frame/brass wire				SS frame/SS wire				Brass frame/SS mesh			
			Full height†		Half height†		Full height†		Half height†		Full height†		Half height†	
			Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price
2.36	No. 8	8 mesh	LD-59980-00		LD-59981-00		LD-59984-00		LD-59985-00		LD-59940-00		LD-59941-00	
2.00	No. 10	9 mesh	LD-59980-01		LD-59981-01		LD-59984-01		LD-59985-01		LD-59940-01		LD-59941-01	
1.70	No. 12	10 mesh	LD-59980-02		LD-59981-02		LD-59984-02		LD-59985-02		LD-59940-02		LD-59941-02	
1.40	No. 14	12 mesh	LD-59980-03		LD-59981-03		LD-59984-03		LD-59985-03		LD-59940-03		LD-59941-03	
1.18	No. 16	14 mesh	LD-59980-04		LD-59981-04		LD-59984-04		LD-59985-04		LD-59940-04		LD-59941-04	
1.00	No. 18	16 mesh	LD-59980-05		LD-59981-05		LD-59984-05		LD-59985-05		LD-59940-05		LD-59941-05	
0.850	No. 20	20 mesh	LD-59980-06		LD-59981-06		LD-59984-06		LD-59985-06		LD-59940-06		LD-59941-06	
0.710	No. 25	24 mesh	LD-59980-07		LD-59981-07		LD-59984-07		LD-59985-07		LD-59940-07		LD-59941-07	
0.600	No. 30	28 mesh	LD-59980-08		LD-59981-08		LD-59984-08		LD-59985-08		LD-59940-08		LD-59941-08	
0.500	No. 35	32 mesh	LD-59980-09		LD-59981-09		LD-59984-09		LD-59985-09		LD-59940-09		LD-59941-09	
0.425	No. 40	35 mesh	LD-59980-10		LD-59981-10		LD-59984-10		LD-59985-10		LD-59940-10		LD-59941-10	
0.355	No. 45	42 mesh	LD-59980-11		LD-59981-11		LD-59984-11		LD-59985-11		LD-59940-11		LD-59941-11	
0.300	No. 50	48 mesh	LD-59980-12		LD-59981-12		LD-59984-12		LD-59985-12		LD-59940-12		LD-59941-12	
0.250	No. 60	60 mesh	LD-59980-13		LD-59981-13		LD-59984-13		LD-59985-13		LD-59940-13		LD-59941-13	
0.212	No. 70	65 mesh	LD-59980-14		LD-59981-14		LD-59984-14		LD-59985-14		LD-59940-14		LD-59941-14	
0.180	No. 80	80 mesh	LD-59980-15		LD-59981-15		LD-59984-15		LD-59985-15		LD-59940-15		LD-59941-15	
0.150	No. 100	100 mesh	LD-59980-16		LD-59981-16		LD-59984-16		LD-59985-16		LD-59940-16		LD-59941-16	
0.125	No. 120	115 mesh	LD-59980-17		LD-59981-17		LD-59984-17		LD-59985-17		LD-59940-17		LD-59941-17	
0.106	No. 140	150 mesh	LD-59980-18		LD-59981-18		LD-59984-18		LD-59985-18		LD-59940-18		LD-59941-18	
0.090	No. 170	170 mesh	LD-59980-19		LD-59981-19		LD-59984-19		LD-59985-19		LD-59940-19		LD-59941-19	
0.075	No. 200	200 mesh	LD-59980-20		LD-59981-20		LD-59984-20		LD-59985-20		LD-59940-20		LD-59941-20	
0.063	No. 230	250 mesh	LD-59980-21		LD-59981-21		LD-59984-21		LD-59985-21		LD-59940-21		LD-59941-21	
0.053	No. 270	270 mesh	LD-59980-22		LD-59981-22		LD-59984-22		LD-59985-22		LD-59940-22		LD-59941-22	
0.045	No. 325	325 mesh	LD-59980-23		LD-59981-23		LD-59984-23		LD-59985-23		LD-59940-23		LD-59941-23	
0.038	No. 400	400 mesh	LD-59980-24		LD-59981-24		LD-59984-24		LD-59985-24		LD-59940-24		LD-59941-24	

†Full height sieves measure 2" deep; half height sieves measure 1" deep.

Jenway 67 Series Graphical Scanning Spectrophotometers

No more confusing buttons—touch-screen for simple operation



- Easy transfer and saving of data with included software or via SD/USB memory cards
- No more lost data or programs—restrict access with multi-level secure log-in
- Ready to go—preprogrammed modes include photometrics, spectrum scanning kinetics, quantitation, and more
- Customize to your needs—optional sample holders are automatically recognized and parameters updated

What's included: 1GB SD/USB memory card, 100 disposable cuvettes, USB cable, and PC software on CD-ROM.



Type/model	Visible scanning wavelength	UV/visible scanning wavelength	
Catalog number	LD-83056-60	LD-83056-65	LD-83056-70
Beam type	Single beam	Dual beam	
Bandwidth	4 nm		1.5 nm
Wavelength range	320 to 1100 nm		190 to 1100 nm
Wavelength accuracy	±1 nm		
Wavelength repeatability	±0.2 nm		±0.1 nm
Photometric ranges	Transmittance	0 to 199.9% T	
	Absorbance	–0.300 to 3.000 A	
	Concentration	±9999 C	
Power	Automatic selection; 100 to 240 VAC, 50/60 Hz		
Printer option	Built-in		
Price			

Accessories

- [LD-83056-80](#) Rectangular long-path cell holder, 10 to 100 mm
- [LD-83056-82](#) Micro-cuvette holder with reduced aperture
- [LD-83056-84](#) Automated eight-cell sample chamber, interchangeable with standard sample compartment; holds eight 10-mm square cuvettes
- [LD-83056-86](#) Sipper module sample chamber, interchangeable with standard sample compartment; feeds micro and standard flow cells
- [LD-83056-88](#) Peltier module sample chamber, interchangeable with standard sample compartment; control sample temperature from 20 to 50°C

Thermo Scientific™ GENESYS™ 10S Scanning Spectrophotometers

Easy data transfer to PC or printer



- Faster results—powerful optics provide full-range scanning up to 4200 nm/min
- More flexibility—use included single- or six-cell cuvette holders for automatic or manual position selection
- Meet GLP requirements—units with printer document time, date, test, data, and results
- Don't lose control of sample temperature—optional Peltier temperature controller maintains your sample from 20 to 60°C

Visible Models feature single-beam optics with a single detector.

UV/Vis Scanning Models feature split-beam optics with dual detectors. Automatic cell correction compensates for differences between six cuvettes, reducing the need for expensive matched sets of cuvettes.

What's included: integrated six-position cell holder, single cell holder, USB memory device, USB cable, dust cover, and US power cord. Printer models also include one paper roll.



Type/model	Visible scanning wavelength		UV/visible scanning wavelength	
Catalog number	LD-02654-10	LD-02654-12	LD-02654-20	LD-02654-22
Beam type	Single beam		Dual beam—internal reference detector	
Bandwidth	5 nm		1.8 nm	
Wavelength range	325 to 1100 nm		190 to 1100 nm	
Wavelength accuracy	±1 nm		±1 nm	
Wavelength repeatability	±0.5 nm		±0.5 nm	
Photometric ranges	Transmittance	–0.3 to 125% T		–1.5 to 125% T
	Absorbance	–0.1 to 3.0 A		–0.5 to 5.0 A
	Concentration	±9999 C		±9999 C
Power	Automatic selection; 100 to 240 VAC, 50/60 Hz			
Printer option	None	Built-in	None	Built-in
Price				

Accessories

- [LD-02652-81](#) VISIONlite 5 software
- [LD-02653-90](#) Peltier single-cell temperature controller, 20 to 60°C. 10-mm pathlength
- [LD-02653-91](#) Replacement printer paper. Pack of 5 rolls
- [LD-02653-95](#) nanoCell with adapter for 0.2-mm pathlength
- [LD-02653-96](#) nanoCell with adapter for 1.0-mm pathlength
- [LD-02653-99](#) nanoCell with two adapters for both 0.2- and 1.0-mm pathlengths
- [LD-02653-97](#) nanoCell adapter for 0.2-mm pathlength
- [LD-02653-98](#) nanoCell adapter for 1.0-mm pathlength

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Thousands of highlighted items

Equipment & Instrumentation

Stirrers & Hot Plates

StableTemp™ Stirrers and Stirring Hot Plates

Get better sample control—precise speed and temperature across range

- Stay safe—hot surface warning until plate cools below 50°C
- Don't worry about spills—liquids diverted away from internal components for longer life
- Improved accuracy with LED display
- Corrosion-resistant ceramic top

Advanced Stirring Hot Plate

- More accurate results with separate heat and stirring displays
- Protect you and your sample with overtemperature protection
- Includes temperature probe, rod, and clamp



StableTemp



Top plate		Heating		Stirring		Power		Catalog number	Price
Dimensions	Material	Temp range	Max load	Speed range	Max capacity	VAC	Hz		
StableTemp stirrers									
4" x 4" (10.2 x 10.2 cm)	Ceramic	—	—	30 to 1200 rpm	5 L	120	50/60	LD-03406-00	
						230	50/60	LD-03406-05	
7" x 7" (17.8 x 17.8 cm)	Ceramic	—	—	30 to 1200 rpm	20 L	120	50/60	LD-03406-10	
						230	50/60	LD-03406-15	
10" x 10" (25.4 x 25.4 cm)	Ceramic	—	—	30 to 1200 rpm	20 L	120	50/60	LD-03406-30	
						230	50/60	LD-03406-35	
StableTemp stirring hot plates									
4" x 4" (10.2 x 10.2 cm)	Ceramic	86 to 1004°F (30 to 540°C)	15 lb (6.8 kg)	30 to 1200 rpm	5 L	120	50/60	LD-03407-00	
						230	50/60	LD-03407-05	
7" x 7" (17.8 x 17.8 cm)	Ceramic	86 to 1004°F (30 to 540°C)	25 lb (11.4 kg)	30 to 1200 rpm	20 L	120	50/60	LD-03407-10	
						230	50/60	LD-03407-15	
10" x 10" (25.4 x 25.4 cm)	Ceramic	86 to 752°F (30 to 400°C)	35 lb (15.9 kg)	30 to 1200 rpm	20 L	120	50/60	LD-03407-30	
						230	50/60	LD-03407-35	
StableTemp advanced stirring hot plate									
7" x 7" (17.8 x 17.8 cm)	Ceramic	86 to 1004°F (30 to 540°C)	25 lb (11.4 kg)	30 to 1200 rpm	20 L	120	50/60	LD-03407-40	
						230	50/60	LD-03407-45	

Low-Profile Magnetic Stirrer

Won't get warm—ideal for heat-sensitive samples

- High chemical resistance with ABS plastic design
- Low-profile housing for limited-height locations

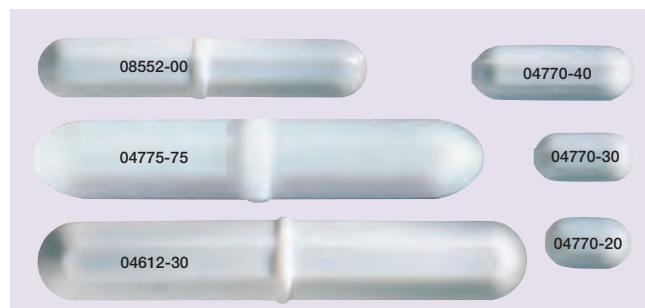


Speed range	Max stirring capacity	Power		Catalog number	Price
		VAC	Hz		
10 to 1100 rpm	5 L	120/240	50/60	LD-86579-10	

Mono-Mold® Stir Bars

Resist spin out at high speeds

- Super-strong alnico V magnets remain coupled to drive magnets even at high speeds
- Chemically inert, low-friction, leakproof PTFE coating provides smooth spinning and maximum energy transfer



Size		With spinning ring		Without spinning ring	
Length	Diameter†	Cat. no.	Price	Cat. no.	Price
7/16" (11.1 mm)	3/16" (4.8 mm)	—	—	LD-04775-10	
1/2" (12.7 mm)	5/16" (7.9 mm)	LD-08548-00		LD-04770-20	
5/8" (15.9 mm)	9/16" (7.9 mm)	LD-08549-00		LD-04770-30	
1" (25.4 mm)	3/8" (9.5 mm)	LD-08550-00		LD-04770-40	
1 1/2" (38.1 mm)	3/8" (9.5 mm)	LD-08551-00		LD-04770-50	
2" (50.8 mm)	3/8" (9.5 mm)	LD-08552-00		LD-04770-60	
2 1/2" (63.5 mm)	3/8" (9.5 mm)	LD-04775-75		—	—
2 1/2" (63.5 mm)	1/2" (12.7 mm)	—	—	LD-04770-70	
3" (76.2 mm)	1/2" (12.7 mm)	LD-04612-30		LD-04612-40	

†Diameter given does not include the diameter of the spinning ring.

Cole-Parmer® Hot Plates, Single- and Multiposition Stirrers, and Stirring Hot Plates

Get to work faster—reach max temperature in two minutes

- Stir bar doesn't dance—unique U-shaped magnet holds stir bar tightly
- Front-panel controls are positioned to prevent you from touching the hot plate
- Choose corrosion-resistant ceramic or more uniform aluminum top
- Stepless speed control provides smooth stirring action to 1500 rpm

Hot Plates have an epoxy-coated cast-aluminum body that is designed for durability and stability.

Single-Position Stirrers and Stirring Hot Plates have a large, permanent drive magnet, ensuring positive coupling of drive to stir bar. Permanently lubricated, brushless drive motor provides long, trouble-free operation.

Multiposition Stirrers and Stirring Hot Plates come with five or nine stirring positions, each individually controlled so you can perform different mixing applications simultaneously.

Mix multiple samples independently



Cole-Parmer

UL CE S&S
230 VAC models

Specifications

Temperature stability: ±5°C of set temperature

No. of stirring positions	Volume per position	Top plate		Heating		Speed range	Power		Catalog number	Price
		Dimensions	Material	Temp range	Max load		VAC	Hz		
Hot plates										
—	—	6" x 6" (15.2 x 15.2 cm)	Aluminum	120 to 700°F (49 to 371°C)	10 lb (4.5 kg)	—	115	60	LD-04801-00	
—	—	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	10 lb (4.5 kg)	—	230	50	LD-04801-02	
—	—	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	10 lb (4.5 kg)	—	115	60	LD-04801-04	
—	—	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	10 lb (4.5 kg)	—	230	50	LD-04801-06	
—	—	12" x 12" (30.5 x 30.5 cm)	Aluminum	120 to 700°F (49 to 371°C)	25 lb (11.4 kg)	—	115	60	LD-04801-10	
—	—	12" x 12" (30.5 x 30.5 cm)	Aluminum	120 to 700°F (49 to 371°C)	25 lb (11.4 kg)	—	230	50	LD-04801-12	
—	—	12" x 12" (30.5 x 30.5 cm)	Ceramic	120 to 842°F (49 to 450°C)	25 lb (11.4 kg)	—	115	60	LD-04801-14	
—	—	12" x 12" (30.5 x 30.5 cm)	Ceramic	120 to 842°F (49 to 450°C)	25 lb (11.4 kg)	—	230	50	LD-04801-16	
Single-position stirrers										
1	2.5 L	6" x 6" (15.2 x 15.2 cm)	Aluminum	—	15 lb (6.8 kg)	100 to 1500 rpm	115	60	LD-04802-01	
	10 L	12" x 12" (30.5 x 30.5 cm)	Aluminum	—	25 lb (11.4 kg)	100 to 1500 rpm	230	50	LD-04802-03	
1	2.5 L	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	15 lb (6.8 kg)	100 to 1500 rpm	115	60	LD-04802-11	
	10 L	12" x 12" (30.5 x 30.5 cm)	Ceramic	120 to 842°F (49 to 450°C)	15 lb (6.8 kg)	100 to 1500 rpm	230	50	LD-04802-13	
Single-position stirring hot plates										
1	2.5 L	6" x 6" (15.2 x 15.2 cm)	Aluminum	120 to 700°F (49 to 371°C)	15 lb (6.8 kg)	100 to 1500 rpm	115	60	LD-04803-01	
	2.5 L	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	15 lb (6.8 kg)	100 to 1500 rpm	230	50	LD-04803-03	
1	2.5 L	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	15 lb (6.8 kg)	100 to 1500 rpm	115	60	LD-04803-05	
	2.5 L	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	15 lb (6.8 kg)	100 to 1500 rpm	230	50	LD-04803-07	
1	10 L	12" x 12" (30.5 x 30.5 cm)	Aluminum	120 to 700°F (49 to 371°C)	25 lb (11.4 kg)	100 to 1500 rpm	115	60	LD-04803-11	
	10 L	12" x 12" (30.5 x 30.5 cm)	Aluminum	120 to 700°F (49 to 371°C)	25 lb (11.4 kg)	100 to 1500 rpm	230	50	LD-04803-13	
1	10 L	12" x 12" (30.5 x 30.5 cm)	Ceramic	120 to 752°F (49 to 400°C)	25 lb (11.4 kg)	100 to 1500 rpm	115	60	LD-04803-15	
	10 L	12" x 12" (30.5 x 30.5 cm)	Ceramic	120 to 752°F (49 to 400°C)	25 lb (11.4 kg)	100 to 1500 rpm	230	50	LD-04803-17	
Multiposition stirrers										
5	800 mL	12" x 12" (30.5 x 30.5 cm)	Ceramic	—	—	100 to 1500 rpm	120	60	LD-51450-21	
9	400 mL						230	50	LD-51450-26	
9	400 mL	12" x 12" (30.5 x 30.5 cm)	Ceramic	—	—	100 to 1500 rpm	120	60	LD-51450-23	
							230	50	LD-51450-28	
Multiposition stirring hot plates										
5	800 mL	12" x 12" (30.5 x 30.5 cm)	Ceramic	212 to 845°F (100 to 450°C)	40 lb (18.2 kg)	100 to 1500 rpm	120	60	LD-51450-71	
9	400 mL						230	50	LD-51450-76	
9	400 mL	12" x 12" (30.5 x 30.5 cm)	Ceramic	212 to 845°F (100 to 450°C)	40 lb (18.2 kg)	100 to 1500 rpm	120	60	LD-51450-73	
							230	50	LD-51450-78	

Cole-Parmer® Stir Bar Kits

- Chemically inert, low-friction, leakproof PTFE coating provides maximum energy transfer
- Available with or without spinning rings; rings reduce friction and noise

Bar type	With spinning ring	Without spinning ring
Catalog number	LD-04775-99	LD-04775-98
Length x diameter†	Two each of the following sizes: 1/2" x 5/16", 5/8" x 5/16", 1" x 3/8", 1 1/2" x 3/8", 2" x 3/8", 2 1/2" x 3/8"	Two each of the following sizes: 7/16" x 3/16", 1/2" x 5/16", 3/4" x 5/16", 1" x 3/8", 1 1/4" x 3/8", 1 1/2" x 3/8", 2" x 3/8", 2 1/2" x 1/2", 3" x 1/2"
Total/pk	12 stir bars	18 stir bars
Price/pk		

†Diameter given does not include the diameter of the spinning ring.



Digi-Sense® General-Purpose and Refrigerator/Freezer Thermometers

Get multiple readings simultaneously

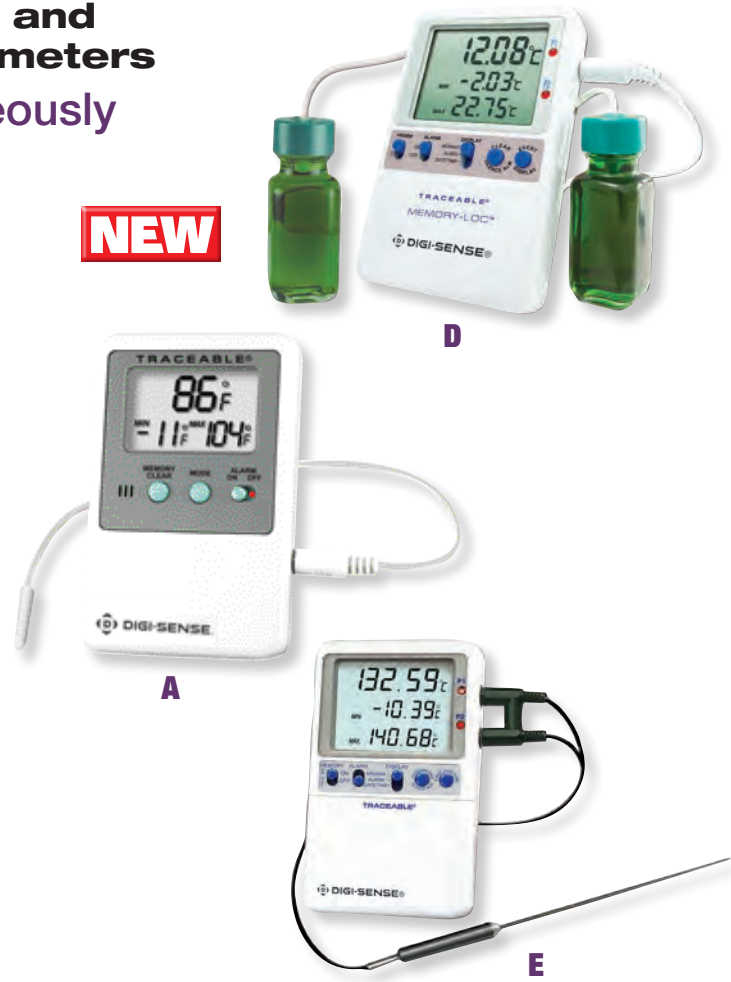
- Simultaneously view high, low, and current temperature
- Keep samples safe—programmable alarm alerts when temperature deviates from set point
- Monitor conditions—Min/Max feature stores the highest and lowest readings until cleared
- Get more done—monitor multiple applications with dual-probe units
- Versatile units are mountable on wall or benchtop

Advanced Thermometers feature high accuracy, one-button field calibration, and date/time stamp. Unit displays the exact time and date when thermometer alarms are triggered. RTD thermometers provide greater accuracy and a unique Min/Max feature that displays temperatures for previous 24 hours (each hour) or previous 31 days (for each day). Avoid deletion of data with memory lock models, which store up to one million data points.

Data Logging Thermometers can record up to 525,600 data points at user-defined time intervals. Easily analyze data by downloading to computer.

What's included: one AA battery and NIST-traceable calibration report supplied by manufacturer.

Refrigerator/Freezer Thermometers provide accurate readings even when door is opened, as temperature sensor is enclosed within a glycol-filled bottle.



Specifications

Dimensions (W x H x D): 2¾" x 4¼" x ¾" (7 x 10.8 x 1.9 cm)
Power: one AA battery (included)



Application	Sensor type	Range	Resolution	Accuracy	Catalog number	Price
A. Standard thermistor models						
Refrigerator/freezer	One bottle probe	-58 to 158°F (-50 to 70°C)	1°	±1°C	LD-94460-72	
Refrigerator/freezer	One 5-mL bottle probe				LD-94460-71	
General purpose	One wire probe				LD-94460-70	
B. Advanced thermistor models with improved accuracy						
Refrigerator/freezer	Two bottle probes	-58 to 158°F (-50 to 70°C)	0.01°	±0.30°C	LD-94460-92	
General purpose	Two wire probes				LD-94460-91	
General purpose	One solid SS probe				LD-94460-98	
General purpose	Two solid SS probe				LD-94460-99	
C. Advanced thermistor models with improved accuracy and data logging						
Refrigerator/freezer	One bottle probe	-58 to 158°F (-50 to 70°C)	0.01°	±0.25°C	LD-94460-07	
Refrigerator/freezer	Two bottle probes				LD-94460-09	
General purpose	One wire probe				LD-94460-11	
General purpose	Two wire probes				LD-94460-14	
General purpose and refrigerator/freezer	One wire and one bottle probe				LD-94460-18	
General purpose	One solid SS probe				LD-94460-16	
General purpose	Two solid SS probes				LD-94460-17	
D. Advanced thermistor models with improved accuracy and "memory lock" data logging						
Refrigerator/freezer	One bottle probe	-58 to 158°F (-50 to 70°C)	0.01°	±0.25°C	LD-94460-37	
Refrigerator/freezer	Two bottle probes				LD-94460-39	
General purpose	One wire probe				LD-94460-41	
General purpose	Two wire probes				LD-94460-43	
General purpose and refrigerator/freezer	One wire and one bottle probe				LD-94460-47	
General purpose	One solid SS probe				LD-94460-44	
General purpose	Two solid SS probes				LD-94460-46	
E. Advanced RTD high-accuracy models						
Refrigerator/freezer	One bottle probe	-58 to 158°F (-50 to 70°C)	0.01°	±0.1°C	LD-37803-88	
General purpose	One wire probe	-58 to 158°F (-50 to 70°C)			LD-37804-03	
General purpose	One wire probe	-148 to 158°F (-100 to 70°C)			LD-37804-05	
General purpose	One solid SS probe	-148 to 199.99°F (-100 to 199.99°C)			LD-37804-04	

Don't Get Burned—Gain More Confidence in Your Readings

Digi-Sense® Precalibrated Thermocouple Thermometers

- Compact, affordable units provide accurate and dependable readings
- No need to worry about reading measurements—large, backlit LCD makes readings easy
- Choose the model that's right for you

General-Purpose Thermocouple Thermometers

Meters accept both type K or J thermocouple probes with miniconnector. The two- and four-channel models provide data logging of up to 18,000 readings; USB interface lets you easily download data to a PC for analysis with included software.

Professional Thermocouple Thermometers with IR Input

These durable meters deliver accurate readings in an ergonomic design. Models accept type K probes and an optional infrared (IR) wand for noncontact measurements from a distance. Two- and four-channel models continually scan each channel for real-time measurements. Data logging models allow you to download and analyze data fully.

What's included: type K bead wire temperature probe (one for each input), batteries, and NIST-traceable calibration report with data supplied by InnoCal. Data logging models also include USB cable and software.



- ✓ **Save time and money—** precalibrated to NIST-traceable standards before you receive it
- ✓ **Don't let probe errors interfere with readings—** electronic offset compensates for errors
- ✓ **Choose your readout—** measures in °F, °C, or Kelvin (K) with 0.1 resolution
- ✓ **Features for your convenience:**
 - Min/Max/Avg
 - Hold
 - Relative time stamp
 - Auto-off to save battery life
- ✓ **Take measurements from a distance with optional infrared wand on Professional series**



Description	General-purpose thermometers			Professional thermocouple thermometers with IR input			
	LD-20250-01	LD-20250-02	LD-20250-03	LD-20250-18	LD-20250-17	LD-20250-19	LD-20250-20
Catalog number	1 (type K or J)	2 (type K or J)	4 (type K or J)	1 (type K)	2 (type K)	2 (type K)	4 (type K)
Thermocouple (T/C) inputs	1	2	4	1	2	2	4
Infrared (IR) input	No			Yes, with optional IR wand 20250-24 (order below)			
T/C range	K: -328 to 2501°F (-200 to 1372°C) J: -346 to 2012°F (-210 to 1100°C)			K: -328 to 2501°F (-200 to 1372°C)			
IR range	—			-31 to 1022°F (-35 to 550°C)			
Resolution	0.1°F/C below 1000°, 1°F/C above 1000°			0.1°F/C below 1000°, 1°F/C above 1000°			
T/C accuracy	Above -148°F (-100°C): ±[0.5% rdg + 1.8°F (1°C)] Below -148°F (-100°C): ±[0.5% rdg + 3.6°F (2°C)] Differentials: ±[0.5% rdg + 3.6°F (2°C)]			Above -148°F (-100°C): ±[0.15% rdg + 1.8°F (1°C)] Below -148°F (-100°C): ±[0.5% rdg + 3.6°F (2°C)] Differentials: ±[0.5% rdg + 1.8°F (1°C)]			
IR accuracy	—			Above 14°F (-10°C): ±[2.0% rdg + 3.6°F (2°C)]; Below 14°F (-10°C): ±9°F (5°C); T/C-IR differentials: ±[2.0% rdg + 5.4°F (3°C)] above 14°F (-10°C); ±11°F (6°C) below 14°F (-10°C)			
Data logging	No	18,000 points		No	18,000 points		10,000 points
USB interface	No	Yes		No	Yes		Yes
Temp differential	No	Yes		Yes			
Scan function	No			No	Yes		
Dimensions	6½" x 2½" x 1½" (16.5 x 6.4 x 2.9 cm)			8" x 3" x 2" (20.1 x 7.5 x 5 cm)			
Price							

Accessories

- [LD-20250-24](#) Optional infrared wand for Professional thermocouple thermometers only. Features 8:1 distance-to-spot ratio. Measures 6½" x 2" x 1½" (16.4 x 5 x 4 cm). Includes one 9 V battery
- [LD-09376-00](#) Replacement batteries, AAA. Pack of 12
- [LD-09376-04](#) Replacement batteries, 9 V. Pack of 4





Protective lens cover with magnetic lock

20250-05

Save time, save money!

Choose Precalibrated
Includes a data-rich, ISO 17025 certificate—no additional charge!

Precalibrated by **INNOCAL**
INNOVATIVE CALIBRATION SOLUTIONS



Find even more online!
Go to ColeParmer.com to see full product details.

Digi-Sense® Precalibrated Infrared Thermometers

Save money and prevent breakdowns—easily locate hot and cold spots

- Reliable measurements—guaranteed! Precalibrated to NIST-traceable standards
- Get easy readings from a distance—just aim, pull trigger and read!
- Continuous scanning via trigger lock

General-Purpose Infrared Thermometers feature Min/Max and Hold functions, °F/°C selectable units, single targeting laser, and large backlit LCD for easy reading. Models 20250-05 and -06 also offer adjustable emissivity and temperature alarm with indicator.

Professional Infrared Thermometers provide high distance-to-sight ratio and enhanced temperature range in a heavy-duty housing. Get a more precise measurement area with dual targeting lasers and external type K thermocouple (one included). Min/Max/Avg and Hold, temperature differential, high/low alarms, °F/°C selectable units, adjustable emissivity, and more!



Description	General-purpose infrared thermometers			Professional infrared thermometers	
Catalog number	LD-20250-04	LD-20250-05	LD-20250-06	LD-20250-07	LD-20250-08
Range (IR)	-4 to 630°F (-20 to 332°C)	-31 to 1000°F (-35 to 537°C)	-31 to 1472°F (-35 to 800°C)	-58 to 3002°F (-50 to 1650°C)	-58 to 3362°F (-50 to 1850°C)
Resolution	0.1°F/C	0.1°F/C below 1000°, 1°F/C		0.1°F/C below 1000°, 1°F/C above 1000°	
Response time	Less than 1 second	Less than 300 ms		Less than 150 ms	
Distance-to-sight ratio	10:1	12:1	20:1	30:1	50:1
Emissivity	0.95 fixed	0.10 to 1.0 adjustable		0.10 to 1.0 adjustable	
Laser sighting	Single Class II laser			Dual Class II laser	
Temperature alarm	No	Yes		Yes	
Temp differential	No			Yes	
USB interface	No			Yes (cable and software included)	
Data logging	No			No	Yes, 100 internal readings
Power	One 9 V battery			One 9 V battery	
Price					

[LD-09376-04](#) Replacement batteries, 9 V. Pack of 4

Extech® EasyView® Thermocouple Thermometers

Don't stress reading measurements—large LCD for easy reading

- Accepts any type K thermocouple probe with miniconnector

Model 95001-05 is a single-input type K thermometer which features store/recall of 150 readings, Avg, relative functions, Min/Max, Hold, °F/°C selectable units, and auto power off.

Model 95001-06 is a dual-input type K thermometer which offers the same features as 95001-05; plus an offset function for relative measurement, temperature differential between two probes (T1-T2), min/max, °F/°C/K selectable units, and more.

Model 95001-07 is a dual-input thermometer with data logger which offers the same features as 95001-06. Store up to 16 data sets and 8800 data points manually or automatically with a programmable sample rate.



Type	Range	Resolution	Accuracy	Power	Catalog number	Price
Single input, K	-58 to 1999°F (-50 to 1300°C)	0.1°F/°C below 200°, 1°F/°C above 200°	±0.3% of reading, +2°F (+1°C)	Six AAA batteries (included)	LD-95001-05	
Dual input, K	-200 to 1999°F (-200 to 1360°C)	0.1°F/°C below 200°, 1°F/°C above 200°	±0.3% of reading, +2°F (+1°C)		LD-95001-06	
Dual input data logger; J, K, T, E, R, S, N	-200 to 1994°F (-200 to 1090°C)	0.1°F/°C below 200°, 1°F/°C above 200°	±0.05% of reading, ±1.5°F (0.75°C)		LD-95001-07	

Cole-Parmer® General-Purpose Timers



Jumbo-Digit Dual-Channel Clock/Timer

See time easily—tilts for better viewing

- Large, 3"W x 2½"H LCD
- Use both channels for simultaneous countdown, or time of day with count up timer
- Choose 12- or 14-hour display format
- Alarm sounds at end of cycle and shows elapsed time



What's included: wall-mounting bracket and one AAA battery.



Catalog number	Number of channels	Timing capacity	Price
LD-94440-10	Two	24 hr	

100-Hour, Triple-Display Clock/Timer

Know which channel is done with unique tones

- Use as digital clock, timer, or stopwatch
- Easily recall previous time set via memory
- Alarm condition indicated by flashing LCD



What's included: NIST-traceable calibration report supplied by the manufacturer and one AAA battery.

Catalog number	Number of channels	Timing capacity	Price
LD-94411-10	Three	99 hr, 59 min, 59 sec	

Triple-Display Clock/Timer

Get timing faster—recall all channels' settings instantly

- Use as a countdown timer, count up stopwatch, or clock
- Count up to 24 hours, count down to 20 hours
- Displays time elapsed since alarm



What's included: magnetic clip and one AAA battery.

Catalog number	Number of channels	Timing capacity	Price
LD-94440-00	Three	24 hr up/20 hr down	

Flashing LED Big-Digit Timer

Never wonder about remaining time again

- Easily view 1"H display across the room
- LED flashes green for last 10 seconds of timer, flashes red when alarm sounds
- Don't annoy others—adjust alarm volume to high, low, or off
- Store three countdown times for easy recall



What's included: magnetic back, flip-open easel stand, spring fastener for clipping, an opening for a lanyard, two AAA batteries, and NIST-traceable calibration report supplied by the manufacturer.

Catalog number	Number of channels	Timing capacity	Price
LD-94461-15	One	100 min	

Giant-Digit Timer

Largest display for easiest viewing

- 1¾"H LCD for easy viewing from across the room
- Automatic Bounceback™ memory easily recalls repetitive timing operation
- Displays time elapsed since alarm



What's included: built-in stand, magnet, clip, one AAA battery, and NIST-traceable calibration report supplied by the manufacturer.



Catalog number	Number of channels	Timing capacity	Price
LD-94461-01	One	100 min	

Four-Channel, Large-Display Clock/Timer

Easy monitoring of four experiments simultaneously

- Channels feature distinct alarms that sound for one minute
- Set up to 100 hours in count up or countdown modes
- Time of day in 12- or 24-hour format



What's included: magnetic clip, stand, and button cell battery.



Catalog number	Number of channels	Timing capacity	Price
LD-08649-10	Four	100 hr	

Cole-Parmer® Ultrasonic Cleaners

Quicker cleaning and degassing of samples

- High-frequency sound waves provide greater cleaning and reliability
- Gentle cleaning with 40 kHz sound waves won't damage delicate items
- Durable, leakproof design for worry-free cleaning

Basic Ultrasonic Cleaners

- Set timer and don't worry—control cleaning cycles up to 60 minutes
- Get better cleaning with optional heater models—heat to 156°F (69°C) with overtemperature protection

Advanced Ultrasonic Cleaners

- Easily control your precise applications—feature digital timer, power tracking, sleep, and degas mode
- Worry-free processes—set timer for up to 90 minutes, unit automatically compensates for heavier loads
- Get deeper cleaning with optional heater option



08895-43



Capacity gal. (L)	Tank dimensions (L x W x H)	Power (50/60 Hz)	Basic cleaner with mechanical timer			Basic cleaner with mechanical timer and heater			Advanced cleaner with digital timer, power tracking, and degas			Advanced cleaner with digital timer, power tracking, high/low power, degas and heater		
			Amps	Cat. no.	Price	Amps	Cat. no.	Price	Amps	Cat. no.	Price	Amps	Cat. no.	Price
½ (1.9)†	6" x 5½" x 4" (15.2 x 14 x 10.2 cm)	115 VAC	0.8	LD-08895-21		1.2	LD-08895-23		0.8	LD-08895-25		1.3	LD-08895-27	
		230 VAC	0.4	LD-08895-29		0.7	LD-08895-31		0.4	LD-08895-33		0.7	LD-08895-35	
¾ (2.8)†	9½" x 5½" x 4" (24.1 x 14 x 10.2 cm)	115 VAC	1.1	LD-08895-37		2	LD-08895-39		1.1	LD-08895-41		2	LD-08895-43	
		230 VAC	0.6	LD-08895-45		1.1	LD-08895-47		0.6	LD-08895-49		1.1	LD-08895-51	
1½ (5.7)‡	11½" x 6" x 6" (29.2 x 15.2 x 15.2 cm)	115 VAC	1.1	LD-08895-53		2.9	LD-08895-55		1.1	LD-08895-57		2.9	LD-08895-59	
		230 VAC	0.6	LD-08895-61		1.5	LD-08895-63		0.6	LD-08895-65		1.6	LD-08895-67	
2½ (9.5)‡	11½" x 9½" x 6" (29.2 x 24.1 x 15.2 cm)	115 VAC	1.5	LD-08895-69		4	LD-08895-71		1.5	LD-08895-73		4.1	LD-08895-75	
		230 VAC	0.8	LD-08895-77		2.1	LD-08895-79		0.8	LD-08895-81		2.1	LD-08895-83	
5½ (20.8)‡	19½" x 11" x 6" (49.5 x 27.9 x 15.2 cm)	115 VAC	2.7	LD-08895-85		7.7	LD-08895-87		2.7	LD-08895-89		7.8	LD-08895-91	
		230 VAC	1.4	LD-08895-93		4	LD-08895-95		1.4	LD-08895-97		4	LD-08895-99	

†The ½- and ¾-gallon cleaners have a pour spout.

‡The 1½-, 2½-, and 5½-gallon cleaners have a built-in pour drain.

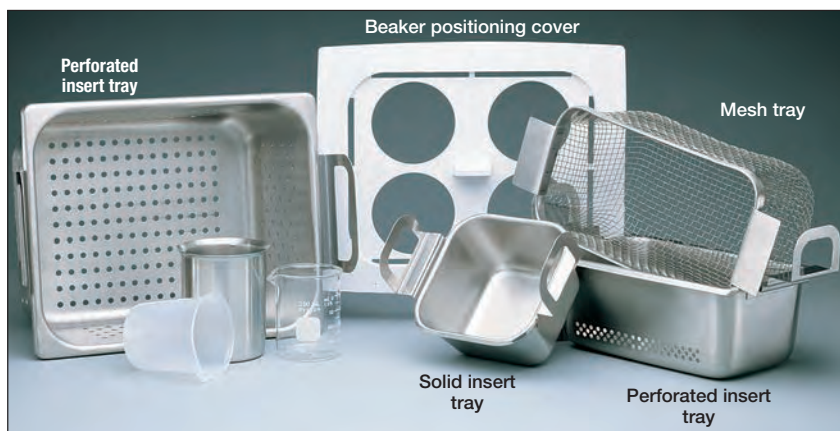
Accessories for Ultrasonic Cleaners

Achieve optimal cleaning results!

Ultrasonic activity is greatest about an inch from the bottom of the tank, so suspending your items provides the best cleaning possible and helps prevent damage to the transducers.

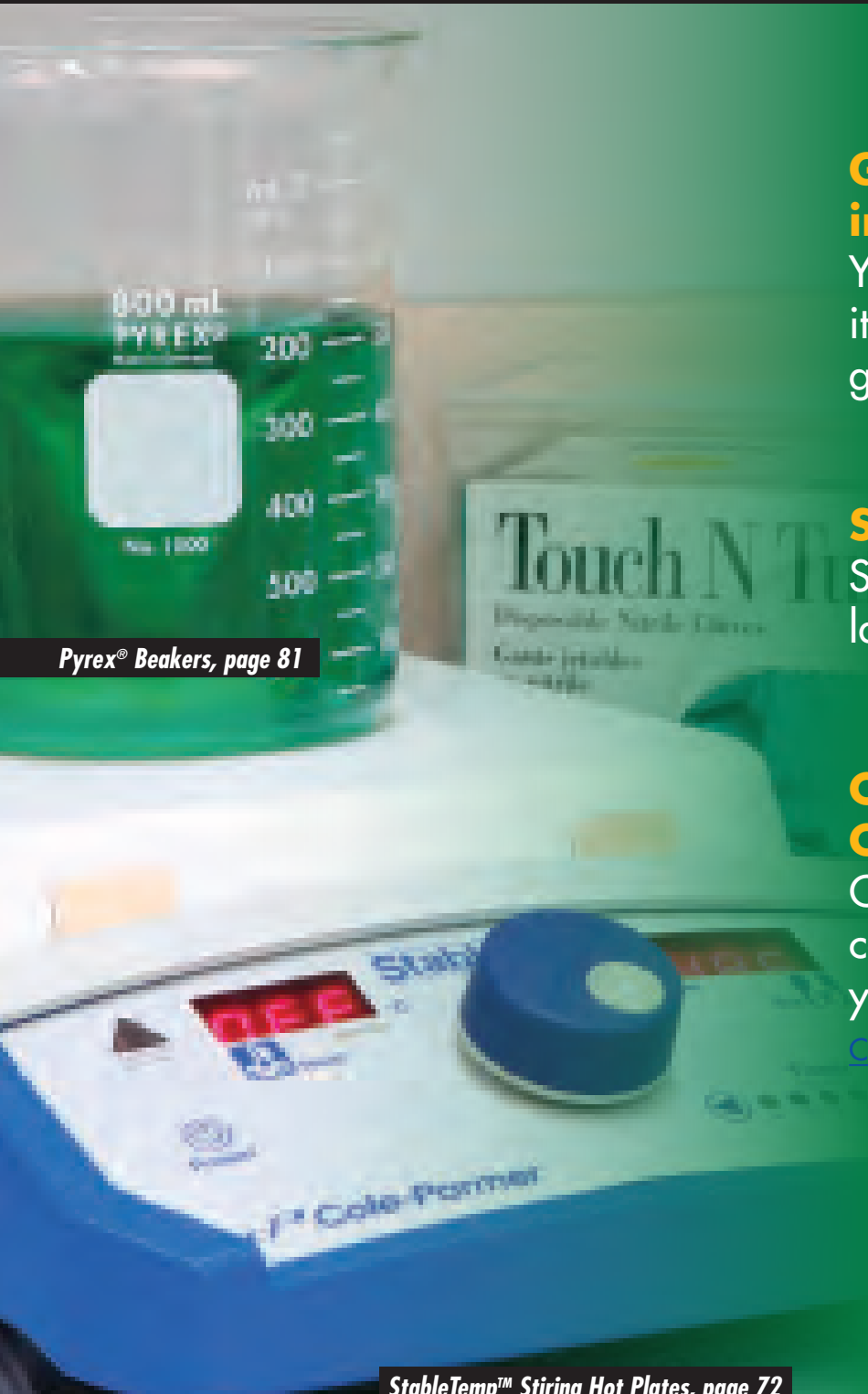
Insert Trays are constructed of 304 stainless steel. Use the solid trays to support items that require indirect cleaning. Use perforated or mesh trays to support items in the tank for direct cleaning.

Beaker Positioning Covers are ideal for cleaning small objects or for indirect cleaning. Covers come with a beaker suspension ring.



Compatible ultrasonic cleaners	Solid insert trays		Perforated insert trays		Mesh insert trays		Beaker positioning covers			
	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Beakers held	Material	Cat. no.	Price
08895-21 to -35 series	LD-08850-41		LD-08850-42		LD-08850-45		One 600 mL	Polypropylene	LD-08890-50	
08895-37 to -51 series	LD-08851-41		LD-08851-42		LD-08851-45		Two 600 mL	Polypropylene	LD-08891-50	
08895-53 to -67 series	LD-08852-41		LD-08852-42		LD-08852-45		Three 250 mL	Polypropylene	LD-08892-50	
08895-69 to -83 series	LD-08853-41		LD-08853-42		—	—	Four 600 mL	Polypropylene	LD-08893-50	
08895-85 to -99 series	LD-08854-41		LD-08854-42		—	—	Six 600 mL	304 stainless steel	LD-08894-50	

Sample Prep and Storage Made Easy



Pyrex® Beakers, page 81

StableTemp™ Stirring Hot Plates, page 72

Guaranteed in Stock

You need it, we've got it! Thousands of items guaranteed in stock

Stock up and Save

Save up to 20% on labware and supplies

Chemical Compatibility

Check material compatibility before you buy

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Thousands of highlighted items

WHIRL-PAK® Sterile Sampling Bags, LDPE

Keep samples safe—easy-seal bags hold solids and liquids

- Quick and easy sealing—flip bag around wire/tape and bend to seal
- No more poking—puncture-proof tabs keep wire intact even after extensive use

Sampling Bags are available with or without a white labeling area.

“Speci-Sponge” Bags are designed to sample surfaces and equipment for *Listeria*, *Salmonella*, and other food-borne pathogens; contain a 1½" x 3" (3.8 x 7.6 cm) sponge that is free of bactericides and noninhibitory; with white labeling area.

Sodium Thiosulfate Bags are EPA-compliant for potable water collection; contain a nontoxic, nonnutritive 10-mg active ingredient tablet of sodium thiosulfate to neutralize the chlorine at the point of collection; with white labeling area.

High-Temperature Bag is for hot fill samples with a temperature up to 215°F (102°C). The FDA-compliant film is a blend of low-density polyethylene and nylon that will hold liquids, solids, sauces, gravies, and other samples having a high temperature. Bag is self standing and does not need a rack or special holder to keep it upright, making sample collection safe and easy. With white labeling area. **Caution:** Do not put bag in boiling water.

Buy More...Save More!
 20% off on 120+ 15% off on 30 to 119 10% off on 6 to 29 packs or cases



Catalog number	Capacity oz (mL)	Size (W x L)	Thickness (mil)	Qty/pk	Price/pk
Sampling bags without white labeling area					
LD-06499-10	4 (118)	3" x 7¼" (7.6 x 18.4 cm)	2.25	500	
LD-06499-20	18 (532)	4½" x 9" (11.4 x 22.9 cm)	2.5	500	
LD-06499-30	24 (710)	6" x 9" (15.2 x 22.9 cm)	3.0	500	
LD-06499-40	36 (1065)	5" x 15" (12.7 x 38.1 cm)	3.0	500	
LD-06499-50	42 (1242)	6" x 15" (15.2 x 38.1 cm)	3.0	500	
LD-06499-54	69 (2041)	7½" x 15" (19.1 x 38.1 cm)	3.0	500	
Standup sampling bags with white labeling area					
LD-06499-16	4 (118)	3" x 7¼" (7.6 x 18.4 cm)	2.5	500	
LD-06499-21	18 (532)	4½" x 9" (11.4 x 22.9 cm)	3.0	500	
LD-06499-31	24 (710)	6" x 9" (15.2 x 22.9 cm)	3.0	500	
LD-06499-32	27 (798)	5" x 12" (12.7 x 30.5 cm)	3.0	250	
LD-06499-33	36 (1065)	5" x 15" (12.7 x 38.1 cm)	4.0	250	
LD-06499-34	42 (1242)	6" x 15" (15.2 x 38.1 cm)	4.0	250	
LD-06499-35	69 (2041)	7½" x 15" (19.1 x 38.1 cm)	4.0	250	
Sampling bags with white labeling area					
LD-06499-60	2 (58)	3" x 5" (7.6 x 12.7 cm)	2.5	500	
LD-06499-70	4 (118)	3" x 7¼" (7.6 x 18.4 cm)	2.25	500	
LD-06499-72	7 (207)	3¾" x 7" (9.5 x 17.8 cm)	2.5	500	
LD-06499-74	13 (384)	5¼" x 7½" (13.3 x 19.1 cm)	2.5	500	
LD-06499-80	18 (532)	4½" x 9" (11.4 x 22.9 cm)	2.5	500	
LD-06499-85	24 (710)	6" x 9" (15.2 x 22.9 cm)	3.0	500	
LD-06499-87	27 (798)	5" x 12" (12.7 x 30.5 cm)	3.0	500	
LD-06499-89	69 (2041)	7½" x 15" (19.1 x 38.1 cm)	3.0	500	
LD-06499-94	92 (2721)	10" x 15" (25.4 x 38.1 cm)	4.0	250	
LD-06499-98	123 (3637)	10" x 20" (25.4 x 50.8 cm)	4.0	250	
LD-06499-99	184 (5441)	15" x 20" (38.1 x 50.8 cm)	4.0	100	
“Speci-Sponge” bags for surface sampling with sponge					
LD-06499-13	18 (532)	4½" x 9" (11.4 x 22.9 cm)	2.5	100	
LD-06499-14	55 (1627)	7½" x 11¼" (19.1 x 29.8 cm)	4.0	100	
LD-06499-52†	18 (532)	4" x 9" (10.2 x 22.9 cm)	2.5	100	
Sodium thiosulfate bags for water sampling with tablet					
LD-06499-90	3% (100)	3" x 7¼" (7.6 x 18.4 cm)	2.5	100	
LD-06499-95	10% (300)	4½" x 9" (11.4 x 22.9 cm)	2.5	100	
High-temperature bag					
LD-06498-16	18 (532)	4½" x 9" (11.4 x 22.9 cm)	3.0	500	

†Model 06499-52 has a sterile glove.

Accessories

[LD-66203-10](#) Carrying rack for 2- and 4-oz bags. Double-grid design keeps bags upright and has 15 compartments. Vinyl coated, autoclavable

[LD-66203-00](#) Carrying rack for 18-oz bags. Double-grid design keeps bags upright. Rack has 20 compartments. Vinyl coated, autoclavable

[LD-06498-12](#) Water scoop, 18" (45.7 cm) L coated handle. Two alligator clips hold a variety of bag sizes

[LD-06498-14](#) Mailing tube for 3%-oz (100 mL) sodium thiosulfate bag. Polyethylene, 5"L x 2" dia (12.7 x 5.1 cm)

Laboratory Supplies

Bags



Standup bags stay upright



Water scoop holds bag open for easy filling



Mailing tube
06498-14



Rack
66203-00



Cole-Parmer® Beakers and Covers, 304 SS (medium gauge)



Recessed covers for easy storage



Buy More...Save More!

20% off on 120+
15% off on 30 to 119
10% off on 6 to 29 packs or cases

Capacity L (qt)	Qty/pk	Beakers		Optional covers	
		Catalog number	Price/pk	Catalog number	Price/pk
1.2 (1¼)	1	LD-07206-10		LD-07207-10	
1.9 (2)	1	LD-07206-20		LD-07207-20	
3.1 (3¼)	1	LD-07206-30		LD-07207-30	
4.5 (4¾)	1	LD-07206-40		LD-07207-40	
5.8 (6¼)	1	LD-07206-60		LD-07207-60	
7.6 (8)	1	LD-07206-80		LD-07207-80	
11.4 (12)	1	LD-07206-90		LD-07207-90	



Optional covers sold separately

PYREX® Brand 1000 Griffin Low-Form Beakers

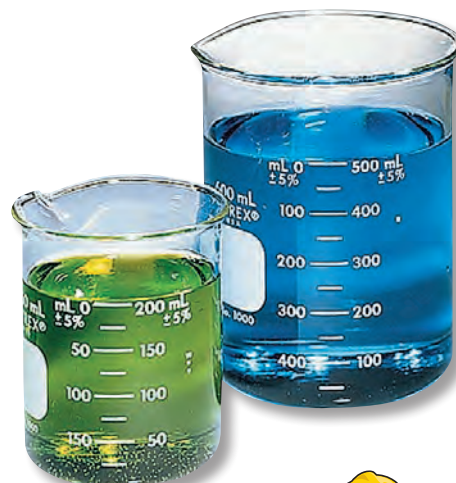
Stand up to thermal shock

- Uniform wall thickness offers optimal balance of thermal shock resistance and mechanical strength
- Know how much is left and how much is gone—double graduation scale indicates approximate content (on 250- to 400-mL sizes only)
- No mystery liquids—extra-large marking spot for easy identification
- Reference: ASTM E-960

Buy More...Save More!

15% off on 10+ packs or cases
10% off on 5 to 9 packs or cases

Capacity mL (oz)	Graduation range (mL)	Graduation interval (mL)	Catalog number	Qty/pk	Price/pk	Catalog number	Qty/cs	Price/cs
10 (⅓)	—	—	LD-34502-01			LD-34502-21		
20 (⅔)	5 to 15	5	LD-34502-02			LD-34502-22		
30 (1)	5 to 25	10	LD-34502-03	12		LD-34502-23	48	
50 (1¾)	10 to 40	10	LD-34502-04			LD-34502-24		
100 (3)	20 to 80	10	LD-34502-05			LD-34502-25		
150 (5)	20 to 140	10	LD-34502-06	12		LD-34502-26	48	
250 (8)	25 to 200	25	LD-34502-07			LD-34502-27		
400 (13)	25 to 325	25	LD-34502-08			LD-34502-28		
600 (20)	50 to 500	50	LD-34502-09	6		LD-34502-29	36	
800 (27)	50 to 750	50	LD-34502-10	6		LD-34502-30	24	
1000 (32)	50 to 1000	50	LD-34502-11	6		LD-34502-31	24	
1500 (51)	200 to 1400	100	LD-34502-12	4		LD-34502-32	16	
2000 (64)	200 to 2000	100	LD-34502-13	4		LD-34502-33	8	
3000 (96)	250 to 2500	125	LD-34502-14	1		LD-34502-34	6	
4000 (128)	500 to 3500	250	LD-34502-15	1		LD-34502-35	6	
Starter set contains one each of 50 mL, 100 mL, 250 mL, 600 mL, 1000 mL			—	—	—	LD-34502-90	5	



Teky's Tips

Heating and cooling glass

Heat all liquids slowly—fast heating causes bumping, which may cause the solution to splatter.

Cool labware slowly to prevent breakage—placing hot glassware on cold or wet surfaces, or cold labware on hot surfaces, may cause the glass to shatter.

PYREX® Brand 1003 Heavy-Duty Griffin Beakers

Get the best mechanical strength even under harsh conditions

- Measure initial quantity and how much is used—double metric scale on 250- to 4000-mL sizes
- Know your solution—extra-large marking spot for easier identification
- Reference: ASTM E-960

Buy More...Save More!

15% off on 10+ packs or cases
10% off on 5 to 9 packs or cases

Capacity mL (oz)	Graduation range (mL)	Graduation interval (mL)	Catalog number	Qty/pk	Price/pk	Catalog number	Qty/cs	Price/cs
150 (5)	20 to 140	20	LD-34512-06	12		LD-34512-26	48	
250 (8)	25 to 200	25	LD-34512-07	12		LD-34512-27	48	
400 (13)	25 to 325	25	LD-34512-08	12		LD-34512-28	48	
600 (20)	50 to 500	50	LD-34512-09	6		LD-34512-29	36	
1000 (32)	50 to 1000	50	LD-34512-11	6		LD-34512-31	24	
2000 (64)	200 to 1800	200	LD-34512-13	4		LD-34512-33	8	
4000 (128)	500 to 3500	250	LD-34512-15	1		LD-34512-35	4	



Laboratory Supplies

Beakers



You're Out? We're Not!

Thousands of **highlighted** items

Corning® Low-Form Beakers, PP

Blue graduations for easier reading

- Ideal for general laboratory use
- Easy-pour spout for no messy drips
- Autoclavable

NEW



Capacity mL (oz)	Graduations (mL)	Catalog number	Qty/ pk	Price/ pk	Catalog number	Qty/ cs	Price/ cs
25 (¾)	5	LD-61003-31	12		LD-61003-01	24	
50 (1½)	10	LD-61003-33	6		LD-61003-03	12	
100 (3)	20	LD-61003-35	6		LD-61003-05	12	
150 (5)	20	LD-61003-37	6		LD-61003-07	12	
250 (8)	50	LD-61003-39	2		LD-61003-09	6	
400 (13)	100	LD-61003-41	2		LD-61003-11	6	
600 (20)	100	LD-61003-43	2		LD-61003-13	6	
1000 (32)	100	LD-61003-45	2		LD-61003-15	6	
2000 (64)	200	LD-61003-47	2		LD-61003-17	6	
3000 (96)	500	LD-61003-49	1		LD-61003-19	4	
5000 (160)	500	LD-61003-51	1		LD-61003-21	4	

Thermo Scientific™ Nalgene™ Griffin Low-Form Beakers, PP

Durable construction withstands temperatures to 275°F (135°C)

- Easy-reading black silk screened graduations
- Easy sample identification with oval marking space
- Autoclavable



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Qty/ pk	Catalog number	Price/ pk
30 (1)	12	LD-06000-20	
50 (1.6)	12	LD-06000-25	
100 (3.4)	12	LD-06000-30	
150 (5)	12	LD-06000-35	
250 (8)	6	LD-06000-40	
400 (13)	6	LD-06000-50	
600 (20)	4	LD-06000-55	
1000 (32)	3	LD-06000-60	
2000 (64)	1	LD-06000-70	
4000 (128)	1	LD-06000-80	

Laboratory Supplies

Disposable Griffin Low-Form Beakers, PP

Molded-in graduations won't wear off

- No need to convert volumes—graduated in mL and oz
- Won't stick together—stacking rib for easier separation
- Autoclavable



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Graduations (mL)	Qty/ pk	Catalog number	Price/ pk
15 (0.5)	5	100	LD-06006-12	
15 (0.5)	5	1000	LD-06006-15	
30 (1)	5	100	LD-06006-22	
30 (1)	5	1000	LD-06006-25	
50 (1.7)	5	100	LD-06006-32	
50 (1.7)	5	1000	LD-06006-35	
100 (3.5)	5	100	LD-06006-42	
100 (3.5)	5	1000	LD-06006-45	
150 (5)	5	100	LD-06006-52	
150 (5)	5	1000	LD-06006-55	
250 (8)	10	50	LD-06006-63	
250 (8)	10	500	LD-06006-65	
400 (13)	25	50	LD-06006-72	
400 (13)	25	500	LD-06006-75	
600 (20)	25	25	LD-06006-83	
600 (20)	25	500	LD-06006-85	

DON'T RISK IT!

Our chemical compatibility database provides important information on chemical resistance—check it out at ColeParmer.com/ChemChart



Parafilm® Wrap and Dispenser

Keep samples contaminant-free

- Easily seal containers—moisture-proof film molds to most surfaces



Width	Length/roll	Catalog number	Price/rl
20" (50.8 cm)	50 ft (15 m)	LD-06720-25	
4" (10.2 cm)	125 ft (38 m)	LD-06720-40[†]	
2" (5.1 cm)	250 ft (76 m)	LD-06720-50[†]	

[†]Supplied in a paper dispenser box.

[LD-06720-34](#) Parafilm dispenser, clear acrylic

Beakers

Cole-Parmer® Tri-Corner Beakers, PP

No-drip pouring from three sides

- Easily mix on stirrer—flat bottom keeps stir bars centered
- Accurate to ±5% with molded graduations
- Withstand temperatures to 250°F (121°C)
- Autoclavable



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases



Capacity mL (oz)	Graduations (mL)	Qty/pk	Catalog number	Price/pk
50 (1.5)	10	100	LD-06020-01	
100 (3.5)	10		LD-06020-03	
250 (8)	20		LD-06020-05	
400 (13)	40	100	LD-06020-07	
800 (26)	50		LD-06020-09	
1000 (32)	50		LD-06020-11	
Five of each above	—	30	LD-06010-07	

Cole-Parmer® Broad-Spout Beakers, PTFE

Stand up to the harshest chemicals

- Pour easily with broad spout
- Heatable beakers can be used on hot plates to 518°F (270°C)
- Autoclavable

Heatable beaker 06300-02 has a PTFE carbon base.



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- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases



Capacity mL (oz)	Beaker			Optional cover		
	Catalog number	Qty/pk	Price/pk	Catalog number	Qty/pk	Price/pk
Heatable beakers with PTFE-carbon base, for use on hot plates						
100 (3)	LD-06300-02	1		LD-06300-87	1	
250 (8)	LD-06300-04	1		LD-06300-91	1	
400 (13)	LD-06300-06	1		LD-06300-93	1	
Beakers						
1 (0.03)	LD-06300-62	2		LD-06300-79	2	
5 (1.17)	LD-06300-64	2		LD-06300-81	2	
10 (0.3)	LD-06300-66	2		LD-06300-81	2	
25 (0.8)	LD-06300-68	2		LD-06300-83	2	
50 (1.6)	LD-06300-74	1		LD-06300-85	1	
100 (3)	LD-06300-76	1		LD-06300-87	1	
150 (5)	LD-06300-78	1		LD-06300-89	1	
250 (8)	LD-06300-82	1		LD-06300-91	1	
400 (13)	LD-06300-84	1		LD-06300-93	1	
500 (16)	LD-06300-86	1		LD-06300-93	1	
600 (20)	LD-06300-88	1		LD-06300-95	1	
1000 (32)	LD-06300-92	1		LD-06300-95	1	
2000 (64)	LD-06300-94	1		LD-06300-97	1	
5000 (170)	LD-06300-96	1		LD-06300-99	1	

Graduated Beakers with Easy-Grip Handles

Sturdy handle for more pouring control

- Always know your volume—molded-in graduations never rub off
- Choose the right material for your application—available in PMP, HDPE, PP, PC, and PFA



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Graduations (mL)	Qty/pk	Catalog number	Price/pk
Thermo Scientific™ Nalgene™ polymethylpentene (PMP) beakers				
1000 (32)	5	1	LD-06004-97	
3000 (96)	10		LD-06004-99	
Thermo Scientific Nalgene high-density polyethylene (HDPE) beakers				
1000 (32)	100	1	LD-06005-10	
3000 (96)	200		LD-06005-20	
Polypropylene (PP) beakers				
50 (1.5)	10	1	LD-06100-97	
100 (3.5)	20		LD-06100-99	
250 (8)	5		LD-06008-35	
500 (16)	10	1	LD-06008-40	
1000 (32)	10		LD-06008-50	
2000 (64)	20		LD-06008-60	
3000 (96)	50	1	LD-06008-70	
5000 (160)	100		LD-06008-80	
Polycarbonate (PC) beakers				
470 (16)	25	1	LD-06004-80	
950 (32)	50		LD-06004-85	
1900 (64)	250		LD-06004-90	
3800 (128)	500		LD-06004-95	
Thermo Scientific Nalgene PFA beakers				
1000 (32)	50	1	LD-06006-00	
3000 (96)	125		LD-06006-05	

Low-Form Beakers with Handles, PP

Get a grip! Molded handles for easy pouring

- Graduations in milliliters and liters
- Withstand temperatures to 275°F (135°C)
- Autoclavable



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Qty/pk	Catalog number	Price/pk
500 (1/2)	4	LD-61000-22	
1000 (1)	1	LD-61000-30	
2000 (2)	2	LD-61000-42	
3000 (3)	2	LD-61000-52	
5000 (5)	1	LD-61000-62	



You're Out? We're Not!

Thousands of **highlighted** items

Cole-Parmer® Wide-Mouth Bottles, LDPE, HDPE, PP

Wide-mouth opening provides easier filling and sampling

- Offered in pack quantities or bulk pack quantities to meet your specific requirements
- Reliable and sturdy
- Choose from three materials; all include a leakproof PP closure

HDPE Bottles are manufactured with FDA-compliant resin for noncontaminating storage of chemicals and food-grade products.

LDPE Bottles are translucent and ideal for food and general-use laboratory applications.

PP Bottles are rigid and offer superior chemical resistance; perfect for storage and sampling of liquids and solids. **Autoclavable.**



Thermo Scientific™ Nalgene™ Wide-Mouth Bottles, HDPE

Safely transport samples—leakproof lids for worry-free shipping

- Wide-mouth design for easier filling with dry or liquid samples
- Easy viewing of samples with translucent HDPE design
- Leakproof lids are made of polypropylene



Buy More...Save More!

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- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Cap size	Qty/ pk	Catalog number	Price/pk
30 (1)	28 mm	12	LD-06047-10	
60 (2)	28 mm		LD-06047-20	
125 (4)	38 mm		LD-06047-30	
250 (8)	43 mm	12	LD-06047-40	
500 (16)	53 mm		LD-06047-50	
1000 (32)	63 mm	6	LD-06047-60	
1500 (50)	63 mm		LD-06047-65	

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- 10% off on 6 to 29 packs or cases



Capacity mL (oz)	Cap size	Catalog number	Qty/ pk	Price/ pk	Catalog number	Qty/ cs	Price/ cs
HDPE							
60 (2)	22 mm	LD-06045-18	12		LD-06045-23	72	
125 (4)	28 mm	LD-06045-24	12		LD-06045-25	72	
250 (8)	28 mm	LD-06045-26	12		LD-06045-27	72	
500 (16)	28 mm	LD-06045-28	12		LD-06045-29	48	
1000 (32)	28 mm	LD-06045-44	6		LD-06045-31	24	
2000 (64)	45 mm	LD-06045-46	1		LD-06045-33	6	
LDPE							
60 (2)	22 mm	LD-06045-02	12		LD-06045-03	72	
125 (4)	28 mm	LD-06045-04	12		LD-06045-05	72	
250 (8)	28 mm	LD-06045-06	12		LD-06045-07	72	
500 (16)	28 mm	LD-06045-08	12		LD-06045-09	48	
1000 (32)	28 mm	LD-06045-14	6		LD-06045-11	6	
PP							
30 (1)	22 mm	LD-06045-48	12		LD-06045-41	72	
60 (2)	22 mm	LD-06045-56	12		LD-06045-43	72	
125 (4)	28 mm	LD-06045-58	12		LD-06045-45	72	
250 (8)	28 mm	LD-06045-62	12		LD-06045-47	72	
500 (16)	28 mm	LD-06045-66	12		LD-06045-49	48	
1000 (32)	28 mm	LD-06045-68	6		LD-06045-51	24	
2000 (64)	45 mm	LD-06045-74	1		LD-06045-53	6	

Sample Bottles, HDPE

Store samples without breaking your budget

- Provide good chemical resistance for wide range of uses
- Bottles are made of HDPE; included cap is made of polypropylene and lined with polyethylene foam
- Easy mailing with optional mailing tube sold separately



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- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Qty/ pk	Catalog number	Price/pk
180 (6)	300	LD-06043-01	
250 (8)	329	LD-06049-01	
500 (16)	198	LD-06050-05	

[LD-06049-30](#) Mailing tubes for bottle 06049-01. Carton of 240

Laboratory Supplies

Bottles

Qorpak® Graduated Bottles

Less spilling during transfer

- Wide-mouth design with PTFE-lined caps
- Easily measure samples as you sample and pour—graduations in both mL and ounces

Capacity, mL (oz)	Graduations, mL (oz)	Neck size	Qty/cs	Catalog number	Price/cs
30 (1)	5 (¼)	33 mm	48	LD-34601-10	
60 (2)		38 mm	48	LD-34601-20	
120 (4)		48 mm	24	LD-34601-30	
240 (8)	20 (¼)	58 mm	24	LD-34601-40	
480 (16)		70 mm	24	LD-34601-50	
960 (32)		58 mm	12	LD-34601-60	



PYREX® Brand 1395 Media Bottles

Permanent white graduations won't wear off

- Use for mixing or storing of your solutions—full capacity indicated by bead line on 100-mL to 2-L sizes
- Linerless, autoclavable polypropylene screw cap included on each bottle
- Color code your samples with optional color-coded PP caps

Caution: Bottles larger than 2 liters should not be used under vacuum pressure, as breakage may occur. Do not tighten caps immediately after autoclaving.



Buy More...Save More!

\$ 15% off on 10+ packs or cases
10% off on 5 to 9 packs or cases

Capacity mL (oz)	Graduation range (mL)	Thread size	Neck ID	Qty/ cs	Catalog number	Price/ cs
25 (¾)	10 to 25	GL25	14.5 mm	10	LD-34514-20	
50 (1½)	20 to 50	GL32	16.5 mm	10	LD-34514-21	
100 (3)	40 to 80	GL45	29 mm	10	LD-34514-22	
250 (8)	50 to 200	GL45	29 mm	10	LD-34514-23	
500 (16)	100 to 400	GL45	29 mm	10	LD-34514-24	
1000 (32)	100 to 900	GL45	29 mm	10	LD-34514-25	
2000 (64)	400 to 1800	GL45	29 mm	4	LD-34514-26	
5000 (160)	500 to 4500	GL45	29 mm	1	LD-34514-28	
10,000 (320)	2000 to 9000	GL45	29 mm	1	LD-34514-30	

Accessories

- [LD-34514-50](#) Polypropylene cap, orange, GL45. Cs of 20
- [LD-34514-53](#) Polypropylene cap, green, GL45. Cs of 20
- [LD-34514-54](#) Polypropylene cap, gray membrane, GL45. Cs of 10
- [LD-34514-55](#) Polypropylene cap, red high-temp. GL45. Cs of 10
- [LD-34514-60](#) Pouring ring, clear, low temperature. Cs of 50
- [LD-34514-65](#) Pouring ring, red, high temperature. Cs of 50

Qorpak® Kaptclean® Glass Sample Jars

No precleaning required

- Precleaned for semivolatiles, pesticides, PCBs, and metals
- Include chemical-resistant PTFE-lined screw cap



Buy More...Save More!

\$ 15% off on 10+ packs or cases
10% off on 5 to 9 packs or cases

Capacity mL (oz)	Neck size	Catalog number	Qty/ cs	Price/ cs
120 (4)	53 mm	LD-34605-30	24	
240 (8)	70 mm	LD-34605-55		
480 (16)	89 mm	LD-34605-60	12	
960 (32)	89 mm	LD-34605-70		

Scienceware® Safety-Labeled Wash Bottles, LDPE

Keep solutions close at hand with easy identification

- Quickly identify contents by large lettering and color-coded caps
- These 500-mL bottles include a leakproof polyallomer (PA) cap and nozzle
- Assortment pack allows for easy ordering—includes one each of water, acetone, ethanol, isopropanol, methanol, and toluene†



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\$ 20% off on 120+
15% off on 30 to 119
10% off on 6 to 29 packs or cases

Labeled chemical	Cap color	Qty/ pk	Catalog number	Price/pk
Water	Blue	6	LD-06256-30	
Distilled water	Blue		LD-06256-20	
Deionized water	Blue		LD-06256-14	
Acetone	Red		LD-06256-40	
Methanol	Green	6	LD-06256-50	
Isopropanol	Yellow		LD-06256-60	
Toluene†	Red		LD-06256-70	
70% ethanol	Natural		LD-06256-13	
100% ethanol	Natural		LD-06256-81	
Bleach	Blue	6	LD-06256-90	
Methyl ethyl ketone	Green		LD-06256-10	
Soap	Blue		LD-06256-11	
Assortment pack for water, acetone, ethanol, isopropanol, methanol, and toluene†	—	6	LD-06256-00	

†Not recommended for long-term storage of toluene.

Find even more online! Go to [ColeParmer.com](#) to search more than 100,000 products.

Cole-Parmer® Economical Bottle Carrier

Easily and safely transport solutions

- Lightweight, durable carrier transports up to six bottles measuring 3½" diameter or less



Cole-Parmer

NEW

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\$ 20% off on 120+
15% off on 30 to 119
10% off on 6 to 29 packs or cases

Hole diameter	Qty/ pk	Catalog number	Price/pk
3½" (89 mm)	1	LD-06722-04	



You're Out? We're Not!

Thousands of highlighted items

Qorpak® Precleaned Glass Sample Bottles

Save time—no need to prewash bottles

- Vacuum and ionization process removes contaminants such as dirt, dust, carton lint, oil, aerosols, and fine glass particles
- Individually sealed for long-term storage with no contamination
- Bottles come with PTFE-lined caps; jars are available with PTFE-lined or pulp/vinyl-lined caps
- Clear wide-mouth square glass bottles have French square design for a more efficient use of shelf space while making the container easier to grip when pouring



Buy More...Save More!

- 15% off on 10+ packs or cases
- 10% off on 5 to 9 packs or cases

Capacity mL (oz)	Neck size (mm)	Catalog number	Qty/cs	Price/cs
A. Clear narrow-mouth bottles				
30 (1)	20	LD-34606-00	48	
60 (2)	20	LD-34606-10		
120 (4)	22	LD-34606-20	24	
240 (8)	24	LD-34606-30		
480 (16)	28	LD-34606-40	12	
960 (32)	33	LD-34606-50		
B. Clear wide-mouth square glass bottles				
15 (1/2)	20	LD-34610-00		
30 (1)	24	LD-34610-10	48	
60 (2)	28	LD-34610-20		
120 (4)	33	LD-34610-30	24	
240 (8)	43	LD-34610-40		
480 (16)	48	LD-34610-50		
960 (32) [†]	58	LD-34610-60	12	
C. Amber narrow-mouth glass bottles				
60 (2)	20	LD-34607-00		
120 (4)	22	LD-34607-10	24	
240 (8)	24	LD-34607-20		
480 (16)	28	LD-34607-30	12	
960 (32)	33	LD-34607-40		
D. Amber wide-mouth glass bottles				
30 (1)	28	LD-34609-00		
60 (2)	33	LD-34609-10	24	
120 (4)	38	LD-34609-20		
240 (8)	45	LD-34609-30		
480 (16)		LD-34609-40	12	
960 (32)	53	LD-34609-50		
E. Clear wide-mouth glass jars with PTFE lined caps				
30 (1)	43	LD-34608-00	48	
60 (2)	53	LD-34608-10		
120 (4)	58	LD-34608-20	24	
270 (9)	70	LD-34608-30		
480 (16)		LD-34608-40	12	
960 (32)	89	LD-34608-50		
F. Clear wide-mouth glass jars with pulp/vinyl lined caps				
30 (1)	43	LD-34608-05	48	
60 (2)	53	LD-34608-15		
120 (4)	58	LD-34608-25	24	
270 (9)	70	LD-34608-35		
480 (16)		LD-34608-45	12	
960 (32)	89	LD-34608-55		

[†]Graduated in mL and oz.

Cole-Parmer® Precleaned EPA Sample Containers

No contaminants—precleaned and ready to use

- Include certificate of conformance to EPA specifications
- Identify samples easier with included labels (unattached)

A-D. Glass Bottles, Jars, and Jugs are processed and certified to meet the requirements of the current US EPA “Specifications and Guidance for Contaminant-Free Sample Containers” document for semi-volatile organics, pesticides, PCBs, metals, cyanide, fluoride, nitrate and nitrite analyses. Include PTFE-lined caps.

E. Glass Septa Jars are processed and certified to meet the requirements of the current US EPA “Specifications and Guidance for Contaminant-Free Sample Containers” document for purgeable volatile organic analysis. Include PTFE-lined silicone septa bonded to open-top caps.



Cole-Parmer

Capacity mL (oz)	Neck size	Qty/cs	Catalog number	Price/cs
A. Clear wide-mouth glass jars				
60 (2)	53 mm	24	LD-99540-40	
125 (4)	58 mm	24	LD-99540-41	
250 (8)	70 mm	12	LD-99540-42	
500 (16)	89 mm	12	LD-99540-43	
950 (32)	89 mm	12	LD-99540-44	
B. Amber narrow-mouth glass bottles				
125 (4)	22 mm	24	LD-99540-30	
250 (8)	24-414	12	LD-99540-31	
500 (16)	28 mm	12	LD-99540-32	
1000 (34)	33-430	12	LD-99540-33	
C. Amber wide-mouth glass bottles				
125 (4)	38 mm	12	LD-99540-51	
250 (8)	45 mm	12	LD-99540-53	
500 (16)	53 mm	12	LD-99540-55	
950 (32)	53 mm	12	LD-99540-57	
D. Amber narrow-mouth glass jugs				
2500 (80)	38-430	6	LD-99540-34	
4000 (135)	38-430	4	LD-99540-35	
E. Clear wide-mouth glass septa jars				
60 (2)	53 mm	24	LD-99540-20	
125 (4)	58 mm	24	LD-99540-21	

Cole-Parmer® Lab Markers

Fine-point fiber tip writes on cold, wet surfaces. Quick-drying ink permanently marks plastic; washes off glass, metal, or porcelain—won't bleed when subjected to water or alcohol.

Color	Qty/pk	Catalog number	Price
Black	10	LD-09964-00	
Blue		LD-09964-10	
Green		LD-09964-15	
		LD-09964-20	
Red			



Laboratory Supplies

Bottles

Utility Clamps

Securely hold your flasks, beakers, and burettes

- Available in nickel-plated zinc or stainless steel construction—choose stainless steel for high chemical resistance and increased strength
- Choose single adjustment for standard use or dual adjustment for greater flexibility over a wider range
- Supplied with red nonslip vinyl sleeves and black fiberglass sleeves for temperatures above 212°F (100°C)

Note: To install utility clamps “A” through “C” to lab frames, support stands, and other apparatus, you will need to purchase a connector or holder that accepts a 0.5" (12.7 mm) dia rod; order separately at ColeParmer.com.

A. Two-Prong Extension Clamps

- Ideal for cylinder type labware

Type	Material	Grip range	Overall length	Catalog number	Price
Single adjustment	Nickel-plated zinc	0 to 3.07" (0 to 7.8 cm)	8.5" (21.6 cm)	LD-08021-42	
		0 to 3.62" (0 to 9.2 cm)	9.02" (22.9 cm)	LD-08021-44	
Dual adjustment	Nickel-plated zinc	0 to 2.95" (0 to 7.5 cm)	9.02" (22.9 cm)	LD-08021-46	
		0 to 3.74" (0 to 9.5 cm)	9.76" (24.8 cm)	LD-08021-48	
Dual adjustment	Stainless steel	0 to 2.95" (0 to 7.5 cm)	9.02" (22.9 cm)	LD-08129-71	
		0 to 3.74" (0 to 9.5 cm)	9.76" (24.8 cm)	LD-08129-88	

B. Three-Prong Extension Clamps

- Ideal for irregularly shaped objects

Type	Material	Grip range	Overall length	Catalog number	Price
Single adjustment	Nickel-plated zinc	0 to 1.54" (0 to 3.9 cm)	6.3" (16.0 cm)	LD-08021-22	
		0 to 2.8" (0 to 7.1 cm)	8.58" (21.8 cm)	LD-08021-24	
		0 to 4.25" (0 to 10.8 cm)	9.76" (24.8 cm)	LD-08021-26	
Dual adjustment	Nickel-plated zinc	0 to 1.81" (0 to 4.6 cm)	6.61" (16.8 cm)	LD-08021-32	
		0 to 2.72" (0 to 6.9 cm)	9.02" (22.9 cm)	LD-08021-34	
			16" (40.6 cm)	LD-08021-35	
		0 to 4.13" (0 to 10.5 cm)	10.75" (27.3 cm)	LD-08021-36	
Dual adjustment	Stainless steel		17.76" (45.1 cm)	LD-08021-37	
		0 to 1.9" (0 to 4.8 cm)	6.77" (17.2 cm)	LD-08021-52	
		0 to 2.72" (0 to 6.9 cm)	9.02" (22.9 cm)	LD-08021-54	
		0 to 4" (0 to 10.2 cm)	10.75" (27.3 cm)	LD-08021-56	

C. Closed-Yoke, Three-Prong Extension Clamps

- Closed-yoke design allows use of clamp's full depth—no springs or internal workings to get in the way—and it's easier to clean and decontaminate

Type	Material	Grip range	Overall length	Catalog number	Price
Single adjustment	Nickel-plated zinc	0 to 0.91" (0 to 2.3 cm)	6.38" (16.2 cm)	LD-08021-04	
		0 to 1.97" (0 to 5.0 cm)	9.02" (22.9 cm)	LD-08021-02	
		0 to 2.83" (0 to 7.2 cm)	10.24" (26.0 cm)	LD-08021-00	
Dual adjustment	Nickel-plated zinc	0 to 1.26" (0 to 3.2 cm)	5.98" (15.2 cm)	LD-08021-12	
		0 to 2.76" (0 to 7.0 cm)	8.74" (22.2 cm)	LD-08021-14	
		0 to 4.06" (0 to 10.3 cm)	10.24" (26.0 cm)	LD-08021-16	

D. Fixed-Position Clamps

- One-piece clamps hold your labware at a fixed 90° angle for precise alignment of burettes, thermometers, and reflux condensers
- Integral connector accepts rods up to 0.75" (19 mm) in diameter

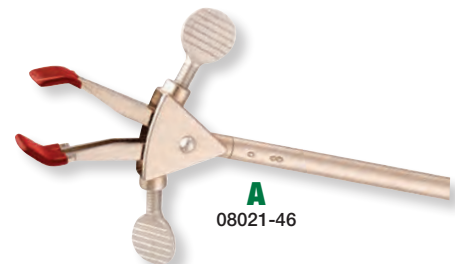
Type	Material	Grip range	Overall length	Catalog number	Price
Two-prong, single adjustment	Nickel-plated zinc	0 to 3.03"	5.24"	LD-08022-00	
	Stainless steel	(0 to 7.7 cm)	(13.3 cm)	LD-08129-96	
Three-prong, dual adjustment	Nickel-plated zinc	0 to 2.72"	5.75"	LD-08022-02	
	Stainless steel	(0 to 6.9 cm)	(14.6 cm)	LD-08129-95	

NEW

Expanded offering



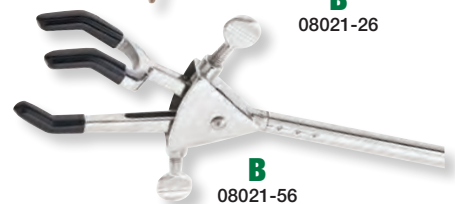
A
08021-42



A
08021-46



B
08021-26



B
08021-56



G
08021-00



G
08021-16



D
08022-00

D
08129-95



You're Out? We're Not!
Thousands of **highlighted** items

Cole-Parmer® Cleaning Products

Easily clean glass, metal, plastic, rubber, and other hard materials



- Safe and effective cleaning products
- Highly concentrated, aqueous solutions are free-rinsing
- Meet USDA guidelines for incidental contact with food processing systems
- Do not contain CFCs, phosphates, silicates, halogens, or phenols

Cleaner	Type	Cleaning applications	Dilution	pH	Pkg	Cat. no.	Price/ea	Cat. no.	Qty/cs	Price/cs
Micro-90®	Ionic, nonionic, USDA authorized	Manual or ultrasonic; removes most biological materials; cleans glass, most metals, plastic, and rubber†	1:100 to 2:100	9.5	0.26 gal. (1 L)	LD-18100-05	—	LD-18100-04	12	—
					1 gal. (4 L)	—	LD-18100-11	4	—	
					5 gal. (18.9 L)	—	LD-18100-20	1	—	
					55-gal. drum (208 L)	LD-18100-30	—	—	—	
Zymit®	Enzymatic, USDA authorized	Machine, manual, or ultrasonic; dissolves protein and starch-based soils; may use for delicate materials	1:100	7.5	0.26 gal. (1 L)	LD-18101-30	—	LD-18101-20	12	—
LF2100™	Low-sudsing, anionic, nonionic, amphoteric, USDA authorized	Automatic washers, high-pressure and high agitation applications†	1:100	9.7	0.26 gal. (1 L)	LD-18102-00	—	LD-18102-10	12	—
					5.3 gal. (20 L)	LD-18102-30	—	—	—	
Surface-Cleanse/930®	Nonionic, USDA authorized	Cleans grease, petroleum, oils from glass, aluminum, lead, zinc, and plastic without surface damage	1:200	7.0	0.26 gal. (1 L)	LD-18103-00	—	LD-18103-10	12	—
					5.3 gal. (20 L)	LD-18103-30	—	—	—	
Micro-A07®	Citric acid, nonionic, USDA authorized	Removes millstone, hard water scale, rust, mineral deposits, and other inorganic soils from filter membranes, labware, and industrial equipment	1:100 to 2:100	2.5	0.26 gal. (1 L)	LD-18104-00	—	LD-18104-01	12	—
					5.3 gal. (20 L)	LD-18104-30	—	—	—	

†Do not use on zinc, magnesium, or aluminum.

Alconox® Cleaning Products

Biodegradable, concentrated, and free of interfering residue

- Optimize performance and environmental safety

Use these superior cleaners on glass, metal, plastic, rubber, and other hard materials in your critical cleaning processes. All Alconox cleaners rinse completely with no interfering residue. Alconox and Liqui-Nox® cleaners are biodegradable.



Cleaner	Type	Use	Dilution	pH	Pkg	Catalog number	Qty	Price	Catalog number	Qty/cs	Price/cs
Alconox®	Concentrated, anionic, free rinsing. Mild and completely soluble in hard or soft water	Manual or ultrasonic	1:100	9.5	4 lb (1.8 kg)	LD-17775-05	1	—	LD-17775-00	9	—
					25 lb (11.3 kg)	LD-17775-50	1	—	—	—	
					50 lb (22.7 kg)	LD-17775-60	1	—	—	—	
Liqui-Nox®	Concentrated, anionic, free rinsing. Mild and completely soluble in hard or soft water	Manual or ultrasonic	1:100	8.5	1 qt (0.9 L)	LD-17778-05	1	—	LD-17778-00	12	—
					1 gal. (4 L)	LD-17778-40	1	—	LD-17775-40	4	—
Alcojet®	Low-subsiding, nonionic, corrosion-inhibited formula, free rinsing	Manual or ultrasonic, machine washing	1:200	12	4 lb (1.8 kg)	LD-17776-05	1	—	LD-17776-00	9	—
					25 lb (11.3 kg)	LD-17776-50	1	—	—	—	—

Kimberly-Clark® Critical Task Wipes

Low-lint, absorbent, soft, and nonabrasive

- Won't scratch delicate surfaces
- Single-ply and two-ply delicate task wipes are made of a finely textured tissue
- Solvent-resistant KimTech CL4 wipes are made of a single-ply, nonwoven fabric specially bonded to eliminate surface fibers and trap particles

Description	Compliance	Wipe size	Qty/bx	Box/cs	Catalog number	Price/cs*
Delicate task wipes						
Kimwipes® EX-L, 1 ply	—	4 1/2" x 8 1/2"	280	60	LD-33670-04	—
		15" x 16 3/4"	140	15	LD-33670-06	—
Kaydry® EX-L, 2 ply	—	15" x 16 3/4"	90	15	LD-33670-10	—
Cleanroom wipes						
Kimtech CL4 cleanroom	ISO Class 4	12" x 12"	100	5	LD-33670-20	—

*Discounts: Save 10% on 10 to 49 cases and 15% on 50 or more cases.



Wide-Mouth Sample Containers, PP

Mix and store in one vessel—attach to blenders for in-container mixing

- Durable for general storage—chemical-resistant polypropylene
- Models 06101-31 and -40 fit blenders with Mason jar threads
- Autoclavable



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Cap size	Qty/pk	Catalog number	Price/pk
30 (1)	43 mm	12	LD-06101-11	
60 (2)	53 mm		LD-06101-21	
120 (4)	70 mm		LD-06101-31	
240 (8)	89 mm	6	LD-06101-40	
480 (16)	89 mm		LD-06101-50	
960 (32)	120 mm		LD-06101-60	
1190 (40)	120 mm		LD-06101-70	

Cole-Parmer® Disposable Lab Containers, PPCO

No more wasted space—containers stack easily

- Durable for longer use—stand up to boiling and freezing
- Know what's inside—translucent containers come with tight-fitting lids
- Stand up to most chemicals



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases



Capacity mL (oz)	Qty/pk	Catalog number	Price/pk
120 (4)	250	LD-06727-00	
240 (8)	250	LD-06727-10	
480 (16)	100	LD-06727-20	
960 (32)	100	LD-06727-30	
2000 (64)	50	LD-06727-35	
2500 (83)	25	LD-06727-42	
5000 (170)	25	LD-06727-50	

Collapsible Containers, LDPE

Won't take up extra space—easily expand when filled

- Stack neatly when empty, just unscrew cap and fill to expand
- Include polypropylene caps



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity L (gal.)	Cap size	Qty/pk	Catalog number	Price/pk
1 (1/4)	38 mm	12	LD-06100-10	
4 (1)			LD-06100-20	
10 (2 1/2)			LD-06100-30	
19 (5)		10	LD-06100-40	

Graduated Sample Containers, PP

No more leaks—leakproof for better sampling

- Easier sampling—graduated for measuring directly
- Durable design—translucent, unbreakable, and chemical resistant
- Sterile containers are individually wrapped



NEW

Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Description	Qty/pk	Catalog number	Price/pk
118 (4)	Sterile, no tab	100	LD-06049-40	
118 (4)	Nonsterile with white tab	500	LD-06049-50	

Laboratory Supplies

Containers

Wait!

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Browse 100,000+ products plus find **Technical Resources** to help you choose



You're Out? We're Not!

Thousands of highlighted items

Cole-Parmer® Graduated Cylinders, PP and PMP

Built to last—molded graduations won't wear off

- For very good chemical resistance, choose polypropylene (PP) version
- Choose transparent polymethylpentene (PMP) for good chemical and heat resistance
- Meet ISO Standard 6706 and calibrated “to contain”
- Autoclavable



Buy More...Save More!

- \$ 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases



Capacity (mL)	Graduations (mL)	Polypropylene (PP) cylinders		Polymethylpentene (PMP) cylinders	
		Cat. no.	Price/pk of 1	Cat. no.	Price/pk of 1
10	0.2	LD-06137-70		LD-06137-50	
25	0.5	LD-06137-72		LD-06137-52	
50	1.0	LD-06137-74		LD-06137-54	
100	1.0	LD-06137-76		LD-06137-56	
250	2.0	LD-06137-78		LD-06137-58	
500	5.0	LD-06137-80		LD-06137-60	
1000	10.0	LD-06137-82		LD-06137-62	
2000	20.0	LD-06137-84		LD-06137-64	

Thermo Scientific™ Nalgene™ Calibrated Graduated Cylinders, PP and PMP

No more guessing—easy-to-read molded graduations

- Get more accurate measurements—calibrated “to contain” and “to deliver”
- Feel confident—meet ASTM Class B, E 1272 specifications and ISO Standard 6706
- Plastic is nonwetting and no meniscus
- Autoclavable



Buy More...Save More!

- \$ 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity (mL)	Graduations (mL)	Tolerance (mL)	Polypropylene (PP) cylinders		Polymethylpentene (PMP) cylinders	
			Catalog number	Price/pk of 1	Catalog number	Price/pk of 1
10	0.2	±0.20	LD-06135-10		LD-06134-10	
50	1.0	±0.50	LD-06135-30		LD-06134-30	
100	1.0	±1.00	LD-06135-40		LD-06134-40	
500	5.0	±4.00	LD-06135-60		LD-06134-60	
1000	10.0	±6.00	LD-06135-70		LD-06134-70	
4000	50.0	±29.00	LD-06135-90		LD-06134-90	

Laboratory Supplies

PYREXPLUS® Brand 63024 Graduated Glass Cylinders

No more shattered glass

- Don't clean up glass again—PVC coating protects cylinders from shattering
- Resist thermal shock and occasional bumping
- Single metric scale is calibrated “to deliver”
- Autoclavable



Protective PVC coating protects the cylinder from breaking.



Buy More...Save More!

- \$ 15% off on 10+ packs or cases
- 10% off on 5 to 9 packs or cases

Capacity (mL)	Graduations (mL)	Tolerance (mL)	Catalog number	Price/pk of 1	Catalog number	Qty/ cs	Price/ cs
100	1.0	±1.0	LD-34576-01		LD-34576-21	4	
250	2.0	±2.0	LD-34576-02		LD-34576-22	4	
500	5.0	±4.0	LD-34576-03		LD-34576-23	4	
1000	10.0	±6.0	LD-34576-04		LD-34576-24	4	
2000	20.0	±12.0	LD-34576-05		LD-34576-25	2	

PYREX® Brand 3025 Graduated Glass Cylinders

No more calculating allocations

- Measure how much you pour in and out directly with double metric scale
- Calibrate “to contain”
- Autoclavable



Buy More...Save More!

- \$ 15% off on 10+ packs or cases
- 10% off on 5 to 9 packs or cases

Capacity (mL)	Graduations (mL)	Catalog number	Price/pk of 1	Catalog number	Qty/ cs	Price/ cs
10	0.1	LD-34546-01		LD-34546-21	24	
25	0.2	LD-34546-02		LD-34546-22	18	
50	1.0	LD-34546-03		LD-34546-23	18	
100	1.0	LD-34546-04		LD-34546-24	12	
250	2.0	LD-34546-05		LD-34546-25	12	
500	5.0	LD-34546-06		LD-34546-26	8	
1000	10.0	—	—	LD-34546-27	1	
2000	20.0	—	—	LD-34546-28	1	

Cylinders



Teky's Tips

“To Contain” vs “To Deliver”

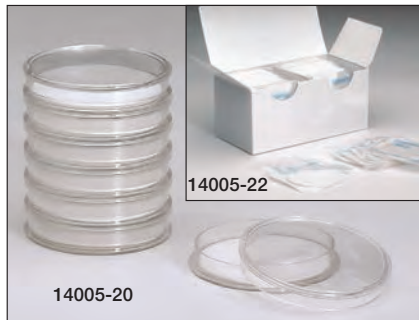
T.C. or “to contain” calibration marks indicate the volume held in the container at each mark.

T.D. or “to deliver” calibration marks indicate the amount of air-free distilled water at 20°C that is delivered when it is poured out.

Advantec® Disposable 50-mm Sterile Petri Dishes, PS

No need to pre-sterilize

- Sterilized dishes are ready to use
- Use only what you need—come in convenient packs of 20
- Polystyrene dishes come with or without 47-mm absorbent cellulose pad that hold 1.8 to 2.0 mL of liquid media
- Ridges for easy stacking



Description	Dia x H (mm)	Qty/cs	Catalog number	Price/cs
Petri dish with pad	50 x 11	100	LD-14005-20	
		500	LD-14005-28	
Petri dish without pad	50 x 11	100	LD-14005-24	
		500	LD-14005-26	

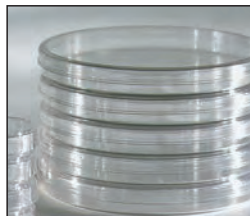
LD-14005-22 Presterilized absorbent pads. Box of 100 individual packages

Find even more online!
Go to ColeParmer.com to see full product details.

Sterile Petri Dishes, PS

Stacks won't tip over—convenient stacking ridges for better stability

- Use what you need—packaged in bags of 20 dishes
- Save time—already sterilized by gamma irradiation



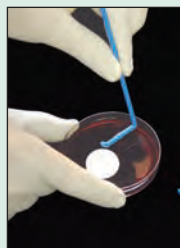
Dia x H (mm)	Qty/pk	Catalog number	Price/pk
60 x 15	500	LD-06139-01	
100 x 15	500	LD-06139-00	
150 x 20	100	LD-06139-02	

Disposable Cell Spreaders

Easy spreading with L-shaped design

- Won't cut into agar—upturned end to protect from puncture

Made of durable polystyrene, these sterile, disposable spreaders provide safe, convenient sample plating without flaming.



Description	Qty/pk	Qty/cs	Catalog number	Price/cs
Disposable cell spreaders	10	500	LD-14201-00	
	1	500	LD-14201-10	

Cole-Parmer® Cell and Tissue Culture Plates

No wasting samples—raised rims for reduced evaporation

- Don't lose track of samples—printed lot numbers ensure traceability
- Know what's growing—optically clear plates for easy viewing
- Have confidence in samples—plates are gamma irradiated and nonpyrogenic
- Get consistent results—optional surface coating for better attachment and growth
- Reduced contamination with condensation rings and lid



No. of wells	Max well volume (mL)	Cell growth area (cm ²) per well	Surface treatment	Catalog number	Price/cs of 100
6	17.0	9.6		LD-01927-70	
12	6.8	3.85	Yes	LD-01927-72	
24	3.5	1.93		LD-01927-74	
96	0.39	0.33	No	LD-01927-76	
			Yes	LD-01927-78	

Prepared Media Plates

Save time and money

- Consistent, reliable performance

Each includes a certificate of compliance and quality control that shows lot numbers, expiration dates, and shelf-life guarantee. **Pack of 10.**



Cat. no.	Media	Description	Price/pk
LD-14201-40	Blood Agar, 5%	General-purpose growth media for the isolation, cultivation, and differentiation of a wide variety of microorganism.	
LD-14201-42	TSA	General growth medium for the isolation and cultivation of microorganisms.	
LD-14201-44	Standard Methods Agar	Determine the microbial content in dairy products, food, water and other material of sanitary importance.	
LD-14201-46	Mannitol Salt Agar	Selective and differential medium for the isolation of pathogenic <i>Staphylococci</i> .	
LD-14201-48	Baird Parker Agar	Selective medium for the detection and enumeration of coagulase-positive <i>Staphylococci</i> from food samples.	
LD-14201-50	Sab Dex	For the isolation, cultivation, and maintenance of nonpathogenic and for pathogenic species of fungi and yeasts.	
LD-14201-52	PDA (Potato Dextrose Agar)	For cultivation of yeasts and mold and for the inducement of sporulation.	
LD-14201-54	XLD Agar	Selective and differential medium for the isolation of gram negative enteric pathogens from fecal and other specimen.	
LD-14201-56	HE Enteric Agar	Selective and differential medium for the isolation and differentiation of gram negative enteric pathogens	
LD-14201-58	MacConkey Agar with Sorbitol	Selective and differential medium for the detection of enterohemorrhagic <i>E. coli</i> O157:H7.	
LD-14201-62	Centrimide Agar	Recommended for the selective isolation and identification of <i>Pseudomonas aeruginosa</i> .	

Warning—These products are not approved or intended for, and should not be used for, medical, clinical, surgical or other patient oriented applications.



You're Out? We're Not!

Thousands of highlighted items



“These gloves are strong and tough.”

Bonnie, MA



Laboratory Supplies

Gloves

Microflex® Powder-Free Disposable Gloves

Don't lose your grip—nonslip textured surface when wet or dry

- No more irritation—powder-free formulation for more comfort
- Minimize punctures—beaded cuffs for improved tear resistance when donning
- Don't chance safety—disposable gloves eliminate cross-contamination
- Ambidextrous

Diamond-Grip™ Latex Gloves have tapered fingertips to give you a comfortable fit. Triple-chlorination improves chemical resistance. This popular glove is tough, reliable, and comfortable.

Diamond Grip Plus™ Latex Gloves feature a fully textured surface to ensure exceptional grip and superb tactile sensitivity for instrument manipulation.

Evolution One® Latex Gloves exhibit superior flexibility, dexterity, and grip, yet are cool and comfortable to wear. Polymer-coated interior makes them easy to put on and take off.

FreeForm® SE Nitrile Gloves offer superior comfort and elasticity with a “super soft” formulation that feels like latex. Conforms to the contours of your hands as you move—minimizing unnecessary hand stress and enabling a full range-of-motion.

MidKnight® Nitrile Gloves are ideal for use in demanding work environments that require reliable performance and consistent grip. Unique black color hides dirt and stains. Gloves are fully textured for a firm grip in wet or dry applications.

XCEED® Nitrile Gloves feature increased strength which allows decreased thickness for reduced muscle effort and enhanced tactile sensitivity. Same size box contains more than twice the normal amount of gloves—saving you money, time, and storage space.

Compliance: Latex gloves meet/exceed ASTM requirement D3578-00; nitrile gloves meet/exceed ASTM D6319.

Size	Material	Length	Thickness	Qty/cs	Catalog number	Price/cs
Diamond Grip latex gloves						
Small	Latex	9½" (24 cm)	7.1 mil	10 boxes of 100 (1000 total)	LD-86231-35	
Medium					LD-86231-36	
Large					LD-86231-37	
X-large					LD-86231-38	
Diamond Grip Plus latex gloves						
Small	Latex	9½" (24 cm)	6.3 mil	10 boxes of 100 (1000 total)	LD-86232-05	
Medium					LD-86232-06	
Large					LD-86232-07	
X-large					LD-86232-08	
Evolution One latex gloves						
Small	Polymer-coated latex	9½" (24 cm)	5.9 mil	10 boxes of 100 (1000 total)	LD-86231-25	
Medium					LD-86231-26	
Large					LD-86231-27	
X-large					LD-86231-28	
FreeForm SE nitrile gloves						
Small	Nitrile	9½" (24 cm)	5.1 mil	10 boxes of 100 (1000 total)	LD-86445-20	
Medium					LD-86445-21	
Large					LD-86445-22	
X-large					LD-86445-23	
MidKnight nitrile gloves						
Small	Nitrile	9½" (24 cm)	5.5 mil	10 boxes of 100 (1000 total)	LD-86445-15	
Medium					LD-86445-16	
Large					LD-86445-17	
X-large					LD-86445-18	
XCEED nitrile gloves						
X-small	Nitrile	9¼" (23.5 cm)	4.3 mil	10 boxes of 250 (2500 total) [†]	LD-86445-35	
Small					LD-86445-36	
Medium					LD-86445-37	
Large					LD-86445-38	
X-large					LD-86445-39	

[†]Case of X-large size has 10 boxes of 230 for 2300 total.

Showa® Best® GREEN-DEX™ Biodegradable Nitrile Gloves

Maintain safety and the environment!

NEW

- Reduce your carbon footprint—Eco Best Technology™ accelerates biodegradation
- Don't struggle—rolled cuff and smooth finish for easier donning
- Minimize contamination—disposable, single use
- Ambidextrous



Compliance: FDA 21 CFR for food contact and ASTM 5511 for biodegradation.



Size	Length	Thickness	Qty/bx	Catalog number	Price per box	
					1 bx	10 bx
X-small	9½" (24 cm)	4 mil	100	LD-86287-00		
Small				LD-86287-01		
Medium				LD-86287-02		
Large				LD-86287-03		
X-large				LD-86287-04		

Ansell Touch N Tuff™ Nitrile Gloves

Keep your dexterity without sacrificing safety

- Thin formulation, yet resists punctures and tears
- No fillers—gloves are 100% nitrile
- Ambidextrous



Compliance: FDA regulations for food contact.



Size	Length	Thickness	Qty/bx	Catalog number	Price per box	
					1 bx	10 bx
Powdered gloves						
Small	9½" (24 cm)	4 mil	100	LD-81602-40		
Medium				LD-81602-50		
Large				LD-81602-60		
X-large				LD-81602-70		
Powder-free gloves						
Small	9½" (24 cm)	4 mil	100	LD-81602-45		
Medium				LD-81602-55		
Large				LD-81602-65		
X-large				LD-81602-75		

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Find more than **100,000** products to choose from!

Showa® Best® N-DEX® Nitrile Gloves

Don't lose your cool—special formulation for comfort, less fatigue

- Nonlatex—made of soft 100% lightweight nitrile
- Fewer punctures—three times the resistance of rubber or vinyl
- Ambidextrous

Puncture resistant gloves withstand tough conditions



General and Laboratory Grade N-DEX Gloves are ideal for when you need to protect your hands from the environment. Available in low-powder† or powder-free versions.



Industrial Grade N-DEX Plus Gloves are thicker for greater puncture and tear resistance. Gloves provide good resistance to chemicals and abrasion. Ideal for tough lab conditions, assembly, or manufacturing. Available only in low-powder† version.

Compliance: FDA 21 CFR, parts 170-199, acceptable for food and pharmaceutical use.



Size	Length	Thickness	Qty/pk	Catalog number	Price per pack	
					1 pk	10 pk
General and laboratory grade low-powder† N-DEX gloves						
Small	9½" (24 cm)	4 mil	100	LD-86287-70		
Medium				LD-86287-71		
Large				LD-86287-72		
X-large				LD-86287-73		
General and laboratory grade powder-free N-DEX gloves						
Small	9½" (24 cm)	4 mil	100	LD-86287-80		
Medium				LD-86287-81		
Large				LD-86287-82		
X-large				LD-86287-83		
Industrial grade N-DEX Plus low-powder† gloves						
Small	9½" (24 cm)	8 mil	50	LD-86287-60		
Medium				LD-86287-61		
Large				LD-86287-62		
X-large				LD-86287-63		

†USP grade cornstarch

Teky's Tips



Glove Sizing Guide

Measure the circumference of your hand around the palm area with fingers together and hand relaxed. This measurement in inches is closest to your actual glove size.

For example, 7" is equal to a size 7 glove. Sizes may vary between different manufacturers and styles. Except where mentioned, gloves are sized according to men's hands. For easy size comparison, see table below.



Glove Size Comparison

Numerical size	6-7	7-8	8-9	9-10	11
General size	XS	S	M	L	XL



You're Out? We're Not!

Thousands of highlighted items

Disposable Transfer Pipettes

Easily draw and deliver solutions

- Deliver repeatable, uniform drops
- Eliminate cross-contamination with these low-cost, disposable LDPE pipettes



Key	Description	Graduations		Bulb draw	Total capacity	Drops per mL	Length in. (mm)	Qty/pk	Catalog number	Price/pk
		Increments	Maximum							
A	Small bulb, graduated	0.1 mL	0.3 mL	0.8 mL	1.5 mL	21	4 ⁵ / ₈ (117)	500	LD-06226-37	
B	Small bulb, graduated	0.25 mL	1 mL	2.2 mL	3.9 mL	25	5 ¹ / ₂ (140)	500	LD-06226-41	
C	Large capacity, thin stem	—	—	3.3 mL	4.6 mL	25	6 ¹ / ₈ (156)	500	LD-06226-65	
D	Large capacity, fine tip	—	—	3.5 mL	5.8 mL	50	6 ¹ / ₄ (159)	500	LD-06226-67	
E	Large capacity, graduated	0.25 mL	1 mL	3.4 mL	5.8 mL	25	6 ¹ / ₈ (156)	500	LD-06226-61	
F	Large capacity, extra-long stem	—	—	2.3 mL	6.0 mL	25	9 (229)	400	LD-06226-69	
G	Large capacity, graduated	0.5 mL	3.0 mL	3.2 mL	7.5 mL	20	6 ¹ / ₈ (156)	500	LD-06226-63	
H	Jumbo bulb, long stem	—	—	8.0 mL	15.0 mL	19	6 ¹ / ₈ (156)	250	LD-06226-51	

Mini Serological Pipettes

Easier fit for easier storage—4" shorter than standard pipettes

- Easy-to-read graduations from +1 to 2%
- Identify pipettes easily with color-coded rings
- No lint fibers with unique, stay-put filter plug
- Gamma sterilized, polystyrene is nonpyrogenic
- Shorter length reduces distance between sample and pipettor, aiding in more ergonomic pipetting



Capacity	Graduation (mL)	Color ring	Qty/cs	Catalog number	Price/cs
5 mL	0.1	Blue	200	LD-22999-30	
10 mL	0.2	Orange	150	LD-22999-31	
25 mL	0.5	Green	100	LD-22999-32	

Pipette Pump™ Controllers

Get precise level adjustment with knurled wheel design

- Attach pipette and easily dispense via plunger or wheel
- Dispense quicker with rapid-release models
- Made of HDPE



For pipettor volume	Color	Catalog number	Price
Pipette pumps			
0.2 mL	Yellow	LD-06221-01	
2.0 mL	Blue	LD-06221-02	
10.0 mL	Green	LD-06221-03	
25.0 mL	Red	LD-06221-04	
Pipette pumps with rapid-release lever			
2.0 mL	Blue	LD-06221-32	
10.0 mL	Green	LD-06221-33	
25.0 mL	Red	LD-06221-34	

Cole-Parmer® Safetypette Pipette Filler

Get fast, comfortable suction

- Ergonomic, lightweight filler fits in either hand
- Draw solution in with bulb, control fluid precisely with button
- Use with any 1- to 100-mL pipette
- Hydrophobic filter prevents liquid from entering filler
- Autoclavable



Description	Catalog number	Price
Safetypette pipette filler	LD-25200-30	

[LD-25200-32](#) Replacement filters. Pack of 5

[LD-25200-34](#) Replacement pipette holder

Cole-Parmer® Comfort-Grip Pipette Controller

Aspirate and dispense at your speed

- Lightweight design fits comfortably in your hand
- Three speeds for sample pipetting
- Rechargeable battery for years of operation



Pipetting rate	Number of speeds	Power	Catalog number	Price
2.8 mL/sec	3	110 VAC	LD-25200-20	

[LD-25200-32](#) Replacement filters. Pack of 5



You're Out? We're Not!

Thousands of highlighted items



Cole-Parmer® EX Adjustable-Volume Pipettors

Protect users from biohazards

- Autoclavable and enhanced UV resistance eliminate contamination
- No accidental volume changes—lever locks in volume
- Less fatigue—lightweight design and smooth plunger action for easier use
- Don't eject before you're ready—separate tip release to eliminate accidental release

What's included: calibration document supplied by the manufacturer.



Specifications

Wetted materials: PTFE seal-ring, PDF nozzle, PP shaft.
Tip ejector: yes
Autoclavable: yes



Volume (µL)	Increments (µL)	Accuracy	Catalog number	Price
0.1 to 2.0	0.01	±5.0% to ±3.0%	LD-07909-01	
0.5 to 10	0.01	±5.0% to ±1.0%	LD-07909-03	
2.0 to 20	0.1	±5.0% to ±1.0%	LD-07909-05	
10 to 100	0.1	±2.0% to ±0.8%	LD-07909-07	
20 to 200	1.0	±1.0% to ±0.8%	LD-07909-09	
100 to 1000	2.0	±1.0% to ±0.7%	LD-07909-11	
1000 to 5000	10.0	±1.0% to ±0.6%	LD-07909-13	
1000 to 10,000	50.0	±2.0% to ±0.4%	LD-07909-15	

Tips, PP

Volume (µL)	Color	Qty/pk	Catalog number	Price/pk
0.5 to 10	Natural	1000	LD-07909-17	
2 to 200	Yellow	1000	LD-07909-19	
100 to 1000	Blue	1000	LD-07909-21	
1000 to 10,000	White	200	LD-07909-25	

Multichannel Disposable Solutions Basins

View and draw samples into pipette easily

- Angled sides and V-shaped bottom for complete sample withdrawal
- Made of white polystyrene, hold up to 55 mL



Sterile	Capacity (mL)	Qty/pk	Catalog number	Price/pk
No	55	100	LD-24810-30	
Yes		50	LD-24810-35	

Cole-Parmer® Multichannel Pipettors

Get excellent accuracy and performance at a great price

- Minimize hand fatigue—lightweight design with soft plunger movement and low-pressure tip ejector for easier use
- Get last drop dispensing with two-stage plunger design
- Easy calibration and servicing

NEW



Specifications

Tip ejector: tip ejector with blow-out step
Autoclavable: yes, fully



Volume (µL)	Increments (µL)	Accuracy	Catalog number	Price
Eight-channel pipettors				
0.5 to 10	0.1	±4.0 to ±1.5%	LD-21600-01	
2 to 20	0.1	±4.0 to ±1.5%	LD-21600-03	
5 to 50	1	±3.0 to ±0.5%	LD-21600-05	
10 to 100	1	±1.5 to ±0.5%	LD-21600-07	
20 to 200	1	±1.5 to ±0.5%	LD-21600-09	
40 to 300	1.0	±1.0 to ±0.5%	LD-21600-11	
Twelve-channel pipettors				
0.5 to 10	0.1	±4.0 to ±1.5%	LD-21600-13	
2 to 20	0.1	±4.0 to ±1.5%	LD-21600-15	
5 to 50	1	±3.0 to ±0.5%	LD-21600-17	
10 to 100	1	±1.5 to ±0.5%	LD-21600-19	
20 to 200	1	±1.5 to ±0.5%	LD-21600-21	
40 to 300	1.0	±1.0 to ±0.5%	LD-21600-23	

LD-17104-00 NIST-traceable calibration with data. Price is per channel

Pipettor Racks

Store pipettors within comfortable reach!

Maximize bench space by using to store pipettors when not in use. Holds up to six pipettors. Choose clear or white acrylic.



Description	Capacity	Dimensions (W x H x D)	Catalog number	Price
Clear acrylic	6 pipettors	11" x 6¼" x 8½" (28 x 16 x 22 cm)	LD-07952-75	
White acrylic			LD-63528-72	

Laboratory Supplies

Pipettes & Pipettors



You're Out? We're Not!

Thousands of **highlighted** items

Cole-Parmer® Double-Ended Spoon Set, 304 SS

No need to dirty two spoons—both ends provide scooping

- Minimize discomfort—solid rounded shafts for more comfortable handling

Set contains three spoons: a 5 7/8" (14.9 cm) long spoon with 0.5 mL and 2.0 mL bowls, an 8 1/4" (21 cm) long spoon with 1.6 mL and 5.0 mL bowls, and an 11 1/8" (30.2 cm) long spoon with 2.0 mL and 8.0 mL bowls.



Set contains three spoon sizes



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Qty/set	Catalog number	Price/set*
Three spoons	LD-06261-00	

*One set qualifies as one pack for discount savings.

Cole-Parmer® Scoops, SS

Won't corrode like other materials—ideal for food-grade sampling

- Choose either 201 or 304 stainless steel—the 304 SS provides higher corrosion resistance



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Scoop (L x dia)	Qty/pk	Catalog number	Price/pk
201 Stainless steel scoops				
175 (5.5)	5 1/2" x 3" (14 x 7.6 cm)	1	LD-07205-01	
1550 (52)	10" x 5 3/4" (25.4 x 14.6 cm)	1	LD-07205-03†	
304 Stainless steel scoop				
1550 (52)	7 1/8" x 5 1/4" (18.1 x 13.3 cm)	1	LD-07210-00	

†Model 07205-03 has a hook on the end for convenient storage.

Scienceware® Lab Spoon/Spatula, 304 SS

Sample easier from large containers

- Total length of 12" (31 cm)



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Spoon capacity	Spoon end	Spatula end	Qty/pk	Catalog number	Price/pk
5 mL (0.18 oz)	1 1/2" (3.8 cm) W	1 3/16" (3 cm) W	1	LD-01019-14	

Lab Spatulas, Nickel/Stainless Steel

Get precise sampling of powders or salts

- Easy-to-clean glazed finish
- Choose the right end style for your needs



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

End styles	Overall length		Qty/pk	Catalog number	Price/1 pk
	in.	cm			
A. Spooned†/flat	5 3/4	14.6	3	LD-06369-09†	
B. V-shaped/sharpened bent tip	6 1/4	15.9	3	LD-06369-08	
C. Spooned†/plastisol handle	6 1/2	16.5	3	LD-06369-03†	
D. Tapered/rounded	8	20.3	3	LD-06369-06	
E. Rounded/rounded	8 1/4	21.0	3	LD-06369-05	
F. Tapered/rounded	7 1/8	18.1	3	LD-06369-07	
G. Squared/rounded	7 1/2	19.1	3	LD-06369-18	
H. Spooned/squared	8 7/8	22.5	3	LD-06369-16	

†Hayman type end

Round Scoops, Aluminum

Handle won't separate from scoop—durable one-piece construction

- Save money with aluminum compared to stainless steel
- Don't lose your grip—hold tight with ribbed handle



Buy More...Save More!

- 20% off on 120+
- 15% off on 30 to 119
- 10% off on 6 to 29 packs or cases

Capacity mL (oz)	Scoop (L x W)	Qty/pk	Catalog number	Price/pk
150 (5)	4 3/4" x 2 3/8" (12.1 x 6.0 cm)	1	LD-07207-00	
350 (12)	6 1/4" x 3 1/4" (15.9 x 8.3 cm)	1	LD-07207-02	
700 (24)	8" x 4" (20.3 x 10.2 cm)	1	LD-07207-04	
1100 (38)	9" x 4 3/4" (22.9 x 12.1 cm)	1	LD-07207-06	
1700 (57)	10 1/2" x 5 1/2" (26.7 x 14.0 cm)	1	LD-07207-08	
2500 (84)	12" x 6 1/4" (30.5 x 15.9 cm)	1	LD-07207-12	

Scienceware® Sterile Sampling Spoons, PS

Don't worry about sterility

- Individually sterilized and bagged in a polyethylene bag



Capacity	Handle length	Qty/cs	Catalog number	Price/cs
1/4 tsp (1.2 mL)	6 1/8" (15.5 cm)	200	LD-06263-10	
1/2 tsp (2.5 mL)	5 7/8" (14.9 cm)	200	LD-06263-20	
1 tsp (4.9 mL)	5 1/2" (14.0 cm)	200	LD-06263-30	
1 tbsp (14.8 mL)	5 1/4" (13.3 cm)	200	LD-06263-40	

Hamilton Gastight® High-Performance Micro and Macro Syringes

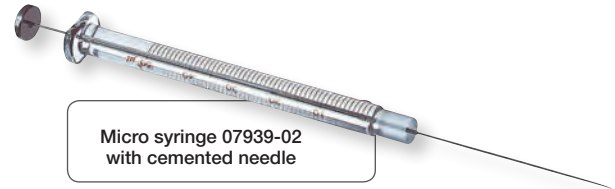
Don't lose samples—gas and liquid tight to 200 psi

- Handle virtually anything—including corrosives, radioactive materials, and sterile solutions
- Samples don't stick—PTFE-coated plungers for complete sample release

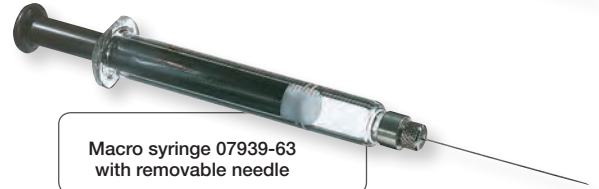
Cemented Needle Syringes include an epoxy-cemented, 304 stainless steel needle with noncoring tip. Not for use at temperatures above 50°C.

Removable Needle Syringes use a threaded hub and PTFE sealing ferrule that can be tightened to compensate for wear. Syringes include a 304 stainless steel needle with noncoring tip. Do not heat above 115°C; autoclavable when disassembled.

Syringes with Luer Tip and PTFE Luer-Lock Connections feature a ground glass, luer taper. Autoclavable if plunger is removed. Needles are not included.



Micro syringe 07939-02 with cemented needle



Macro syringe 07939-63 with removable needle

Micro Syringes

Capacity	Syringes Type	Needles		Catalog number	Price/ea
		Gauge [‡]	Tip type		
10 µL	Cemented needle	26s	Noncoring beveled	LD-07939-00	
	Removable needle			LD-07939-10	
	Luer tip [†]			LD-07939-20	
25 µL	Cemented needle	22s	Noncoring beveled	LD-07939-01	
	Removable needle			LD-07939-11	
	Luer tip [†]			LD-07939-21	
50 µL	Cemented needle	22s	Noncoring beveled	LD-07939-02	
	Removable needle			LD-07939-12	
	Luer tip [†]			LD-07939-22	
	PTFE luer-lock ^{††}			LD-07939-32	
100 µL	Cemented needle	22s	Noncoring beveled	LD-07939-03	
	Removable needle			LD-07939-13	
	Luer tip [†]			LD-07939-23	
	PTFE luer-lock ^{††}			LD-07939-33	

[†]Luer tip and luer-lock syringes do not include a needle; order separately.
[‡]An "s" denotes "small bore"—reduces dead volume and improves transfer accuracy.

Warning—These products are not approved or intended for, and should not be used for, medical, clinical, surgical or other patient oriented applications.

Macro Syringes

Capacity	Syringes Type	Needles		Catalog number	Price/ea
		Gauge	Tip type		
1.0 mL	Removable needle	22	Noncoring beveled	LD-07939-60	
	Luer tip ^{††}			LD-07939-70	
	PTFE luer-lock ^{††}			LD-07939-80	
2.5 mL	Removable needle	22	Noncoring beveled	LD-07939-62	
	Luer tip ^{††}			LD-07939-72	
	PTFE luer-lock ^{††}			LD-07939-82	
5 mL	Removable needle	22	Noncoring beveled	LD-07939-63	
	Luer tip ^{††}			LD-07939-73	
	PTFE luer-lock ^{††}			LD-07939-83	
10 mL	Removable needle	22	Noncoring beveled	LD-07939-64	
	Luer tip ^{††}			LD-07939-74	
	PTFE luer-lock ^{††}			LD-07939-84	
25 mL	PTFE luer-lock ^{††}	—	—	LD-07939-85	
50 mL	PTFE luer-lock ^{††}	—	—	LD-07939-86	

^{††}Luer tip and luer-lock syringes do not include a needle; order separately.

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Hamilton Standard Microliter® Syringes

Provide precise liquid delivery—from 10 µL to 500 µL

Syringes with Cemented and Removable Needles include a 304 stainless steel needle with a noncoring beveled tip—ideal for septum penetration in all chromatographic techniques.

Syringes with Luer Tip Connections do not include a needle; order needles separately at www.coleparmer.com/syringes.



Capacity	Syringes Type	Needles		Catalog number	Price/ea	Economy packs	
		Gauge [‡]	Tip type			Catalog number	Price/pk of 6
10 µL	Cemented needle	26s	Noncoring beveled	LD-07938-00		LD-07938-30	
	Removable needle			LD-07938-10		LD-07938-40	
25 µL	Cemented needle	22s	Noncoring beveled	LD-07938-01		—	
	Removable needle			LD-07938-11		—	
	Luer tip [†]			LD-07938-21		—	
50 µL	Cemented needle	22s	Noncoring beveled	LD-07938-02		—	
	Removable needle			LD-07938-12		—	
	Luer tip [†]			LD-07938-22		—	
100 µL	Cemented needle	22s	Noncoring beveled	LD-07938-03		—	
	Removable needle			LD-07938-13		—	
	Luer tip [†]			LD-07938-23		—	
250 µL	Cemented needle	22s	Noncoring beveled	LD-07938-04		—	
	Removable needle			LD-07938-14		—	
	Luer tip [†]			LD-07938-24		—	
500 µL	Cemented needle	22s	Noncoring beveled	LD-07938-05		—	
	Removable needle			LD-07938-15		—	
	Luer tip [†]			LD-07938-25		—	

[†]Luer tip syringes do not include a needle; order separately. [‡]An "s" denotes "small bore"—reduces dead volume and provides impedance to improve transfer accuracy.

Warning—These products are not approved or intended for, and should not be used for, medical, clinical, surgical or other patient oriented applications.

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