

Unique Products

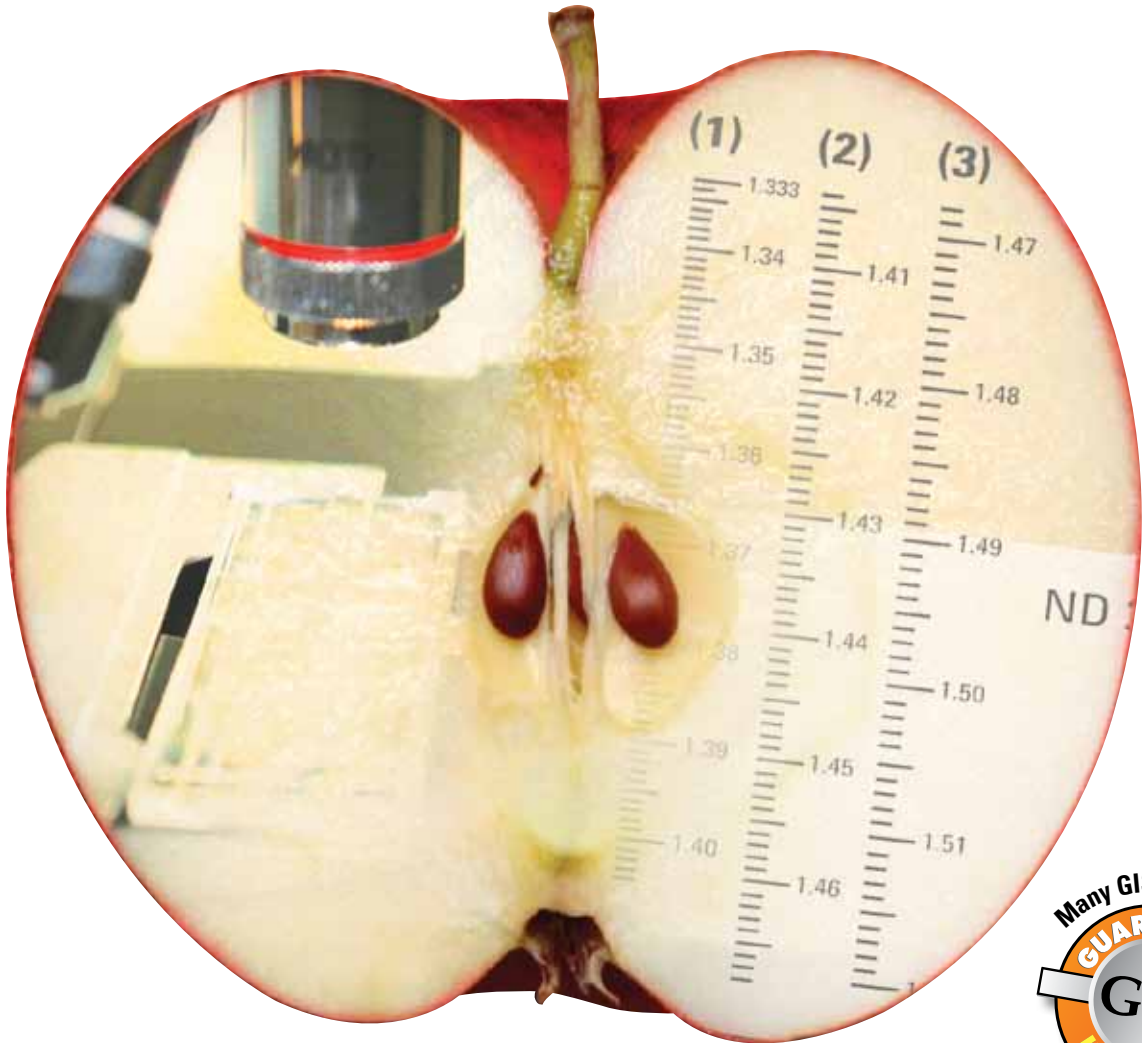
Exceptional Service


Technical Support

—2012—

FoodTECH Source[®]

Food Safety, Processing, and Quality Testing



 **Cole-Parmer[®]**
Delivering Solutions You Trust

800-363-5900

ColeParmer.ca

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3 Easy Ways to Order

- 1) Call **800-363-5900**
- 2) Fax **514-355-7119**
- 3) Visit **ColeParmer.ca**

No minimum order charge!

Payment terms are net 30 days with established credit. We welcome new accounts. Simply go online to fill out an application for credit, or call us. We accept:



†Discover not valid in Canada.

Also, procurement cards; personal checks; and money orders. No surcharge is applied to credit card orders. Credit card charges are submitted at time of shipment.

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Get products shipped and delivered when you need them with our **Guaranteed In Stock (GIS) program**. We keep more than 10 million items stocked in our 155,000 square foot warehouse to ensure we have products ready to go out the door as soon as you order.



As you browse through this catalog, look for items with a GIS icon and catalog numbers highlighted in **orange**. If any of these items are not in stock when you order, we will pay the shipping costs!*

*GIS items in this catalog are guaranteed in stock through 12/31/12. When you use the two-letter alpha code prefix with the product catalog number. Program valid only in the U.S. and Canada. Cole-Parmer reserves the right to extend or remove GIS items at any time.

We Stand Behind our Products—Guaranteed!

Cole-Parmer-brand products are guaranteed to be free from defects in material and workmanship for one year from the date of shipment, and if not, we will replace it free of charge. We are continually working to provide you with the best product offering available. As a result, our products and prices are subject to change. You can confirm current prices by phone or fax, or visit ColeParmer.com which is updated daily.

Returns are Easy—Just Call Us

Simply return the product with the appropriate paperwork and your account will be credited. All returns must be in unused, resalable condition and must not be contaminated with hazardous materials. For a full returns policy, go to www.coleparmer.com/terms. U.S. and Canadian customers should call our Customer Service Department for a return authorization number and safety form. When you call, please provide us with:

- our reference number
- reason for the return
- (on the packing slip) or our invoice number
- date of purchase
- your purchase order number



Highlighted items

OAKTON® Dual-Range Waterproof TDSTestr® 11 and ECTestr® 11

Dual-range measurements increase application range

CON TDS °C/F

- Replaceable sensor prolongs the life of your instrument
- Single or one point per range calibration
- Auto shutoff, low-battery indicator, error messages

Never watch a tester sink to the bottom of your tank or pond! These waterproof testers float, so there's no need to worry. Valox® housing and stainless steel electrodes offer good chemical compatibility and durability. Model 35662-30 features automatic standard recognition for calibration ease.



Replaceable sensor

What's included: protective plastic storage case, lanyard, and batteries.

ISO9001:2008 CERTIFIED SUPPLIER CE

Catalog number	WJ-35662-10	WJ-35662-30
Description	TDSTestr 11 Dual Range	ECTestr 11 Dual Range
Range	Conductivity 0 to 2000 ppm; 0 to 10.0 ppt Temperature 32 to 122°F (0 to 50°C)	0 to 2000 µS/cm; 0 to 20.00 mS/cm 32 to 122°F (0 to 50°C)
Resolution	Conductivity 10 ppm; 0.10 ppt Temperature 0.1°F (0.1°C)	10 µS/cm; 0.10 mS/cm 0.1°F (0.1°C)
Accuracy	Conductivity ±1% full scale Temperature ±0.9°F (±0.5°C)	±1% full scale ±0.9°F (±0.5°C)
Temperature compensation	Automatic, 0 to 50°C; 2% per °C	
Calibration	One or two points	
Display	4-digit LCD, dual line	
Power	Four 1.5 V alkaline batteries (included), approximately 150 hours continuous use	
Dimensions (L x dia)	6½" x 1½" (17 x 4 cm)	
Price	\$95.25	\$95.25

WJ-35661-17 Replacement sensor for above pin-style testers. \$57.50

WJ-09377-16 Replacement batteries, 1.5 V button cell. Pack of 6. \$18.00

WJ-35624-45 Carrying case \$32.00

WJ-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 \$46.00

WJ-17090-30 NIST-traceable calibration for conductivity meter \$126.25



35662-30

OAKTON® Multirange Waterproof Cup-Style TDSTestr® 11+ and ECTestr® 11+

Operate as either a cup-style or dip-style tester for greater flexibility

- Automatically or manually select measuring range
- Waterproof, dustproof housings float
- Push-button calibration, Hold function, and error messages

CON TDS °C/F

Use these testers for either cup-style or dip-style measurements. For cup style, pour a small amount of your sample directly into the sensor cup until it overflows; for dip style, simply immerse tester tip into sample. Replaceable sensor lets you reuse meter body many times over. Valox® housing and stainless steel electrodes for good chemical compatibility.

Note: Before measuring, calibrate tester as either cup style or dip style (depending on intended method of use).

What's included: protective plastic storage case, lanyard, and batteries.



Features cup-style sensor—draw or grab samples anywhere!

ISO9001:2008 CERTIFIED SUPPLIER CE

Catalog number	WJ-35662-15	WJ-35662-35
Description	TDSTestr 11+ Multirange	ECTestr 11+ Multirange
Range	Conductivity 0 to 200.0, 0 to 2000 ppm; 0 to 10.00 ppt Temperature 32 to 122°F (0 to 50°C)	0 to 200.0, 0 to 2000 µS/cm; 0 to 20.00 mS/cm 32 to 122°F (0 to 50°C)
Resolution	Conductivity 0.1, 1 ppm; 0.01 ppt Temperature 0.1°F (0.1°C)	0.1, 1 µS/cm; 0.01 mS/cm 0.1°F (0.1°C)
Accuracy	Conductivity ±1% full scale Temperature ±0.9°F (±0.5°C)	±1% full scale ±0.9°F (±0.5°C)
Temperature compensation	Automatic, 0 to 50°C; 2% per °C	
Calibration	Push-button calibration, one to three points	
Display	4-digit LCD, dual line	
Power	Four 1.5 V alkaline batteries (included), approximately 150 hours continuous use	
Dimensions (L x dia)	6½" x 1½" (17 x 4 cm)	
Price	\$128.50	\$128.50

WJ-35661-08 Replacement sensor for above cup-style testers. \$68.25

WJ-09377-16 Replacement batteries, 1.5 V button cell. Pack of 6. \$18.00

WJ-17090-30 NIST-traceable calibration for conductivity meter \$126.25

See how to calibrate your Oakton® TDSTestr®

watch the VIDEO

ColeParmer.com/videos



35662-35



Electrochemistry

Conductivity

Highlighted items

OAKTON® CON 6+, TDS 6+, and SALT 6+ Meters

Autorangeing conductivity or TDS with temperature measurements

- CON 6+ and TDS 6+ have five auto-ranging measurement modes—up to 200.0 mS (200.0 ppt)
- Temperature readout in °C with the push of a button
- Rubber boot with built-in stand protects meter and adds functionality

These microprocessor-based meters feature easy, push-button operation that offers high accuracy at an extremely affordable price. A quick and easy single-point calibration covers all five ranges with the CON 6+ and TDS 6+ meters; for greater precision, single points can be calibrated within each of the five measurement ranges. The SALT 6+ features single-point calibration; calibrate using 4487 ppm (4.5 ppt) calibration solution 00653-89 (sold below).

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.

Meters include: protective rubber boot with stand, conductivity/TDS/temperature probe (K = 1.0), and four AAA batteries.

Kits include: 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.

NEW

CON TDS SAL °C



CON 6+ meter
35604-00

SALT 6+ meter
35604-40

Rubber boot protects meter and doubles as a stand.

INNOCAL®
INNOVATIVE CALIBRATION SOLUTIONS

WJ-17090-30 NIST-traceable calibration
with data for conductivity meters **\$126.25**

ISO9001:2008
CERTIFIED SUPPLIER

CE **3** year warranty
Meter only

Catalog number	WJ-35604-00	WJ-35604-04	WJ-35604-20	WJ-35604-24	WJ-35604-40	WJ-35604-44
Description	CON 6+ meter	CON 6+ meter kit	TDS 6+ meter	TDS 6+ meter kit	SALT 6+ meter	SALT 6+ meter kit
Range	Conductivity 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†		1 to 50.0 ppt, 0.1 to 5.00%	
	Temperature -10.0 to 110.0°C		-10.0 to 110.0°C		-10.0 to 110.0°C	
Resolution	Conductivity 0.01, 0.1, 1 µS; 0.01, 0.1 mS		0.01, 0.1, 1 ppm; 0.01, 0.1 ppt		0.1 ppt, 0.01%	
	Temperature 0.1°C		0.1°C		0.1°C	
Accuracy	Conductivity ±1% full-scale		±1% full-scale		±1% full-scale	
	Temperature ±0.5°C		±0.5°C		±0.5°C	
Temperature compensation	Automatic or manual from 0.0 to 50.0°C		Automatic or manual from 0.0 to 50.0°C		Automatic or manual from 0.0 to 50.0°C	
Temperature coefficient	Adjustable from 0 to 3% per °C		Adjustable from 0 to 3% per °C		Adjustable from 0 to 3% per °C	
Normalization temperature	20°C or 25°C, selectable		20°C or 25°C, selectable		20°C or 25°C, selectable	
Cell constant (K)	Selectable, 0.1, 1, and 10		Selectable, 0.1, 1, and 10		1.0	
Conductivity-to-TDS/salt conversion factor	—		0.4 to 1.00 adjustable		Nonlinear compensation	
Calibration points	5 maximum, one per range		5 maximum, one per range		One point in 1 to 50 ppt range	
Display	4-digit LCD, single line		4-digit LCD, single line		4-digit LCD, single line	
Power	Four AAA batteries (included)		Four AAA batteries (included)		Four AAA batteries (included)	
Battery life	100 hours continuous use		100 hours continuous use		100 hours continuous use	
Dimensions	Meter: 5 1/2" L x 2 3/4" W x 1 1/16" H (14 x 7 x 3 cm) Probe: 5 1/8" L x 5/8" dia (13 x 2 cm) with 36" cable		Meter: 5 1/2" L x 2 3/4" W x 1 1/16" H (14 x 7 x 3 cm) Probe: 5 1/8" L x 5/8" dia (13 x 2 cm) with 36" cable		Meter: 5 1/2" L x 2 3/4" W x 1 1/16" H (14 x 7 x 3 cm) Probe: 5 1/8" L x 5/8" dia (13 x 2 cm) with 36" cable	
Price	\$380.00	\$431.00	\$380.00	\$431.00	\$380.00	\$431.00

†With K = 10 probe

- WJ-35606-53** Conductivity probe, K = 0.1 **\$177.75**
- WJ-35606-55** Replacement conductivity probe, K = 1.0 **\$173.25**
- WJ-35606-57** Conductivity probe, K = 10 **\$177.75**
- WJ-00653-89** Calibration solution for SALT 6+ meter,
4487 ppm NaCl; 500 mL bottle **\$13.75**

- WJ-35653-15** Calibration solution for for SALT 6+ meter,
3000 ppm NaCl. Pack of 20 (20-mL) pouches **\$32.25**
- WJ-09376-00** Replacement batteries, AAA. Pack of 12 **\$24.50**

Electrochemistry Conductivity

OAKTON® Benchtop CON 700 and 2700 Meters

Economy and advanced meters for benchtop conductivity measurement

- Space-saving design takes up less room on the bench than other meters
- Large display lets you see your measurements from across the lab

Economical Oakton CON 700 meter is an affordable way to take consistent, accurate conductivity measurements in your laboratory. Meter reads 0 to 200.0 mS across five ranges—autoranging features gives the best resolution for your measurements. Memory stores up to 100 readings for later retrieval. Meter features adjustable temperature coefficient for better accuracy, and selectable cell constant for very high or low range measurements. Selectable manual or automatic temperature compensation gives greater precision. Water-resistant membrane keypad and convenient pull-out reference guide provide useful features for the lab.

Oakton CON 2700 meter has advanced features for GLP-compliant readings—all calibration and stored data are stamped with time/date. Advanced setup options allow you to customize the meter to your needs. Informative display shows measurements together with temperature, electrode status, calibration points, time, and date all at once! Bright backlight helps you view readings under all conditions. Visual stability indicator informs you when measurements have stabilized, eliminating guesswork. Nonvolatile memory stores up to 500 data sets. Programmable functions include data logging intervals, limit alarms, and password protection. Data is easily exported to a computer via RS-232 port. Order RS-232 cable and optional RS-232 to USB adapter separately below.

What's included: conductivity/temperature probe 35608-74 (CON 700) or 35412-10 (CON 2700), electrode stand, and universal 110/240 VAC power supply.

CON TDS SAL RES °C/°F

NEW



CON 2700 meter 35412-00

ISO9001:2008
CERTIFIED SUPPLIER

CE 3 year warranty

Catalog number	WJ-35411-00	WJ-35412-00
Description	CON 700	CON 2700
Range	Conductivity: 0.0 to 20.00, 0 to 200.0, 0 to 2000 µS; 0 to 20.00, 0 to 200.0 mS TDS: 0.00 to 100.0 ppt Salinity: — Resistivity: — Temperature: 32.0 to 212°F (0.0 to 100.0°C)	Conductivity: 0.0 to 20.00, 0 to 200.0, 0 to 2000 µS; 0 to 20.00, 0 to 500.0 mS TDS: 0.050 to 500.0 ppt Salinity: 0.0 to 80.0 ppt Resistivity: 2.000 Ω to 20.0 mΩ Temperature: 32.0 to 212°F (0.0 to 100.0°C)
Resolution	Conductivity: 0.01, 0.1, 1 µS; 0.01, 0.1 mS TDS: 0.01, 0.1, 1 ppm; 0.01, 0.1 ppt Salinity: — Resistivity: — Temperature: 0.1°F or °C	Conductivity: 0.01, 0.1 µS; 0.001, 0.01, 0.1 mS TDS: 0.01, 0.1 ppm; 0.001, 0.01, 0.1 ppt Salinity: 0.01, 0.1 ppm; 0.001, 0.01, 0.1 ppt Resistivity: 0.01 mΩ, 0.001, 0.01 kΩ, 0.01, 0.1 Ω Temperature: 0.1°F or °C
Accuracy	Conductivity: ±1% full-scale TDS: ±1% full-scale Salinity: — Resistivity: — Temperature: ±0.9°F (±0.5°C)	Conductivity: ±1% full-scale TDS: ±1% full-scale Salinity: ±1% full-scale Resistivity: ±1% full-scale Temperature: ±0.5°F (±0.3°C)
Temperature compensation	Automatic or manual, adjustable from 0.0 to 10% per °F/°C	Automatic or manual, adjustable from 0.0 to 10% per °F/°C
Cell constant (K)	Select from K = 0.1, 1.0, or 10	0.010 to 10.000
Conductivity-to-TDS factor	Adjustable from 0.4 to 1.0	Adjustable from 0.4 to 1.0
Data logging	100 data sets	500 data sets
Output	—	RS-232
Display	3¼" x 2½" (8.3 x 6.2 cm) custom LCD	3¼" x 2½" (8.3 x 6.2 cm) graphic LCD with backlight
Power	110/240 VAC with universal adapter (included)	110/240 VAC with universal adapter (included)
Dimensions (L x W x H)	6½" x 6½" x 2¾" (15.5 x 17.5 x 6.9 cm)	6½" x 6½" x 2¾" (15.5 x 17.5 x 6.9 cm)
Price	\$705.00	\$1002.00



CON 700 meter 35411-00

Catalog number	Cell constant (K)	Body/electrode	Price
2-cell conductivity probes for CON 700 or CON 2700 meters			
WJ-35608-72	0.1	Epoxy/platinum	\$ 110.25
WJ-35608-74	1.0	Ultem®/stainless steel	144.50
WJ-35608-76	1.0	Epoxy/platinum	146.75
WJ-35608-78	10	Epoxy/platinum	110.25
4-cell conductivity probes for CON 2700 meter only			
WJ-35608-90	0.1	Epoxy/platinum	173.25
WJ-35412-10	1.0	Epoxy/graphite	325.00
WJ-35608-92	1.0	Epoxy/platinum	229.25
WJ-35608-94	10	Epoxy/platinum	173.25

WJ-35420-01 RS-232 cable for 2700 Series meters. \$43.00

WJ-22050-58 RS-232 to USB adapter (requires cable 35420-01) \$44.75

WJ-17090-30 NIST-traceable calibration with data for conductivity meters \$126.25

TECHNICAL information!

2-cell vs 4-cell conductivity probes

Most conductivity meters use either 2-cell or 4-cell conductivity probes. 2-cell probes feature electrode surfaces made of platinum, titanium, gold-plated nickel, or graphite, and are good for general applications. 4-cell electrodes use a reference voltage to compensate for any polarization or fouling of the electrode plates. The reference voltage ensures measurements indicate actual conductivity independent of electrode condition, resulting in higher accuracy.





Electrochemistry Conductivity

Highlighted items

Cole-Parmer Conductivity Solutions, NIST-Traceable Reference Materials

NIST-traceable reference materials include a calibration report from an ISO Guide 34 and ISO 17025 accredited laboratory for the highest accuracy available—up to ±0.25%!

A Batch-Tested Bottles. Each bottle includes a NIST-traceable calibration report supplied by the manufacturer and information from batch testing. Also includes step-by-step calibration instructions and temperature-compensation chart. One 16-oz (473-mL) glass bottle.

B Individually Tested Bottles. Individually serial numbered and tested bottles include a NIST-traceable calibration report supplied by the manufacturer and information from individual bottle testing. Also includes step-by-step calibration instructions and temperature-compensation chart. One 16-oz (473-mL) glass bottle.

C One-Shot® Vials. These convenient single-use vials eliminate contamination concerns and are ideal for the lab as well as the field. Calibration is performed in the large 3½" (8.9 cm) H x 1¾" (4.4 cm) dia, PE vial that accommodates virtually any conductivity probe. Includes a NIST-traceable calibration report supplied by the manufacturer and temperature-compensation chart. Pack of six vials, each containing 3.4 oz (100 mL) of conductivity solution.



A
00652-24



C
00652-62

Catalog number	Conductivity (µS)	Resistivity (MΩ)	TDS (ppm)	Price
A Batch tested, one 16-oz (473-mL) glass bottle				
WJ-00652-20	1	1	0.66	\$ 72.25
WJ-00652-22	5	0.2	3.3	72.25
WJ-00652-24	10	0.1	6.6	36.25
WJ-00652-26	100	0.01	66	36.25
WJ-00652-28	1000	0.001	666	36.25
WJ-00652-30	1413	0.00071	933	36.25
WJ-00652-32	10,000	0.0001	6666	36.25
WJ-00652-34	100,000	0.00001	66,666	36.25
NEW WJ-00652-53	150,000	0.0000066	100,000	36.25
NEW WJ-00652-55	200,000	0.000005	133,333	36.25

B Individually tested, one 16-oz (473-mL) glass bottle				
WJ-00652-40	1	1	0.66	116.50
WJ-00652-42	5	0.2	3.3	116.50
WJ-00652-44	10	0.1	6.6	88.25
WJ-00652-46	100	0.01	66	88.25
WJ-00652-48	1000	0.001	666	88.25
WJ-00652-50	1413	0.00071	933	88.25
WJ-00652-52	10,000	0.0001	6666	88.25
WJ-00652-54	100,000	0.00001	66,666	88.25
NEW WJ-00652-56	150,000	0.0000066	100,000	88.25
NEW WJ-00652-58	200,000	0.000005	133,333	88.25

C One-Shot®, pack of six 3.4-oz (100-mL) vials				
WJ-00652-60	5	0.2	3.3	90.25
WJ-00652-62	10	0.1	6.6	42.25
WJ-00652-64	100	0.01	66	42.25
WJ-00652-66	1000	0.001	666	42.25
WJ-00652-68	1413	0.00071	933	42.25
WJ-00652-70	10,000	0.0001	6666	42.25
WJ-00652-72	100,000	0.00001	66,666	42.25
NEW WJ-00652-76	150,000	0.0000066	100,000	42.25
NEW WJ-00652-78	200,000	0.000005	133,333	42.25
WJ-00652-74	Assortment [†]	—	—	42.25

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

OAKTON® Calibration Solutions

Standards have KCl, NaCl and 442 conversions printed on the bottle for ease of use. Temperature corrections are printed on the bottle, with the certified values listed in the tables, accurate to within ±0.5% and are referenced to 25°C. Certificates of analysis available at www.coleparmer.com or call our Application Specialists for more details.



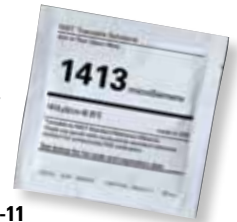
Includes a NIST-traceable calibration report supplied by the manufacturer. One 17-oz (500-mL) bottle.

00653-16

Catalog number	Conductivity (µS)	Conductivity-to-TDS calibration values			Price
		ppm KCl	ppm NaCl	ppm 442	
WJ-00653-23	23	11.6	10.7	14.74	\$ 13.75
WJ-00653-16	84	40.38	38.04	50.5	13.75
WJ-00653-47	447	226	215	300	13.75
WJ-00653-18	1413	745	702	1000	13.75
WJ-00653-15	1500	757	737	1050	13.75
WJ-00653-27	2070	1045	1041	1500	13.75
WJ-00653-20	2764	1382	1414	2062	13.75
WJ-00653-89	8974	5101	4487	7608	13.75
WJ-00606-10	12,880	7447	7230	11,367	15.00
WJ-00653-50	15,000	8759	8532	13,455	15.00
WJ-00653-32	80,000	52,168	48,384	79,688	15.00

Conductivity Calibration Pouches

Single-use 20-mL pouches are sealed to ensure freshness—take these convenient buffer solutions anywhere! A µS-to-ppm conversion table is printed on each pack for quick reference. Accuracy is ±1% at 25°C.



Calibration pouches include a NIST-traceable calibration report supplied by the manufacturer.

35653-11

Catalog number	Conductivity (µS)	Conductivity-to-TDS calibration values			Price/pk of 20
		ppm KCl	ppm NaCl	ppm 442	
WJ-35653-09	10	4.8	4.7	7.0	\$47.00
WJ-35653-10	447	226	216	300	32.25
WJ-35653-11	1413	745	702	1000	32.25
WJ-35653-12	2764	1382	1414	2062	32.25
WJ-35653-13	15,000	8759	8532	13,445	32.25
WJ-35653-00	Rinse solution	—	—	—	35.75

Myron L Calibration Solutions

Standards have NaCl and 442™ conversions included for ease of use. Conductivity values are accurate to within ±1% and are referenced to 25°C.



Include a NIST-traceable calibration report supplied by the manufacturer. One 32-oz (946-mL) bottle.

01489-93

Catalog number	Conductivity (µS)	Conductivity-to-TDS calibration values			Price
		ppm KCl	ppm NaCl	ppm 442	
WJ-01489-90	23.8	—	11.08	15	\$38.00
WJ-01489-91	46.7	—	21.8	30	38.00
WJ-01489-92	70	—	32.8	45	38.00
WJ-01489-93	445	—	214	300	38.00
WJ-01489-94	700	—	340	478	38.00
WJ-01489-95	2060	—	1036	1500	38.00
WJ-01489-96	3900	—	2027	3000	38.00
WJ-01489-97	7000	—	3740	5687	38.00
WJ-01489-98	16,630	—	9462	15,000	38.00
WJ-01489-99	30,100	—	18,235	30,000	38.00



Electrochemistry pH/Ion

Highlighted items

OAKTON® Waterproof EcoTestr™ pH 2 Pocket Meter

Easy-to-read display with an easy-to-afford price!

pH

- Ergonomically designed LCD means measurements can be seen at a glance
- Economical and easy to use
- Waterproof and dustproof housing designed for use in dirty or damp field conditions

“Inexpensive but not cheap.”

John, Atlanta, GA



Simply dip and read—the orientation of the display means there is no need to turn your head or tilt the tester. This low-cost meter is perfect for most applications. The single-junction electrode is recessed to protect against breakage. The unit 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. Built-in belt clip allows you to hang your meter when not in use.

What's included: four 1.5 V button cell batteries.

Specifications



Range: 0.0 to 14.0 pH	Calibration: up to three point	Power: four 1.5 V button cell batteries (included)
Resolution: 0.1 pH	Buffer recognition: 4.0, 7.0, or 10.0	Battery life: >300 hours
Accuracy: ±0.1 pH	Operating temperature: 32 to 122°F (0 to 50°C)	Dimensions (W x H x D): 1½" x 6¼" x 1½" (3.9 x 15.9 x 2.9 cm)
Temperature compensation: automatic	Display: three-digit vertical LCD	

Catalog number	Description	Price
WJ-35423-10	EcoTestr pH 2 pocket meter	\$71.00

WJ-09377-16 Replacement batteries, 1.5 V. Pack of 6 \$18.00

WJ-17101-45 NIST-traceable calibration with data for pH pocket meters (non-BNC) \$74.50



35423-10

OAKTON® pH 5+ and pH 6+ Meters

High ±0.01 pH accuracy at economical prices

pH mV °C

- Convenient, compact design
- Up to five-point push-button calibration with autobuffer recognition
- Displays pH and temperature with the press of a button

These meters are perfect for fast, accurate results. Automatic temperature compensation (ATC) ensures accuracy from 0 to 100°C. The pH 6 meter also reads mV. Protective rubber boot also doubles as a meter stand.

Meters include: ATC probe, protective rubber boot, and batteries.

Meters with probe add: pH electrode 59001-65

Meter kits add: "All-in-one" pH electrode, pH buffer solutions, sample bottles, rinse bottle, and carrying case.

Specifications



Display: 3½-digit LCD	Battery life: 200 hours continuous
Temperature compensation: automatic with ATC probe, 0 to 100°C	Dimensions (L x W x H): 6⅞" x 3⅜" x 1⅞" (15.7 x 8.5 x 4.2 cm)
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	±0.5°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

Catalog number	Model	Description	Mode	Price
WJ-35613-50	pH 5+	Meter only	pH/temp	\$246.50
WJ-35613-20	pH 6+		pH/mV/temp	273.00
WJ-35613-52	pH 5+	Meter with probe	pH/temp	296.00
WJ-35613-22	pH 6+		pH/mV/temp	326.00
WJ-35613-54	pH 5+	Meter kit	pH/temp	382.00
WJ-35613-24	pH 6+		pH/mV/temp	405.00

NEW



35613-52

Accessories

WJ-59001-65 Replacement pH electrode; single-junction, gel-filled. Epoxy body, BNC connector \$78.00

WJ-35811-71 "All-in-one" combination pH probe with built-in ATC; single-junction sealed, epoxy body, BNC connector \$94.00

WJ-35811-72 "All-in-one" combination pH probe with built-in ATC; double-junction sealed, epoxy body, BNC connector \$138.75

WJ-35613-05 Replacement ATC probe, stainless steel \$48.75

WJ-09376-00 Replacement batteries, AAA. Pack of 12 \$24.50

WJ-17106-20 NIST-traceable calibration with data \$126.25

Unique Products.

Exceptional Service.

Technical Support.

Electrochemistry

pH/Ion

OAKTON® Benchtop pH 700/2700 and Ion 700/2700 Meters

Designed for the requirements of today's laboratory

- Economical 700 series is ideal for basic laboratory measurements
- Advanced 2700 series handles your GLP/GMP research-grade applications

NEW

These Oakton meters are designed to offer you the best value! Compact footprint conserves valuable benchtop space and the extra-large LCD provides excellent visibility—even from a distance. A convenient pull-out quick reference card keeps procedures handy at all times.

pH 700 and Ion 700 Meters are ideal for your basic, routine measurements. The pH 700 measures pH, mV, relative mV, and temperature, and the Ion 700 adds ion measurement capabilities with readout in ppm for easy use. Automatic temperature compensation (ATC) maintains reading accuracy even with fluctuating temperatures. Meters features five-point pH calibration, automatic buffer recognition for both USA and NIST pH buffers, Hold function, and electrode diagnostics.

pH 2700 and Ion 2700 Meters offer all the features of the 700 series, and meet GLP/GMP requirements with time/date and calibration stamp for all stored data. Advanced options for data logging for customization including alarm features. Large, informative backlit LCD shows readings with temperature, stability indicator, electrode status, calibration points, time and date, and more. Comprehensive self diagnostics make troubleshooting a breeze.

Meter kits include: pH electrode 35805-04, ATC probe 35613-13, 60 mL of electrode fill solution, electrode stand, and universal power adapter.



pH 700 meter
35419-10

pH 2700 meter
35420-20

Specifications

Slope control: 80 to 120%

Operating temperature: 32 to 122°F (0 to 50°C)

ISO9001:2008
CERTIFIED SUPPLIER

CE **3** year
warranty
Meter only

Catalog number		WJ-35419-10	WJ-35419-20	WJ-35420-20	WJ-35421-00
Model		pH 700	Ion 700	pH 2700	Ion 2700
Range	pH	-2.00 to 16.00		-2.000 to 20.000	
	mV/Rel mV	±2000		±2000	
	ISE	—	0.01 to 2000 ppm	—	0.001 to 19999 ppm
	Temperature	32 to 100°F (0.0 to 100.0°C)		32 to 212°F (0 to 100°C)	
Resolution	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	—	0.01 to 2000 ppm	—	2 or 3 digits
	Temperature	0.1°F or °C		0.1°F or °C	
Accuracy	pH	±0.01 pH		±0.002 + 1 LSD	
	mV/Rel mV	±0.2 within ±199.9 mV, ±2 beyond 199.9 mV		±0.2 mV	
	ISE	—	±0.5% of reading (monovalent); ±1% of reading (divalent)	—	±0.5% of reading (monovalent); ±1% of reading (divalent)
	Temperature	±0.9°F (±0.5°C)		±0.5°F (±0.3°C)	
Calibration	pH	Up to 5 points with autobuffer recognition		Up to 6 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)	—	From 2 to 8 concentration standards
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, NIST, DIN, or custom buffer sets	
Data logging	100 data sets			500 data sets with time-and-date stamp	
Output	—			RS-232	
Display	Dual-line 3¼" x 2¼" (8.3 x 6.2 cm) LCD			3¼" x 2¼" (8.3 x 6.2 cm) graphic LCD with backlight	
Power	100/240 VAC, 50/60 Hz			100/240 VAC, 50/60 Hz	
Dimensions (L x W x H)	6½" x 6⅞" x 2¼" (15.5 x 17.5 x 6.9 cm)			6½" x 6⅞" x 2¼" (15.5 x 17.5 x 6.9 cm)	
Price	\$713.00	\$850.00	\$884.00	\$1261.00	

WJ-35811-71 "All-in-one" combination pH electrode; single junction, gel-filled, epoxy body \$94.00
WJ-35805-04 Replacement combination pH electrode; double junction, refillable, glass body. \$143.25

WJ-35613-13 Replacement ATC probe, stainless steel \$48.25
WJ-17106-20 NIST-traceable calibration with data for pH/ion meters. . . \$126.25

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

Durability and dependability make these the ideal choice to deliver accurate, reliable data

- Star A121 basic meter is perfect for simple, accurate pH measurements
- Star A221 and A324 meters provide advanced data security and data logging

Thermo Scientific Orion Star A-series portable pH meters are ideal for field testing—they feature a durable, waterproof IP67-rated housing. Large informative display shows readings with temperature, battery life, electrode status, meter mode, calibration data, power source, and more. Automatic recognition of USA, NIST, and DIN buffers. Auto-Read™ function locks in the stable readings.

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 multilanguage 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.

NEW



pH mV ISE °C/°F

58825-06

Find MORE!

For pH buffers and solutions, see pages 12–13.



Specifications

Slope control: 80 to 120%

Operating temperature: 32 to 122°F (0 to 50°C)

ISO9001:2008
CERTIFIED SUPPLIER



3 year warranty
Meter only

Catalog number	WJ-58825-06	WJ-58825-08	WJ-58825-16	WJ-58825-88	WJ-58825-64	WJ-58825-66
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
Parameters	pH/mV/temperature		pH/mV/temperature		pH/mV/ion/temperature	
Range	-2.00 to 16.00		-2.000 to 20.000		-2.000 to 20.001	
	±1600.0 mV; ±1999.9 rel mV		±2000.0 mV		±2000.0 mV	
	—		—		0 to 19,999	
Resolution	23 to 221°F (-5 to 105°C)		23 to 221°F (-5 to 105°C)		23 to 221°F (-5 to 105°C)	
	0.1, 0.01		0.1, 0.01, 0.001		0.1, 0.01, 0.001	
	0.1		0.1		0.1	
Accuracy	—		—		3 significant digits	
	±0.1		±0.1		±0.1	
	±0.01		±0.002		±0.002	
Temperature compensation	±0.2 or 0.05% of reading		±0.2 or 0.05% of reading		±0.2 or 0.05% of reading	
	—		—		±0.2 mV or 0.05% of reading	
	±0.1		±0.1		±0.1	
Calibration points	Automatic or manual		Automatic or manual		Automatic or manual	
Buffer recognition	Up to 3		Up to 5		Up to 5	
Data logging	USA, NIST, and DIN		USA, NIST, and DIN		USA, NIST, and DIN	
Output	50 points		1000 points with time-and-date stamp		5000 points with time-and-date stamp	
Display	—		RS-232, USB		RS-232, USB	
Power	LCD		Backlit, graphic LCD		Backlit, graphic LCD	
Battery life	Four AA batteries or optional AC adapter		Four AA batteries or optional AC adapter		Four AA batteries or optional AC adapter	
Dimensions (L x W x H)	800 hours		800 hours		800 hours	
Price	2½" x 4¼" x 9½" (59 x 105 x 231 mm)		2½" x 4¼" x 9½" (59 x 105 x 231 mm)		2½" x 4¼" x 9½" (59 x 105 x 231 mm)	
	\$528.00	\$898.00	\$596.00	\$2338.00	\$1061.00	\$1519.00

- WJ-58825-52 Hard carrying case \$148.00
- WJ-58825-53 Protective meter armor \$109.00
- WJ-58822-03 Universal AC power adapter \$69.00
- WJ-05719-14 Orion Triode pH/ATC electrode; refillable, epoxy body \$388.00

- WJ-05718-28 Ross Triode pH/ATC electrode \$591.00
- WJ-55350-68 pH buffer kit. Includes 473 mL each of 4, 7, 10 buffers and storage solution, and 60 mL of cleaning solution \$103.25
- WJ-09376-01 Replacement batteries, AA. Pack of 4 \$8.50
- WJ-17106-20 NIST-traceable calibration with data for pH meter \$126.25

Unique Products.

Exceptional Service.

Technical Support.

Electrochemistry

pH/Ion

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

pH mV ISE °C/°F

Durability and dependability make these the ideal choice to deliver accurate, reliable data

- Star A111 basic meter is perfect for simple, accurate pH measurements
- Star A211 and A214 meters provide advanced data security and data logging

Thermo Scientific Orion Star A-series benchtop pH and pH/ion meters are ideal for every laboratory. Large informative display shows readings with temperature, battery life, electrode status, meter mode, calibration data, power source, and more. Auto-Read™ function locks in the stable readings.

Star A111 pH Meter is a low-cost option that combines simplicity with accuracy—making it great for everyday pH measurements.

Star A211 pH and A214 pH/Ion Meters support a multilanguage interface, improved stability algorithms, expanded data logging, and better data security over the Star meter. Meters use RS-232 or USB for connectivity and include data analysis software.

Meters include: electrode arm with redesigned probe holder and universal power adapter.

Star A111 meter kit adds: Orion Triode pH/ATC electrode 05719-14 and 60 mL each of 4, 7, 10 buffers, storage solution, and cleaning solution.

Star A211 and 214 meter kits add: ROSS Triode pH/ATC electrode 05718-28; ATC probe; Star stirring probe; and 475 mL each of 4, 7, 10 buffers and storage solution.

NEW



58825-02

Specifications

Slope control: 80 to 120% **Operating temperature:** 32 to 122°F (0 to 50°C)

ISO 9001:2008
CERTIFIED SUPPLIER



3 year warranty
Meter only

Catalog number	WJ-58825-02	WJ-58825-04	WJ-58825-22	WJ-58825-24	WJ-58825-26	WJ-58825-28
Model	A111 pH meter only	A111 pH meter kit	A211 pH meter only	A211 pH meter kit	A214 pH/ion meter only	A214 pH/ion meter kit
Parameters	pH/mV/temperature		pH/mV/temperature		pH/mV/ion/temperature	
Range	-2.00 to 16.00		-2.000 to 20.000		-2.000 to 20.001	
	±1600.0 mV; ±1999.9 rel mV		±2000.0 mV		±2000.0 mV	
	—		—		0 to 19999	
Resolution	23 to 221°F (-5 to 105°C)		23 to 221°F (-5 to 105°C)		23 to 221°F (-5 to 105°C)	
	0.1, 0.01		0.1, 0.01, 0.001		0.1, 0.01, 0.001	
	0.1		0.1		0.1	
Accuracy	—		—		3 significant digits	
	0.1		0.1		0.1	
	±0.01		±0.002		±0.002	
Temperature compensation	±0.2 or 0.05% of reading		±0.2 or 0.05% of reading		±0.2 or 0.05% of reading	
	—		—		±0.2 mV or 0.05% of reading	
	±0.1		±0.1		±0.1	
Calibration points	Automatic or manual		Automatic or manual		Automatic or manual	
Buffer recognition	Up to 3		Up to 5		Up to 5	
Data logging	USA, NIST, and DIN		USA, NIST, and DIN		USA, NIST, and DIN	
Output	50 points		1000 points with time/date stamp		5000 points with time/date stamp	
Display	—		RS-232, USB		RS-232, USB	
Power	LCD		Backlit, graphic LCD		Backlit, graphic LCD	
Battery life	100 to 240 VAC (power adapter included) or four AA batteries (not included)		100 to 240 VAC (power adapter included) or four AA batteries (not included)		100 to 240 VAC (power adapter included) or four AA batteries (not included)	
Dimensions (L x W x H)	800 hours		800 hours		800 hours	
Price	3½" x 7" x 9¼" (9.3 x 18 x 23.6 cm)		3½" x 7" x 9¼" (9.3 x 18 x 23.6 cm)		3½" x 7" x 9¼" (9.3 x 18 x 23.6 cm)	
	\$562.00	\$829.00	\$860.00	\$1164.00	\$1347.00	\$1903.00

- WJ-58825-50 Electrode arm\$170.75
- WJ-58825-51 Base for electrode arm\$57.50
- WJ-58822-03 Universal AC power adapter\$69.00
- WJ-05719-14 Orion Triode pH/ATC electrode; refillable, epoxy body\$388.00
- WJ-05718-28 Ross Triode pH/ATC electrode\$591.00

- WJ-55350-68 pH buffer kit. Includes 473 mL each of 4, 7, 10 buffers and storage solution, and 60 mL of cleaning solution\$103.25
- WJ-09376-01 Batteries, AA. Pack of 4\$8.50
- WJ-17106-20 NIST-traceable calibration with data for pH meter\$126.25

Electrochemistry

pH/Ion

Horiba Laqua F-70 Series pH/Ion and Multiparameter Meters

Intuitive touch-screen operation makes it easy to navigate

- On-screen support for setup, maintenance, and troubleshooting
- Auto-hold function for calibration and measurement
- Up to 2000 GLP/GMP data sets
- USB PC communication and USB memory

The Laqua F-70 series of pH/ion and multiparameter meters is designed for simple, intuitive operation. These meters offer autocalibration, one-button measurement function, and easy-to-use touch-screen operation. Simply slide your finger across the screen to switch displays. The meter's prompts provide support for meter setup, maintenance information, and troubleshooting tips to guide you through trouble-free operation.

Large color LCD displays measurement value and temperature. Units also feature Auto-hold to ensure stable readings. USB PC communication and USB memory for easy download of GLP/GMP data sets.

Laqua F-72 pH/Ion Meter is a single-channel meter ideal for trouble-free pH and ion measurements in any laboratory.

Laqua F-73 pH/Ion Meter is a dual-channel meter that allows you to do two things at once. Ideal for busy laboratories; the second channel simultaneously displays two measurements.

Laqua F-74 Multiparameter Meter adds measurements for conductivity, TDS, salinity, and resistivity to the dual-channel F-73 meter. Simultaneously measure and display any two parameters.

What's included: stand-alone free-arm electrode stand, meter cover, and universal AC power adapter. Order electrodes separately below.



58702-02

Catalog number	WJ-58702-02	WJ-58702-04	WJ-58702-06
Model	F-72 pH/ion single channel	F-73 pH/ion dual channel	F-74 multiparameter dual channel
Parameters	pH/mV/ion/temperature	pH/mV/ion/temperature	pH/mV/ion/conductivity/TDS/salinity/resistivity/temperature
Range	pH	0.000 to 14.000	0.000 to 14.000
	mV	±1999.9 mV	±1999.9 mV
	ISE	0.00 to 999 g/L	0.00 to 999 g/L
	Conductivity/TDS	—	—
	Salinity/resistivity	—	—
Resolution	Temperature	0 to 100°C	0 to 100°C
	pH	0.01, 0.001	0.01, 0.001
	mV	0.1	1.1
	ISE	3 significant figures	4 significant figures
	Conductivity/TDS	—	—
Accuracy	Salinity/resistivity	—	—
	Temperature	0.1	1.1
	pH	±0.001	±0.001
	mV	±0.1	±0.1
	ISE	±5%	±5%
Temperature compensation	—	—	Automatic or manual
Calibration points for pH	—	—	Up to 5
Buffer recognition	—	—	NIST and DIN
Data logging	—	—	2000 data sets
Output	—	—	USB PC communication
Display	—	—	Color graphic LCD with touch screen
Power	—	—	100 to 240 VAC, 50/60 Hz
Dimensions (W x H x D)	—	—	6¾" x 2½" x 6¾" (17.0 x 7.4 x 17.4 cm)
Price	\$1141.00	\$1485.00	\$2172.00

- WJ-58702-50 pH/ATC electrode; glass body, double junction \$229.25
- WJ-99591-54 pH/ATC electrode; polymer body, double junction \$137.75
- WJ-05942-10 pH buffer pack, includes 375 mL of 4, 7, 10 buffers. \$32.25
- WJ-19600-60 Conductivity cell; dip style, K = 0.1 \$521.00
- WJ-19600-61 Conductivity cell; dip style, K = 1. \$485.00

- WJ-19600-62 Conductivity cell; dip style, K = 10. \$538.00
- WJ-17106-20 NIST-traceable calibration with data for pH meter. \$126.25
- WJ-17090-30 NIST-traceable calibration with data for conductivity meter \$126.25

Electrochemistry

pH/Ion

WTW inoLab® pH 7110, pH 7310, and Multi 9310 Benchtop Meters

Providing accurate measurements, compliant documentation, and secure traceability

pH mV ORP CON TDS SAL RES DO °C

- Auto-recognition of USA, NIST, and DIN buffers
- AutoRead function ensures repeatable results
- Easy to calibrate and maintain with calibration timer
- Power with universal AC adapter or AA batteries

NEW

The inoLab family of benchtop meters offers an intuitive user interface, large informative display, and keypad with tactile feedback to provide an exceptional user experience for error-free operation.

inoLab pH 7110 Basic Meter is ideally suited for routine, general laboratory pH/mV measurements. An intuitive user interface and easy-to-clean housing make it ideal for any environment.

inoLab pH 7310 Advanced Meter allows accurate measurements with compliant documentation to support GLP and AQA laboratory requirements. Capture 500 manual or 5000 automatic data sets with time/date stamp, sample ID, and calibration data. USB interface provides an easy connection to a PC, or choose the model with integrated printer for immediate results. All data is transferred in a CSV format directly into Excel®.

inoLab Multi 9310 Multiparameter Meter with Intelligent Digital Sensors (IDS) for accurate measurements with compliant documentation and secure traceability. All the features of the 7310 with the addition of simple plug-and-measure IDS sensor technology. All sensors log on with description, serial number, calibration state, and specific sensor data. The Quality Sensor Control (QSC) intelligent sensor rating monitors the condition of the electrode.

What's included: electrode stand, universal power adapter, and four AA batteries. Models inoLab pH 7310 and inoLab Multi 9310 also include data logging software and cable. Purchase electrodes separately below.



58890-62

Specifications

Slope control: 80 to 120% **Operating temperature:** 32 to 122°F (0 to 50°C)

ISO9001:2008
CERTIFIED SUPPLIER

CE  **3 year warranty**
Meter only

Catalog number	WJ-58890-60	WJ-58890-62	WJ-58890-64	WJ-58890-66	WJ-58890-68
Model	inoLab pH 7110	inoLab pH 7310	inoLab pH 7310 w/printer	inoLab Multi 9310	inoLab Multi 9310 w/printer
Parameters	pH/mV/temperature		pH/mV/temperature		pH/mV/conductivity/DO/temperature
Range	pH	-2.000 to 20.000	-2.000 to 20.000	-2.000 to 20.001	-2.000 to 20.001
	mV	±1200.0 mV	±1200.0 mV	±1200.0 mV	±1200.0 mV
	Conductivity	—	—	—	0 µS to 1000 mS
	TDS/salinity/resistivity	—	—	—	0 to 1999 mg/L ; 0 to 70 ppt; 0.00 to 20 MΩ
	Dissolved oxygen	—	—	—	0.00 to 90.00 mg/L; 0 to 600% saturation
Resolution	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)
	pH	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
	Conductivity	—	—	—	3 significant digits
	TDS/salinity/resistivity	—	—	—	3 significant digits
Accuracy	Dissolved oxygen	—	—	—	3 significant digits
	Temperature	0.1	0.1	0.1	0.1
	pH	±0.005	±0.005	±0.005	±0.005
	mV	±0.3 or 0.05% of reading	±0.3 or 0.05% of reading	±0.3 or 0.05% of reading	±0.3 or 0.05% of reading
	Conductivity	—	—	—	±0.05% of reading
Temperature compensation	TDS/salinity/resistivity	—	—	—	±0.05% of reading
	Dissolved oxygen	—	—	—	±0.05% of reading
	Temperature	±0.1	±0.1	±0.1	±0.1
	Automatic or manual	Automatic or manual	Automatic or manual	Automatic or manual	Automatic or manual
	Calibration points	Up to 3	Up to 5	Up to 5	Sensor dependent
Buffer recognition	USA, NIST, and DIN	USA, NIST, and DIN	USA, NIST, and DIN	USA, NIST, and DIN	
Data logging	—	500 manual/5000 automatic with time/date stamp	500 manual/5000 automatic with time/date stamp	500 manual/5000 automatic with time/date stamp	
Output	—	—	USB	USB	
Display	7-segmented LCD	Backlit graphic LCD	Backlit graphic LCD	Backlit graphic LCD	
Power	AC power adapter or four AA batteries	AC power adapter or four AA batteries	AC power adapter or four AA batteries	AC power adapter or four AA batteries	
Dimensions (W x H x D)	9½" x 7½" x 3⅜" (24 x 19 x 8 cm)	9½" x 7½" x 3⅜" (24 x 19 x 8 cm)	9½" x 7½" x 3⅜" (24 x 19 x 8 cm)	9½" x 7½" x 3⅜" (24 x 19 x 8 cm)	
Price	\$700.00	\$992.00	\$1433.00	\$1427.00	\$2000.00

- WJ-58900-52 SenTix® 42 pH/ATC electrode; epoxy body, gel filled, BNC connector \$278.00
- WJ-58900-56 SenTix 82 pH/ATC electrode; glass body, refillable, BNC connector \$286.00
- WJ-19707-50 TetraCon® 4-cell conductivity probe; K = 0.475, 4.9-ft (1.5-m) cable \$530.00
- WJ-53105-42 CellOx® 325 dissolved oxygen probe, 4.9-ft (1.5-m) cable \$883.00

- WJ-58890-70 Replacement thermal printer paper, one roll \$13.75
- WJ-09376-01 Replacement batteries, AA. Pack of 4 \$8.50
- WJ-17106-20 NIST-traceable calibration with data for pH meter \$126.25
- WJ-17090-30 NIST-traceable calibration with data for conductivity meter \$126.25



Electrochemistry pH Laboratory Electrodes

Highlighted items

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

Combine quality and durability

- Epoxy-body housing resists impact
- Ideal for your general-purpose applications in the lab or field
- Compatible with most brands of pH meter

These electrodes have the impact-resistant qualities of an epoxy body. Electrodes provide a fast, stable response and are ideal for prolonged pH or ORP readings. Electrodes with sealed, gel-filled design require virtually no maintenance. Electrodes with PTFE reference-junction resist coating and clogging. All listed electrodes have Ag/AgCl reference cells.

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

See how to maintain
your pH electrode.



watch the
VIDEO

ColeParmer.com/videos



Growing Greener
Packaging for these
electrodes is made
from 100% recycled
materials.



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	WJ-59001-65	\$ 78.00
	For dirty samples	Double				WJ-59001-70	93.00
B	General purpose, refillable	Single	Refillable [†]	176°F (80°C)	148 x 12	WJ-05992-30	138.75
	For dirty samples, refillable	Double				WJ-05991-12	141.00
C	General purpose, with removable bulb guard	Single	Sealed	176°F (80°C)	148 x 12	WJ-05992-40	120.50
D	Extra-long neck for test tube sampling	Single	Sealed	176°F (80°C)	220 x 6	WJ-05990-45	168.50
E	Flat tip for surface or low-volume sampling	Single	Sealed	176°F (80°C)	127 x 12	WJ-05990-65	145.75
PTFE reference-junction pH electrodes (clog-resistant)							
F	General purpose	Single	Refillable [‡]	221°F (105°C)	140 x 12	WJ-05993-45	105.50
G	Right-angle mount	Single	Sealed	194°F (90°C)	140 x 12	WJ-05992-55	55.25
	For dirty samples	Double	Sealed	221°F (105°C)	140 x 12	WJ-05993-25	105.50
For dirty samples; coiled cable	WJ-05993-28					121.50	
I	For dirty samples; flat tip for surface or low-volume sampling	Double	Sealed	212°F (100°C)	140 x 12	WJ-05993-11	158.25
	For dirty samples; easy to clean					WJ-05993-12	149.00
ORP electrodes							
A	General purpose	Single	Sealed	176°F (80°C)	127 x 12	WJ-59001-75	130.75
	For dirty samples	Double				WJ-59001-77	157.00
J	General purpose, refillable	Single	Refillable ^{††}	176°F (80°C)	155 x 12	WJ-05990-55	173.25

[†]Use fill solution 05992-48 [‡]Use fill solution 05993-26 ^{††}Use fill solution 05992-47

WJ-05992-48 Reference fill solution, 4 M KCl. Two 125-mL bottles. \$26.50

WJ-05993-26 Reference fill solution, KCl gel with AgCl. 1 qt (956 mL) \$46.00

WJ-05992-47 Reference fill solution, 3.8 M KCl with AgCl. Two 125-mL bottles. \$26.50

WJ-05983-25 Adapter, BNC to US standard plug \$51.75

Unique Products.

Exceptional Service.

Technical Support.



Electrochemistry

pH Accessories

Highlighted items

OAKTON® pH Buffer Solutions

Oakton buffers for meters with 0.01 resolution are standardized against NIST-traceable pH references within 0.01 pH at 77°F (25°C). Sold in individual bottles: 500-mL bottles are available in cases of 12; the 4-L bottles in cases of four.

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	WJ-00654-01	\$15.00	—	—	—	—	—	—	—	—
4.01	WJ-00654-00	15.00	WJ-05942-21	\$120.50	WJ-05942-22	\$23.00	WJ-05942-24	\$47.00	WJ-05942-25	\$160.50
6.86	WJ-00654-03	15.00	—	—	—	—	—	—	—	—
7.00	WJ-00654-04	15.00	WJ-05942-41	120.50	WJ-05942-42	23.00	WJ-05942-44	47.00	WJ-05942-45	160.50
9.18	WJ-00654-07	15.00	—	—	—	—	—	—	—	—
10.00	WJ-00654-08	15.00	WJ-05942-61	120.50	WJ-05942-62	23.00	WJ-05942-64	47.00	WJ-05942-65	160.50
12.45	WJ-00654-12	15.00	—	—	—	—	—	—	—	—



05942-24 00654-04 05942-62

OAKTON® pH Buffer Pouches

Economical pouches are accurate and convenient

Buffers are standardized against NIST-traceable pH references and offer ±0.01 accuracy at 77°F (25°C). Pack of 20 pouches.

Catalog number	pH	Price/pk
WJ-35653-01	4.01	\$35.75
WJ-35653-02	7.00	35.75
WJ-35653-03	10.00	35.75
WJ-35653-00	Rinse solution	35.75



35653-00

WJ-35653-04 Buffer pouch assortment pack; contains five pouches each of pH 4, 7, and 10 buffers and rinse solution. \$35.75

OAKTON® pH Buffer and pH Solution Packs

Economical and convenient packages for pH measurement and maintenance

The pH buffer pack includes one 500-mL bottle each of pH 4, 7, and 10 NIST-traceable buffers. The complete pH solution pack also includes one 500-mL bottle of cleaning solution and one 500-mL bottle of electrode storage solution.



05942-15

Catalog number	Description	Qty/pk	Price/pk
WJ-05942-10	pH buffer pack	3 bottles	\$32.25
WJ-05942-15	pH solution pack	5 bottles	59.75

Thermo Scientific Orion pH Buffers

Portable pH buffers come in 60-mL bottles—open a fresh bottle when needed. Standardized against NIST-traceable pH references. Pack of five 60-mL bottles.

55350-48



55350-44 55350-40

Catalog number	pH	Price/pk
WJ-55350-40	4.01	\$48.25
WJ-55350-44	7.00	48.25
WJ-55350-48	10.01	48.25

Cole-Parmer pH Buffers, NIST-Traceable Reference Materials

Include a calibration report from an ISO Guide 34 and ISO 17025 accredited laboratory

NEW

Cole-Parmer pH buffers are compared against and are traceable to NIST Standard Reference Materials. Each bottle includes a NIST-traceable calibration report supplied by the manufacturer. Colorless buffers are available in 500-mL, 1-L, or 4-L packaging sizes. Additional values and packaging sizes are available; call for details. Store at room temperature.



00651-00 00651-30 00651-70

pH	500-mL bottles		1-L bottles		4-L bottles	
	Catalog number	Price	Catalog number	Price	Catalog number	Price
4.01	WJ-00651-00	\$39.25	WJ-00651-30	\$57.50	WJ-00651-70	\$84.25
7.00	WJ-00651-02	39.25	WJ-00651-32	57.50	WJ-00651-72	84.25
10.00	WJ-00651-04	39.25	WJ-00651-34	57.50	WJ-00651-74	84.25

OAKTON® pHTestr® Calibration Kits

Store and organize all the components you need for fast, reliable calibration and measurement. The hard carrying case contains all the materials you need to calibrate in the field including premixed, premeasured buffers.

What's included: one waterproof 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.



35634-90

Catalog number	Tester included	Price
WJ-35624-70	None	\$ 46.00
WJ-35634-70	Waterproof pHTestr 10 (±0.1 accuracy)	137.50
WJ-35634-80	Waterproof pHTestr 20 (±0.01 accuracy)	165.25
WJ-35634-90	Waterproof pHTestr 30 (±0.01 accuracy; temp display)	181.25



Electrochemistry pH Accessories

Highlighted items

pH Buffer Tablets

Ideal when small amounts of buffer are needed

To make your own fresh buffer solutions, simply stir a tablet into 20 mL of distilled water. Bag of 50.

Catalog number	pH	Price/bg
WJ-55200-00	4	\$39.25
WJ-55200-02	7	39.25



55200-00

OAKION® Reference Fill Solutions

Choose from two types of reference fill solutions: 3.8 KCl saturated with AgCl for Ag/AgCl electrodes, or 4 KCl for calomel (Hg/Hg₂Cl₂). Both solutions come in a pack of two 125-mL bottles with syringe for easy dispensing—enough to fill approximately 25 electrodes.

Catalog number	Description	Price/pk
WJ-05992-47	3.8 KCl with AgCl	\$26.50
WJ-05992-48	4 KCl	26.50



05992-47

OAKION® Electrode Cleaning and Storage Solutions

Remove grease, oil deposits, and protein from your electrodes with our cleaning solution. After cleaning, keep your electrodes in proper working condition with our storage solution. Available as an individual 500-mL bottle or in a case of 24.



00653-04

00653-06

Solution type	Catalog number	Price/ea	Catalog number	Price/cs
Cleaning	WJ-00653-06	\$13.75	WJ-35655-06	\$271.00
Storage	WJ-00653-04	18.50	WJ-35655-04	383.00

OAKION® Flexible Electrode Holder

Holds up to four standard size electrodes (14-mm dia max) and one ATC probe. Weighted 6" (15.2 cm) diameter base lets you pivot holder 360° for added convenience. Flexible arm lets you move electrode side to side or up and down while keeping electrode at a constant vertical angle.



35617-50

Cat. no.	Description	Price
WJ-35617-50	Electrode holder	\$114.75

MORE online!

For our full selection of pH/ion accessories, go to ...
ColeParmer.ca/pH



pHydrion® Plastic pH Test Strips

Immediate pH results available in brilliant long-lasting colors

NEW

These direct-reading pH strips provide a simple, single color match with three times the matching area than competitive strips. Premium-quality plastic strips offer clear single color matches at every pH interval. Pack contains 100 test strips in a handy flip-top vial with matching color chart.



59200-40

Catalog number	pH range	Price/pk
WJ-59200-40	0 to 14	\$18.50
WJ-59200-42	0 to 6	18.50
WJ-59200-44	5 to 9	18.50
WJ-59200-46	6.5 to 13	18.50
WJ-59200-48	5.5 to 8	18.50

pHydrion® 1-12 Paper Strips

Replaces two vials of old-style litmus



59200-25

These low-cost disposable vials of pHydrion pH paper strips test pH range from 1 to 12. Box of ten vials; 100 strips per vial.

Catalog number	Description	Price/bx
WJ-59200-25	pHydrion 1-12 paper strips	\$17.25

LaMotte® Sanitizer Strength Test Strips

Use these chemically treated paper strips as a quick test for sanitizer strength

NEW

- Compare color change to included chart for easy-to-read results

Strips and color chart come supplied in a waterproof plastic vial. Strips for QACs 99532-30 also include a desiccant cap to ensure a longer shelf life.



Catalog number	Parameter	Testing range	Qty/vial	Price/vial
WJ-99532-30	QAC	50, 100, 200, and 400 ppm	100 strips	\$ 7.00
WJ-99532-31	Chlorine	10, 50, 100, and 200 ppm	200 strips	7.25
WJ-99532-36	Chlorine, HR	0, 50, 100, 250, 500, and 800 ppm	50 strips	19.00
WJ-99532-32	Iodine	12, 25, 50, and 100 ppm	200 strips	7.25
WJ-99532-33	Chlorine dioxide	0 to 10 ppm	50 strips	11.00
WJ-99532-34	Chlorine dioxide	0 to 500 ppm	50 strips	11.00
WJ-99532-35	Peracetic acid	0, 10, 20, 40, 60, 85, and 160 ppm	50 strips	10.75

Electrochemistry

Water Testing

LaMotte® Handheld Turbidity Meters

Redesigned for higher accuracy and wider range

- Advanced microprocessor offers high-accuracy readings
- Available with either EPA- or ISO-compliant optical systems
- Battery operated for field and on-site testing convenience

Test municipal waters, food and beverage waters, or any aqueous solution where fluid clarity is important. These compact portable meters are equipped with a unique optics configuration to read low turbidity levels down to 0.05 NTU and high levels up to 4000 NTU. Large, menu-driven LCD features five measuring units, seven user-selectable languages, data logging capabilities to 500 points, and USB interface for downloading data to your computer.

What's included: 60 mL each of 0, 1, and 10 NTU standards; plastic sample bottle; four glass sample vials; USB cable and wall plug; and waterproof plastic carrying case.



05563-22

Specifications



Units of measure: NTU, FNU, FAU, ASBC, EBC, AU

Range: 0 to 4000 NTU

Resolution: 0.01 NTU/FNU from 0.00 to 10.99,
0.1 NTU/FNU from 11.0 to 109.9, 1 NTU/FNU
from 110 to 4000

Accuracy: ±2% from 0 to 100 NTU;
±3% from 100 to 4000 NTU

Light source

US EPA model 05563-22: tungsten lamp
ISO model 05563-24: 860 nm LED

Photodetector: silicon photodiode

Sample volume: 10 mL

Sample cell size: 25 mm dia, flat-bottom tube

Response time: less than 2 seconds

Operating temperature: 32 to 122°F (0 to 50°C)

Output: USB

Display: 6-line LCD

Data logging capabilities: 500 points

Dimensions (L x W x H): 7½" x 3½" x 2½"
(19.1 x 8.9 x 6.4 cm)

Catalog number	Description	Power	Price
WJ-05563-22	Portable turbidity meter, US EPA 180.1 compliant	Rechargeable lithium battery	\$1089.00
WJ-05563-24	Portable turbidity meter, ISO 7027 compliant	(included) and wall plug	1089.00

Turbidity Standards, 60-mL bottle

Catalog number	Value	Price
Standards for EPA-compliant turbidimeter		
WJ-05565-25	0 NTU	\$32.25
WJ-05563-31	1 NTU	51.75
WJ-05563-33	10 NTU	51.75
WJ-05563-35	100 NTU	51.75
Standards for ISO-compliant turbidimeter		
WJ-05565-25	0 NTU	32.25
WJ-05563-51	1 NTU	51.75
WJ-05563-53	10 NTU	51.75
WJ-05563-55	100 NTU	51.75

WJ-05563-66 Sample vials, glass. Pack of 6 \$32.00

Orbeco-Hellige SC400 Series Colorimeter Kits

Uses popular powder-pack chemistries

- Large and brightly backlit LCD for low-light conditions
- Sample cells feature convenient built-in light shields
- Depending on test parameter, meter can accept both power pack and tablet reagents

The SC400 series colorimeters are available in a wide variety of parameters utilizing powder-pack chemistries. The waterproof, single-parameter meters feature a large backlit display, real-time clock, data logging capability, and a user calibration mode which allows you to calibrate against prepared standards.

What's included: reagents, three glass sample cells (24 mm) with light-shield caps, sample cell cleaning brush, foam-lined carrying case, and 9 V battery.

Specifications

Light source: LED (temperature compensated)

Data storage: 16 data sets

Operating temperature: 32 to 104°F (0 to 40°C)

Operating humidity: 30 to 90% relative humidity

Display: backlit LCD

Power: 9 V battery (included), 40 hours operation

Dimensions (L x W x H): 6¾" x 2⅝" x 1⅜"
(17 x 6.5 x 4.5 cm)

Catalog number	Test parameter	Range with powder reagents (mg/L)	Tests/kit	Price
WJ-99561-66	Aluminum	0.01 to 0.25	100	\$424.00
WJ-99561-62	Ammonia	0.01 to 0.8	100	424.00
WJ-99561-54	Chlorine dioxide	0.05 to 5.0	100	424.00
WJ-99561-50	Chlorine, free and total	0.01 to 2.0, 0.1 to 8.0	100 of each	404.00
WJ-99561-52	Chlorine, pH	0.01 to 2.0 Cl ₂ , pH 6.5 to 8.4	100 of each	469.00
WJ-99561-72	Copper	0.01 to 5.00	100	424.00
WJ-99561-56	Fluoride	0.05 to 2.0	—†	424.00
WJ-99561-68	Iron	0.02 to 5.00	100	424.00
WJ-99561-70	Iron, TPTZ	0.02 to 1.80	100	424.00
WJ-99561-60	Manganese (high range)	0.1 to 20.0	100	424.00
WJ-99561-58	Manganese (low range)	0.01 to 0.70	100	424.00
WJ-99561-64	Phosphate	0.05 to 2.5	100	424.00
WJ-99561-74	Silica	1 to 100	100	424.00

†Fluoride reagents sold separately, call for details.



99561-50

Need Technical Assistance?

Contact our expert Application Specialists to assist you.

Call 800-363-5900 or go online to e-mail or chat live.



Equipment & Instrumentation

Balances



Highlighted items

Cole-Parmer Symmetry® ED-Series Portable Balances

Easy-to-use three-button keypad for straightforward weighing applications

- Stainless steel weighing platform
- Clear backlit LCD provides quick viewing of results
- Low-battery and zero indicators
- Automatic shutoff

Designed for a wide variety of basic weighing applications, models feature grams, carats and ounces weighing units; 1200-gram capacity models and higher feature kilogram and pounds. Auto power off conserves battery power when weighing in the field. Easily adjustable leveling feet provide quick adjustments to balance height.

What's included: AC power adapter with 6-ft (1.8-m) cord.



10000-03

Specifications



Calibration: external, with calibration mass
Weighing units: g, ct, oz, dwt, kg†, lb†

Stability indicator: yes
Housing size (W x H x D): 7¾" x 2⅞" x 9¾" (19.7 x 7.3 x 24.8 cm)

Power: AC adapter (included) or six AA batteries (not included)

115 VAC		220 VAC		Capacity	Readability	Repeatability	Linearity	Pan size	Recommended calibration mass [‡]		
Catalog number	Price	Catalog number	Price						Catalog number	Mass	Price
WJ-10000-01	\$229.25	WJ-10000-17	\$229.25	150 g	0.01 g	0.02 g	±0.02 g	5" (12.7 cm)	WJ-11956-25	150 g	\$139.00
WJ-10000-02	130.75	WJ-10000-18	130.75	300 g					WJ-11956-30	300 g	126.25
WJ-10000-03	167.50	WJ-10000-19	167.50	500 g	0.1 g	0.1 g	±0.1 g	5" (12.7 cm)	WJ-11956-35	500 g	146.25
WJ-10000-04	227.00	WJ-10000-20	227.00	1200 g					WJ-11956-40	1000 g	167.75
WJ-10000-05	271.00	WJ-10000-21	271.00	2000 g					WJ-11956-47	2000 g	210.75
WJ-10000-06	165.25	WJ-10000-22	165.25	4000 g	1.0 g	1 g	±1 g	5" (12.7 cm)	WJ-11956-51	4000 g	402.00

†Present on 1200 g and higher models. ‡Troemner® class 4 calibration mass with certificate of traceability.

WJ-09376-01 Batteries, AA. Pack of 4. \$8.50

WJ-17101-52 NIST-traceable calibration for balances. \$154.75

OHAUS Scout® Pro Portable Balances

Superior performance and easy two-button operation

- Excellent shock resistance and overload protection
- Parts counting with auto optimization, % weighing, totalization, and display hold

What's included: below-balance weighing hook, AC adapter, and calibration mass (200-, 400-, and 600-g models).



11010-57

Specifications



Calibration: external, with calibration mass†
Weighing units: g, kg, oz, lb, lb:oz, t, dwt
Stability indicator: yes

Output: optional RS-232 or USB interface and remote auxiliary port
Housing size (W x H x D): 7½" x 2⅞" x 8¾" (19.1 x 5.4 x 21.0 cm)

Power: AC adapter (included) or four AA batteries (not included)

115 VAC		230 VAC		Capacity	Readability	Repeatability	Linearity	Pan size	Recommended calibration mass
Catalog number	Price	Catalog number	Price						
WJ-11010-50	\$425.00	WJ-11010-51	\$392.00	200 g				4¾" (12.1 cm) dia	200 g (included)
WJ-11010-52	596.00	WJ-11010-53	552.00	400 g	0.01 g	±0.01 g	±0.01 g		
WJ-11010-54	234.00	WJ-11010-56	216.75	400 g	0.1 g	±0.1 g	±0.1 g		
WJ-11010-57	347.00	WJ-11010-58	320.00	600 g	0.1 g	±0.1 g	±0.1 g	5½"L x 6½"W (14.0 x 16.5 cm)	300 g (included) 1000 or 2000 g† 2000 or 4000 g† 3000 or 6000 g†
WJ-11010-59	439.00	WJ-11010-60	406.00	2000 g	0.1 g	±0.1 g	±0.1 g		
WJ-11010-61	642.00	WJ-11010-63	594.00	4000 g					
WJ-11010-64	364.00	WJ-11010-65	336.00	6000 g	1 g	±1 g	±1 g		

†Recommended calibration mass is not included on 2000-g and higher capacity balances—order separately online.

WJ-09376-01 Batteries, AA. Pack of 4. \$8.50

WJ-17101-52 NIST-traceable calibration for balances. \$154.75

Glassine Weighing Papers

- Keep your balance pans clean
- Moisture-resistant, nonabsorbent papers have a smooth glassine surface to ensure complete sample transfer. Pack of 500 sheets.

Catalog number	Dimensions	Price/pk
WJ-01338-00	3" x 3" (7.6 x 7.6 cm)	\$14.75
WJ-01338-02	4" x 4" (10.2 x 10.2 cm)	17.00
WJ-01338-04	6" x 6" (15.2 x 15.2 cm)	20.50



Unique Products.

Exceptional Service.

Technical Support.

Equipment & Instrumentation

Balances

ADAM Highland™ Portable Balances

Loaded with features for everyday weighing applications

- Internal rechargeable battery for convenient portable operation
- Standard draft shield offers greater weighing accuracy
- Unique shape allows convenient stackable storage of multiple balances

Loaded with features that include multiple weighing units, RS-232 and USB interfaces, rechargeable battery pack, capacity tracker, security lock-down port, and below-balance weighing hook for density and specific gravity applications. A standard removable draft shield eliminates wind disturbances outdoors or in drafty environments. Backlit display with large ½"-high digits offers a clear view of weighing results.

What's included: AC power adapter, internal rechargeable battery, and a 4"H x 5" dia (10.2 x 12.7 cm) draft shield.



11712-21

Specifications

Calibration: internal

Stability indicator: yes

Housing size (W x H x D): 6¾" x 3" x 10" (17.1 x 7.6 x 25.4 cm)

Weighing units: g, ct, lb, oz, d, gn, ozt, dwt, momme, tael, (3), Newtons

Output: built-in bidirectional RS-232

Power: AC adapter (included) or rechargeable battery (included)



115 VAC		230 VAC		Capacity	Readability	Repeatability	Linearity	Pan size
Catalog number	Price	Catalog number	Price					
WJ-11712-14	\$488.00	WJ-11712-22	\$488.00	120 g	0.001 g	±0.003 g	±0.003 g	4½" dia (11.4 cm)
WJ-11712-15	396.00	WJ-11712-23	396.00	150 g	0.005 g	±0.005 g	±0.01 g	
WJ-11712-16	373.00	WJ-11712-24	373.00	300 g	0.01 g	±0.01 g	±0.02 g	
WJ-11712-17	453.00	WJ-11712-25	453.00	600 g	0.01 g	±0.01 g	±0.02 g	
WJ-11712-18	396.00	WJ-11712-26	396.00	600 g	0.02 g	±0.02 g	±0.04 g	
WJ-11712-19	533.00	WJ-11712-27	533.00	1000 g	0.01 g	±0.02 g	±0.02 g	
WJ-11712-20	396.00	WJ-11712-28	396.00	1500 g	0.05 g	±0.05 g	±0.1 g	
WJ-11712-21	396.00	WJ-11712-29	396.00	3000 g	0.1 g	±0.1 g	±0.2 g	

WJ-10000-38 Compact thermal printer \$453.00

WJ-17101-52 NIST-traceable calibration for balances \$154.75

WJ-10000-47 Kensington™-type security cable and lock \$32.25

ADAM PMB Moisture Determination Balances

Simple operation and unlimited data storage

- Effectively transfer data with the built-in USB and RS-232 interface ports
- Internal memory stores settings for commonly used procedures
- Three pre-programmed settings for heating sample, ramp up, step and standard simplify operations
- Pan lifter allows safe removal of hot sample pans
- Large backlit display with dual text prompts simplify operation
- Security locking slot for Kensington™-type lock and cable prevents theft

Fast response time and easy-to-use functionality make the PMB ideal for a range of different applications. Just connect a USB memory stick and download results as they are taken. An automatic test setting function lets you quickly run multiple tests. Internal memory lets you store a range of test procedures that can be recalled at a touch of a button to make setup and changing from one product to another simple. A soft-closing door protects heating element, and auto test start setting begins analysis when lid closes. ShockProtect™ overload protection prevents damage to internal weighing components and offers continued performance and long-term usability.

What's included: ten sample pans and a 5-ft (1.5-m) power cord with US plug.



11702-60

Specifications

Calibration: external

Weighing units: g, % moisture, % solids, ATRO % M (percent moisture/dry bases) ATRO % S (percent solids/dry bases)

Timer: 0 to 99 min

Output: RS-232, USB

Housing size (L x W x H): 14" x 9¾" x 7¼" (35.6 x 24.8 x 18.4 cm)

Catalog number	Capacity	Readability	Repeatability	Power (VAC)	Heater type	Temperature range	Pan size	Price
WJ-11702-60	50 g	0.01 g	0.004 g	110	Halogen	50 to 160°C in 1°C intervals	3.5" dia (90 mm)	\$2516.00
WJ-11702-61				220				\$2516.00
WJ-11702-62	200 g	0.01 g	0.02 g	110				2058.00
WJ-11702-63				220				2058.00

WJ-10000-46 Kensington™-type security lock and cable \$32.25

WJ-11700-66 Disposable sample pans. Pack of 250 \$200.75

WJ-17101-52 NIST-traceable calibration for balances \$154.75



Equipment & Instrumentation

Baths & Circulators



Highlighted items

StableTemp Economy Utility Baths

Our best-selling utility baths offer excellent performance at an affordable price!

- $\pm 0.2^{\circ}\text{C}$ stability at 37°C
- Seamless 304 stainless steel tank and powder-coated exterior are corrosion resistant
- Front-panel controls are safe and easy to use

Control bath fluids as high as 100°C (60°C without cover) with $\pm 0.2^{\circ}\text{C}$ precision and uniformity. Bath temperature can be read from alcohol thermometer (included) with a range from -20 to 15°C . The steeply gabled, polycarbonate cover accommodates glassware of varying heights and tilts out of your way when loading or removing samples, allowing condensate to drain neatly back into the bath.

What's included: cover, glass thermometer, and a 3-ft (0.9-m) power cord with three-prong plug (European plug on 240 VAC models).



12106-74

2 year warranty

Specifications

Temperature range: 5°C above ambient to 100°C (with cover on)

Temperature control: on/off

Wetted materials: 304 stainless steel

Temperature stability: $\pm 0.2^{\circ}\text{C}$ at 37°C

Temperature sensor: thermistor

High-temperature cutoff: yes

Bath capacity	Bath opening (L x W)	Working depth	Overall dimensions (L x W x H)	120 VAC, 60 Hz		240 VAC, 50 Hz	
				Catalog number	Price	Catalog number	Price
2 liters	5 ⁵ / ₁₆ " x 5 ⁷ / ₈ " (13.5 x 14.9 cm)	5 ¹³ / ₁₆ " (14.8 cm)	8 ⁹ / ₁₆ " x 7 ⁷ / ₈ " x 8 ¹ / ₈ " (21.1 x 20.0 x 20.6 cm)	WJ-12106-70	\$649.00	WJ-12106-72	\$649.00
5 liters	5 ¹⁵ / ₁₆ " x 11 ¹⁵ / ₁₆ " (15.1 x 30.3 cm)	5 ¹⁵ / ₁₆ " (15.1 cm)	9 ⁷ / ₁₆ " x 13 ¹¹ / ₁₆ " x 8 ¹ / ₈ " (24.0 x 34.8 x 20.6 cm)	WJ-12106-74	734.00	WJ-12106-76	734.00
10 liters	11 ¹¹ / ₁₆ " x 12 ³ / ₄ " (29.7 x 32.4 cm)	5 ¹⁵ / ₁₆ " (15.1 cm)	15 ⁷ / ₁₆ " x 14 ⁷ / ₈ " x 8 ¹ / ₈ " (39.2 x 37.8 x 20.6 cm)	WJ-12106-78	820.00	WJ-12106-80	820.00
20 liters	11 ¹ / ₂ " x 19 ¹ / ₂ " (29.2 x 49.5 cm)	5 ⁷ / ₈ " (14.9 cm)	15 ¹³ / ₁₆ " x 21 ¹¹ / ₁₆ " x 8 ¹ / ₈ " (40.2 x 55.1 x 20.6 cm)	WJ-12106-82	984.00	WJ-12106-84	984.00
28 liters	11 ⁵ / ₈ " x 19 ⁹ / ₁₆ " (29.5 x 49.7 cm)	7 ¹⁵ / ₁₆ " (20.2 cm)	15 ³ / ₁₆ " x 21 ¹¹ / ₁₆ " x 10 ¹ / ₈ " (38.6 x 55.1 x 25.7 cm)	WJ-12106-86	1111.00	WJ-12106-88	1111.00

Thermo Scientific Precision General-Purpose Heated Baths

Seamless 304 stainless steel (SS) interior—easy to use and maintain

Fully insulated chamber with SS diffuser shelf achieves desired temperature quickly. Adjust temperature set point via front-mounted control panel.

Analog Baths feature analog control, manual high-limit thermostat, and spirit-filled glass thermometer—ideal for applications with fixed set points.

Digital Baths feature a microprocessor-based controller and fiberglass insulation for excellent heat control and uniformity. Program temperature set point with the push of a button. Each bath features LED readout, automatic overtemperature protection, and built-in calibration capabilities.

What's included: 304 SS gable cover(s), diffuser shelf(s), and 8-ft (2.4-m) power cord with plug (three-prong grounded plug on 115 VAC baths; European plug on 230 VAC baths).



12428-80

Specifications

Temperature range
1.5-L baths: ambient to 95.0°C
All other baths: ambient to 99.0°C

Temperature sensitivity: $\pm 0.1^{\circ}\text{C}$ at 37°C

Display
Analog baths: glass thermometer, 0 to 100°C
Digital baths: 3-digit LED

Wetted materials: stainless steel
High-temperature cutoff: yes

Temperature stability: $\pm 0.2^{\circ}\text{C}$ at 37°C

Temperature sensor and control
Analog baths: hydraulic
Digital baths: PID

Bath capacity	Bath chamber (L x W)	Working depth	Shelf size	Overall dimensions (W x H x D)	Heater wattage	Power			Analog baths		Digital baths	
						VAC	Hz	Amps	Catalog number	Price	Catalog number	Price
Single-chamber baths include one diffuser shelf and one cover.												
1.5 liters	6" x 11 ¹ / ₂ " (15.2 x 29.2 cm)	2" (5.1 cm)	5" x 10 ¹ / ₂ " (12.7 x 26.7 cm)	14" x 6 ³ / ₄ " x 8 ⁷ / ₈ " (35.6 x 17.1 x 22.5 cm)	225	120	60	1.9	WJ-12418-00	\$ 767.00	WJ-12428-00	\$ 933.00
						230	50/60	0.9	WJ-12418-05	767.00	WJ-12428-05	933.00
5.5 liters	11 ¹ / ₂ " x 6" (29.2 x 15.2 cm)	6" (15.2 cm)	10 ¹ / ₂ " x 5" (26.7 x 12.7 cm)	8" x 9 ³ / ₄ " x 16 ¹ / ₄ " (20.3 x 24.8 x 41.3 cm)	300	120	60	2.5	WJ-12418-20	906.00	WJ-12428-20	1363.00
						230	50/60	1.3	WJ-12418-25	906.00	WJ-12428-25	1363.00
12 liters	11 ¹ / ₂ " x 12 ¹ / ₂ " (29.2 x 31.8 cm)	6" (15.2 cm)	10 ¹ / ₂ " x 11 ¹ / ₂ " (26.7 x 29.2 cm)	14 ³ / ₄ " x 9 ³ / ₄ " x 16 ¹ / ₄ " (37.5 x 24.8 x 41.3 cm)	400	120	60	3.4	WJ-12418-30	1121.00	WJ-12428-30	1378.00
						230	50/60	1.7	WJ-12418-35	1121.00	WJ-12428-35	1378.00
19.5 liters	14" x 12" (35.6 x 30.5 cm)	8" (20.3 cm)	12" x 10" (30.5 x 25.4 cm)	15 ³ / ₄ " x 9 ³ / ₄ " x 19 ³ / ₄ " (40.0 x 24.8 x 50.2 cm)	600	120	60	5	WJ-12418-40	1286.00	WJ-12428-40	1598.00
						230	50/60	2.5	WJ-12418-45	1286.00	WJ-12428-45	1598.00
43 liters	16" x 28" (40.6 x 71.1 cm)	6 ¹ / ₂ " (16.5 cm)	13 ¹ / ₂ " x 25 ¹ / ₂ " (34.3 x 64.8 cm)	31 ¹ / ₂ " x 9 ³ / ₄ " x 21 ⁵ / ₈ " (80.0 x 24.8 x 54.9 cm)	1200	120	60	10	WJ-12418-60	1905.00	WJ-12428-60	2280.00
						230	50/60	5	WJ-12418-65	1905.00	WJ-12428-65	2280.00
Dual-chamber baths include two independent controls, two diffuser shelves, and two covers.												
12 liters/chamber	11 ¹ / ₂ " x 12 ¹ / ₂ " (29.2 x 31.8 cm) per chamber	6" (15.2 cm) per chamber	10 ¹ / ₂ " x 11 ¹ / ₂ " (26.7 x 29.2 cm) per chamber	29" x 9 ³ / ₄ " x 16 ¹ / ₈ " (73.7 x 24.8 x 41.0 cm)	800	120	60	7	WJ-12418-80	2047.00	WJ-12428-80	2348.00
						230	50/60	3.5	WJ-12418-85	2047.00	WJ-12428-85	2348.00

Equipment & Instrumentation

Baths & Circulators

Cole-Parmer polystat® Heating Immersion Circulators

High-stability immersion circulators feature low-level sensor for temperature control up to 200°C

- Easy-to-use PID controller with LCD featuring three languages and up to five temperature set points
- Pump connections for circulation to external applications
- Resolution of 0.01° reads out in °C, °F, or K

Standard and Standard Plus Controllers feature five programmable set points, a two-speed pump, and an adjustable pump nozzle.

Advanced Controller offers tighter control with ±0.025° stability. It features five programmable set points, a two-stage pump (force and suction for extra capacity with external open- or closed-loop applications), and a USB port.

What's included: 6-ft (1.8-m) power cord with plug, M16 x 1 connections for included 8- and 12-mm hose barb fittings with clamps for external circulation.



12120-01



Specifications

Temperature control: PID Temperature sensor: Pt RTD Wetted materials: stainless steel, polymers Immersion depth: 5¾" (14.6 cm)

Catalog number	Controller type	Temperature range	Stability	Heater	Pump type	Max pump pressure psi (mbar)	Max flow (L/min)	Low-level cutoff	Dimensions (W x H x D)	Power (VAC, Hz)	Price
Immersion circulators with clamp for attachment to side of tank											
WJ-12120-01	Standard	Ambient +10 to 100°C	±0.05°C	1000 watts 1200 watts	Force	4.5 (310)	17	Yes	4¾" x 12½" x 8½" (11.2 x 32 x 20.6 cm)	115, 60	\$ 1053.00
WJ-12120-02										230, 50	1053.00
WJ-12120-03	Standard Plus	Ambient +10 to 150°C	±0.05°C	1000 watts 1200 watts	Force	4.5 (310)	17	Yes		115, 60	1134.00
WJ-12120-04										230, 50	1134.00
Immersion circulators with bridge that spans across the tank; adjustable bridge from 12" to 31½" (30.5 to 80 cm)											
WJ-12120-08	Standard	Ambient +10 to 100°C	±0.05°C	1000 watts 1200 watts	Force	4.5 (310)	17	Yes	4¾" x 12½" x 8½" (11.2 x 32 x 20.6 cm)	115, 60	1053.00
WJ-12120-09										230, 50	1053.00
WJ-12120-11	Standard Plus	Ambient +10 to 150°C	±0.05°C	1000 watts 1200 watts	Force	4.5 (310)	17	Yes		115, 60	1134.00
WJ-12120-12										230, 50	1134.00
WJ-12120-13	Advanced	Ambient +10 to 200°C†	±0.025°C	1200 watts	Force/suction	10.8 (750)	21	Yes	5¾" x 13¾" x 8½" (14.5 x 34 x 21.8 cm)	115, 60	1741.00

†Pump at low speed

Cole-Parmer polystat® Cooling/Heating Recirculators

Full-range cooling for quick ramp up and cool-down—saves valuable time

- Robust cooling and heating from -10 to 80°C
- Compact design maximizes bench space
- Internal tank design minimizes fluid evaporation

True thermostatic control laboratory chiller. Removes or adds temperature as required by your application. This laboratory chiller is ideal for applications such as cooling smaller analytical instrumentation, jacketed reactors, and rotary evaporators. System can also be used as an economical replacement to tap water cooling in small laboratory applications. Rapid cool-down and heat-up times enable you to maintain temperature to ±0.1°C. Powerful pump provides flow rates up to 21 L/min.

What's included: 6-ft (1.8-m) power cord with 3-prong plug, funnel, and 8- and 12-mm hose barb fittings with clamps for connecting to applications.

13042-01



Specifications



Temperature range: -10 to 80°C

Temperature stability: ±0.1°

Temperature setting: digital

Internal reservoir capacity: 2.8 liters

Heater: 1200 watts (115 VAC models); 2000 watts (230 VAC models)

Low-level cutoff: yes

Overall dimensions (W x H x D): 9" x 25" x 16½"
(23 x 64 x 42 cm)

Catalog number	Cooling capacity at 20°C	Pump type	Max pump pressure psi (mbar)	Flow rate (L/min)	USB	Power (VAC, Hz)	Price
WJ-13042-01	250 W	Force	4.4 (300)	17	No	115, 60	\$2660.00
WJ-13042-03						230, 50	2660.00
WJ-13042-09					Yes	115, 60	2695.00
WJ-13042-11						230, 50	2695.00
WJ-13042-05	250 W	Force/suction	11.7 (805)	21	No	115, 60	2895.00
WJ-13042-07						230, 50	2895.00
WJ-13042-13					Yes	115, 60	2929.00
WJ-13042-15						230, 50	2929.00
WJ-13042-17	500 W	Force	4.4 (300)	17	No	115, 60	3129.00
WJ-13042-19						230, 50	3129.00
WJ-13042-25					Yes	115, 60	3163.00
WJ-13042-27						230, 50	3163.00
WJ-13042-21	500 W	Force/suction	11.7 (805)	21	No	115, 60	3364.00
WJ-13042-23						230, 50	3364.00
WJ-13042-29					Yes	115, 60	3397.00
WJ-13042-31						230, 50	3397.00

Equipment & Instrumentation

Baths & Circulators

polystat[®] *Stainless Steel Heating Circulating Baths*

Quality performance at an affordable price!

- Easy-to-use PID controller and moisture-tight LCD (0.01°) in °C, °F, or K
- Two-speed pump includes plumbing connections for external circulation
- Safety features include high-temperature cutoff and acoustic alarms

These baths are ideal for applications with a wide variety of temperature control requirements up to 200°C. Available with tank capacities up to 19.6 L, the compact footprint maximizes bench space. Bright digital display allows for simple operation. Three languages: English, French, and German.

Industrial-grade circulating pumps deliver extra flow and pressure, providing more efficient heat exchange, better temperature uniformity, and improved reservoir agitation. Long-life, high-wattage heaters for applications requiring rapid time to temperature.

Standard Digital Controller Baths feature five programmable set points, adjustable high-temperature cutoff, user-settable Min/Max temperature limits and an adjustable pump nozzle.

Advanced Digital Controller Baths offer all the features of the Standard Digital models (except adjustable pump nozzle) plus a two-stage (force/suction) pump that supplies increased flow and pressure capabilities making it suitable for a wider range of applications, and a USB port.

What's included: 6-ft (1.8-m) power cord with plug, M16 x 1 pump connections, and 8- and 12-mm hose barb fittings with clamps for external circulation.



12134-60

Need Technical Assistance?

Contact our expert Application Specialists to assist you.

Call 800-363-5900 or go online to e-mail or chat live

Specifications

Temperature control: PID

Temperature sensor: Pt RTD

Heater wattage

Standard models: 1000 watts (115 V); 1200 watts (230 V)

Advanced models: 1200 watts (115 V); 2000 watts (230 V)

Low-level cutoff: none

Wetted materials: stainless steel, polymers



Catalog number	Bath capacity	Temperature range	Stability	Pump type	Max pump pressure psi (mbar)	Max flow (L/min)	Dimensions		Power (VAC, Hz)	Price
							Working area (L x W x D)	Overall (L x W x H)		
Standard digital controller baths										
WJ-12134-60	6.5 L	Ambient +10 to 100°C	±0.05°C	Force	4.5 (310)	17	4 3/8" x 6 3/8" x 6"	14 3/8" x 8 1/2" x 15 5/8"	115, 60	\$1757.00
WJ-12134-62							(11.2 x 16.3 x 15.0 cm)	(36.3 x 21.6 x 39.6 cm)	230, 50	1757.00
WJ-12121-02	6.5 L	Ambient +10 to 150°C	±0.05°C	Force	4.5 (310)	17	4 3/8" x 6 3/8" x 6"	14 3/8" x 8 1/2" x 15 5/8"	115, 60	1874.00
WJ-12121-04							(11.2 x 16.3 x 15.0 cm)	(36.3 x 21.6 x 39.6 cm)	230, 50	1874.00
WJ-12134-64	9.5 L	Ambient +10 to 100°C	±0.05°C	Force	4.5 (310)	17	4 3/8" x 9 3/8" x 6"	14 3/8" x 12" x 15 5/8"	115, 60	1991.00
WJ-12134-66							(11.2 x 23.9 x 15.0 cm)	(36.3 x 30.2 x 39.6 cm)	230, 50	1991.00
WJ-12121-22	9.5 L	Ambient +10 to 150°C	±0.05°C	Force	4.5 (310)	17	4 3/8" x 9 3/8" x 6"	14 3/8" x 12" x 15 5/8"	115, 60	2050.00
WJ-12121-24							(11.2 x 23.9 x 15.0 cm)	(36.3 x 30.2 x 39.6 cm)	230, 50	2050.00
WJ-12134-68	19.6 L	Ambient +10 to 100°C	±0.05°C	Force	4.5 (310)	17	12 3/8" x 11 1/8" x 6"	22 1/8" x 14 3/8" x 15 5/8"	115, 60	2343.00
WJ-12134-70							(31.2 x 29.5 x 15.0 cm)	(56.1 x 36.3 x 39.6 cm)	230, 50	2343.00
WJ-12121-42	19.6 L	Ambient +10 to 150°C	±0.05°C	Force	4.5 (310)	17	12 3/8" x 11 1/8" x 6"	22 1/8" x 14 3/8" x 15 5/8"	115, 60	2401.00
WJ-12121-44							(31.2 x 29.5 x 15.0 cm)	(56.1 x 36.3 x 39.6 cm)	230, 50	2401.00
Advanced digital controller baths										
WJ-12121-06	6.5 L	Ambient +10 to 200°C†	±0.025°C	Force/suction	10.8 (750)	21	4 3/8" x 6 3/8" x 6"	14 3/8" x 8 1/2" x 16 3/8"	115, 60	2636.00
WJ-12121-08							(11.2 x 16.3 x 15.0 cm)	(36.3 x 21.6 x 41.4 cm)	230, 50	2636.00
WJ-12121-26	9.5 L	Ambient +10 to 200°C†	±0.025°C	Force/suction	10.8 (750)	21	4 3/8" x 9 3/8" x 6"	14 3/8" x 12" x 16 3/8"	115, 60	2753.00
WJ-12121-28							(11.2 x 23.9 x 15.0 cm)	(36.3 x 30.2 x 41.4 cm)	230, 50	2753.00
WJ-12121-46	19.6 L	Ambient +10 to 200°C†	±0.025°C	Force/suction	10.8 (750)	21	12 3/8" x 11 1/8" x 6"	22 1/8" x 14 3/8" x 16 3/8"	115, 60	2870.00
WJ-12121-48							(31.2 x 29.5 x 15.0 cm)	(56.1 x 36.3 x 41.4 cm)	230, 50	2870.00

†Pump at low speed

Unique Products.

Exceptional Service.

Technical Support.

Equipment & Instrumentation

Baths & Circulators

Cole-Parmer polystat[®] Cooling/Heating Circulating Baths

Powerful refrigeration system provides excellent cooling capacity across range of operating temperatures

- Two-speed pump with up to 21 L/min flow

These baths are ideal for industrial or laboratory applications with a wide variety of temperature control requirements. Available in 6.5- and 8.6-liter tank capacities. The compact footprint maximizes bench space. Bright digital display and intuitive interface allows for simple operation. Three languages: English, French, and German.

Robust refrigeration system provides fast heat removal and stable temperatures. Industrial-grade circulating pumps deliver extra pressure providing more efficient heat exchange, better temperature uniformity, and improved tank agitation. Long-life, high-wattage heaters deliver fast fluid heat up for applications requiring fast time to temperature. High-temperature cutoff and low-level fault protect bath and application from adverse events. Includes pump connections for external applications.

Standard Digital Controller Baths are ideal for routine temperature control. They feature five programmable set points, adjustable high-temperature cutoff, user-settable Min/Max temperature limits, and an adjustable pump nozzle.

Advanced Digital Controller Baths offer all the features of the Standard Digital models (except adjustable pump nozzle) plus a two-stage (force/suction) pump for greater circulation capacity and a USB port.

What's included: 6-ft (1.8-m) power cord with plug, M16 x 1 connections, and 8- and 12-mm hose barb fittings with clamps for external circulation.



12122-02

MORE online!

For a full offering of baths, circulators, chillers, and accessories, go to . . .

ColeParmer.ca/baths



Specifications

Temperature control: PID
Temperature sensor: Pt RTD

Heater wattage
Standard models: 1000 watts (115 V); 1200 watts (230 V)
Advanced models: 1200 watts (115 V); 2000 watts (230 V)

Low-level cutoff: yes
Wetted materials: stainless steel, polymers



Catalog number	Bath capacity	Temperature range	Stability	Cooling capacity at 20°C	Pump type	Max pump pressure psi (mbar)	Max flow (L/min)	Dimensions		Power (VAC, Hz)	Price
								Working area (W x L x D)	Overall (W x L x H)		
Standard digital controller baths											
WJ-12122-02	6.5 L	-20 to 100°C	±0.05°C	250 W	Force	4.5 (310)	17	5 ³ / ₈ " x 4 ³ / ₄ " x 6" (13.5 x 12.2 x 15 cm)	8" x 16 ¹ / ₂ " x 24 ¹ / ₂ " (20.3 x 41.7 x 62.2 cm)	115, 60	\$2578.00
WJ-12122-04	6.5 L	-20 to 100°C	±0.05°C	250 W	Force	4.5 (310)	17	5 ³ / ₈ " x 4 ³ / ₄ " x 6" (13.5 x 12.2 x 15 cm)	18 ¹ / ₈ " x 16 ¹ / ₈ " x 16 ³ / ₄ " (46.7 x 41.7 x 42.7 cm)	230, 50	2578.00
WJ-12122-16	6.5 L	-20 to 100°C	±0.05°C	250 W	Force	4.5 (310)	17	5 ³ / ₈ " x 4 ³ / ₄ " x 6" (13.5 x 12.2 x 15 cm)	18 ¹ / ₈ " x 16 ¹ / ₈ " x 16 ³ / ₄ " (46.7 x 41.7 x 42.7 cm)	230, 50	2929.00
WJ-12122-18	6.5 L	-20 to 100°C	±0.05°C	250 W	Force	4.5 (310)	17	5 ³ / ₈ " x 4 ³ / ₄ " x 6" (13.5 x 12.2 x 15 cm)	18 ¹ / ₈ " x 16 ¹ / ₈ " x 16 ³ / ₄ " (46.7 x 41.7 x 42.7 cm)	230, 50	2929.00
WJ-12122-32	8.6 L	-28 to 100°C	±0.05°C	500 W	Force	4.5 (310)	17	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	10 ¹ / ₄ " x 19 ¹ / ₈ " x 25 ¹ / ₂ " (25.9 x 49 x 65 cm)	115, 60	3105.00
WJ-12122-34	8.6 L	-28 to 100°C	±0.05°C	500 W	Force	4.5 (310)	17	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	10 ¹ / ₄ " x 19 ¹ / ₈ " x 25 ¹ / ₂ " (25.9 x 49 x 65 cm)	230, 50	3105.00
WJ-12122-36	8.6 L	-28 to 150°C	±0.05°C	500 W	Force	4.5 (310)	17	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	10 ¹ / ₄ " x 19 ¹ / ₈ " x 25 ¹ / ₂ " (25.9 x 49 x 65 cm)	115, 60	3163.00
WJ-12122-38	8.6 L	-28 to 150°C	±0.05°C	500 W	Force	4.5 (310)	17	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	10 ¹ / ₄ " x 19 ¹ / ₈ " x 25 ¹ / ₂ " (25.9 x 49 x 65 cm)	230, 50	3163.00
WJ-12122-46	8.6 L	-35 to 100°C	±0.05°C	800 W	Force	4.5 (310)	17	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	14 ¹ / ₈ " x 20 ³ / ₄ " x 27 ¹ / ₈ " (37.1 x 52.8 x 68.8 cm)	115, 60 [†]	3692.00
WJ-12122-48	8.6 L	-35 to 100°C	±0.05°C	800 W	Force	4.5 (310)	17	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	14 ¹ / ₈ " x 20 ³ / ₄ " x 27 ¹ / ₈ " (37.1 x 52.8 x 68.8 cm)	230, 50	3692.00
WJ-12122-52	8.6 L	-35 to 150°C	±0.05°C	800 W	Force	4.5 (310)	17	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	14 ¹ / ₈ " x 20 ³ / ₄ " x 27 ¹ / ₈ " (37.1 x 52.8 x 68.8 cm)	115, 60 [†]	3809.00
WJ-12122-54	8.6 L	-35 to 150°C	±0.05°C	800 W	Force	4.5 (310)	17	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	14 ¹ / ₈ " x 20 ³ / ₄ " x 27 ¹ / ₈ " (37.1 x 52.8 x 68.8 cm)	230, 50	3809.00
Advanced digital controller baths											
WJ-12122-12	6.5 L	-20 to 100°C	±0.025°C	250 W	Force/suction	10.8 (750)	21	5 ³ / ₈ " x 4 ³ / ₄ " x 6" (13.5 x 12.2 x 15 cm)	8" x 16 ¹ / ₂ " x 25 ¹ / ₄ " (20.3 x 41.7 x 64 cm)	115, 60	4018.00
WJ-12122-14	6.5 L	-20 to 100°C	±0.025°C	250 W	Force/suction	10.8 (750)	21	5 ³ / ₈ " x 4 ³ / ₄ " x 6" (13.5 x 12.2 x 15 cm)	8" x 16 ¹ / ₂ " x 25 ¹ / ₄ " (20.3 x 41.7 x 64 cm)	230, 50	4018.00
WJ-12122-26	6.5 L	-20 to 200°C	±0.025°C	250 W	Force/suction	10.8 (750)	21	5 ³ / ₈ " x 4 ³ / ₄ " x 6" (13.5 x 12.2 x 15 cm)	18 ¹ / ₈ " x 16 ¹ / ₈ " x 17 ¹ / ₂ " (46.7 x 41.7 x 44.5 cm)	115, 60	4102.00
WJ-12122-28	6.5 L	-20 to 200°C	±0.025°C	250 W	Force/suction	10.8 (750)	21	5 ³ / ₈ " x 4 ³ / ₄ " x 6" (13.5 x 12.2 x 15 cm)	18 ¹ / ₈ " x 16 ¹ / ₈ " x 17 ¹ / ₂ " (46.7 x 41.7 x 44.5 cm)	230, 50	4102.00
WJ-12122-42	8.6 L	-28 to 200°C	±0.025°C	500 W	Force/suction	10.8 (750)	21	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	10 ¹ / ₄ " x 19 ¹ / ₈ " x 25 ³ / ₄ " (25.9 x 49 x 65.5 cm)	115, 60	3397.00
WJ-12122-44	8.6 L	-28 to 200°C	±0.025°C	500 W	Force/suction	10.8 (750)	21	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	10 ¹ / ₄ " x 19 ¹ / ₈ " x 25 ³ / ₄ " (25.9 x 49 x 65.5 cm)	230, 50	3397.00
WJ-12122-56	8.6 L	-35 to 200°C	±0.025°C	800 W	Force/suction	10.8 (750)	21	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	14 ¹ / ₈ " x 20 ³ / ₄ " x 27 ³ / ₄ " (37.1 x 52.8 x 70.6 cm)	115, 60	4044.00
WJ-12122-58	8.6 L	-35 to 200°C	±0.025°C	800 W	Force/suction	10.8 (750)	21	6 ³ / ₄ " x 7 ¹ / ₄ " x 6" (17.3 x 18.3 x 15 cm)	14 ¹ / ₈ " x 20 ³ / ₄ " x 27 ³ / ₄ " (37.1 x 52.8 x 70.6 cm)	230, 50	4044.00

[†]Requires 20-amp circuit.

Equipment & Instrumentation

Centrifuges



Highlighted items

Cole-Parmer Personal Microcentrifuges

Small footprint with rotor options

- Includes two rotors: one for 1.5- to 2.0-mL tubes and one for PCR tubes
- On/off switch lets you stop rotor before opening lid

These microcentrifuges offer a choice of five translucent lid colors. Operation is extremely simple, just close the lid and the rotor accelerates quickly to 6000 rpm. Rubber feet keep unit stable.

Specifications

Rotor (included): fixed-angle, 6 x 1.5- to 2.0-mL tubes, 2 x 0.2-mL strip tubes

Dimensions (W x H x D): 6" x 4.5" x 6" (15.2 x 11.4 x 15.2 cm)

Catalog number	Color	Speed range	Max RCF x g	Power		Price
				VAC	Hz	
WJ-17310-00	Gray	6000 rpm	2000	110	50/60	\$361.00
WJ-17310-05				220		\$361.00
WJ-17310-10	Blue	6000 rpm	2000	110	50/60	\$361.00
WJ-17310-15				220		\$361.00
WJ-17310-06	Purple	6000 rpm	2000	110	50/60	\$361.00
WJ-17310-07				220		\$361.00
WJ-17310-08	Teal	6000 rpm	2000	110	50/60	\$361.00
WJ-17310-09				220		\$361.00
WJ-17310-16	Red	6000 rpm	2000	110	50/60	\$361.00
WJ-17310-17				220		\$361.00



Replacement Tube Adapters

Catalog number	Capacity	Price
WJ-17405-80	0.5 mL	\$47.00
WJ-17420-67	0.4 mL	47.00

Replacement Rotors

Catalog number	Capacity	Price
WJ-17310-40	6 x 1.5 mL	\$53.50
WJ-17310-45	Strip tube	40.25

Cole-Parmer Fixed-Speed Centrifuges

Molded-in cover and collar gasket enclose rotor in sealed compartment—protecting against aerosols and splashes

- Motor shuts off when the cover is opened
- Solid steel base and suction cup feet keep centrifuge firmly in place

Model 17250-00 has an on/off switch; model 17250-10 includes a 60-minute timer with hold function. Transparent polycarbonate lid allows you to verify rotor operation and tube condition. Both models operate at a constant speed of 3400 rpm fully loaded. Included rotor accepts six 15-mL tubes with maximum dimensions of 130 mm L x 20 mm dia.

Specifications

Rotor (included): fixed-angle, 6 x 15-mL tubes

Dimensions (W x H x D): 11" x 9" x 12" (27.9 x 22.9 x 30.5 cm)

Max tube dimensions: 130 mm L x 20 mm dia

Catalog number	Speed range	Max RCF x g	Timer	Power		Price
				VAC	Hz	
WJ-17250-00	3400 rpm	1318	—	115	60	\$447.00
WJ-17250-10			0 to 60			488.00



17250-10

Cole-Parmer Microcentrifuge Tubes

These medical-grade polypropylene (PP) tubes feature an attached cap, frosted writing surface, and graduations. Available in assorted colors (tube and cap) for quick sample identification. Boil-proof 1.5-mL and 2.0-mL tubes are guaranteed to stay closed, even during boiling or autoclaving. All tubes are certified RNase-, DNase- and endotoxin-free for highest sample integrity.

Maximum recovery tubes (06333-53) are free from cavities or occlusions; perfect for long-term storage of long-chain molecules such as DNA and proteins.

Catalog number	Capacity (mL)	Max RCF (x g)	Color	Sterile	Qty/pk	Price/1 pk	Save 10% 6-29 pk
WJ-06333-40	0.6	20,000	Natural	No	1000	\$48.75	\$44.00
WJ-06333-42	0.6	20,000	Natural	Yes	500	34.50	31.00
WJ-06333-50	1.5	20,000	Natural	No	500	25.25	22.75
WJ-06333-51	1.5	20,000	Assorted	No	500	27.00	24.25
WJ-06333-55	1.5	20,000	Natural	Yes	250	28.75	26.00
WJ-06333-60	1.7	20,000	Natural	No	500	22.50	20.25
WJ-06333-70	2.0	20,000	Natural	No	500	34.00	30.50
WJ-06333-72	2.0	20,000	Natural	Yes	250	27.50	24.75

Maximum recovery microcentrifuge tubes

WJ-06333-53	1.5	20,000	Natural	No	250	24.75	22.25
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06333-51

BUY MORE, SAVE MORE

Save 10% on 6-29 packs, 15% on 30-119 packs, 20% on 120 or more packs.

Mix and match packs of any items from the "blue" tables to save!

Unique Products.

Exceptional Service.

Technical Support.

Equipment & Instrumentation

Data Loggers

Compact USB Data Loggers

Direct-to-USB connection and easy-to-use functionality

- User-programmable alarm thresholds
- All data loggers come with software



A 23039-51



B 23039-64



A 23039-66



C 23039-65



D 23039-59



E 23039-54



F 23039-58

This selection of USB data loggers measures and records a variety of parameters including temperature, humidity, voltage, current, and carbon monoxide. Simply insert any of these compact, 4.5" (11.4 cm) L loggers into your computer USB port, name it, choose your required sampling rate, select high and low alarms if required, and set the logger start time. Once configured, the logger can be removed from the computer to log independently. Data is downloaded back onto the PC where it can be analyzed and viewed as a graph using included software.

A Temperature. The low-cost model 23039-51 stores over 4000 readings and has a fixed 30-minute sampling rate and a measurement range of 14 to 122°F (-10 to 50°C). For ambient temperature measurements between -31 to 176°F (-35 to 80°C), model 23039-50 stores over 16,000 readings. For application requiring an extended temperature range, model 23039-66 measures from -40 to 257°F (-40 to 125°C), stores over 32,000 readings, and features a stainless steel enclosure for more hostile environments.

B Temperature, Thermocouple. Models 23039-60 and -64 accept type J, K, and T thermocouples via a connector in the base of the unit and are supplied with one type K thermocouple rated from 32 to 752°F (0 to 400°C). These loggers store more than 32,000 readings. Model 23039-64 offers the additional feature of a 4-digit LCD.

C Temperature/Humidity. These data loggers measure temperature and humidity from 31 to 176°F (-35 to 80°C) and 0 to 100% RH, calculate dew point, and store over 16,000 readings per parameter. Models 23039-65 and -67 offer increased accuracy. Models 23039-62 and -65 feature a 2½-digit LCD showing latest log and min/max log and have immediate, delayed, and push-to-start logging.

D Real-Time Temperature/Humidity. Model 23039-59 stays permanently connected to your computer USB port—displaying real-time ambient temperature, humidity, and calculated dew point on the PC monitor. Ideal for server room applications, this data logger can be programmed to send an e-mail or text message when a user-selectable alarm has been reached.

E Process. Model 23039-54 has a 0 to 30 VDC measurement range and stores over 32,000 readings. Current measurement is provided by model 23039-56 which stores over 32,000 readings covering the 4 to 20 mA measurement range. Both units can be connected to external sensors via screw terminals located in their caps.

F Carbon Monoxide. Use model 23039-58 for a 0 to 1000 ppm range and model 23039-68 for a 0 to 300 ppm measurement range; both store more than 32,000 readings. An bright red LED will flash and an audible alarm will sound when the user-determined level is exceeded.

What's included: configuration software and battery.



Catalog number	No. of channels	Range	Resolution	Accuracy	Readings	Display	Battery life (typical)	Price
A Temperature data loggers								
WJ-23039-51	1	14 to 122°F (-10 to 50°C)	2°F (1°C)	±2°F (±1°C)	4080	No	1 month	\$ 48.00
WJ-23039-50	1	-31 to 176°F (-35 to 80°C)	1°F (0.5°C)	±2°F (±1°C)	32,510	No	1 year	72.25
WJ-23039-66	1	-40 to 257°F (-40 to 125°C)	0.2°F (0.1°C)	±0.4°F (±0.2°C)	32,510	No	3 years	172.00
B Temperature data loggers, include a type K thermocouple								
WJ-23039-60	1	Type K: -328 to 2462°F (-200 to 1350°C)	1°F (0.5°C)	±2°F (±1°C)	32,510	No	6 months	96.00
WJ-23039-64		Type J: -328 to 2174°F (-200 to 1190°C)				Type T: -328 to 734°F (-200 to 390°C)		Yes
C Temperature/humidity data loggers								
WJ-23039-52	2	-31 to 176°F (-35 to 80°C)	1°F (0.5°C)	±1°F (±0.5°C)	16,382	No	1 year	94.00
WJ-23039-62		0 to 100% RH	0.5% RH	±3.0% RH	16,379	Yes		111.25
WJ-23039-67	2	-31 to 176°F (-35 to 80°C)	1°F (0.5°C)	±0.6°F (±0.3°C)	16,382	No	1 year	126.25
WJ-23039-65		0 to 100% RH	0.5% RH	±2.0% RH	16,379	Yes		143.25
D Real-time temperature/humidity data logger								
WJ-23039-59	2	-4 to 158°F (-20 to 70°C)	0.1°F (0.1°C)	±3°F (±1.5°C)	7 days worth†	No	—	86.00
E Process data loggers								
WJ-23039-54	1	0 to 30 VDC	50 mV	±1% of reading	32,510	No	1 year	86.25
WJ-23039-56	1	4 to 20 mA	0.05 mV	±1% of reading	32,510	No	1 year	86.25
F Carbon monoxide data loggers‡								
WJ-23039-58	1	0 to 1000 ppm	0.5 ppm CO	±6 ppm	32,510	No	3 months	111.00
WJ-23039-68	1	0 to 300 ppm	0.5 ppm CO	±4 ppm	32,510	No	3 months	110.75

†Data file is overwritten at the beginning of each new logging session. Software provides the option to save the data permanently to the hard drive.
‡Not a life-saving device.



Highlighted items

Glove Bag™ Inflatable Glove Chambers

Protect yourself and your materials quickly without giving up lab space

- Effectively eliminate oxygen and moisture during material manipulation operations
- Establish high-purity working atmosphere in minutes
- Disposable chambers simplify cleanup

An alternative to standard glove boxes—these durable, polyethylene glove chambers are reusable, yet priced to be disposable. Chambers are easy to use—just slide your equipment through the sleeve(s), seal, connect the gas port (accepts 3/8" ID tubing) to your gas supply, and inflate. Models 04408-30, -32, -34, -36, and -38 have a single equipment sleeve and a gas port at the rear of the bag. Model 04408-40 has two equipment sleeves and two rear-mounted gas ports for added versatility.



04408-32

What's included: one pair of cotton gloves, tubing coupler, and a closure. Order replacement cotton gloves below.

Catalog number	Chamber dimensions (inflated) (L x W x H)	Width of equipment sleeve	Price/bx of 6
Chambers with one equipment sleeve			
WJ-04408-30	17" x 17" x 11" (43.2 x 43.2 x 27.9 cm)	11½" (29.2 cm)	\$208.75
WJ-04408-32	17" x 27" x 12" (43.2 x 68.6 x 30.5 cm)	22" (55.9 cm)	312.00
WJ-04408-34	27" x 27" x 15" (68.6 x 68.6 x 38.1 cm)	22½" (57.2 cm)	352.00
WJ-04408-36	27" x 37" x 18" (68.6 x 94.0 x 45.7 cm)	33½" (85.1 cm)	358.00
WJ-04408-38	37" x 37" x 25" (94.0 x 94.0 x 63.5 cm)	34½" (87.6 cm)	400.00
Chamber with two equipment sleeves			
WJ-04408-40	20" x 20" x 12" (50.8 x 50.8 x 30.5 cm)	12" (30.5 cm)	240.75

WJ-04408-50 Replacement gloves, cotton. Box contains 12 pairs \$89.50

Captair® Pyramid Glove Bag

Easily set up a controlled environment wherever you need it

- Protects you from hazardous materials
- Saves lab space



33666-50

Set up this airtight pyramid glove bag to provide a controlled environment for user protection and still-air material handling. Easily transport the lightweight, self-supporting pyramid to any location and assemble in minutes.

Unit features an 18½" (47 cm) side opening for introduction of materials, a zip lock to ensure airtight sealing, and a port to exhaust/purge gas. Pyramid is constructed from transparent, 250 µm PVC; with frame and 0.2-mm thick butyl gloves.

What's included: 1/8" ID coupler body valved fitting.

Catalog number	Chamber dimensions (W x H x D)	Width of opening	Price
WJ-33666-50	30" x 28½" x 22" (76.2 x 72.4 x 55.9 cm)	18½" (47 cm)	\$436.00

Cole-Parmer Glove Boxes

Monitor humidity and protect materials—affordably!

- Slanted window eliminates optical distortion
- Spatially efficient with ample working chamber

Use these economical glove boxes on your crowded lab bench or in large walk-in areas. The wide front access door makes loading equipment easy. Clear ¼"-thick acrylic access and pass box doors ensure good visibility. Painted steel construction endures everyday use. The included chamber hygrometer monitors humidity from 20 to 95% RH. Two ball valves are for purging gas.

What's included: hygrometer, two ball valves, and one pair of medium-sized latex gloves.

Specifications

Pass box dimensions (W x H x D): 8¾" x 8¼" x 8¼" (21.3 x 21.0 x 21.0 cm)

Glove ports: 6" (15.2 cm) dia O-rings

Glove size: 6" (15.2 cm) dia cuffs x 24" (61.0 cm) L

Valve size: ¼" OD

Catalog number	Dimensions		Shpg wt lb (kg)	Price
	Chamber (W x H x D)	Access opening (W x H)		
WJ-34788-00	27" x 20" x 20" (68.6 x 50.8 x 50.8 cm)	27" x 17" (68.6 x 43.2 cm)	65 (29.5)	\$2062.00
WJ-34788-10	32" x 20" x 24" (81.3 x 50.8 x 61.0 cm)	32" x 20" (81.3 x 50.8 cm)	85 (38.6)	2383.00

WJ-37802-00 Replacement hygrometer \$38.00

WJ-34790-80 Replacement latex gloves, medium size. Measure 24" (61.0 cm) long with 6" (15.2 cm) cuffs. \$62.00



34788-00

Equipment & Instrumentation

Heating Blocks

StableTemp Digital Dry Block Heaters

Precision temperature stability ensures reproducibility of results

- Interchangeable modular heating blocks provide flexibility for heating different-sized tubes—order blocks separately below

Designed for incubation and activation of cultures, enzyme reactions, immunoassays, melting/boiling points, and a wide variety of other laboratory procedures. Each heater accepts separate interchangeable modular heating blocks, which accommodate various sample enclosures such as microtubes, centrifuge tubes, vials, microplates, and PCR strips or tubes. Create a versatile system unique to your application; order either an analog (sold online) or digital heater and the required heating block module (sold separately below).

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.

Digital Dry Block Heaters offer exceptional temperature uniformity and feature a proportional integrative derivative (PID) controller. PID control allows you to select a particular temperature with ease, enables rapid heat-up for samples, and provides excellent stability to maintain results. Features include timer, audible alarm, built-in temperature calibration mode, and independent LED displays that show actual and set point temperatures. Models 36600-69 and -70 have a heated lid designed to reduce condensation and prevent cross-contamination.

External Temperature Probe Kit (for digital units only) enables the unit to read block or sample temperature and display that temperature on the control panel. The kit includes a stainless steel RTD probe, an 18" (45.7 cm) L stainless steel support rod, probe extension clamp, and hook connector. The RTD probe is designed to fit into the thermometer well located within each modular block.

What's included: detachable, 92" (234 cm) L, 3-wire cord with plug (230 VAC units are supplied with European plug).



36600-03

36600-01 shown with 36600-68

MORE online!

For a complete offering of analog dry block heaters and interchangeable blocks, go to...

ColeParmer.ca/DryBlockHeaters



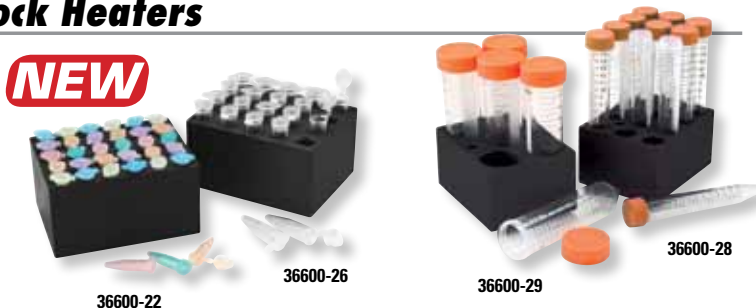
Catalog number	Number of blocks accepted	Uniformity	Temperature range	Dimensions (W x H x D)	Power			Price
					VAC	Watts	Amps	
Digital dry block heaters								
WJ-36600-01	1	±0.1° within the block at 98°F (37°C)	Ambient to 248°F (ambient to 120°C)	12½" x 8" x 3½"	120	110	0.9	\$ 743.00
WJ-36600-02				(31.5 x 20.3 x 8.9 cm)	230	110	0.5	743.00
WJ-36600-03	2	±0.1° within the block at 98°F (37°C), ±0.1° across similar blocks at 98°F (37°C)		15½" x 8" x 3½"	120	210	1.7	861.00
WJ-36600-04				(39.1 x 20.3 x 8.9 cm)	230	210	0.9	861.00
WJ-36600-06	3	±0.1° within the block at 98°F (37°C), ±0.15° across similar blocks at 98°F (37°C)		18½" x 8" x 3½"	120	210	1.7	1039.00
WJ-36600-07				(46.7 x 20.3 x 8.9 cm)	230	210	0.9	1039.00
WJ-36600-08	4	±0.1° within the block at 98°F (37°C), ±0.2° across similar blocks at 98°F (37°C)		17" x 8" x 3½"	120	310	2.6	1158.00
WJ-36600-09				(42.9 x 20.3 x 8.9 cm)	230	310	1.3	1158.00
WJ-36600-10	6	±0.1° within the block at 98°F (37°C), ±0.3° across similar blocks at 98°F (37°C)		21" x 8" x 3½"	120	410	3.4	1424.00
WJ-36600-11				(53.1 x 20.3 x 8.9 cm)	230	410	1.7	1424.00
Digital dry block heaters with heated lid								
WJ-36600-69	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)	15½" x 8" x 7"	120	400	3.0	1063.00
WJ-36600-70				(39.1 x 20.3 x 17.8 cm)	230	400	1.65	1063.00

WJ-36600-68 Optional external temperature probe kit \$249.50

StableTemp Modular Blocks for Dry Block Heaters

Modular blocks are constructed from a solid anodized aluminum block. The close contact of tubes-to-block walls allow for maximum heat retention. Each block has a thermometer well for measuring block temperature.

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.



36600-22

36600-26

36600-28

36600-28

Microcentrifuge Tube Blocks (single block size)

Catalog number	Accommodates	No. of wells	Well dia.	Well depth	Price
WJ-36600-22	0.5 mL tube	30	7.9 mm	27.6 mm	\$ 113.25
WJ-36600-23	1.5 mL tube	20	11.1 mm	39.1 mm	113.25
WJ-36600-24	1.5 mL Eppendorf® tube	20	11.5 mm	36.9 mm	113.25
WJ-36600-25	2 mL Eppendorf tube	20	11.5 mm	38.1 mm	113.25
WJ-36600-26	2 mL Corning® tube	20	10.9 mm	38.1 mm	113.25

Conical-Bottom Centrifuge Tube Blocks (single block size)

Catalog number	Accommodates	No. of wells	Well dia.	Well depth	Price
WJ-36600-28	15 mL tube	12	17.1 mm	44.5 mm	\$113.25
WJ-36600-29	50 mL tube	5	29 mm	47.6 mm	113.25

Equipment & Instrumentation

Incubators

Low-Cost Analog and Digital Incubators

Versatile and dependable—ideal for clinical, educational, or industrial labs

- Maintain temperatures within $\pm 0.5^{\circ}\text{C}$ [†]
- Tinted, see-through acrylic door lets you view the entire chamber without opening the door—ensures good temperature stability

These incubators are microprocessor controlled and include a unique temperature tracking feature which stores maximum process temperature deviation from set point in 0.1 degree units. Self-diagnostic function alerts the user if control software malfunctions or thermocouple fails. The LED displays temperature in $^{\circ}\text{C}$ or $^{\circ}\text{F}$.

What's included: chrome-plated adjustable shelf and fixed bottom shelf, and power cord with three-prong grounded plug. Analog models include a spirit-filled thermometer. Model 03613-00 comes with a steel insulated door.



Digital incubator
03613-40

3 year
warranty
on heating element

Specifications

Display: 4-digit LED **Construction:** powder-coated, cold-rolled steel exterior; aluminum interior; fiberglass insulation; tinted acrylic door

Resolution: 1.0 or 0.1 $^{\circ}\text{C}$

Catalog number	Capacity cu ft (L)	Temperature stability	Temperature range	Dimensions (W x H x D)		Shelf positions	Shelves included	Power		Price
				Chamber	Overall			Watts	VAC, Hz	
Analog low-cost incubators										
WJ-03613-00 [†]	0.7 (19.8)	$\pm 0.5^{\circ}\text{C}$	5 to 93 $^{\circ}\text{C}$	12" x 10" x 10" (30.5 x 25.4 x 25.4 cm)	13" x 15" x 11" (33 x 38.1 x 27.9 cm)	7	1	270	115, 50/60	\$465.00
WJ-03613-10	0.7 (19.8)	$\pm 0.5^{\circ}\text{C}$	5 to 62 $^{\circ}\text{C}$	12" x 10" x 10" (30.5 x 25.4 x 25.4 cm)	13" x 15" x 11" (33 x 38.1 x 27.9 cm)	7	1	120	115, 50/60	436.00
WJ-03613-20	2.0 (56.6)	$\pm 0.5^{\circ}\text{C}$	5 to 62 $^{\circ}\text{C}$	18" x 16" x 12" (45.7 x 40.6 x 30.5 cm)	19" x 21" x 13" (48.3 x 53.3 x 33 cm)	13	1	235	115, 50/60	562.00
Digital low-cost incubators										
WJ-03613-30	0.7 (19.8)	$\pm 0.5^{\circ}\text{C}$	5 to 62 $^{\circ}\text{C}$	12" x 10" x 10"	13" x 15" x 11"	7	1	120	120, 50/60	677.00
WJ-03613-35				(30.5 x 25.4 x 25.4 cm)	(33 x 38.1 x 27.9 cm)				230, 50/60	677.00
WJ-03613-40	2.0 (56.6)	$\pm 0.5^{\circ}\text{C}$	5 to 62 $^{\circ}\text{C}$	18½" x 16" x 12"	19" x 21" x 13"	13	1	235	120, 50/60	797.00
WJ-03613-45				(47 x 40.6 x 30.5 cm)	(48.3 x 53.3 x 33 cm)				230, 50/60	797.00

[†]Measured at 35 $^{\circ}\text{C}$ under controlled laboratory conditions

[‡]Model 03613-00 comes with a steel insulated door and a spirit-filled thermometer.

Thermo Scientific Heratherm General Protocol Incubators

Ideal for standard applications in pharmaceutical, research, food, and medical labs

- Internal glass door allows sample viewing without disturbing temperature
- Intuitive user interface for easy temperature setting

These gravity convection incubators provide top-quality temperature uniformity, ranging from 5 $^{\circ}\text{C}$ ambient to 75 $^{\circ}\text{C}$. A unique airflow design, advanced microprocessor control, and automatic overtemperature alarm ensure that an optimal environment is maintained.

Units are ideal for everyday heating and drying applications, operating up to 75 $^{\circ}\text{C}$ with outstanding temperature stability. Features include a large, easy-to-read vacuum fluorescent display and corrosion-resistant stainless steel chamber with easy-to-clean rounded corners.

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

NEW



38800-06

ISO9001:2008
CERTIFIED SUPPLIER

Freight
Transport
Items over 100 lb

Specifications

Temperature range: ambient +5 $^{\circ}\text{C}$ to 75 $^{\circ}\text{C}$

Maximum shelf load: 55 lb (25 kg)

Display: vacuum fluorescent

Construction: stainless steel interior chamber

Catalog number	Capacity cu ft (L)	Accuracy at 37 $^{\circ}\text{C}$	Temperature uniformity at 37 $^{\circ}\text{C}$	Dimensions (W x H x D)		Shelf positions	Shelves included	Power			Shpg wt lb (kg)	Price
				Chamber	Overall			Watts	VAC, Hz	Amps		
WJ-38800-02	2.6 (75)	$\pm 0.2^{\circ}\text{C}$	$\pm 0.6^{\circ}\text{C}$	14" x 20" x 16¼" (35.4 x 50.8 x 41.4 cm)	20¾" x 28¾" x 22½" (53 x 72 x 56.5 cm)	13	2	300	120, 60	2.5	88 (40.0)	\$1902.00
WJ-38800-04	4.0 (117)	$\pm 0.2^{\circ}\text{C}$	$\pm 0.6^{\circ}\text{C}$	18¼" x 24" x 16¼" (46.4 x 60.8 x 41.4 cm)	25¼" x 32¼" x 22½" (64 x 82 x 56.5 cm)	16	2	540	120, 60	4.5	112 (50.9)	2563.00
WJ-38800-06	6.85 (194)	$\pm 0.2^{\circ}\text{C}$	$\pm 0.6^{\circ}\text{C}$	18¼" x 27¾" x 23½" (46.4 x 70.8 x 58.9 cm)	25¼" x 36¼" x 29" (64 x 92 x 73.8 cm)	19	2	720	120, 60	6	143 (64.9)	3040.00

Unique Products.

Exceptional Service.

Technical Support.



Equipment & Instrumentation

Lighting & Illumination

Highlighted items

Cole-Parmer LED Fiber Optic Illuminator

LED bulb provides energy efficiency with high light output

- Small footprint easily fits on your benchtop

Designed for general microscopy, assembly illumination, machine vision, and boroscope applications. High-power white LEDs provide consistent color temperature, higher light output, and longer life than conventional 150-watt fiber optic illuminator bulbs. Easily adjust the light output using the 15-step intensity control. Illuminator is available as a light source only, or with gooseneck light pipe or ring lights.

What's included: fiber optic light pipe adapter, power converter, and power cord (see table for cord type).



41723-54

Specifications

Color temperature: 6000 K **Light output:** 780 lumens **Bulb life:** 20,000 hours

Catalog number	Description	Illuminator dimensions (W x H x D)	Power	Power cord included	Price
WJ-41723-50	LED fiber optic illuminator	3 ⁷ / ₈ " x 5 ¹ / ₈ " x 7" (9.9 x 13 x 17.8 cm)	90 to 264 VAC, 50/60 Hz	115 VAC, US	\$ 945.00
WJ-41723-51				230 VAC, European	945.00
WJ-41723-52	LED fiber optic illuminator with single gooseneck light pipe	3 ⁷ / ₈ " x 5 ¹ / ₈ " x 7" (9.9 x 13 x 17.8 cm)	90 to 264 VAC, 50/60 Hz	115 VAC, US	1165.00
WJ-41723-53				230 VAC, European	1165.00
WJ-41723-54	LED fiber optic illuminator with dual gooseneck light pipe	3 ⁷ / ₈ " x 5 ¹ / ₈ " x 7" (9.9 x 13 x 17.8 cm)	90 to 264 VAC, 50/60 Hz	115 VAC, US	1260.00
WJ-41723-55				230 VAC, European	1260.00
WJ-41723-56	LED fiber optic illuminator with 60-mm ring light pipe	3 ⁷ / ₈ " x 5 ¹ / ₈ " x 7" (9.9 x 13 x 17.8 cm)	90 to 264 VAC, 50/60 Hz	115 VAC, US	1336.00
WJ-41723-57				230 VAC, European	1336.00
WJ-41723-58	LED fiber optic illuminator with 66-mm ring light pipe	3 ⁷ / ₈ " x 5 ¹ / ₈ " x 7" (9.9 x 13 x 17.8 cm)	90 to 264 VAC, 50/60 Hz	115 VAC, US	1348.00
WJ-41723-59				230 VAC, European	1348.00



Cole-Parmer Microscopy Fiber Optic Illuminators

Designed specifically for your microscopic needs!

- Low profile design fits into tight spaces
- Complete 0 to 100% light intensity control

These high-performance illuminators deliver 400,000 footcandles of high-intensity cold light. Minimal light leakage makes these illuminators ideal for your photosensitive applications.

Audible noise and vibration is minimal, convenient side door makes changing lamps fast and easy, and light pipes fit securely without need for adapters. Built-in handle stays out of the way. Available as an independent light source or as a complete system with self-supporting light pipe(s).

What's included: a 150-watt quartz halogen bulb and 6-ft (1.8-m) power cord with US standard plug (230 VAC models have European plug).

Specifications

Lamp intensity: 40,000 footcandles at 3" (7.6 cm) **Lamp color temperature:** 3250 K
Bulb life: 200 hours at high setting

Catalog number	Wattage	Illuminator dimensions (W x H x D)	Power (50/60 Hz)	Price
Illuminator only (order light pipe separately at right)				
WJ-41723-00	150 watts	6" x 5 ⁵ / ₈ " x 8 ¹ / ₂ " (15.2 x 13.7 x 21.6 cm)	115 VAC	\$404.00
WJ-41723-05			230 VAC	486.00
Illuminator with single gooseneck light pipe (20"L) and one focusing lens				
WJ-41723-20	150 watts	(15.2 x 13.7 x 21.6 cm)	115 VAC	661.00
WJ-41723-25			230 VAC	661.00
Illuminator with dual gooseneck light pipes (23"L) and two focusing lenses				
WJ-41723-30	150 watts	(15.2 x 13.7 x 21.6 cm)	115 VAC	863.00
WJ-41723-35			230 VAC	759.00



Illuminator 41723-30 comes with dual gooseneck light pipes. Order microscope separately online.

WJ-41720-75 Single self-supporting light pipe \$211.00
WJ-41720-65 Dual self-supporting light pipe \$268.00

Equipment & Instrumentation

Microscopes



Highlighted items

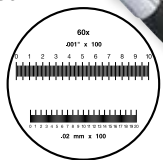
Cole-Parmer Shop Microscopes

Take anywhere on the job—
ideal for lab, field, or shop work

Small size and rugged carrying case make it easy to take these shop microscopes anywhere! The cast aluminum frame with gray enamel finish measures only 9"H (22.9 cm). Wide-field 10x eyepiece features a direct-reading reticle with both inch and metric scales. Simply turn the eyepiece to bring the reticle into sharp focus—no calibration is needed. Dual knobs with rack and pinion focusing let you quickly refine the image. Penlight illuminator is fully adjustable in all directions by means of a ball joint; remove it for use elsewhere. Microscopes come with plastic carrying case, dust cover, and two AA batteries.



03890-30



Easy-to-read inch and metric scales

5 year warranty

Catalog number	WJ-03890-10	WJ-03890-20	WJ-03890-30	WJ-03890-40
Magnification	20x	40x	60x	100x
Inch scale (x100)	0.003"	0.0015"	0.001"	0.0005"
Metric scale (x100)	0.06 mm	0.03 mm	0.02 mm	0.01 mm
Working distance	23 mm	23 mm	23 mm	6.6 mm
Field of view	9.0 mm	4.5 mm	3.0 mm	1.8 mm
Price	\$220.25	\$220.25	\$220.25	\$246.50

Accessories and Replacement Parts

- WJ-03890-55** Eyepiece without reticle, 10x. Fits all shop microscopes above \$46.00
- WJ-03890-91** Replacement penlight illuminator \$18.25
- WJ-09376-01** Replacement batteries, AA. Pack of 4 \$8.50

Fits microscope	Replacement eyepieces with reticle			Replacement objectives		
	Cat. no.	Mag.	Price	Cat. no.	Mag.	Price
03890-10	WJ-03890-51	10x	\$63.25	WJ-03890-61	2x	\$63.25
03890-20	WJ-03890-52		\$63.25	WJ-03890-62	4x	\$63.25
03890-30	WJ-03890-53		\$63.25	WJ-03890-63	6x	\$63.25
03890-40	WJ-03890-54		\$69.00	WJ-03890-64	10x	\$69.00

Handheld Digital USB Microscopes

Puts the world of microphotography at the tips of your fingers!

- Active Pixel Technology produces sharp images and accurate color reproduction
- Six built-in lights with adjustable brightness ensure proper illumination
- Includes software for image/video capture and measurement

Use these digital microscopes for science and engineering work, assembly and quality control, detailed repair, forensics, and more. Six LEDs illuminate your object—turn the LEDs on or off and adjust the brightness using the control wheel on the body. For versions with the 10x to 200x magnification range, magnification automatically adjusts based on the distance from the object. Units include a basic stand with adjustable height; order optional boom stand for greater flexibility.

Capture images and videos through use of the included software (requires Windows® XP, SP2, or Vista). The software also includes a measurement function, brightness and contrast controls, digital zoom, and date and time record.

What's included: software, cables, and basic stand.



48708-20 shown with included stand



48708-20

Catalog number	WJ-48708-20	WJ-48708-22	WJ-48708-23	WJ-48708-25	WJ-48708-26
Magnification	10x to 200x	500x	10x to 200x	10x to 200x	10x to 200x
Lighting	Six LEDs	Six LEDs	UV bulbs (405 nm)	Six LEDs w/polarizer	Six near-infrared LEDs
Imaging sensor	¼" CMOS	¼" CMOS	¼" CMOS	¼" CMOS	½" CMOS
Pixels	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1280 x 1024	1280 x 1024
Output	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0
Cables	USB	USB	USB	USB	USB
Power	5 VDC, via USB	5 VDC, via USB	5 VDC, via USB	5 VDC, via USB	5 VDC, via USB
Price	\$240.75	\$302.00	\$302.00	\$302.00	\$357.00

WJ-48708-24 Optional boom stand \$193.75

WJ-48708-27 Optional gooseneck stand \$62.00

Cole-Parmer Brand Slides

Our slides feature precision ground edges on all four sides. The raised coating on the Superfrost and Colorfrost slides provides a bright background and smooth surface that is easy to write on. The coating also keeps slides separated to prevent sticking and scratching. Color frosted slides make identification a snap. Slides measure 75 x 25 mm and are 1-mm thick. They are available in one gross (144 slides) or one case (10 gross) quantities.



Description	One gross (144 slides)		One case (10 gross)	
	Catalog number	Price	Catalog number	Price/cs
Plain	WJ-48500-00	\$44.75	WJ-48500-20	\$336.00
Frosted	WJ-48501-00	44.75	WJ-48501-20	358.00
White Superfrost	WJ-48502-00	49.50	WJ-48502-20	455.00
Blue Colorfrost	WJ-48503-00	50.50	WJ-48503-20	455.00
Green Colorfrost	WJ-48503-01	52.75	WJ-48503-21	455.00
Pink Colorfrost	WJ-48503-02	50.50	WJ-48503-22	455.00
Yellow Colorfrost	WJ-48503-03	52.75	WJ-48503-23	455.00

Unique Products.

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Equipment & Instrumentation

Mixers

Highlighted items

Stir-Pak® Variable-Speed Mixers

High-quality, reliable mixers featuring full-range performance

A Stir-Pak® General-Purpose Mixer

- Keyless chuck accepts mixing shafts from 5/16" to 3/8" (8 to 10 mm) dia
- Integrated control for both on/off and speed settings

Ideal for light-duty mixing of water-like fluids. Smooth-start motor ramps to set speed.

Brushed DC motor has a compact speed controller integrated by a custom anodized aluminum potentiometer, which controls both on/off and variable-speed settings for single-direction mixing. LED light indicates when motor is turned on, or when an overload, over temperature situation occurs. Keyless chuck accepts mixing shafts from 5/16" to 3/8" (8 to 10 mm) dia.

Mixer includes: 3/8" (9.5 mm) dia x 12" (305 mm) L 316 SS shaft, 1 1/2" (38 mm) dia propeller, 6" (152 mm) mounting rod, 6-ft (1.8-m) grounded cord with power supply.

Complete system adds: double clamp and support stand.



04555-00

B Stir-Pak® Dual-Shaft Mixer

- Use for either high-speed or high-torque mixing
- Solid-state—for precise speed control

Two motor shafts give you two mixers in one. The direct-drive shaft provides high-speed, low-viscosity mixing; switch to the gear-reduction shaft for your low-speed, high-viscosity mixing needs.

Mixer includes: 6" L x 1/2" dia (152 mm L x 13 mm dia) mounting rod; chuck (accepts shafts from 5/16" to 3/8" [8 to 10 mm] dia); and 6-ft (1.8-m), 3-wire cord with plug.

Complete system adds: 3/8" dia x 12" L (10 mm dia x 305 mm L), 316 SS shaft; 3" dia (76 mm dia) propeller; 316 SS, double clamp; and support stand.



Catalog number	Description	Speed (rpm)	hp	Max torque (in-oz)	Dimensions (W x H x D)	Shaft dia, (mm)	Power (VAC, Hz)	Price
A General-purpose mixer								
WJ-04555-00	Mixer	0 to 4000	1/50	9.5	3 1/4" x 5 1/4" x 6 1/2" (83 x 133 x 165 mm)	8 to 10	115/230, 50/60	\$ 544.00
WJ-04555-50	Complete system							815.00
B Dual-shaft mixer								
WJ-04555-25	Mixer	Direct-drive shaft: 50 to 5000	1/50	Direct-drive shaft: 4	Motor: 5 3/4" L x 3 1/2" dia (146 x 89 mm) Controller: 7" x 3 3/8" x 4 7/8" (178 x 86 x 124 mm)	8 to 10	115, 50/60	847.00
WJ-04555-60	Complete system	Gear shaft: 3 to 250		Gear-shaft: 80				1273.00

Stir-Pak® Heavy-Duty Mixer Systems

Modular system for maximum versatility—order components separately or as a convenient system

1 Speed Controller

Solid-state controller offers precise speed control with a 100:1 adjustment range. A separate "forward/off/reverse" switch works independently from the speed control dial—allowing you to repeat mixer speed settings from one run to the next. Torque limiting provides greater system protection and reduced motor gear failure. An LED indicates when power is on.

Remote controller is connected to the mixer head via a 6-ft (1.8-m), three-wire cord—protects electronics from hazardous spills or splashes.

2 Mixer Heads

These rugged mixer heads feature TENV, permanent-magnet DC motor with permanently lubricated ball bearing construction. Integral adjustable-tilt mounting assembly that permits the rotation of the mixer head from 0 to 30° for proper placement of shaft and propeller.

High-Torque, Low-Speed Mixer Heads feature a keyless chuck that accepts mixing shafts from 5/16" to 3/8" (8 to 10 mm) dia.

High-Speed, Low-Torque Mixer Heads incorporate a hollow through-shaft and a precision hand-tightened collet; collet accepts 3/8" (10 mm) dia mixing shafts. The design lets you quickly position the mixing propeller at any depth within the container without moving the mixer head.

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



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



MORE online!

For a complete listing of accessories for Stir-Pak® and ServoDyne™ mixers, go to . . .

ColeParmer.ca/Mixers



1 Controller			2 Mixer heads					Complete systems			
Catalog number	Power (VAC, Hz)	Price	Catalog number	Description	Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Price	Catalog number	Price
WJ-50007-00	115, 50/60	\$389.00	WJ-50007-10	High torque, low speed; with keyless chuck	2 to 180	1/15	340	115, 50/60	\$756.00	WJ-50007-12	\$1787.00
WJ-50007-05	230, 50/60	476.00	WJ-50007-15		9 to 900	1/15	70	230, 50/60	756.00	WJ-50007-17	1529.00
WJ-50007-00	115, 50/60	389.00	WJ-50007-20					115, 50/60	756.00	WJ-50007-22	1635.00
WJ-50007-05	230, 50/60	476.00	WJ-50007-25	High speed, low torque; with adjustable through-shaft collet	23 to 2300	1/10	45	230, 50/60	756.00	WJ-50007-27	1389.00
WJ-50007-00	115, 50/60	389.00	WJ-50007-30					115, 50/60	681.00	WJ-50007-32	1495.00
WJ-50007-05	230, 50/60	476.00	WJ-50007-35					230, 50/60	700.00	WJ-50007-37	1325.00
WJ-50007-00	115, 50/60	389.00	WJ-50007-40					115, 50/60	716.00	WJ-50007-42	1682.00
WJ-50007-05	230, 50/60	476.00	WJ-50007-45	60 to 6000	1/10	17	230, 50/60	845.00	WJ-50007-47	1616.00	



Highlighted items

IKA® RW 20 Digital Dual-Range Mixer

Great value—complete system with three FREE accessories!

- Through-shaft design provides virtual limitless adjustment for impeller depth
- Two speed ranges to suit a variety of mixing applications
- Maintenance-free motor rated for continuous duty

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. Through-shaft design permits adjustment of shaft length and impeller depth—allows you to place or remove mixing vessels without repositioning the mixer.

Motor and drive unit are conveniently integrated into a compact aluminum and thermoplastic housing with easy-to-use controls. Quiet, fan-cooled motor features thermal overload shut-off and an efficient heat-dissipating design to ensure a long service life. Maintenance-free motor is rated for continuous duty. Mixer features stepless speed control. The 1/2" (13 mm) LCD shows rotational speed in rpm and enables you to precisely control and repeat process parameters.

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; clamp; and a 6 1/2-ft (2-m), three-wire power cord (115 VAC model includes plug).



Specifications



Motor power input: 70 watts **Dimensions (W x H x D):**
3 1/2" x 11 1/2" x 8 3/8" (89 x 292 x 187 mm)

Catalog number	Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Price
WJ-50705-00	60 to 500/240 to 2000	1/25	259	115, 50/60	\$836.00
WJ-50705-10				230, 50/60	836.00

SERVO DYNE™ Electronic Mixers

Monitor and control speed, torque, and batch time through digital controller or a computer interface

1 Controller

Provide precise control of mixing speed within ±0.2% despite changes in viscosity, temperature, or line voltage. Monitor torque, set torque limits, or measure and control differential torque with mixer head in use and sets the appropriate rpm and torque limits for that motor. Operates on 115 VAC, 50/60 Hz.

2 Mixer Heads

Permanent-magnet DC motor with permanently lubricated ball-bearing construction for maintenance-free operation.

Optical shaft encoder relays the exact motor rotation speed data to the electronic mixer controller. Adjustable-tilt mounting assembly permits rotation of mixer head from 0° to 30° for proper positioning of shaft and propeller.

High-Torque, Low-Speed Models have a keyless chuck that accepts mixing shafts up to 3/8" (10 mm) in diameter.

High-Speed, Low-Torque Models have an adjustable, through-shaft precision hand-tightened collet that accepts 3/8" (10 mm) dia mixing shafts. Through-shaft design allows positioning the mixing propeller at any depth without moving the mixer head.

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

Optional software program lets you control up to 16 ServoDyne mixers and Masterflex® L/S® computer-compatible pump drives. (See ColeParmer.com/mixers for more information.)



ServoDyne low-speed, high-torque mixer system 50008-22



1 Controller		2 Mixer heads						Complete systems		
Catalog number	Price	Catalog number	Description	Speed (rpm)	hp	Max torque (in-oz)		Price	Catalog number	Price
						Continuous	Intermittent			
WJ-50008-00	\$1090.00	WJ-50008-10	High torque, low speed; with keyless chuck	3 to 180	1/15	340	510	\$ 1167.00	WJ-50008-12	\$2909.00
		WJ-50008-20		20 to 900	1/15	70	105	1097.00	WJ-50008-22	2570.00
		WJ-50008-30	High speed, low torque; with adjustable through-shaft collet	60 to 2300	1/10	45	65	933.00	WJ-50008-32	2885.00
		WJ-50008-40		150 to 6000	1/10	17	25	1182.00	WJ-50008-42	3265.00



Highlighted items

Equipment & Instrumentation

Mixers

Accessories for Laboratory Mixers

A-J General-Purpose 316 SS Shafts, Extension Rods, Sleeves, and Propellers

A Shafts. All 3/8" (9.5 mm) dia shafts are machined (1/2" [13 mm] length) on one end to accept a 5/16" (8 mm) bore dia propeller. Made of passivated stainless steel.

Catalog number	Shaft dimensions, dia x L, in. (mm)	Price
WJ-04552-20	5/16 x 12 (8 x 305)	\$ 51.00
WJ-04552-30	5/16 x 18 (8 x 457)	77.00
WJ-04552-25	3/8 x 12 (10 x 305)	51.00
WJ-04552-35	3/8 x 18 (10 x 457)	77.00
WJ-04552-00	3/8 x 24 (10 x 610)	99.75
WJ-04552-05	3/8 x 30 (10 x 762)	125.00

Extension Rods and Sleeves increase shaft length. One sleeve is required to connect each extension rod to your shaft.

Length in. (mm)	1/4" (6 mm) dia rods	5/16" (8 mm) dia rods		
	Cat. no.	Price	Cat. no.	Price
B Extension rods; include Allen wrench				
6 (152)	WJ-04366-10	\$18.75	WJ-04367-10	\$18.75
12 (305)	WJ-04366-20	24.50	WJ-04552-20	51.00
18 (457)	WJ-04366-30	27.25	WJ-04552-30	77.00
C Sleeves; for use with extension rods above				
3 (76)	WJ-04363-00	64.50	WJ-04364-00	64.50

D Turbine Propellers are for airless mixing in deep containers. Made of 316 SS.

E Two-Blade Propellers 1" dia with 5/16" (8-mm).

K-O High-Shear 304 SS Metric Shaft and Propellers

K Mixing Shaft for use with any 10 mm dia or adjustable 3/8" (10 mm) dia chuck. Measures 10 mm dia X 500 mm L. Threaded shaft end accepts only propellers "L" through "O".

WJ-04370-02 Mixing shaft \$82.75

L Turbine Propellers for airless mixing in deep containers. Threaded 10-mm dia bore requires shaft 04370-02 (above).

M Dual-Blade Propellers for viscous fluids. Threaded 10-mm dia bore fits only shaft model 04370-02 (above).

N Four-Blade Propellers are for general-purpose vortex mixing. Threaded 10-mm dia bore fits only shaft model 04370-02 (above).

O Folding Propeller is for use in narrow-mouth vessels. Folded diameter is 3/4" (18 mm). Threaded 10-mm dia bore fits only shaft model 04370-02 (above).

Key	Cat. no.	Overall diameter	Price
L	WJ-04370-15	2 3/8" (60 mm)	\$60.75
	WJ-04370-16	3 13/16" (100 mm)	97.50
	WJ-04370-18	3 15/16" (100 mm)	59.75
M	WJ-04370-19	1 1/8" (28 mm)	52.75
	WJ-04370-11	2 1/16" (75 mm)	58.50
N	WJ-04370-12	2 3/8" (60 mm)	54.00
	WJ-04370-13	1 1/2" (40 mm)	54.00
O	WJ-04370-14	1 7/8" (48 mm) [open]	60.75

F Three-Blade Propellers are for general-purpose mixing. Use alone or mount several on a single shaft for thorough agitation. Made of electropolished 316 SS.

G Lightweight Three-Blade Propellers have blades that twist to achieve the desired pitch.

H Folding Propeller is for use in narrow-mouth vessels. Folded diameter is 1 1/16" (18 mm).

I Ring Guard Propeller protects dip tubes or sensors in your mixing vessel.

J Dispersion Blade, high-shear for tearing action, low flow. 5/16" (8-mm) bore.

Key	Catalog number	Overall dia, in. (mm)	Bore dia, in. (mm)	Price
D	WJ-04552-10	2 (51)	5/16 (8)	\$ 45.50
	WJ-04552-15	2 (51)	3/8 (10)	45.50
E	WJ-04552-61	1 (25)	5/16 (8)	86.00
F	WJ-04552-40	1 (25)	5/16 (8)	44.25
	WJ-04552-45	1 1/2 (38)	5/16 (8)	44.25
	WJ-04552-50	2 (51)	5/16 (8)	44.25
	WJ-04552-55	2 (51)	3/8 (10)	44.25
	WJ-04552-60	3 (76)	5/16 (8)	48.75
G	WJ-04349-10	2 (51)	1/4 (6)	41.75
	WJ-04349-00	3 1/2 (89)	5/16 (8)	43.00
H	WJ-04543-00	2 (51) open	5/16 (8)	274.00
I	WJ-04545-00	2 (51)	5/16 (8)	253.00
J	WJ-04552-62	1 1/16 (33)	5/16 (8)	206.50

P Flexible Couplings

Flexible couplings are for use with glass mixing shafts. Rubber-bodied sleeve lets you make connections without a rubber hose—absorbs shock and reduces mixer noise and vibration. Couplings measure 4" (102 mm) long.

Catalog number	Fits mixing shaft OD	Fits motor shaft OD	Price
WJ-50401-53	10 mm	5/16" (8 mm)	\$52.75
WJ-50401-51	10 mm	3/8" (10 mm)	52.75

Mixer Testing Beads

Test your mixer/impeller system for clumping and settling. These highly visible beads are calibrated to simulate particles in your fluid and let you easily visualize mixing patterns. Use both sizes simultaneously to determine effect on different-sized particles.



Cat. no.	Color	Bead diameter	Price
WJ-04560-70	Red	4.5 mm	\$49.50
WJ-04560-71	Yellow	3 mm	49.50

Equipment & Instrumentation

Mixers

Koflo In-Line Static Mixers

Mix fluids as you pump them through a pipe line

- These economical, long-lasting, in-line mixers are more convenient than most motorized mixers
- In-line mixers prevent overmixing and undermixing, and resist fouling in your pipes or tubes
- Virtually maintenance free and need no spare parts

In-line mixers are efficient and can withstand large pressure changes—up to 1500 psi with smallest sizes. Mixing elements in pipe and tube mixers are securely attached to the mixer walls, so internal pressure changes cannot collapse elements and stop flow.

TECHNICAL information!

With in-line static mixers, the mixer does not move through the fluid—the fluid moves through the mixer. As this illustration shows, mixing takes place around the centerline and in the direction of flow.

- 1 Pump pushes a stream of liquid into the mixer.
- 2 The stream of liquid is then split and forced to the opposite outside walls.
- 3 A vortex is created along the centerline axis of the pipe.
- 4 The vortex is sheared and the process recurs with the opposite rotation. This clockwise/counterclockwise motion mixes the liquid to ensure a homogeneous end product.

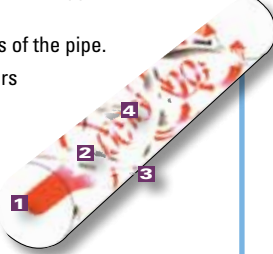
Use the Reynolds equation and the table below to determine the minimum number of elements you need for efficient mixing.

Reynolds equation: $Re = \frac{3157QS}{\mu D}$

- Re = Reynolds number
 - Q = Flow rate (gallons per minute)
 - S = Specific gravity
 - μ = Viscosity (centipoise)
 - D = Inside pipe diameter (inches)

Reynolds number	Elements required
>1000	6
500 to 1000	12

Note: If the Reynolds number is less than 500, call our Application Specialists for assistance.



Pipe Mixers

Install these mixers directly into your process line to achieve a 100% mixed output—mixing elements are welded inside the pipe. All mixers have threaded ends. Choose PVC, 316 stainless steel, PVDF, or PFA. The clear PVC mixers are ideal for a visual check of your mixing processes. Models with removable elements are available on request—call our Application Specialists for details.



Catalog number	NPT(M)	Pipe ID, in. (mm)	No. of elements	Mixer length, in. (mm)	Price
Clear PVC schedule 40 pipe mixers					
WJ-04669-85			6	6½ (165)	\$ 85.00
WJ-04669-87	¾"	0.473 (12)	12	11 (279)	98.75
WJ-04669-89			6	7 (178)	112.50
WJ-04669-91	½"	0.602 (15.3)	12	12 (305)	124.00
WJ-04669-92			6	9 (229)	119.25
WJ-04669-93	¾"	0.804 (20.4)	12	15 (381)	136.50
WJ-04669-94			6	11 (279)	130.75
WJ-04669-95	1"	1.029 (26.1)	12	18 (457)	172.00
WJ-04669-96			6	15 (381)	158.25
WJ-04669-97	1½"	1.590 (40.4)	12	28 (711)	197.25
WJ-04669-98			6	19 (483)	190.25
WJ-04669-99	2"	2.047 (52)	12	35 (889)	215.50

Catalog number	NPT(M)	Pipe ID, in. (mm)	No. of elements	Mixer length, in. (mm)	Price
Standard PVC schedule 80 pipe mixers					
WJ-04669-00			6	5 (127)	183.50
WJ-04669-02	½"	0.62 (15.7)	12	10 (254)	306.00
WJ-04669-06			6	7 (178)	189.25
WJ-04669-08	¾"	0.742 (18.8)	12	14 (356)	312.00
WJ-04669-04			6	10 (254)	205.25
WJ-04669-10	1"	0.957 (24.3)	12	19 (483)	339.00
WJ-04669-78			6	15 (381)	248.75
WJ-04669-79	1½"	1.50 (38.1)	12	26 (660)	413.00
WJ-04669-83			6	18 (457)	290.00
WJ-04669-81	2"	1.939 (49.2)	12	33 (838)	481.00

Catalog number	NPT(M)	Pipe ID, in. (mm)	No. of elements	Mixer length, in. (mm)	Price
316 stainless steel schedule 40 pipe mixers					
WJ-04669-05			6	3 (76.2)	212.25
WJ-04669-07	¼"	0.364 (9.2)	12	6 (152)	310.00
WJ-04669-09			6	4 (101)	236.25
WJ-04669-11	¾"	0.493 (12.5)	12	8 (203)	332.00
WJ-04669-12			6	5 (127)	257.00
WJ-04669-18	½"	0.62 (15.7)	12	10 (254)	361.00
WJ-04669-14			6	7 (178)	271.00
WJ-04669-20	¾"	0.82 (20.8)	12	13 (330)	370.00
WJ-04669-16			6	9 (229)	280.00
WJ-04669-22	1"	1.05 (26.7)	12	17 (439)	462.00
WJ-04669-23			6	13 (330)	396.00
WJ-04669-24	1½"	1.61 (40.9)	12	26 (660)	639.00
WJ-04669-25			6	17 (432)	622.00
WJ-04669-26	2"	2.067 (52.5)	12	33 (838)	1028.00

Catalog number	NPT(M)	Pipe ID, in. (mm)	No. of elements	Mixer length, in. (mm)	Price
PVDF schedule 80 pipe mixers					
WJ-04669-28			6	5 (127)	302.00
WJ-04669-29	½"	0.546 (13.9)	12	9 (229)	520.00
WJ-04669-30			6	6 (152)	328.00
WJ-04669-34	¾"	0.742 (18.8)	12	12 (305)	537.00
WJ-04669-32			6	8 (203)	361.00
WJ-04669-36	1"	0.957 (24.3)	12	15 (381)	552.00
WJ-04669-38			6	12 (305)	436.00
WJ-04669-40	1½"	1.50 (38.1)	12	24 (610)	607.00
WJ-04669-42			6	16 (406)	548.00
WJ-04669-44	2"	1.939 (49.2)	12	31 (787)	729.00

Catalog number	NPT(M)	Pipe ID, in. (mm)	No. of elements	Mixer length, in. (mm)	Price
PFA schedule 80 pipe mixers					
WJ-04668-20			6	5 (127)	464.00
WJ-04668-22	½"	0.546 (13.9)	12	9 (229)	813.00
WJ-04668-24			6	6 (152)	474.00
WJ-04668-26	¾"	0.742 (18.8)	12	12 (305)	789.00
WJ-04668-27			6	8 (203)	543.00
WJ-04668-29	1"	0.957 (24.3)	12	15 (381)	826.00

Disposable In-Line Mixers

Ideal for your one-time mixing applications, these disposable polyacetal mixers are available unmounted or mounted in polypropylene tubing. Adjust unmounted mixer length to get optimal mixing action—shorten by cutting or extend by using more than one mixer.

Unmounted Mixers can be used with any standard tubing having the same tubing ID as the element OD given in the table. They work well with flexible tubing.

Catalog number	Element OD/ tubing ID, in. (mm)	Number of elements	Mixer length, in. (mm)	Price/ pk of 10
WJ-04667-02		12	2½ (60)	\$41.50
WJ-04667-12	¾" (5)	24	4½ (118)	46.00
WJ-04667-04		12	3 (76)	43.75
WJ-04667-14	½" (6)	24	6 (152)	48.25
WJ-04667-06		12	4¾ (121)	46.00
WJ-04667-16	¾" (10)	24	9½ (241)	57.50
WJ-04667-08		12	5 (127)	65.50
WJ-04667-18	½" (13)	24	10 (254)	83.75

Mounted Mixers can be used with any compression fitting with the same tubing OD.

Catalog number	Tubing OD, in. (mm)	Number of elements	Mixer length, in. (mm)	Price/ pk of 10
WJ-04668-02		12	3½ (89)	\$63.25
WJ-04668-12	¾" (8)	24	5¾ (146)	69.00
WJ-04668-04		12	4¾ (108)	65.50
WJ-04668-14	¾" (10)	24	7¼ (184)	72.25
WJ-04668-06		12	6½ (165)	73.50
WJ-04668-16	½" (13)	24	11¼ (286)	87.25
WJ-04668-08		12	8¼ (216)	98.75
WJ-04668-18	¾" (16)	24	14½ (368)	112.50



04667-02



04668-02

Equipment & Instrumentation

Ovens

StableTemp Economical Gravity Convection Ovens

Economical choice for basic drying and baking applications

- Durable powder-coated cold-rolled steel exterior
- Double-wall aluminum interior with 1"-thick (2.5 cm) silica-based insulation

These economical gravity convection ovens are designed for the budget-conscious laboratory needing to perform basic drying and baking applications. Temperature is controlled via a bimetallic thermostat from ambient 5 to 210°C. All models feature a pilot light to indicate when the oven is in operation and a preset high temperature limit safety thermostat.

What's included: two adjustable chrome-plated wire shelves, one fixed shelf. The 120 VAC model has a three-wire cord and plug; the 230 VAC model has a three-wire cord only.



52120-02

“Nice things come in small packages”

JAC the Formulator, Bradford, PA



Specifications



Temperature range: ambient $\pm 5^{\circ}\text{C}$ to 210°C

Temperature display: glass thermometer[†]

Temperature accuracy: $\pm 9^{\circ}\text{C}$ at 100°C

Construction: aluminum interior, powder-coated cold-rolled steel exterior

Control type: bimetallic thermostat

Capacity (cu ft)	Shelf positions	Dimensions (W x H x D)		Shpg wt lb (kg)	120 VAC, 60 Hz		230 VAC, 50/60 Hz	
		Chamber	Overall		Catalog number	Price	Catalog number	Price
1.7	3	16" x 16¼" x 11½" (41 x 41 x 29 cm)	18½" x 22½" x 13½" (47 x 57 x 34 cm)	57 (26)	WJ-52120-02	\$940.00	WJ-52120-03	\$940.00

[†]Recommended thermometer is not included, order separately below.

WJ-93907-70 High-temperature oven thermometer, range 35 to 200°C \$161.25

WJ-52100-50 Replacement shelf for ovens 52120-02 and -03. \$101.50

Thermo Scientific Heratherm General Protocol Mechanical Convection Ovens

Optimally suited to everyday heating and drying applications up to 250°C

- Mechanical convection provides fast sample drying and heating with superior temperature uniformity
- Energy efficient—up to 20% more energy savings compared to similar units
- Small footprint saves space without compromising volume

Energy-efficient mechanical convection ovens feature gentle air circulation to ensure accurate, even heating from 50 to 250°C, perfect for drying samples such as glassware and powders. 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.

Smooth corrosion-resistant galvanized steel inner chamber has rounded corners for easy cleaning. The door opens 180°, providing easy access to interior for cleaning and loading of probes. 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.

NEW



38800-36

38800-38

38800-40

Specifications

Temperature range: 50 to 250°C

Control type: microprocessor

Temperature accuracy: $\pm 0.3^{\circ}$ at 150°C

Temperature display: vacuum fluorescent



Catalog number	Capacity (cu ft)	Temperature uniformity	Shelf positions	Dimensions (W x H x D)		Power		Shpg wt lb (kg)	Price
				Chamber	Overall	VAC, Hz	Amps		
WJ-38800-36	2.3	$\pm 3.3^{\circ}\text{C}$ at 150°C	13	13½" x 20" x 14½" (35 x 51 x 37 cm)	20½" x 28½" x 22¾" (53 x 72 x 57 cm)	120, 60	12	93 (42)	\$2333.00
WJ-38800-38	3.75	$\pm 3.5^{\circ}\text{C}$ at 150°C	16	18½" x 23½" x 14½" (46 x 61 x 37 cm)	25½" x 32½" x 22¾" (64 x 82 x 57 cm)	208-240, 60	14	117 (53)	2883.00
WJ-38800-40	6.2	$\pm 3.5^{\circ}\text{C}$ at 150°C	19	18½" x 27½" x 21½" (46 x 71 x 54 cm)	25½" x 36½" x 29½" (64 x 92 x 74 cm)	208-240, 60	14	146 (66)	3364.00

Equipment & Instrumentation Recorders



Highlighted items

Cole-Parmer Economical 100- and 200-mm Flatbed Recorders

Economical way to record your data

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. Housing design maximizes your bench space—100-mm models have 0.25 sq. ft. footprint and 200-mm models have 0.40 sq. ft. footprint.

What's included: 115 VAC power adapter, one roll of paper, and pen.



80550-00



80550-20

Specifications

Input ranges: 1, 2, 5, 10, 20, 50, 100, 200, 500 mV; 1, 2, 5 V

Accuracy: ± 0.5% full-scale

Chart size: 100 or 200 mm

Chart drive: crystal controlled

Chart speeds: 1, 2, 5, 10, 20, 30 cm/min and cm/hr

Input impedance: > 1 MΩ

Attenuation: 5:1

Pen response: 0.5 sec full-scale

Power: 115 VAC, 12 VAC, or 12 to 15 VDC

Dimensions (L x W x H)

100-mm models: 6¼" x 6" x 3¼"
(15.9 x 15.2 x 8.3 cm)

200-mm models: 6¼" x 10¼" x 3¼"
(15.9 x 26.0 x 8.3 cm)



Catalog number	Number of channels	Chart width	Price
WJ-80550-00	One	100 mm	\$810.00
WJ-80550-10	Two	100 mm	1400.00
WJ-80550-20	One	200 mm	\$21.00
WJ-80550-30	Two	200 mm	1411.00

Replacement Pens

Catalog number	Color	Price/pk of 6*
For channel one (short nib)		
WJ-08498-54	Red	\$42.50
WJ-08498-52	Blue	47.50
WJ-08498-53	Green	42.50
WJ-08498-58	Black	42.50
For channel two (long nib)		
WJ-08498-56	Red	42.50
WJ-08498-55	Blue	42.50
WJ-08498-57	Green	42.50
WJ-08498-59	Black	42.50

Replacement Chart Paper

Catalog number	Width	Length/roll	Price/pk of 4 rolls*
WJ-80550-80	100 mm	50 ft	\$41.75
WJ-80550-82	200 mm	(15.2 m)	47.75

*Discount: Save 10% on two or more packs.

OAKTON® Minidrum Hygrothermograph

Monitor temperature and humidity conditions ensuring quality control

- Durable, lightweight design includes corrosion-resistant acrylic cover
- Compact unit fits almost anywhere

This hygrothermograph is ideal for use in tight spaces such as under fume hoods or inside environmental chambers. 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; operates for 6 months on one AA battery (included). Rugged acrylic cover latches securely to protect paper and pens.

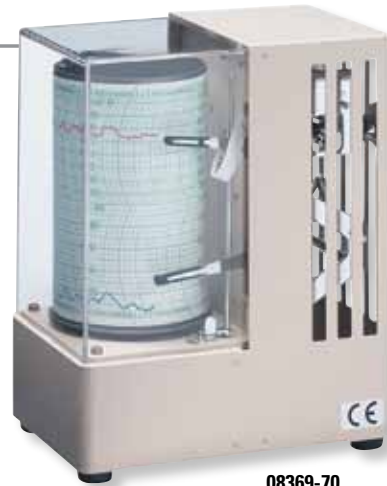
What's included: two felt-tipped pens (one blue and one red), one 7-day sheet of chart paper, and one AA battery.

Specifications



Humidity specifications	
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 specifications	
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 specifications	
Chart size (H x L)	3¾" x 8⅞" (9.2 x 20.8 cm)
Chart rotation	7 day (172 hour)
Response time	15 minutes for 45% of reading
Power supply	One 1.5 V AA battery
Dimensions (W x H x D)	6" x 7⅞" x 3⅞" (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.



08369-70

Catalog number	Description	Price
WJ-08369-70	Minidrum hygrothermograph	\$540.00

Chart Paper

Catalog number	Temp range	Rotation	Increments	Qty/pk	Price/pk*
WJ-08369-61	22 to 104°F	7-day	2-hour	100	\$25.00
WJ-08369-56	-6 to 40°C	7-day	2-hour	100	25.00

*Discount: Save 10% on 12 or more packs of chart paper.

Accessories

WJ-08368-75 Replacement pens, blue. Pack of 6 \$28.75**

WJ-08368-80 Replacement pens, red. Pack of 6 \$28.75**

WJ-09376-01 Replacement batteries, AA. Pack of 4 \$8.50

**Discount: Save 10% on two or more packs of pens.



Highlighted items

Equipment & Instrumentation

Refractometers



Low-Cost Brix and Salt Refractometers

Durable units provide quick and easy measurements

Use these economical refractometers to take quick and easy measurements. Refractometers feature adjustable focus and a zero adjustment screw for calibration. Each refractometer is calibrated and adjusted to read at 68°F (20°C). Models with automatic temperature compensation (ATC) are ideal for applications where the temperatures of your samples vary.

Refractometers are made of corrosion-resistant brass and have rubber-insulated grips. Include hard case, calibration screwdriver, and instructions.

Brix Refractometers measure soluble solid concentration of sugars, salts, proteins, and more in foods and liquids—ideal for quality control and R & D applications. Use to measure percent Brix of juices, beverages, and other sugar-based liquids.

Salt Refractometers measure salt content in parts per thousand (ppt) and specific gravity or percent salinity, depending on model. Use to measure salt concentration of water or brine.

Catalog number	Range	Resolution	Accuracy	ATC	Price
Brix refractometers					
WJ-81150-02	0 to 10% Brix	0.1% Brix	±0.1% Brix	50 to 86°F (10 to 30°C)	\$143.25
WJ-81150-04	0 to 18% Brix	0.2% Brix	±0.15% Brix	No	120.50
WJ-81150-06	0 to 32% Brix	0.2% Brix	±0.2% Brix	No	120.50
WJ-81150-08	0 to 32% Brix	0.2% Brix	±0.2% Brix	50 to 86°F (10 to 30°C)	143.25
WJ-81150-10	28 to 62% Brix	0.2% Brix	±0.2% Brix	No	120.50
WJ-81150-12	45 to 82% Brix	0.5% Brix	±0.3% Brix	No	120.50
WJ-81150-14	58 to 90% Brix	1.0% Brix	±0.5% Brix	No	120.50
Salt refractometers					
WJ-81150-20	0 to 100 ppt salinity; 1.000 to 1.070 SGU†	1.0 ppt; 0.001 SGU†	±1.0 ppt; ±0.001 SGU†	50 to 86°F (10 to 30°C)	143.25
WJ-81150-22	0 to 28% salinity	0.2%	±0.2%	No	120.50

†SGU = specific gravity units

WJ-17105-00 NIST-traceable calibration for refractometers \$86.00



02941-51

ATAGO® Digital Pocket Refractometers

Compact durable units provide simple and accurate Brix and temperature readings

- Extended Brix ranges provide operator flexibility
- Rugged IP65-rated design is ideal for field use and easy cleanup

These lightweight and compact pocket refractometers are ideal for determining Brix concentrations in fruits and beverages, cutting oils and organic samples, or determining % moisture in honey. In the field or indoors, measurements are quick and accurate. Simply apply two to three drops of sample onto the prism, press the start key, and the percentage value is displayed in seconds. Calibration is simple—clean off the prism, add water, and press the zero key. The easy-to-read LCD eliminates interpretation errors. Cleanup is simple—easily clean under running water.

What's included: storage case and two AAA batteries.

Specifications

Temperature
Range: 10 to 100°C
Resolution: 0.1°C
Accuracy: ±1°C

Sample volume: 0.3 mL
Response time: 3 seconds
Display: 3-digit LCD
Dimensions (W x H x D): 2" x 4¼" x 1¼" (5.1 x 10.8 x 3.2 cm)

ISO9001:2008
CERTIFIED SUPPLIER



Catalog number	Range	Resolution	Accuracy	ATC	Power	Price
WJ-02941-51	0.0 to 53.0% Brix	0.1% Brix	±0.2% Brix	50 to 212°F (10 to 100°C)	Two AAA batteries (included)	\$349.00
WJ-02941-52	45.0 to 93.0% Brix					379.00
WJ-02941-53	0.0 to 93.0% Brix					945.00
WJ-02941-54	0.0 to 85.0% Brix					486.00
WJ-02941-55	12.0 to 30.0% honey moisture	0.1% honey moisture	±0.2% honey moisture	50 to 104°F (10 to 40°C)		402.00

WJ-09376-00 Replacement batteries, AAA. Pack of 12 \$24.50

WJ-17105-00 NIST-traceable calibration for refractometers \$86.00

Equipment & Instrumentation

Shakers

Vortex-Genie Shakers

Enhanced vortex action for maximum high-speed touch mixing

- Solid metal casing with rubber feet prevents shaker from “walking” across your benchtop

Vortex-Genie® 1 Shaker has a single high-speed mixing action that eliminates operator error for highly reproducible results. Includes pop-off cup; 3" (7.6 cm) platform sold separately below.

Vortex-Genie® 2 Shaker allows you to control speed intensity by varying pressure to the head. The variable speed shaking allows you to adjust the level of mixing from gentle shaking to vigorous vortexing. Easy-to-change platforms allow you to adapt your shaker to a variety of applications. Shaker comes with a pop-off cup for single tube shaking and a standard 3" (7.6-cm) platform for multiple tube or flask shaking. Order optional platform starter kits below to customize the shaker for your application.

Vortex-Genie® 2T Shaker features both touch and hands-free operation. Shake samples from 1 to 60 seconds in touch mode, 1 to 60 minutes in hands-free mode, or continuously in the automatic untimed mode. The 2T shaker accepts all standard Genie attachments and accessories making it an economical addition to your laboratory. Includes pop-off cup and 3" (7.6-cm) platform.

Digital Vortex-Genie® 2 Shaker features both touch and hands-free operation with increased timer range. Shake samples from 1 to 99 seconds in touch mode, 1 to 99 minutes in hands-free mode, or continuously in the automatic untimed mode. Digital display provides accuracy, reproducibility, and repeatability. Accepts all standard Genie attachments and accessories and includes pop-off cup and 3" (7.6-cm) platform.

Disruptor Genie® Shaker is ideal for use in cold rooms or incubators. Disruptor features dramatically increased disruption efficiency—ideal for difficult cell disruptions/homogenizations. Simple to use—just set the timer for the desired run time. The multidirectional action simultaneously agitates and vortexes at high-speed. The single high-speed agitation eliminates operator variability. Includes microtube holder for twelve 1.5 mL snap-top microtubes. Order microtube holder for twelve 2.0 mL screw-top microcentrifuge tubes separately below.

Standard 3" platform head



Shaker 04724-40



Shaker 04724-20

Specifications



Speed range

Model 04724-05, -15, -25, -35: 600 to 2700 rpm
 Model 04724-00, -10, -20, -30: 600 to 3200 rpm
 Model 04724-40, -45: 500 to 3000 rpm

Timer range

Vortex-Genie 2T shaker
 Touch mode: 1 to 60 seconds
 Hands-free mode: 1 to 60 minutes
 Digital Vortex-Genie 2 shaker
 Touch mode: 1 to 99 seconds
 Hands-free mode: 1 to 99 minutes
 Disruptor Genie shaker
 Hands-free mode only: 0 to 15 minutes

Platform dimensions

Vortex-Genie 1 shaker:
 1 1/8" dia pop-off cup
 Vortex-Genie 2, 2T and Digital Vortex-Genie 2 shaker:
 1 1/8" dia pop-off cup, 3" dia platform
 Disruptor Genie shaker:
 3" dia tube holder

Overall dimensions (W x H x D):

4 7/8" x 7 1/2" x 6 1/2"
 (12.4 x 19.1 x 16.5 cm)

Catalog number	Power			Price
	VAC	Hz	Amps	
Vortex-Genie 1 shaker				
WJ-04724-10	120	60	0.65	\$347.00
WJ-04724-15	240	50	0.5	347.00
Vortex-Genie 2 shaker				
WJ-04724-00	120	60	0.65	407.00
WJ-04724-05	240	50	0.5	416.00
Vortex-Genie 2T shaker				
WJ-04724-20	120	60	0.65	510.00
WJ-04724-25	240	50	0.5	510.00
Digital Vortex-Genie 2 shaker				
WJ-04724-40	120	60	0.65	513.00
WJ-04724-45	240	50	0.5	513.00
Disruptor Genie shaker				
WJ-04724-30	120	60	0.65	654.00
WJ-04724-35	240	50	0.5	654.00

Accessories

- WJ-04724-61 Platform with cover, 3" (7.6-cm) dia \$44.75
- WJ-04724-60 Replacement cup for single tube shaking \$40.25
- WJ-04724-70 Thermoplastic rubber cover protects standard 3" (7.6-cm) platform \$38.00
- WJ-04724-54 Small ampule shaker attachment \$111.25
- WJ-04724-55 Large ampule shaker attachment \$162.75
- WJ-04724-56 TurboMix™ shaker attachment \$228.25
- WJ-04724-62 Microtube holder for 12 x 2 mL tubes \$73.50
- Beaker/Tube Platform Starter Kit** includes one recessed platform for beakers up to 250 mL, two elastic bands, and one tube insert assortment set (Set includes one foam insert each for 9 to 16 mm, 14 to 29 mm, and 29 to 37 mm tubes; and one blank insert).
- WJ-04724-80 Beaker/tube platform starter kit \$162.75
- WJ-04724-82 Replacement elastic bands. Set of 2 \$8.25
- WJ-04724-81 Replacement tube insert assortment. Set of 4 \$47.00



Beaker/tube platform starter kit 04724-80

Tube inserts 04724-81

Microtube/Microwell Plate Platform Starter Kit contains one 6" (15.2 cm) platform, one 6" (15.2 cm) foam insert for 60 microcentrifuge tubes, and one 6" (15.2 cm) foam insert for a single microwell plate.

- WJ-04724-50 Microtube/microwell plate platform starter kit \$91.75
- WJ-04724-51 Replacement microtube inserts hold up to 60 microtubes. Pack of 2 \$52.25
- WJ-04724-53 Double-tier microwell plate insert \$57.50



Equipment & Instrumentation

Sieves

Highlighted items

Ro-Tap® E, Ro-Tap®, and Ro-Tap II® Sieve Shakers

Reproduce the rotating and tapping motions of hand-sieving but with more uniform motion for highly reproducible results

Shakers are actuated by a built-in, 99-minute digital timer with 0.1-second accuracy. They are powered by a ¼-hp motor and include a 5-ft cord (110 VAC models also include US three-prong plug).

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 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.



Ro-Tap E shaker
59996-68



Ro-Tap shaker
59986-60



Ro-Tap II dual-capacity
shaker 59986-50



ISO9001:2008
CERTIFIED SUPPLIER



Items over 100 lb

Catalog number	rpm	Power (VAC/Hz)	Dimensions (W x H x D)	Shpg wt lb (kg)	Price
Ro-Tap E shakers for 8" dia sieves					
WJ-59996-68	1750	110/60	18" x 18" x 30"	80 (36)	\$5043.00
WJ-59996-70	1450	220/50	(45.7 x 45.7 x 76.2 cm)		\$685.00
Ro-Tap shakers for 8" dia sieves					
WJ-59986-60	1750	110/60	28" x 25" x 21"	226 (102)	2625.00
WJ-59986-62	1450	220/50	(71.1 x 63.5 x 53.3 cm)	170 (77.2)	2671.00
Ro-Tap shakers for 12" dia sieves					
WJ-59996-60	1750	110/60	28" x 25" x 21"	180 (81.7)	2980.00
WJ-59996-62	1450	220/50	(71.1 x 63.5 x 53.3 cm)	225 (102)	2774.00
Ro-Tap II shakers for 8" dia sieves					
WJ-59986-50	1750	110/60	30" x 26" x 27"	230 (104)	3977.00
WJ-59986-52	1450	220/50	(76.2 x 66.0 x 68.6 cm)	220 (99.8)	3977.00

Cole-Parmer Brass and Stainless Steel Testing Sieves

These 8" diameter testing sieves are serialized, come with test sieve certificate, and meet ASTM E11 specifications for compliance sieves. For our full selection of sieves, including 12" diameter sieves and sieves with NIST-traceable calibration report, go to www.coleparmer.com/sieves.



ISO9001:2008
CERTIFIED SUPPLIER

Sieve opening (mm)	U.S. 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	WJ-59980-00	\$ 62.00	WJ-59981-00	\$ 62.00	WJ-59984-00	\$ 80.25	WJ-59985-00	\$ 80.25	WJ-59940-00	\$ 67.75	WJ-59941-00	\$ 67.75
2.00	No. 10	9 mesh	WJ-59980-01	62.00	WJ-59981-01	62.00	WJ-59984-01	80.25	WJ-59985-01	80.25	WJ-59940-01	67.75	WJ-59941-01	67.75
1.70	No. 12	10 mesh	WJ-59980-02	62.00	WJ-59981-02	62.00	WJ-59984-02	80.25	WJ-59985-02	80.25	WJ-59940-02	67.75	WJ-59941-02	67.75
1.40	No. 14	12 mesh	WJ-59980-03	62.00	WJ-59981-03	62.00	WJ-59984-03	80.25	WJ-59985-03	80.25	WJ-59940-03	67.75	WJ-59941-03	67.75
1.18	No. 16	14 mesh	WJ-59980-04	62.00	WJ-59981-04	62.00	WJ-59984-04	80.25	WJ-59985-04	80.25	WJ-59940-04	67.75	WJ-59941-04	67.75
1.00	No. 18	16 mesh	WJ-59980-05	62.00	WJ-59981-05	62.00	WJ-59984-05	80.25	WJ-59985-05	80.25	WJ-59940-05	67.75	WJ-59941-05	67.75
0.850	No. 20	20 mesh	WJ-59980-06	62.00	WJ-59981-06	62.00	WJ-59984-06	80.25	WJ-59985-06	80.25	WJ-59940-06	67.75	WJ-59941-06	67.75
0.710	No. 25	24 mesh	WJ-59980-07	62.00	WJ-59981-07	62.00	WJ-59984-07	80.25	WJ-59985-07	80.25	WJ-59940-07	67.75	WJ-59941-07	67.75
0.600	No. 30	28 mesh	WJ-59980-08	62.00	WJ-59981-08	62.00	WJ-59984-08	80.25	WJ-59985-08	80.25	WJ-59940-08	67.75	WJ-59941-08	67.75
0.500	No. 35	32 mesh	WJ-59980-09	62.00	WJ-59981-09	62.00	WJ-59984-09	80.25	WJ-59985-09	80.25	WJ-59940-09	67.75	WJ-59941-09	67.75
0.425	No. 40	35 mesh	WJ-59980-10	62.00	WJ-59981-10	62.00	WJ-59984-10	80.25	WJ-59985-10	80.25	WJ-59940-10	67.75	WJ-59941-10	67.75
0.355	No. 45	42 mesh	WJ-59980-11	62.00	WJ-59981-11	62.00	WJ-59984-11	80.25	WJ-59985-11	80.25	WJ-59940-11	67.75	WJ-59941-11	67.75
0.300	No. 50	48 mesh	WJ-59980-12	62.00	WJ-59981-12	62.00	WJ-59984-12	80.25	WJ-59985-12	80.25	WJ-59940-12	67.75	WJ-59941-12	67.75
0.250	No. 60	60 mesh	WJ-59980-13	62.00	WJ-59981-13	62.00	WJ-59984-13	80.25	WJ-59985-13	80.25	WJ-59940-13	67.75	WJ-59941-13	67.75
0.212	No. 70	65 mesh	WJ-59980-14	62.00	WJ-59981-14	62.00	WJ-59984-14	80.25	WJ-59985-14	80.25	WJ-59940-14	67.75	WJ-59941-14	67.75
0.180	No. 80	80 mesh	WJ-59980-15	62.00	WJ-59981-15	62.00	WJ-59984-15	80.25	WJ-59985-15	80.25	WJ-59940-15	67.75	WJ-59941-15	67.75
0.150	No. 100	100 mesh	WJ-59980-16	62.00	WJ-59981-16	62.00	WJ-59984-16	81.50	WJ-59985-16	81.50	WJ-59940-16	67.75	WJ-59941-16	67.75
0.125	No. 120	115 mesh	WJ-59980-17	62.00	WJ-59981-17	62.00	WJ-59984-17	85.00	WJ-59985-17	85.00	WJ-59940-17	69.00	WJ-59941-17	67.75
0.106	No. 140	150 mesh	WJ-59980-18	74.50	WJ-59981-18	74.50	WJ-59984-18	91.75	WJ-59985-18	91.75	WJ-59940-18	74.50	WJ-59941-18	74.50
0.090	No. 170	170 mesh	WJ-59980-19	75.75	WJ-59981-19	75.75	WJ-59984-19	99.75	WJ-59985-19	99.75	WJ-59940-19	80.25	WJ-59941-19	80.25
0.075	No. 200	200 mesh	WJ-59980-20	80.25	WJ-59981-20	80.25	WJ-59984-20	106.75	WJ-59985-20	106.75	WJ-59940-20	90.75	WJ-59941-20	90.75
0.063	No. 230	250 mesh	WJ-59980-21	91.75	WJ-59981-21	91.75	WJ-59984-21	121.50	WJ-59985-21	121.50	WJ-59940-21	102.00	WJ-59941-21	102.00
0.053	No. 270	270 mesh	WJ-59980-22	109.00	WJ-59981-22	109.00	WJ-59984-22	141.00	WJ-59985-22	141.00	WJ-59940-22	124.00	WJ-59941-22	124.00
0.045	No. 325	325 mesh	WJ-59980-23	136.50	WJ-59981-23	136.50	WJ-59984-23	159.50	WJ-59985-23	159.50	WJ-59940-23	152.50	WJ-59941-23	152.50
0.038	No. 400	400 mesh	WJ-59980-24	173.25	WJ-59981-24	173.25	WJ-59984-24	200.75	WJ-59985-24	200.75	WJ-59940-24	176.50	WJ-59941-24	176.50

†Full height sieves measure 2" deep; half height sieves measure 1" deep.

Equipment & Instrumentation

Spectroscopy

picoSpin™ Benchtop NMR Spectrometer

The world's first miniature NMR spectrometer!

- Analyze liquid samples with resolution better than 80 ppb
- Affordable and compact enough for any lab
- Portable unit weighs just 7 lb (3.2 kg)

The picoSpin-45L proton NMR spectrometer is a true breakthrough in chemical instrumentation. Now you can afford a dedicated NMR spectrometer for your research, for your process, or for your classroom. Liquid samples are simply injected into an internal capillary via front-panel fittings, and only 20 microliters of sample fluid are needed to obtain a spectrum.

A highly stable temperature-controlled permanent magnet ensures easy maintenance-free operation without the need for liquid cryogenics. The unit occupies a small fraction of the space of a conventional NMR spectrometer, and it does not require specialized knowledge or training for operation. Unit requires approximately 45 minutes of warm-up time from initial start-up. NMR data is generated in the industry-standard JCAMP-DX format for compatibility with standard NMR data analysis packages and system access is available from any web browser.

Unit's fluid capillary is contained within a cartridge and is easily user replaceable in the event it becomes blocked or contaminated; order cartridge maintenance kit or cartridge separately below.

NEW



83090-00

Catalog number	WJ-83090-00
Model	picoSpin 45L NMR spectrometer
Larmor frequency	45 MHz
Nucleus	Proton
Sample form	Liquid
Resolution	Better than 80 ppb
SNR (signal-to-noise ratio)	300 for water, single-shot
Magnet type	Permanent
Capillary	Quartz, 300 µm ID
Dimensions (W x H x D)	8" x 5" x 11" (20.3 x 12.7 x 27.9 cm)
Power	115/230 VAC, 50/60 Hz
Price	\$26250.00



WJ-83090-50 Replacement capillary cartridge \$734.00

picoSpin-45L Spectrometer Accessory Kits

Classroom Accessory Kit is ideal for students in a typical chemistry laboratory class to practice injecting samples into the picoSpin-45L spectrometer. Contains 25 syringes and filters, 2 dispensing needles, and appropriate tubing, ferrules, nuts, and plugs.

WJ-83090-51 Classroom accessory kit \$229.25

Laboratory Accessory Kit provides you with everything needed to inject a sample into the picoSpin-45L spectrometer in your lab. This convenient kit contains an RN syringe with needle, syringe port assembly, and appropriate tubing, ferrules, nuts, and plugs.

WJ-83090-52 Laboratory accessory kit \$287.00

Cartridge Maintenance Kit for cleaning or replacing the capillary inlet filter 83090-50 of the picoSpin-45L spectrometer.

WJ-83090-53 Cartridge maintenance kit \$57.50

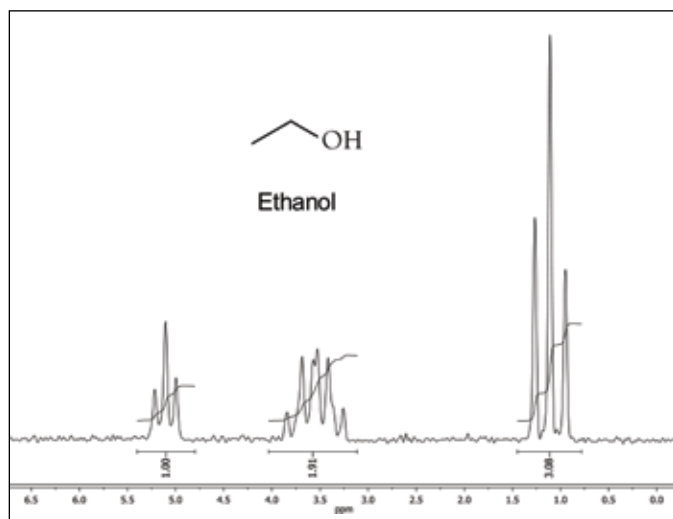
Hamilton Gastight® High-Performance Micro Syringes



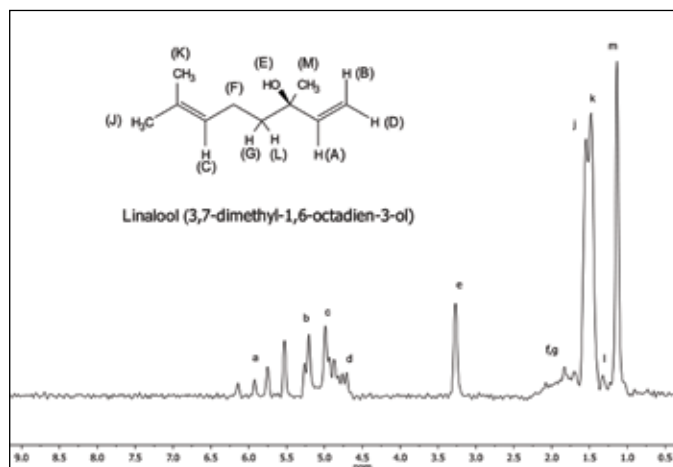
Gas/liquid-tight syringes include a 22-gauge 304 stainless steel needle with noncorrosive tip. Order 26-gauge needle with blunt end (recommended for picoSpin-45L spectrometer) separately.

Catalog number	Capacity	Plunger	Price/ea
WJ-07939-11	25 µL	PTFE coated	\$64.25
WJ-07939-12	50 µL	Stainless steel with	66.50
WJ-07939-13	100 µL	removable PTFE tip	73.50

WJ-25702-60 Syringe needle; 26 gauge, 90° blunt end. Pk of 6 \$48.75



Ethanol (16 scans): 1H NMR (44 MHz, Neat) 5.44 – 4.77 (t, J = 4.9 Hz, 1H), 4.07 – 3.03 (m, 2H), 1.49 – 0.72 (t, J = 7.0 Hz, 3H).



Linalool [3,7-dimethyl-1,6-octadien-3-ol]: 1H NMR (44 MHz, Neat, 16 Scans) 6.40 – 5.84 (d, J = 9.7 Hz, 1H), 5.84 – 5.37 (d, J = 9.9 Hz, 1H), 5.38 – 4.90 (m, 1H), 4.93 – 4.62 (m, 1H), 3.54 – 3.09 (s, 1H), 2.25 – 1.62 (m, 4H), 1.66 – 1.36 (d, J = 3.0 Hz, 6H), 1.22 – 1.01 (s, 3H).

Unique Products.

Exceptional Service.

Technical Support.



Equipment & Instrumentation

Stirrers & Hot Plates

Highlighted items

Cole-Parmer Hot Plates, Single- and Multiposition Stirrers and Stirring Hot Plates

Stepless speed control provides smooth stirring action to 1500 rpm

- Unique U-shaped magnet holds stir bar tightly
- Front-panel controls are positioned to prevent you from touching the hot plate
- Maximum temperature reached in approximately two minutes

Hot plates have an epoxy-coated cast-aluminum body that is designed for durability and stability. Choose the aluminum top plate for superior temperature uniformity; choose corrosion-resistant ceramic top for your high-temperature applications; ceramic top is housed in an aluminum frame for cooler edges.

Single-Position Stirrers and Stirring Hot Plates can be used for all of your magnetic stirring applications—from gentle agitating to vigorous churning. The large, permanent drive magnet ensures positive coupling of drive to stir bar. Permanently lubricated, brushless drive motor provides long, trouble-free operation. Hot plates are available with anodized aluminum or ceramic top plates. Choose the corrosion-resistant ceramic for your higher temperature applications.

Multiposition Stirrers and Stirring Hot Plates offer more versatility than single-position stirrers. Both the stirrers and stirring hot plates are available with five or nine stirring positions. Each stirring position is individually controlled so you can perform different mixing applications simultaneously. Use stirring hot plates to heat only, stir only, or heat and stir simultaneously. The corrosion-resistant ceramic tops heat quickly and never warp or buckle. The temperature control has Off, High, and Low detents/settings, with 270° of infinite control between the Low and High detents.

What's included: 6-ft (1.8-m) cord with plug.



“I will buy this again.”

Too Many Hats, SC



Specifications



Temperature stability: ± 5°C of set temperature

Catalog number	No. of stirring positions	Volume per position	Top plate		Heating		Speed range	Dimensions (W x H x D)	Power				CE	Plug type	Price
			Dimensions	Material	Temp range	Max load			VAC	Hz	Amps	Watts			
Hot plates															
WJ-04801-00	—	—	6" x 6" (15.2 x 15.2 cm)	Aluminum	120 to 700°F (49 to 371°C)	10 lb	—	6" x 4 1/8" x 9" (15.2 x 12.4 x 22.9 cm)	115	60	4	360	No	US std	\$ 367.00
WJ-04801-02	—	—	6" x 6" (15.2 x 15.2 cm)	Aluminum	120 to 700°F (49 to 371°C)	10 lb	—	6" x 4 1/8" x 9" (15.2 x 12.4 x 22.9 cm)	230	50	2	360	Yes	Euro	367.00
WJ-04801-04	—	—	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	10 lb	—	6" x 4 1/8" x 9" (15.2 x 12.4 x 22.9 cm)	115	60	4	450	No	US std	367.00
WJ-04801-06	—	—	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	10 lb	—	6" x 4 1/8" x 9" (15.2 x 12.4 x 22.9 cm)	230	50	2	450	Yes	Euro	367.00
WJ-04801-10	—	—	12" x 12" (30.5 x 30.5 cm)	Aluminum	120 to 700°F (49 to 371°C)	25 lb	—	12" x 4 1/8" x 15" (30.5 x 12.4 x 38.1 cm)	115	60	13	1250	No	US std	625.00
WJ-04801-12	—	—	12" x 12" (30.5 x 30.5 cm)	Aluminum	120 to 700°F (49 to 371°C)	25 lb	—	12" x 4 1/8" x 15" (30.5 x 12.4 x 38.1 cm)	230	50	7	1250	Yes	Euro	625.00
WJ-04801-14	—	—	12" x 12" (30.5 x 30.5 cm)	Ceramic	120 to 842°F (49 to 450°C)	25 lb	—	12" x 4 1/8" x 15" (30.5 x 12.4 x 38.1 cm)	115	60	13	1450	No	US std	568.00
WJ-04801-16	—	—	12" x 12" (30.5 x 30.5 cm)	Ceramic	120 to 842°F (49 to 450°C)	25 lb	—	12" x 4 1/8" x 15" (30.5 x 12.4 x 38.1 cm)	230	50	7	1450	Yes	Euro	568.00
Single-position stirrers															
WJ-04802-01	1	2.5 L	6" x 6" (15.2 x 15.2 cm)	Aluminum	—	15 lb	100 to 1500 rpm	6 1/2" x 5" x 10" (16.5 x 12.7 x 25.4 cm)	115	60	0.3	30	No	US std	327.00
WJ-04802-03		2.5 L	6" x 6" (15.2 x 15.2 cm)	Aluminum	—	15 lb	100 to 1500 rpm	6 1/2" x 5" x 10" (16.5 x 12.7 x 25.4 cm)	230	50	0.15	30	Yes	Euro	327.00
WJ-04802-11		10 L	12" x 12" (30.5 x 30.5 cm)	Aluminum	—	25 lb	100 to 1500 rpm	12 1/2" x 5" x 16" (31.8 x 12.7 x 40.6 cm)	115	60	1	100	No	US std	573.00
WJ-04802-13	—	—	12" x 12" (30.5 x 30.5 cm)	Aluminum	—	25 lb	100 to 1500 rpm	12 1/2" x 5" x 16" (31.8 x 12.7 x 40.6 cm)	230	50	0.5	100	Yes	Euro	573.00
Single-position stirring hot plates															
WJ-04803-01	1	2.5 L	6" x 6" (15.2 x 15.2 cm)	Aluminum	120 to 700°F (49 to 371°C)	15 lb	100 to 1500 rpm	6 1/2" x 5" x 10" (16.5 x 12.7 x 25.4 cm)	115	60	4	360	No	US std	436.00
WJ-04803-03		2.5 L	6" x 6" (15.2 x 15.2 cm)	Aluminum	120 to 700°F (49 to 371°C)	15 lb	100 to 1500 rpm	6 1/2" x 5" x 10" (16.5 x 12.7 x 25.4 cm)	230	50	4	360	Yes	Euro	436.00
WJ-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	100 to 1500 rpm	6 1/2" x 5" x 10" (16.5 x 12.7 x 25.4 cm)	115	60	4	360	No	US std	436.00
WJ-04803-07	—	—	6" x 6" (15.2 x 15.2 cm)	Ceramic	120 to 842°F (49 to 450°C)	15 lb	100 to 1500 rpm	6 1/2" x 5" x 10" (16.5 x 12.7 x 25.4 cm)	230	50	4	360	Yes	Euro	436.00
WJ-04803-11	1	10 L	12" x 12" (30.5 x 30.5 cm)	Aluminum	120 to 700°F (49 to 371°C)	25 lb	100 to 1500 rpm	12 1/2" x 5" x 16" (31.8 x 12.7 x 40.6 cm)	115	60	10.5	1250	No	US std	745.00
WJ-04803-13		10 L	12" x 12" (30.5 x 30.5 cm)	Aluminum	120 to 700°F (49 to 371°C)	25 lb	100 to 1500 rpm	12 1/2" x 5" x 16" (31.8 x 12.7 x 40.6 cm)	230	50	5.75	1250	Yes	Euro	745.00
WJ-04803-15		10 L	12" x 12" (30.5 x 30.5 cm)	Ceramic	120 to 752°F (49 to 400°C)	25 lb	100 to 1500 rpm	12 1/2" x 5" x 16" (31.8 x 12.7 x 40.6 cm)	115	60	13	1450	No	US std	791.00
WJ-04803-17	—	—	12" x 12" (30.5 x 30.5 cm)	Ceramic	120 to 752°F (49 to 400°C)	25 lb	100 to 1500 rpm	12 1/2" x 5" x 16" (31.8 x 12.7 x 40.6 cm)	230	50	7	1450	Yes	Euro	791.00
Multiposition stirrers															
WJ-51450-21	5	800 mL	12" x 12" (30.5 x 30.5 cm)	Ceramic	—	—	100 to 1500 rpm	12" x 4 1/2" x 17 1/2" (30.5 x 11.4 x 44.5 cm)	120	60	2.5	300	No	US	1284.00
WJ-51450-26									230	50	1.25	300	Yes	Euro	1284.00
WJ-51450-23	9	400 mL	12" x 12" (30.5 x 30.5 cm)	Ceramic	—	—	100 to 1500 rpm	12" x 4 1/2" x 17 1/2" (30.5 x 11.4 x 44.5 cm)	120	60	4.5	550	No	US	1794.00
WJ-51450-28									230	50	2.25	550	Yes	Euro	1794.00
Multiposition stirring hot plates															
WJ-51450-71	5	800 mL	12" x 12" (30.5 x 30.5 cm)	Ceramic	212 to 845°F (100 to 450°C)	40 lb	100 to 1500 rpm	12" x 4 1/2" x 17 1/2" (30.5 x 11.4 x 44.5 cm)	120	60	11.8	1410	No	US	1553.00
WJ-51450-76									230	50	6	1410	Yes	Euro	1553.00
WJ-51450-73	9	400 mL	12" x 12" (30.5 x 30.5 cm)	Ceramic	212 to 845°F (100 to 450°C)	40 lb	100 to 1500 rpm	12" x 4 1/2" x 17 1/2" (30.5 x 11.4 x 44.5 cm)	120	60	12	1440	No	US	2006.00
WJ-51450-78									230	50	6	1440	Yes	Euro	2006.00

Equipment & Instrumentation

Stirrers & Hot Plates



Highlighted items

Mono-Mold® Stir Bars

- Super-strong alnico V magnets remain coupled to drive magnets—resisting “spin out” at high speeds
- Chemically inert, low-friction, leakproof PTFE coating provides smooth spinning and maximum energy transfer

Mono-Mold magnetic stir bars are the standard all-purpose stir bar. Available with or without spinning rings; rings reduce contact area between stir bar and vessel, reducing friction and noise.

Size		With spinning ring		Without spinning ring	
Length	Diameter†	Cat. no.	Price	Cat. no.	Price
1/16" (11.1 mm)	3/16" (4.8 mm)	—	—	WJ-04775-10	\$ 6.50
1/2" (12.7 mm)	5/16" (7.9 mm)	WJ-08548-00	\$ 5.50	WJ-04770-20	6.25
5/8" (15.9 mm)	5/16" (7.9 mm)	WJ-08549-00	5.50	WJ-04770-30	5.75
1" (25.4 mm)	3/8" (9.5 mm)	WJ-08550-00	7.25	WJ-04770-40	7.25
1 1/2" (38.1 mm)	3/8" (9.5 mm)	WJ-08551-00	8.75	WJ-04770-50	8.75
2" (50.8 mm)	3/8" (9.5 mm)	WJ-08552-00	11.75	WJ-04770-60	11.25
2 1/2" (63.5 mm)	3/8" (9.5 mm)	WJ-04775-75	13.75	—	—
2 1/2" (63.5 mm)	1/2" (12.7 mm)	—	—	WJ-04770-70	22.75
3" (76.2 mm)	1/2" (12.7 mm)	WJ-04612-30	24.25	WJ-04612-40	19.50

†Diameter given does not include the diameter of the spinning ring.

Slim-Line® Stir Bars

Slim-Line stir bars feature a slimmer profile and larger length to diameter ratio. Available with or without spinning rings.

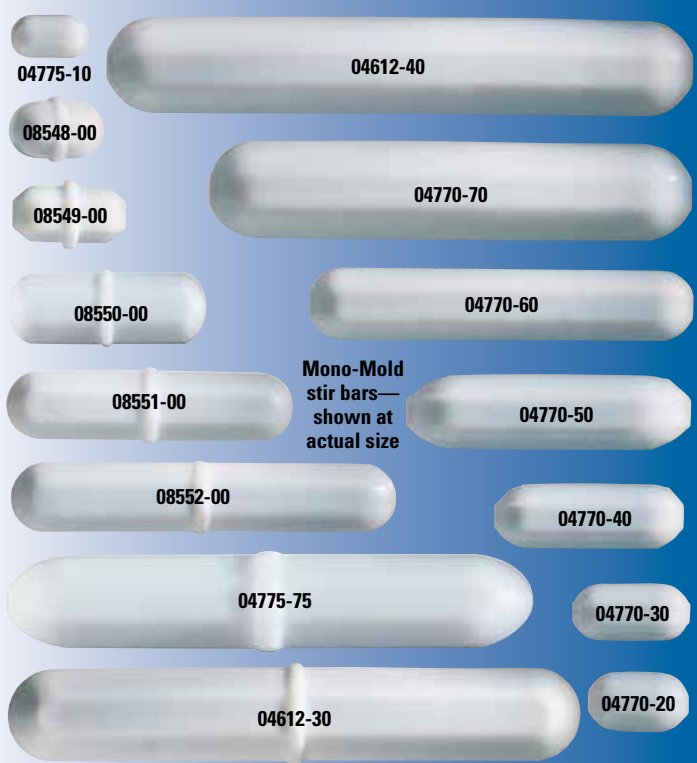
Size		With spinning ring		Without spinning ring	
Length	Diameter†	Cat. no.	Price	Cat. no.	Price
1" (25.4 mm)	5/16" (7.9 mm)	WJ-04775-45	\$6.25	WJ-04775-40	\$7.00
1 1/2" (38.1 mm)	5/16" (7.9 mm)	WJ-04775-55	6.75	WJ-04775-50	8.75
2" (50.8 mm)	5/16" (7.9 mm)	WJ-04775-65	9.00	WJ-04775-60	9.25

†Diameter given does not include the diameter of the spinning ring.

Egg-Shaped Stir Bars

Egg-shaped stir bars have oval magnets—ideal for use in round-bottom flasks. Shape conforms to flask bottom and ensures complete mixing.

Catalog number	Length	Diameter	For flask sizes	Price
WJ-04768-05	3/8" (9.5 mm)	3/16" (4.8 mm)	10 to 20 mL	\$ 10.50
WJ-04768-10	5/8" (15.9 mm)	1/4" (6.4 mm)	50 to 100 mL	11.50
WJ-04768-20	1 3/16" (20.6 mm)	3/8" (9.5 mm)	100 to 200 mL	11.25
WJ-04768-25	1" (25.4 mm)	1/2" (12.7 mm)	100 to 200 mL	11.50
WJ-04771-35	1 1/4" (31.8 mm)	5/8" (15.9 mm)	300 to 500 mL	14.75
WJ-04768-55	1 5/8" (41.3 mm)	3/4" (19.1 mm)	500 to 1000 mL	19.25
WJ-04768-65	2" (50.8 mm)	3/4" (19.1 mm)	2000 to 5000 mL	24.50
WJ-04768-75	2 1/2" (63.5 mm)	3/4" (19.1 mm)	2000 to 5000 mL	29.75
WJ-04768-85	3" (76.2 mm)	3/4" (19.1 mm)	5000 to 10000 mL	34.00



Mono-Mold stir bars—shown at actual size

Slim-Line stir bars—shown at actual size



Egg-shaped stir bars—shown at actual size



Stir Bar Retrievers

Retrieve stir bars without messy spills or breakage. Alnico V magnet is completely enclosed. Model 08555-20 features a flexible shaft of PTFE for odd-shaped, and narrow-mouth containers.

- WJ-08555-20 Stir bar retriever, flexible shaft; PTFE, 14 3/4"L (37.5 cm)\$39.75
- WJ-08555-40 Stir bar retriever, polyethylene, 17"L (43.2 cm)\$20.75



Unique Products.

Exceptional Service.

Technical Support.

Equipment & Instrumentation

Temperature

H-B Instrument Enviro-Safe® Nonhazardous General-Purpose Glass Thermometers

The only thermometers certified as 100% nontoxic, nonhazardous, biodegradable, and "green"!

- Replace mercury thermometers with the same accuracy without any hazards
- NIST- and DKD-traceable statement of accuracy included



08008-67

These thermometers are ideal for use in laboratories, universities, food/beverage, environmental, wastewater, and many other general-purpose applications where the use of mercury or other hazardous liquids is not desired.

All Enviro-Safe glass thermometers contain an environmentally friendly nonmercury liquid that is 100% certified as nontoxic, nonhazardous, and fully biodegradable. In case of breakage, the liquid can be cleaned up easily with soap and water. Each thermometer features a green liquid and white back glass. These thermometers also have recyclable packaging, an antiroll fitting, individual serial numbers, and a statement of accuracy supplied by the manufacturer.



Temperature range	Scale divisions	Accuracy	Length	Partial immersion			Total immersion	
				Catalog number	Immersion depth	Price	Catalog number	Price
Fractional Celsius-scale thermometers								
-1 to 51°C	0.2°	±1° full scale	400 mm	WJ-08008-77	76 mm	\$68.25	—	—
-1 to 61°C	0.1°	±1° full scale	420 mm	WJ-08008-78	76 mm	74.50	—	—
-1 to 51°C	0.1°	±1° full scale	460 mm	WJ-08008-79	76 mm	66.75	—	—
Celsius-scale thermometers								
-10 to 110°C	1°	±1°	200 mm	WJ-08008-57	50 mm	9.50	WJ-08008-58	\$ 9.50
-10 to 150°C	1°	±1°; ±1.5° above 105°	200 mm	WJ-08008-59	50 mm	10.25	WJ-08008-60	10.25
-20 to 110°C	1°	±1°	305 mm	WJ-08008-65	76 mm	11.25	WJ-08008-66	11.25
-20 to 150°C	1°	±1°; ±1.5° above 105°	305 mm	WJ-08008-67	76 mm	12.25	WJ-08008-68	12.25
-10 to 225°C	1°	—	355 mm	—	—	—	WJ-08008-74	18.75
-10 to 260°C	1°	±1°; ±1.5° above 105°; ±2° above 200°	355 mm	WJ-08008-73	76 mm	18.75	—	—
Fahrenheit-scale thermometers								
20 to 230°F	2°	±2°	200 mm	WJ-08008-61	50 mm	9.75	WJ-08008-62	9.75
20 to 300°F	2°	±2°	200 mm	WJ-08008-63	50 mm	10.25	WJ-08008-64	10.25
0 to 230°F	2°	±2°	305 mm	WJ-08008-69	76 mm	11.00	WJ-08008-70	11.00
0 to 300°F	2°	±2°; ±3° above 221°	305 mm	WJ-08008-71	76 mm	12.25	WJ-08008-72	12.25
20 to 440°F	2°	—	355 mm	—	—	—	WJ-08008-76	18.75
20 to 500°F	2°	±2°; ±3° above 221°; ±4° above 392°	355 mm	WJ-08008-75	76 mm	18.75	—	—

H-B Instrument Durac® Red Spirit Pocket Glass Thermometers

Compact, durable plastic case protects thermometers

- Nonmercury red spirit liquid



08008-01

Durable plastic case protects these thermometers from accidental breakage during use and storage. The section of the case that surrounds the bulb has small openings for circulation. The top of the case has an eyelet for easy suspension. All Durac thermometers feature permanently fused markings, red spirit fill, and white background glass. Available with closed case or case with a viewing window.

INNOCAL®
INNOVATIVE CALIBRATION SOLUTIONS

Ensure the accuracy of your glass thermometer!

NIST-traceable reports include test data. Test points are measured across range of thermometer. Recalibrate yearly.

Catalog number	Calibration points	Price
WJ-17006-03	2 to 4	\$177.75
WJ-17006-05	5 to 9	235.00
WJ-17006-06	10 to 15	270.00



Temperature range	Scale divisions	Accuracy	Length	Closed plastic case; total immersion		Plastic case with window; total immersion	
				Catalog number	Price	Catalog number	Price
Celsius-scale thermometers							
-35 to 50°C	1°	±1°	160 mm	WJ-08008-00	\$ 7.50	WJ-08008-07	\$ 7.50
-20 to 110°C	1°	±1°	160 mm	WJ-08008-01	7.50	—	—
-10 to 150°C	1°	±1°	160 mm	—	—	WJ-08008-08	7.50
-5 to 45°C	0.5°	±0.5°	160 mm	WJ-08008-02	7.50	WJ-08008-09	7.50
Fahrenheit-scale thermometers							
-30 to 120°F	2°	±2°	160 mm	WJ-08008-04	7.50	WJ-08007-21	7.50
0 to 220°F	2°	±2°	160 mm	WJ-08008-05	7.50	—	—
20 to 110°F	2°	±2°	160 mm	WJ-08008-06	13.50	WJ-08007-22	13.50
Dual-scale thermometer							
-10 to 110°C, 0 to 220°F	1°C, 2°F	±1°C, ±2°F	160 mm	WJ-08008-03	7.50	—	—



Highlighted items

Irreversible High-Temperature Labels

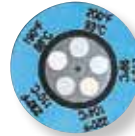
Reliable proof that the product was maintained at the correct temperature

- Self-adhesive design

Labels are made up of a series of temperature-sensitive elements sealed between heat-resistant substrates with transparent windows. Each element changes color distinctly as its rated temperature is met or exceeded. The changes to the label are irreversible, providing a temperature history of the surface being monitored. The labels will not delaminate when removed, allowing them to be attached to an inspection report to serve as a permanent record. Ideal for use in the food, automotive, molding and metal working industries. Accuracy is $\pm 1^\circ\text{C}$ from 29 to 99°C, $\pm 1.5^\circ\text{C}$ from 100 to 154°C, and $\pm 1\% + 1^\circ\text{C}$ from 160 to 280°C. Shelf life: one year after date of purchase.



A 90309-20



B 90303-24



C 08068-22



E 08068-90

A One-Temperature Point—Square Labels

Catalog number	Temperature point	Dimensions (W x H)	Price/pk of 50*
WJ-90309-00†	115°F (46°C)	½" x ½" (13 x 13 mm)	\$22.50
WJ-90309-05	140°F (60°C)	½" x ½" (13 x 13 mm)	22.50
WJ-90309-10	160°F (71°C)	½" x ½" (13 x 13 mm)	22.50
WJ-90309-15	171°F (77°C)	½" x ½" (13 x 13 mm)	22.50
WJ-90309-20	180°F (82°C)	½" x ½" (13 x 13 mm)	22.50
WJ-90309-25	190°F (88°C)	½" x ½" (13 x 13 mm)	22.50

B Five-Temperature Points—Round Labels

Catalog number	Temperature points	Dim. (dia)	Price/pk of 25*
WJ-90303-20†	105, 110, 115, 120, 130°F (40, 43, 46, 49, 54°C)	⅝" (16 mm)	\$49.50
WJ-90303-22	140, 150, 160, 170, 180°F (60, 65, 71, 77, 82°C)	⅝" (16 mm)	49.50
WJ-90303-24	190, 200, 210, 220, 230°F (88, 93, 99, 104, 110°C)	⅝" (16 mm)	49.50
WJ-90303-26	240, 250, 260, 270, 280°F (116, 121, 127, 132, 138°C)	⅝" (16 mm)	49.50
WJ-90303-28	290, 300, 310, 320, 330°F (143, 149, 154, 160, 166°C)	⅝" (16 mm)	49.50
WJ-90303-30	340, 350, 360, 370, 380°F (171, 177, 182, 188, 193°C)	⅝" (16 mm)	49.50
WJ-08068-21	390, 399, 410, 421, 435°F (199, 204, 210, 216, 224°C)	⅝" (16 mm)	49.50
WJ-08068-23	450, 466, 480, 489, 500°F (232, 241, 249, 254, 260°C)	⅝" (16 mm)	51.75

C-E Eight- and Nine-Temperature Points—Vertical Labels

Catalog number	Temperature points	Dimensions (W x H)	Price/pk of 25*
C Eight-point			
WJ-08068-20†	100, 105, 110, 115, 120, 130, 140, 150°F (37, 40, 43, 46, 49, 54, 60, 65°C)	¾" x 2" (19 x 51 mm)	\$49.50
WJ-08068-22	160, 170, 180, 190, 200, 210, 220, 230°F (71, 77, 82, 88, 93, 99, 104, 110°C)	¾" x 2" (19 x 51 mm)	49.50
WJ-08068-24	240, 250, 260, 270, 280, 290, 300, 310°F (116, 121, 127, 132, 138, 143, 149, 154°C)	¾" x 2" (19 x 51 mm)	49.50
WJ-08068-26	320, 330, 340, 350, 360, 370, 380, 390°F (160, 166, 171, 177, 182, 188, 193, 199°C)	¾" x 2" (19 x 51 mm)	49.50
D Nine-point (same as image C with 9 points)			
WJ-08068-28	400, 410, 420, 435, 450, 465, 480, 490, 500°F (204, 210, 216, 224, 232, 240, 249, 254, 260°C)	¾" x 2" (19 x 51 mm)	49.50
E Eight- and nine-point label kit			
WJ-08068-90†	Contains five labels of each of the five types of indicators shown in the table above		49.50

*Discounts: Save 10% on 5–9 pks, 15% on 10–19 pks, 20% on 20+ pks.
†Note: Express shipping by air is required to prevent activation while in transit.

Cole-Parmer Stainless Steel Pocket Thermometers

1" polycarbonate magnifying lens makes reading dial easy

- Factory calibration to three points with a $\pm 1\%$ accuracy
- Hermetically sealed dial plate stops internal fogging
- Recalibrate using external adjustment nut
- Include an anti-microbial plastic storage sleeve
- Shock resistant



08127-15

Specifications

Accuracy: $\pm 1\%$ full-scale
Materials: 304 SS dial case and stem, polycarbonate lens
Dimensions: 5"L x 0.142" dia stem, 1" dia dial

Cat. no.	Temp range†	Divisions	Price*
WJ-08127-10	-40 to 160°F	2°F	\$20.25
WJ-08127-15†	25 to 125°F	1°F	20.25
WJ-08127-20†	0 to 220°F	2°F	20.25
WJ-08127-30	50 to 550°F	5°F	20.25
WJ-08080-07	-40 to 50°C	1°C	20.25
WJ-08080-08	-10 to 110°C	1°C	20.25

*Discount: Save 15% on 3+ thermometers.

†NSF listed.

‡Temperature range for probe only. Polycarbonate lens maximum temperature is 275°F (135°C).

1¾" glass lens for use in high-temperature applications

- Factory calibration to three points with a $\pm 1\%$ accuracy
- Hermetically sealed dial plate stops internal fogging
- Recalibrate using external adjustment nut
- Include a beaker clip
- Shock resistant



08080-04

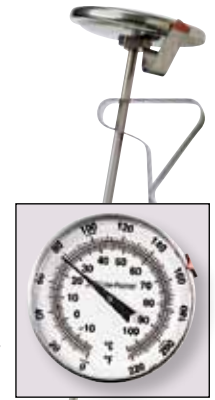
Specifications

Accuracy: $\pm 1\%$ full-scale
Materials: 304 SS dial case and stem, glass lens
Dimensions: 8"L x 0.150" dia stem, 1.75" dia dial

Cat. no.	Temp range	Divisions	Price
WJ-08080-01	-40 to 160°F	2°F	\$32.25
WJ-08080-02	25 to 125°F	1°F	32.25
WJ-08080-03	0 to 180°F	2°F	32.25
WJ-08080-04	0 to 220°F	2°F	32.25
WJ-08080-05	50 to 300°F	2°F	32.25
WJ-08080-06	50 to 500°F	5°F	32.25
WJ-08080-10	-10 to 110°C	1°C	32.25
WJ-08080-11	0 to 50°C	0.5°C	32.25
WJ-08080-12	0 to 100°C	1°C	32.25
WJ-08080-13	0 to 250°C	2°C	32.25

2" polycarbonate lens with dual °F/°C scale

- Factory calibration to three points with a $\pm 1\%$ accuracy
- Hermetically sealed dial plate stops internal fogging
- Recalibrate using external adjustment nut
- Include a beaker clip and manual indicator
- Shock resistant



08103-10

Specifications

Accuracy: $\pm 1\%$ full-scale
Materials: 304 SS dial case and stem, polycarbonate lens
Dimensions: 8"L x 0.142" dia stem, 2" dia dial

Cat. no.	Temp range†	Divisions	Price
WJ-08103-40	-40 to 160°F, -40 to 70°C	2°F, 1°C	\$35.75
WJ-08103-10	0 to 220°F, -10 to 110°C	2°F, 1°C	35.75
WJ-08103-50	25 to 125°F, -4 to 52°C	1°F, 0.5°C	35.75
WJ-08103-30	0 to 550°F, -10 to 290°C	5°F, 5°C	35.75

†Temperature range for probe only. Polycarbonate lens maximum temperature is 275°F (135°C).



Equipment & Instrumentation

Temperature

Highlighted items

NSF-Approved Digital Pocket Thermometers

Ideal for use in the food industry and all other general applications

- Typical response time is 30 seconds for 99% of new reading
- 304 stainless steel penetration stem
- All include a protective case with pocket clip and a battery



A Taylor® Flat-Edged Dial Safe-T-Guard Thermometer with antimicrobial sleeve. Special additive in the sleeve material inhibits bacterial and fungal growth. Thermometer is waterproof for dependable use in kitchen or lab environments. Field calibratable. °F/°C switchable. Auto-off feature saves on battery life.

B Taylor Reduced-Tip Flat-Edged Dial Safe-T-Guard Thermometer with antimicrobial sleeve. Same features as “A” plus the addition of a 1.5-mm FDA-recommended step-down tip.

C Taylor Pen-Style Safe-T-Guard Thermometer with antimicrobial sleeve. Special additive in the sleeve material inhibits bacterial and fungal growth. Thermometer is waterproof for dependable use in kitchen or lab environments. Field calibratable. Features °F/°C switchable ranges, Max and Hold functions, and auto-off which saves on battery life. Includes lanyard. Dishwasher safe.

D Taylor Reduced-Tip Pen-Style Safe-T-Guard Thermometer with antimicrobial sleeve. Same features as “C” plus the addition of a 1.5-mm FDA-recommended step-down tip.

E Comark® Waterproof Thermometer has a 5" long stem. Features °F/°C switchable ranges, a min/max and hold function, and a display that updates every second. Use ON/OFF button to conserve battery life.

F Comark Reduced-Tip Waterproof Thermometer with antimicrobial protection has a 3" long stem and 1.5-mm dia tip. Features °F/°C switchable ranges, hold function, a display that updates every 1.5 seconds, and low-battery indicator. Use ON/OFF button to conserve battery life or the unit will automatically shut off after 35 minutes.

G Cooper-Atkins® Reduced-Tip Pen-Style Waterproof Thermometer with antimicrobial protection added to all plastic components. Thermometer is factory calibrated to three temperature points and guaranteed to never need field adjustment. Features include IP67 rating, stainless steel shaft, 6-second response time, °F/°C switchable ranges, hold function, min/max reading, and auto-off.

H Cooper-Atkins Reduced-Tip Waterproof Thermometer with alarm. Same features as “G” plus the addition of a unique adjustable alarm function. Dishwasher-safe.



Key letter	Catalog number	Range	Resolution	Accuracy	Display	Dimensions	Price	Replacement batteries	
								Cat. no.	Price/pk of 6
A	WJ-90000-60	-40 to 450°F (-40 to 230°C)	0.1°F (0.1°C)	±1°F (±0.6°C)	3½ digit, 0.3"H	Probe: 5"L x 0.15" dia Head: 2.5" dia	\$36.75	WJ-09377-17	\$21.00
B	WJ-90000-65	-40 to 450°F (-40 to 230°C)	0.1°F (0.1°C)	±1°F (±0.6°C)	3½ digit, 0.3"H	Probe: 5"L x 0.15" dia Head: 2.5" dia	36.75	WJ-09377-17	21.00
C	WJ-90000-61	-40 to 450°F (-40 to 230°C)	0.1°F (0.1°C)	±1.8°F (1.0°C)	3½ digit, 0.3"H	Probe: 2.5"L x 0.16" dia Head: 4"L x 1"W x 0.5"D	26.50	WJ-09377-17	21.00
D	WJ-90000-68	-40 to 450°F (-40 to 230°C)	0.1°F (0.1°C)	±1°F (±1°C)	3½ digit, 0.3"H	Probe: 2.5"L x 0.16" dia Head: 4"L x 1"W x 0.5"D	26.50	WJ-09377-16	18.00
E	WJ-90025-06	-40 to 450°F (-40 to 230°C)	0.1°F (0.1°C)	±2°F (±1°C)	3 digit, 0.3"H	Probe: 5"L x 0.16" dia Head: 3.5"L x 0.8"W x 0.5"D	36.75	WJ-09377-16	18.00
F	WJ-90000-62	-40 to 450°F (-40 to 230°C)	0.1°F (0.1°C)	±2°F (±1°C)	3 digit, 0.3"H	Probe: 3.5"L x 0.6" dia Head: 2.5"L x 0.8"W x 0.5"D	36.75	WJ-09377-16	18.00
G	WJ-90025-02	-40 to 392°F (-40 to 150°C)	0.1°F (0.1°C)	±2°F (±1°C)	3 digit, 0.25"H	Probe: 2.75"L x 0.156" dia Head: .75"L x 0.625"W x 6.0"D	28.75	WJ-09377-16	18.00
H	WJ-90025-01	-40 to 450°F (-40 to 232°C)	0.1°F (0.1°C)	±2°F (±1°C)	3½ digit, 0.25"H	Probe: 4.625"L x 0.140" dia Head: 1.3125"L x 0.75"W x 6.25"D	33.25	WJ-09377-16	18.00

WJ-17003-00 NIST-traceable calibration with data..... \$63.25

Equipment & Instrumentation

Temperature

EXTECH *EasyView*® Thermocouple Thermometers

Compact, rugged design features a large display

- Accepts any type K thermocouple probe with miniconnector

These meters offer the functionality to meet any temperature measurement need. Choose the thermometer with the feature that best fits your application.

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), timer, elapsed time, time of reading, min/max, backlit display, and °F/°C/K selectable units.

Model 95001-07 is a dual-input thermometer with datalogger which offers the same features as 95001-06. This meter also includes a datalogger that can store up to 16 data sets and 8800 data points manually or automatically with a programmable sample rate. Other advanced features include the ability to work with seven thermocouple types (J, K, T, E, R, S, and N), min/max/avg function, and bidirectional RS-232 interface.

What's included: one type K bead thermocouple probe, protective holster with built-in stand, and six AAA batteries. Model 95001-06 also includes two type K probes. Model 95001-07 also includes two type K probes, RS-232 cable, and software.

Specifications

Display: 4½-digit LCD (models 95001-06,-07 are backlit)

Dimensions (W x H x D): 2¾" x 6" x 1½"
(7.0 x 15.2 x 3.8 cm)

Power: six AAA batteries (included)



95001-06

Catalog number	Probe	Data logger	Range	Resolution	Accuracy	Price
WJ-95001-05	Single input, type K	No	-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)	\$ 109.00
WJ-95001-06	Dual input, type K	No	-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)	137.75
WJ-95001-07	Dual input; types J, K, T, E, R, S, N	Yes	-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)	298.00

WJ-08439-72 General-purpose thermocouple type K probe \$56.25

WJ-08439-92 Air/gas thermocouple type K probe \$40.00

WJ-08439-62 Surface thermocouple type K probe \$39.25

WJ-09376-00 Replacement batteries; AAA. Pack of 12 \$24.50

WJ-17002-10 NIST-traceable calibration for thermocouple system
(meter and probe) \$177.75

Comark® Basic Foodservice Thermocouple Thermometer

Designed for use in today's busy kitchens

- Durable, water resistant, and easy to clean
- NSF-approved

Designed specially for the food industry as a simple-to-use, basic everyday thermometer. The unit produces a high degree of accuracy, with rapid response time, and accepts a wide range of food-related type K thermocouple probes with a miniature connection. Other features include selectable unit of measure and auto-off function.

What's included: protective boot and one 9 V battery. Model 90025-32 also includes a reduced-tip penetration probe.



90025-32

NEW

Specifications

Resolution: 0.1° to 374°F (190°C),
1° above

Accuracy: ±2°F (1°C) from -22 to
230°F (30 to 110°C), full range ±3%
of reading

Display: 4-digit LCD, ½" (1.3 cm) H

Power: one 9 V battery (included)

Battery life: 300 hours
(approximately)

Dimensions (W x H x D): 3½" x 5" x
1½" (8.9 x 12.7 x 3.8 cm)



Catalog number	Type	Range	Price
WJ-90025-31	Single input, type K (probe not included)	-40 to 1000°F	\$ 102.00
WJ-90025-32	Single input, type K (probe included)	(-40 to 500°C)	157.00

Comark® Foodservice Adjustable-Angle Thermometer

LEDs provide fast indication of HACCP food temperature zone



90025-50



Use this folding thermometer for any food handling application—three LEDs provide instant, error-free indication of critical food temperature zones. Yellow indicates cold (below 40°F/4°C), green indicates hot (140°F/60°C to 180°F/82°C), and red indicates cooked (above 158°F/70°C). Type T thermocouple provides accurate readings for a wide range of food applications.

What's included: one 9 V battery, wrist strap, and case.

Specifications

Display: 3½-digit LCD

Probe: 4⅝" L

Power: one 9 V battery (included)

Battery life: 100 hours

Dimensions (W x H x D): 6⅛" x 2" x 1⅞"
(17.0 x 5.1 x 2.5 cm)



Catalog number	Range	Resolution	Accuracy	Price
WJ-90025-50	-58 to 482°F	0.1°F	Below 257°F: ±0.3%, ±1.35°F Above 257°F: ±0.7%, ±0.45°F	\$113.50

[†]With probe retracted

WJ-09376-04 Replacement batteries, 9 V. Pack of 4 \$29.50

WJ-17003-00 NIST-traceable calibration \$63.25

Unique Products.

Exceptional Service.

Technical Support.



Equipment & Instrumentation

Temperature

Highlighted items

Comark® Foodservice Thermocouple Thermometer

Ideal for use in food-related applications

- BioCote® antimicrobial protection
- NSF approved

Designed to accept any type K thermocouple probe with miniature connection. This thermometer produces a high degree of accuracy, with a rapid response time, and exceptional battery life of up to 7000 hours. The meter features °F/°C selectable units, data hold, auto-off function, clock, multifunction countdown timer, and built-in protective boot.

The thermometer has an IP67-rated case with BioCote antimicrobial protection—ideal for use in the food industry and is an accepted part of HACCP standards. BioCote is an antimicrobial agent that is impregnated into the case during molding, effectively inhibiting the growth of microorganisms.

What's included: protective boot, certificate of conformity, and two AA batteries.



90025-34

Specifications

Resolution
Below 100°F (100°C): 0.1°
Above 100°F (100°C): 1°

Accuracy: ±0.1% of reading,
±0.4°F/±0.2°C

Display: 4-digit LCD, 1/2"H

Power: two AA batteries (included)

Battery life: 7000 hours (approx)

Dimensions (W x H x D): 2 1/4" x 6" x 1"
(5.7 x 15.2 x 2.5 cm)



Catalog number	Probe	Range	Price
WJ-90025-34	Single input, type K	-328 to 1112°F (-200 to 600°C)	\$199.50

- WJ-08516-55 General-purpose thermocouple type K probe;** 5" (12.7 cm) L, 1652°F (900°C) max \$51.75
- WJ-90025-36 Food-penetration thermocouple type K probe;** with 1.6-mm penetration tip, -58 to 482°F (-50 to 250°C) \$83.75
- WJ-90025-37 Frozen food penetration thermocouple type K probe;** with 1.6-mm penetration tip, -58 to 482°F (-50 to 250°C) \$91.75
- WJ-90025-38 Food-penetration thermocouple type K probe;** with 1.1-mm penetration tip, -58 to 482°F (-50 to 250°C) \$101.00
- WJ-90025-39 Grill surface food thermocouple type K probe;** with 45° crank, -58 to 482°F (-50 to 250°C) \$86.00
- WJ-90025-41 Wall bracket for 90025-34** \$7.00
- WJ-09376-01 Replacement batteries, AA. Pack of 4** \$8.50
- WJ-17001-10 NIST-traceable calibration for thermocouple probe; with data** \$143.25
- WJ-17002-10 NIST-traceable calibration for thermocouple system (meter and probe)** \$177.75

Comark® Waterproof Thermocouple Thermometers

Ideal for use in food processing, HVAC, and industrial applications

- Single- or dual-input models suit any application

Thermometers are ideal for use in industrial, food processing, HVAC, refrigeration, and many more applications. All models accept thermocouple probes with miniature connection, and feature an IP67-rated case, °F/°C selectable units, data Hold, and auto-off function. Each unit has BioCote® antimicrobial protection ideal for use in the food industry.

Model 90025-25 accepts type K and T thermocouples, and includes a clock, countdown timer, and multiple alarm functions.

Model 90025-30 accepts six different thermocouple types and include a min/max function for maximum versatility. This dual-input thermometer also measures and displays two different temperatures simultaneously and calculates temperature differential (T1-T2).

What's included: certificate of conformity and batteries.



90025-25

90025-30

Specifications

Resolution
Below 1832°F (1000°C): 0.1°
Above 1832°F (1000°C): 1°

Accuracy: ±0.1% of reading,
±0.4°F/±0.2°C

Display: 4-digit LCD, 1/2"H

Power:
Model 90025-30: two AA batteries (included)
Model 90025-25: one long-life battery (included)

Battery life: 7000 hours (approx)

Dimensions (W x H x D):
3 1/8" x 7 1/4" x 1 1/4" (7.9 x 18.4 x 3.2 cm)



Catalog number	Probe	Range	Price
WJ-90025-25	Dual input, types K, T	K: -328 to 2501°F (-200 to 1372°C) T: -328 to 752°F (-200 to 400°C)	\$269.00
WJ-90025-30	Single input, types J, K, T, R, S, N	J: -328 to 2192°F (-200 to 1200°C) K: -328 to 2502°F (-200 to 1372°C) T: -328 to 752°F (-200 to 400°C) R: -58 to 3212°F (-50 to 1767°C) S: -58 to 3212°F (-50 to 1767°C) N: -328 to 2372°F (-200 to 1300°C)	315.00

Accessories

- WJ-08500-55 General-purpose thermocouple type T probe;** 5" (12.7 cm) L, 752°F (400°C) max \$51.75
- WJ-08516-55 General-purpose thermocouple type K probe;** 5" (12.7 cm) L, 1652°F (900°C) max \$51.75
- WJ-08517-55 General-purpose thermocouple type J probe;** 5" (12.7 cm) L, 1400°F (760°C) max \$51.75
- WJ-90025-36 Food-penetration thermocouple type K probe;** with 1.6-mm penetration tip, -58 to 482°F (-50 to 250°C) \$83.75
- WJ-90025-37 Frozen food penetration thermocouple type K probe;** with 1.6-mm penetration tip, -58 to 482°F (-50 to 250°C) \$91.75
- WJ-90025-38 Food-penetration thermocouple type K probe;** with 1.1-mm penetration tip, -58 to 482°F (-50 to 250°C) \$101.00
- WJ-90025-39 Grill surface food thermocouple type K probe;** with 45° crank, -58 to 482°F (-50 to 250°C) \$86.00
- WJ-90025-40 Protective rubber boot** \$18.50
- WJ-90025-45 Carrying case** \$54.00
- WJ-09376-01 Replacement batteries, AA. Pack of 4** \$8.50
- WJ-17002-10 NIST-traceable calibration for thermocouple system (meter and probe)** \$177.75



Highlighted items

OAKTON® Temp-Series Thermocouple Thermometers

Heavy-duty thermometers offer versatility and accuracy

- Exclusive, 3-way hands-free operation
- Large, easy-to-read screen with backlight
- Rugged armor is built to withstand the toughest conditions

These robust and reliable meters work in any environment from the lab to the production floor. All models are ergonomically designed for both large and small hands alike. Sealed keypad and ABS plastic case meet IP54 standards for splash resistance. Each thermometer is individually factory calibrated. Automatic field calibration is easily performed.

Temp-10 Single-Input Thermometers feature an easy-to-use control panel; Min/Max and Hold functions; °F/°C selection; auto shutoff; and low-battery indicator.

Temp-100 Dual-Input Thermometer is designed for either single or simultaneous dual readings. Meter accepts all type J, T, E, and K thermocouple probes with miniconnector. Store up to 1000 sets of readings in the nonvolatile memory. Take differential temperature measurements with the T1/T2 function. The multidata LCD simultaneously indicates the readings of each probe, as well as the differential reading. For improved readability with rapidly changing temperatures, the meter resolution is keypad selectable.

Temp-300 Dual-Input Thermometer with Data Logging can manually store or automatically log up to 2000 sets of readings in real time, and data be downloaded to your PC via a USB port. Log interval is selectable from 1 second to 60 minutes. Take differential temperature measurements with the T1/T2 function. The dot matrix display simultaneously indicates the readings of each probe, as well as the differential reading. For improved readability during rapidly changing temperatures, the meter resolution is keypad selectable. Additional meter features include Min/Max, Hold, and average functions; temperature units in °F, °C, °R, or K; offset; time stamp/clock; countdown timer; out-of-range alarm with audible/visible indicator; auto shutoff; and low-battery indicator. Order an optional AC adapter to conserve battery life during extended operations.

What's included: protective rubber armor boot with built-in stand and three AA batteries.



91427-10

Specifications



Display: 4-digit LCD, 2 1/4" x 1 1/2" backlit viewing area
Power: three AA batteries (included)

Battery life: 400 hours with sleep mode (without the use of backlighting, buzzer, and USB)

Dimensions (W x H x D): 4" x 7" x 2"
 (102 x 178 x 51 mm), with protective boot

Catalog number	Description	Range	Resolution	Accuracy	Price
WJ-91427-00	Temp-10 single input	Type J: -346 to 2192°F (-210 to 1200°C)	0.1°F/°C between -199.9 to 999.9°, 1° below -199.9° and above 999.9°	Below -238°F (-150°C): ±0.25% of reading ±2°F (±1°C) Above -238°F (-150°C): ±0.1% of reading ±0.7°F (±0.4°C)	\$206.25
WJ-91427-10		Type K: -418 to 2501°F (-250 to 1372°C)			206.25
WJ-91427-20		Type T: -418 to 752°F (-250 to 400°C)			206.25
WJ-91427-40	Temp-100 dual input	Type J: -346°F to 2192°F (-210°C to 1200°C) Type K: -418°F to 2501°F (-250°C to 1372°C) Type T: -418°F to 752°F (-250°C to 400°C) Type E: -418°F to 1832°F (-250°C to 1000°C)	0.1°F/°C between -99.9 to 999.9°, 1° below -99.9° and above 999.9°	Below -148°F (-99.9°C): ±0.25% of reading ±2°F (±1°C) Above -148°F (-99.9°C): ±0.1% of reading ±0.7°F (±0.4°C)	283.00
WJ-91427-50	Temp-300 dual input with data logging	Type J: -346 to 2192°F (-210 to 1200°C) Type K: -418 to 2501°F (-250 to 1372°C) Type T: -418 to 752°F (-250 to 400°C) Type E: -418 to 1832°F (-250 to 1000°C) Type R: 32 to 3214°F (0 to 1768°C) Type S: 32 to 3214°F (0 to 1768°C) Type N: -418 to 2372°F (-250 to 1300°C) Type B: 392 to 3272°F (200 to 1800°C)	0.1°F/°C between -199.9 to 999.9°, 1° below -199.9° and above 999.9°	Type J, K, T, E, and N: ±0.25% of reading ±2°F (±1°C) below -148°F (-99.9°C), ±0.1% of reading ±0.7°F (±0.4°C) above -238°F (-150°C) Type R, S, and B: ±0.1% of reading ±2°F (±1°C)	377.00

- WJ-35427-85** Oakton "Hands-Free" option includes two magnets and hook-and-loop strap. **\$26.50**
- WJ-35427-80** Replacement boot with built-in stand. **\$29.75**
- WJ-09376-01** Replacement batteries, AA. Pack of 4. **\$8.50**

- WJ-91100-52** Adapter, 115 VAC. **\$50.50**
- WJ-91100-55** Adapter, 230 VAC. **\$62.00**
- WJ-17002-10** NIST-traceable calibration for thermocouple system (meter with probe). **\$177.75**

Some of Our Most Popular Thermocouple, Thermistor, and RTD Probes

All probes include a 5-ft (1.5-m) coiled cord with strain relief spring that protects from repeated flexing and tugging. Ergonomic, easy-to-grip glass-filled nylon handle provides maximum insulation and impact resistance; fingerstops prevent fingers from sliding and prevent probe from rolling. Thermocouples and RTD includes rugged thermoset plastic miniconnector.



Probe Type	General-purpose probes 5" (12 cm) L			Penetration probes 4" (10 cm) L			Air/gas probes 8.5" (21 cm) L			Surface probes 9.9" (25 cm) L		
	Max temp	Cat. no.	Price	Max temp	Cat. no.	Price	Max temp	Cat. no.	Price	Max temp	Cat. no.	Price
J	1400°F (760°C)	WJ-08517-55	\$ 51.75	1400°F (760°C)	WJ-08517-65	\$ 58.50	1000°F (537°C)	WJ-08517-75	\$ 63.25	1200°F (649°C)	WJ-08517-60	\$ 75.75
K	1652°F (900°C)	WJ-08516-55	51.75	1652°F (900°C)	WJ-08516-65	58.50	1000°F (537°C)	WJ-08516-75	62.75	1200°F (649°C)	WJ-08516-60	75.75
T	752°F (400°C)	WJ-08500-55	51.75	752°F (400°C)	WJ-08500-65	58.50	1000°F (537°C)	WJ-08500-75	62.75	650°F (343°C)	WJ-08500-60	75.75
RTD	932°F (500°C)	WJ-08117-70	138.25	932°F (500°C)	WJ-08117-85	138.25	932°F (500°C)	WJ-08117-90	138.25	932°F (500°C)	WJ-08117-75	138.25
Thermistor	212°F (100°C)	WJ-93824-00	97.50	212°F (100°C)	WJ-93824-30	97.50	212°F (100°C)	WJ-93823-05	43.75	—	—	—



Equipment & Instrumentation

Temperature

Highlighted items

OAKTON® Super-Mini TempTestr® Infrared Thermometer

Infrared thermometry at its most basic, but does just about everything you need!

- Built-in battery-life indicator
- Comes with wrist strap and built-in pocket clip

Just aim the unit, press the button on top, and either hold it to take a continuous temperature reading or release the button to hold the temperature on the display for 15 seconds. It measures temperature from -27 to 230°F (-33 to 110°C); under the back cover there is a switch which can be pressed to display the temperature in either Fahrenheit or Celsius.

What's included: built-in pocket clip and two batteries.

39642-01



OAKTON® Mini TempTestr® Infrared Thermometer

Economical noncontact thermometer fits right in your pocket!

This pocket-size infrared thermometer takes surface temperature readings of any liquid, solid, or semi-solid in less than one second. Operation is simple—turn it on, point at sample, and take reading.

Features include switchable °F/°C display, hold function to freeze readings for 7 seconds, continuous monitoring function, adjustable emissivity, minimum/maximum memory readings, flip-open stand, and soft touch keypad.

What's included: metal case, wrist strap, and spare battery.

39642-00



Catalog number	WJ-39642-01
Range	-27 to 230°F (-33 to 110°C)
Resolution	0.5°F (0.2°C) of reading
Accuracy	±2.5% of reading or 3.6°F (2.0°C)
Response time	Less than one second for 95% of reading
Emissivity	0.95 fixed
Distance-to-target ratio	1:1
Display	3½ digit
Power	Two LR44/359 batteries (included)
Dimensions (H x dia)	3½" x ¾" (8.9 x 1.9 cm)
Price	\$32.25

Catalog number	WJ-39642-00
Range	-30.0 to 430°F (-33.0 to 220°C)
Resolution	0.1°
Accuracy	±2% of reading or ±4°F (2°C)
Response time	Less than one second
Emissivity	Adjustable from 0.01 to 1.00
Distance-to-target-size ratio	1:1
Power	One 3 V battery (included)
Dimensions (W x H x D)	1½" x 2½" x ½" (3.8 x 6.4 x 1.3 cm)
Price	\$38.25

OAKTON® Mini-InfraPro™ Infrared Thermometers

Anywhere that temperature is a factor, an Oakton IR thermometer should be close at hand!

- Pistol-grip handle is comfortable and easy to use
- Measure surface temperatures quickly and accurately

Infrared thermometers have become the preferred tool for diagnostics and inspection where temperature is an indicator. Oakton infrared thermometers are valued by professionals in a variety of industries—from industrial maintenance to food service because they quickly, accurately and safely measure surface temperature. Since infrared meters do not contact the objects being measured, they are the safest way to measure hot, hard-to-reach, or moving parts while eliminating potential damage and contamination. Both meters feature Fahrenheit or Celsius selectable units, current and maximum readings, seven-second auto hold, continuous scanning, and power off.

What's included: one 9 V battery (and storage pouch with 39641-06).



Catalog number	WJ-39641-04	WJ-39641-06
Description	Mini-InfraPro 4	Mini-InfraPro 6
Range	0 to 750°F (-18 to 400°C)	-20 to 932°F (-30 to 500°C)
Resolution	±1% of reading or ±2°F (±1°C)	±1% of reading or ±2°F (±1°C)
Accuracy	±2% or 3.5°F (2°C) 30 to 275°F (-1 to 525°C), ±5°F from where needed (±3°C) 0 to 30°F (-18 to -1°C)	±2°F (±1°C) from 50 to 86°F (10 to 30°C), ±1.5% of reading or ±3°F (1.5°C) whichever is greater
Response time	500 msec, 95% response	500 msec, 95% response
Emissivity	0.95 fixed	0.95 fixed
Laser sighting	Single point, offset class II	Single point, offset Class II
Distance-to-target ratio	8:1	10:1
Display	LCD, backlit	LCD, backlit
Power	One 9 V battery (included)	One 9 V battery (included)
Dimensions (W x H x D)	4" x 6" x 1½" (10.2 x 15.2 x 3.8 cm)	4" x 6" x 1½" (10.2 x 15.2 x 3.8 cm)
Price	\$83.75	\$95.25



New Lower Price!

39641-06

“Excellent price for the features.”



Equipment & Instrumentation

Temperature

OAKION® Food TempTestr® I Infrared Thermometer

Noncontact measurement eliminates the risk of cross-contamination

Temperature measurement is essential when ensuring proper food storage, cooking, and serving environments. Quick checks with a noncontact thermometer can remove the hazard of cross-contamination and reduce the time a traditional probe requires.

Thermometer provides safe, noncontact readings in 1/2 second. It has a compact design for easy one-handed operation. Other features include a laser sighting to pinpoint your exact target, selectable °C/°F display, steam interference filter, and a hold function that freezes display for 7 seconds after button release. Accuracy of ±1°C (±2°F) over the HACCP critical temperature range of 4 to 60 °C (40 to 140°F).



Catalog number	WJ-35625-15
Range	-35 to 275°C (-31 to 572°F)
Resolution	0.2°C (0.2°F)
Accuracy	From 0 to 65°C (32 to 150°F): ±1°C (±2°F)
Response time	500 msec
Emissivity	Preset at 0.97
Laser sighting	Single point, offset Class II
Distance-to-target-size ratio	4:1
Power	9 V battery (included)
Dimensions (L x W x H)	7" x 1 3/4" x 1 1/2" (17.8 x 4.4 x 3.8 cm)
Price	\$113.50

WJ-09376-04 Replacement batteries,
9 V. Pack of 4 \$29.50



35625-15

OAKION® Food TempTestr® II Infrared Thermometer

Ideal for food inspections and HACCP programs

- Noncontact measurement eliminates the risk of cross-contamination
- Scan numerous surfaces quickly and easily
- Sealed, hand-washable IP54 housing

Temperature measurement is essential when ensuring proper food storage, cooking, and serving environments, and is required by the FDA. Quick checks with a noncontact thermometer can remove the hazard of cross-contamination and reduces cycle time over a traditional penetration probe. This thermometer provides this safe, noncontact reading in under a second.

Use the TempTestr meter to monitor HACCP danger zone temperature standards for food (4 to 60°C or 40 to 140°F), the critical range where harmful bacteria grows most rapidly. LEDs on the meter quickly indicate if the food temperature is within a green or red bacterial growth zone. Investigate further with a probe thermometer for internal temperatures. LED target system illuminates the exact measurement area.

What's included: one 9 V battery and wrist strap.



Catalog number	WJ-35625-45
Range	-30 to 200°C (-20 to 400°F)
Resolution	0.2°C (0.2°F)
Accuracy	±1°C (±2°F) between 0 to 65°C (32 to 150°F)
Response time	500 msec, 95% response
Emissivity	0.97 fixed
Laser sighting	White LED (non-laser)
Distance-to-target-size ratio	2.5:1
Display	LCD, backlit
Power	One 9 V battery (included)
Dimensions (W x H x D)	1 1/4" x 6" x 2" (3.2 x 15.2 x 5.1 cm)
Price	\$109.00

WJ-09376-04 Replacement batteries,
9 V. Pack of 4 \$29.50



35625-45

OAKION® Food Safety Infrared Thermometer

A combination contact/noncontact thermometer with timer for all food applications

- Sealed IP65 housing—hand washable, even under a faucet stream

Check critical food temperatures and monitor HACCP food safety zones with this combination contact/noncontact thermometer. LEDs rapidly indicate if food temperature is in the bacterial growth safety zone. Green lights indicate safe temperatures below 4°C (40°F) and above 60°C (140°F). Red light indicates the HACCP danger zone between 4 to 60°C (40 to 140°F). IR mode provides quick, noncontact surface measurements and stores maximum reading. Built-in countdown timer with alarm monitors cooking and cooling intervals and HACCP exposure times—set countdown timer to a maximum of 8 hours.

What's included: carrying case, 9 V battery, manual, and quick reference card.



Catalog number	WJ-35625-40	
Mode	Infrared	Contact
Range	-35 to 275°C (-30 to 525°F)	-40 to 200°C (-40 to 390°F)
Resolution	0.2°C/°F	0.2°C/°F
Accuracy	±1°C (±2°F) from 0 to 65°C (32 to 150°F)	±0.5°C (±1°F) from 0 to 65°C (32 to 150°F)
Response time	500 msec	5 sec
Emissivity	Preset at 0.97	
Laser sighting	White LED (non-laser)	
Distance-to-target-size ratio	2.5:1	
Power	one 9 V battery (included)	
Dimensions (W x H x D)	Overall: 1 1/4" x 6 1/2" x 2" (3.2 x 16.5 x 5.1 cm); Contact probe: 3 1/2" L x 1/8" dia (8.9 x 0.3 cm)	
Price	\$170.75	

WJ-35625-70 Replacement probe \$36.00

WJ-86106-10 Antimicrobial sanitizing wipes. Box of 100 \$6.75



Contact penetration probe swings out for fast temperature checks.



35625-40

Unique Products.

Exceptional Service.

Technical Support.



Equipment & Instrumentation

Timers

Highlighted items

General-Purpose Timers

A Cole-Parmer Jumbo Digit Dual-Channel Clock/Timer

Timer features a 3"W x 2½"H (7.6 x 6.4 cm) LCD that tilts for easy viewing. Use both channels simultaneously to count down, or show time of day with count up timer. Clock displays time in 12- or 24-hour formats; timer recalls previous time set. A 70 dB alarm sounds at the end of the countdown; timer displays time elapsed since the end of a countdown.

What's included: wall-mounting bracket and one AAA battery.



94440-10 CE

B Cole-Parmer Triple-Display Clock/Timer

Timer features three channels, a count up stopwatch, and a clock. You can operate three channels simultaneously. Memories of all channels can be recalled together. Stopwatch counts up to 24 hours with 0.01-second resolution. Countdown range is 20 hours; countdown and clock functions have a 1-second resolution. Timer counts up to show time elapsed since the alarm. Timer has a magnetic back.

What's included: magnetic clip and one AAA battery.



94440-00

C Cole-Parmer Dual-Channel Large Display Clock/Timer

Timer allows you to count up to or down from 100 hours with 1-second resolution. Features dual channels with ¾" high display—use channels simultaneously. Each channel has a distinctive alarm that sounds for one minute. Timer memory recalls previous time set. Features time-of-day in 12- or 24-hour formats.

What's included: magnetic clip, stand, and button cell battery.



08649-00 CE

D Cole-Parmer 100-Hour, Triple-Display Clock/Timer

Timer functions as a digital clock, timer, or stopwatch. Displays time of day or time remaining in any of three channels. Use all three channels either simultaneously or independently. Memory recalls previous time set. Display allows simultaneous up and down timing on different channels with unlimited time-outs. Alarm tones are unique for each channel and have adjustable volume. Flashing LCD indicates alarm condition.

What's included: NIST-traceable calibration report supplied by the manufacturer and one AAA battery.



94411-10

E Simultaneous Start Timer

Set four channels independently and start them all at the same time! Timer also works as a calendar, alarm clock, and 10-hour stopwatch. Stopwatch has lap and split functions. Loud (approximately 67 to 72 dB at six feet away) alarm is ideal for noisy environments. Clip it to your pocket, stick it to a metal surface with magnetic back, or use built-in stand.

What's included: magnetic clip and one AAA battery.



94460-22

F Cole-Parmer Four-Channel, Large-Display Clock/Timers

Multi-channel timer features four channels with one ¾" high display—use channels simultaneously. Each channel has a distinctive alarm that sounds for one minute. Timer allows you to count up to or down from 100 hours with one-second resolution; memory recalls previous time set. Features time-of-day in 12- or 24-hour formats.

What's included: magnetic clip, stand, and button cell battery.



08649-10 CE

Key	A	B	C	D	E	F
Number of channels	Two	Three	Two	Three	Four	Four
Timing capacity	24 hours	24 hr up/20 hr down	100 hours	99 hr, 59 min, 59 sec	100 hours	100 hours
Resolution	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec
Accuracy	±0.01%	±0.01%	±0.01%	±0.001%	±3 sec/day	±0.01%
Count direction	Up/down	Up/down	Up/down	Up/down	Up/down	Up/down
Display	Dual LCD, 1"H	Triple LCD, 7/16"H	LCD, 3/4"H	Triple LCD, 3/8" H	Up/down LCD, 7/8"H	LCD, 3/4"H
Clock	Yes	Yes	Yes	Yes	Yes	Yes
Alarm	1 min beep	1 min beep	1 min beep	1 min beep and visual	1 min beep	1 min beep
Battery included	One AAA battery	One AAA battery	One 1.5 V button cell	One AAA battery	One AAA battery	One 1.5 V button cell
Dimensions (W x H x D)	3½" x 5½" x 1½" (9.5 x 14.0 x 3.8 cm)	2½" x 3¾" x 7/8" (6.4 x 8.6 x 2.2 cm)	2¾" x 2½" x ½" (7.0 x 6.4 x 1.3 cm)	3¼" x 3" x 1" (8.3 x 7.6 x 2.5 cm)	2½" x 2¾" x ½" (6.4 x 7.3 x 1.3 cm)	2¾" x 2½" x ½" (7.0 x 6.4 x 1.3 cm)
Catalog number (timer)	WJ-94440-10	WJ-94440-00	WJ-08649-00	WJ-94411-10	WJ-94460-22	WJ-08649-10
Price/ea*	\$31.00	\$27.50	\$30.00	\$62.00	\$33.25	\$35.75
Catalog number (battery)	WJ-09376-00	WJ-09376-00	WJ-09377-16	WJ-09376-00	WJ-09376-00	WJ-09377-16
Price/pk	\$24.50	\$24.50	\$18.00	\$24.50	\$24.50	\$18.00

*Discounts: Save 10% on 10 to 24 timers, and 20% on 25 or more timers.



Highlighted items

General-Purpose Calipers

Use these calipers for fast, reliable measurements. Calipers feature beveled jaws for measuring threads.



“Excellent caliper for the money”

SolarMole, Lowell, MA



Key	Catalog number	Description	Material	Range	Resolution	Accuracy	Price	Replacement batteries	
								Cat. no.	Price
Vernier caliper									
A	WJ-09921-21†	Measure inside, outside, depth; beveled edges for measuring screws	Stainless steel	0 to 6"/ 0 to 150 mm	0.001"/ 0.05 mm	±0.001"/ ±0.05 mm	\$ 57.50	—	—
Dial calipers									
B	WJ-97100-00	Measure inside, outside, depth; adjustable dial	Fiberglass/ nylon	0 to 6"	0.01", 1/64"	±0.01", ±1/64"	46.00	—	—
	WJ-97100-10			0 to 150 mm	0.1 mm	±0.1 mm	48.00	—	—
C	WJ-09924-06†	Tough shockproof design; measure inside, outside, depth; beveled edges measure screws	Stainless steel	0 to 6"	0.001"	+0.001"	87.25	—	—
	WJ-09924-08†			0 to 12"	0.001"	±0.001"	141.00	—	—
Digital calipers with LCD									
D	WJ-09921-22†	Direct inch/metric/fraction conversion; measure inside, outside, depth, step; friction thumb roller	Polycarbonate	0 to 6"/ 0 to 150 mm	0.0005"/ 0.01 mm/ 1/64"	±0.08"/ ±0.2 mm	30.00	WJ-97152-60	\$10.25
E	WJ-97152-16	Measure inside, outside, depth, step; adjustable zero, friction thumb roller, inch/metric conversion	Carbon fiber	0 to 4"/ 0 to 100 mm	0.001"/	±0.01"/	31.00	WJ-09377-14	20.50
	WJ-97152-17			0 to 6"/ 0 to 150 mm	0.1 mm	±0.1 mm	35.75		
F	WJ-97152-14	Direct inch/metric/fraction conversion; measure inside, outside, depth, step; friction thumb roller	Stainless steel	0 to 6"/ 0 to 150 mm	0.0005"/ 0.01 mm/ 1/64"	±0.001"/ ±0.01 mm	54.25	WJ-09923-71	11.50
G	WJ-97152-08†	Patented ceramic capacitive sensor; measure inside, outside, depth, step; direct inch/metric conversion	Stainless steel	0 to 6"/ 0 to 150 mm	0.0005"/	±0.001"/ ±0.02 mm	126.75	WJ-09923-71	11.50
	WJ-97152-12†			0 to 12"/ 0 to 300 mm	0.01 mm	±0.0015"/ ±0.04 mm	192.75		
H	WJ-09923-18†	Measure inside, outside, depth, step; direct inch/metric conversion, thumb roller, high-contrast LCD; 3-year warranty	Stainless steel	0 to 6"/ 0 to 150 mm	0.0005"/ 0.01 mm	±0.001"/ ±0.03 mm	186.75	WJ-09923-71	11.50
I	WJ-09923-20†‡	RS-232 output; measure inside, outside, depth, step, direct inch/metric conversion; thumb roller; 3-year warranty	Stainless steel	0 to 6"/ 0 to 150 mm	0.005"/ 0.01 mm	±0.001"/ ±0.02 mm	271.00	WJ-09923-71	11.50
J	WJ-97152-00†‡	IP65 moisture-resistant; RS-232 output; measure inside, outside, depth, step; direct inch/metric conversion; thumb roller	Stainless steel	0 to 6"/ 0 to 150 mm	0.0005"/ 0.01 mm	±0.001"/ ±0.02 mm	228.75	WJ-97152-60	10.25
K	WJ-09923-38†	Caliper and Data Acquisition Kit: contains electronic caliper 97152-00, case, RS-232 cable, cable adapter, and PC software	Stainless steel	0 to 6"/ 0 to 150 mm	0.0005"/ 0.01 mm	±0.001"/ ±0.03 mm	301.00	WJ-09923-71	11.50
L	WJ-97152-10†	Large scale; measure inside, outside, depth, step; direct inch/metric conversion	Stainless steel	0 to 24"/ 0 to 600 mm	0.0005"/ 0.01 mm	±0.001"/ ±0.03 mm	311.00	WJ-09923-71	11.50

†Supplied by Fowler

‡These calipers feature an RS-232 output. Order optional RS-232 cable kit (model 97152-50) with demo software to use with this feature.



Equipment & Instrumentation

Ultrasonic Cleaners

Highlighted items

Cole-Parmer Ultrasonic Cleaners

High-frequency 42 kHz sound waves provide greater cleaning power and increased reliability

- Sweep frequency provides uniform cleaning by creating overlapping sound waves

These cleaners transform low-frequency AC current into 42 kHz high-frequency sound waves via a piezoelectric transducer. The transducer creates sinusoidal waves, which in turn cause cavitation—the formation and violent collapse of minute vacuum bubbles in the solution. These implosions thoroughly scrub every surface with which the solution makes contact, yet are not harsh on delicate items. Cleaners also feature “sweep” frequency that provides uniform cleaning throughout the tank by creating overlapping ultrasonic waves and eliminating inconsistent cleaning due to areas of intense ultrasonic activity.

The leakproof housing features super-sealing double O-rings and recessed ventilation. The 304 stainless steel (SS) tank is surrounded by a durable, impact-resistant polypropylene housing. Sealed membrane control panel is impervious to splashes and spills.

Choose from five sizes of cleaners—all are available with mechanical timer; with heater and mechanical timer; or with heater, digital timer, temperature monitor, and degas feature.

What's included: a polypropylene lid (a SS lid on 08894-series), integral handles, nonskid feet, and a 7½-ft (2.1-m) power cord (115 VAC models include plug; 230 VAC models do not include plug). Order cleaning solutions on page 105.



08891-21



08890-11

Find MORE!

Order the insert tray and beaker positioning cover shown with these cleaners on page 51.



Ultrasonic Cleaners with Mechanical Timer

Our most economical and easy-to-operate cleaners—set the time with just one quick twist of the dial. Analog mechanical timer enables controlled cleaning cycles up to 60 minutes and can run continuously.



Ultrasonic Cleaners with Heater and Mechanical Timer

For enhanced cleaning capabilities, order a cleaner with heater and mechanical timer. Maximum heater temperature is 156°F (69°C). Built-in temperature sensor prevents overheating, automatically shuts down heating and ultrasonics when solution temperature exceeds 158°F (70°C). Set cleaning cycle up to 60 minutes or can run continuously.



Ultrasonic Cleaners with Heater, Digital Timer, Temperature Monitor, and Degas Feature

For critical cleaning applications, choose a cleaner with heater, digital timer, temperature monitor, and degas feature. The degas feature eliminates air bubbles from the solution for more efficient cleaning. Built-in temperature sensor prevents overheating, automatically shuts down heating and ultrasonics when solution exceeds 158°F (70°C). Heater is adjustable from 68 to 156°F (20 to 69°C); set timer cleaning cycle up to 99 minutes.



Capacity	Tank dimensions (L x W x H)	Power (50/60 Hz)	With mechanical timer			With heater and mechanical timer			With heater, digital timer, temperature monitor, and degas feature		
			Catalog number	Amps	Price	Catalog number	Amps	Price	Catalog number	Amps	Price
½ gallon†	5½" x 6" x 4" (14.0 x 15.2 x 10.2 cm)	115 VAC	WJ-08890-01	0.8	\$ 436.00	WJ-08890-11	1.3	\$ 482.00	WJ-08890-21	1.4	\$ 585.00
		230 VAC	WJ-08890-06	0.4	568.00	WJ-08890-16	0.6	633.00	WJ-08890-26	0.7	697.00
¾ gallon†	9½" x 5½" x 4" (24.1 x 14.0 x 10.2 cm)	115 VAC	WJ-08891-01	1.1	614.00	WJ-08891-11	2.0	677.00	WJ-08891-21	2.0	768.00
		230 VAC	WJ-08891-06	0.6	791.00	WJ-08891-16	1.0	894.00	WJ-08891-26	1.1	963.00
1½ gallons‡	11½" x 6" x 6" (29.2 x 15.2 x 15.2 cm)	115 VAC	WJ-08892-01	1.1	917.00	WJ-08892-11	2.8	1043.00	WJ-08892-21	2.9	1175.00
		230 VAC	WJ-08892-06	0.6	1192.00	WJ-08892-16	1.5	1318.00	WJ-08892-26	1.5	1556.00
2½ gallons‡	11½" x 9½" x 6" (29.2 x 24.1 x 15.2 cm)	115 VAC	WJ-08893-01	1.5	1295.00	WJ-08893-11	4.2	1387.00	WJ-08893-21	4.2	1507.00
		230 VAC	WJ-08893-06	0.8	1662.00	WJ-08893-16	2.0	1805.00	WJ-08893-26	2.1	1863.00
5½ gallons‡	19½" x 11" x 6" (49.5 x 27.9 x 15.2 cm)	115 VAC	WJ-08894-01	2.7	2058.00	WJ-08894-11	8.0	2356.00	WJ-08894-21	8.0	2602.00
		230 VAC	WJ-08894-06	1.4	2751.00	WJ-08894-16	4.0	3060.00	WJ-08894-26	4.0	3358.00

†The ½- and ¾-gallon cleaners have a pour spout.

‡The 1½-, 2½-, and 5½- gallon cleaners have a quick-disconnect drain.

Equipment & Instrumentation

Ultrasonic Cleaners / Viscometers



Highlighted items

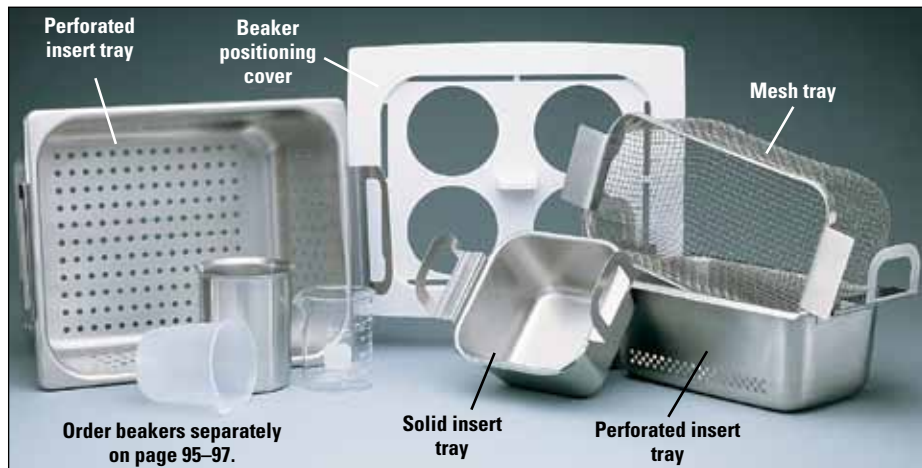
Accessories for Ultrasonic Cleaners on Page 50

Use these accessories to 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. Order beakers separately on page 95-97.



Order beakers separately on page 95-97.

Compatible ultrasonic cleaners	Solid insert trays		Perforated insert trays		Mesh insert trays		Beaker positioning covers			
	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Beakers held	Material	Price
08890-series, 08895-00 to -10	WJ-08850-41	\$ 69.50	WJ-08850-42	\$ 81.00	WJ-08850-45	\$ 74.00	WJ-08890-50	One 600 mL	Polypropylene	\$43.75
08891-series, 08895-12 to -22	WJ-08851-41	90.75	WJ-08851-42	132.00	WJ-08851-45	114.25	WJ-08891-50	Two 600 mL	Polypropylene	49.50
08892-series, 08895-24 to -34	WJ-08852-41	112.50	WJ-08852-42	135.25	WJ-08852-45	128.50	WJ-08892-50	Three 250 mL	Polypropylene	62.00
08893-series, 08895-36 to -58	WJ-08853-41	146.75	WJ-08853-42	165.25	—	—	WJ-08893-50	Four 600 mL	Polypropylene	67.75
08894-series, 08895-60 to -70	WJ-08854-41	214.50	WJ-08854-42	321.00	—	—	WJ-08894-50	Six 600 mL	304 stainless steel	90.75

GILMONT® Falling Ball Viscometers

Ideal for routine plant quality control checks and research laboratory applications

This viscometer is extremely easy to use: first, fill the tube with sample, then invert the tube. Next, restore tube to normal position, turn the knob to release the ball, and then simply measure the time of descent. The ball moves against a white background with red reference lines making it easy to read. Repeatability with good technique varies from ±0.2 to ±1.0%, depending upon time of descent. Viscometers require a 7-mL sample volume.

Viscometers have wetted materials of glass, Viton®, and Delrin® acetal. PTFE O-rings are available for use with liquids that adhere to Viton®; call our Application Specialists for more information.

What's included: one glass and one 316 stainless steel (SS) high-precision ball. For higher viscosity ranges, use the optional tantalum ball (order separately below).

Specifications

Repeatability: ±0.2 to ±1.0%	Sample volume: 7 mL		
Catalog number	Ball	Viscosity range (cp)	Price
WJ-08701-00	Glass	0.2 to 2	\$266.00
	SS	1 to 10	
	Tantalum†	2 to 20	
WJ-08702-00	Glass	2 to 20	266.00
	SS	10 to 100	
	Tantalum†	20 to 200	
WJ-08702-10	Glass	20 to 200	269.00
	SS	100 to 1000	
	Tantalum†	200 to 2000	

†Tantalum ball not included, order separately below.

WJ-08702-50 Optional tantalum ball, 0.25" dia. Doubles the viscosity range of the falling ball viscometers above\$238.50



08701-00

Consistometer

Verify the consistency, viscosity, and flow rates of viscous materials

- Meets military specification R-81294B for paint manufacturing

Use this consistometer to determine the consistency of viscous materials by measuring the distance that the material flows under its own weight in a given time interval. Consistometer checks against consistency, viscosity, and flow rate standards. Ideal for predetermining product formulas to standardize production lots.

Consistometer requires only 75 mL of sample for measurement. Engraved graduations in 0.5-cm divisions ensure accurate results; spring-loaded gate prevents premature sample flow. Leveling screws and built-in spirit level help achieve repeatable results. Stainless steel construction prevents corrosion.



59950-00

Catalog number	Sample size	Graduations	Dimensions	Price
WJ-59950-00	75 mL	0.5 cm	14"L x 3½"W x 5½"H (35.6 x 8.9 x 14.0 cm)	\$608.00

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For our full selection of viscometers, go to . . .

ColeParmer.ca/viscometers



Unique Products.

Exceptional Service.

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Equipment & Instrumentation

Viscometers

Thermo Scientific HAAKE Portable Viscometers

Small, battery-operated design for quick field tests and comparative measurements

- Rotational viscometers provide quick and reliable measurements for a variety of fluid types ranging from paints and shampoos to sauces and oils
- Simple, one-button operation eliminates setup time and allows hassle-free testing

These lightweight digital viscometers can be operated hand held or on a stand (order separately below) for your convenience. Converting the handheld unit to a stand alone unit takes only a matter of seconds—simply place in the special instrument holder. Use for quick viscosity tests for process optimization, machine adjustment, or to ensure your product is within specification.

By displaying viscosity on a digital display, human error associated with manual timing and misreading analog dials are eliminated. Possible handling errors as well as service information are also shown on the display.

Push a button to turn the unit on. Push the button again to select the rotor type, then begin measuring. A rotor rotating at a constant speed is immersed in the fluid to be tested; the fluid's resistance to the rotation is correlated to the fluid viscosity. Three different sized rotors are included with the meter for multiple application capabilities.

What's included: three rotors, carrying case, and four AA batteries. Model 08705-01 includes two 150-mL sample cups; model 08705-02 includes one 150-mL sample cup.



08705-02

Specifications

Temperature: up to 302°F (150°C)

Reproducibility: ±1% FSD

Rotational speed: 65.5 rpm

Measuring accuracy: standard ±5% FSD

Catalog number	Description	Range	Power	Price
WJ-08705-01	Low-range portable viscometer	1.5 to 330 cp	Four AA batteries (included)	\$3168.00
WJ-08705-02	High-range portable viscometer	30 to 400,000 cp		3168.00



EZ® Series Viscosity Cups

An easy and economical way to measure viscosity

- ±3% production tolerance

Easily measure viscosity using an EZ viscosity cup and a stopwatch. Simply fill the cup by immersing it in the test liquid. After withdrawing the cup, measure the time it takes until the first break in the liquid stream. Each cup is supplied with a conversion table to determine viscosity in centistokes (cSt) from the elapsed time.

NIST-traceable models conform to MIL STD 45662A, ANSI/NCSS 2540-1; are traceable to NIST-standard oils; and include an NIST-traceable calibration report supplied by the manufacturer.

Catalog number	Cup number	Range (cSt)	Price*
Standard models			
WJ-08700-00	1	10 to 36	\$168.50
WJ-08700-10	2	19 to 156	168.50
WJ-08700-20	3	64 to 596	168.50
WJ-08700-30	4	79 to 784	168.50
WJ-08700-40	5	161 to 1401	168.50
NIST-traceable models			
WJ-08700-02	1	10 to 36	364.00
WJ-08700-12	2	19 to 156	364.00
WJ-08700-22	3	64 to 596	364.00
WJ-08700-32	4	79 to 784	364.00
WJ-08700-42	5	161 to 1401	364.00

*Discounts: Save 10% on 5-14 cups and 15% on 15+ cups.



08700-40

Ford Dip Viscosity Cups

Feature handle for easy sample dipping—great for field testing

Take viscosity measurements of very thin paints, inks, solvents, adhesives, and coating materials of all kinds. Simply fill the cup by immersing it in the test liquid and measure the time it takes until the first break in the liquid stream. Each cup is supplied with a conversion table to determine viscosity in centistokes (cSt) from the elapsed time. Dip cups have an anodized aluminum handle for easy dipping and holding during timing. Compatible with ASTM D1200. Replaceable orifice snaps in quickly and easily—no need to replace the whole cup.

Standard Ford Dip Viscosity Cups have the same capacity as the Ford cups designed for use with a stand. Cup numbers 3 and 5 have ±3% tolerance; cup number 4 has a ±2% tolerance.

Mini Ford Dip Viscosity Cups have half the capacity as the standard cups—perfect for smaller samples. Tolerance is ±4%.



08709-00

Catalog number	Cup number	Range (cSt)	Price	Replacement orifice	
				Catalog number	Price
Standard Ford dip viscosity cups					
WJ-08709-00	3	29 to 251	\$416.00	WJ-08709-03	\$79.25
WJ-08709-01	4	34 to 441	416.00	WJ-08709-04	79.25
WJ-08709-02	5	77 to 1413	416.00	WJ-08709-05	79.25
Mini Ford dip viscosity cups					
WJ-08709-10	0	2 to 14	279.00	WJ-08709-20	79.25
WJ-08709-11	1	12 to 40	279.00	WJ-08709-21	79.25
WJ-08709-12	2	25 to 120	279.00	WJ-08709-22	79.25
WJ-08709-13	3	29 to 273	279.00	WJ-08709-03	79.25
WJ-08709-14	4	53 to 441	279.00	WJ-08709-04	79.25
WJ-08709-15	5	215 to 1413	279.00	WJ-08709-05	79.25

ADVANTEC® Laboratory Filter Papers

Manufactured to exacting standards for uniform performance

■ A wide choice of grades and sizes

A Quantitative Filter Papers

Ideal for gravimetric analysis and environmental monitoring. These papers are made of the highest quality alpha cotton cellulose with low ash content. Papers are double acid washed in hydrochloric acid followed by hydrofluoric acid (No. 3, 5A, 5B, 5C, 6), then rinsed with ultrapure water to neutralize. Paper No. 4A is further treated with nitric acid before washing. Sold in packs of 100.

B Qualitative Filter Papers

Ideal for clarifying and removing precipitates, and preparation for qualitative analysis. These papers are made of 100% alpha cotton cellulose, with 0 to 12 pH tolerance. Maximum temperature is 248°F (120°C). Sold in packs of 100.



A
Quantitative
filter papers

Specifications

Grade	Nominal rating (µm)	Thickness (mm)	Weight (g/m ²)	Flow time [†] (sec)	Absorption speed [‡] (cm)	Wet strength ^{††} (cm H ₂ O)
Quantitative filter papers						
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
Qualitative filter papers						
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

[†]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.

A Quantitative Filter Papers

Grade	Applications	5.5 cm	7.0 cm	9.0 cm	11.0 cm	12.5 cm	15.0 cm	18.5 cm
No. 3 Ashless	Medium retention (5 to 10 µm), fast flow rate analysis of soils, fertilizers, cement, and minerals	WJ-81050-56 \$26.00/pk	WJ-81050-58 \$33.25/pk	WJ-81050-60 \$38.00/pk	WJ-81050-62 \$46.00/pk	WJ-81050-64 \$64.25/pk	WJ-81050-66 \$82.75/pk	WJ-81050-68 \$120.50/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	WJ-81051-90 \$24.25/pk	WJ-81051-92 \$27.00/pk	WJ-81051-94 \$35.75/pk	WJ-81051-96 \$46.00/pk	WJ-81051-98 \$54.50/pk	WJ-81052-00 \$63.25/pk	WJ-81052-02 \$78.00/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	WJ-81050-80 \$26.00/pk	WJ-81050-82 \$33.25/pk	WJ-81050-86 \$38.00/pk	WJ-81050-88 \$46.00/pk	WJ-81050-90 \$64.25/pk	WJ-81050-92 \$82.75/pk	WJ-81051-10 \$120.50/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	WJ-81051-12 \$26.00/pk	WJ-81051-14 \$27.50/pk	WJ-81051-16 \$37.25/pk	WJ-81051-18 \$43.00/pk	WJ-81051-20 \$50.00/pk	WJ-81051-22 \$81.50/pk	WJ-81051-24 \$120.50/pk
No. 5C Ashless	Collect fine precipitates (<5 µm) such as SrSO ₄ , BaSO ₄ , HgCrO ₄ , and colloidal dispersions; gravimetric analysis	WJ-81051-42 \$24.25/pk	WJ-81051-44 \$28.75/pk	WJ-81051-46 \$38.00/pk	WJ-81051-48 \$46.00/pk	WJ-81051-50 \$64.25/pk	WJ-81051-52 \$82.75/pk	WJ-81051-54 \$120.50/pk
No. 6 Ashless	Retains medium-fine particulates (2 to 10 µm), trace and precious metals	WJ-81051-56 \$23.50/pk	WJ-81051-58 \$28.75/pk	WJ-81051-60 \$38.00/pk	WJ-81051-62 \$46.00/pk	WJ-81051-70 \$64.25/pk	WJ-81051-72 \$82.75/pk	WJ-81051-74 \$120.50/pk
No. 7 Ashless	Highest purity for retaining medium particles (5 to 10 µm), precise gravimetric analysis	WJ-81051-76 \$26.00/pk	WJ-81051-78 \$27.00/pk	WJ-81051-80 \$37.25/pk	WJ-81051-82 \$43.75/pk	WJ-81051-84 \$55.25/pk	WJ-81051-86 \$65.50/pk	WJ-81051-88 \$97.50/pk

B Qualitative Filter Papers

Grade	Applications	5.5 cm	7.0 cm	9.0 cm	11.0 cm	12.5 cm	15.0 cm	18.5 cm
No. 1	Coarse retention; retains large crystalline particles and gelatinous precipitates. Fast flow rate, smooth surface, normal hardness	WJ-81048-04 \$11.00/pk	WJ-81048-06 \$10.50/pk	WJ-81048-08 \$13.25/pk	WJ-81048-10 \$15.00/pk	WJ-81048-12 \$14.50/pk	WJ-81048-14 \$20.75/pk	WJ-81048-16 \$30.50/pk
No. 2	Medium retention; retains medium crystalline precipitates, fast flow rate, smooth surface, normal hardness	WJ-81048-34 \$11.00/pk	WJ-81048-36 \$11.50/pk	WJ-81048-38 \$12.75/pk	WJ-81048-40 \$15.00/pk	WJ-81048-42 \$20.25/pk	WJ-81048-46 \$27.00/pk	WJ-81048-48 \$38.00/pk
No. 231	Medium retention; retains crystalline precipitates, moderate flow rate, smooth surface, normal hardness	WJ-81048-64 \$15.00/pk	WJ-81048-66 \$18.00/pk	WJ-81048-68 \$20.25/pk	WJ-81048-70 \$20.75/pk	WJ-81048-72 \$20.75/pk	WJ-81048-74 \$34.00/pk	WJ-81048-80 \$47.00/pk
No. 232	Retains medium to medium-fine particulates, slow flow rate, smooth, normal hardness	WJ-81048-84 \$13.25/pk	WJ-81048-86 \$18.00/pk	WJ-81048-88 \$21.25/pk	WJ-81048-90 \$26.00/pk	WJ-81048-92 \$31.75/pk	WJ-81048-94 \$44.25/pk	WJ-81049-90 \$70.00/pk
No. 235	Highest retention efficiency, retains very fine particulates, very slow flow rate, smooth	—	WJ-81050-22 \$16.25/pk	WJ-81050-24 \$20.75/pk	WJ-81050-26 \$27.00/pk	WJ-81050-28 \$31.00/pk	WJ-81050-30 \$43.75/pk	WJ-81050-32 \$69.00/pk
No. 131	High retention efficiency for medium-fine crystalline precipitates like barium sulfate, slow flow rate, smooth surface, normal hardness	WJ-81050-04 \$12.75/pk	WJ-81050-10 \$16.25/pk	WJ-81050-12 \$20.25/pk	WJ-81050-14 \$23.50/pk	WJ-81050-16 \$29.25/pk	WJ-81050-18 \$44.25/pk	WJ-81050-20 \$56.75/pk
No. 101	Coarse retention; seed germination, retains large particles	WJ-81050-36 \$11.00/pk	WJ-81050-38 \$11.50/pk	WJ-81050-40 \$13.25/pk	WJ-81050-42 \$17.25/pk	WJ-81050-50 \$21.25/pk	WJ-81050-52 \$28.25/pk	WJ-81050-54 \$39.75/pk

Unique Products.

Exceptional Service.

Technical Support.



Fluid Handling Filtration

Highlighted items

ADVANTEC® Membranes & Holders

A Cellulose Acetate Membranes

Cellulose acetate (CA) membranes have lower binding affinities for charged macromolecules than cellulose nitrate. Retention is primarily based on precipitate size—use to separate bound and unbound proteins. Membranes also have low-swelling properties making them ideal for use with alcohol-based solutions. Membranes withstand temperatures to 356°F (180°C).

A
06645-04



B
06639-31



Pore size (µm)	Bubble point (psi)	Flow (L/min/cm ²)		13 mm (100/pk)		25 mm (100/pk)		47 mm (100/pk)		90 mm (25/pk)		142 mm (25/pk)		293 mm (25/pk)	
		H ₂ O [†]	Air	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price
0.20	>37.1	0.016	2.0	WJ-06645-00	\$97.50	WJ-06645-02	\$113.50	WJ-06645-04	\$149.00	WJ-06645-06	\$106.75	WJ-06645-08	\$212.25	WJ-36230-34	\$413.00
0.45	>25.9	0.035	4.0	WJ-06645-10	97.50	WJ-06645-12	113.50	WJ-06645-14	144.50	WJ-06645-16	106.75	WJ-06645-18	200.75	WJ-36230-66	436.00
0.80	>10.0	0.160	14.0	WJ-06645-20	97.50	WJ-06645-22	113.50	WJ-06645-24	149.00	WJ-06645-26	107.75	WJ-06645-28	212.25	WJ-36230-88	436.00
3.00	>5.0	0.500	54.0	WJ-36230-70	96.50	WJ-36230-72	103.25	WJ-36230-74	143.25	WJ-36230-76	99.75	WJ-36230-78	189.25	WJ-36230-80	436.00

[†]Using water prefiltered to 0.1 µm at 10 psi.

B Mixed Cellulose Ester Membranes

Mixed cellulose ester (MCE) membranes are made from over 90% cellulose nitrate for strength and thermostability. These membranes can be exposed to temperatures up to 266°F (130°C). Can be used for many laboratory applications including filter sterilizing biological fluids, microbiology, contamination analysis, and air monitoring.

Pore size (µm)	Bubble point (psi)	Flow (L/min/cm ²)		13 mm (100/pk)		25 mm (100/pk)		47 mm (100/pk)		90 mm (25/pk)		142 mm (25/pk)		293 mm (25/pk)	
		H ₂ O [†]	Air	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price
0.10	35.3	0.027	0.67	WJ-06639-25	\$206.50	WJ-06639-28	\$246.50	WJ-06639-31	\$321.00	WJ-06639-34	\$217.75	WJ-06639-41	\$384.00	WJ-36230-81	\$768.00
0.20	54.5	0.018	2.4	WJ-06639-01	88.25	WJ-06639-05	97.50	WJ-06639-13	137.75	WJ-06639-35	95.25	WJ-06639-17	166.25	WJ-36230-82	379.00
0.45	35.0	0.045	3.7	WJ-06639-02	88.25	WJ-06639-06	97.50	WJ-06639-14	134.25	WJ-06639-36	98.75	WJ-06639-18	166.25	WJ-36230-83	379.00
0.80	16.4	0.165	15.0	WJ-06645-30	88.25	WJ-06645-32	97.50	WJ-06645-34	137.75	WJ-06645-36	98.75	WJ-06645-38	166.25	WJ-36230-84	379.00
1.00	13.9	0.220	20.4	WJ-06639-47	88.25	WJ-06639-49	97.50	WJ-06639-51	137.75	WJ-06639-55	98.75	WJ-06639-53	166.25	WJ-36230-85	379.00
3.00	10.2	0.300	28.3	WJ-06639-26	95.25	WJ-06639-29	99.75	WJ-06639-32	143.25	WJ-06639-39	96.50	WJ-06639-42	166.25	WJ-36230-86	384.00
5.00	8.5	0.400	40.9	WJ-06639-27	96.50	WJ-06639-30	101.00	WJ-06639-33	138.75	WJ-06639-40	120.50	WJ-06639-43	172.00	WJ-36230-87	390.00

[†]Using water prefiltered to 0.1 µm at 10 psi.

C Hydrophilic PTFE Membranes

Hydrophilic PTFE membranes offer maximum chemical and pH resistance with minimal aqueous extractables (<0.3 wt%). Since the filter is optically clear when wet, it is ideally suited for culture and microscopic examination of cells/particles captured without requiring a separate step. Maximum operating temperature is 212°F (100°C). Autoclaving and allowing filter to dry will render it hydrophobic.

Pore size (µm)	Bubble point (psi)	Flow (L/min/cm ²)		13 mm (100/pk)		25 mm (100/pk)		47 mm (100/pk)		90 mm (25/pk)		142 mm (25/pk)		293 mm (10/pk)	
		H ₂ O [†]	Air	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price
0.10	55.1	0.014	1.6	WJ-36229-50	\$212.25	WJ-36229-52	\$246.50	WJ-36229-54	\$333.00	WJ-36229-56	\$240.75	WJ-36329-47	\$419.00	WJ-36329-51	\$694.00
0.20	34.8	0.021	2.1	WJ-36329-40	217.75	WJ-36329-42	246.50	WJ-36329-44	333.00	WJ-36329-46	240.75	WJ-36329-48	344.00	WJ-36329-52	694.00
0.50	20.3	0.039	2.9	WJ-36229-58	212.25	WJ-36229-60	246.50	WJ-36229-62	333.00	WJ-36229-64	240.75	WJ-36329-49	344.00	WJ-36329-53	694.00
1.00	12.0	0.073	5.7	WJ-36229-66	212.25	WJ-36229-68	264.00	WJ-36229-70	356.00	WJ-36229-72	258.00	WJ-36329-50	367.00	WJ-36329-54	740.00

[†]Using water prefiltered to 0.1 µm at 10 psi.

D Polypropylene Holders

Use these polypropylene (PP) holders for ultracleaning and sterilizing liquids under pressure, or for aseptic sampling of liquids and gases. Maximum operating temperature (liquids) is 176°F (80°C); maximum operating pressure is 42 psi (2.9 bar) for the 25-mm holder and 71 psi (4.8 bar) for the 47-mm holder.

Holders feature PP dual support screens and silicone O-rings. Dual support screens allow for flow in both directions. Assemble holders quickly and efficiently without membrane tears with the specially designed inlet cap and exterior lock.

The 25-mm holder features a female luer-lock on the inlet and a male luer-slip on the outlet. The 47-mm holder features a ¼" NPT(M) thread on the inlet and a ¼" NPT(F)-female luer-slip on the outlet. Both are autoclavable.



06623-22



06623-32

E Stainless Steel Filter Holders

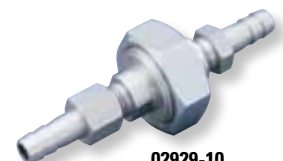
These filter holders have bodies and perforated support screens of 304 SS with PTFE gaskets and silicone O-rings. Autoclave with membrane in place.

Syringe holders have luer fittings. Maximum pressure for 13- and 25-mm syringe holders is 99 psi inlet, 42 psi differential. Maximum pressure for 25- and 47-mm in-line holders is 71 psi inlet, 29 psi differential.

In-line holders have ¼" NPT(F) and ¼" NPT(M) ports and are supplied with ⅜" hose barb connectors. All holders include two perforated 304 SS support screens. Open holders without disconnecting lines.



02928-20



02929-10

Catalog number	Type of holder	Diameter	Qty/pk	Price/pk
WJ-06623-32	Syringe	25 mm	6	\$99.75
WJ-06623-22	In-line	47 mm	1	66.50

WJ-02930-95 Support screen, 25 mm. Pack of 8 \$59.25

WJ-06645-90 Support screen, 47 mm. Pack of 4 \$26.50

Catalog number	Type of holder	Diameter	Price/ea
WJ-02928-10	Syringe	13 mm	\$ 105.50
WJ-02928-20	Syringe	25 mm	200.75
WJ-02929-10	In-line	25 mm	223.50
WJ-02929-20	In-line	47 mm	402.00



Highlighted items



A 01512-00 **B** 01513-00 **C** 01509-15 **D** 29830-00 **E** 01509-09 **F** 06479-40 **G** 01509-25

Double-Open-End Liquid Filter Cartridges

A Bonded Gradient-Density Cartridges. Ideal for removing a broad range of deformable and nondeformable particles. Rigid designs ideal for filtering high-solids, higher-viscosity fluids that require higher differential pressures. Polypropylene fiber medium is thermally bonded to a rigid core for added durability. Cartridges impart no taste, odor or color; suitable to 175°F (79°C).

Catalog number	µm rating, nominal	Flow rate [†]	Length	Price
WJ-01512-00	1	2 GPM at <2 psid	10" (25.4 cm)	\$ 10.75
WJ-01512-08	5			10.75
WJ-01512-18	10			10.50
WJ-01512-28	25			10.50
WJ-01512-38	50			10.50
WJ-01512-02	1	5 GPM at <2 psid	20" (50.8 cm)	16.75
WJ-01512-12	5			16.75
WJ-01512-22	10			16.75
WJ-01512-32	25			16.75
WJ-01512-42	50			12.25

B String-Wound Gradient-Density Cartridges. Ideal for removing a broad range of deformable and non-deformable particles such as sand, silt, sludge, rust, and scale. String-wind pattern has lower pressure drop for higher flow. Polypropylene string is resistant to chemical and bacterial attack; suitable to 150°F (66°C).

Catalog number	µm rating, nominal	Flow rate [†]	Length	Price
WJ-01513-00	5	10 GPM at <1 psid	10" (25.4 cm)	\$12.75
WJ-01513-02	30			11.00
WJ-01513-04	50			8.25

C Spun Gradient-Density Cartridges. Ideal for removing a broad range of deformable and non-deformable particles such as sand, silt, sludge, rust, and scale. Polypropylene construction is resistant to chemical and bacterial attack. One-micron and five-micron cartridges are certified to NSF Standard 42 for materials and impart no taste, odor, or color. Suitable to 145°F (63°C).

Catalog number	µm rating, nominal	Flow rate [†]	Length	Price
WJ-01509-14	1	5 GPM at 0.6 psid	10" (25.4 cm)	\$ 9.25/ea
WJ-01509-15	5	5 GPM at 0.2 psid		9.25/pk of 2
WJ-01509-37	1	10 GPM at 0.6 psid	20" (50.8 cm)	12.25/ea
WJ-01509-40	5	10 GPM at 0.6 psid		10.75/ea
WJ-01509-41	25	10 GPM at 0.2 psid		13.75/ea

D High-Efficiency Pleated Filter Cartridges. The pleated polypropylene (PP) design offers flow rates and dirt-loading capacities higher than spun or wound depth cartridges. Biologically safe and designed to meet FDA requirements for regulated industries. All-PP construction provides broad chemical compatibility. The gradient density microfiber media provides removal of a broader range of particle sizes than typical pleated filters. Suitable to 122°F (50°C).

Catalog number	µm rating, nominal	Flow rate [†]	Length	Price
WJ-29830-00	0.2	2 GPM at 1 psid	10" (25.4 cm)	\$ 107.75
WJ-29830-01		2 GPM at <1 psid	20" (50.8 cm)	211.00

[†]psid refers to pounds per square inch pressure drop through the filter system.

For optimal performance, change cartridges at 25 psid.

[‡]To use with aqueous solutions, prewet with methanol, then rinse with water before use.

^{††}Pore sizes for polypropylene cartridges are nominal.

^{†††}Filtration efficiency and chlorine reduction efficiency are reduced at higher flow rates; chlorine capacity based on 75% reduction using 2 ppm free chlorine feed concentration at 68°F (20°C).

E Extra-Strength Pleated Cellulose Cartridges. This cellulose cartridge is blended with polyester for better wet strength. The polyester material allows more pleats to improve flow and dirt loading. Suitable to 165°F (74°C).

Catalog number	µm rating, nominal	Flow rate [†]	Length	Price
WJ-01509-11	1	15 GPM at <1 psid	10" (25.4 cm)	\$8.25
WJ-01509-09	5			7.75

F Filter Cartridges for Ultrapure Applications. These cartridges are autoclavable to 250°F (121°C) and in-line sterilizable to 257°F (125°C) for up to 30-minute cycles. They are tolerant to an accumulated exposure of 10 hours. The filters may also be sanitized with compatible chemical agents. All cartridges are suitable to 180°F (82°C) at 10 psid.

The cartridges comply with U.S. CFR Title 21 guidelines for repeated food contact, comply with USP Class VI, 121°C Plastics guidelines, and pass the MEM Elution Cytotoxicity Test. Aqueous extracts contain less than 0.25 EU/mL.

Multi-Layer Nylon Cartridges. These consist of two pleated nylon membranes with the top acting as a prefilter to increase cartridge life and efficiency.

Glass Microfiber Cartridges. Made of resin-bonded borosilicate glass microfibers that do not leach flavor-altering substances. Meet NSF Standard 53 for the reduction of cysts. Ideal as prefilters to protect membrane filter/RO systems.

Polypropylene (PP) Cartridges. Thermally bonded high-purity PP fiber. Economical for a chemically inert media with high dirt-loading capacity. Suitable for air/gas filtration; FDA-acceptable. Hydrophobic; prewet before liquid filtration.[‡]

Pleated PTFE Cartridges. Clean room-constructed using thermal welding instead of adhesives or additives. Ideal for the more aggressive liquid or air/gas filtration applications. Hydrophobic; prewet before liquid filtration.[‡]

Semiconductor Cartridges. Single-layer PES membrane over PP core. Each is flushed with high-purity water to leach less than 5 ppb TOC and less than 5 ppb trace metals. Ideal for any high-purity chemical or DI water application.

Catalog number	Cartridge type	µm rating ^{††}	Length	Price
WJ-06479-16	Serial nylon	0.2	10" (25.4 cm)	\$154.75
WJ-06479-20		0.45		145.75
WJ-06479-24	Glass fiber	3.0	10" (25.4 cm)	90.75
WJ-06479-32	Polypropylene	1.0	10" (25.4 cm)	88.25
WJ-06479-36		3.0		79.25
WJ-06479-40	Polypropylene	5	10" (25.4 cm)	72.25
WJ-06479-44		10		58.50
WJ-06479-48	PTFE	0.1	10" (25.4 cm)	316.00
WJ-06479-52		0.2		277.00
WJ-06479-60	Semiconductor	0.2	10" (25.4 cm)	154.75

G Economical Carbon-Impregnated Cartridges. These cellulose cartridges remove organic tastes/odors and chlorine, plus reduce sediment. Best suited for chemically neutral waters with lower chlorine concentrations. The 10" cartridge can treat approximately 2500 gallons at 1 GPM for chlorine^{†††}. The 10" cartridge meets NSF Standard 42 for materials. Suitable to 125°F (52°C).

Catalog number	µm rating, nominal	Flow rate ^{††}	Length	Price
WJ-01509-25	5	5 GPM at 4.0 psid	10" (25.4 cm)	\$36.75
WJ-01509-27		5 GPM at 1.0 psid	20" (50.8 cm)	22.00



Fluid Handling Filtration

Highlighted items

Cole-Parmer Low-Cost In-Line Strainer Systems

Assemble your own economical filtration system to filter out particulates from your fluids. Available in three classes: low-profile, intermediate, and large. Modify or change components of the same class to meet the demands of your application.

Low-Profile Strainers are ideal for small-scale low-volume filtration. Use in research applications, cleaning equipment, and laboratory equipment.

Intermediate Strainers feature a large filtering area in a compact size. Perfect for commercial and industrial pumps and agricultural and marine applications.

Large Strainers are primarily used in industrial and commercial industries. They feature increased flow rate and large filtration area.

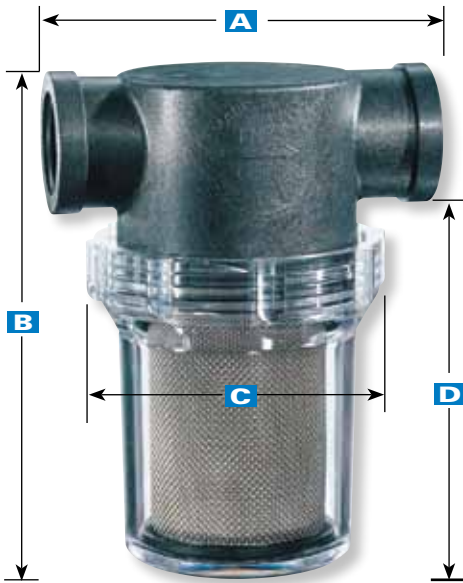
Required System Components

Order four components from the same class:

- 1 Strainer top
- 2 Strainer mesh
- 3 Strainer bottom
- 4 Gasket

How to order a strainer...

- Use the flow rate chart to pick the correct strainer top for your application.
- Pick the wire screen based on the mesh size you require.
- Choose the appropriate strainer bottom, either in polypropylene or in nylon.
- Pick the appropriate gasket, either EPDM or Viton.



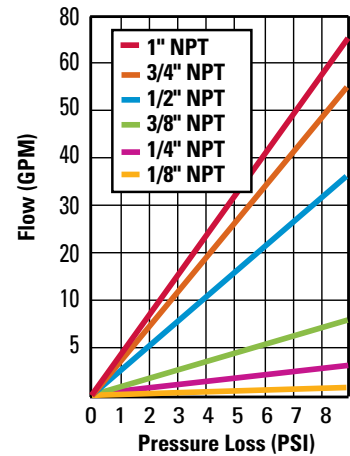
This large system includes: strainer 29595-17, mesh 29595-57, strainer bottom 29595-79, and gasket 29595-89



This low-profile system includes: strainer 29595-07, mesh 29595-41, strainer bottom 29595-63, and gasket 29595-81



This intermediate system includes: strainer 29595-13, mesh 29595-43, strainer bottom 29595-67, and gasket 29595-85



Note 1: Graph outlines the approximate pressure loss for a given flow.

Note 2: All in-line strainer systems are rated up to 150 psi at 70°F and 100 psi at 125°F.

Note 3: Systems are not intended for applications where pressure spikes in excess of maximum pressure ratings can be expected.

1 Polypropylene Strainer Tops

Catalog number	Connection type	Dimensions [†]				Filter area	Price
		A	B	C	D		
Low-profile strainers							
WJ-29595-01	1/8" NPT(F)	3.00"	2.67"	1.89"	2.00"	3.95 in ²	\$ 11.50
WJ-29595-03	1/4" NPT(F)						12.50
WJ-29595-05	3/8" NPT(F)						12.50
WJ-29595-07	1/4" hose barb	3.00"	2.67"	1.89"	2.00"	3.95 in ²	12.50
WJ-29595-09	1/4" John Guest® quick-disconnect	3.00"	2.67"	1.89"	2.00"	3.95 in ²	32.75
WJ-29595-11	3/8" John Guest quick-disconnect						31.00
Intermediate strainers							
WJ-29595-13	1/2" NPT(F)	3.58"	5.38"	2.90"	4.70"	17.33 in ²	19.25
WJ-29595-15	3/4" NPT(F)						19.25
Large strainer							
WJ-29595-17	1" NPT(F)	4.95"	6.40"	4.00"	5.55"	29.73 in ²	56.25

[†]Dimensions are for reference only.

2 304 SS Strainer Mesh

Catalog number	Mesh size	Micron nominal	Price
Low-profile mesh			
WJ-29595-31	20 x 20	915	\$ 8.25
WJ-29595-33	40 x 36	480	8.25
WJ-29595-35	80 x 80	178	8.25
WJ-29595-39	50 x 250	60	14.75
WJ-29595-41	165 x 800	15	24.25
Intermediate mesh			
WJ-29595-43	20 x 20	915	14.75
WJ-29595-45	40 x 35	480	14.75
WJ-29595-47	80 x 80	178	14.75
Large mesh for large strainer only			
WJ-29595-49	20 x 20	915	19.00
WJ-29595-51	40 x 36	480	19.00
WJ-29595-53	80 x 80	178	24.25
WJ-29595-55	24 x 110	80	27.50
WJ-29595-57	50 x 250	60	46.50

3 Strainer Bottoms

Description	Black polypropylene		Clear nylon	
	Cat. no.	Price	Cat. no.	Price
Low-profile strainer bottoms	WJ-29595-61	\$ 11.00	WJ-29595-63	\$19.00
Intermediate strainer bottoms	WJ-29595-67	20.75	WJ-29595-71	22.00
Large strainer bottoms	WJ-29595-73	22.50	WJ-29595-79	42.50

4 Gaskets seal strainer housing top to strainer housing bottom

Description	EPDM		Viton®	
	Cat. no.	Price	Cat. no.	Price
Low-profile strainer gasket	WJ-29595-81	\$3.50	WJ-29595-83	\$ 4.50
Intermediate strainer bottoms	WJ-29595-85	3.75	WJ-29595-87	10.25
Large strainer gaskets	WJ-29595-89	4.75	WJ-29595-91	15.00

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SAVE MORE**

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Fluid Handling Tubing

Highlighted items

Cole-Parmer Silicone Tubing

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); meets USP Class VI; exceeds 3A Sanitary Standards. Tubing is manufactured according to GMP.

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

Sterilize: Autoclave or gamma irradiation.

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	WJ-06411-59	\$ 36.25	WJ-95802-00	\$ 41.50
1/32 (0.8)	3/32 (2.4)	1/32 (0.8)	31	WJ-06411-60	36.25	WJ-95802-01	41.50
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	15	WJ-06411-62	26.50	WJ-95802-02	30.50
3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	14	WJ-06411-63	33.25	WJ-95802-03	42.50
1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	10	WJ-06411-64	42.00	WJ-95802-04	46.00
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	21	WJ-06411-67	58.50	WJ-95802-05	46.00
1/8 (3.2)	3/8 (9.6)	1/8 (3.2)	25	WJ-06411-68	85.00	WJ-95802-06	110.25
3/32 (4.0)	7/32 (4.0)	1/32 (0.8)	10	WJ-06411-65	40.75	WJ-95802-07	49.50
3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	9	WJ-06411-66	44.75	WJ-95802-08	55.25
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	13	WJ-06411-03	56.25	WJ-95802-09	56.25
3/16 (4.8)	7/16 (11.2)	1/8 (3.2)	22	WJ-06411-69	115.75	WJ-95802-10	121.50
1/4 (6.4)	5/16 (8.0)	1/32 (0.8)	8	WJ-06411-70	58.50	WJ-95802-11	72.25
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	12	WJ-06411-71	60.75	WJ-95802-12	65.50
1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	17	WJ-06411-72	82.75	WJ-95802-13	90.75
1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	17	WJ-06411-74	115.75	WJ-95802-14	133.00
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	10	WJ-06411-75	66.50	WJ-95802-15	94.00
5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	16	WJ-06411-76	102.00	WJ-95802-16	114.75
5/16 (8.0)	9/16 (14.4)	1/8 (3.2)	20	WJ-06411-77	145.75	WJ-95802-17	145.75
3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	10	WJ-06411-12	73.50	WJ-95802-18	87.25
3/8 (9.6)	9/16 (14.4)	3/32 (2.4)	12	WJ-06411-78	112.50	WJ-95802-19	128.50
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	14	WJ-06411-79	148.00	WJ-95802-20	158.25
1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	8	WJ-06411-80	113.50	WJ-95802-21	126.25
1/2 (12.8)	11/16 (17.6)	3/32 (2.4)	10	WJ-06411-19	127.25	WJ-95802-22	145.75
1/2 (12.8)	3/4 (19.2)	1/8 (3.2)	12	WJ-06411-55	165.25	WJ-95802-23	198.50
5/8 (16.0)	13/16 (20.8)	3/32 (2.4)	10	WJ-06411-82	179.00	WJ-95802-24	213.25
5/8 (16.0)	7/8 (22.4)	1/8 (3.2)	12	WJ-06411-58	185.75	WJ-95802-25	219.00
3/4 (19.2)	1 (25.4)	1/8 (3.2)	9	WJ-06411-83	247.75	WJ-95802-26	281.00

Cole-Parmer Peroxide-Cured Reinforced Silicone Tubing



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.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/pk
	ID	OD	Wall		
WJ-95623-00	1/16 (1.8)	5/16 (8.0)	1/8 (3.2)	175	\$ 215.50/25-ft
WJ-95623-01	1/8 (3.2)	3/8 (9.6)	1/8 (3.2)	175	383.00/25-ft
WJ-95623-03	1/4 (6.4)	9/16 (14.4)	5/32 (4.0)	155	498.00/25-ft
WJ-95623-04	5/16 (8.0)	19/32 (15.1)	9/64 (3.6)	145	587.00/25-ft
WJ-95623-05	3/8 (9.6)	11/16 (17.6)	5/32 (4.0)	138	615.00/25-ft
WJ-95623-06	1/2 (12.8)	13/16 (20.8)	5/32 (4.0)	125	918.00/25-ft
WJ-95623-08	3/4 (19.1)	1 1/8 (28.6)	3/16 (4.8)	57	1149.00/25-ft
WJ-95623-09	7/8 (22.2)	1 1/4 (31.8)	3/16 (4.8)	119	1266.00/25-ft
WJ-95623-10	1 (25.4)	1 3/8 (35.0)	3/16 (4.8)	113	514.00/10-ft

Cole-Parmer Platinum-Cured Reinforced Silicone Tubing



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.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/pk
	ID	OD	Wall		
WJ-95703-00	3/16 (4.8)	7/16 (11.2)	1/8 (3.2)	312	\$ 967.00/50-ft
WJ-95703-01	1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	248	1022.00/50-ft
WJ-95703-02	3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	180	1239.00/50-ft
WJ-95703-03	1/2 (12.8)	13/16 (20.8)	5/32 (4.0)	168	1505.00/50-ft
WJ-95703-04	5/8 (16.0)	15/16 (24.0)	5/32 (4.0)	144	2020.00/50-ft
WJ-95703-05	3/4 (19.1)	1 1/8 (28.6)	3/16 (4.8)	144	2302.00/50-ft
WJ-95703-07	1 1/4 (31.8)	1 5/8 (41.4)	3/16 (4.8)	96	1595.00/25-ft

FREE Certificates 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 “certification ribbon” throughout this catalog to identify when a certificate of compliance is available.



Unique Products.

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Fluid Handling Tubing

Highlighted items

Tygon® BioPharm Silicone Tubing



See page 57.

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.

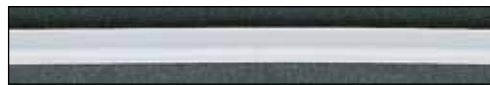
Certifications: Elastomer is FDA-compliant (21 CFR 177.2600) and meets USP Class VI requirements, and NSF criteria. Tubing is manufactured according to GMP.

Temperature range: -112 to 392°F (-80 to 200°C)

Sterilize: Ethylene oxide, gamma irradiation, or autoclave for 30 min, 15 psi.

Catalog number	Dimensions: in. (mm)			Max psi at 73°F (23°C)	Price/50-ft pk
	ID	OD	Wall		
WJ-95702-00	1/32 (0.8)	3/32 (2.4)	1/32 (0.8)	16	\$ 82.75
WJ-95702-01	1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	10	87.25
WJ-95702-02	1/16 (1.6)	3/16 (4.8)	1/16 (1.6)	15	113.50
WJ-95702-03	3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	7	91.75
WJ-95702-04	3/32 (2.4)	7/32 (5.6)	1/16 (1.6)	12	132.00
WJ-95702-05	1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	7	97.50
WJ-95702-06	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	9	144.50
WJ-95702-08	3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	5	122.75
WJ-95702-09	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	7	184.75
WJ-95702-10	3/16 (4.8)	3/8 (9.6)	3/32 (2.4)	9	266.00
WJ-95702-13	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	5	198.50
WJ-95702-14	1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	7	308.00
WJ-95702-16	5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	5	261.00
WJ-95702-17	5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	6	356.00
WJ-95702-18	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	4	280.00
WJ-95702-20	3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	7	512.00

Silastic® Laboratory Tubing



See page 57.

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.

Catalog number	Dimensions: in. (mm)			Price/50-ft pk
	ID	OD	Wall	
WJ-96115-00	0.012 (0.3)	0.025 (0.6)	0.0065 (0.2)	\$ 57.50
WJ-96115-02	0.02 (0.5)	0.037 (0.9)	0.0085 (0.22)	57.50
WJ-96115-04	0.025 (0.6)	0.047 (1.2)	0.011 (0.3)	58.50
WJ-96115-06	0.03 (0.8)	0.065 (1.7)	0.0175 (0.4)	62.00
WJ-96115-08	0.04 (1)	0.085 (2.2)	0.0225 (0.6)	67.75
WJ-96115-10	0.058 (1.5)	0.077 (2.0)	0.0095 (0.2)	63.25
WJ-96115-12	0.062 (1.6)	0.095 (2.4)	0.0165 (0.4)	62.00
WJ-96115-14	0.062 (1.6)	0.125 (3.2)	0.0315 (0.8)	69.00
WJ-96115-16	0.078 (2)	0.125 (3.2)	0.0235 (0.6)	66.50
WJ-96115-18	0.104 (2.6)	0.192 (4.9)	0.044 (1.1)	73.50
WJ-96115-20	0.132 (3.4)	0.183 (4.6)	0.0255 (0.6)	65.50
WJ-96115-22	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	87.25
WJ-96115-24	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	98.75
WJ-96115-26	3/16 (4.8)	3/8 (9.5)	3/32 (2.4)	120.50
WJ-96115-28	1/4 (6.4)	3/8 (9.5)	1/16 (1.6)	98.75
WJ-96115-30	1/4 (6.4)	9/16 (11.1)	3/32 (2.4)	154.75
WJ-96115-32	1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	209.75
WJ-96115-34	5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	180.00
WJ-96115-36	3/8 (9.5)	1/2 (12.8)	1/16 (1.6)	143.25
WJ-96115-38	3/8 (9.5)	9/16 (14.3)	3/32 (2.4)	209.75
WJ-96115-40	3/8 (9.5)	5/8 (15.9)	1/8 (3.2)	310.00
WJ-96115-42	1/2 (12.8)	11/16 (17.5)	3/32 (2.4)	247.75
WJ-96115-44	1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	340.00
WJ-96115-46	5/8 (15.9)	7/8 (22.2)	1/8 (3.2)	433.00

Tygon® Microbore Autoanalysis Tubing

Formulation: Tygon S-54-HL

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: Resin meets USP Class VI requirements.

Temperature range: -25 to 185°F (-31 to 85°C)

Sterilize: Autoclave, ethylene oxide, or gamma irradiation.



See page 57.

Catalog number	Dimensions: in. (mm)			Fits needle gauge	Price/100 ft
	ID	OD	Wall		
WJ-06418-01	0.010 (0.25)	0.030 (0.76)	0.010 (0.25)	30	\$48.75
WJ-06418-02	0.020 (0.51)	0.060 (1.52)	0.020 (0.51)	25	53.50
WJ-06418-03	0.030 (0.76)	0.090 (2.29)	0.030 (0.76)	20 to 21	57.50
WJ-06418-04	0.040 (1.02)	0.070 (1.78)	0.015 (0.38)	18 to 19	62.00
WJ-06418-05	0.050 (1.27)	0.090 (2.29)	0.020 (0.51)	17 to 18	63.25

WJ-06418-10 Tygon® microbore tubing assortment pack. One 100-ft (30.4-m) roll each of 06418-01, -02, -03, -04, and -05 (500-ft [152.4-m] total) \$285.00



NEW

Flexible PVC Reinforced Tubing



See page 57.

Applications: High-pressure use, food processing, and beverage handling.

Characteristics: Good acid/alkali resistance and aging characteristics. White polyester yarn with orange tracer yarn embedded in a transparent PVC wall.

Certifications: Resin is FDA-compliant (21 CFR 170.199) and meets USDA requirements. NSF-listed (standard 51) with 3A Sanitary Standards for dairy.

Temperature range: -5 to 180°F (-21 to 82°C)

Sterilize: Ethylene oxide.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/50-ft pk
	ID	OD	Wall		
WJ-06602-00	3/16 (4.8)	3/8 (9.6)	3/32 (2.4)	250	\$ 52.75
WJ-06602-01	1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	250	63.25
WJ-06602-02	3/8 (9.6)	9/16 (14.3)	3/32 (2.4)	225	78.00
WJ-06602-03	1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	200	90.75
WJ-06602-04	5/8 (16.0)	29/32 (23.2)	9/64 (3.6)	200	112.50
WJ-06602-05	3/4 (19.1)	11/32 (26.2)	1/8 (3.2)	150	120.50
WJ-06602-06	1 (25.4)	15/16 (33.4)	5/32 (3.8)	125	141.00
WJ-06602-07	1 1/4 (31.8)	1 5/8 (41.3)	3/16 (4.8)	100	287.00
WJ-06602-08	1 1/2 (38.1)	1 15/16 (49.2)	3/16 (4.8)	100	324.00
WJ-06602-09	2 (50.8)	2 1/2 (63.6)	1/4 (6.4)	75	579.00

Tygon® Vacuum Tubing

Formulation: Tygon R-3603 vacuum

Applications: Vacuum service— withstands 29.9" Hg at 75°F (24°C)

Characteristics: Heavy wall, nontoxic, nonoxidizing; transparent.

Certifications: Tubing is manufactured according to GMP.

Temperature range: -58 to 165°F (-50 to 74°C)

Sterilize: With ethylene oxide or autoclave for 30 minutes at 250°F, 15 psi.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/10-ft pk
	ID	OD	Wall		
WJ-06413-10	3/16 (4.8)	9/16 (14.4)	3/16 (4.8)	61	\$ 72.25
WJ-06413-20	1/4 (6.4)	5/8 (16.0)	3/16 (4.8)	49	78.00
WJ-06413-30	3/8 (9.6)	7/8 (22.4)	1/4 (6.4)	47	126.25
WJ-06413-40	1/2 (12.8)	1 1/8 (28.6)	5/16 (8.0)	45	160.50
WJ-06413-50	5/8 (16.0)	1 3/8 (35.0)	3/8 (4.8)	45	239.75
WJ-06413-70	1 (25.4)	2 (50.8)	1/2 (6.4)	42	423.00

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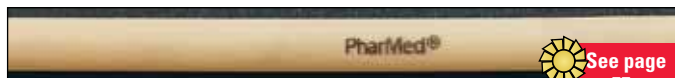
Mix and match packs of any items
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Fluid Handling Tubing

Highlighted items

PharMed® BPT Tubing



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. Tubing is manufactured according to GMP.

Temperature range: -75 to 275°F (-59 to 135°C)

Sterilize: Autoclave, ethylene oxide, or gamma irradiation.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/25-ft pk
	ID	OD	Wall		
WJ-96880-00	1/50 (0.5)	3/64 (3.7)	1/16 (1.6)	50	\$ 71.25
WJ-96880-02	1/32 (0.8)	5/32 (4.0)	1/16 (1.6)	40	85.00
WJ-96880-04	1/16 (1.6)	3/16 (4.8)	1/16 (1.6)	34	109.00
WJ-96880-06	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	19	107.75
WJ-96880-08	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	13	112.50
WJ-96880-10	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	10	130.75
WJ-96880-12	1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	19	236.25
WJ-96880-14	5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	8	136.50
WJ-96880-16	3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	13	220.25
WJ-96880-18	1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	11	271.00
WJ-96880-20	5/8 (16.0)	7/8 (22.4)	1/8 (3.2)	8	314.00
WJ-96880-22	3/4 (19.1)	1 (25.4)	1/8 (3.2)	7	438.00

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Tygon® Lab Tubing



Formulation: Tygon R-3603

Applications: General laboratory use.

Characteristics: Long life, will not age or oxidize, fits tightly to glass and metal, bends to small radius curves, nontoxic. Transparent.

Certifications: FDA-compliant (21 CFR 175.300). Made according to GMP.

Temperature range: -58 to 165°F (-50 to 74°C)

Sterilize: Ethylene oxide or autoclave for 30 min at 250°F (121°C), 15 psi. After autoclaving, dry at no more than 150°F (66°C) for 2 to 2 1/2 hours.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/50-ft pk
	ID	OD	Wall		
WJ-06408-60	1/32 (0.8)	3/32 (2.4)	1/32 (0.8)	52	\$ 17.50
WJ-06408-62	1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	49	23.50
WJ-06408-66	1/16 (1.6)	3/16 (4.8)	1/16 (1.6)	75	50.50
WJ-06408-63	3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	40	29.25
WJ-06408-64	1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	31	35.75
WJ-06408-47	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	43	80.25
WJ-06408-65	5/32 (4.0)	7/32 (5.6)	1/32 (0.8)	25	39.75
WJ-06408-66	3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	24	45.50
WJ-06408-03	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	32	91.75
WJ-06408-49	1/4 (6.4)	5/16 (8.0)	1/32 (0.8)	19	49.50
WJ-06408-50	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	25	166.25
WJ-06408-72	1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	34	206.50
WJ-06408-51	1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	43	264.00
WJ-06408-52	5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	21	146.75
WJ-06408-53	5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	29	181.25
WJ-06408-54	5/16 (8.0)	9/16 (14.4)	1/8 (3.2)	36	220.25
WJ-06408-12	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	18	149.00
WJ-06408-55	3/8 (9.6)	5/8 (14.4)	3/32 (2.4)	25	181.25
WJ-06408-56	3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	32	310.00
WJ-06408-18	1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	14	170.75
WJ-06408-57	1/2 (12.8)	1 1/16 (17.6)	3/32 (2.4)	20	228.25
WJ-06408-74	1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	25	367.00
WJ-06408-25	5/8 (16.0)	1 3/16 (20.8)	3/32 (2.4)	17	272.00
WJ-06408-58	5/8 (16.0)	7/8 (22.4)	1/8 (3.2)	21	361.00
WJ-06408-31	3/4 (19.1)	1 (25.4)	1/8 (3.2)	18	396.00
WJ-06408-36	1 (25.4)	1 1/4 (31.8)	1/8 (3.2)	14	499.00
WJ-06408-59	1 (25.4)	1 3/8 (35.0)	3/16 (4.8)	19	791.00

C-FLEX® Tubing

- Available in three formulations—standard, clear, and animal-derived component-free (ADCF)
- All formulations are heat-sealable and -bondable

Applications: General-purpose lab uses requiring high performance and long life.

Characteristics: Exceptional tensile and tear strength, good biocompatibility, excellent chemical resistance, low gas permeability, and a smooth surface. standard C-FLEX is opaque white; C-FLEX Clear and C-FLEX ADCF are clear.



Certifications: Resin is FDA-compliant (21 CFR 177.1810); meets USP Class VI and USDA requirements. Tubing is manufactured according to GMP.

Temperature range: C-FLEX and C-FLEX Clear: -100 to 275°F (-73 to 135°C); C-FLEX ADCF: -88 to 275°F (-67 to 135°C)

Sterilize: Autoclave, ethylene oxide, or gamma irradiation.

Dimensions in. (mm)			C-FLEX			C-FLEX Clear			C-FLEX ADCF		
ID	OD	Wall	Catalog number	Max psi at 70°F (21°C)	Price/25-ft pk	Catalog number	Max psi at 70°F (21°C)	Price/25-ft pk	Catalog number	Max psi at 70°F (21°C)	Price/50-ft pk
1/50 (0.5)	1/2 (2.1)	1/32 (0.8)	WJ-06424-59	30	\$ 25.25	WJ-06422-00	50	\$ 25.25	—	—	—
1/32 (0.8)	3/32 (2.4)	1/32 (0.8)	WJ-06424-60	31	20.25	WJ-06422-01	51	20.25	—	—	—
1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	WJ-06424-62	15	24.25	WJ-06422-02	25	21.25	—	—	—
3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	WJ-06424-63	14	27.00	WJ-06422-03	23	28.25	—	—	—
1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	WJ-06424-64	10	28.25	WJ-06422-04	17	29.25	—	—	—
1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	WJ-06424-67	21	31.00	WJ-06422-05	35	34.50	WJ-06432-50	35	\$ 70.00
5/32 (4.0)	7/32 (5.6)	1/32 (0.8)	WJ-06424-65	10	28.25	WJ-06422-06	17	33.25	—	—	—
3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	WJ-06424-66	9	28.25	WJ-06422-07	15	33.25	—	—	—
3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	WJ-06424-03	13	39.75	WJ-06422-08	22	42.00	WJ-06432-51	22	70.00
3/16 (4.8)	7/16 (11.2)	1/8 (3.2)	WJ-06424-69	22	88.25	WJ-06422-09	36	75.25	—	—	—
1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	WJ-06424-71	12	47.75	WJ-06422-10	20	46.00	WJ-06432-53	20	80.25
1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	WJ-06424-72	17	62.00	WJ-06422-11	28	69.00	WJ-06432-54	28	132.00
1/4 (6.4)	1/2 (12.7)	1/8 (3.2)	WJ-06424-74	17	81.50	WJ-06422-12	28	81.50	WJ-06432-55	28	165.25
5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	WJ-06424-75	10	50.50	WJ-06422-13	17	58.50	—	—	—
5/16 (8.0)	1/2 (12.7)	3/32 (2.4)	WJ-06424-76	16	69.00	WJ-06422-14	27	73.50	WJ-06432-56	27	154.75
3/8 (9.6)	1/2 (12.7)	1/16 (1.6)	WJ-06424-12	10	54.50	WJ-06422-15	17	62.00	WJ-06432-57	17	142.25
3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	WJ-06424-79	14	90.75	WJ-06422-16	23	105.50	WJ-06432-59	23	231.50
1/2 (12.7)	1 1/16 (17.6)	3/32 (2.4)	WJ-06424-19	10	105.50	WJ-06422-17	17	96.50	WJ-06432-60	17	226.00
1/2 (12.7)	3/4 (19.1)	1/8 (3.2)	WJ-06424-81	10	127.25	WJ-06422-18	17	149.00	WJ-06432-61	17	297.00

Unique Products.

Exceptional Service.

Technical Support.



Fluid Handling

Tubing

Highlighted items



PTFE Microbore Tubing

Use this translucent tubing in extreme temperatures and in harsh chemical environments. It's chemically inert, has low permeability, and has the lowest friction coefficient of any tubing. Temperature range is -400 to 500°F (-240 to 260°C); melts at 620°F (327°C). Tensile strength is 2500 to 4000 psi. PTFE tubing resin is UL-recognized and complies with FDA (21 CFR 177.1550) and USP Class VI requirements.



See page 57.

Catalog number	Dimensions			Fits needle gauge	Price/100 ft
	ID	OD	Wall		
Ultramicrobore PTFE tubing (finer than a human hair)					
WJ-06417-70	0.002"	0.014"	0.006"	44	\$237.25
WJ-06417-72	0.004"	0.016"	0.006"	38	246.50
WJ-06417-74	0.006"	0.016"	0.005"	34	245.25
WJ-06417-76	0.008"	0.016"	0.004"	33	238.50
Microbore PTFE tubing					
WJ-06417-11	0.012"	0.030"	0.009"	30	20.25
WJ-06417-21	0.022"	0.042"	0.010"	24	24.75
WJ-06417-31	0.032"	0.056"	0.012"	21	38.50
WJ-06417-41	0.042"	0.066"	0.012"	18	34.50
WJ-06417-51	0.052"	0.076"	0.012"	16	45.50

WJ-06417-60 Microbore tubing assortment pack. One 100-ft (30.4-m) roll each of 06417-11, -21, -31, -41, and -51 (500-ft [152.4-m] total)... \$113.50

Cole-Parmer PTFE Tubing



See page 57.

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); meets USP Class VI requirements. Tubing is manufactured according to GMP.

Temperature range: -400 to 500°F (-240 to 260°C)
Sterilize: Autoclave, ethylene oxide, or use dry heat.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/25-ft pk
	ID	OD	Wall		
WJ-06407-41	1/32 (0.8)	1/16 (1.6)	1/64 (0.4)	370	\$ 20.75
WJ-06605-27	1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	370	44.75
WJ-06605-28	3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	294	58.50
WJ-06605-29	1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	240	69.00
WJ-06605-30	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	375	115.75
WJ-06605-31	5/32 (4.0)	1/4 (6.4)	3/64 (1.2)	274	104.50
WJ-06605-32	3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	175	87.25
WJ-06605-33	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	294	165.25
WJ-06605-34	1/4 (6.4)	5/8 (16.0)	1/32 (0.8)	137	79.25
WJ-06605-35	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	240	239.75
WJ-06605-36	19/64 (7.5)	3/8 (9.6)	1/25 (1.0)	143	182.25
WJ-06605-37	5/16 (8.0)	3/8 (9.6)	1/32 (0.8)	113	102.00
WJ-06605-38	5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	203	335.00
WJ-06605-39	3/8 (9.6)	7/16 (11.2)	1/32 (0.8)	96	124.00
WJ-06605-40	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	175	378.00
WJ-06605-41	3/8 (9.6)	1/2 (12.8)	1/20 (1.4)	137	239.75
WJ-06605-42	7/16 (11.2)	1/2 (12.8)	1/32 (0.8)	83	137.75
WJ-06605-43	7/16 (11.2)	9/16 (14.3)	1/16 (1.6)	154	430.00
WJ-06605-44	1/2 (12.8)	5/8 (16.0)	1/32 (0.8)	73	175.50
WJ-06605-45	1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	137	489.00
WJ-06605-46	9/16 (14.3)	5/8 (16.0)	1/32 (0.8)	66	183.50
WJ-06605-47	9/16 (14.3)	11/16 (17.5)	1/16 (1.6)	124	532.00
WJ-06605-48	5/8 (16.0)	11/16 (17.5)	1/32 (0.8)	59	211.00
WJ-06605-49	5/8 (16.0)	3/4 (19.2)	1/16 (1.6)	113	666.00
WJ-06605-50	11/16 (17.5)	3/4 (19.2)	1/32 (0.8)	54	251.00
WJ-06605-51	3/4 (19.2)	7/8 (22.2)	1/16 (1.6)	96	758.00

Norprene® Tubing



See page 57.

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: -60 to 135°C

Sterilize: Autoclave.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/50-ft pk
	ID	OD	Wall		
WJ-06410-01	1/16 (1.6)	3/16 (4.8)	1/16 (1.6)	34	\$ 40.75
WJ-06410-02	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	19	42.00
WJ-06410-03	1/8 (3.2)	3/8 (9.6)	1/8 (3.2)	34	81.50
WJ-06410-04	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	13	46.00
WJ-06410-05	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	10	51.75
WJ-06410-06	1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	15	83.75
WJ-06410-07	1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	19	122.75
WJ-06410-08	5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	8	65.50
WJ-06410-09	5/16 (8.0)	1/2 (12.8)	3/32 (2.4)	12	98.75
WJ-06410-10	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	7	72.25
WJ-06410-11	3/8 (9.6)	9/16 (14.4)	3/32 (2.4)	10	119.25
WJ-06410-12	3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	13	162.75
WJ-06410-13	7/16 (11.2)	9/16 (14.4)	1/16 (1.6)	6	135.25
WJ-06410-14	1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	6	106.75
WJ-06410-15	1/2 (12.8)	11/16 (17.6)	3/32 (2.4)	8	159.50
WJ-06410-16	5/8 (16.0)	13/16 (20.8)	3/32 (2.4)	7	227.00
WJ-06410-17	5/8 (16.0)	7/8 (22.4)	1/8 (3.2)	8	244.25
WJ-06410-18	3/4 (19.1)	1 (25.4)	1/8 (3.2)	7	281.00
WJ-06410-19	1 (25.4)	1 1/4 (31.8)	1/8 (3.2)	6	363.00

Cole-Parmer Vinyl Tubing



See page 57.

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.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/pk
	ID	OD	Wall		
WJ-06405-01	1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	40	\$ 13.75/50-ft
WJ-06405-02	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	59	15.50/50-ft
WJ-06405-03	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	51	17.50/50-ft
WJ-06405-04	3/16 (4.8)	7/16 (11.2)	1/8 (3.2)	46	80.25/100-ft
WJ-06405-06	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	51	20.75/50-ft
WJ-06405-07	1/4 (6.4)	7/16 (11.2)	3/32 (2.4)	55	67.75/100-ft
WJ-06405-08	1/4 (6.4)	1/2 (12.8)	1/8 (3.2)	64	66.50/50-ft
WJ-06405-09	5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	46	23.50/50-ft
WJ-06405-10	3/16 (4.8)	1/2 (12.8)	3/32 (2.4)	55	79.25/100-ft
WJ-06405-12	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	41	25.25/50-ft
WJ-06405-15	3/8 (9.6)	9/16 (14.4)	3/32 (2.4)	46	90.75/100-ft
WJ-06405-16	3/8 (9.6)	5/8 (16.0)	1/8 (3.2)	55	124.00/100-ft
WJ-06405-18	1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	28	34.00/50-ft
WJ-06405-19	1/2 (12.8)	11/16 (17.6)	3/32 (2.4)	36	110.25/100-ft
WJ-06405-20	1/2 (12.8)	3/4 (19.1)	1/8 (3.2)	41	72.25/50-ft
WJ-06405-25	5/8 (16.0)	13/16 (20.8)	3/32 (2.4)	32	136.50/100-ft
WJ-06405-27	5/8 (16.0)	7/8 (22.4)	1/8 (3.2)	36	86.00/50-ft
WJ-06405-31	3/4 (19.1)	1 (25.4)	1/8 (3.2)	32	93.00/50-ft
WJ-06405-36	1 (25.4)	1 1/4 (31.8)	1/8 (3.2)	23	136.50/50-ft
WJ-06405-46	1 1/4 (31.8)	1 3/4 (44.5)	1/4 (6.4)	41	361.00/50-ft

**BUY MORE,
SAVE MORE**

Save 10% on 4-9 packs,
15% on 10-19 packs,
20% on 20 or more packs.

Mix and match packs of any items
from the "green" tables to save!



Fluid Handling Tubing

Highlighted items

Cole-Parmer PFA Tubing



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); meets USP Class VI requirements. Tubing is manufactured according to GMP.

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

Sterilize: Autoclave, ethylene oxide, or use dry heat.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/25-ft pk
	ID	OD	Wall		
WJ-06371-00	1/32 (0.8)	1/16 (1.6)	1/64 (0.4)	600	\$ 35.00
WJ-06375-01	1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	592	44.25
WJ-06371-01	3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	471	63.25
WJ-06371-02	1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	385	75.75
WJ-06371-21	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	600	187.00
WJ-06375-02	5/32 (4.0)	1/4 (6.4)	3/64 (1.2)	421	105.50
WJ-06371-03	3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	280	95.25
WJ-06371-22	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	471	237.25
WJ-06375-04	7/32 (5.6)	3/16 (8.0)	3/64 (1.2)	300	175.50
WJ-06371-04	1/4 (6.4)	5/16 (8.0)	1/32 (0.8)	220	125.00
WJ-06375-05	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	388	239.75
WJ-06371-23	19/64 (7.5)	3/8 (9.6)	5/128 (1.0)	229	245.25
WJ-06371-05	5/16 (8.0)	3/8 (9.6)	1/32 (0.8)	180	175.50
WJ-06371-24	5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	324	316.00
WJ-06371-06	3/8 (9.6)	7/16 (11.2)	1/32 (0.8)	153	196.00
WJ-06375-07	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	283	290.00
WJ-06371-25	3/8 (9.6)	1/2 (12.8)	1/32 (0.8)	220	254.00
WJ-06371-07	7/16 (11.2)	1/2 (12.8)	1/32 (0.8)	133	224.75
WJ-06371-08	1/2 (12.8)	9/16 (14.3)	1/32 (0.8)	117	245.25
WJ-06371-26	1/2 (12.8)	3/8 (9.6)	1/16 (1.6)	220	453.00
WJ-06371-09	9/16 (14.3)	3/8 (9.6)	1/32 (0.8)	105	255.00
WJ-06371-27	9/16 (14.3)	11/16 (17.5)	1/16 (1.6)	198	399.00
WJ-06375-08	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	150	422.00
WJ-06371-28	11/16 (17.5)	3/4 (19.0)	1/32 (0.8)	87	356.00
WJ-06371-29	3/4 (19.0)	7/8 (22.2)	1/16 (1.6)	153	643.00
WJ-06371-30	1 1/4 (31.8)	1 1/8 (33.9)	1/25 (1.2)	80	1058.00

Cole-Parmer FEP Tubing



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. Does not deteriorate with age. Tough, but bends even at -454°F (-270°C). Translucent.

Certifications: Resin is FDA-compliant (21 CFR 177.1550); meets USP Class VI requirements. Tubing is manufactured according to GMP.

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

Sterilize: Autoclave, ethylene oxide, or use dry heat.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/25-ft pk
	ID	OD	Wall		
WJ-06406-60	1/32 (0.8)	1/16 (1.6)	1/64 (0.4)	500	\$ 16.75
WJ-06406-62	1/16 (1.6)	1/8 (3.2)	1/32 (0.8)	444	20.25
WJ-06406-63	3/32 (2.4)	5/32 (4.0)	1/32 (0.8)	353	30.50
WJ-06406-64	1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	289	34.50
WJ-06450-05	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	450	106.75
WJ-06450-04	5/32 (4.0)	1/4 (6.4)	3/64 (1.2)	329	88.25
WJ-06406-66	3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	209	47.75
WJ-06450-06	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	353	121.50
WJ-06406-72	1/4 (6.4)	5/16 (8.0)	1/32 (0.8)	150	50.00
WJ-06450-07	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	288	158.25
WJ-06450-02	19/64 (7.5)	3/8 (9.6)	5/128 (1.0)	172	161.75
WJ-06406-74	5/16 (8.0)	3/8 (9.6)	1/32 (0.8)	140	63.25
WJ-06450-08	5/16 (8.0)	7/16 (11.2)	1/16 (1.6)	243	201.75
WJ-06406-12	3/8 (9.6)	7/16 (11.2)	1/32 (0.8)	110	64.25
WJ-06450-09	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	210	239.75
WJ-06450-03	2/5 (10.2)	1/2 (12.7)	1/20 (1.2)	165	189.25
WJ-06406-76	7/16 (11.1)	1/2 (12.8)	1/32 (0.8)	102	95.25
WJ-06450-14	7/16 (11.1)	9/16 (14.3)	1/16 (1.6)	185	237.25
WJ-06406-18	1/2 (12.8)	9/16 (14.3)	1/32 (0.8)	88	104.50
WJ-06450-15	1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	165	282.00
WJ-06406-78	9/16 (14.3)	5/8 (16.0)	1/32 (0.8)	77	118.25
WJ-06450-16	9/16 (14.3)	11/16 (17.5)	1/16 (1.6)	149	229.25
WJ-06450-00	5/8 (16.0)	11/16 (17.5)	1/32 (0.8)	71	167.50
WJ-06450-17	5/8 (16.0)	3/4 (19.2)	1/16 (1.6)	135	363.00
WJ-06450-01	11/16 (17.5)	3/4 (19.1)	1/32 (0.8)	65	183.50
WJ-06450-19	3/4 (19.2)	7/8 (22.2)	1/16 (1.6)	115	370.00

Cole-Parmer Low-Density Polyethylene (LDPE) Tubing



Applications: General low pressure and temperature, instrumentation, corrosive atmosphere, and food processing applications.

Characteristics: Broad chemical, solvent, and corrosive atmosphere resistance with good dimensional stability. Translucent.

Certifications: FDA-compliant (21 CFR 177.1520); meets USDA requirements.

Temperature range: -73 to 80°C (-100 to 175°F)

Sterilize: Ethylene oxide.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/100-ft pk
	ID	OD	Wall		
WJ-95876-00	5/64 (2.0)	1/8 (3.2)	1/32 (0.8)	125	\$52.75
WJ-95876-01	7/64 (2.8)	5/32 (4.0)	1/32 (0.8)	125	128.50
WJ-95876-02	1/8 (3.2)	3/16 (4.8)	1/32 (0.8)	125	66.50
WJ-95876-03	11/64 (4.3)	1/4 (6.4)	3/64 (1.2)	125	55.25
WJ-95876-05	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	125	65.50
WJ-95876-06	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	100	75.75

Cole-Parmer Polypropylene (PP) Tubing



Applications: General lab/industrial use such as injection molding and hot fill applications. More rigid than polyethylene tubing.

Characteristics: Good chemical resistance; avoid strong oxidizing agents. Translucent.

Certifications: FDA-compliant (21 CFR 177.1520); meets USDA requirements.

Temperature range: 32 to 250°F (0 to 121°C)

Sterilize: Autoclave or ethylene oxide.

Catalog number	Dimensions: in. (mm)			Max psi at 70°F (21°C)	Price/100-ft pk
	ID	OD	Wall		
WJ-95875-01	3/32 (2.4)	1/8 (3.2)	1/64 (0.4)	270	\$64.25
WJ-95875-02	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	325	41.00
WJ-95875-03	9/64 (3.6)	3/16 (4.8)	1/40 (0.6)	290	40.25
WJ-95875-04	3/16 (4.8)	1/4 (6.4)	1/32 (0.8)	270	38.00
WJ-95875-05	3/16 (4.8)	5/16 (8.0)	1/16 (1.6)	280	59.75
WJ-95875-07	1/4 (6.4)	3/8 (9.6)	1/16 (1.6)	270	62.00
WJ-95875-11	3/8 (9.6)	1/2 (12.8)	1/16 (1.6)	206	77.00
WJ-95875-12	1/2 (12.8)	5/8 (16.0)	1/16 (1.6)	165	101.00



Fluid Handling

Tubing

Highlighted items

Tubing Accessories

A 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.



- WJ-06438-90 Handheld tubing cutter \$42.00
- WJ-06438-81 Tubing cutter pouch \$15.25
- WJ-06438-92 Replacement blade for hand-held tubing cutter 06438-90. \$11.25

B Benchtop Tubing Cutter

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



- WJ-06438-10 Benchtop cutter \$15.50
- WJ-06438-11 Replacement blade \$7.50

C 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.



- WJ-95615-00 Clamp ties, white. Pack of 100 \$27.50
- WJ-95615-10 Clamp ties, black. Pack of 100 \$28.25

D SS Hose Clamps

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



Catalog number	Clamp diameter		Price/pk of 10*
	Min	Max	
WJ-06403-11	7/32"	5/8"	\$19.25
WJ-06403-12	11/16"	1 1/4"	24.25
WJ-06403-13	13/16"	1 3/4"	24.25
WJ-06403-14	1 1/16"	2"	24.25
WJ-06403-15	1 5/16"	2 1/4"	25.25
WJ-06403-16	2"	2 3/4"	39.00
WJ-06403-21	2 3/4"	3 1/2"	29.25
WJ-06403-22	3 1/2"	4 3/8"	29.25
WJ-06403-23	4 3/8"	5 1/8"	41.50
WJ-06403-24	5 1/8"	5 7/8"	33.25
WJ-06403-25	5 1/2"	6 1/4"	24.25

*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.

- WJ-06832-99 White acetal copolymer hose-clamp kit \$90.75
- WJ-06420-99 White nylon hose-clamp kit \$200.75
- WJ-06430-49 Black nylon hose-clamp kit \$237.25



Kit 06832-99

White Acetal Hose Clamps

Catalog number	Inside diameter				Qty/pk	Price/pk**
	Decimal inches		Millimeters			
	Min	Max	Min	Max		
WJ-06832-01	0.228	0.256	5.8	6.5	100	\$35.00
WJ-95614-00	0.269	0.291	6.8	7.4	100	36.25
WJ-06832-03	0.307	0.342	7.8	8.7	100	35.00
WJ-06832-02	0.351	0.394	8.9	10.0	100	35.00
WJ-95614-01	0.387	0.440	9.8	11.2	100	36.25
WJ-06832-04	0.404	0.452	10.3	11.5	100	35.00
WJ-06832-06	0.449	0.511	11.4	13.0	100	35.00
WJ-06832-08	0.513	0.586	13.0	14.9	100	35.00
WJ-06832-10	0.569	0.650	14.5	16.5	100	35.00
WJ-06832-12	0.616	0.707	15.7	18.0	100	38.50
WJ-06832-14	0.702	0.801	17.8	20.4	100	38.50
WJ-06832-16	0.759	0.848	19.3	21.5	100	38.50
WJ-06832-18	0.779	0.899	19.8	22.8	100	38.50
WJ-06832-20	0.859	0.989	21.8	25.1	100	38.50
WJ-06832-22	0.928	1.072	23.6	27.2	100	44.75
WJ-06832-24	0.985	1.135	25.0	28.8	100	44.75
WJ-06832-28	1.123	1.296	28.5	32.9	50	23.50
WJ-06832-32	1.218	1.405	30.9	35.7	50	28.75
WJ-06832-34	1.338	1.566	34.0	39.8	50	28.75
WJ-06832-36	1.472	1.724	37.4	43.8	50	28.75
WJ-06832-38	1.594	1.862	40.5	47.3	50	51.75
WJ-06832-50	1.999	2.277	50.8	57.8	25	27.50
WJ-06832-60	2.259	2.582	57.4	65.6	25	27.50
WJ-06832-70	2.507	2.897	63.7	73.6	25	27.50
WJ-06832-76	2.839	3.206	72.1	81.4	25	27.50

**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	WJ-06420-50	\$28.25	WJ-06430-07	\$28.25
0.283	0.312	7.1	7.9	100	WJ-06420-52	28.25	WJ-06430-02	28.25
0.350	0.395	9.1	9.9	100	WJ-06420-56	28.25	WJ-06430-06	28.25
0.360	0.410	9.3	10.5	100	WJ-06420-58	28.25	WJ-06430-08	28.25
0.430	0.480	11.11	12.3	100	WJ-06420-60	28.25	WJ-06430-10	28.25
0.500	0.545	12.7	13.8	100	WJ-06420-62	30.50	WJ-06430-12	30.50
0.525	0.605	13.3	15.4	100	WJ-06420-64	30.50	WJ-06430-14	30.50
0.580	0.660	15.0	16.9	100	WJ-06420-66	32.75	WJ-06430-16	32.75
0.650	0.750	16.6	19.0	100	WJ-06420-68	32.75	WJ-06430-18	32.75
0.750	0.875	19.05	22.2	100	WJ-06420-70	34.00	WJ-06430-20	34.00
0.779	0.899	19.7	22.6	100	WJ-06420-72	34.00	WJ-06430-22	34.00
0.859	0.989	21.8	25.0	100	WJ-06420-74	34.00	WJ-06430-44	34.00
0.900	0.989	23.0	25.0	100	WJ-06420-76	41.50	WJ-06430-26	41.50
0.990	1.135	25.0	28.5	100	WJ-06420-78	41.50	WJ-06430-28	41.50
1.123	1.296	28.5	32.9	50	WJ-06420-80	30.50	WJ-06430-30	30.50
1.250	1.425	31.7	35.9	50	WJ-06420-82	32.75	WJ-06430-32	32.75
1.406	1.610	35.7	40.8	50	WJ-06420-84	34.00	WJ-06430-34	34.00
1.593	1.812	40.4	46.0	50	WJ-06420-86	35.75	WJ-06430-36	35.75
1.790	2.110	45.6	53.5	50	WJ-06420-88	36.75	WJ-06430-38	36.25
1.870	2.125	47.0	52.0	50	WJ-06420-90	39.00	WJ-06430-40	39.00
2.119	2.390	53.5	60.7	25	WJ-06420-92	39.00	WJ-06430-42	39.00

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

**BUY MORE,
SAVE MORE**

Save 10% on 10-49 packs,
15% on 50-99 packs,
20% on 100 or more packs.

Mix and match packs of any items
from the "purple" tables to save!



Fluid Handling Fittings

Highlighted items

NEW

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.**

Find MORE!

FREE certificates of compliance are available for all fittings on this page—see page 65 for details.



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	WJ-45500-00	\$ 9.25	WJ-45501-00	\$ 10.25	WJ-45502-00	\$ 8.25
	Female luer x 3/32" hose barb	WJ-45500-02	9.25	WJ-45501-02	10.25	WJ-45502-02	8.25
	Female luer x 1/8" hose barb	WJ-45500-04	9.25	WJ-45501-04	10.25	WJ-45502-04	8.25
	Female luer x 3/16" hose barb	WJ-45500-06	10.25	WJ-45501-06	11.25	WJ-45502-06	9.00
	Female luer x 1/4" hose barb	WJ-45500-08	10.25	WJ-45501-08	11.25	WJ-45502-08	9.00
Female luer x hose barb adapters (smooth bore)							
B	Female luer x 1/16" hose barb (smooth bore)	WJ-45500-50	10.25	WJ-45501-50	9.25	WJ-45502-50	5.75
	Female luer x 3/32" hose barb (smooth bore)	WJ-45500-52	10.25	WJ-45501-52	9.25	WJ-45502-52	5.75
	Female luer x 1/8" hose barb (smooth bore)	WJ-45500-54	10.25	WJ-45501-54	9.25	WJ-45502-54	5.75
Female luer x thread adapters							
C	Female luer x 10-32 special tapered thread	WJ-45500-70	18.50	WJ-45501-70	20.25	WJ-45502-70	13.25
	Female luer x 10-32 UNF thread	WJ-45500-60	17.25	WJ-45501-60	18.50	WJ-45502-60	12.50
	Female luer x 1/4-28 UNF thread	WJ-45500-66	19.00	WJ-45501-66	20.25	WJ-45502-66	16.25
	Female luer x 1/4-28 UNF bottom sealing thread	WJ-45503-76	15.25	—	—	WJ-45505-76	15.50
	Female luer x 1/8-27 NPT thread	WJ-45503-78	28.75	—	—	WJ-45505-78	24.75
D	Female luer x 1/8-27 NPT thread elbow	WJ-45503-80	35.00	—	—	WJ-45505-80	28.75
Female luer bulkhead x hose barb adapters							
E	Female luer x 1/4-28 UNF thread to 1/16" hose barb	WJ-45500-30	14.50	WJ-45501-30	17.25	WJ-45502-30	10.50
	Female luer x 1/4-28 UNF thread to 3/32" hose barb	WJ-45500-32	15.00	WJ-45501-32	17.25	WJ-45502-32	10.50
	Female luer x 1/4-28 UNF thread to 1/8" hose barb	WJ-45500-34	15.00	WJ-45501-34	17.25	WJ-45502-34	10.50
Female adapters							
F	Female luer x female luer	WJ-45500-22	10.25	WJ-45501-22	10.75	WJ-45502-22	8.50
G	Female tee	WJ-45500-56	21.25	WJ-45501-56	23.00	WJ-45502-56	17.25
H	Female elbow	WJ-45500-26	18.50	WJ-45501-26	24.75	WJ-45502-26	13.50
I	Female luer x cap	WJ-45500-28	8.50	WJ-45501-28	10.25	WJ-45502-28	7.25
J	Female luer x cap with tether loop	WJ-45500-64	9.25	WJ-45501-64	10.25	WJ-45502-64	7.25
Male x female adapters							
K	Male luer x female luer coupler	WJ-45500-82	10.25	WJ-45501-82	11.25	WJ-45502-82	9.75
L	Male luer x female luer coupler with lock ring	WJ-45500-80	11.25	WJ-45501-80	14.50	WJ-45502-80	9.75
M	Male luer x female luer elbow	WJ-45500-84	24.75	WJ-45501-84	28.75	WJ-45502-84	20.25
N	Male x female x female tee	WJ-45500-85	28.75	WJ-45501-85	32.25	WJ-45502-85	23.50
O	Male x male x female tee	WJ-45500-75	28.75	WJ-45501-75	32.25	WJ-45502-75	23.50
Male luer lock x hose barb adapters							
P	Male luer lock x 1/16" hose barb	WJ-45503-00	10.25	WJ-45504-00	11.25	WJ-45505-00	8.75
	Male luer lock x 3/32" hose barb	WJ-45503-02	10.25	WJ-45504-02	11.25	WJ-45505-02	8.75
	Male luer lock x 1/8" hose barb	WJ-45503-04	10.25	WJ-45504-04	11.25	WJ-45505-04	8.75
	Male luer lock x 3/16" hose barb	WJ-45503-06	11.25	WJ-45504-06	12.75	WJ-45505-06	9.75
	Male luer lock x 1/4" hose barb	WJ-45503-08	11.25	WJ-45504-08	12.75	WJ-45505-08	9.75
	Male luer lock x 1/4" hose barb	WJ-45503-19	10.50	WJ-45504-19	10.25	WJ-45505-19	8.75
Male luer x hose barb adapters (for use with separate rotating lock ring "R")							
Q	Male luer x 1/16" hose barb	WJ-45503-40	7.75	WJ-45504-40	9.25	WJ-45505-40	5.75
	Male luer x 3/32" hose barb	WJ-45503-42	7.75	WJ-45504-42	9.25	WJ-45505-42	5.75
	Male luer x 1/8" hose barb	WJ-45503-44	7.75	WJ-45504-44	9.25	WJ-45505-44	5.75
	Male luer x 3/16" hose barb	WJ-45503-46	9.25	WJ-45504-46	10.25	WJ-45505-46	7.25
	Male luer x 1/4" hose barb	WJ-45503-48	9.25	WJ-45504-48	10.25	WJ-45505-48	7.25
	Male luer x 1/4" hose barb	WJ-45503-50	9.75	WJ-45504-50	12.25	WJ-45505-50	7.25
R	Snap luer lock ring	WJ-45503-74	7.25	WJ-45504-74	7.75	WJ-45505-74	5.75
Male slip luer x hose barb adapters (no lock ring)							
S	Male luer x 1/16" hose barb	WJ-45503-22	9.25	WJ-45504-22	10.25	WJ-45505-22	7.50
	Male luer x 3/32" hose barb	WJ-45503-24	9.25	WJ-45504-24	10.25	WJ-45505-24	7.50
	Male luer x 1/8" hose barb	WJ-45503-26	9.25	WJ-45504-26	12.75	WJ-45505-26	7.50
	Male luer x 3/16" hose barb	WJ-45503-28	10.25	WJ-45504-28	11.25	WJ-45505-28	8.75
	Male luer x 1/4" hose barb	WJ-45503-52	9.25	WJ-45504-52	11.25	WJ-45505-52	7.25
Male luer x 1/4" hose barb	WJ-45503-54	9.25	WJ-45504-54	11.25	WJ-45505-54	7.25	



MORE online!

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go to . . .

ColeParmer.ca/Luer



Unique Products.

Exceptional Service.

Technical Support.



Fluid Handling

Fittings

Highlighted items

Plastic Luer Stopcocks and Manifolds

Build leakproof fluid handling systems



Polycarbonate Stopcocks

HDPE handles rotate 360° on one-way stopcocks, 180° on three-way stopcocks, and 360° on four-way stopcocks.

Type	Description	Pack of 10		Pack of 100	
		Cat. no.	Price	Cat. no.	Price

Standard stopcocks					
1-way	Male lock	WJ-30600-00	\$33.25	WJ-30600-05	\$183.50
1-way	Male luer	WJ-30600-01	30.50	WJ-30600-06	177.75
3-way	Male lock	WJ-30600-02 [†]	28.75	WJ-30600-07	172.00
4-way	Male luer	WJ-30600-03	32.75	WJ-30600-08	183.50
4-way	Male lock	WJ-30600-04	35.00	WJ-30600-09	183.50

Large-bore stopcocks					
3-way	Male lock	WJ-30600-23	33.25	WJ-30600-25	200.75
4-way	Male lock	WJ-30600-12	37.25	WJ-30600-17	217.75

[†]Locking ring does not rotate.

PVDF Stopcocks

PVDF body with polypropylene insert.

Catalog number	Type	Description	Price
WJ-31200-70	2-way	Female luer lock	\$30.50
WJ-31200-80	3-way	Female luer lock	40.25



31200-70

High-Pressure Polycarbonate Stopcocks

Pressure rating up to 1050 psi.

Catalog number	Type	Description	Price/pk of 10
WJ-30526-32	2-way	Male luer lock x female luer	\$31.00
WJ-30526-34	3-way	Female luer (2) x male luer lock	36.75

Polycarbonate Manifolds

Manifolds have polyurethane stems, HDPE handles, and female ports.



06464-87

Ports	Rotation	Individual manifolds		Pack of 10	
		Cat. no.	Price	Cat. no.	Price
2	180°	WJ-06464-81	\$8.00	WJ-30600-44	\$67.75
3	360°	WJ-06464-83	8.50	WJ-30600-41	77.00
4	180°	WJ-06464-85	10.00	WJ-30600-42	89.50
5	360°	WJ-06464-87	10.75	WJ-30600-43	96.50

Metal Luer Fittings

- Easy to disassemble for cleaning
- Select 316 stainless steel fittings for your harsh chemical environments
- Autoclavable

Key	Description	316 stainless steel		Nickel-plated brass	
		Catalog number	Price/ea	Catalog number	Price/ea
A	Female luer x male luer	WJ-31507-20	\$27.50	WJ-31507-50	\$ 11.50
B	Female luer x male luer lock	WJ-31507-21	60.75	WJ-31507-51	14.50
C	Male luer plug	WJ-31507-22	24.25	WJ-31507-54	9.00
	Male luer lock plug	WJ-31507-23	36.75	WJ-31507-52	12.25
D	Female luer plug	WJ-31507-24	21.25	WJ-31507-53	9.00
E	Male luer x male luer	—	—	WJ-31507-57	11.75
F	Male luer lock x male luer lock	WJ-31507-90	77.00	WJ-31507-55	25.25
G	Female luer x female luer	WJ-31507-89	23.00	WJ-31507-56	10.25
H	Male luer x 1/4" hose barb	—	—	WJ-31507-60	11.50
I	Male luer lock x 1/16" hose barb	WJ-31507-26	39.75	WJ-31507-62	12.25
	Male luer lock x 1/8" hose barb	WJ-31507-25	38.50	WJ-31507-61	12.25
	Male luer lock x 1/4" hose barb	WJ-31507-27	38.50	WJ-31507-66	12.25
J	Female luer x 1/16" hose barb	WJ-31507-29	20.25	WJ-31507-64	9.00
	Female luer x 1/8" hose barb	WJ-31507-28	20.25	WJ-31507-63	9.00
	Female luer x 3/16" hose barb	WJ-31507-30	20.25	WJ-31507-65	10.50
K	Male luer lock x 10-32 UNF thread	WJ-31507-31	39.75	WJ-31507-70	16.25
	Male luer lock x 1/4-28 UNF thread	WJ-31507-32	39.75	WJ-31507-73	13.75
	Male luer lock x 1/8" NPT	WJ-31507-44	57.50	WJ-31507-84	17.00
	Male luer lock x 1/4" NPT	WJ-31507-45	57.50	WJ-31507-85	17.00
L	Female luer x 10-32 UNF thread	WJ-31507-33	21.25	WJ-31507-71	12.25
	Female luer x 1/4-28 UNF thread	WJ-31507-34	21.25	WJ-31507-72	10.25
	Female luer x 1/8" NPT	WJ-31507-46	27.50	WJ-31507-86	15.00
	Female luer x 1/4" NPT	WJ-31507-48	31.00	WJ-31507-87	15.00



A 31507-20

B 31507-21

C 31507-22

D 31507-24

E 31507-57

F 31507-55

G 31507-56

H 31507-60

I 31507-26

J 31507-29

K 31507-73

L 31507-33



Fluid Handling Fittings

Highlighted items

Cole-Parmer Barbed Fittings

Barbed fittings are designed for quick and easy assembly without tools. 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.



Straight connector
30703-07



Reducing connector
30622-35



NPT male threaded
adapter 30621-26



Y connector
30703-93

Find MORE!

FREE certificates of compliance are available for all fittings on this page—see bottom of page for details.



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
Straight connectors												
1/16"	WJ-30622-47	10	\$ 11.00	WJ-30622-48	10	\$ 11.00	WJ-40622-49	10	\$ 11.00	WJ-30703-00	10	\$ 18.25
3/32"	WJ-30622-44	10	11.00	WJ-30622-45	10	11.00	WJ-40622-46	10	11.00	WJ-30703-01	10	19.25
1/8"	WJ-30622-53	10	11.00	WJ-30622-54	10	11.00	WJ-41518-05	10	9.75	WJ-30703-02	10	21.50
3/16"	WJ-30622-55	10	12.25	WJ-30622-56	10	13.25	WJ-40622-57	10	13.25	WJ-30703-04	10	25.25
1/4"	WJ-30621-85	10	12.25	WJ-30621-86	10	11.50	WJ-40610-00	10	12.25	WJ-30703-05	10	28.25
3/8"	WJ-30621-89	10	11.50	WJ-30621-90	10	11.50	WJ-40610-02	10	12.25	WJ-30703-07	10	34.50
1/2"	WJ-30621-92	10	11.50	WJ-30621-93	10	11.50	WJ-40610-03	10	12.25	WJ-30703-08	10	38.00
3/8"	WJ-30621-79	10	11.50	WJ-30621-80	10	13.25	WJ-40610-04	10	11.50	WJ-30703-09	10	42.00
3/4"	WJ-30621-81	10	13.25	WJ-30621-82	10	14.50	WJ-40610-05	5	11.25	WJ-30703-10	5	30.00
1"	WJ-30621-83	10	14.50	WJ-30621-84	10	15.50	WJ-40610-06	5	12.75	WJ-30703-11	5	34.00
Reducing connectors												
1/8" x 1/16"	WJ-31518-29	10	9.75	WJ-30622-22	25	16.50	WJ-40622-23	25	17.50	WJ-30703-41	10	16.00
1/4" x 1/8"	WJ-30622-27	10	12.25	WJ-30622-28	10	13.25	WJ-41518-36	10	13.25	WJ-30703-50	10	27.00
1/4" x 3/16"	WJ-30622-29	10	12.25	WJ-30622-30	10	13.25	WJ-40622-32	10	13.25	WJ-30703-52	10	27.00
3/8" x 1/4"	WJ-30622-35	10	12.25	WJ-30703-99	10	8.75	WJ-40610-08	10	12.25	WJ-30703-54	10	30.50
1/2" x 1/4"	WJ-30622-38	10	12.25	WJ-30622-39	10	11.50	WJ-40610-10	10	12.75	WJ-30703-56	10	36.75
1/2" x 3/8"	WJ-30622-42	10	12.25	WJ-30622-43	10	11.50	WJ-40610-12	10	12.25	WJ-30703-58	10	36.75
3/8" x 1/4"	WJ-30621-96	10	11.50	WJ-30621-97	10	13.25	WJ-40610-13	10	12.75	WJ-30703-59	10	36.75
3/8" x 1/2"	WJ-30622-03	10	11.50	WJ-30622-04	10	13.25	WJ-40610-16	10	12.75	WJ-30703-62	10	39.75
3/4" x 1/2"	WJ-30622-09	5	8.75	WJ-30622-10	5	8.75	WJ-40610-18	5	8.50	WJ-30703-64	5	24.75
1" x 1/2"	WJ-30622-15	5	10.75	WJ-30622-16	5	12.75	WJ-40610-20	5	12.25	WJ-30703-66	5	30.00
1" x 3/4"	WJ-30622-13	5	10.50	WJ-30622-14	5	11.25	WJ-40610-22	5	12.25	WJ-30703-68	5	32.75
Y connectors												
1/16"	WJ-30726-01	10	18.00	WJ-30726-21	10	12.75	WJ-40726-41	10	16.25	WJ-30703-90	10	23.50
3/32"	WJ-30726-02	10	18.00	WJ-30726-22	10	12.75	WJ-40726-42	10	16.25	WJ-30703-91	10	24.75
1/8"	WJ-30726-03	10	18.00	WJ-30726-23	10	12.75	WJ-40726-43	10	16.25	WJ-30703-92	10	27.50
3/16"	WJ-30726-04	10	27.00	WJ-30726-24	10	22.00	WJ-40726-44	10	24.25	WJ-30726-64	10	40.25
1/4"	WJ-30726-05	10	27.00	WJ-30726-25	10	24.25	WJ-40726-45	10	28.25	WJ-30726-65	10	47.00
3/8"	WJ-30726-06	10	30.00	WJ-30726-26	10	30.00	WJ-40726-46	10	30.00	WJ-30703-93	10	154.75
1/2"	WJ-30726-07	10	31.75	WJ-30726-27	10	31.75	WJ-40726-47	10	31.75	WJ-30703-94	10	149.00
3/8"	WJ-30726-08	10	39.00	WJ-30726-28	10	39.00	WJ-40726-48	10	39.00	WJ-30726-68	10	177.75
NPT male threaded adapters, NPT(M) x tubing ID												
1/8" x 1/8"	WJ-30621-26	10	9.00	WJ-30621-27	10	8.75	WJ-40621-28	25	30.50	WJ-30704-07	10	27.50
1/8" x 1/4"	WJ-30621-31	10	9.00	WJ-30621-32	10	8.75	WJ-40610-36	10	12.25	WJ-30704-09	10	31.75
1/4" x 1/8"	WJ-30621-42	10	12.25	WJ-30621-44	10	11.50	WJ-40621-45	10	12.25	WJ-30621-43	10	30.00
1/4" x 1/4"	WJ-30621-46	10	12.25	WJ-30621-47	10	11.50	WJ-40610-38	10	12.25	WJ-30704-11	10	34.50
3/8" x 1/4"	WJ-30621-56	10	11.50	WJ-30621-57	10	13.25	WJ-40610-41	10	12.75	WJ-30704-14	10	36.75
3/8" x 3/8"	WJ-30621-62	10	11.50	WJ-30621-63	10	13.25	WJ-40610-42	10	12.75	WJ-30704-15	10	39.75
1/2" x 1/4"	WJ-30621-73	10	11.50	WJ-30621-74	10	11.25	WJ-40610-44	10	15.00	WJ-30704-17	10	43.75
1/2" x 3/8"	WJ-30621-75	10	11.50	WJ-30621-76	10	11.25	WJ-40610-45	10	15.00	WJ-30704-18	10	44.75
1/2" x 1/2"	WJ-30621-77	10	11.50	WJ-30621-78	10	11.25	WJ-40610-46	10	15.00	WJ-30704-19	10	45.50
3/4" x 1/2"	WJ-30621-20	10	11.25	WJ-30621-21	10	11.25	WJ-40610-50	5	8.50	WJ-30704-23	5	28.75
3/4" x 3/4"	WJ-30621-12	10	12.75	WJ-30621-13	10	11.50	WJ-40610-51	5	9.25	WJ-30704-24	5	30.00
1" x 1"	WJ-31517-18	10	15.00	WJ-30401-34	10	18.50	WJ-40610-53	5	12.75	WJ-30704-26	5	32.75



FREE Certificates 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 "certification ribbon" throughout this catalog to identify when a certificate of compliance is available.



Fluid Handling Fittings

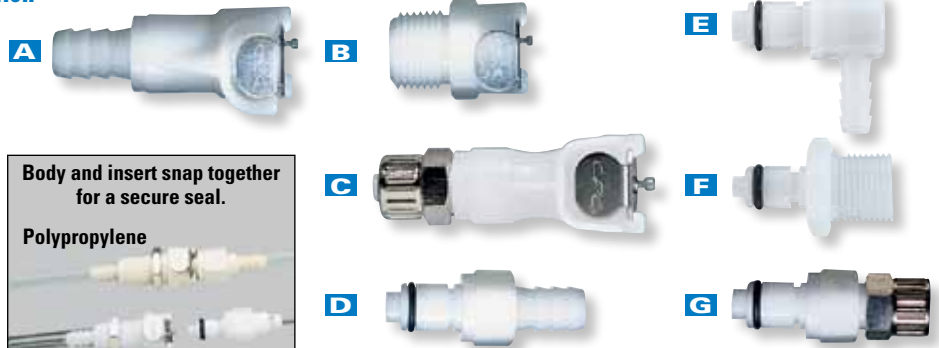
Highlighted items

Quick-Disconnect Couplings

Available in acetal or polypropylene construction

- Choose from 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 fitting halves, simply press the lever on the coupling body; a spring-operated valve in each fitting half seals the flow path. ("Straight-through" fittings without shutoff valves are also available.) All fitting bodies have 316 stainless steel springs and latches.



Body and insert snap together for a secure seal.

Polypropylene



Acetal Simply press the thumb latch for quick disconnection.

Specifications

	Acetal	Polypropylene (PP)
Body material	Acetal	Polypropylene (PP)
Seal material	Buna N	EPR
Max temp	180°F (82°C)	160°F (71°C)
Max pressure at 70°F (21°C)	120 psi	100 psi
Max vacuum	28" Hg	28" Hg
Sterilization	Autoclave or ETO	Gamma or ETO

Quick-Disconnect Bodies

(Female Coupling Halves)

A Hose Barb Bodies

Catalog number	Tube ID	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
WJ-06360-19	1/16"	1/8"	1.41"	Acetal	\$ 11.25
WJ-06360-20	1/8"	1/8"	1.65"	Acetal	11.00
WJ-06360-22	3/16"	1/8"	1.85"	Acetal	10.25
WJ-06360-25	1/4"	1/8"	1.85"	Acetal	11.00
WJ-06360-65	1/4"	1/4"	1.95"	Acetal	10.75
WJ-06360-67	5/16"	1/4"	1.95"	Acetal	10.75
WJ-06360-70	3/8"	1/4"	1.95"	Acetal	10.75
WJ-06364-19	1/16"	1/8"	1.41"	PP	18.50
WJ-06364-20	1/8"	1/8"	1.67"	PP	15.50
WJ-06364-25	1/4"	1/8"	1.87"	PP	18.00
WJ-06364-65	1/4"	1/4"	1.97"	PP	18.00
WJ-06364-70	3/8"	1/4"	1.97"	PP	16.75
Straight-through fittings					
WJ-06361-09	1/16"	1/8"	1.41"	Acetal	12.25
WJ-06361-11	1/8"	1/8"	1.65"	Acetal	9.50
WJ-06361-12	3/16"	1/8"	1.85"	Acetal	8.50
WJ-06361-13	1/4"	1/8"	1.85"	Acetal	9.50
WJ-06361-51	1/4"	1/4"	1.95"	Acetal	9.50
WJ-06361-52	5/16"	1/4"	1.95"	Acetal	9.25
WJ-06361-53	3/8"	1/4"	1.95"	Acetal	9.50

B NPT(M) Pipe Adapter Bodies

Catalog number	NPT(M)	Flow size	Resin	Price/pk of 1
Valved fittings				
WJ-06359-70	1/8"	1/8"	Acetal	\$ 11.25
WJ-06359-71	1/4"	1/8"	Acetal	11.25
WJ-06359-72	1/4"	1/4"	Acetal	9.75
WJ-06359-73	3/8"	1/4"	Acetal	9.75
WJ-06359-80	1/8"	1/8"	PP	11.25
WJ-06359-81	1/4"	1/8"	PP	11.50
WJ-06359-82	1/4"	1/4"	PP	12.25
WJ-06359-83	3/8"	1/4"	PP	16.25
Straight-through fittings				
WJ-06361-00	1/8"	1/8"	Acetal	8.25
WJ-06361-01	1/4"	1/8"	Acetal	8.25
WJ-06361-42	1/4"	1/4"	Acetal	12.50
WJ-06361-43	3/8"	1/4"	Acetal	9.75

MORE information!

For a complete quick-disconnect coupling, order a body and an insert from this page, making sure to match flow size.



C Compression Bodies

Catalog number	Tube OD	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
WJ-06360-98	1/4"	1/8"	1.73"	Acetal	\$ 11.00
WJ-06359-90	1/4"	1/4"	1.82"	Acetal	17.25
WJ-06359-91	3/8"	1/4"	1.95"	Acetal	14.50
WJ-06364-90	1/4"	1/8"	1.74"	PP	15.50
WJ-06364-91	3/8"	1/4"	1.97"	PP	20.25
Straight-through fittings					
WJ-06361-08	1/4"	1/8"	1.73"	Acetal	9.50
WJ-06361-49	3/8"	1/4"	1.95"	Acetal	16.75

Quick-Disconnect Inserts (Male Coupling Halves)

D Hose Barb Inserts

Catalog number	Tube ID	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
WJ-06360-36	1/16"	1/8"	1.35"	Acetal	\$ 12.75
WJ-06360-40	1/8"	1/8"	1.55"	Acetal	11.00
WJ-06360-43	3/16"	1/8"	1.75"	Acetal	11.00
WJ-06360-45	1/4"	1/8"	1.58"	Acetal	9.75
WJ-06360-80	1/4"	1/4"	1.86"	Acetal	10.50
WJ-06360-83	5/16"	1/4"	1.86"	Acetal	10.50
WJ-06360-85	3/8"	1/4"	1.86"	Acetal	10.50
WJ-06364-38	1/16"	1/8"	1.35"	PP	19.00
WJ-06364-40	1/8"	1/8"	1.55"	PP	12.25
WJ-06364-45	1/4"	1/8"	1.58"	PP	14.50
WJ-06364-80	1/4"	1/4"	1.86"	PP	11.50
WJ-06364-85	3/8"	1/4"	1.67"	PP	15.50
Straight-through fittings					
WJ-06360-38	1/16"	1/8"	0.80"	Acetal	4.50
WJ-06360-42	1/8"	1/8"	1.05"	Acetal	3.50
WJ-06360-44	3/16"	1/8"	1.25"	Acetal	3.25
WJ-06360-47	1/4"	1/8"	1.25"	Acetal	3.25
WJ-06360-82	1/4"	1/4"	1.35"	Acetal	3.00
WJ-06360-84	5/16"	1/4"	1.35"	Acetal	3.00
WJ-06360-87	3/8"	1/4"	1.35"	Acetal	3.25
WJ-06364-39	1/16"	1/8"	0.80"	PP	7.25
WJ-06364-42	1/8"	1/8"	1.05"	PP	5.50
WJ-06364-47	1/4"	1/8"	1.25"	PP	6.75
WJ-06364-82	1/4"	1/4"	1.35"	PP	5.25
WJ-06364-87	3/8"	1/4"	1.35"	PP	5.25

E Hose Barb Elbow Inserts

Catalog number	Tube ID	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
WJ-06361-39	1/8"	1/8"	1.09"	Acetal	\$ 12.50
WJ-06361-41	1/4"	1/8"	1.09"	Acetal	12.50
WJ-06361-75	1/4"	1/4"	1.22"	Acetal	13.75
WJ-06361-76	3/8"	1/4"	1.22"	Acetal	13.75
WJ-06361-98	1/8"	1/8"	1.09"	PP	18.50
WJ-06361-99	1/4"	1/8"	1.09"	PP	15.00
WJ-06362-00	1/4"	1/4"	1.21"	PP	15.00
WJ-06362-01	3/8"	1/4"	1.21"	PP	17.25
Straight-through fittings					
WJ-06361-27	1/8"	1/8"	0.85"	Acetal	7.75
WJ-06361-28	1/4"	1/8"	1.00"	Acetal	9.50
WJ-06361-63	1/4"	1/4"	1.10"	Acetal	9.50
WJ-06361-64	3/8"	1/4"	1.20"	Acetal	9.50
WJ-06361-85	1/8"	1/8"	1.09"	PP	11.25
WJ-06361-86	1/4"	1/8"	1.09"	PP	11.25
WJ-06361-87	1/4"	1/4"	1.21"	PP	10.50
WJ-06361-88	3/8"	1/4"	1.21"	PP	15.00

F NPT(M) Pipe Adapter Inserts

Catalog number	NPT(M)	Flow size	Resin	Price/pk of 1
Valved fittings				
WJ-06361-29	1/8"	1/8"	Acetal	\$ 9.75
WJ-06361-31	1/4"	1/8"	Acetal	11.50
WJ-06361-65	1/4"	1/4"	Acetal	10.50
WJ-06361-66	3/8"	1/4"	Acetal	10.50
WJ-06361-89	1/8"	1/8"	PP	22.00
WJ-06361-91	1/4"	1/4"	PP	13.75
Straight-through fittings				
WJ-06361-17	1/8"	1/8"	Acetal	5.25
WJ-06361-18	1/4"	1/8"	Acetal	3.50
WJ-06361-54	1/4"	1/4"	Acetal	5.25
WJ-06361-55	3/8"	1/4"	Acetal	5.25
WJ-06361-79	1/8"	1/8"	PP	7.00
WJ-06361-81	1/4"	1/4"	PP	9.50

G Compression Inserts

Catalog number	Tube OD	Flow size	Length	Resin	Price/pk of 1
Valved fittings					
WJ-06360-30	1/4"	1/8"	1.45"	Acetal	\$ 10.75
WJ-06360-35	3/8"	1/8"	1.40"	Acetal	15.00
WJ-06360-74	1/4"	1/4"	1.75"	Acetal	10.75
WJ-06360-75	3/8"	1/4"	1.68"	Acetal	10.75
WJ-06364-30	1/4"	1/8"	1.45"	PP	12.75
WJ-06364-75	3/8"	1/4"	1.68"	PP	17.25
Straight-through fittings					
WJ-06360-32	1/4"	1/8"	1.15"	Acetal	7.25
WJ-06360-37	3/8"	1/8"	1.30"	Acetal	8.75
WJ-06360-76	1/4"	1/4"	1.25"	Acetal	7.75
WJ-06360-77	3/8"	1/4"	1.38"	Acetal	6.50
WJ-06364-32	1/4"	1/8"	1.15"	PP	7.00
WJ-06364-77	3/8"	1/4"	1.38"	PP	9.50



Fluid Handling Fittings

Highlighted items

CPC Plastic Quick-Disconnect Fittings

100 percent metal-free flow path on select models!

- 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.

Certificates of Compliance are available, upon request, for polycarbonate and polysulfone fittings on this page.

Find MORE!

FREE certificates of compliance are available for PC and PSF fittings on this page—see page 65 for details.



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

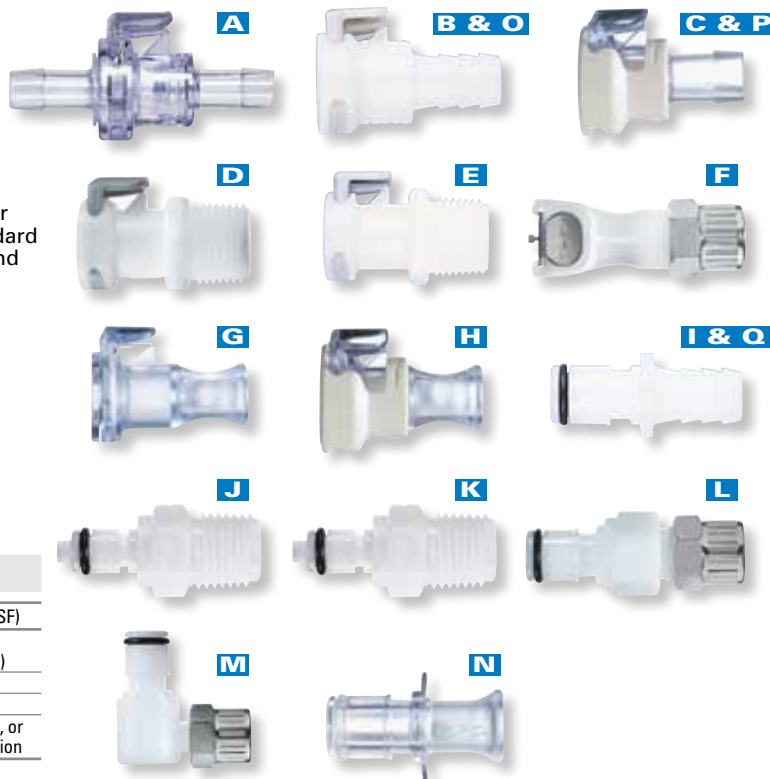
†Max pressure for 1/2" polycarbonate fittings is 60 psi.

Complete Couplings

Key	Catalog number	Size	Material	Length	Qty/pk	Price/pk	
A	WJ-06360-90	1/4" tubing ID	Acetal	—	10	\$46.00	
	WJ-31305-00		PC	—	10	58.50	
	WJ-06360-91	3/8" tubing ID	Acetal	—	10	44.75	
	WJ-31305-05		PC	—	10	58.50	
	WJ-31306-05		PSF	—	—	10	94.00
	—			—	—	—	—

Standard Bodies and Caps

Key	Catalog number	Size	Material	Length	Qty/pk	Price/pk
Barbed bodies						
B	WJ-06360-94	1/4" tubing ID	Acetal	1.31" (33.3 mm)	10	\$35.75
	WJ-31311-11		PC		5	22.00
	WJ-31311-21		PSF		5	27.50
	WJ-06360-95	3/8" tubing ID	Acetal	1.31" (33.3 mm)	10	34.50
	WJ-31311-12		PC		5	22.00
	WJ-31311-22		PSF		5	27.50
Hose barb coupling bodies with lock						
C	WJ-31311-16	1/4" tubing ID	PC	1.31" (33.3 mm)	5	30.00
	WJ-31311-26		PSF		5	63.25
	WJ-31311-17	3/8" tubing ID	PC	1.31" (33.3 mm)	5	30.00
	WJ-31311-27		PSF		5	65.50
BSP straight-through bodies						
D	WJ-06360-01	1/4" BSP	Acetal	1.31" (33.3 mm)	10	49.50
	WJ-06360-02	3/8" BSP			10	51.75
NPT(M) bodies						
E	WJ-06360-00	1/4" NPT	Acetal	1.31" (33.3 mm)	10	39.00
	WJ-06360-96	3/8" NPT			10	39.00
Compression coupling bodies						
F	WJ-06360-06	1/4" OD	Acetal	1.31" (33.3 mm)	10	120.50
	WJ-06360-08	3/8" OD			10	115.75
Sealing caps						
G	WJ-31311-64	1/4"	PC	1.31" (33.3 mm)	5	20.75
	WJ-31311-74	1/4"	PSF		5	46.00
Sealing caps with lock						
H	WJ-31311-67	1/4"	PC	1.31" (33.3 mm)	5	43.75
	WJ-31311-77	1/4"	PSF		5	49.50



Standard Inserts and Plugs

Key	Catalog number	Size	Material	Length	Qty/pk	Price/pk
Barbed inserts						
I	WJ-06360-92	1/4" tubing ID	Acetal	1.28" (32.5 mm)	10	\$16.25
	WJ-31311-61		PC		5	22.00
	WJ-31311-71		PSF		5	20.25
	WJ-06360-93	3/8" tubing ID	Acetal	1.28" (32.5 mm)	10	16.25
	WJ-31311-62		PC		5	22.00
	WJ-31311-72		PSF		5	20.25
BSP straight-through inserts						
J	WJ-06360-27	1/4" BSP	Acetal	1.28" (32.5 mm)	10	30.00
	WJ-06360-97	3/8" BSP			10	27.50
NPT(M) inserts						
K	WJ-06360-16	1/4" NPT	Acetal	1.28" (32.5 mm)	10	20.75
	WJ-06360-18	3/8" NPT			10	38.00
Compression coupling inserts						
L	WJ-06360-21	1/4" OD	Acetal	1.28" (32.5 mm)	10	62.00
	WJ-06360-24	3/8" OD			10	55.25
Sealing caps						
M	WJ-06360-31	1/4" OD	Acetal	1.28" (32.5 mm)	10	95.25
	WJ-06360-34	3/8" OD			10	98.75
Plugs with lock						
N	WJ-31311-68	1/4"	PC	1.20" (30.5 mm)	5	22.00
	WJ-31311-78	1/4"	PSF		5	27.50

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

Key	Catalog number	Size	Material	Length	Qty/pk	Price/pk
Barbed bodies						
O	WJ-31311-13	1/2" tubing ID	PC	1.96" (49.8 mm)	5	\$22.50
	WJ-31311-23		PSF		5	58.50
Hose barb coupling bodies with lock						
P	WJ-31311-18	3/8" tubing ID	PC	1.96" (49.8 mm)	5	67.75
	WJ-31311-28		PSF		5	56.25
Barbed inserts						
Q	WJ-31311-63	1/2" tubing ID	PC	1.90" (48.3 mm)	5	21.25
	WJ-31311-73		PSF	1.40" (35.6 mm)	5	49.50

Unique Products.

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Fluid Handling

Fittings

Highlighted items

**BUY MORE,
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Mix and match packs of any items
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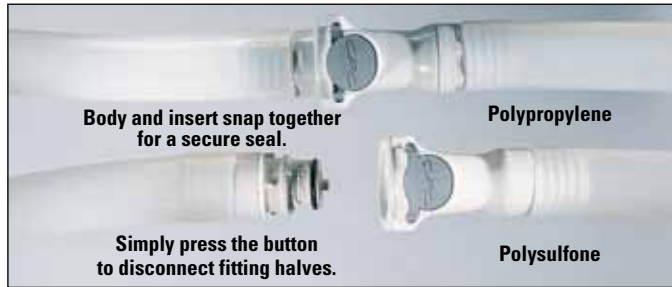


High-Flow Quick-Disconnect Couplings

Valved models offer automatic flow shutoff

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 fitting halves, 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

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

Quick-Disconnect Bodies (Female Coupling Halves)

A Threaded Adapter Bodies

Flow size	NPT(M)	Polypropylene		Polysulfone	
		Cat. no.	Price/pk of 1	Cat. no.	Price/pk of 1
Valved fittings					
3/8"	3/8"	WJ-31303-00	\$18.00	WJ-31307-00	\$22.00
3/8"	1/2"	WJ-31303-01	18.00	WJ-31307-01	22.00
3/8"	3/4"	WJ-31303-02	18.50	WJ-31307-02	22.00
Straight-through fittings					
3/8"	3/8"	WJ-31303-05	15.50	WJ-31307-05	22.00
3/8"	1/2"	WJ-31303-06	15.50	WJ-31307-06	22.00
3/8"	3/4"	WJ-31303-07	18.00	WJ-31307-07	21.25

B Hose Barb Bodies

Flow size	Tube ID	Polypropylene		Polysulfone	
		Cat. no.	Price/pk of 1	Cat. no.	Price/pk of 1
Valved fittings					
3/8"	3/8"	WJ-31303-10	\$18.00	WJ-31307-10	\$22.00
3/8"	1/2"	WJ-31303-11	18.00	WJ-31307-11	22.00
3/8"	5/8"	WJ-31303-12	22.00	WJ-31307-12	25.25
3/8"	3/4"	WJ-31303-13	18.00	WJ-31307-13	22.00
Straight-through fittings					
3/8"	3/8"	WJ-31303-15	16.75	WJ-31307-15	19.00
3/8"	1/2"	WJ-31303-16	16.75	WJ-31307-16	19.00
3/8"	5/8"	WJ-31303-17	20.75	WJ-31307-17	19.50
3/8"	3/4"	WJ-31303-18	20.25	WJ-31307-18	26.50

C Bulkhead Panel Mount Hose Barb Bodies

Flow size	Tube ID	Polypropylene		Polysulfone	
		Cat. no.	Price/pk of 1	Cat. no.	Price/pk of 1
Valved fittings					
3/8"	3/8"	WJ-31303-20	\$23.00	WJ-31307-20	\$28.75
3/8"	1/2"	WJ-31303-21	23.00	WJ-31307-21	34.50
3/8"	5/8"	WJ-31303-22	28.75	WJ-31307-22	30.00
3/8"	3/4"	WJ-31303-23	28.75	WJ-31307-23	40.25
Straight-through fittings					
3/8"	3/8"	WJ-31303-25	22.50	WJ-31307-25	22.00
3/8"	1/2"	WJ-31303-26	22.50	WJ-31307-26	26.50
3/8"	5/8"	WJ-31303-27	26.50	WJ-31307-27	24.75
3/8"	3/4"	WJ-31303-28	23.00	WJ-31307-28	26.50



Quick-Disconnect Inserts (Male Coupling Halves)

D Male Threaded Inserts

Flow size	NPT(M)	Polypropylene		Polysulfone	
		Cat. no.	Price/pk of 1	Cat. no.	Price/pk of 1
Valved fittings					
3/8"	3/8"	WJ-31303-35	\$ 13.25	WJ-31307-35	\$18.00
3/8"	1/2"	WJ-31303-36	13.25	WJ-31307-36	17.25
3/8"	3/4"	WJ-31303-37	15.50	WJ-31307-37	18.00
Straight-through fittings					
3/8"	3/8"	WJ-31303-30	7.50	WJ-31307-30	12.75
3/8"	1/2"	WJ-31303-31	7.50	WJ-31307-31	10.25
3/8"	3/4"	WJ-31303-32	9.00	WJ-31307-32	12.75

E Hose Barb Inserts

Flow size	Tube ID	Polypropylene		Polysulfone	
		Cat. no.	Price/pk of 1	Cat. no.	Price/pk of 1
Valved fittings					
3/8"	3/8"	WJ-31303-45	\$15.00	WJ-31307-45	\$16.75
3/8"	1/2"	WJ-31303-46	15.00	WJ-31307-46	16.75
3/8"	5/8"	WJ-31303-47	18.50	WJ-31307-47	20.75
3/8"	3/4"	WJ-31303-48	15.00	WJ-31307-48	16.75
Straight-through fittings					
3/8"	3/8"	WJ-31303-40	7.50	WJ-31307-40	9.25
3/8"	1/2"	WJ-31303-41	7.50	WJ-31307-41	9.00
3/8"	5/8"	WJ-31303-42	7.75	WJ-31307-42	9.50
3/8"	3/4"	WJ-31303-43	7.50	WJ-31307-43	11.00

F Elbow Hose Barb Inserts

Flow size	Tube ID	Polypropylene		Polysulfone	
		Cat. no.	Price/pk of 1	Cat. no.	Price/pk of 1
Valved fittings					
3/8"	3/8"	WJ-31303-55	\$16.75	WJ-31307-55	\$19.00
3/8"	1/2"	WJ-31303-56	16.75	WJ-31307-56	19.00
Straight-through fittings					
3/8"	3/8"	WJ-31303-50	9.75	WJ-31307-50	14.50
3/8"	1/2"	WJ-31303-51	9.75	WJ-31307-51	13.75



Fluid Handling Flowmeters

Highlighted items

Cole-Parmer Acrylic Flowmeters for Bench or Panel Mount

Durable single-piece body withstands severe shock and vibration

- Ideal for process plant applications on air sampling equipment, gas analyzers and chemical feed systems for water treatment
- Flexible design allows for panel or bench mounting

Machined from solid acrylic blocks, these meters have integral metering tubes that provide precise readings even in aggressive plant environments. The meters' inlet/outlet ports and mounting studs are extended for easy panel installation. An alternate option is a tripod base (sold separately below) which allows for mobility from bench to bench.

Note: There are many additional types of acrylic flowmeters not listed here. Contact our Application Specialists for quotes on acrylic meters with special requirements.



2" flowmeter 32457-00 shown with tripod base 32462-50

4" flowmeter 32458-26

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

Repeatability: ±0.5% full-scale

Max pressure: 100 psi (6.9 bar)

Max operating temp: 150°F (65°C)

Connections

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

Dimensions (W x H x D)

- 2" and 50-mm flowmeters: 1" x 4" x 2 1/2" (2.5 x 10.2 x 5.4 cm)
- 4" and 100-mm flowmeters: 1 3/8" x 6 1/2" x 2 1/8" (3.5 x 16.5 x 5.4 cm)
- 5" and 127-mm flowmeters: 1 3/4" x 10 7/8" x 4 3/4" (4.4 x 27.6 x 12.1 cm)

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)	

English-Unit Scales

For liquid applications				For air applications		
Cat. no.	Float [‡]	Flow range	Price	Cat. no.	Flow range	Price
Flowmeters with 2" scale						
WJ-32457-00	BG	0.2 to 2 GPH	\$ 63.25	WJ-32457-10	0.1 to 1 scfh	\$ 63.25
WJ-32457-02	SS	0.4 to 5 GPH	63.25	WJ-32457-12	0.2 to 2 scfh	63.25
WJ-32457-04	BG	1 to 10 GPH	63.25	WJ-32457-14	0.4 to 5 scfh	63.25
WJ-32457-06	SS	2 to 20 GPH	63.25	WJ-32457-16	0.5 to 10 scfh	63.25
WJ-32457-08	SS	4 to 40 GPH	63.25	WJ-32457-18	2 to 20 scfh	63.25
—	—	—	—	WJ-32457-20	3 to 30 scfh	63.25
—	—	—	—	WJ-32457-22	4 to 50 scfh	63.25
—	—	—	—	WJ-32457-24	10 to 100 scfh	63.25
—	—	—	—	WJ-32457-26	20 to 200 scfh	63.25
Flowmeters with 4" scale						
WJ-32458-00	SS	1 to 10 GPH	80.25	WJ-32458-10	0.4 to 5 scfh	80.25
WJ-32458-02	SS	2 to 25 GPH	80.25	WJ-32458-12	1 to 10 scfh	80.25
WJ-32458-04	SS	4 to 50 GPH	80.25	WJ-32458-14	2 to 20 scfh	80.25
WJ-32458-06	SS	6 to 60 GPH	80.25	WJ-32458-16	4 to 40 scfh	80.25
WJ-32458-07 [†]	SS	0.2 to 2.5 GPM	126.25	WJ-32458-18	10 to 100 scfh	80.25
WJ-32458-08 [†]	SS	0.4 to 5 GPM	126.25	WJ-32458-20	14 to 150 scfh	80.25
—	—	—	—	WJ-32458-22	20 to 200 scfh	80.25
—	—	—	—	WJ-32458-24 [†]	0.5 to 5 scfm	122.75
—	—	—	—	WJ-32458-26 [†]	1 to 10 scfm	122.75
Flowmeters with 5" scale						
WJ-32462-00	SS	0.4 to 5 GPM	216.75	WJ-32462-10	3 to 25 scfm	217.75
WJ-32462-02	SS	1 to 10 GPM	216.75	WJ-32462-12	4 to 50 scfm	216.75
WJ-32462-04	SS	2 to 20 GPM	216.75	WJ-32462-14	10 to 100 scfm	216.75

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)	

Flowmeters with 5" scale

WJ-32462-00	SS	0.4 to 5 GPM	216.75	WJ-32462-10	3 to 25 scfm	217.75
WJ-32462-02	SS	1 to 10 GPM	216.75	WJ-32462-12	4 to 50 scfm	216.75
WJ-32462-04	SS	2 to 20 GPM	216.75	WJ-32462-14	10 to 100 scfm	216.75

[†]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 right.

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

Metric-Unit Scales

For liquid applications				For air applications		
Cat. no.	Float [‡]	Flow range	Price	Cat. no.	Flow range	Price
Flowmeters with 50-mm scale						
WJ-32457-30	BG	5 to 50 mL/min	\$ 63.25	WJ-32457-40	0.04 to 0.5 LPM	\$ 63.25
WJ-32457-32	BG	10 to 100 mL/min	63.25	WJ-32457-42	0.1 to 1 LPM	63.25
WJ-32457-34	SS	20 to 240 mL/min	63.25	WJ-32457-44	0.4 to 5 LPM	63.25
—	—	—	—	WJ-32457-46	1 to 10 LPM	63.25
—	—	—	—	WJ-32457-48	2 to 25 LPM	63.25
—	—	—	—	WJ-32457-50	4 to 50 LPM	63.25
—	—	—	—	WJ-32457-52	10 to 100 LPM	63.25
Flowmeters with 100-mm scale						
WJ-32458-30	BG	4 to 50 mL/min	80.25	WJ-32458-50	0.4 to 5 LPM	80.25
WJ-32458-32	SS	10 to 120 mL/min	80.25	WJ-32458-52	1 to 10 LPM	80.25
WJ-32458-34	BG	25 to 225 mL/min	80.25	WJ-32458-54	2 to 20 LPM	80.25
WJ-32458-36	SS	40 to 400 mL/min	80.25	WJ-32458-56	3 to 30 LPM	80.25
WJ-32458-38	SS	40 to 660 mL/min	80.25	WJ-32458-58	4 to 50 LPM	80.25
WJ-32458-40	SS	100 to 1500 mL/min	80.25	WJ-32458-60	10 to 100 LPM	80.25
WJ-32458-42	SS	200 to 3000 mL/min	80.25	WJ-32458-62 [†]	14 to 140 LPM	122.75
WJ-32458-44 [†]	SS	0.8 to 9 LPM	122.75	WJ-32458-64 [†]	30 to 280 LPM	122.75
WJ-32458-46 [†]	SS	1.5 to 20 LPM	122.75	WJ-32458-65 [†]	80 to 560 LPM	122.75
Flowmeters with 127-mm scale						
WJ-32462-20	SS	1 to 15 LPM	216.75	WJ-32462-30	100 to 700 LPM	216.75
WJ-32462-22	SS	4 to 36 LPM	216.75	WJ-32462-32	100 to 1400 LPM	216.75
WJ-32462-24	SS	5 to 75 LPM	216.75	WJ-32462-34	400 to 3000 LPM	216.75

Tripod Bases

Durable acrylic base with three leveling screws and spirit level.

Catalog number	Description	Price
WJ-32462-50	For one flowmeter with 2" or 50-mm scale	\$70.00
WJ-32462-55	For one flowmeter with 4" or 100-mm scale	70.00
WJ-32462-60	For one flowmeter with 1/4" connections	70.00

MORE online!

For our full line of flowmeters, go to ...
ColeParmer.ca/Flowmeters





Fluid Handling

Flowmeters

Highlighted items

Cole-Parmer Valved Acrylic Flowmeters for Bench or Panel Mount

Meter with valve provides flow control through a highly durable meter body

- Ideal for process plant applications on air sampling equipment, gas analyzers and chemical feed systems for water treatment
- Integrated precision valve allows precise manual flow across the full scale
- The flexible design allows for panel or bench mounting

Machined from solid acrylic blocks, these meters have integral metering tubes that provide precise readings even in aggressive plant environments. The meters' inlet/outlet ports and mounting studs are extended for easy panel installation. An alternate option is a tripod base (sold separately below) which allows for mobility from bench to bench.

Note: There are many additional types of acrylic flowmeters not listed here. Contact our Application Specialists for quotes on acrylic meters with special requirements.



2" flowmeter 32460-18 shown with tripod base 32462-50

4" flowmeter 32461-08

Specifications



Accuracy

2" and 50-mm flowmeters: $\pm 5\%$ full-scale
4" and 100-mm flowmeters: $\pm 3\%$ full-scale
5" and 127-mm flowmeters: $\pm 2\%$ full-scale

Repeatability: $\pm 0.5\%$ full-scale

Media type: liquids or gases

Connections

2", 4", 50-mm, and 100-mm flowmeters: $\frac{1}{2}$ " NPT(F)[†]
5" and 127-mm flowmeters: 1" NPT(F)

Maximum pressure: 100 psi (6.9 bar)

Max operating temp: 150°F (65°C)

Dimensions (not including valve stem):

2" and 50-mm flowmeters:
1"W x 4"H x 2½"D (2.5 x 10.2 x 5.4 cm)

4" and 100-mm flowmeters:
1¾"W x 6½"H x 2½"D (3.5 x 16.5 x 5.4 cm)

5" and 127-mm flowmeters:
1¾"W x 10¾"H x 4¾"D (4.4 x 27.6 x 12.1 cm)

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)	Glass (BG)	316 SS (SS)	

English-Unit Scales

For liquid applications				For air applications		
Cat. no.	Float [‡]	Flow range	Price	Cat. no.	Flow range	Price
Flowmeters with 2" scale						
WJ-32460-00	BG	0.2 to 2 GPH	\$ 70.00	WJ-32460-10	0.1 to 1 scfh	\$ 70.00
WJ-32460-02	SS	0.4 to 5 GPH	70.00	WJ-32460-12	0.2 to 2 scfh	70.00
WJ-32460-04	BG	1 to 10 GPH	70.00	WJ-32460-14	0.4 to 5 scfh	70.00
WJ-32460-06	SS	2 to 20 GPH	70.00	WJ-32460-16	0.5 to 10 scfh	70.00
WJ-32460-08	SS	4 to 40 GPH	70.00	WJ-32460-18	2 to 20 scfh	70.00
—	—	—	—	WJ-32460-20	3 to 30 scfh	70.00
—	—	—	—	WJ-32460-22	4 to 50 scfh	70.00
—	—	—	—	WJ-32460-24	10 to 100 scfh	70.00
—	—	—	—	WJ-32460-26	20 to 200 scfh	70.00
Flowmeters with 4" scale						
WJ-32461-00	SS	1 to 10 GPH	101.00	WJ-32461-10	0.4 to 5 scfh	101.00
WJ-32461-02	SS	2 to 25 GPH	101.00	WJ-32461-12	1 to 10 scfh	101.00
WJ-32461-04	SS	4 to 50 GPH	101.00	WJ-32461-14	2 to 20 scfh	101.00
WJ-32461-06	SS	6 to 60 GPH	101.00	WJ-32461-16	4 to 40 scfh	101.00
WJ-32461-07 [†]	SS	0.2 to 2.5 GPM	153.75	WJ-32461-18	10 to 100 scfh	101.00
WJ-32461-08 [†]	SS	0.4 to 5 GPM	153.75	WJ-32461-20	14 to 150 scfh	101.00
—	—	—	—	WJ-32461-22	20 to 200 scfh	101.00
—	—	—	—	WJ-32461-24 [†]	0.5 to 5 scfm	153.75
—	—	—	—	WJ-32461-26 [†]	1 to 10 scfm	153.75
Flowmeters with 5" scale						
WJ-32466-50	SS	1 to 10 GPM	319.00	WJ-32466-60	3 to 25 scfm	319.00
WJ-32466-52	SS	2 to 20 GPM	319.00	WJ-32466-62	4 to 50 scfm	319.00
—	—	—	—	WJ-32466-64	10 to 100 scfm	319.00

[†]These models have dual scale: GPM/GPH, scfm/scfh, LPM/LPH; they also have $\frac{1}{2}$ " NPT(F) connections and use tripod base 32462-60 sold at right.

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

Metric-Unit Scales

For liquid applications				For air applications		
Cat. no.	Float [‡]	Flow range	Price	Cat. no.	Flow range	Price
Flowmeters with 50-mm scale						
WJ-32460-30	BG	5 to 50 mL/min	\$ 70.00	WJ-32460-40	0.04 to 0.5 LPM	\$ 70.00
WJ-32460-32	SS	10 to 100 mL/min	70.00	WJ-32460-42	0.1 to 1 LPM	70.00
WJ-32460-34	SS	20 to 240 mL/min	70.00	WJ-32460-44	0.4 to 5 LPM	70.00
—	—	—	—	WJ-32460-46	1 to 10 LPM	70.00
—	—	—	—	WJ-32460-48	2 to 25 LPM	70.00
—	—	—	—	WJ-32460-50	4 to 50 LPM	70.00
—	—	—	—	WJ-32460-52	10 to 100 LPM	70.00
Flowmeters with 100-mm scale						
WJ-32461-30	SS	4 to 50 mL/min	101.00	WJ-32461-50	0.4 to 5 LPM	101.00
WJ-32461-32	SS	10 to 120 mL/min	101.00	WJ-32461-52	1 to 10 LPM	101.00
WJ-32461-34	BG	25 to 225 mL/min	101.00	WJ-32461-54	2 to 20 LPM	101.00
WJ-32461-36	SS	40 to 400 mL/min	101.00	WJ-32461-56	3 to 30 LPM	101.00
WJ-32461-38	SS	40 to 660 mL/min	101.00	WJ-32461-58	4 to 50 LPM	101.00
WJ-32461-40	SS	100 to 1500 mL/min	101.00	WJ-32461-60	10 to 100 LPM	101.00
WJ-32461-42	SS	200 to 3000 mL/min	101.00	WJ-32461-62 [†]	14 to 140 LPM	153.75
WJ-32461-44 [†]	SS	0.8 to 9 LPM	153.75	WJ-32461-64 [†]	30 to 280 LPM	153.75
WJ-32461-46 [†]	SS	1.5 to 20 LPM	153.75	—	—	—
Flowmeters with 127-mm scale						
WJ-32466-54	SS	4 to 36 LPM	319.00	WJ-32466-66	100 to 700 LPM	319.00
WJ-32466-56	SS	5 to 75 LPM	319.00	WJ-32466-68	100 to 1400 LPM	319.00
—	—	—	—	WJ-32466-70	400 to 3400 LPM	319.00

Tripod Bases

Durable acrylic base with three leveling screws and spirit level.

Catalog number	Description	Price
WJ-32462-50	For one flowmeter with 2" or 50-mm scale	\$70.00
WJ-32462-55	For one flowmeter with 4" or 100-mm scale	70.00
WJ-32462-60	For one flowmeter with $\frac{1}{2}$ " connections	70.00

Cole-Parmer Panel-Mount Flowmeters

Many unique features make these the ideal economical flowmeters

- Front shield magnifies scale 16% for more accurate readings
- Fused ceramic scale for a precise, permanent measuring guide
- A vertical-tangential locator line for readings with hairline accuracy

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.

Specifications

Accuracy: ±5% full-scale
Repeatability: ±0.25% 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, carboloy, sapphire, or tantalum	
Frame	Aluminum, acrylic, polycarbonate	



150-mm flowmeter
32005-14
with valve



INNOCAL®
INNOVATIVE CALIBRATION SOLUTIONS

Ensure the accuracy of your flowmeter!

WJ-17080-00 NIST-traceable calibration with data for air/gas flowmeter \$270.00

WJ-17080-12 NIST-traceable calibration with data for liquid flowmeter..... \$287.00

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	WJ-32010-15	\$109.00	WJ-32012-15	\$246.50	WJ-32013-15	\$ 133.00	WJ-32015-15	\$259.00
50 mL/min	SS	WJ-32010-01	109.00	WJ-32012-01	246.50	WJ-32013-01	133.00	WJ-32015-01	259.00
100 mL/min	G	WJ-32010-03	109.00	WJ-32012-03	246.50	WJ-32013-03	133.00	WJ-32015-03	259.00
250 mL/min	C	WJ-32010-05	109.00	WJ-32012-05	246.50	WJ-32013-05	133.00	WJ-32015-05	259.00
500 mL/min	C	WJ-32010-07	109.00	WJ-32012-07	246.50	WJ-32013-07	133.00	WJ-32015-07	259.00
1.0 LPM	G	WJ-32010-09	109.00	WJ-32012-09	246.50	WJ-32013-09	133.00	WJ-32015-09	259.00
2.0 LPM	SS	WJ-32010-11	109.00	WJ-32012-11	246.50	WJ-32013-11	133.00	WJ-32015-11	259.00
5.0 LPM	G	WJ-32010-13	109.00	WJ-32012-13	246.50	WJ-32013-13	133.00	WJ-32015-13	259.00
10.0 LPM	SS	WJ-32010-17	109.00	WJ-32012-17	246.50	WJ-32013-17	133.00	WJ-32015-17	259.00
16.0 LPM	SS	WJ-32010-16	121.50	WJ-32012-16	246.50	WJ-32013-16	141.00	WJ-32015-16	271.00

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	WJ-32030-00	\$179.00	WJ-32032-00	\$304.00	WJ-32033-00	\$196.00	WJ-32035-00	\$325.00
50 mL/min	Sa	WJ-32000-00	173.25	WJ-32002-00	304.00	WJ-32003-00	196.00	WJ-32005-00	325.00
75 mL/min	C	WJ-32000-02	179.00	WJ-32002-02	304.00	WJ-32003-02	196.00	WJ-32005-02	325.00
100 mL/min	C	WJ-32000-04	179.00	WJ-32002-04	304.00	WJ-32003-04	196.00	WJ-32005-04	325.00
200 mL/min	SS	WJ-32000-06	179.00	WJ-32002-06	304.00	WJ-32003-06	196.00	WJ-32005-06	325.00
300 mL/min	C	WJ-32000-08	179.00	WJ-32002-08	304.00	WJ-32003-08	196.00	WJ-32005-08	325.00
500 mL/min	Sa	WJ-32030-08	179.00	WJ-32032-08	304.00	WJ-32033-08	196.00	WJ-32035-08	325.00
800 mL/min	G	WJ-32030-09	179.00	WJ-32032-09	304.00	WJ-32033-09	196.00	WJ-32035-09	325.00
1.25 LPM	C	WJ-32030-10	179.00	WJ-32032-10	304.00	WJ-32033-10	196.00	WJ-32035-10	325.00
2.5 LPM	G	WJ-32000-10	174.25	WJ-32002-10	304.00	WJ-32003-10	196.00	WJ-32005-10	325.00
5.0 LPM	Sa	WJ-32000-12	179.00	WJ-32002-12	304.00	WJ-32003-12	196.00	WJ-32005-12	325.00
10.0 LPM	G	WJ-32000-14	179.00	WJ-32002-14	304.00	WJ-32003-14	196.00	WJ-32005-14	325.00
23 LPM	G	WJ-32030-14	192.75	WJ-32032-14	316.00	WJ-32033-14	207.50	WJ-32035-14	336.00
42 LPM	SS	WJ-32030-15	192.75	WJ-32032-15	316.00	WJ-32033-15	207.50	WJ-32035-15	336.00
60 LPM	C	WJ-32030-16	192.75	WJ-32032-16	316.00	WJ-32033-16	207.50	WJ-32035-16	336.00

†Sa = sapphire, C = carboloy, SS = 316 stainless steel, and G = glass

Fluid Handling

Flowmeters

Cole-Parmer Flowmeters and Proportional Controllers for Gases

Versatility and high accuracy from a laminar-based mass flowmeter

- Accuracy of $\pm 0.8\%$ of reading $+0.2\%$ full-scale; repeatability of $\pm 0.2\%$
- Measure 20 standard gases—user selectable from display
- 100 to 1 turndown with ranges of 1 SCCM full-scale up to 1000 SLPM
- Models with 4 to 20 mA output or totalizer are available

These meters measure flow via pressure drop across a laminar flow element (LFE). Because the flow element makes the flow stream laminar, placement in the process does not require straight pipe runs upstream or downstream of the meter, greatly simplifying installation. As compared to thermal mass technologies, the LFE design provides an ultrafast response within 10 milliseconds and offers "instant on" with no warm-up time.

An integrated keypad around the display is all that is required to program the unit for service. The 0 to 5 VDC output allows transmission of the flow value to a remote display, recorder, or controller regulating a valve or pump.

Flow controllers feature an integrated PID to direct the unit's response to process changes. Flow set point is established with keypad, the optional set point control module, a 0 to 5 V signal, or an RS-232 input signal. Order set point control modules separately from the table. For portable flow metering applications, order the battery pack listed below table.

What's included: NIST-traceable calibration report supplied by the manufacturer and a 120/230 VAC power adapter with communications cable.



Mass flowmeter 32908-59 shown with optional battery pack 32929-50



Flow controller 32907-51



Meters and controllers feature a dynamic display that simultaneously shows flow rate, line pressure, fluid temperature, and (for controllers) the set point. For the units shown, both power and input/output signals are transmitted through a single multi-pin connector.

Specifications

Max particulate size

Up to 1 LPM: 20 μm
 >1 LPM to 1000 LPM: 50 μm

Accuracy: $\pm 0.8\%$ of reading $+0.2\%$ full-scale

Repeatability: $\pm 0.2\%$

Response time

Flowmeters: 10 msec
 Flow controllers: 50 msec

Operating temperature:

14 to 122°F (-10 to 50°C)

Max pressure: 145 psig (9.9 bar)

Pressure drop: 0.8 to 3.2 psig (flowmeter)

Output signal: 0 to 5 VDC, RS-232

Input signal: 0 to 5 VDC and RS-232

Wetted materials

Flowmeters: 302 and 303 SS, Viton®, silicone RTV, and glass-reinforced nylon, aluminum
 Flow controllers: 302, 303; Viton, silicone RTV, glass-reinforced nylon, aluminum, brass, 410 SS, silicon, glass

Power

Flowmeters: 7 to 30 VDC at 30 mA
 Flow controllers
 Models ≤ 10 LPM: 12 to 30 VDC at 250 mA
 Models ≤ 50 LPM: 24 to 30 VDC at 750 mA

Display type: four-digit, seven-line LCD; $\frac{1}{4}$ "H flow display



"Very versatile flow controller"

Ralph, Chicago, IL



Connections

≤ 10 mL/min: 10-32 UNF
 50 mL/min to 10 LPM: $\frac{1}{8}$ " NPT(F)
 50 to 100 LPM: $\frac{1}{4}$ " NPT(F)
 100 and 250 LPM: $\frac{1}{2}$ " NPT(F)
 500 and 1000 LPM: $\frac{3}{4}$ " NPT(F)

Flowmeters/controllers [†]	Dimensions
Models ≤ 50 mL/min	2 $\frac{3}{8}$ "L x 3 $\frac{3}{8}$ "H x 1 $\frac{1}{4}$ "D (6.0 x 9.8 x 3.2 cm)
Models 100 mL/min to 10 LPM	2 $\frac{3}{8}$ "L x 4 $\frac{1}{4}$ "H x 1 $\frac{1}{4}$ "D (6.0 x 10.8 x 3.2 cm)
Models 50 LPM to 100 LPM	4"L x 4 $\frac{3}{8}$ "H x 1 $\frac{1}{2}$ "D (10.2 x 11.1 x 4.1 cm)
Models 250 LPM to 1000 LPM	4"L x 5 $\frac{1}{2}$ "H x 1 $\frac{1}{2}$ "D (10.2 x 14.0 x 4.1 cm)
Set point module	2 $\frac{3}{8}$ "W x 2"H x 1"D (6.0 x 5.1 x 2.5 cm)

[†]Dimensions do not include control valve.

Flow range	Mass flowmeters		Mass flow controllers		Set point modules [†]	
	Catalog number	Price	Catalog number	Price	Catalog number	Price
0.01 to 1 mL/min	WJ-32908-51	\$1873.00	WJ-32907-51	\$2276.00	WJ-32907-83	\$528.00
0.05 to 5 mL/min	WJ-32908-53	1615.00	WJ-32907-53	2031.00	WJ-32907-85	528.00
0.1 to 10 mL/min	WJ-32908-55	1253.00	WJ-32907-55	1769.00	WJ-32907-87	528.00
0.5 to 50 mL/min	WJ-32908-57	1253.00	WJ-32907-57	1769.00	WJ-32907-89	528.00
1 to 100 mL/min	WJ-32908-59	1214.00	WJ-32907-59	1498.00	WJ-32907-91	528.00
2 to 200 mL/min	WJ-32908-61	1214.00	WJ-32907-61	1498.00	WJ-32907-93	528.00
5 to 500 mL/min	WJ-32908-63	1214.00	WJ-32907-63	1498.00	WJ-32907-97	528.00
0.01 to 1 LPM	WJ-32908-67	1214.00	WJ-32907-67	1511.00	WJ-32907-83	528.00
0.05 to 5 LPM	WJ-32908-69	1200.00	WJ-32907-69	1498.00	WJ-32907-85	528.00
0.1 to 10 LPM	WJ-32908-71	1253.00	WJ-32907-71	1498.00	WJ-32907-87	528.00
0.5 to 50 LPM	WJ-32908-73	1359.00	WJ-32907-73	1897.00	WJ-32907-89	528.00
1 to 100 LPM	WJ-32908-75	1359.00	WJ-32907-75	2118.00	WJ-32907-91	528.00
2.5 to 250 LPM	WJ-32908-77	1700.00	WJ-32907-77	2505.00	WJ-32907-95	528.00
5 to 500 LPM	WJ-32908-79	2095.00	WJ-32907-79	2684.00	WJ-32907-97	528.00
10 to 1000 LPM	WJ-32908-81	2423.00	WJ-32907-81	3047.00	WJ-32907-99	528.00

[†]May be ordered as an option.

WJ-32929-50 Battery pack, for portable operation of mass or volumetric flowmeter only \$222.50

WJ-32929-89 Connection cable, 8-DIN to stripped ends..... \$42.50
 WJ-17080-10 NIST-traceable recalibration..... \$270.00



Fluid Handling

Pressure & Vacuum

Highlighted items

Ashcroft® Low-Pressure and Low-Vacuum Gauges

Effective low-pressure and low-vacuum response with diaphragm

- True zero indication identifies damaged gauges increasing safety and ensuring accuracy
- Built-in snubber minimizes rapid pressure fluctuations



68930-05

Gauges have brass socket, beryllium copper diaphragm capsule, painted steel case, and polycarbonate lens. Bottom connection is 1/4" NPT(M).

Specifications

Accuracy: ±1% (ANSI/ASME grade A)

Dial size: 2 1/2" (64 mm)

Operating temp: -50 to 270°F

Wetted materials: beryllium copper, brass, polysulfone and RTV silicone

Lens: polycarbonate

Process connection: 1/4" NPT(M)

Cat. no.	Ranges	Price
Dual-scale low-pressure gauges[†]		
WJ-68930-00 [‡]	0 to 10" H ₂ O; 0 to 2.5 kPa	\$64.75
WJ-68930-01 [‡]	0 to 15" H ₂ O; 0 to 4 kPa	64.75
WJ-68930-02 [‡]	0 to 30" H ₂ O; 0 to 7.5 kPa	64.75
WJ-68930-03	0 to 60" H ₂ O; 0 to 15 kPa	64.75
WJ-68930-04	0 to 100" H ₂ O; 0 to 25 kPa	64.75
WJ-68930-05	0 to 160" H ₂ O; 0 to 40 kPa	64.75
WJ-68930-06	0 to 200" H ₂ O; 0 to 50 kPa	64.75
WJ-68930-10	0 to 3 psi; 0 to 20 kPa	64.75
WJ-68930-11	0 to 5 psi; 0 to 35 kPa	64.75
WJ-68930-12	0 to 10 psi; 0 to 70 kPa	64.75
Dual-scale low-vacuum gauges[‡]		
WJ-68930-30 [‡]	0 to 15" H ₂ O; 0 to 4 kPa	69.00
WJ-68930-31 [‡]	0 to 30" H ₂ O; 0 to 7.5 kPa	69.00
WJ-68930-32	0 to 60" H ₂ O; 0 to 15 kPa	69.00
WJ-68930-33	0 to 100" H ₂ O; 0 to 25 kPa	69.00
WJ-68930-34	0 to 200" H ₂ O; 0 to 50 kPa	69.00

[†]To calibrate these gauges to NIST-traceable standards, call our Application Specialists.

[‡]These models have an accuracy of ±3-1.3%.

WJ-17040-12 NIST-traceable calibration with data \$160.50

Unique Products.

Ashcroft® Filled Gauges

Patented Powerflex™ movement isolates vibrations in gauge

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



68022-00

Gauges feature 316 stainless steel socket, tube, and case; and plastic lens. All connections are 1/4" NPT(M).

Specifications

Accuracy: ±1% (ANSI/ASME grade A)

Dial size: 2 1/2" (64 mm)

Operating temp: -50 to 180°F (-45 to 82°C)

Wetted materials: 316 SS

Lens: polycarbonate

Process connection: 1/4" NPT(M)

Catalog number	Range	Price
Gauges with bottom connection		
WJ-68022-00	30 to 0" Hg	\$86.00
WJ-68022-01	30" Hg to 30 psi	86.00
WJ-68022-02	0 to 30 psi	86.00
WJ-68022-03	0 to 60 psi	83.75
WJ-68022-04	0 to 100 psi	83.75
WJ-68022-05	0 to 200 psi	83.75
WJ-68022-06	0 to 600 psi	83.75
WJ-68022-07	0 to 1000 psi	83.75
WJ-68022-08	0 to 2000 psi	91.75
WJ-68022-09	0 to 3000 psi	91.75
Gauges with back connection		
WJ-68022-20	30 to 0" Hg	85.00
WJ-68022-21	30" Hg to 30 psi	85.00
WJ-68022-22	0 to 30 psi	85.00
WJ-68022-23	0 to 60 psi	82.75
WJ-68022-24	0 to 100 psi	82.75
WJ-68022-25	0 to 200 psi	82.75
WJ-68022-26	0 to 600 psi	82.75
WJ-68022-27	0 to 1000 psi	82.75
WJ-68022-28	0 to 2000 psi	91.75
WJ-68022-29	0 to 3000 psi	91.75

WJ-68022-90 U-Clamp kit to panel mount gauges with back connection only \$13.75
WJ-68022-92 Flange kit to panel mount gauges with back connection only. Screws not included \$18.50



Back connected gauge 68022-20 (rear view) shown with U-clamp kit 68022-90



Flange kit 68022-92

Exceptional Service.

Ashcroft® Commercial Gauges

Gauges feature Powerflex™ shock and vibration protection

- True zero indication identifies damaged gauges—increases safety and ensures accuracy



07380-75

Use these glycerin-filled gauges for easier reading when high-frequency pressure fluctuations or vibrations are present.

Gauge construction includes brass socket, phosphor bronze tube, 304 stainless steel case, and plastic lens. Bottom and back connections are 1/4" NPT(M).

Specifications

Accuracy: ±3-2-3% (ANSI/ASME grade B)

Dial size: 2 1/2" (64 mm)

Operating temp: 20 to 150°F (-6 to 65°C)

Wetted materials: brass

Lens: polycarbonate

Process connection: 1/4" NPT(M)

Catalog number	Range	Price
Gauges with bottom connection		
WJ-07380-63	30 to 0" Hg	\$31.25
WJ-07380-64	30" Hg to 30 psi	31.25
WJ-07380-65	0 to 15 psi	31.25
WJ-07380-70	0 to 30 psi	31.25
WJ-07380-75	0 to 60 psi	31.25
WJ-07380-80	0 to 100 psi	31.25
WJ-07380-85	0 to 160 psi	31.25
WJ-07380-90	0 to 200 psi	31.25
WJ-07380-91	0 to 600 psi	35.00
WJ-07380-92	0 to 1000 psi	35.00
WJ-07380-93	0 to 2000 psi	35.00
WJ-07380-94	0 to 3000 psi	60.25

Catalog number	Range	Price
Gauges with back connection		
WJ-68008-00	30 to 0" Hg	35.00
WJ-68008-01	30" Hg to 30 psi	35.00
WJ-68008-02	0 to 15 psi	35.00
WJ-68008-03	0 to 30 psi	35.00
WJ-68008-04	0 to 60 psi	35.00
WJ-68008-05	0 to 100 psi	35.00
WJ-68008-06	0 to 160 psi	35.00
WJ-68008-07	0 to 200 psi	35.00
WJ-68008-08	0 to 600 psi	35.00
WJ-68008-09	0 to 1000 psi	40.25
WJ-68008-10	0 to 2000 psi	40.25
WJ-68008-11	0 to 3000 psi	40.25

WJ-17040-10 NIST-traceable calibration with data \$113.50

Technical Support.



Fluid Handling

Pressure & Vacuum

Highlighted items

Ashcroft® Digital Pressure Gauges

Stainless steel sensor and nine engineering units make this gauge suitable for many applications

- ±0.5% full-scale terminal point accuracy
- Easy-to-read, 4½-digit display



68332-04

A versatile and economic choice for a wide variety of pressure measurement applications. The many features of this gauge make it easy to use and a great value, such as zero and span field calibrations and a cycle life of 10⁶.

Case material is made of chemical-resistant Noryl®. Gauges feature backlight and peak hold. Sensor is welded to the socket for added durability. Max pressure indication reduces chances of damage to the unit. Overpressure rating is 120 to 200% of range. Gauges meet ASME B40.7 safety requirement.

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

Operating temp: 14 to 140°F (-10 to 60°C)

Wetted materials: stainless steel

Lens: polycarbonate

Process connection: ¼" NPT(M) bottom

Power: two AAA batteries (included)

Display: 4-digit, LCD, 0.5"H characters

Catalog number	Range	Resolution	Price
WJ-68332-00	0 to 30" Hg	0.01" Hg	\$318.00
WJ-68332-18	30" Hg to 30 psi	0.01" Hg	302.00
WJ-68332-20	30" Hg to 60 psi	0.01" Hg	302.00
WJ-68332-22	30" Hg to 100 psi	0.01" Hg	302.00
WJ-68332-24	30" Hg to 300 psi	0.01" Hg	302.00
WJ-68332-02	0 to 30 psi	0.01 psi	318.00
WJ-68332-04	0 to 60 psi	0.01 psi	318.00
WJ-68332-06	0 to 100 psi	0.01 psi	318.00
WJ-68332-08	0 to 200 psi	0.1 psi	318.00
WJ-68332-10	0 to 300 psi	0.1 psi	318.00
WJ-68332-12	0 to 500 psi	0.1 psi	318.00
WJ-68332-14	0 to 1000 psi	0.1 psi	318.00
WJ-68332-16	0 to 5000 psi	1 psi	318.00

WJ-09376-00 Replacement batteries, AAA. Pack of 12..... \$24.50

WJ-17040-12 NIST-traceable calibration with data..... \$160.50

Dwyer® Magnehelic® Differential Pressure Gauges

The industry standard in indicating positive, negative, or differential pressures

- Large, easy-to-read 4" (102 mm) dial
- No manometer fluid to evaporate, freeze, or cause toxic or leveling problems



68062-06

The Magnehelic gauge is the industry standard to measure fan and blower pressures, filter resistance, air velocity, furnace draft, pressure drop across orifice plates, liquid levels with bubbler systems, and pressures in fluid amplifier or fluidic systems. The gauge's motion is damped with high-viscosity silicone fluid. The zero adjustment screw is conveniently located in the plastic cover, and is accessible without removing the cover. O-ring seal provides pressure tightness. Rugged design resists shock, vibration, and overpressure.

The helix is precision-made from an alloy of high magnetic permeability. Mounted in jeweled bearings, it turns freely, following the magnetic field to move the pointer across the scale. The samarium cobalt magnet is mounted at one end of range spring and rotates helix without mechanical linkages.

What's included: two ½" NPT plugs, two ⅝" to rubber tubing adapters, and three mounting adapters with screws.

Specifications

Units of measure: " H₂O

Operating temp: 20 to 140°F (7 to 60°C)

Media compatibility: air and noncombustible compatible gases

Lens: polycarbonate

Process connection: ⅝" NPT(F)

Casing: aluminum

Dial size: 4" (102 mm)

Catalog number	Range	Accuracy (full-scale)	Price
WJ-68062-00	0.05 to 0.2" H ₂ O	±4%	\$89.50
WJ-68062-02	0 to 0.25" H ₂ O	±4%	83.75
WJ-68062-04	0 to 0.5" H ₂ O	±3%	75.75
WJ-68062-06	0 to 1" H ₂ O		75.75
WJ-68062-08	0 to 2" H ₂ O	±2%	81.50
WJ-68062-10	0 to 5" H ₂ O		75.75

WJ-17040-10 NIST-traceable calibration with data..... \$113.50

Cole-Parmer Sealed Stainless Steel Pressure Transducers

Superior long-term stability and repeatability

Stainless steel (SS) diaphragm and polysilicon strain gauge are bonded by vapor deposition—no epoxies or glues which can cause signal instability or drift.

Transducers feature 4 to 20 mA output and have red (positive power) and black (output) wires.

Models with ±0.25% accuracy come with NIST-traceable calibration report supplied by the manufacturer.



07356-50

Specifications

Temp range (compensated): -20 to 160°F (-29 to 71°C)

Operating temp: -20 to 180°F (-29 to 82°C)

Process connection: ¼" NPT(M)

Power: 10 to 30 VDC

Electrical connection: 36"L shielded cable

Wetted materials: 300-series SS

Dimensions (L x dia): 3" x 1" (7.6 x 2.5 cm)

Catalog number	Range	Price
Vacuum and compound transducers; ±0.4% accuracy (BFSL)		

WJ-07356-10	30" Hg to 0 psi	\$375.00
WJ-07356-11	30" Hg to 30 psi	375.00
WJ-07356-12	30" Hg to 45 psi	375.00
WJ-07356-13	30" Hg to 60 psi	375.00

Pressure transducers; ±0.4% accuracy (BFSL)		
WJ-07356-50	0 to 15 psi	364.00
WJ-07356-51	0 to 30 psi	364.00
WJ-07356-52	0 to 60 psi	364.00
WJ-07356-53	0 to 100 psi	364.00
WJ-07356-54	0 to 300 psi	364.00
WJ-07356-55	0 to 750 psi	364.00
WJ-07356-56	0 to 1000 psi	364.00
WJ-07356-14	0 to 2000 psi	374.00
WJ-07356-15	0 to 3000 psi	364.00
WJ-07356-16	0 to 5000 psi	374.00

Pressure transducers; ±0.25% accuracy (BFSL)		
WJ-68001-04	0 to 100 psi	469.00
WJ-68001-05	0 to 200 psi	469.00
WJ-68001-06	0 to 300 psi	469.00
WJ-68001-07	0 to 500 psi	469.00
WJ-68001-08	0 to 1000 psi	469.00
WJ-68001-09	0 to 2000 psi	469.00
WJ-68001-10	0 to 3000 psi	469.00
WJ-68001-14	0 to 5000 psi	469.00

WJ-17090-29 NIST-traceable calibration with data..... \$177.75



Fluid Handling Pumps, Masterflex®

Highlighted items

MASTERFLEX® C/L® Variable-Speed Compact Pumps

A C/L Single-Channel Pumps

- Head design is easier to load with more secure retention and more consistent performance
- Flow range: 0.002 to 43 mL/min depending on tubing size
- Compact ¼-DIN housing—perfect for panel mounting
- Reversible, one-channel pumping
- Stop/start remote control via contact closure
- Polyphenylene sulfide, acetal, and copolyester pump head with stainless steel rollers

What's included: 5 ft (1.5 m) of 0.89-mm ID Tygon® LFL tubing.



A C/L single-channel pump 77122-00 shown with Tygon® Lab tubing 95609-34

B C/L Dual-Channel Pumps

- Flow range: 0.002 to 12.3 mL/min per channel depending on drive and tubing size
- Compact ¼-DIN housing—perfect for panel mounting
- Two-channel, reversible pumping
- Stop/start remote control capabilities via contact closure
- Polyphenylene sulfide and stainless steel pump head with acetal co-polymer rollers

What's included: 5 ft (1.5 m) of 0.89-mm ID Tygon LFL tubing.

B C/L dual-channel pump 77120-32 shown with PharMed® BPT tubing 95809-42



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

Specifications & Ordering Information

ISO9001:2008
CERTIFIED SUPPLIER

Power supplies are:



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										
WJ-77122-00	1.7 to 10	±5%	1	4	Yes	IP22	7" x 3¾" x 3½" (17.8 x 9.5 x 8.9 cm)	90 to 260, 50/60	110 mA at 115 VAC	\$686.00
WJ-77122-02								12 VDC†	—	602.00
WJ-77122-10	13 to 80	±5%	1	4	Yes	IP22	7" x 3¾" x 3½" (17.8 x 9.5 x 8.9 cm)	90 to 260, 50/60	175 mA at 115 VAC	686.00
WJ-77122-12								12 VDC†	—	602.00
WJ-77122-20	50 to 300	±5%	1	4	Yes	IP22	7" x 3¾" x 3½" (17.8 x 9.5 x 8.9 cm)	90 to 260, 50/60	400 mA at 115 VAC	686.00
WJ-77122-22								12 VDC†	—	602.00
B C/L dual-channel compact pumps										
WJ-77120-32	1 to 6	±5%	2	6	Yes	IP22	7½" x 3¾" x 3½" (19 x 9.5 x 8.9 cm)	90 to 260, 50/60	110 mA at 115 VAC	667.00
WJ-77120-52								12 VDC†	—	608.00
WJ-77120-42	10 to 60	±5%	2	6	Yes	IP22	7½" x 3¾" x 3½" (19 x 9.5 x 8.9 cm)	90 to 260, 50/60	175 mA at 115 VAC	667.00
WJ-77120-62								12 VDC†	—	608.00

†Power supply not included with 12 VDC models.

WJ-77120-03 Brackets for panel mounting.
Set of 2 \$20.50

WJ-77200-07 Replacement power supply,
100 to 240 VAC, for pump 77122-20. \$102.00

WJ-77120-11 Replacement power supply,
100 to 240 VAC, for pumps 77122-00, -10;
77120-32 and -42 \$102.00

Microbore Pump Tubing Ordering Information

Tube ID (mm)	Tygon® lab	Silicone, platinum-cured	Silicone, peroxide-cured	PharMed® BPT	Tygon LFL (long flex life)	Viton®	Puri-Flex™	C-FLEX®	Solvent/hydrocarbon
0.19	WJ-95609-10	—	—	—	—	—	WJ-96418-10	WJ-95718-10	WJ-95712-10
0.25	WJ-95609-12	—	—	WJ-95809-12	—	—	WJ-96418-12	WJ-95718-12	WJ-95712-12
0.51	WJ-95609-18	WJ-95590-18	—	WJ-95809-18	—	—	WJ-96418-18	WJ-95718-18	WJ-95712-18
0.89	WJ-95609-26	WJ-95590-26	WJ-07625-26	WJ-95809-26	WJ-96429-26	WJ-97632-26	WJ-96418-26	WJ-95718-26	WJ-95712-26
1.14	WJ-95609-30	WJ-95590-30	WJ-07625-30	WJ-95809-30	WJ-96429-30	WJ-97632-30	WJ-96418-30	WJ-95718-30	WJ-95712-30
1.42	WJ-95609-34	WJ-95590-34	WJ-07625-34	WJ-95809-34	WJ-96429-34	WJ-97632-34	WJ-96418-34	WJ-95718-34	WJ-95712-34
2.06	WJ-95609-42	WJ-95590-42	WJ-07625-42	WJ-95809-42	WJ-96429-42	WJ-97632-42	WJ-96418-42	WJ-95718-42	WJ-95712-42
2.79	WJ-95609-48	WJ-95590-48	WJ-07625-48	WJ-95809-48	WJ-96429-48	WJ-97632-48	WJ-96418-48	WJ-95718-48	WJ-95712-48
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	\$78.00	\$130.75	\$101.00	\$127.25	\$135.25	\$122.75	\$55.75	\$94.00	\$48.25

Unique Products.

Exceptional Service.

Technical Support.



Fluid Handling

Pumps, Masterflex®

Highlighted items

MASTERFLEX® L/S® Easy-Load® II Pump Heads

Automatic tubing retention system holds pump tubing securely in place—no need to make manual adjustments

- Four-roller rotor improves pressure performance and mechanical stability, and reduces flow pulsation
- PPS housing with SS or CRS rotor available—choose economical CRS rotors, or SS rotors for greater durability and chemical resistance
- Models with adjustable occlusion available—tighten occlusion for higher pressure, loosen for longer tubing life
- Two-channel models “C” give you synchronous flow from two separate channels

Mount up to four pump heads on a single drive; see individual drive specifications for maximum number of heads to be mounted. When two Easy-Load II heads are stacked, rotors are offset by 45°—combine the outlets of the two pump heads for a 95% reduction in flow pulsation.

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.

TECHNICAL information!

Use only Masterflex precision pump tubing with Masterflex pumps to ensure optimal performance. Use of other tubing brands may void applicable warranties. Order tubing on pages 79–80.



A Easy-Load II Pump Heads for Precision Pump Tubing

- Accept tubing sizes—L/S 13, L/S 14, L/S 16, L/S 25, L/S 17, and L/S 18
- Pump a wide range of flow rates from a single pump head
- Select fixed or adjustable occlusion models

B Easy-Load II Pump Heads for High-Performance Precision Pump Tubing

- Accept tubing sizes—L/S 15, L/S 24, L/S 35, and L/S 36
- High-performance precision pump tubing has a thicker wall enabling better pressure generation, suction lift, and ability to pump viscous fluids
- Select fixed or adjustable occlusion models

C Two-Channel Easy-Load II Pump Heads for Precision Pump Tubing

- Pump two channels simultaneously from one head eliminating the need for stacking pump heads†
- Accept tubing sizes—L/S 13, L/S 14, L/S 16, and L/S 25

†Using the same size pump tubing in each channel.



B

Easy-Load II fixed occlusion pump head 77200-62



C

Two-channel Easy-Load II pump head 77202-50 (side view)

“Great pump head”

Jeff. Fort Smith, AR



Specifications & Ordering Information

ISO 9001:2008 CERTIFIED SUPPLIER

2 year warranty

Pump tubing size	mL per rev	Flow rates in mL/min		Maximum system pressure [†] psi (bar)	Pump heads ^{††}		
		1 to 100 rpm	6 to 600 rpm		Fixed occlusion		Adjustable occlusion
					CRS rotor	SS rotor	SS rotor
A Easy-Load II pump heads for precision pump tubing					WJ-77200-50	WJ-77200-60	WJ-77201-60
L/S 13	0.06	0.06 to 6	0.36 to 36	40 (2.7)			
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					WJ-77200-52	WJ-77200-62	WJ-77201-62
L/S 15	1.7	1.7 to 170	10 to 1000	40 (2.7)			
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)			
Price					\$250.00	\$327.00	\$372.00
C Two-channel Easy-Load II pump heads for precision pump tubing					WJ-77202-50	WJ-77202-60	—
L/S 13	0.06	0.06 to 6	0.36 to 36	40 (2.7)			
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)			
Price					\$312.00	\$374.00	—

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

^{††}CRS = cold-rolled steel SS = stainless steel

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	WJ-77200-01	\$25.00
Two	WJ-77200-02	\$8.00
Three	WJ-77200-03	\$9.00
Four	WJ-77200-04	\$3.50



Fluid Handling Pumps, Masterflex®

Highlighted items

MASTERFLEX® L/S® Easy-Load® 3 Pump Heads

Mount and stack heads without tools or hardware

- Twist-lock mounting feature lets you mount and stack heads in seconds, no additional hardware required for stacking
- Polypropylene (PP) housing with CRS or SS rotor—CRS rotor is more economical while SS offers greater durability and chemical resistance
- Included mounting plate adapts Easy-Load 3 pump heads to L/S drives

What's included: mounting plate/adaptor kit for L/S pump drives and a 17" (43-cm) length of silicone pump tubing.

Specifications & Ordering Information

ISO9001:2008
CERTIFIED SUPPLIER **2** year warranty

Pump tubing size	mL per rev	Flow rates in mL/min		Maximum system pressure [†] psi (bar)	Pump heads	
		1 to 100 rpm	6 to 600 rpm		Catalog number	
					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)	WJ-77800-50	WJ-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)	WJ-77800-52	WJ-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	\$222.50	\$282.00

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

[‡]CRS = cold-rolled steel SS = stainless steel



A
Easy-Load® 3
pump head 77800-50

Accessories

WJ-77800-00 Replacement mounting kit, for mounting Easy-Load 3 pump head to Masterflex L/S pump drives. Includes mounting plate and four screws \$35.00

MASTERFLEX® L/S® Easy-Load® Pump Heads

Ideal for fast tubing changes and reduced maintenance

- Easily change the tubing without removing head from the drive
- PSF housing with CRS or SS rotor, or PPS housing with SS rotor available—choose PPS housing for improved chemical resistance; SS rotor offers increased durability and chemical resistance
- ATEX Zone 2 approved models rated to EEx II 3 G c II C T6

What's included: single-channel mounting hardware and a 15" (38-cm) length of silicone tubing. Two-, three-, and four-channel mounting hardware available (order separately below right).

Specifications & Ordering Information

ISO9001:2008
CERTIFIED SUPPLIER **ATEX** Zone 2 07518-40, -42 **2** year warranty

Pump tubing size	mL per rev	Flow rates in mL/min		Maximum system pressure psi (bar)		Pump heads [†]				
		1 to 100 rpm	6 to 600 rpm	Continuous	Intermittent	PSF 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	25 (1.7)	40 (2.7)	WJ-07518-00	WJ-07518-10	WJ-07518-60	WJ-07518-40	
L/S 14	0.21	0.21 to 21	1.3 to 130	25 (1.7)	40 (2.7)					
L/S 16	0.8	0.8 to 80	4.8 to 480	25 (1.7)	40 (2.7)					
L/S 25	1.7	1.7 to 170	10 to 1000	20 (1.4)	35 (2.4)					
L/S 17	2.8	2.8 to 280	17 to 1700	15 (1.0)	20 (1.4)					
L/S 18	3.8	3.8 to 380	23 to 2300	10 (0.7)	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	25 (1.7)	40 (2.7)	WJ-07518-02	WJ-07518-12	WJ-07518-62	WJ-07518-42	
L/S 24	2.8	2.8 to 280	17 to 1700	25 (1.7)	40 (2.7)					
						Price	\$227.00	\$285.00	\$314.00	\$332.00

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

A
Easy-Load pump head
07518-00 for
precision
pump tubing.



Mounting Hardware for Easy-Load Heads

Stack up to four L/S Easy-Load pump heads on one drive (see individual drive specifications for recommended number of heads). Order mounting hardware based on number of mounted pump heads. Hardware is stainless steel.



Heads to be mounted	Catalog number	Price/st
One	WJ-07013-04	\$33.25
Two	WJ-07013-05	36.75
Three	WJ-07013-08	40.00
Four	WJ-07013-09	45.75



Fluid Handling

Pumps, Masterflex®

Highlighted items

MASTERFLEX® L/S® Multichannel Pump Heads

Low-pulsation synchronous flow from multiple channels with no cartridges

- Flow range: 0.045 to 2300 mL/min per channel depending on drive rpm and tubing size
- Two-, four-, or eight-channel heads are stackable for up to 24 channels
- Machined stainless steel (SS) and anodized aluminum with SS rotor, bearings, and rollers for reliable, continuous-duty operation
- Six roller heads deliver low-pulsation flow; three-roller heads offer higher flow rates
- 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
- Load the tubing, latch the occlusion bed, and run the pump—two-stop tubing gives you optimal tension with no adjustment

What's included: mounting hardware and hex key tool.

**Low-Pulsation
Fluid Transfer!**



Stack multichannel heads for up to 24 synchronous flow channels.



A
Multichannel head for L/S precision pump tubing 07535-08

Find MORE!

These multichannel pump heads require the two-stop tube sets sold separately below. For L/S extension tubing, see pages 79–80.



Specifications & Ordering Information

ISO9001:2008
CERTIFIED SUPPLIER

2 year
warranty

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					
WJ-07535-04	4				\$ 855.00
WJ-07535-08	8	6	24	12	1221.00
B L/S Multichannel pump heads for high-performance precision pump tubing, sizes L/S 15, L/S 24, L/S 35					
WJ-07536-02	2				855.00
WJ-07536-04	4	3	12	6	1221.00

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

WJ-07534-01 Replacement mounting hardware set, includes mounting screws and hex key tool. Set of 2..... \$55.75

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

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 Two-Stop Precision Pump Tubing Sets Ordering Information for 07535- and 07536-series pump heads

Pump tubing formulation	Masterflex	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® Lab		WJ-06416-13 \$58.50/pk of 8	WJ-06416-14 \$58.50/pk of 8	WJ-06416-16 \$58.50/pk of 8	WJ-06416-15 \$41.50/pk of 4	WJ-06416-24 \$41.50/pk of 4	WJ-06416-35 \$58.50/pk of 4
Silicone (platinum-cured)		WJ-06421-13 \$63.25/pk of 8	WJ-06421-14 \$63.25/pk of 8	WJ-06421-16 \$82.75/pk of 8	WJ-06421-15 \$60.75/pk of 4	WJ-06421-24 \$65.50/pk of 4	WJ-06421-35 \$75.75/pk of 4
BioPharm Plus Silicone (platinum-cured)		WJ-96116-13 \$86.00/pk of 8	WJ-96116-14 \$86.00/pk of 8	WJ-96116-16 \$86.00/pk of 8	WJ-96116-15 \$71.25/pk of 4	WJ-96116-24 \$86.00/pk of 4	WJ-96116-35 \$101.00/pk of 4
PharMed® BPT		WJ-96114-13 \$72.25/pk of 8	WJ-96114-14 \$72.25/pk of 8	WJ-96114-16 \$72.25/pk of 8	WJ-96114-15 \$65.50/pk of 4	WJ-96114-24 \$65.50/pk of 4	WJ-96114-35 \$65.50/pk of 4
Chem-Durance® Bio		WJ-96117-13 \$98.75/pk of 8	WJ-96117-14 \$98.75/pk of 8	WJ-96117-16 \$98.75/pk of 8	WJ-96117-15 \$82.75/pk of 4	WJ-96117-24 \$82.75/pk of 4	WJ-96117-35 \$97.50/pk of 4
Viton®		WJ-96428-13 \$98.00/pk of 8	WJ-96428-14 \$96.50/pk of 8	WJ-96428-16 \$125.00/pk of 8	WJ-96428-15 \$115.75/pk of 4	WJ-96428-24 \$133.00/pk of 4	WJ-96428-35 \$156.00/pk of 4



Fluid Handling Pumps, Masterflex®

Highlighted items

MASTERFLEX® L/S® Precision Pump Tubing

Ensure optimal performance from your Masterflex pump







- Custom extruded to fit Masterflex pumps
- Engineered for long life in peristaltic pump applications
- Lot-to-lot consistency provides superior accuracy and repeatability

Masterflex L/S pump tubing is manufactured to extremely close tolerances that match our L/S pump heads, ensuring accurate, repeatable flow and long tubing life. Our pump tubing is factory-tested and optically inspected to provide the best performance from your peristaltic pump. With 19 different materials available, there is an L/S pump

tubing formulation suitable for nearly any fluid handling application.

Our High-performance precision pump tubing listed on page 80 features a thicker wall compared to our Precision pump tubing, making it the best choice for applications involving pressure, suction lift, viscous fluids, or long tubing life.

L/S Precision Pump Tubing Specifications

Pump tubing cross sections	Precision pump tubing					
						
	L/S 13	L/S 14	L/S 16	L/S 25	L/S 17	L/S 18
Inside diameter (nominal), in. (mm)	0.03 (0.8)	0.06 (1.6)	0.12 (3.1)	0.19 (4.8)	0.25 (6.4)	0.31 (7.9)
Hose barb size, in. (mm)	1/16 (1.6)	1/16 (1.6)	1/8 (3.2)	3/16 (4.8)	1/4 (6.4)	3/8 (9.5)
Flow range (approximate) [†] with 1 to 600 rpm drive, mL/min	0.06 to 36	0.21 to 130	0.8 to 480	1.7 to 1000	2.8 to 1700	3.8 to 2300
Maximum pressure [‡]	40 psig (2.7 bar)			35 psig (2.4 bar)	20 psig (1.4 bar)	15 psig (1.0 bar)
Maximum vacuum [‡]	26" Hg (660 mm Hg)			20" Hg (510 mm Hg)		
Suction lift [‡]	29 ft H ₂ O (8.8 m H ₂ O)			22 ft H ₂ O (6.7 m H ₂ O)		

[†]Determined under the following conditions: 0 psi at inlet, 0.5 psi at outlet; water temperature at 72°F (22°C).

[‡]Actual performance varies depending on tubing formulation—values shown are for firm tubing.

L/S Precision Pump Tubing Ordering Information

Pump tubing formulation / size		L/S 13	L/S 14	L/S 16	L/S 25	L/S 17	L/S 18
Silicone (platinum-cured)	25 ft (7.6 m) per pack	WJ-96410-13 \$54.00/pk	WJ-96410-14 \$58.50/pk	WJ-96410-16 \$67.25/pk	WJ-96410-25 \$90.00/pk	WJ-96410-17 \$94.00/pk	WJ-96410-18 \$104.50/pk
Silicone (peroxide-cured)	25 ft (7.6 m) per pack	WJ-96400-13 \$38.50/pk	WJ-96400-14 \$47.00/pk	WJ-96400-16 \$57.50/pk	WJ-96400-25 \$77.00/pk	WJ-96400-17 \$79.25/pk	WJ-96400-18 \$91.75/pk
BioPharm silicone (platinum-cured)	25 ft (7.6 m) per pack	WJ-96420-13 \$66.50/pk	WJ-96420-14 \$78.00/pk	WJ-96420-16 \$90.75/pk	WJ-96420-25 \$106.75/pk	WJ-96420-17 \$118.25/pk	WJ-96420-18 \$138.75/pk
BioPharm Plus silicone (platinum-cured)	25 ft (7.6 m) per pack	WJ-96440-13 \$73.50/pk	WJ-96440-14 \$88.25/pk	WJ-96440-16 \$102.00/pk	WJ-96440-25 \$120.50/pk	WJ-96440-17 \$133.00/pk	WJ-96440-18 \$159.50/pk
Puri-Flex™	25 ft (7.6 m) per pack	WJ-96419-13 \$33.25/pk	WJ-96419-14 \$39.00/pk	WJ-96419-16 \$45.00/pk	WJ-96419-25 \$55.75/pk	WJ-96419-17 \$58.00/pk	WJ-96419-18 \$65.00/pk
C-FLEX®	25 ft (7.6 m) per pack	WJ-06424-13 \$33.25/pk	WJ-06424-14 \$39.00/pk	WJ-06424-16 \$48.25/pk	WJ-06424-25 \$57.50/pk	WJ-06424-17 \$59.75/pk	WJ-06424-18 \$65.50/pk
C-Flex® ULTRA	25 ft (7.6 m) per pack	WJ-06434-13 \$36.25/pk	WJ-06434-14 \$43.00/pk	WJ-06434-16 \$48.25/pk	WJ-06434-25 \$63.25/pk	WJ-06434-17 \$65.50/pk	WJ-06434-18 \$72.25/pk
PharMed® BPT	25 ft (7.6 m) per pack	WJ-06508-13 \$83.75/pk	WJ-06508-14 \$102.00/pk	WJ-06508-16 \$105.50/pk	WJ-06508-25 \$107.75/pk	WJ-06508-17 \$130.75/pk	WJ-06508-18 \$136.50/pk
PharmaPure®††	25 ft (7.6 m) per pack	WJ-06435-13 \$87.25/pk	WJ-06435-14 \$103.25/pk	WJ-06435-16 \$107.75/pk	WJ-06435-25 \$113.50/pk	WJ-06435-17 \$130.75/pk	WJ-06435-18 \$138.75/pk
Tygon® LFL	25 ft (7.6 m) per pack	WJ-06429-13 \$64.25/pk	WJ-06429-14 \$90.75/pk	WJ-06429-16 \$97.50/pk	WJ-06429-25 \$104.50/pk	WJ-06429-17 \$117.00/pk	WJ-06429-18 \$135.25/pk
Tygon® Food (B-44-4X)	50 ft (15.2 m) per pack	WJ-06419-13 \$38.00/pk	WJ-06419-14 \$48.25/pk	WJ-06419-16 \$70.00/pk	WJ-06419-25 \$96.50/pk	WJ-06419-17 \$106.75/pk	WJ-06419-18 \$146.75/pk
Tygon® lab (R-3603)	50 ft (15.2 m) per pack	WJ-06409-13 \$36.75/pk	WJ-06409-14 \$43.75/pk	WJ-06409-16 \$64.25/pk	WJ-06409-25 \$89.50/pk	WJ-06409-17 \$101.00/pk	WJ-06409-18 \$135.25/pk
Tygon® fuel & lubricant (F-4040-A)	50 ft (15.2 m) per pack	WJ-06401-13 \$41.50/pk	WJ-06401-14 \$54.00/pk	WJ-06401-16 \$65.50/pk	WJ-06401-25 \$94.00/pk	WJ-06401-17 \$109.00/pk	WJ-06401-18 \$150.25/pk
Tygon® chemical (2001)††	50 ft (15.2 m) per pack	WJ-06475-13 \$67.75/pk	WJ-06475-14 \$74.50/pk	WJ-06475-16 \$106.75/pk	WJ-06475-25 \$135.25/pk	WJ-06475-17 \$137.75/pk	WJ-06475-18 \$185.75/pk
Norprene® (A 60 G)	50 ft (15.2 m) per pack	WJ-06404-13 \$48.25/pk	WJ-06404-14 \$50.50/pk	WJ-06404-16 \$52.75/pk	WJ-06404-25 \$58.50/pk	WJ-06404-17 \$65.50/pk	WJ-06404-18 \$81.50/pk
Norprene® Food (A 60 F)	50 ft (15.2 m) per pack	WJ-06402-13 \$55.25/pk	WJ-06402-14 \$57.50/pk	WJ-06402-16 \$62.00/pk	WJ-06402-25 \$85.00/pk	WJ-06402-17 \$101.00/pk	WJ-06402-18 \$118.25/pk
Gore® Style 100SC	12" (30.5 cm) per pack	—	WJ-96190-14 \$193.75/pk	WJ-96190-16 \$193.75/pk	WJ-96190-25 \$197.25/pk	WJ-96190-17 \$190.25/pk	WJ-96190-18 \$190.25/pk
Gore® Style 500	12" (30.5 cm) per pack	—	WJ-96191-14 \$547.00/pk	WJ-96191-16 \$561.00/pk	WJ-96191-25 \$583.00/pk	WJ-96191-17 \$608.00/pk	WJ-96191-18 \$620.00/pk
Gore® Style 400	12" (30.5 cm) per pack	—	—	WJ-06439-16 \$205.25/pk	—	WJ-06439-17 \$238.50/pk	—
Chem-Durance® Bio††	50 ft (15.2 m) per pack	WJ-06442-13 \$128.50/pk	WJ-06442-14 \$145.75/pk	WJ-06442-16 \$199.50/pk	WJ-06442-25 \$232.75/pk	WJ-06442-17 \$281.00/pk	WJ-06442-18 \$345.00/pk
FDA Viton®	25 ft (7.6 m) per pack	WJ-96412-13 \$125.00/pk	WJ-96412-14 \$133.00/pk	WJ-96412-16 \$169.75/pk	WJ-96412-25 \$216.75/pk	WJ-96412-17 \$280.00/pk	WJ-96412-18 \$328.00/pk

††These formulations are recommended for use with Easy-Load® and Easy-Load II pump heads only.

Unique Products.

Exceptional Service.

Technical Support.







Fluid Handling

Pumps, Masterflex®

Highlighted items

MASTERFLEX® L/S® High-Performance Precision Pump Tubing


















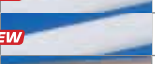


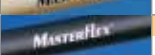
L/S High-Performance Precision Pump Tubing Specifications

Pump tubing cross sections	High-performance precision pump tubing			
				
	L/S 15	L/S 24	L/S 35	L/S 36
Inside diameter (nominal), in. (mm)	0.19 (4.8)	0.25 (6.4)	0.31 (7.9)	0.38 (9.7)
Hose barb size, in. (mm)	3/16 (4.8)	1/4 (6.4)	3/8 (9.5)	3/8 (9.5)
Flow range (approximate) [†] with 1 to 600 rpm drive, mL/min	1.7 to 1000 (1.8 to 1100)	2.8 to 1700 (3.0 to 1800)	3.8 to 2300 (4.3 to 2600)	4.8 to 2900 (5.8 to 3400)
Value in () obtained with High-Performance pump head				
Maximum pressure [‡]	40 psig (2.7 bar)		35 psig (2.4 bar)	20 psig (1.4 bar)
Maximum vacuum [‡]	26" Hg (660 mm Hg)		24" Hg (610 mm Hg)	
Suction lift [‡]	29 ft H ₂ O (8.8 m H ₂ O)		27 ft H ₂ O (8.3 m H ₂ O)	

[†]Determined under the following conditions: 0 psi at inlet, 0.5 psi at outlet; water temperature at 72°F (22°C).

[‡]Actual performance varies depending on tubing formulation—values shown are for firm tubing.

L/S High-Performance Precision Pump Tubing Ordering Information

Pump tubing formulation / size			L/S 15	L/S 24	L/S 35	L/S 36
Silicone (platinum-cured)	25 ft (7.6 m) per pack		WJ-96410-15 \$93.00/pk	WJ-96410-24 \$118.25/pk	WJ-96410-35 \$148.00/pk	WJ-96410-36 \$164.00/pk
Silicone (peroxide-cured)	25 ft (7.6 m) per pack		WJ-96400-15 \$81.50/pk	WJ-96400-24 \$101.00/pk	WJ-96400-35 \$126.25/pk	WJ-96400-36 \$141.00/pk
BioPharm silicone (platinum-cured)	25 ft (7.6 m) per pack		WJ-96420-15 \$143.25/pk	WJ-96420-24 \$162.75/pk	WJ-96420-35 \$180.00/pk	WJ-96420-36 \$204.00/pk
BioPharm Plus silicone (platinum-cured)	25 ft (7.6 m) per pack		WJ-96440-15 \$159.50/pk	WJ-96440-24 \$182.25/pk	WJ-96440-35 \$214.50/pk	WJ-96440-36 \$232.75/pk
Puri-Flex™	25 ft (7.6 m) per pack	NEW 	WJ-96419-15 \$58.00/pk	WJ-96419-24 \$77.00/pk	WJ-96419-35 \$87.75/pk	WJ-96419-36 \$102.00/pk
C-FLEX®	25 ft (7.6 m) per pack		WJ-06424-15 \$62.00/pk	WJ-06424-24 \$79.25/pk	WJ-06424-35 \$91.75/pk	WJ-06424-36 \$106.75/pk
C-Flex® ULTRA	25 ft (7.6 m) per pack	NEW 	WJ-06434-15 \$67.75/pk	WJ-06434-24 \$87.25/pk	WJ-06434-35 \$101.00/pk	WJ-06434-36 \$117.00/pk
PharMed® BPT	25 ft (7.6 m) per pack		WJ-06508-15 \$104.50/pk	WJ-06508-24 \$146.75/pk	WJ-06508-35 \$160.50/pk	WJ-06508-36 \$173.25/pk
PharmaPure®††	25 ft (7.6 m) per pack		WJ-06435-15 \$109.00/pk	WJ-06435-24 \$148.00/pk	—	—
Tygon® LFL	25 ft (7.6 m) per pack		WJ-06429-15 \$113.50/pk	WJ-06429-24 \$158.25/pk	WJ-06429-35 \$175.50/pk	WJ-06429-36 \$184.75/pk
Tygon® Food (B-44-4X)	50 ft (15.2 m) per pack		WJ-06419-15 \$121.50/pk	WJ-06419-24 \$160.50/pk	WJ-06419-35 \$176.50/pk	WJ-06419-36 \$182.25/pk
Tygon® lab (R-3603)	50 ft (15.2 m) per pack		WJ-06409-15 \$115.75/pk	WJ-06409-24 \$161.75/pk	WJ-06409-35 \$179.00/pk	WJ-06409-36 \$188.00/pk
Tygon® fuel & lubricant (F-4040-A)	50 ft (15.2 m) per pack		WJ-06401-15 \$119.25/pk	WJ-06401-24 \$158.25/pk	WJ-06401-35 \$175.50/pk	WJ-06401-36 \$185.75/pk
Tygon® chemical (2001)††	50 ft (15.2 m) per pack		WJ-06475-15 \$191.50/pk	WJ-06475-24 \$209.75/pk	—	—
Norprene® (A 60 G)	50 ft (15.2 m) per pack		WJ-06404-15 \$83.75/pk	WJ-06404-24 \$105.50/pk	WJ-06404-35 \$128.50/pk	WJ-06404-36 \$158.25/pk
Norprene® Food (A 60 F)	50 ft (15.2 m) per pack		WJ-06402-15 \$111.25/pk	WJ-06402-24 \$148.00/pk	WJ-06402-35 \$162.75/pk	WJ-06402-36 \$176.50/pk
GORE® Style 100SC	14" (35.6 cm) per pack	NEW 	WJ-96190-15 \$187.00/pk	WJ-96190-24 \$187.00/pk	WJ-96190-35 \$187.00/pk	—
GORE® Style 500	14" (35.6 cm) per pack	NEW 	WJ-96191-15 \$671.00/pk	WJ-96191-24 \$696.00/pk	WJ-96191-35 \$716.00/pk	—
GORE® Style 400	14" (35.6 cm) per pack	NEW 	WJ-06439-15 \$245.25/pk	WJ-06439-24 \$244.25/pk	WJ-06439-35 \$263.00/pk	WJ-06439-36 \$286.00/pk
Chem-Durance® Bio††	50 ft (15.2 m) per pack		WJ-06442-15 \$280.00/pk	WJ-06442-24 \$391.00/pk	WJ-06442-35 \$478.00/pk	—
FDA Viton®	25 ft (7.6 m) per pack		WJ-96412-15 \$357.00/pk	WJ-96412-24 \$433.00/pk	WJ-96412-35 \$538.00/pk	WJ-96412-36 \$587.00/pk

††These formulations are recommended for use with Easy-Load® and Easy-Load II pump heads only.

MORE online!

For help selecting the right Masterflex® pump tubing formulation for your application. Go to . . .

ColeParmer.ca/MasterflexTubing



Pulse Dampener

Virtually eliminate pulsation in your output flow. Pulse dampener features a polyethylene body. It includes five pairs of fittings and PTFE-pipe thread tape. Pulse dampener accepts all L/S tubing sizes and I/P® 26 size tubing.



WJ-07596-20 Pulse dampener \$90.75

Fluid Handling

Pumps, Masterflex®

MASTERFLEX® L/S® Fixed-Speed Drives

Economical drives deliver consistent, repeatable flow rates

- Pump head flow rate: 0.06 to 290 mL/min; Cartridge flow rate: 0.0006 to 84 mL/min. Flow rate depends on drive rpm and tubing size.
- Economy fixed-speed drives are stackable and ideal for field or lab use. Select from seven speeds—choose your drive based on flow rate; see table below.
- Lighted power switch on front of drive lets you know that pump is running. Drives are UL-listed and comply with CE regulations.
- Drives accept five different pump head types: Standard, Easy-Load®, Easy-Load® II, Easy-Load® 3, and Cartridge.

What's included: 6-ft (1.8-m) line cord.
115 VAC models: U.S. standard plug;
230 VAC models: European plug.

Drive 07540-01 shown with Standard pump head 07015-20



Consistent, Repeatable Flow Rates!

Drive 07540-01 shown with Easy-Load II pump head 77200-62 (see page 76)



TECHNICAL information!

Fixed-speed drives accept five pump head types: Standard, Easy-Load®, Easy-Load II, Easy-Load 3, and Cartridge. Drives that accept only one pump head are not for use with cartridge pump heads.



Flow Rates in mL/min^{††}

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						Standard, Easy-Load II, Easy-Load 3				
	Cartridge [‡]						Easy-Load				
1	0.06	0.21	0.8	1.7	2.8	3.8	1.7	2.8	3.8	4.8	
2	0.12	0.42	1.6	3.4	5.6	7.6	3.4	5.6	7.6	9.6	
6	0.36	1.3	4.8	10	17	23	10	17	23	29	
12	0.72	2.5	9.6	20	34	46	20	34	46	58	
20	1.2	4.2	16	34	56	76	34	56	76	96	
30	1.8	6.3	24	50	84	110	50	84	110	140	
60	3.6	13	48	100	170	230	100	170	230	290	

[†]The Standard pump head is not available for L/S® 25. [‡]Cartridge heads are available for microbore tubing.

^{††}Motor rpm and flow rates for the 230 VAC, 50 Hz economy drives are approximately 50% of the values shown.

Specifications & Ordering Information

ISO 9001:2008
CERTIFIED SUPPLIER

UL US

CE 2 year warranty

rpm	Speed control	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	115 VAC/60 Hz models		230 VAC/50 Hz models	
						Catalog number	Price	Catalog number	Price
1	None ^{††}	2	Subfractional (< 1/2 hp) ^{†††}	IP22	6" x 4 7/8" x 4 1/2" (15.2 x 12.5 x 11.5 cm)	WJ-07540-01	\$294.00	WJ-07542-01	\$294.00
2						WJ-07540-02	294.00	WJ-07542-02	294.00
6						WJ-07540-06	294.00	WJ-07542-06	294.00
12	None ^{††}	2	Subfractional (< 1/2 hp) ^{†††}	IP22	6" x 4 7/8" x 4 1/2" (15.2 x 12.5 x 11.5 cm)	WJ-07540-12	294.00	WJ-07542-12	294.00
20						WJ-07540-20	294.00	WJ-07542-20	294.00
30						WJ-07540-30	294.00	WJ-07542-30	294.00
60						WJ-07540-60	294.00	WJ-07542-60	294.00

^{††}Drive speed may vary ±15%, subject to fluctuations in line voltage and frequency.

^{†††}Maximum power required is 70 W or less.

Tubing Weights

Flow-through weights of PTFE keep tubing in place in receiving vessel during dispense cycles. Fit Masterflex L/S tubing sizes noted.



Catalog number	Description	Price
WJ-78226-81	Weight for L/S 16, 15, and 25	\$26.00
WJ-78226-82	Weight for L/S 17, 18, 24, 35, 36	\$7.25
WJ-77310-03	Set of two; one each of 78226-81 and 78226-82	\$4.00

MORE information!

FREE TUBING TEST KIT!

Find out which tubing formulations work best with chemicals you are using. Includes 17 FREE pump tubing samples, formulation descriptions, testing and ordering instructions.

Call
800-363-5900
to request a tubing
test kit 00101-10 today!



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Fluid Handling

Pumps, Masterflex®

Highlighted items

MASTERFLEX® L/S® Precision Variable-Speed Console Drives

Easy-to-use drives offer precise speed control and digital display of rpm—ideal for metering applications

- Flow rate 0.6 to 3400 mL/min (depends on drive rpm and tubing size)
- Three-digit LED display shows motor rpm—confirm speed setting at a glance
- Reversible motor—purge tubing before or after pumping; pump fluid in either direction
- Powerful motors let you stack 2 or 4 pump heads for increased flow rates and for multichannel applications
- Membrane keypad for easy up-front control of speed, direction, and start/stop
- Stackable, splash-resistant ABS plastic housing; IP33 rated
- Remote control capabilities via a DB9 female connector on back of drive:
 - Speed control input
 - Pump direction (CW/CCW) via open collector or contact closure
 - Start/stop via open collector or contact closure

What's included: 6-ft (1.8-m) line cord with IEC 320/CEE22 socket. These models are shipped with country-specific plug/cord set; please specify ultimate destination when ordering.



Precision variable-speed drive 07528-10 shown with two Easy-Load II pump heads 77200-50.

Specifications & Ordering Information

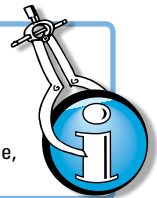


Catalog number	rpm	Speed control (resolution)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H) (25.4 x 21.6 x 21.6 cm)	Power (50/60 Hz)		Price
							VAC	Amps	
WJ-07528-10	6 to 600	±0.25% (1 rpm at 600 rpm; 0.1 rpm at 100 rpm)	2	1/10 hp (75 W)	IP33		90 to 260	1.8 at 115 VAC, 1.2 at 230 VAC	\$1261.00
WJ-07528-20	3 to 300		2						1261.00
WJ-07528-30	1 to 100		4						1261.00

- WJ-07595-45 Connector, DB9 male.** Use for 4 to 20 mA remote control. . . \$50.50
- WJ-07595-47 Cable assembly, DB9 male connector and 25 ft (7.9 m) cable** with stripped wire terminal ends. Use for remote control. . . \$165.25
- WJ-77595-35 Foot switch, DB9 male.** . . . \$189.25
- WJ-07528-80 Handheld remote controller;** for remote control of start/stop, route tubing through handle for dispensing into containers. . . \$273.00
- WJ-07523-98 Tilt bail,** use to securely elevate front of drive. . . \$85.00

TECHNICAL information!

Variable-speed console drives accept nine different pump head types: Standard, Easy-Load®, Easy-Load® II, Easy-Load® 3, Multichannel, High-Performance, Cartridge, PTFE-Tubing, and PTFE-Diaphragm.



Complete L/S® Variable-Speed Pump Systems

Complete Systems 1 and 2 include:

Pump Head	+	Tubing	+	Drive
1 L/S Easy-Load® 3 pump head 77800-60 (page 77)		Tygon® LFL L/S® 16 tubing 06429-16 10 ft (3 m) (page 79)		Precision console drive 07528-10 6 to 600 rpm (above)
2 L/S Easy-Load II pump head 77200-62 (page 76)		Tygon LFL L/S 24 tubing 06429-24 10 ft (3 m) (page 80)		Precision console drive 07528-10 6 to 600 rpm (above)

Ordering Information—Complete Pump Systems 1 and 2

Key	Catalog number	Description	Power (VAC, Hz)	Price
1	WJ-77916-10	L/S Precision standard pump with Easy-Load 3 pump head	90 to 260, 50/60	\$1559.00
2	WJ-77916-20	L/S Precision standard pump with Easy-Load II pump head	90 to 260, 50/60	1616.00

Flow Range:
4.8 to 480 mL/min

1

NEW 77916-10

2

77916-20 **NEW**

Flow Range:
17 to 1700 mL/min



Fluid Handling Pumps, Masterflex®

Highlighted items

MASTERFLEX® L/S® Variable-Speed Digital Drives

Precision digital drive offers a maintenance-free high-accuracy motor and an all-new graphical interface that makes setup and operation easier than ever

- Flow rate: 0.001 to 3400 mL/min with L/S tubing. Flow rate depends on drive rpm and tubing size.
- Graphical LCD shows four operating modes: continuous run, timed dispense, copy dispense, volume dispense. View pump performance continually.
- Brushless, maintenance-free motor offers $\pm 0.1\%$ speed control accuracy with a 6000 to 1 turndown ratio
- Menu-driven interface lets you select one of seven languages for programming and operation
- Dispense by: mL—volume in mL of each dispense, 0.001 to 9999 mL; Copy—1 to 9999 dispense cycles; or SEC—time interval between each dispense cycle (1 to 9999 secs)
- Remote control capabilities via DB25 female connector on drive
- Programmed calibration ensures dispense and display accuracy—drive stores one calibration value per tubing size.
- Accepts all L/S pump heads

What's included: 6-ft (1.8-m) line cord with IEC 320/CEE22 socket. These models are shipped with country-specific plug/cord set; please specify ultimate destination when ordering.

See how to calibrate your Masterflex® L/S® Digital Drive



L/S variable-speed digital drive 07523-80 shown with L/S multichannel pump head 07535-04

Specifications & Ordering Information

ISO9001:2008 CERTIFIED SUPPLIER 2 year warranty

Catalog number	rpm	Speed control (resolution)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	Power (50/60 Hz)		Price
							VAC	Amps	
WJ-07523-80	0.1 to 600	$\pm 0.1\%$ (0.1 rpm at 600 rpm; 0.01 rpm at 100 rpm)	2	$\frac{1}{10}$ 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	\$2098.00
WJ-07523-90	0.02 to 100		4						2098.00

WJ-07523-92 Foot switch, momentary start/stop; 6-ft (1.8-m) cable \$204.00
 WJ-07523-94 DB25 male connector. Use to create your own cable \$64.25
 WJ-07523-98 Tilt bail, use to securely elevate front of drive \$85.00

WJ-07523-95 Cable assembly, DB25 male connector and 25 ft (7.9 m) cable with stripped wire ends for remote control \$136.50
 WJ-07523-97 Handheld remote controller; route tubing through handle for dispensing into containers \$273.00

Complete L/S® Variable-Speed Digital Pump Systems

Complete Systems 1 and 2 include:

Pump Head + Tubing + Drive

- | | | |
|---|--|---|
| <p>1 L/S Easy-Load® 3 pump head 77800-60 (page 77)</p> <p>2 L/S Easy-Load II pump head 77200-62 (page 76)</p> | <p>Tygon® LFL L/S 16 tubing 06429-16 10 ft (3 m) (page 79)</p> <p>Tygon LFL L/S 24 tubing 06429-24 10 ft (3 m) (page 80)</p> | <p>Standard digital drive 07523-80 0.1 to 600 rpm (above)</p> <p>Standard digital drive 07523-80 0.1 to 600 rpm (above)</p> |
|---|--|---|

Ordering Information—Complete Pump Systems 1 and 2

Key	Catalog number	Description	Power	Price
1	WJ-77921-60	L/S standard brushless digital pump with Easy-Load 3 pump head	90 to 260 VAC, 50/60 Hz	\$2401.00
2	WJ-77921-70	L/S standard brushless digital pump with Easy-Load II pump head	90 to 260 VAC, 50/60 Hz	2459.00



1
77921-60

Flow Range:
0.08 to 480 mL/min

2
77921-70

Flow Range:
0.28 to 1700 mL/min

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Fluid Handling

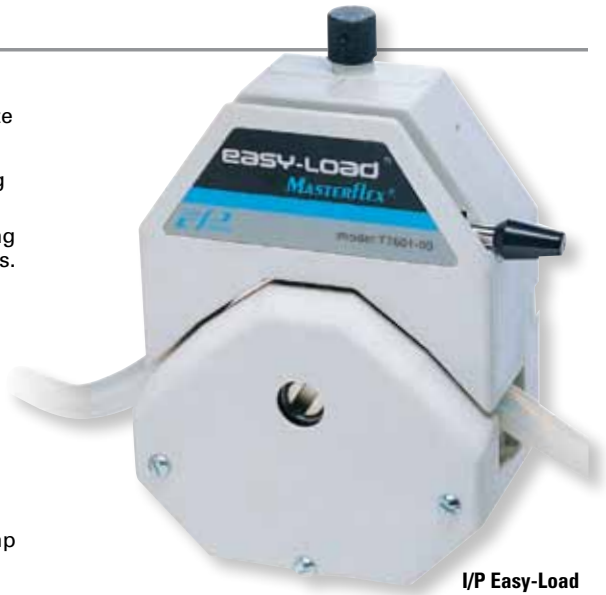
Pumps, Masterflex®

Highlighted items

MASTERflex® I/P® Easy-Load® Pump Heads

Fast tubing changes minimize downtime

- Flow rate: 0.6 to 13 LPM (0.16 to 3.5 GPM) depending on drive rpm and tubing size
- Accepts I/P 26, I/P 73, I/P 82 pump tubing (see page 85 for Masterflex I/P tubing)
- Adjustable occlusion—optimize pressure capabilities and tubing life by adjusting the “squeeze” on the tubing
- Automatic tubing retention system—spring-loaded tubing retainers ensure tubing is secured automatically. Improves tubing life and performance of all tubing sizes.
- Tubing guide ensures correct positioning of tubing to maximize performance and pump tubing life
- 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.
- Tang boot provides quieter operation and less maintenance
- Five-screw mounting—ensures pump head is mounted securely to drive. Single-channel mounting hardware included (order replacement below). Pump head comes ready to mount to drive.
- Dual-channel hardware available (order separately below right). Mount two pump heads on a single drive; change tubing without removing heads.



I/P Easy-Load pump head 77601-00

Specifications & Ordering Information

ISO9001:2008 CERTIFIED SUPPLIER 2 year warranty

Pump tubing size	mL per rev	Flow rates (LPM) at indicated rpm			Maximum system pressure psi (bar)	Pump heads		
		100 rpm	540 rpm	20 to 650 rpm		PSF housing		PPS housing
		CRS rotor	SS rotor	SS rotor				
I/P 26	6.15	0.6	3.2	0.12 to 4	40 (2.7)	WJ-77601-00	WJ-77601-10	WJ-77601-60
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				
Price						\$551.00	\$729.00	\$789.00

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

Mounting Hardware

- WJ-77601-95 Replacement mounting hardware for one pump head, stainless steel** \$30.00
- WJ-77601-96 Dual-channel mounting hardware for two pump heads, stainless steel** \$35.75

MASTERflex® I/P® High-Performance Pump Head

Highest flow rates and pressure ratings of any I/P pump head

- Flow rate: 0.26 to 19 LPM (0.06 to 5.0 GPM) depending on drive rpm and tubing size
- Accepts all three high-performance precision tubing options— I/P 70, I/P 88, I/P 89 (see page 85 for Masterflex I/P tubing)
- Rollers, bearings, rotor plates, and rotor shaft are made from stainless steel (SS); occlusion bed is made from thermoset polyester. SS has excellent chemical resistance, high durability, and long service life.
- “C-shaped” design allows tubing to enter and exit same side of pump head. Facilitates connection to tubing inlet and outlet.
- Versatile dual mounting options—pump head can be mounted on drive upwards or on its side
- Compatible with I/P drives that accept two or more pump heads. Drives that accept two heads have enough torque to drive pump head even under difficult conditions such as high back pressure.
- Includes mounting hardware—ready to mount onto drive



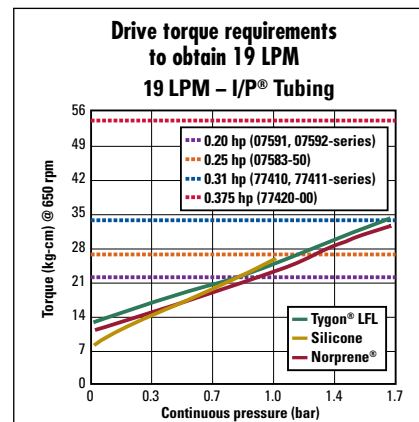
High-performance pump head 77600-62 has a “C-shaped” design—tubing enters/exits the same side.

Specifications & Ordering Information

ISO9001:2008 CERTIFIED SUPPLIER 2 year warranty

Pump tubing size	mL per rev	Flow rates (LPM) at 20 to 650 rpm	Maximum system pressure psi (bar)	Pump head
				Catalog number
I/P 70	12.3	0.26 to 8	40 (2.7)	WJ-77600-62
I/P 88	26.2	0.4 to 17	35 (2.4)	
I/P 89	29.2	0.52 to 19	20 (1.4)	
Price				\$869.00

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





Fluid Handling Pumps, Masterflex®







Highlighted items

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

- Ensure optimal Masterflex pump performance
- Custom extruded to fit Masterflex pumps
- Engineered for long life in peristaltic pumps
- Lot-to-lot consistency provides superior accuracy and repeatability

Masterflex I/P pump tubing is manufactured to extremely close tolerances that match our I/P pump heads, ensuring accurate, repeatable flow and long tubing life. Our tubing is factory-tested and optically inspected to provide the best performance from your peristaltic pump.


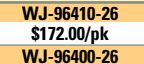
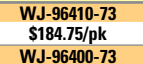
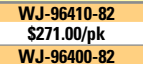
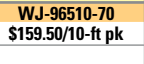


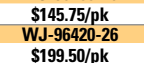
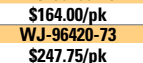

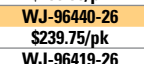
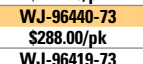
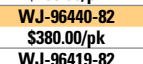
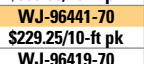
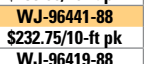

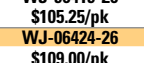
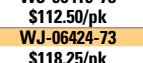
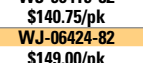
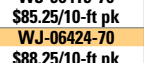
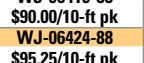

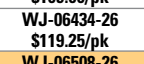
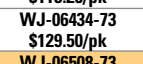
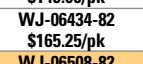
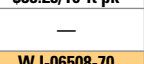
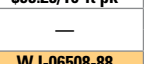

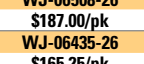
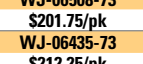
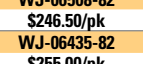
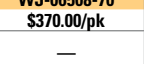
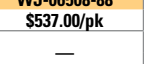

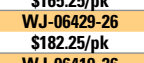
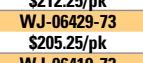

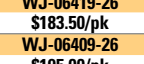
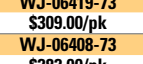
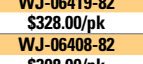
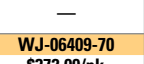

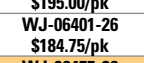
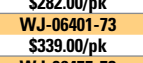

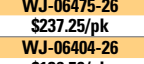
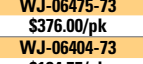
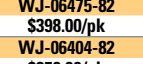



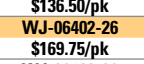
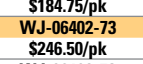

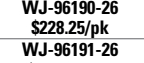
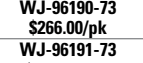
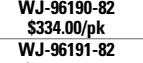

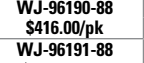

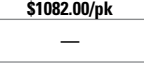
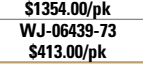

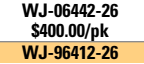
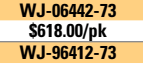
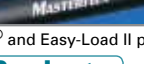
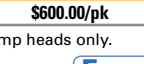














I/P Pump Tubing Specifications

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)	0.25" (6.4 mm)	0.37" (9.5 mm)	0.5" (12.7 mm)	0.37" (9.5 mm)	0.5" (12.7 mm)	0.62" (15.88 mm)
Hose barb size (nominal)	¼" (6.4 mm)	⅜" (9.5 mm)	½" (12.7 mm)	⅜" (9.5 mm)	½" (12.7 mm)	⅝" (15.88 mm)
Flow range (approximate) [†] with 1 to 650 rpm drive	0.01 to 4 LPM (0.002 to 1.1 GPM)	0.01 to 8 LPM (0.002 to 2.1 GPM)	0.02 to 13 LPM (0.005 to 3.5 GPM)	0.02 to 8 LPM (0.004 to 2.6 GPM)	0.03 to 17 LPM (0.006 to 4.5 GPM)	0.03 to 19 LPM (0.008 to 5.0 GPM)
Maximum pressure [‡]	40 psi (2.7 bar)	40 psi (2.7 bar)	20 psi (1.4 bar)	40 psi (2.7 bar)	35 psi (2.4 bar)	20 psi (1.4 bar)
Maximum vacuum [‡]	26" Hg (660 mm Hg)	26" Hg (660 mm Hg)	20" Hg (510 mm Hg)	26" Hg (660 mm Hg)	26" Hg (660 mm Hg)	24" Hg (610 mm Hg)
Suction lift [‡]	29 ft H ₂ O (8.8 m H ₂ O)	29 ft H ₂ O (8.8 m H ₂ O)	23 ft H ₂ O (7.0 m H ₂ O)	29 ft H ₂ O (8.8 m H ₂ O)	29 ft H ₂ O (8.8 m H ₂ O)	27 ft H ₂ O (8.2 m H ₂ O)

[†]Determined under the following conditions: 0 psi at inlet, 0.5 psi at outlet; water temperature at 72°F (22°C).

[‡]Actual performance varies depending on tubing formulation—values shown are for firm tubing.

I/P Pump Tubing Ordering Information

Pump tubing formulation		Precision pump tubing			High-performance precision pump tubing		
		I/P 26	I/P 73	I/P 82	I/P 70	I/P 88	I/P 89
Silicone (platinum cured)	25 ft (7.6 m) per pack	 WJ-96410-26 \$172.00/pk	 WJ-96410-73 \$184.75/pk	 WJ-96410-82 \$271.00/pk	 WJ-96510-70 \$159.50/10-ft pk	 WJ-96510-88 \$215.50/10-ft pk	 WJ-96510-89 \$268.00/10-ft pk
Silicone (peroxide cured)	25 ft (7.6 m) per pack	 WJ-96400-26 \$145.75/pk	 WJ-96400-73 \$164.00/pk	 WJ-96400-82 \$246.50/pk	—	—	—
BioPharm silicone (platinum)	25 ft (7.6 m) per pack	 WJ-96420-26 \$199.50/pk	 WJ-96420-73 \$247.75/pk	 WJ-96420-82 \$295.00/pk	 WJ-96421-70 \$353.00/10-ft pk	 WJ-96421-88 \$235.00/10-ft pk	 WJ-96421-89 \$281.00/10-ft pk
BioPharm Plus silicone (platinum)	25 ft (7.6 m) per pack	 WJ-96440-26 \$239.75/pk	 WJ-96440-73 \$288.00/pk	 WJ-96440-82 \$380.00/pk	 WJ-96441-70 \$229.25/10-ft pk	 WJ-96441-88 \$232.75/10-ft pk	 WJ-96441-89 \$311.00/10-ft pk
Puri-Flex™	25 ft (7.6 m) per pack NEW	 WJ-96419-26 \$105.25/pk	 WJ-96419-73 \$112.50/pk	 WJ-96419-82 \$140.75/pk	 WJ-96419-70 \$85.25/10-ft pk	 WJ-96419-88 \$90.00/10-ft pk	 WJ-96419-89 \$116.00/10-ft pk
C-FLEX®	25 ft (7.6 m) per pack	 WJ-06424-26 \$109.00/pk	 WJ-06424-73 \$118.25/pk	 WJ-06424-82 \$149.00/pk	 WJ-06424-70 \$88.25/10-ft pk	 WJ-06424-88 \$95.25/10-ft pk	 WJ-06424-89 \$120.50/10-ft pk
C-Flex® ULTRA	25 ft (7.6 m) per pack NEW	 WJ-06434-26 \$119.25/pk	 WJ-06434-73 \$129.50/pk	 WJ-06434-82 \$165.25/pk	—	—	—
PharMed® BPT	25 ft (7.6 m) per pack	 WJ-06508-26 \$187.00/pk	 WJ-06508-73 \$201.75/pk	 WJ-06508-82 \$246.50/pk	 WJ-06508-70 \$370.00/pk	 WJ-06508-88 \$537.00/pk	—
PharmaPure® ^{††}	25 ft (7.6 m) per pack	 WJ-06435-26 \$165.25/pk	 WJ-06435-73 \$212.25/pk	 WJ-06435-82 \$255.00/pk	—	—	—
Tygon® LFL	25 ft (7.6 m) per pack	 WJ-06429-26 \$182.25/pk	 WJ-06429-73 \$205.25/pk	 WJ-06429-82 \$263.00/pk	 WJ-06429-70 \$388.00/pk	 WJ-06429-88 \$480.00/pk	 WJ-06429-89 \$493.00/pk
Tygon Food (B-44-4X)	50 ft (15.2 m) per pack	 WJ-06419-26 \$183.50/pk	 WJ-06419-73 \$309.00/pk	 WJ-06419-82 \$328.00/pk	—	—	—
Tygon lab (R-3603)	50 ft (15.2 m) per pack	 WJ-06409-26 \$195.00/pk	 WJ-06408-73 \$282.00/pk	 WJ-06408-82 \$308.00/pk	 WJ-06409-70 \$372.00/pk	 WJ-06409-88 \$383.00/pk	 WJ-06409-89 \$389.00/pk
Tygon fuel & lubricant (F-4040-A)	50 ft (15.2 m) per pack	 WJ-06401-26 \$184.75/pk	 WJ-06401-73 \$339.00/pk	 WJ-06401-82 \$365.00/pk	—	—	—
Tygon chemical (2001) ^{††}	50 ft (15.2 m) per pack	 WJ-06475-26 \$237.25/pk	 WJ-06475-73 \$376.00/pk	 WJ-06475-82 \$398.00/pk	—	—	—
Norprene® (A 60 G)	50 ft (15.2 m) per pack	 WJ-06404-26 \$136.50/pk	 WJ-06404-73 \$184.75/pk	 WJ-06404-82 \$250.00/pk	 WJ-06404-70 \$199.50/25-ft pk	 WJ-06404-88 \$276.00/25-ft pk	 WJ-06404-89 \$309.00/25-ft pk
Norprene Food (A 60 F)	50 ft (15.2 m) per pack	 WJ-06402-26 \$169.75/pk	 WJ-06402-73 \$246.50/pk	 WJ-06402-82 \$270.00/pk	—	 WJ-06402-88 \$340.00/25-ft pk	 WJ-06402-89 \$351.00/25-ft pk
GORE® Style 100SC	24" (61 cm) per pack NEW	 WJ-96190-26 \$228.25/pk	 WJ-96190-73 \$266.00/pk	 WJ-96190-82 \$334.00/pk	—	 WJ-96190-88 \$416.00/pk	 WJ-96190-89 \$481.00/pk
GORE® Style 500	24" (61 cm) per pack NEW	WJ-96191-26 \$1082.00/pk	WJ-96191-73 \$1354.00/pk	WJ-96191-82 \$1638.00/pk	—	WJ-96191-88 \$2639.00/pk	WJ-96191-89 \$3356.00/pk
GORE® Style 400	24" (61 cm) per pack NEW	—	WJ-06439-73 \$413.00/pk	—	—	WJ-06439-88 \$704.00/pk	—
Chem-Durance® Bio ^{††}	50 ft (15.2 m) per pack	WJ-06442-26 \$400.00/pk	WJ-06442-73 \$618.00/pk	WJ-06442-82 \$637.00/pk	WJ-06442-70 \$568.00/pk	WJ-06442-88 \$760.00/pk	WJ-06442-89 \$774.00/25-ft pk
FDA Viton®	25 ft (7.6 m) per pack	WJ-96412-26 \$600.00/pk	WJ-96412-73 \$756.00/pk	—	—	—	—

^{††}Recommended for use with Easy-Load® and Easy-Load II pump heads only.

Unique Products.

Exceptional Service.

Technical Support.



Fluid Handling

Pumps, Masterflex®

Highlighted items

MASTERflex® I/P® Brushless Process Drives

Powerful, low-maintenance drives are versatile and cost effective

- Flow range: 0.2 to 26 LPM (depends on drive rpm and tubing size; achieve 26 LPM by stacking two I/P Easy-Load® pump heads)
- Non-chip epoxy-coated, IP55-rated steel enclosure protects against moisture, chemicals, and dust
- Compact drives are light enough to carry with one hand, but powerful enough to drive two pump heads
- Drive model 77411-00 features remote inputs (4 to 20 mA, 0 to 10 V, start/stop, reverse) and remote outputs ("pump ready" signal and 4 to 20 mA outputs)

These I/P process drives feature robust, 1/3-hp brushless motors that drive up to two pump heads with most tubing formulations. Adjust the drive speed quickly using the speed control knob—speed is displayed on an easy-to-read LED display from 5 to 100% of full speed, with 1% resolution.

What's included: 6-ft (1.8-m) line cord with IEC320/CEE 22 connector coupler. Please specify final destination country to receive the correct plug/cord set.



I/P variable-speed brushless process drive 77410-10 is powerful, compact, and portable

Specifications & Ordering Information

ISO9001:2008
CERTIFIED SUPPLIER



Remote controls (model 77411-00)

Input: 4 to 20 mA, 0 to 10 V, start/stop, and reverse
Output: "pump ready" signal and 4 to 20 mA

Catalog number	Motor speed (rpm)	Speed control (repeatability)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	Power (50/60 Hz)		Price
							VAC	Amps	
Variable-speed brushless process drive									
WJ-77410-10	33 to 650	±0.25% (2% of max rpm)	2	1/3 hp (0.25 kW)	IP55	14" x 10" x 9" (35.6 x 25.4 x 22.9 cm)	90 to 260	4.5 A at 115 VAC, 2.6 A at 230 VAC	\$2247.00
Variable-speed brushless process drive with remote input/output									
WJ-77411-00	33 to 650	±0.25% (2% of max rpm)	2	1/3 hp (0.25 kW)	IP55	14" x 10" x 9" (35.6 x 25.4 x 22.9 cm)	90 to 260	4.5 A at 115 VAC, 2.6 A at 230 VAC	2894.00

Accessories for model 77411-00

- WJ-07595-43 Washdown foot switch \$404.00
- WJ-77300-32 Remote cable kit. Required for model 77411-00 to operate the remote inputs and outputs \$130.75

Complete I/P® Brushless Process Pump Systems

Complete Systems 1 and 2 include:

Pump Head	+	Tubing	+	Drive
1 I/P Easy-Load® pump head 77601-10 (page 84)		Tygon® LFL I/P 73 tubing 06429-73 10 ft (3 m) (page 85)		I/P brushless process drive 77410-10 33 to 650 rpm (above)
2 I/P High-Performance pump head 77600-62 (page 84)		Tygon LFL I/P 88 tubing 06429-88 3 ft (1 m) (page 85)		I/P brushless process drive 77410-10 33 to 650 rpm (above)

Ordering Information—Complete Pump Systems 1 and 2

Key	Catalog number	Description	Power	Price
1	WJ-77963-10	I/P brushless process pump system with Easy-Load pump head	90 to 260 VAC, 50/60 Hz	\$3020.00
2	WJ-77963-20	I/P brushless process pump system with High-performance pump head		3152.00

Flow Range: 0.4 to 8 LPM

1
77963-10



2
77963-20

Flow Range: 0.7 to 17 LPM



Fluid Handling Pumps, Drum & Hand

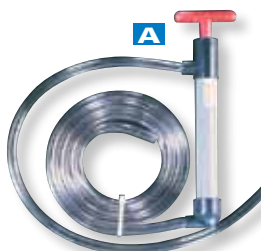
Highlighted items

Plastic Hand-Operated Drum Pumps

Ideal for most acid/base or ionic salt applications

A Siphon/Lift Pail Pump

- Suitable for pumping petroleum products or water
- Cut inlet tube to fit your container
- Maximum suction lift is 10 ft (3.0-m)



06437-00

B Threaded Hand Pump

- Pump detergents, water, dilute alkalis, and waxes from drums or pails— $\frac{3}{4}$ " NPT(M) intake threads permit semi-permanent attachment
- Optional adapters securely attach pump to a variety of containers—order below



06433-60



06437-10



Adapters for **B**
06433-66 06433-62
06433-64 06433-68

Adapters for **B** above

Catalog number	Description	Price
WJ-06433-62	Fits Rieke Sr. covers	\$5.75
WJ-06433-64	Fits Rieke Jr. covers	9.25
WJ-06433-66	Fits 70-mm openings	5.75
WJ-06433-68	Fits 2" IPS bung openings	9.25

C Siphon/Lift Drum Pump

- Equipped with a 2" IPS bung adapter for pumping detergents, water, dilute alkalis, or waxes from drums
- Cut inlet tube to fit your container

D FDA-Compliant Pumps

- Materials conform under FDA CFR 21 regulations for indirect food contact
- Available with outlet hose (70607-20) or spout (70607-22)

E Water and Chemical Siphons

- Portable and self-priming
- Water siphon (70607-00) includes 60-inch outlet hose—cut to fit your application
- Chemical siphons (70607-10, -12) are suitable for acid and alkali transfer

F HDPE Hand Pump

- Pump acids, alcohols, and alkalis from carboys, drums, or tanks
- Self-cleaning ball valve ensures free flow and long pump life
- Order optional LDPE adapters to securely mount pump on drums



06425-05

G Heavy-Duty Acid-Transfer Pumps

- UL-listed for sulfuric acid transfer at 50% concentration
- Withstand temperatures up to 120°F (49°C)
- Self-priming, will not siphon



06433-20



06433-40



06433-30



“Efficient,
easy to operate”

Fast Eddy, Holland, MI



“Need to get one”

Sink or Float, Baltimore, MD



Key	Catalog number	Strokes/ gal (L)	Wetted materials	Container adapter	Inlet tube		Outlet hose		Dimensions		Price	
					L in. (cm)	OD in. (cm)	L in. (cm)	OD in. (cm)	L in. (cm)	Dia in. (cm)		
A	WJ-06437-00	32 (9)	PVC barrel and hose, urethane-buna valves and seals	None	72" (182.9)	$\frac{1}{2}$ " (1.3)	36" (91.4)	$\frac{1}{2}$ " (1.3)	9" (22.9)	$1\frac{1}{4}$ " (3.2)	\$ 32.25	
B	WJ-06433-60	26 (7)	PVC body and hose, Hypalon® valves and seals, LDPE tube	$\frac{3}{4}$ " NPT(M) [†]	18" (45.7)	$\frac{9}{16}$ " (1.4)	9" (22.9)	$\frac{9}{16}$ " (1.4)	12" (30.5)	$1\frac{1}{4}$ " (3.2)	28.75	
C	WJ-06437-10	16 (5)	PVC body and hose, Hypalon valves and seals, LDPE tube	2" IPS	18" (45.7)	$\frac{9}{16}$ " (1.4)	48" (121.9)	$\frac{9}{16}$ " (1.4)	18" (45.7)	$1\frac{1}{4}$ " (3.2)	39.00	
	WJ-70607-20		PVC barrel and hose, Viton® valves and seals, LDPE tube				9" (22.9)	$\frac{9}{16}$ " (1.4)	12" (30.5)	$1\frac{1}{4}$ " (3.2)	40.25	
D	WJ-70607-22	26 (7)	PVC barrel, Viton valves and seals, LDPE tube and spout	$\frac{3}{4}$ " NPT(M)	12" (30.5)	$\frac{9}{16}$ " (1.4)	6" (15.2) spout	$\frac{9}{16}$ " (1.4)	12" (30.5)	$1\frac{1}{4}$ " (3.2)	44.75	
	WJ-70607-00	32 (9)	PVC barrel, shaft, and hose	None	None	None	60" (152.4)	$\frac{9}{16}$ " (1.4)	9" (22.9)	$1\frac{1}{4}$ " (3.2)	24.75	
E	WJ-70607-10	26 (7)	PVC barrel and hose, LDPE tube	2" IPS	18" (45.7)	$\frac{9}{16}$ " (1.4)	48" (121.9)	$\frac{9}{16}$ " (1.4)	12" (30.5)	$1\frac{1}{4}$ " (3.2)	40.25	
	WJ-70607-12	12 (4)	PVC barrel and hose, PVC tube				48" (121.9)	$\frac{9}{16}$ " (1.4)	36" (91.4)	$1\frac{1}{4}$ " (3.2)	48.25	
F	WJ-06425-05	6 (2)	All HDPE parts	None	34" (86.4)	$1\frac{1}{2}$ " (3.8)	14" (35.6)	$1\frac{1}{2}$ " (3.8)	38" (96.5)	$1\frac{1}{8}$ " (4.6)	128.50	
G	WJ-06433-00		Solvent-welded PVC body and shaft, Viton valves and seals	Glass carboy							127.25	
	WJ-06433-10			None							77.00	
	WJ-06433-20			2" IPS							86.00	
	WJ-06433-30	6 (2)		Buttress Dell drum (M)	—	—	36" (91.4)	$1\frac{1}{4}$ " (3.2)		38" (96.5)	$1\frac{1}{2}$ " (3.8)	88.25
	WJ-06433-40			83-mm buttress (F)								133.00

[†]Optional adapter available—order separately above.

Unique Products.

Exceptional Service.

Technical Support.

Fluid Handling

Pumps, Metering

Cole-Parmer Touch-Screen Syringe Pumps

Control flow rates from 5 pL/min to 220 mL/min via user-friendly touch screen

- Full-color touch screen enables you to quickly create configurations and recall them later
- Pump can be placed on its side to provide a smaller footprint with the touch-screen display automatically rotating
- Accuracy of ± 0.355 and reproducibility of $\pm 0.05\%$
- Daisy chain up to 99 pumps together with built-in RS-485 connectivity
- LED light on the front panel provides visual confirmation that the pump is operating
- Accepts any type of syringe—glass, plastic, or stainless steel from 0.5 μ L to 140 mL
- Full metal chassis provides noise isolation and antivibration features for increased reliability

Model 74905-50 is an infuse only syringe pump. It accommodates up to two syringes. Flow rates are defined by user and operation is based on a selectable target volume or time values to control total infusion volume.

Model 74905-52 is an infuse/withdraw syringe pump. The pump accommodates up to two syringes. The unit will operate in the following modes: infuse only, withdraw only, infuse then withdraw, withdraw then infuse, and continuous. One program can be stored.

Model 74905-54 is a programmable version of the 74905-52 pump. It is programmed to accept up to 800 user-defined steps—up to 40 programs with 20 steps each can be stored in memory.

74905-50



Model 74905-56 is a push/pull syringe pump. Pump accommodates up to two syringes for infusion and two syringes for withdrawal. This pump supports infusion and withdrawal simultaneously at user-defined flow rates. Unit operates in the following modes: infuse only, withdraw only, infuse then withdraw, withdraw then infuse, and continuous.

Model 74905-58 is a programmable version of the 74905-56 pump. It is programmed to accept up to 800 user-defined steps—up to 40 programs with 20 steps each can be stored into memory.

What's included: US power cord.

Specifications

Accuracy: $\pm 0.355\%$

Reproducibility: $\pm 0.05\%$

Syringe sizes accepted: 0.5 μ L to 140 mL

Syringe travel rate: from 0.36 μ m/min to 190.8 mm/min

Linear force: 75 lb (34 kg)

Output: RS-232, RS-485, USB, 15 pin D-sub connector

Dimensions (W x H x D): 3.5" x 10" x 11" (8.9 x 25.4 x 27.9 cm)



Catalog number	Description	Flow rate per syringe	Power (VAC, Hz)	Price
WJ-74905-50	Infusion	5 pL/min to 220.97 mL/min	100 to 240, 50/60	\$3345.00
WJ-74905-52	Infusion/withdrawal			3830.00
WJ-74905-54	Infusion/withdrawal programmable			4060.00
WJ-74905-56	Push/pull			4317.00
WJ-74905-58	Push/pull programmable			4822.00

Cole-Parmer Entry-Level Touch-Screen Syringe Pumps

Accommodate two syringes for infusion and two syringes for withdrawal at the same time

- Control flow rates from 0.58 pL/min to 88.28 mL/min via full-color touch screen
- Intuitive touch screen allows you to quickly create and recall configurations
- Daisy chain up to 99 pumps together with the built-in RS-485 connectivity
- Accuracy of ± 0.5 and reproducibility of $\pm 0.05\%$
- Accept syringes—glass, plastic, or stainless steel—from 0.5 μ L to 60 mL

These pumps feature a continuous push and pull (infusion/withdrawal) pump. When used with check valves, the pump will draw fluid from a reservoir while opposite side is dispensing fluid. After dispensing the user-settable volume, the pump automatically switches direction and dispenses from the other side while the just-consumed side is being refilled.

Pump can be placed on its side to provide a smaller footprint with the display automatically rotating. Full-metal chassis provides noise isolation and antivibration features for increased reliability.

What's included: US power cord.

Specifications

Accuracy: $\pm 0.5\%$

Reproducibility: $\pm 0.05\%$

Syringe sizes accepted: 0.5 μ L to 60 mL

Syringe travel rate: from 0.36 μ m/min to 190.8 mm/min

Linear force: 75 lb (34 kg)

Output: RS-232, RS-485, USB, 15 pin D-sub connector

Dimensions (W x H x D): 3½" x 10" x 11" (8.9 x 25.4 x 27.9 cm)

Power: 100 to 240 VAC, 50/60 Hz

NEW



74905-02

Catalog number	Number of syringes	Syringe sizes	Flow rate	Price
Infusion only pumps				
WJ-74905-02	1	0.5 μ L to 60 mL	1.28 pL/min to 88.28 mL/min	\$1840.00
WJ-74905-06	2	0.5 μ L to 10 mL		1995.00
Infusion/withdrawal programmable pumps				
WJ-74905-04	1	0.5 μ L to 60 mL	1.28 pL/min to 88.28 mL/min	2069.00
WJ-74905-08	2	0.5 μ L to 10 mL	1.28 pL/min to 88.28 mL/min	2224.00
WJ-74905-12	2	0.5 μ L to 10 mL	0.58 pL/min to 11.70 mL/min	2482.00
WJ-74905-34	1	0.5 μ L to 1000 μ L	3.66 pL/min 363 μ L/min	2808.00



Fluid Handling Pumps, Metering

Highlighted items

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
- Nonvolatile memory retains settings even after your pump is turned off
- Accurate to $\pm 0.5\%$

What's included: a 6-ft (1.8-m) cord with grounded plug (US standard plug on 115 VAC models, European plug on 230 VAC models). Syringes are available online.



Easily program 74901-series pumps through keypad; LCD provides readout for setup and operation.

A Single-Syringe Infusion Pump features microprocessor motor control and precision gearing. Microprocessor automatically selects display units based on syringe used. Pump continuously and automatically delivers exact quantities of liquid. Obtain precise flow rates down to 0.2 $\mu\text{L/hr}$. A wide dynamic range (6000:1) provides excellent flexibility. All commands can be programmed via the front-panel keypad. Settings can be changed while the pump is running.

Specifications

Accuracy: $\pm 1\%$ **Syringe travel rate:** 9.5 x 10⁻⁶ mm/min
Reproducibility: $\pm 0.1\%$ **Linear force:** 20 lb (9.1 kg)
Syringe sizes accepted: 10 μL to 60 mL



230 VAC models

Cat. no.	Flow rate	Dimensions (W x H x D)	Power (VAC, Hz)	Price
A WJ-74900-00	0.2 $\mu\text{L/hr}$	9" x 4" x 6"	115, 50/60	\$1572.00
WJ-74900-05 [†]	to 500 mL/hr	(23 x 10.2 x 15.2 cm)	230, 50/60	1768.00

[†]CE marked.

B Multi-Syringe Pumps achieve flow rates down to 0.001 $\mu\text{L/hr}$. A wide dynamic range (100,000:1) allows flow rates to vary from a slow trickle to a steady stream.

Program infusion/withdrawal pumps to sequence operations: either withdrawal followed by infusion or infusion followed by withdrawal. Simple keypad allows you to easily setup and sequence operation of the pump.

Pumps can be controlled from a computer with RS-232 interface[†]. Pumps feature two TTL inputs and two TTL outputs. The TTL inputs allow for a foot switch or a process timer to control pump operation. Use TTL outputs for 5 V signal and run indicator.

Specifications

Accuracy: $\pm 1\%$ **Syringe travel rate:** 9.5 x 10⁻⁶ mm/min
Reproducibility: $\pm 0.1\%$ **Linear force:** 40 lb (18.1 kg)
Syringe sizes accepted: 10 μL to 140 mL **Output:** RS-232



230 VAC models

Catalog number	Description	Flow rate per syringe	Power (VAC, Hz)	Price
B Dual-syringe pumps measure 11"W x 5"H x 9 1/4"D (28 x 12.7 x 23.5 cm)				
WJ-74900-10	Infusion	0.001 $\mu\text{L/hr}$ to 147 mL/min	115, 50/60	\$2900.00
WJ-74900-15 [†]		147 mL/min	230, 50/60	3123.00
WJ-74900-20		0.001 $\mu\text{L/hr}$ to 147 mL/min	115, 50/60	3357.00
WJ-74900-25 [†]	Infusion/withdrawal	0.001 $\mu\text{L/hr}$ to 147 mL/min	230, 50/60	3604.00
B Ten-syringe pumps measure 11"W x 6"H x 12"D (28 x 15.2 x 30.5 cm)				
WJ-74900-30	Infusion	0.001 $\mu\text{L/hr}$ to 147 mL/min	115, 50/60	3357.00
WJ-74900-35 [†]		147 mL/min	230, 50/60	3604.00
WJ-74900-40		0.001 $\mu\text{L/hr}$ to 147 mL/min	115, 50/60	3632.00
WJ-74900-45 [†]	Infusion/withdrawal	0.001 $\mu\text{L/hr}$ to 147 mL/min	230, 50/60	3616.00

[†]CE marked

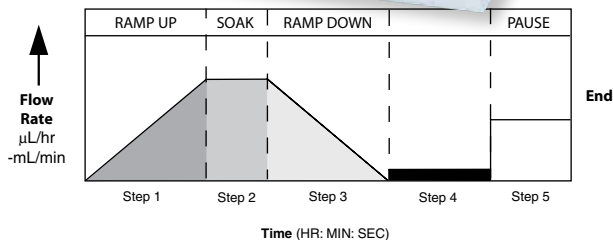
[†]Order RS-232 cables separately online or call our Application Specialists.



A
74900-00



C
74901-10



C Multi-Step Multi-Syringe Pumps also have a wide dynamic range (100,000:1) which allows flow rates to vary from a slow trickle to a steady stream. A built-in program allows you to enter up to eight commands—you can even repeat commands up to ten 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: either withdrawal followed by infusion or infusion followed by withdrawal. Select from dual-syringe or ten-syringe models—ideal for pumping exact proportions. (See chart above for sample program.)

An RS-232 interface[†] allows you to operate your pump from a computer—great for daisy-chaining pumps! Pumps also feature two TTL inputs and two TTL outputs. The TTL inputs allow for a footswitch or a process timer to control pump operation. Use TTL outputs for 5 V signal and run indicator.

Specifications

Accuracy: $\pm 1\%$ **Baud rate:** four settings up to 9600
Reproducibility: $\pm 0.1\%$ **Syringe travel rate:** 9.5 x 10⁻⁶ mm/min
Syringe sizes accepted: 10 μL to 140 mL **Linear force:** 40 lb (18.1 kg)
Output: RS-232



230 VAC models

Catalog number	Description	Flow rate per syringe	Power (VAC, Hz)	Price
C Multi-step dual-syringe pump measures 11"W x 5"H x 9 1/4"D (28 x 12.7 x 23.5 cm)				
WJ-74900-60	Infusion	0.001 $\mu\text{L/hr}$ to 147 mL/min	115, 50/60	\$3808.00
WJ-74900-65 [†]		147 mL/min	230, 50/60	4160.00
WJ-74901-00		0.001 $\mu\text{L/hr}$ to 147 mL/min	115, 50/60	4246.00
WJ-74901-05 [†]	Infusion/withdrawal	0.001 $\mu\text{L/hr}$ to 147 mL/min	230, 50/60	4567.00
C Multi-step ten-syringe pump measures 11"W x 5"H x 12"D (28 x 12.7 x 30.5 cm)				
WJ-74900-80	Infusion	0.001 $\mu\text{L/hr}$ to 147 mL/min	115, 50/60	4224.00
WJ-74900-85 [†]		147 mL/min	230, 50/60	4596.00
WJ-74901-10		0.001 $\mu\text{L/hr}$ to 147 mL/min	115, 50/60	4544.00
WJ-74901-15 [†]	Infusion/withdrawal	0.001 $\mu\text{L/hr}$ to 147 mL/min	230, 50/60	4900.00

[†]CE marked.

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

Unique Products.

Exceptional Service.

Technical Support.



Fluid Handling

Pumps, Gear

Highlighted items

Cole-Parmer Gear Pump Systems

Order the complete system—drive and pump head—with a single catalog number!

Benchtop Analog Drive

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: The 115 VAC models include a 6-ft (1.8-m) modular line cord with US standard plug; the 220 VAC models include a 6-ft (1.8-m) modular line cord with IEC 320/CEE 22 connector—specify country to obtain correct line cord.



Benchtop analog system 74013-40

Benchtop Digital Drive

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. IP23-rated enclosure protects the internal components.

Controller has a DB15F connection to the optional foot switch for hands-free on/off control (order foot switch separately below).

What's included: the 115 VAC models have a 6-ft (1.8-m) modular line cord with US standard plug; the 220 VAC models have a 6-ft (1.8-m) modular line cord with IEC 320/CEE 22 connector—specify country to obtain correct line cord.

Service kits 07144-42, 74012-02, -42, and -52 include: gears, suction shoe, shaft seals, and springs.

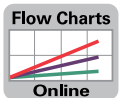
Service kits 74012-12, -22, and -32 include: gears, bushings, and seals.



Benchtop digital system 74014-30

Need Technical Assistance?

Contact our expert Application Specialists to assist you.
Call 800-323-4340 or go online to e-mail or chat live



Specifications

Port size NPT(F): 1/8"

Viscosity: 0.2 to 1500 cp

Suction lift: 24" of H₂O (at 1750 rpm)

Duty cycle: continuous

Remote control

74013-00 to -65: none
74014-00 to -65: (input) on/off by contact closure 0 to 10 VDC, 0 to 20 mA, 4 to 20 mA, and remote output

Max system temperature: 104°F (40°C)

Speed

Analog drives: 50 to 5000 rpm
Digital drives: 60 to 3600 rpm

ISO 9001:2008 CERTIFIED SUPPLIER



2 year warranty

Dimensions

Analog drives:
8 1/2" L x 6 3/8" W x 5 1/2" H
(21.6 x 16.2 x 13.8 cm)

Digital drives:
7 3/4" L x 11 1/2" W x 7 1/4" H
(19.7 x 29.2 x 18.4 cm)

Flow rates (mL/min) [†]			Max psi (bar)		Wetted parts			Temperature range	Power (VAC)	Benchtop analog drives		Benchtop digital drives		Service kits	
mL/rev	at 50 rpm	at 3600 rpm	Diff	System	Body	Gears	Seals			Catalog number	Price	Catalog number	Price	Catalog number	Price
0.017	0.85	85	20 (1.4)	300 (20.7)	316 SS	Graphite	PTFE	-50 to 350°F (-46 to 177°C)	115	WJ-74013-70	\$1450.00	WJ-74014-70	\$2330.00	WJ-07144-42	\$248.75
				220				WJ-74013-75	1534.00	WJ-74014-75	2367.00				
0.092	4.60	331.2	75 (5.2)	300 (20.7)	316 SS	PPS	PTFE	-50 to 350°F (-46 to 177°C)	115	WJ-74013-00	1478.00	WJ-74014-00	2358.00	WJ-74012-02	248.75
				220				WJ-74013-05	1561.00	WJ-74014-05	2367.00				
0.092	4.60	331.2	75 (5.2)	300 (20.7)	316 SS	PPS	PPS	-50 to 350°F (-46 to 177°C)	115	WJ-74013-60	1081.00	WJ-74014-60	1961.00	—	—
				220				WJ-74013-65	1165.00	WJ-74014-65	1998.00				
0.261	13.05	939.6	125 (8.6)	300 (20.7)	316 SS	PEEK	Viton	-50 to 350°F (-46 to 177°C)	115	WJ-74013-50	1460.00	WJ-74014-50	2341.00	WJ-74012-52	204.00
				220				WJ-74013-55	1544.00	WJ-74014-55	2378.00				
0.316	15.8	1137.6	75 (5.2)	300 (20.7)	316 SS	PPS	PTFE	-50 to 130°F (-46 to 54°C)	115	WJ-74013-10	1392.00	WJ-74014-10	2272.00	WJ-74012-12	175.50
				220				WJ-74013-15	1475.00	WJ-74014-15	2309.00				
0.64	32.0	2304	75 (5.2)	300 (20.7)	316 SS	PPS	PTFE	-50 to 130°F (-46 to 54°C)	115	WJ-74013-20	1392.00	WJ-74014-20	2272.00	WJ-74012-22	175.50
				220				WJ-74013-25	1475.00	WJ-74014-25	2309.00				
0.91	45.5	3276	75 (5.2)	300 (20.7)	316 SS	PPS	PTFE	-50 to 130°F (-46 to 54°C)	115	WJ-74013-30	1392.00	WJ-74014-30	2272.00	WJ-74012-32	175.50
				220				WJ-74013-35	1475.00	WJ-74014-35	2309.00				
1.17	58.5	4212	60 (4.1)	300 (20.7)	316 SS	PPS	Viton®	-50 to 350°F (-46 to 177°C)	115	WJ-74013-40	1600.00	WJ-74014-40	2477.00	WJ-74012-42	234.00
				220				WJ-74013-45	1684.00	WJ-74014-45	2517.00				

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

WJ-07595-42 Foot switch, momentary start/stop, 6-ft (1.8-m) cable. **\$258.00**

WJ-06385-10 Male pipe adapter (straight); PP, 1/4" OD x 1/8" NPT(M). Pack of 10 **\$9.75**

WJ-30621-31 Male pipe adapter; HDPE, 1/8" NPT (M) x 1/4" ID. Pack of 10 **\$9.00**

WJ-30610-36 Male pipe adapter; natural PP, 1/8" NPT x 1/4" ID. Pack of 10 **\$11.00**



Fluid Handling Pumps, Vacuum

Highlighted items

Air CADET® Vacuum/Pressure Pumps

Unique cavity configuration minimizes dead space and air entrapment

- All-plastic, convoluted diaphragm design handles many vacuum/pressure applications and reduces stress, wear, and heat buildup
- Pumps are available with standard 115 or 230 VAC motor or portable 12 VDC motor. Standard AC motors are service-free, brushless type with sealed ball bearings and thermal overload protection
- Increased chemical resistance with Dacron® diaphragm



NEW
Model

07531-40

A Single-Head Pumps

Single-head pumps are economically priced and can handle many tough vacuum/pressure applications. Choose from three models to accommodate your electrical requirements.

What's included: thread tape made of PTFE resin, two polyethylene 3/8" NPT(M) x 3/8" hose barb adapters, and a 6-ft, three-wire cord; 115 VAC model includes a plug. Power switch included on pump motor (except for 07530-65). Pump with DC motor includes 12" leads with no ground. **Note:** Do not use metal fittings with any Air Cadet pump.

B Dual-Head Pump

Dual-head pump gives you increased capacity over the single-head Air Cadet pumps. Use the two pump heads independently or connect them in series with 3/8" ID Tygon® vacuum tubing for up to 23" Hg vacuum.

What's included: thread tape made of PTFE resin, four polyethylene 3/8" NPT(M) x 3/8" hose barb adapters, and a 6-ft, three-wire cord; 115 VAC models include a plug. **Note:** Do not use metal fittings with any Air Cadet pump.

Specifications

Wetted parts

Models 07531-40, -45, -60 and 07530-65: Noryl® pump head, Dacron-reinforced Viton® diaphragm, valves of PTFE resin, and polyethylene (PE) adapters
Model 07531-25: Noryl pump head, nitrile diaphragm, valves of PTFE resin, and PE adapters

Duty cycle: 6-hr cycle for diaphragms; motors are continuous duty (except 07531-25)

ISO9001:2008
CERTIFIED SUPPLIER

cULus
115 VAC
model only

CE
RUNS DRY

Catalog number	Free-air capacity cfm (L/min)	Max vacuum	Max pressure	Max temp	Motor type		Noise rating	Port size	Power	Amps	Dimensions (L x W x H)		Price
					Type	hp					in.	cm	
A Single-head pumps													
WJ-07531-40	0.54 (15.5)	23" Hg	23 psi	95°F (35°C)	TEFC	1/45	72 dB(A)	3/8" hose barb	115 VAC, 60 Hz	1.2	8" x 4" x 5 1/2"	20.3 x 10.2 x 14.0	\$304.00
WJ-07531-45	0.45 (13)								230 VAC, 50 Hz	0.8			12 VDC
NEW WJ-07531-25	0.60 (17)	18" Hg	15 psi										\$356.00
B Dual-head pumps													
WJ-07531-60	1.1 (31) [†]	23" Hg	23 psi	95°F (35°C)	TEFC	1/25	76 dB(A)	3/8" hose barb	115 VAC, 60 Hz	1.7	11 3/4" x 4" x 5 1/2"	29.8 x 10.2 x 14.0	470.00
WJ-07530-65 ^{††}	0.91 (26) [†]								230 VAC, 50 Hz	0.6	7 1/2" x 8" x 8 3/4"		19.1 x 20.3 x 22.2

[†]Total free-air capacity. Single-channel capacity is half this value. ^{††}Power switch not available on model 07530-65.

High-Capacity Vacuum/Pressure Pumps

Free-air capacities up to 2.2 cfm (62.3 L/min)

- Shaded-pole fan-cooled motor has thermal overload switch to protect your pump system
- Heads on pumps 07061-60 and -05 are connected in parallel for higher capacity; heads on 07061-11 and -13 are connected in series for greater vacuum
- Select pumps with or without gauges, regulators, and valves

What's included: 6-ft (1.8-m), three-wire cord (US standard plug on 115 VAC models). Models 07061-11 and -13 include a filter/muffler.



07061-40

Specifications

Wetted parts: aluminum, stainless steel, Nordel®, and Nomex®

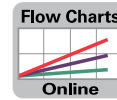
Port size: 1/4" NPT(F), 3/8" hose barb on gauges

Motor: permanent split capacitor

Duty cycle: continuous

Noise rating: 68 dB(A)

ISO9001:2008
CERTIFIED SUPPLIER



Catalog number	Pump head configuration	Free-air capacity cfm (L/min)	Max vacuum	Max pressure	Max temperature	hp	Power (VAC, Hz)	Amps	Dimensions (L x W x H)	Price
Pump without gauges or regulators (order regulators separately below; order gauges with 1/4" NPT(M) connections online)										
WJ-07061-21	Single	1.1 (31.2)	25.5" Hg	60 psi	100°F (38°C)	1/8	115, 60	4.2	7 5/8" x 5 1/8" x 10 1/4" (19.4 x 13 x 26 cm)	\$442.00
WJ-07061-22		1.0 (28.3)	24.0" Hg	(4.14 bar)	220/240, 50		2.2/1.9	\$425.00		
Pumps with gauges, regulators, and adjustable relief valve										
WJ-07061-40	Single	1.1 (31.2)	25.5" Hg	60 psi	100°F (38°C)	1/8	115, 60	4.2	7 5/8" x 5 1/8" x 10 1/4" (19.4 x 13 x 26 cm)	\$28.00
WJ-07061-42		1.0 (28.3)	24.0" Hg	(4.14 bar)	220/240, 50		2.2/1.9	\$28.00		
WJ-07061-60	Dual/parallel	2.2 (62.3)	25.5" Hg	60 psi	100°F (38°C)	1/4	115, 60	3.6	11 13/16" x 5 1/2" x 10 1/4" (30 x 14 x 26 cm)	\$780.00
WJ-07061-05		1.8 (51.0)	24.0" Hg	(4.14 bar)	220, 50		2.0	\$768.00		
Pump with vacuum gauge only										
WJ-07061-11	Dual/series	1.15 (32.5)	29.0" Hg	—	100°F (38°C)	1/4	115, 60	3.6	11 13/16" x 5 1/2" x 10 1/4" (30 x 14 x 26 cm)	\$705.00
WJ-07061-13		0.85 (24.0)	28.0" Hg	—	220, 50		2.0	\$757.00		

- WJ-07061-32 Pressure regulator assembly for pumps 07061-21 and -22. \$154.75
- WJ-07061-30 Vacuum regulator assembly for pumps 07061-21 and -22. \$132.00

- WJ-07061-01 Service kit for all pumps. \$35.00
- WJ-07061-03 Service kit for dual-head pumps. Pumps 07061-60, -05, -11 and -13 also require kit 07061-01 above. \$50.50

- WJ-07061-06 Diaphragm for all models, neoprene/nylon. \$28.25
- WJ-07061-04 Replacement diaphragm for all models, Nordel/Nomex. \$28.25

Unique Products.

Exceptional Service.

Technical Support.



Highlighted items

Fluid Handling Valves

Plastic Ball Valves



Key	Connections	Wetted parts (body, seals)	Cv	Orifice size	Max pressure	Max temp	Dimensions (L x H)	Catalog number	Price
Two-way valves (straight)									
A	1/8" NPT(F)	PVC, EPDM	2	0.312"	125 psi	140°F (60°C)	1 7/8" x 1 1/2"	WJ-01377-01	\$13.75
	1/8" NPT(F)	PVC, Viton®	2	0.312"	125 psi	140°F (60°C)	1 7/8" x 1 1/2"	WJ-01377-03	16.25
	1/8" NPT(F)	PP, EPDM	2	0.312"	125 psi	140°F (60°C)	1 7/8" x 1 1/2"	WJ-01377-04	16.25
	1/8" NPT(F)	PP, Viton	2	0.312"	125 psi	140°F (60°C)	1 7/8" x 1 1/2"	WJ-01377-06	17.25
B	1/8" NPT(F) x 1/8" NPT(M)	PVC, EPDM	2	0.312"	125 psi	140°F (60°C)	2 3/16" x 1 1/2"	WJ-01377-08	13.75
	1/8" NPT(F) x 1/8" NPT(M)	PVC, Viton	2	0.312"	125 psi	140°F (60°C)	2 3/16" x 1 1/2"	WJ-01377-10	16.25
	1/8" NPT(F) x 1/8" NPT(M)	PP, EPDM	2	0.312"	125 psi	140°F (60°C)	2 3/16" x 1 1/2"	WJ-01377-12	16.25
	1/8" NPT(F) x 1/8" NPT(M)	PP, Viton	2	0.312"	125 psi	140°F (60°C)	2 3/16" x 1 1/2"	WJ-01377-14	17.25
A	1/4" NPT(F)	PVC, EPDM	2	0.312"	125 psi	140°F (60°C)	1 7/8" x 1 1/2"	WJ-01377-16	15.00
	1/4" NPT(F)	PVC, Viton	2	0.312"	125 psi	140°F (60°C)	1 7/8" x 1 1/2"	WJ-01377-18	16.25
	1/4" NPT(F)	PP, EPDM	2	0.312"	125 psi	140°F (60°C)	1 7/8" x 1 1/2"	WJ-01377-20	16.25
	1/4" NPT(F)	PP, Viton	2	0.312"	125 psi	140°F (60°C)	1 7/8" x 1 1/2"	WJ-01377-22	17.25
B	1/4" NPT(F)	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 1/2" x 1 1/2"	WJ-01377-80	11.50
	1/4" NPT(F) x 1/4" NPT(M)	PVC, EPDM	2	0.312"	125 psi	140°F (60°C)	2 3/16" x 1 1/2"	WJ-01377-24	13.75
	1/4" NPT(F) x 1/4" NPT(M)	PVC, Viton	2	0.312"	125 psi	140°F (60°C)	2 3/16" x 1 1/2"	WJ-01377-26	16.25
	1/4" NPT(F) x 1/4" NPT(M)	PP, Viton	2	0.312"	125 psi	140°F (60°C)	2 3/16" x 1 1/2"	WJ-01377-28	17.25
C	1/4" NPT(F) x 1/4" NPT(M)	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 3/16" x 1 1/2"	WJ-01377-82	11.50
	1/4" barb	PVC, EPDM	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-30	13.75
	1/4" barb	PVC, Viton	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-32	15.00
	1/4" barb	PP, EPDM	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-34	15.00
D	1/4" barb	PP, Viton	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-36	17.25
	1/4" barb	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	3" x 1 1/2"	WJ-01377-84	11.50
	1/4" NPT(F) x tapered barb	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	3" x 1 1/2"	WJ-01377-86	11.50
	1/4" NPT(F) x tapered barb	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	3" x 1 1/2"	WJ-01377-88	11.50
E	1/4" NPT(M) x tapered barb	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	3" x 1 1/2"	WJ-01377-90	11.50
	1/4" NPT(M) x tapered barb	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	3" x 1 1/2"	WJ-01377-92	11.50
F	1/4" compression	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	3 1/4" x 1 1/2"	WJ-01377-94	11.50
	1/4" compression	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	3 1/4" x 1 1/2"	WJ-01377-96	11.50
G	1/4" NPT(F) x 1/4" compression	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01377-98	11.50
	1/4" NPT(F) x 1/4" compression	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-01	11.50
H	1/4" NPT(F) x 1/4" JG	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-08	11.50
	1/4" NPT(F) x 1/4" JG	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-10	11.50
I	1/4" NPT(M) x 1/4" compression	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-03	11.50
	1/4" NPT(M) x 1/4" compression	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-04	11.50
J	1/4" NPT(M) x 1/4" JG†	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-12	11.50
	1/4" NPT(M) x 1/4" JG†	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-14	11.50
K	1/4" JG†	PVC, EPDM	2	0.312"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01377-38	17.25
	1/4" JG†	PVC, Viton	2	0.312"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01377-40	19.50
	1/4" JG†	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-06	13.75
A	3/8" NPT(F)	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	2 1/2" x 1 1/2"	WJ-01378-16	12.75
	3/8" NPT(F)	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 1/2" x 1 1/2"	WJ-01378-18	12.75
B	3/8" NPT(F) x 3/8" NPT(M)	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	3" x 1 1/2"	WJ-01378-20	12.75
	3/8" NPT(F) x 3/8" NPT(M)	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	3" x 1 1/2"	WJ-01378-22	12.75
H	3/8" NPT(F) x 3/8" JG†	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-38	12.75
	3/8" NPT(F) x 3/8" JG†	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-40	13.75
J	3/8" NPT(M) x 3/8" JG†	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-42	12.75
	3/8" NPT(M) x 3/8" JG†	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	2 7/8" x 1 1/2"	WJ-01378-44	13.75
C	3/8" barb	PVC, EPDM	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-42	13.75
	3/8" barb	PVC, Viton	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-44	15.00
	3/8" barb	PP, EPDM	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-46	15.00
	3/8" barb	PP, Viton	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-48	17.25
D	3/8" barb	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	3 1/2" x 1 1/2"	WJ-01378-24	11.50
	3/8" NPT(F) x tapered barb	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	3 1/2" x 1 1/2"	WJ-01378-26	10.50
E	3/8" NPT(F) x tapered barb	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	3 1/2" x 1 1/2"	WJ-01378-28	10.50
	3/8" NPT(M) x tapered barb	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	3 1/2" x 1 1/2"	WJ-01378-30	10.50
F	3/8" NPT(M) x tapered barb	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	3 1/2" x 1 1/2"	WJ-01378-32	10.50
	3/8" compression	PVC, Buna N	7	0.437"	125 psi	140°F (60°C)	3 1/2" x 1 1/2"	WJ-01378-34	11.50
F	3/8" compression	PVC, EPDM	7	0.437"	125 psi	140°F (60°C)	3 1/2" x 1 1/2"	WJ-01378-36	11.50
	1/2" barb	PVC, EPDM	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-50	15.00
C	1/2" barb	PVC, Viton	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-52	15.00
	1/2" barb	PP, EPDM	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-54	15.00
	1/2" barb	PP, Viton	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-56	17.25
	1/2" barb	PP, Viton	2	0.312"	125 psi	140°F (60°C)	3 3/16" x 1 1/2"	WJ-01377-58	17.25

†JG = John Guest





Fluid Handling Valves

Highlighted items

Cole-Parmer 2- and 3-Way Direct Lift Solenoid Valves

Ideal for use with high-purity or corrosive fluids

- All wetted parts made of inert PTFE
- Minimal dead volume reduces problems with trapped liquids

Rated for 26" Hg vacuum. Maximum fluid temperature is 158°F (70°C). All valves have 15" lead wires. Valves are compact and lightweight—mount them almost anywhere. Valves with a 1/16" orifice have mounting holes at the bottom only and valves with a 3/32" and 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. Models with 1/8" orifice available; call for more information.



Ports†	Orifice	Max psi	Response time	Watts	12 VDC		24 VDC	
					Catalog number	Price	Catalog number	Price
2-way solenoid valves; normally closed								
1/4-28	1/16"	30	20 ms	4.0	WJ-01540-01	\$ 121.50	WJ-01540-02	\$ 121.50
1/4-28	1/16"	60	25 ms	8.0	WJ-01540-03	141.00	WJ-01540-04	141.00
1/4-28	3/32"	20	20 ms	5.1	WJ-01540-05	154.75	WJ-01540-06	154.75
1/8	5/32"	18	30 ms	8.0	WJ-01540-07	201.75	WJ-01540-08	201.75
2-way solenoid valves; normally open								
1/4-28	1/16"	30	20 ms	4.0	WJ-01540-09	118.25	WJ-01540-10	128.50
3-way solenoid valves								
1/4-28	1/16"	30	20 ms	4.0	WJ-01540-11	136.50	WJ-01540-12	136.50
1/4-28	1/16"	60	25 ms	8.0	WJ-01540-13	179.00	WJ-01540-14	179.00
1/8	5/32"	18	30 ms	8.0	WJ-01540-17	232.75	WJ-01540-18	232.75

†NPT(F)

- WJ-01540-50 Mounting clip for 2- and 3-way valves \$3.50
- WJ-01540-55 Mounting flange for 2- and 3-way valves \$2.75



Miniature Check Valves

Use with liquids and gases for pressure or vacuum applications. 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." Install in any position.

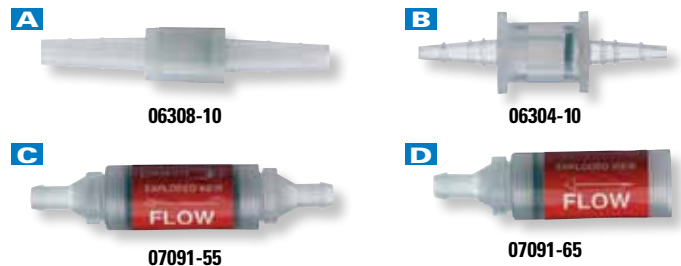
Note: Valves require 1 psi back pressure for a tight seal.

Catalog number	Tubing ID	C _v	Working pressure	Price
A Nylon body and fluorosilicone diaphragm				
WJ-98553-00	1/8"	0.12	3 to 5 psi	\$ 5.00
WJ-98553-01	3/16"	0.13	3 to 5 psi	5.00
WJ-98553-02	1/4"	0.13	3 to 5 psi	5.00
B PP body and Viton® diaphragm				
WJ-98553-10	1/8"	0.11	3 to 5 psi	11.00
WJ-98553-11	3/16"	0.12	3 to 5 psi	6.25
WJ-98553-12	1/4"	0.12	3 to 5 psi	6.25
WJ-98553-13	5/16"	0.13	3 to 5 psi	9.50
C PVDF body and Viton diaphragm				
WJ-98553-20	1/8"	0.11	3 to 5 psi	11.50
WJ-98553-21	3/16"	0.12	3 to 5 psi	10.25
WJ-98553-22	1/4"	0.12	3 to 5 psi	10.25
WJ-98553-34	3/8"	0.12	3 to 5 psi	11.00



Check and Foot Valves with Hose Barb Connections

Ideal for low-pressure applications. Choose from economical LDPE with neoprene disc; autoclavable PP with neoprene disc; or autoclavable PP with Hastelloy C® springs, O-rings made of Viton®, and built-in 149-µm screen—available in check valves or foot valves.



Catalog number	Tubing ID	Breaking pressure	Max pressure	Price
A LDPE valves; -14 to 76°F (-26 to 24°C)				
WJ-06308-10	5/16" to 1/4"	1 psi	10 psi	\$ 7.00/ea
B PP valves; -14 to 250°F (-26 to 121°C)				
WJ-06304-10	1/8" to 1/4"	1/2 psi	20 psi	54.00/bg of 6
WJ-06304-20	1/4" to 3/8"			54.00/bg of 6
WJ-06304-30	3/8" to 1/2"			54.00/bg of 6
C PP check valves with built-in screen; 32 to 140°F (0 to 60°C)				
WJ-07091-55	3/8"	1 psi	50 psi	119.25/ea
WJ-07091-60	1/2"			120.50/ea
D PP foot valves with built-in screen; 32 to 140°F (0 to 60°C)				
WJ-07091-65	3/8"	1 psi	50 psi	97.50/ea
WJ-07091-70	1/2"			97.50/ea

MORE online!
 For our full selection of valves, go to . . .
ColeParmer.ca/Valves



Lab Supplies

Bags

Highlighted items

BUY MORE, SAVE MORE

6-29 packs save 10% 30-119 packs save 15% 120+ packs save 20%
Mix and match packs of any items from the "blue" tables to save!

WHIRL-PAK® Sterile Sampling Bags, LDPE

Use these sterile LDPE bags to safely hold your solids and liquids. To use, simply flip bag around wire/tape and bend wire to seal. Puncture-proof tabs ensure wire will not poke through 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 approved 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-approved 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.



STERILE

Catalog number	Capacity oz (mL)	Size (W x L)	Thickness (mil)	Qty/pk	Price/1 pk	Save 10% 6-29 pks
Sampling bags without white labeling area						
WJ-06499-10	4 (118)	3" x 7¼" (7.6 x 18.4 cm)	2.25	500	\$ 78.00	\$ 70.25
WJ-06499-20	18 (532)	4½" x 9" (11.4 x 22.9 cm)	2.5	500	109.00	98.00
WJ-06499-30	24 (710)	6" x 9" (15.2 x 22.9 cm)	3.0	500	143.25	129.00
WJ-06499-40	36 (1065)	5" x 15" (12.7 x 38.1 cm)	3.0	500	172.00	154.75
WJ-06499-50	42 (1242)	6" x 15" (15.2 x 38.1 cm)	3.0	500	200.75	180.50
WJ-06499-54	69 (2041)	7½" x 15" (19.1 x 38.1 cm)	3.0	500	223.50	201.25

Standup sampling bags with white labeling area						
WJ-06499-16	4 (118)	3" x 7¼" (7.6 x 18.4 cm)	2.5	500	105.50	95.00
WJ-06499-21	18 (532)	4½" x 9" (11.4 x 22.9 cm)	3.0	500	160.50	144.50
WJ-06499-31	24 (710)	6" x 9" (15.2 x 22.9 cm)	3.0	500	189.25	170.25
WJ-06499-32	27 (798)	5" x 12" (12.7 x 30.5 cm)	3.0	250	95.25	85.75
WJ-06499-33	36 (1065)	5" x 15" (12.7 x 38.1 cm)	4.0	250	120.50	108.50
WJ-06499-34	42 (1242)	6" x 15" (15.2 x 38.1 cm)	4.0	250	132.00	118.75
WJ-06499-35	69 (2041)	7½" x 15" (19.1 x 38.1 cm)	4.0	250	166.25	149.75

Sampling bags with white labeling area						
WJ-06499-60	2 (58)	3" x 5" (7.6 x 12.7 cm)	2.5	500	79.25	71.25
WJ-06499-70	4 (118)	3" x 7¼" (7.6 x 18.4 cm)	2.25	500	83.75	75.50
WJ-06499-72	7 (207)	3¾" x 7" (9.5 x 17.8 cm)	2.5	500	95.25	85.75
WJ-06499-74	13 (384)	5¼" x 7½" (13.3 x 19.1 cm)	2.5	500	113.50	102.25
WJ-06499-80	18 (532)	4½" x 9" (11.4 x 22.9 cm)	2.5	500	120.50	108.50
WJ-06499-85	24 (710)	6" x 9" (15.2 x 22.9 cm)	3.0	500	132.00	118.75
WJ-06499-87	27 (798)	5" x 12" (12.7 x 30.5 cm)	3.0	500	172.00	154.75
WJ-06499-89	69 (2041)	7½" x 15" (19.1 x 38.1 cm)	3.0	500	264.00	237.25
WJ-06499-94	92 (2721)	10" x 15" (25.4 x 38.1 cm)	4.0	250	212.25	191.00
WJ-06499-98	123 (3637)	10" x 20" (25.4 x 50.8 cm)	4.0	250	258.00	232.25
WJ-06499-99	184 (5441)	15" x 20" (38.1 x 50.8 cm)	4.0	100	166.25	149.75

"Speci-Sponge" bags for surface sampling with sponge						
WJ-06499-13	18 (532)	4½" x 9" (11.4 x 22.9 cm)	2.5	100	132.00	118.75
WJ-06499-14	55 (1627)	7½" x 11¾" (19.1 x 29.8 cm)	4.0	100	200.75	180.50
WJ-06499-52†	18 (532)	4" x 9" (10.2 x 22.9 cm)	2.5	100	321.00	289.00

Sodium thiosulfate bags for water sampling with tablet						
WJ-06499-90	3 3/8 (100)	3" x 7¼" (7.6 x 18.4 cm)	2.5	500	34.00	30.50
WJ-06499-95	10 1/8 (300)	4½" x 9" (11.4 x 22.9 cm)	2.5	500	70.00	63.00

High-temperature bag						
WJ-06498-16	18 (532)	4½" x 9" (11.4 x 22.9 cm)	3.0	500	344.00	310.00

†Model 06499-52 has a sterile glove.

WJ-66203-10 Carrying rack for 2- and 4-oz bags. Double grid keep bags upright. Rack measures 9¼"L x 6¾"W x 3"H (23.5 x 17.1 x 7.6 cm) and has 15 compartments that measure 1½"L x 2"W (3.8 x 5.1 cm). Vinyl coated, autoclavable. **\$32.25**

WJ-66203-00 Carrying rack for 18-oz bags. Double-grid design has a second grid approximately 1" (2.5 cm) below the top to keep bags upright. Rack measures 13¼"L x 10¾"W x 4"H (33.7 x 27.3 x 10.2 cm) and has 20 compartments that measure 2½"L x 2½"W (6.4 x 6.4 cm). Vinyl coated, autoclavable. **\$48.75**

WJ-06498-12 Water scoop, 18" (45.7 cm) L coated handle. Two alligator clips hold a variety of bag sizes. **\$18.00**

WJ-06498-14 Mailing tube for 3%-oz (100 mL) sodium thiosulfate bag. Polyethylene, 5"L x 2" dia (12.7 x 5.1 cm). **\$4.75**



**BUY MORE,
SAVE MORE**

5-9 pk/cs save 10% 10+ pk/cs save 15%
Mix and match packs or cases of items from "red" tables to save!



Lab Supplies Beakers

Highlighted items

PYREX® Brand 1000 Beakers

■ Griffin, low form, double scale, graduated

Beakers with spouts are manufactured with uniform wall thickness to offer optimal balance between thermal shock resistance and mechanical strength. The 250-mL to 4000-mL beakers have a double graduated metric scale to indicate approximate content. All sizes have an extra large marking spot. The 10-mL size is not graduated. **Reference:** ASTM E-960.

Capacity mL (oz)	Graduation range (mL)	Graduation interval (mL)	Dimensions (H x OD)		Catalog number	Qty/ pk	Price/ pk	Catalog number	Qty/ cs	Price/ cs
			in.	cm						
10 (1/8)	—	—	1 1/4 x 1	3.2 x 2.5	WJ-34502-01		\$71.25	WJ-34502-21		\$228.25
20 (2/8)	5 to 15	5	1 1/2 x 1 1/4	4.0 x 3.2	WJ-34502-02	12	62.00	WJ-34502-22	48	197.50
30 (1)	5 to 25	10	2 x 1 3/8	5.3 x 3.5	WJ-34502-03		60.75	WJ-34502-23		195.50
50 (1 1/4)	10 to 40	10	2 1/4 x 1 3/8	5.6 x 4.2	WJ-34502-04		60.75	WJ-34502-24		195.50
100 (3)	20 to 80	10	2 3/8 x 2	7.2 x 5.0	WJ-34502-05		65.50	WJ-34502-25		206.75
150 (5)	20 to 140	10	3 1/4 x 2 1/4	8.2 x 5.7	WJ-34502-06	12	58.50	WJ-34502-26	48	187.75
250 (8)	25 to 200	25	3 1/2 x 2 3/8	9.0 x 6.8	WJ-34502-07		65.50	WJ-34502-27		198.25
400 (13)	25 to 325	25	4 3/8 x 3	11.0 x 7.7	WJ-34502-08		74.50	WJ-34502-28		232.75
600 (20)	50 to 500	50	4 7/8 x 3 1/2	12.4 x 9.0	WJ-34502-09	6	48.25	WJ-34502-29	36	221.75
800 (27)	50 to 750	50	5 1/4 x 3 3/8	13.5 x 9.8	WJ-34502-10	6	65.50	WJ-34502-30	24	204.25
1000 (32)	50 to 1000	50	6 1/4 x 4 1/4	15.8 x 10.8	WJ-34502-11	6	74.50	WJ-34502-31	24	279.00
1500 (51)	200 to 1400	100	6 1/2 x 4 3/4	16.6 x 12.1	WJ-34502-12	4	73.50	WJ-34502-32	16	225.00
2000 (64)	200 to 2000	100	7 1/2 x 5 1/8	19.3 x 13.1	WJ-34502-13	4	101.00	WJ-34502-33	8	184.25
3000 (96)	250 to 2500	125	8 1/2 x 5 3/4	21.6 x 14.6	WJ-34502-14	1	53.50	WJ-34502-34	6	237.50
4000 (128)	500 to 3500	250	9 7/8 x 6 1/4	25.0 x 16.0	WJ-34502-15	1	97.50	WJ-34502-35	6	438.00
Starter set contains one each of 50 mL, 100 mL, 250 mL, 600 mL, 1000 mL					—	—	—	WJ-34502-90	5	35.00




34502-07

34502-09

TECHNICAL information!

Although Pyrex® products are able to tolerate extreme temperatures, use caution. 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 Beakers

■ Griffin, heavy-duty, graduated

Heavy-duty beakers are specifically designed to offer the best mechanical strength under harsh conditions, such as mechanized washing operations. The 250-mL to 4000-mL beakers have a double graduated metric scale to indicate their approximate content. All sizes have an extra large marking spot. **Reference:** ASTM E-960.

Capacity mL (oz)	Graduation range (mL)	Graduation interval (mL)	Dimensions (H x OD)		Catalog number	Qty/ pk	Price/ pk	Catalog number	Qty/ cs	Price/ cs
			in.	cm						
150 (5)	20 to 140	20	3 3/8 x 2 1/4	8.6 x 5.7	WJ-34512-06	12	\$98.75	WJ-34512-26	48	\$374.00
250 (8)	25 to 200	25	3 1/2 x 2 3/8	9.0 x 6.8	WJ-34512-07	12	115.75	WJ-34512-27	48	369.00
400 (13)	25 to 325	25	4 3/8 x 3	11.0 x 7.7	WJ-34512-08	12	150.25	WJ-34512-28	48	481.00
600 (20)	50 to 500	50	4 7/8 x 3 1/2	12.4 x 9.0	WJ-34512-09	6	89.50	WJ-34512-29	36	421.00
1000 (32)	50 to 1000	50	6 1/8 x 4 1/4	15.6 x 10.8	WJ-34512-11	6	170.75	WJ-34512-31	24	535.00
2000 (64)	200 to 1800	200	7 x 5 1/8	18.0 x 13.1	WJ-34512-13	4	224.75	WJ-34512-33	8	365.00
4000 (128)	500 to 3500	250	9 7/8 x 6 1/4	25.0 x 16.0	WJ-34512-15	1	110.25	WJ-34512-35	4	356.00



34512-09

Cole-Parmer Tri-Corner Beakers, PP

Polypropylene beakers feature a tri-corner design that provides three dripless pouring spouts. Beakers are perfect for use with stirrers—flat bottom keeps stir bars centered. Graduated with an accuracy of ±5%. Withstand temperatures to 250°F (121°C). **Autoclavable.**

Catalog number	Capacity mL (oz)	Dimensions (H x dia)	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-06020-01	50 (1.5)	2 1/4" x 2 3/8" (5.7 x 6.7 cm)		\$30.50	\$27.50
WJ-06020-03	100 (3.5)	2 3/4" x 3 1/4" (7.1 x 8.4 cm)	100	35.00	31.50
WJ-06020-05	250 (8)	3 1/2" x 4" (8.8 x 10.1 cm)		48.25	43.50
WJ-06020-07	400 (13)	4 3/8" x 4 1/2" (11.1 x 11.5 cm)	100	72.25	65.00
WJ-06020-09	800 (26)	5 3/8" x 5 1/4" (13.7 x 13.4 cm)	100	86.00	77.50
WJ-06020-11	1000 (32)	5 7/8" x 5 1/2" (14.3 x 14.1 cm)	100	96.50	86.75
WJ-06010-07	Five of each above	—	30	47.00	42.50



Tri-corner beakers

Scienceware® Hot Hand® Mitt

The Hot Hand silicone rubber mitt protects your hands from hot labware. Gripping surfaces are studded for positive grip; hole tabs on either end are for hanging. Maximum temperature is 500°F (260°C). Fits any glove size.

WJ-06910-00 Scienceware® Hot Hand rubber mitt \$27.50



Unique Products.

Exceptional Service.

Technical Support.



Lab Supplies Beakers

Highlighted items



NEW



61003-41



06000-30 06000-60



Cutter/dispenser
06720-34

**BUY MORE,
SAVE MORE**

6-29 packs save 10% 30-119 packs save 15% 120+ packs save 20%
Mix and match packs of any items from the "blue" tables to save!

Disposable Griffin Low-Form Beakers, PP

Polypropylene beakers are graduated in mL and oz. Molded-in stacking ribs prevent beakers from sticking together when stacked. **Autoclavable.**

Catalog number	Capacity mL (oz)	Dimensions (H x OD)	Qty/pk	Price/1 pk	Save 10% 6-29 pks
WJ-06006-12	15 (0.5)	1½" x 1½" (3.8 x 3.8 cm)	100	\$ 21.25	\$ 19.25
WJ-06006-15	15 (0.5)	1½" x 1½" (3.8 x 3.8 cm)	1000	198.50	178.50
WJ-06006-22	30 (1)	1¾" x 1¾" (4.4 x 4.4 cm)	100	26.00	23.25
WJ-06006-25	30 (1)	1¾" x 1¾" (4.4 x 4.4 cm)	1000	236.25	212.50
WJ-06006-32	50 (1.7)	2" x 2" (5.1 x 5.1 cm)	100	28.75	26.00
WJ-06006-35	50 (1.7)	2" x 2" (5.1 x 5.1 cm)	1000	264.00	237.25
WJ-06006-42	100 (3.5)	2½" x 2½" (6.4 x 6.4 cm)	100	37.25	33.75
WJ-06006-45	100 (3.5)	2½" x 2½" (6.4 x 6.4 cm)	1000	335.00	302.00
WJ-06006-52	150 (5)	3¼" x 2¾" (8.3 x 7.0 cm)	100	63.25	56.75
WJ-06006-55	150 (5)	3¼" x 2¾" (8.3 x 7.0 cm)	1000	609.00	548.00
WJ-06006-63	250 (8)	3½" x 3¼" (8.9 x 8.3 cm)	50	39.00	35.25
WJ-06006-65	250 (8)	3½" x 3¼" (8.9 x 8.3 cm)	500	372.00	335.00
WJ-06006-72	400 (13)	4½" x 3¾" (11.4 x 9.5 cm)	50	53.50	48.00
WJ-06006-75	400 (13)	4½" x 3¾" (11.4 x 9.5 cm)	500	515.00	464.00
WJ-06006-83	600 (20)	5" x 4½" (12.7 x 11.4 cm)	25	31.75	28.50
WJ-06006-85	600 (20)	5" x 4½" (12.7 x 11.4 cm)	500	602.00	542.00

Corning® Low-Form Beakers, PP

Polypropylene beakers are ideal for general laboratory use and feature blue graduations. **Autoclavable.**

Capacity mL (oz)	Graduation interval (mL)	Dimensions (H x OD)	Catalog number	Qty/pk	Price/pk	Catalog number	Qty/cs	Price/cs
25 (¾)	5	1¾" x 1¼" (4.7 x 3.2 cm)	WJ-61003-31	12	\$23.00	WJ-61003-01	24	\$ 37.25
50 (1¾)	10	2¾" x 1¾" (6.0 x 4.1 cm)	WJ-61003-33	6	20.75	WJ-61003-03	12	34.50
100 (3)	20	2¾" x 1¾" (7.1 x 5.0 cm)	WJ-61003-35	6	24.25	WJ-61003-05	12	41.50
150 (5)	20	3½" x 2¾" (8.0 x 5.6 cm)	WJ-61003-37	6	28.75	WJ-61003-07	12	52.25
250 (8)	50	3½" x 2¾" (9.4 x 6.7 cm)	WJ-61003-39	2	18.50	WJ-61003-09	6	36.25
400 (13)	100	4½" x 3" (10.9 x 7.7 cm)	WJ-61003-41	2	21.25	WJ-61003-11	6	52.00
600 (20)	100	4½" x 3" (12.5 x 8.9 cm)	WJ-61003-43	2	23.00	WJ-61003-13	6	67.50
1000 (32)	100	5½" x 4¾" (14.8 x 10.6 cm)	WJ-61003-45	2	32.75	WJ-61003-15	6	85.00
2000 (64)	200	7¼" x 5½" (18.5 x 13.2 cm)	WJ-61003-47	2	67.75	WJ-61003-17	6	189.25
3000 (96)	500	8¼" x 6½" (21.0 x 15.6 cm)	WJ-61003-49	1	41.50	WJ-61003-19	4	137.00
5000 (160)	500	9¾" x 7½" (24.7 x 18.1 cm)	WJ-61003-51	1	57.50	WJ-61003-21	4	192.75

Thermo Scientific Nalgene Griffin Low-Form Graduated Beakers, PP

Polypropylene beakers include blue silk screened graduations and an oval marking space. Withstand temperatures to 275°F (135°C). **Autoclavable.**



Catalog number	Capacity mL (oz)	Dimensions (H x OD)	Qty/pk	Price/1 pk	Save 10% 6-29 pks
WJ-06000-20	30 (1)	2" x 1½" (5.1 x 4.1 cm)	12	\$43.75	\$39.25
WJ-06000-25	50 (1.6)	2¾" x 1¾" (6.0 x 4.8 cm)	12	44.25	39.75
WJ-06000-30	100 (3.4)	3" x 2¾" (7.6 x 6.0 cm)	12	52.75	47.50
WJ-06000-35	150 (5)	3¼" x 2¾" (8.3 x 7.0 cm)	12	71.25	64.00
WJ-06000-40	250 (8)	3¾" x 3½" (9.2 x 7.9 cm)	6	49.50	44.50
WJ-06000-50	400 (13)	4½" x 3¾" (11.4 x 9.2 cm)	6	72.25	65.00
WJ-06000-55	600 (20)	5" x 4½" (12.7 x 10.5 cm)	4	60.75	54.75
WJ-06000-60	1000 (32)	6" x 5" (15.2 x 12.7 cm)	3	55.25	49.75
WJ-06000-70	2000 (64)	7½" x 6¼" (19.1 x 15.9 cm)	1	40.75	36.75
WJ-06000-80	4000 (128)	9¾" x 7¾" (25.1 x 19.4 cm)	1	74.50	67.25

Parafilm® Wrap and Dispensers

Colorless, moisture-proof plastic film molds to most surfaces. Seal beakers and flasks; wider size covers trays and basins. Film 06720-25 comes in a mailing tube; films 06720-40 and -50 come in a paper dispenser box.

Catalog number	Width	Length/roll	Price/rl
WJ-06720-25	20" (50.8 cm)	50 ft (15 m)	\$57.25
WJ-06720-40	4" (10.2 cm)	125 ft (38 m)	25.25
WJ-06720-50	2" (5.1 cm)	250 ft (76 m)	25.25

WJ-06720-34 Parafilm dispenser, clear acrylic. \$149.00



Lab Supplies Beakers

Highlighted items

Corning® Graduated Beakers with Handle and Spout, PP

NEW

Translucent polypropylene beakers are printed with blue graduations. **Autoclavable.**

Capacity mL (oz)	Graduation interval (mL)	Dimensions (H x OD)	Catalog number	Qty/ pk	Price/ pk	Catalog number	Qty/ cs	Price/ cs
250 (8)	5	4½" x 3" (11.5 x 7.7 cm)	WJ-06100-51	4	\$36.25	WJ-06100-61	12	\$142.00
500 (16)	10	5¾" x 9¼" (13.6 x 9.5 cm)	WJ-06100-53	4	36.25	WJ-06100-63	12	142.00
1000 (32)	10	6½" x 4¾" (16.7 x 12.5 cm)	WJ-06100-55	4	42.50	WJ-06100-65	12	167.25
2000 (64)	20	8½" x 5¾" (21.7 x 15.2 cm)	WJ-06100-57	2	26.00	WJ-06100-67	8	136.00
3000 (96)	50	9½" x 6¾" (24.3 x 17.0 cm)	WJ-06100-59	2	30.00	WJ-06100-69	6	117.75



06100-55

Graduated Beakers with Easy-Grip Handles

All beakers have molded-in graduations that never rub off. Beakers are available in five resin types: PMP, HDPE, PP, PC, and PFA.

Catalog number	Capacity mL (oz)	Dimensions (H x OD)	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
Thermo Scientific Nalgene polymethylpentene (PMP) beakers					
WJ-06004-97	1000 (32)	7¼" x 6½" (18.4 x 16.5 cm)	1	\$ 71.25	\$ 64.00
WJ-06004-99	3000 (96)	7¾" x 9" (19.4 x 22.9 cm)	1	79.25	71.25
Thermo Scientific Nalgene high-density polyethylene (HDPE) beakers					
WJ-06005-10	1000 (32)	7¼" x 6¾" (18.4 x 16.2 cm)	1	60.75	54.75
WJ-06005-20	3000 (96)	7¾" x 9" (19.4 x 22.9 cm)	1	75.75	68.25
Polypropylene (PP) beakers					
WJ-06008-35	250 (8)	4¾" x 2¾" (12.1 x 7.0 cm)	1	9.25	8.25
WJ-06008-40	500 (16)	5¼" x 3¾" (13.3 x 9.2 cm)	1	9.25	8.25
WJ-06008-50	1000 (32)	6¾" x 4¾" (17.1 x 11.7 cm)	1	12.25	11.00
WJ-06008-60	2000 (64)	8½" x 5¾" (21.6 x 14.9 cm)	1	18.25	16.25
WJ-06008-70	3000 (96)	9½" x 6¾" (24.1 x 17.1 cm)	1	44.75	40.25
WJ-06008-80	5000 (160)	10¾" x 8¼" (27.0 x 21 cm)	1	45.50	40.75
Polycarbonate (PC) beakers					
WJ-06004-80	470 (16)	4¾" x 4" (12.1 x 10.2 cm)	1	18.00	16.00
WJ-06004-85	950 (32)	5¾" x 5" (14.6 x 12.7 cm)	1	19.00	17.25
WJ-06004-90	1900 (64)	7" x 6" (17.8 x 15.2 cm)	1	25.25	22.75
WJ-06004-95	3800 (128)	9¼" x 7½" (23.5 x 19.1 cm)	1	27.50	24.75
Thermo Scientific Nalgene PFA beakers					
WJ-06006-00	1000 (32)	7" x 6¼" (17.8 x 15.9 cm)	1	437.00	393.00
WJ-06006-05	3000 (96)	7¾" x 8¾" (18.7 x 22.2 cm)	1	602.00	542.00



HDPE

PP

PMP

PC



PFA

Cole-Parmer

Beakers and Covers, 304 SS (medium gauge)

Optional covers sold separately in table.



Catalog number	Capacity L (qt)	Dimensions (H x OD)	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
Beakers					
WJ-07206-10	1.2 (1¼)	5¾" x 4¾" (14.6 x 11.6 cm)	1	\$ 41.50	\$ 37.25
WJ-07206-20	1.9 (2)	6¾" x 5½" (16.8 x 14.0 cm)	1	48.25	43.50
WJ-07206-30	3.1 (3¼)	7" x 6½" (17.8 x 16.5 cm)	1	56.25	50.75
WJ-07206-40	4.5 (4¾)	7¾" x 7¾" (20.0 x 18.7 cm)	1	63.25	56.75
WJ-07206-60	5.8 (6¼)	8¾" x 8" (22.2 x 20.3 cm)	1	79.25	71.25
WJ-07206-80	7.6 (8)	9¾" x 8¾" (24.4 x 22.2 cm)	1	95.25	85.75
WJ-07206-90	11.4 (12)	11" x 9¾" (27.9 x 24.4 cm)	1	115.75	104.25
Covers					
WJ-07207-10	For beaker 07206-10		1	22.00	19.75
WJ-07207-20	For beaker 07206-20		1	24.25	21.75
WJ-07207-30	For beaker 07206-30		1	28.75	26.00
WJ-07207-40	For beaker 07206-40		1	27.50	24.75
WJ-07207-60	For beaker 07206-60		1	32.25	29.00
WJ-07207-80	For beaker 07206-80		1	32.75	29.50
WJ-07207-90	For beaker 07206-90		1	38.50	34.75



07206-40

07206-20

Covers sold separately

Unique Products.

Exceptional Service.

Technical Support.



Lab Supplies Bottles

Highlighted items

**BUY MORE,
SAVE MORE**

6-29 packs **save 10%** 30-119 packs **save 15%** 120+ packs **save 20%**
Mix and match packs of any items from the "blue" tables to save!



06045-11

06045-21

06045-49

06045-23

Cole-Parmer Wide-Mouth Bottles, LDPE, HDPE, PP

- Offered in pack quantities or bulk pack quantities to meet your specific requirements
- Wide-mouth Cole-Parmer bottles are reliable and sturdy
- Choose from three materials; all include a leakproof PP closure

HDPE Bottles are manufactured with FDA-approved 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.**

Capacity mL (oz)	Dimensions (H x dia)	Cap size	Catalog number	Qty/pk	Price/pk	Catalog number	Qty/pk	Price/pk
HDPE								
30 (1)	2¾" x 1¼" (7.0 x 3.2 cm)	22 mm	WJ-06045-16	12	\$27.50	WJ-06045-21	72	\$151.50
60 (2)	3¼" x 1½" (8.3 x 3.8 cm)	22 mm	WJ-06045-18	12	27.50	WJ-06045-23	72	153.75
125 (4)	4" x 2" (10.2 x 5.1 cm)	28 mm	WJ-06045-24	12	32.75	WJ-06045-25	72	179.00
250 (8)	5¼" x 2¾" (14.6 x 6.0 cm)	28 mm	WJ-06045-26	12	48.75	WJ-06045-27	72	280.00
500 (16)	6½" x 3" (16.5 x 7.6 cm)	28 mm	WJ-06045-28	12	69.00	WJ-06045-29	48	259.00
1000 (32)	8¼" x 3½" (21.0 x 8.9 cm)	28 mm	WJ-06045-44	6	60.75	WJ-06045-31	24	231.50
2000 (64)	9¾" x 4¾" (24.4 x 12.1 cm)	45 mm	WJ-06045-46	1	19.50	WJ-06045-33	6	89.50
LDPE								
30 (1)	2¾" x 1¼" (7.0 x 3.2 cm)	—	WJ-06045-00	12	26.50	WJ-06045-01	72	144.50
60 (2)	3¼" x 1½" (8.3 x 3.8 cm)	22 mm	WJ-06045-02	12	27.50	WJ-06045-03	72	146.75
125 (4)	4" x 2" (10.2 x 5.1 cm)	28 mm	WJ-06045-04	12	30.00	WJ-06045-05	72	175.50
250 (8)	5¼" x 2¾" (14.6 x 6.0 cm)	28 mm	WJ-06045-06	12	47.00	WJ-06045-07	72	268.00
500 (16)	6½" x 3" (16.5 x 7.6 cm)	28 mm	WJ-06045-08	12	60.75	WJ-06045-09	48	236.25
1000 (32)	8¼" x 3½" (21.0 x 8.9 cm)	28 mm	WJ-06045-14	6	54.00	WJ-06045-11	6	205.25
PP, autoclavable								
30 (1)	2¾" x 1¼" (7.0 x 3.2 cm)	22 mm	WJ-06045-48	12	28.25	WJ-06045-41	72	152.50
60 (2)	3¼" x 1½" (8.3 x 3.8 cm)	22 mm	WJ-06045-56	12	21.25	WJ-06045-43	72	119.25
125 (4)	4" x 2" (10.2 x 5.1 cm)	28 mm	WJ-06045-58	12	27.50	WJ-06045-45	72	219.00
250 (8)	5¼" x 2¾" (14.6 x 6.0 cm)	28 mm	WJ-06045-62	12	56.75	WJ-06045-47	72	334.00
500 (16)	6½" x 3" (16.5 x 7.6 cm)	28 mm	WJ-06045-66	12	80.25	WJ-06045-49	48	305.00
1000 (32)	8¼" x 3½" (21.0 x 8.9 cm)	28 mm	WJ-06045-68	6	69.00	WJ-06045-51	24	258.00
2000 (64)	9¾" x 4¾" (24.4 x 12.1 cm)	45 mm	WJ-06045-74	1	20.75	WJ-06045-53	6	121.50



06019-76

Cole-Parmer Graduated Rectangular Wide-Mouth Bottles, HDPE

Save space with one of our best-selling bottles. They offer good chemical resistance and heavy-duty service. Attach a tag to the ring on the closure for easy identification. Includes a plastic insert that fits snugly into the mouth of the bottle for a leakproof seal.

Catalog number	Capacity mL (oz)	Dimensions (L x W x H)	Qty/pk	Price/1 pk	Save 10% 6-29 pks
WJ-06019-70	25 (¾)	1½" x 1¼" x 2¼" (3.0 x 3.2 x 5.5 cm)	10	\$20.25	\$18.25
WJ-06019-72	50 (1¾)	1½" x 1½" x 2¾" (3.9 x 3.8 x 7.3 cm)		20.75	
WJ-06019-74	100 (3½)	2" x 1¾" x 3½" (5.0 x 4.5 x 8.9 cm)		34.25	
WJ-06019-76	250 (8)	2¾" x 2¼" x 4¼" (6.1 x 5.8 x 11.0 cm)		35.75	
WJ-06019-78	500 (16)	3¼" x 2¾" x 5¾" (8.1 x 7.0 x 13.7 cm)	6	43.00	38.75
WJ-06019-80	1000 (32)	4" x 3¼" x 7" (10.2 x 8.2 x 18.0 cm)		59.75	
WJ-06019-82	2000 (64)	5¼" x 4" x 8½" (13.4 x 10.2 x 21.5 cm)		103.25	



06043-01

Sample Bottles, HDPE

Bottles have good chemical resistance and include polypropylene cap with polyethylene foam liner. Mailing tubes for 06049-01 are listed below table.

Catalog number	Capacity mL (oz)	Dimensions (H x OD)	Qty/pk	Price/1 pk	Save 10% 6-29 pks
WJ-06043-01	180 (6)	4½" x 2¼" (11.4 x 5.7 cm)	300	\$206.50	\$185.75
WJ-06049-01	250 (8)	6" x 2" (15.2 x 5.1 cm)	329	286.00	257.00
WJ-06050-05	500 (16)	8" x 2¾" (20.3 x 6.0 cm)	198	227.00	204.25

WJ-06049-30 Mailing tubes for bottle 06049-01. Carton of 240.....\$631.00

“Low cost, good value.”

Walter, ND



**BUY MORE,
SAVE MORE**

5-9 pk/cs
save 10%

10+ pk/cs
save 15%

Mix and match packs or cases of items from "red" tables to save!



Lab Supplies Bottles

Highlighted items

Scienceware® Safety-Labeled Wash Bottles, LDPE

Bottles include a leakproof 43-mm polyallomer (PA) cap and nozzle assembly. Large lettering and color-coded caps allow quick identification of contents. Assortment pack 06256-00 contains one each of the wash bottles labeled for water, acetone, ethanol, isopropanol, methanol, and toluene†. Capacity of all bottles is 500 mL (16 oz).

Catalog number	Labeled chemical	Dimensions (H x OD)	Cap color	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-06256-30	Water	8¾" x 2½" (22.5 x 7.3 cm)	Blue	6	\$47.00	\$42.50
WJ-06256-20	Distilled water	8¾" x 2½" (22.5 x 7.3 cm)	Blue		47.00	42.50
WJ-06256-14	Deionized water	8¾" x 2½" (22.5 x 7.3 cm)	Blue		47.00	42.50
WJ-06256-40	Acetone	8¾" x 2½" (22.5 x 7.3 cm)	Red		47.00	42.50
WJ-06256-50	Methanol	8¾" x 2½" (22.5 x 7.3 cm)	Green		47.00	42.50
WJ-06256-60	Isopropanol	8¾" x 2½" (22.5 x 7.3 cm)	Yellow		47.00	42.50
WJ-06256-70	Toluene†	8¾" x 2½" (22.5 x 7.3 cm)	Red	6	47.00	42.50
WJ-06256-13	70% ethanol	8¾" x 2½" (22.5 x 7.3 cm)	Natural	6	47.00	42.50
WJ-06256-90	Bleach	8¾" x 2½" (22.5 x 7.3 cm)	Blue	6	47.00	42.50
WJ-06256-10	Methyl ethyl ketone	8¾" x 2½" (22.5 x 7.3 cm)	Green	6	47.00	42.50
WJ-06256-11	Soap	8¾" x 2½" (22.5 x 7.3 cm)	Blue	6	47.00	42.50
WJ-06256-00	Assortment pack for water, acetone, ethanol, isopropanol, methanol, and toluene†	—	—	6	47.00	42.50

†Not recommended for long-term storage of toluene.



PYREX® Brand 1395 Bottles

Media storage, screw cap

These heavy-duty bottles can be used for storage as well as mixing and sampling. Bottles have permanent white enamel graduations and marking spots. Glass bead indicates full capacity line on 100-mL through 2-L sizes. Each bottle includes a linerless, one-piece autoclavable polypropylene plug seal cap and drip-free pouring ring. A pouring ring is not included on 25-mL size. Optional red PBT caps and red ETFE pouring rings are available for dry heat sterilization 356°F (180°C).

Color-coded polypropylene caps are available in orange, green, gray, and red. Color-coded caps and pouring rings are not available for the 25-mL and 50-mL sizes.

Caution: Bottles larger than two liters should not be used under vacuum pressure, as breakage may occur. Do not tighten caps immediately after autoclaving.

Description	Graduation range (mL)	Graduation interval (mL)	Dimensions (H x OD)	Thread size	Neck ID	Catalog number	Qty/ cs	Price/ cs
Media storage bottles								
25 mL (¾ oz)	10 to 25	5	2¾" x 1½" (7.0 x 3.7 cm)	GL25	14.5 mm	WJ-34514-20	10	\$ 101.25
50 mL (1¾ oz)	20 to 50	10	3½" x 1¾" (8.8 x 4.6 cm)	GL32	16.5 mm	WJ-34514-21	10	100.50
100 mL (3 oz)	40 to 80	20	4" x 2¼" (10.0 x 5.6 cm)	GL45	29 mm	WJ-34514-22	10	103.25
250 mL (8 oz)	50 to 200	50	5½" x 2¾" (13.8 x 7.0 cm)	GL45	29 mm	WJ-34514-23	10	114.75
500 mL (16 oz)	100 to 400	100	7" x 3¾" (17.6 x 8.6 cm)	GL45	29 mm	WJ-34514-24	10	137.25
1000 mL (32 oz)	100 to 900	100	8¾" x 4" (22.5 x 10.1 cm)	GL45	29 mm	WJ-34514-25	10	168.25
2000 mL (64 oz)	400 to 1800	200	10¾" x 5¾" (26.2 x 13.6 cm)	GL45	29 mm	WJ-34514-26	4	444.00
5000 mL (160 oz)	500 to 4500	500	13¾" x 7¾" (33.5 x 18.6 cm)	GL45	29 mm	WJ-34514-28	1	154.75
10,000 mL (320 oz)	2000 to 9000	1000	16½" x 9¼" (41.0 x 23.4 cm)	GL45	29 mm	WJ-34514-30	1	238.00
Polypropylene caps								
Orange	—	—	—	GL45	—	WJ-34514-50	20	67.00
Green	—	—	—	GL45	—	WJ-34514-53	20	69.25
Gray membrane	—	—	—	GL45	—	WJ-34514-54	10	54.25
Red, high temp	—	—	—	GL45	—	WJ-34514-55	10	123.75
Pouring rings								
Clear, low temp	—	—	—	—	—	WJ-34514-60	50	62.00
Red, high temp	—	—	—	—	—	WJ-34514-65	50	142.50



Use a variety of caps to color code your solutions.

Gray membrane caps 34514-54



ETFE pouring rings 34514-65 are ideal for dry heat sterilization.

Beaker/Bottle Brushes

Brushes feature a white plastic handle that won't support bacteria or hold water. Measure 6½"L (16.5 cm) x 3⅝" dia (7.9 cm); total length is 15½" (39.4 cm).

Catalog number	Bristles	Color	Price
WJ-84550-00	Nylon	White	\$19.50
WJ-84550-03	X-shaped nylon	Yellow	20.25
WJ-84550-04		Green	20.25
WJ-84550-70		White	18.50
WJ-84550-72	Polyester	Red	18.50
WJ-84550-74		Blue	18.50



84550-04

Unique Products.

Exceptional Service.

Technical Support.



Lab Supplies Bottles

Highlighted items

Qorpak® Glass Sample Bottles Preecleaned by Vacuum and Ionization

- Vacuum and ionization process removes contaminants such as dirt, dust, carton lint, oil, aerosols, and fine glass particles
- Saves you time—eliminates the need to rewash bottles
- 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



Capacity mL (oz)	Dimensions (H x OD)	Neck size (mm)	Catalog number	Qty/ cs	Price/ cs
A Clear narrow-mouth bottles					
30 (1)	3.1" x 1.2" (79 x 31 mm)	20	WJ-34606-00	48	\$ 81.50
60 (2)	3.7" x 1.3" (94 x 33 mm)	20	WJ-34606-10		50.00
120 (4)	4.4" x 1.9" (112 x 48 mm)	22	WJ-34606-20	24	53.50
240 (8)	5.4" x 2.4" (137 x 60 mm)	24	WJ-34606-30		69.00
480 (16)	6.6" x 3.0" (168 x 75 mm)	28	WJ-34606-40	12	48.25
960 (32)	8.3" x 3.7" (210 x 94 mm)	33	WJ-34606-50		66.50
B Clear wide-mouth square glass bottles					
15 (½)	2.4" x 0.9" (62 x 24 mm)	20	WJ-34610-00		99.75
30 (1)	2.8" x 1.4" (72 x 35 mm)	24	WJ-34610-10	48	103.25
60 (2)	3.4" x 1.5" (86 x 37 mm)	28	WJ-34610-20		111.25
120 (4)	4.4" x 1.8" (112 x 45 mm)	33	WJ-34610-30		74.50
240 (8)	5.4" x 2.0" (137 x 51 mm)	43	WJ-34610-40	24	97.50
480 (16)	6.5" x 2.4" (167 x 62 mm)	48	WJ-34610-50		118.25
960 (32) [†]	8.0" x 1.3" (202 x 33 mm)	58	WJ-34610-60	12	103.25
C Amber narrow-mouth glass bottles					
60 (2)	3.7" x 1.5" (94 x 39 mm)	20	WJ-34607-00		51.00
120 (4)	4.4" x 1.9" (112 x 48 mm)	22	WJ-34607-10	24	58.50
240 (8)	5.4" x 2.4" (138 x 60 mm)	24	WJ-34607-20		71.25
480 (16)	6.6" x 3.0" (168 x 75 mm)	28	WJ-34607-30	12	50.00
960 (32)	8.3" x 3.7" (210 x 94 mm)	33	WJ-34607-40		66.50
D Amber wide-mouth glass bottles					
30 (1)	2.6" x 1.4" (65 x 36 mm)	28	WJ-34609-00		52.25
60 (2)	3.0" x 1.7" (75 x 44 mm)	33	WJ-34609-10	24	64.25
120 (4)	3.7" x 2.1" (95 x 54 mm)	38	WJ-34609-20		79.25
240 (8)	4.7" x 2.6" (119 x 65 mm)	45	WJ-34609-30		94.00
480 (16)	5.7" x 3.2" (146 x 81 mm)	53	WJ-34609-40	12	67.75
960 (32)	7.0" x 3.5" (178 x 89 mm)		WJ-34609-50		138.75
E Clear wide-mouth glass jars with PTFE lined caps					
30 (1)	1.7" x 1.7" (43 x 43 mm)	43	WJ-34608-00	48	134.25
60 (2)	1.9" x 2.2" (49 x 55 mm)	53	WJ-34608-10		86.00
120 (4)	2.7" x 2.3" (69 x 60 mm)	58	WJ-34608-20	24	95.25
270 (9)	3.5" x 2.9" (89 x 73 mm)	70	WJ-34608-30		122.75
480 (16)	3.8" x 3.6" (96 x 91 mm)	89	WJ-34608-40	12	98.75
960 (32)	6.7" x 3.7" (170 x 95 mm)		WJ-34608-50		111.25
E Clear wide-mouth glass jars with pulp/vinyl lined caps					
30 (1)	1.7" x 1.7" (43 x 43 mm)	43	WJ-34608-05	48	90.75
60 (2)	1.9" x 2.2" (49 x 55 mm)	53	WJ-34608-15		52.25
120 (4)	2.7" x 2.3" (69 x 60 mm)	58	WJ-34608-25	24	56.25
270 (9)	3.5" x 2.9" (89 x 73 mm)	70	WJ-34608-35		77.00
480 (16)	3.8" x 3.6" (96 x 91 mm)	89	WJ-34608-45	12	50.00
960 (32)	6.7" x 3.7" (170 x 95 mm)		WJ-34608-55		67.75

[†]Graduated in mL and oz.

BUY MORE,
SAVE MORE

Save 10% on 5-9 pk/cs,
15% on 10 or more pk/cs.
Mix and match packs or cases of
items from "red" tables to save!

BUY MORE,
SAVE MORE

Save 10% on 6-29 packs,
15% on 30-119 packs,
20% on 120 or more packs.
Mix and match packs of any items
from the "blue" tables to save!

Cole-Parmer Preecleaned EPA Sample Containers

- Containers include certificate of analysis
- Caps feature a 0.07" PTFE-faced silicone seal

A-D Glass Bottles, Jars, and Jugs are preecleaned according to EPA procedure 1 methods for extractable organic, semivolatile, and pesticide analysis.

E Glass Septa Jars are preecleaned according to EPA procedure 2 methods for purgeable volatile organic analysis.



"Good value."

Mike, MA



Catalog number	Capacity mL (oz)	Dimensions (H x OD)	Neck size	Qty/ cs	Price/cs
A Clear wide-mouth jars					
WJ-99535-40	60 (2)	1 3/4" x 2 1/8" (4.4 x 5.4 cm)	53 mm	24	\$51.75
WJ-99535-41	125 (4)	2 1/8" x 2 3/8" (5.4 x 6.0 cm)	58 mm		55.25
WJ-99535-42	250 (8)	3 3/8" x 2 7/8" (8.6 x 7.3 cm)	70 mm		32.75
WJ-99535-43	500 (16)	3 3/4" x 2 7/8" (9.5 x 7.3 cm)	89 mm	12	46.00
WJ-99535-44	950 (32)	6 1/2" x 3 3/8" (16.5 x 9.2 cm)	89 mm		57.50
B Amber narrow-mouth glass bottles					
WJ-99535-30	125 (4)	4 3/8" x 1 1/2" (11.7 x 3.8 cm)	24 mm	24	49.50
WJ-99535-31	250 (8)	5 3/4" x 2 3/8" (14.6 x 6.0 cm)	24 mm		28.00
WJ-99535-32	500 (16)	7" x 3" (17.8 x 7.6 cm)	28 mm	12	38.00
WJ-99535-33	1000 (34)	8 7/8" x 4" (22.5 x 10.2 cm)	33 mm		43.75
C Amber wide-mouth glass bottles					
WJ-99535-50	125 (4)	3 3/4" x 2" (8.3 x 5.1 cm)	38 mm		24.75
WJ-99535-51	250 (8)	4 3/4" x 2 1/2" (12.1 x 6.4 cm)	45 mm		28.25
WJ-99535-52	500 (16)	5 3/8" x 3 3/8" (14.9 x 7.9 cm)	53 mm	12	43.75
WJ-99535-53	950 (32)	7 1/4" x 3 3/4" (18.4 x 8.3 cm)	53 mm		56.25
D Amber narrow-mouth glass jugs					
WJ-99535-34	2500 (80)	12 1/4" x 5" (31.1 x 12.7 cm)	38 mm	6	46.00
WJ-99535-35	4000 (135)	14" x 6 1/4" (35.6 x 15.9 cm)	38 mm	4	39.00
E Clear wide-mouth glass septa jars					
WJ-99535-20	60 (2)	1 3/4" x 2 1/8" (4.4 x 5.4 cm)	53 mm		67.75
WJ-99535-21	125 (4)	2 1/8" x 2 3/8" (5.4 x 6.0 cm)	58 mm	24	69.00

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.

Catalog number	Color	Qty/pk	Price
WJ-09964-00	Black		\$24.25
WJ-09964-10	Blue	10	24.25
WJ-09964-15	Green		24.25
WJ-09964-20	Red		24.25





Lab Supplies Cable Ties

Highlighted items

Solid-Design Cable Ties

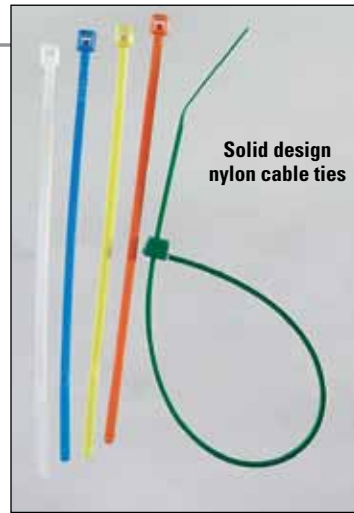
Injection-molded plastic won't corrode or stretch

These solid 6/6 nylon ties hold heavy loads; bend tip for simple installation. Durable locking mechanism holds securely even when used to bundle vibrating or flexing materials. Ties continue to hold tension even in oily spray or wet environments. Easily apply ties by hand or use a tensioning tool—order tools separately online.

Ties withstand temperatures to 185°F (85°C). Black ties are UV and weather resistant from -40 to 221°F (-40 to 105°C). All ties remain flexible to -40°F (-40°C). Melting temperature is 495°F (257°C). Efficient range of ties may be higher or lower depending on your specific application.

All ties are UL-component recognized, are self-extinguishing as per UL 94 Flam. class: V-2, and meet military specification MS3367.

Go online for our full selection of cable ties, with differing lengths and tensile strengths.



Solid design
nylon cable ties



06830-51 and -55
have write-on
identification tab



Catalog number	Length	Bundle dia	Color	Qty/pk	Price/pk
Miniature, 18-lb tensile strength					
WJ-06830-66				100	\$ 3.25
WJ-06830-52	4" (10.2 cm)	7/8" (2.2 cm)	White	1000	26.00
WJ-06830-51†				1000	86.00
WJ-06830-68	4" (10.2 cm)	7/8" (2.2 cm)	Black	100	3.75
WJ-06830-67				1000	28.75
WJ-06830-11	4" (10.2 cm)	7/8" (2.2 cm)	Red	100	3.75
WJ-06830-61				1000	26.00
WJ-06830-12	4" (10.2 cm)	7/8" (2.2 cm)	Blue	100	3.75
WJ-06830-62				1000	25.25
WJ-06830-13	4" (10.2 cm)	7/8" (2.2 cm)	Green	100	3.75
WJ-06830-63				1000	25.25
WJ-06830-14	4" (10.2 cm)	7/8" (2.2 cm)	Yellow	100	3.75
WJ-06830-64				1000	31.75
WJ-06830-15	4" (10.2 cm)	7/8" (2.2 cm)	Orange	100	3.75
WJ-06830-65				1000	25.25
Intermediate, 40-lb tensile strength					
WJ-06830-76	5½" (14.0 cm)	1¼" (3.2 cm)	White	100	7.25
WJ-06830-54			White	1000	39.75
WJ-06830-78	5½" (14.0 cm)	1¼" (3.2 cm)	Black	100	5.75
WJ-06830-77			Black	1000	42.50
WJ-06830-87	8" (20.3 cm)	2½" (5.4 cm)	White	100	8.25
WJ-06830-30			White	1000	54.50
WJ-06830-89	8" (20.3 cm)	2½" (5.4 cm)	Black	100	9.25
WJ-06830-88			Black	1000	61.50
WJ-06830-16	8" (20.3 cm)	2½" (5.4 cm)	Red	100	7.00
WJ-06830-31			Red	1000	55.25
WJ-06830-17	8" (20.3 cm)	2½" (5.4 cm)	Blue	100	7.00
WJ-06830-32			Blue	1000	55.25
WJ-06830-18	8" (20.3 cm)	2½" (5.4 cm)	Green	100	7.00
WJ-06830-33			Green	1000	55.25
WJ-06830-19	8" (20.3 cm)	2½" (5.4 cm)	Yellow	100	7.00
WJ-06830-34			Yellow	1000	55.25
WJ-06830-21	8" (20.3 cm)	2½" (5.4 cm)	Orange	100	7.00
WJ-06830-41			Orange	1000	55.25

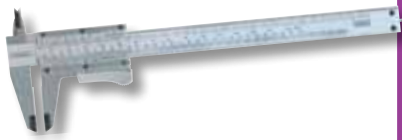
Catalog number	Length	Bundle dia	Color	Qty/pk	Price
Standard, 50-lb tensile strength					
WJ-06830-43				100	\$ 7.25
WJ-06830-56	7½" (19.1 cm)	1¾" (4.4 cm)	White	1000	58.50
WJ-06830-55†				1000	160.50
WJ-06830-45	7½" (19.1 cm)	1¾" (4.4 cm)	Black	100	10.25
WJ-06830-44				1000	65.50
WJ-06830-47	11" (27.9 cm)	3" (7.6 cm)	White	100	15.25
WJ-06830-46				1000	103.25
WJ-06830-49	11" (27.9 cm)	3" (7.6 cm)	Black	100	15.50
WJ-06830-48				1000	138.25
WJ-06830-58	15" (38.1 cm)	4" (10.2 cm)	White	100	17.25
WJ-06830-53				500	79.25
WJ-06830-29	15" (38.1 cm)	4" (10.2 cm)	Black	100	19.00
WJ-06830-28				500	86.00
Heavy duty, 120-lb tensile strength					
WJ-06830-36	14½" (36.8 cm)	4" (10.2 cm)	White	50	15.50
WJ-06830-91				100	28.25
WJ-06830-93	14½" (36.8 cm)	4" (10.2 cm)	Black	50	17.25
WJ-06830-92				100	31.00
WJ-06830-37	21" (53.3 cm)	6" (15.2 cm)	White	50	28.25
WJ-06830-94			Black	50	30.00
WJ-06830-38	24" (61.0 cm)	7" (17.8 cm)	White	50	40.75
WJ-06830-97			Black	50	31.00
WJ-06830-39	28" (71.1 cm)	8" (20.3 cm)	White	50	31.00
WJ-06830-98			Black	50	32.75
Extra heavy duty, 175-lb tensile strength					
WJ-06830-42	34" (86.4 cm)	10" (25.4 cm)	White	50	34.50
WJ-06830-99			Black	50	44.25

†Ties 06830-51 and -55 have a textured, write-on identification tab.

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Unique Products.

Crescent® Plastic-Cutting Diagonal Pliers

These solid-joint diagonal pliers are designed specifically for cutting plastic material. Extra slim design, ground-flat back, oval-shaped jaws, and flush ground cutting edges permit close trimming and accurate cutting in tight areas. Vinyl cushion grips and coil springs provide user comfort and reduce fatigue. Pliers measure 6" (15.2 cm) L; nose measures 27/32" (21 mm) L x 47/64" (19 mm) W.

Catalog number	Description	Price
WJ-97109-25	Plastic-cutting diagonal pliers	\$29.50



97109-25

Technical Support.



Lab Supplies

Carboys

Highlighted items

**BUY MORE,
SAVE MORE**

6-29 packs save 10% 30-119 packs save 15% 120+ packs save 20%
Mix and match packs of any items from the "blue" tables to save!



Wide-mouth style carboy 06056-22



Carboy with spigot 06065-32



Carboy with tubulation 06080-52 (tubing not included)



Leakproof



62507-10



62507-15

Thermo Scientific Nalgene Round Carboys, LDPE

Durable, leakproof LDPE carboys are ideal for holding corrosive materials. All 10-liter and larger carboys are graduated in 1-gallon and 5-liter increments and feature wide shoulder grips that make them easy to grasp. The 4-liter model 06065-10 has a shoulder tab-grip with an 11-mm hole. Polypropylene (PP) cap ensures leakproof seal.

Carboys with PP spigots accept 5/8" ID tubing and come with adapters for 1/4" and 1/2" ID tubing. Carboys with tubulation feature a hose barb, molded in at bottom of carboy for strength and leak resistance, which allows near-complete drainage. Tubing is not included—order at www.coleparmer.com/tubing.



Catalog number	Liters (gallons)	Dimensions (H x dia)		Cap size	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
		in.	cm				
Carboys with shoulder handles							
WJ-06031-32	10 (2½)	15¼ x 9%	38.7 x 25.0	83B	1	\$ 89.50	\$ 80.50
WJ-06031-42	15 (4)	17 x 11¼	43.2 x 28.6	83B		\$ 111.25	\$ 100.25
WJ-06031-52	20 (5)	20¾ x 11	52.7 x 27.9	83B		\$ 127.25	\$ 114.50
WJ-06031-62	25 (6½)	23¾ x 11¾	59.4 x 28.9	83B		\$ 154.75	\$ 139.25
WJ-06031-72	50 (13)	26¾ x 15	68.0 x 38.1	83B		\$ 235.00	\$ 211.50
Wide-mouth carboys with shoulder handles							
WJ-06056-22	10 (2½)	13½ x 9¼	34.3 x 24.8	100 mm	1	\$ 89.50	\$ 80.50
WJ-06056-32	15 (4)	15¾ x 11¾	39.0 x 28.9	100 mm		\$ 109.00	\$ 98.00
WJ-06056-52	20 (5)	19 x 11	48.3 x 27.9	100 mm		\$ 125.00	\$ 112.50
Carboy with spigot and shoulder handles							
WJ-06065-10	4 (1)	13¼ x 6	33.7 x 15.2	38-430	1	\$ 115.75	\$ 104.25
WJ-06065-22	10 (2½)	15¾ x 9¼	39.0 x 24.8	83B		\$ 167.50	\$ 150.75
WJ-06065-32	20 (5)	20¾ x 11	53.0 x 27.9	83B		\$ 197.25	\$ 177.50
WJ-06065-52	25 (6½)	23¾ x 11¾	59.4 x 28.9	83B		\$ 217.75	\$ 196.00
WJ-06065-62	50 (13)	26¾ x 15	68.2 x 37.9	83B		\$ 326.00	\$ 293.00
Carboys with ½" OD tubulation and shoulder handles							
WJ-06080-42	10 (2½)	15¾ x 9%	39.0 x 25.0	83B	1	\$ 93.00	\$ 83.75
WJ-06080-52	20 (5¼)	20¾ x 11	53.0 x 27.9	83B		\$ 112.50	\$ 101.25

- WJ-06258-30 Replacement cap; PP, 83B. Pack of 2 \$48.75
- WJ-63000-16 Replacement cap; PP, 100 mm. Pack of 12 \$62.00
- WJ-63000-18 Replacement cap; PP, 38-430. Pack of 12 \$29.25
- WJ-06070-22 Replacement spigot, PP \$42.00

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Cole-Parmer Economical Heavy-Duty Carboys with Shoulder Handle, PP

Heavy-duty graduated polypropylene (PP) carboys feature octagonal shape for increased rigidity when full. Offset neck allows easier filling and pouring. Molded shoulder handle is sealed at the ends to prevent contamination. Models with the leakproof spigot are supplied with a tube fitting to accept 0.31" (8-mm) ID tubing. Carboys include a PP screw closure. Maximum temperature is 275°F (135°C). **Autoclavable.**



Catalog number	Liters (gallons)	Dimensions (L x W x H)		Cap size	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
		in.	cm				
Heavy-duty carboys with shoulder handle							
WJ-62507-00	5 (1¼)	7½ x 7½ x 10½	19.1 x 19.1 x 27.0	45 mm	1	\$38.00	\$34.25
WJ-62507-10	10 (2½)	9¾ x 9¾ x 14¾	23.8 x 23.8 x 35.9	90 mm	1	\$59.75	\$53.75
WJ-62507-20	20 (5¼)	11¾ x 11¾ x 16½	30.2 x 30.2 x 41.9	90 mm	1	\$77.00	\$69.25
Heavy-duty carboys with shoulder handle and spigot							
WJ-62507-05	5 (1¼)	7½ x 7½ x 10½	19.1 x 19.1 x 27.0	45 mm	1	\$66.50	\$60.00
WJ-62507-15	10 (2½)	9¾ x 9¾ x 14¾	23.8 x 23.8 x 35.9	90 mm	1	\$82.75	\$74.50
WJ-62507-25	20 (5¼)	11¾ x 11¾ x 16½	30.2 x 30.2 x 41.9	90 mm	1	\$97.50	\$87.75

- WJ-62507-90 Replacement spigot, PP \$30.50

Lab Frame Connectors

Connect existing items to your frame or build a custom lab frame

■ Use with 1/2" (12.7 mm) diameter frame rods.

A S-Connector

Ergonomic design allows for easy one-handed adjustment.

Catalog number	Hold angle	Material	Price/ea
WJ-08041-36	90°	Zinc	\$21.50
WJ-08021-58	90°	SS	36.00



B Lattice Connector

Smooth, rounded surfaces are easy to clean. The small size maximizes lab frame space. Aluminum construction.

Catalog number	Hold angle	Price/pk of 12
WJ-08041-32	90°	\$200.75



C Hook Connector

Allows one-handed assembly of two components with one adjustment screw. Nickel-plated zinc construction.

Catalog number	Hold angle	Material	Price/ea
WJ-08041-30	90°	Zinc	\$13.00
WJ-08021-60	90°	SS	31.75



D Regular and Jumbo Holders

Streamlined design provides easy cleaning and resists contamination. Regular model is nickel-plated zinc. Jumbo version is aluminum and doubles as a shelf support holding shelves up to 3/4" (19.1 mm) thick.

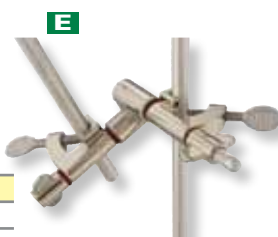
Catalog number	Hold angle	Material	Price/ea
WJ-08041-20	Regular	Zinc	\$21.50
WJ-08041-22	Jumbo	Aluminum	33.00
WJ-08021-62	Jumbo	SS	61.75



E All-Position Connector

Connect rods at any angle in any plane. Versatile enough for changing applications. Nickel-plated zinc construction.

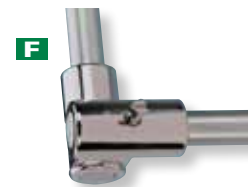
Catalog number	Hold angle	Price/ea
WJ-08041-16	Any	\$58.75



F Rod End Connector

Ideal for mounting lab frame rods to form a corner. Precision bore provides a close fit with 1/2" (12.7 mm) dia rods. Nickel-plated zinc construction.

Catalog number	Hold angle	Price/ea
WJ-08041-34	90°	\$14.50



G End-to-End Connector

Connect two short rods end-to-end when a longer rod is needed. Nickel-plated zinc construction.

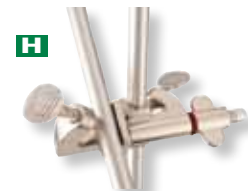
Catalog number	Hold angle	Price/ea
WJ-08041-18	180°	\$23.00



H Swivel Connector

Ideal for when more than one angle is needed. Connect two rods and adjust as needed. Nickel-plated zinc construction.

Catalog number	Hold angle	Price/ea
WJ-08041-14	Any	\$28.75



I Multiple Rod Connector

Holds up to six lab frame rods for maximum versatility. Oval hole accommodates two rods to prevent turning after rods are secured. Nickel-plated zinc construction.

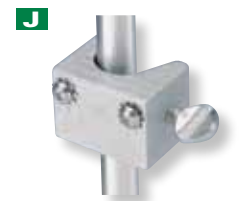
Catalog number	Hold angle	Price/ea
WJ-08041-12	90°	\$36.00



J Universal Stirrer Bracket

Mounts most stirrers to a clamp stand or a frame rod set. Maximum load is 5 lb (2.26 kg). Nickel-plated zinc construction.

Catalog number	Description	Price/ea
WJ-08041-40	Stirrer bracket	\$8.75



K Lab Frame Foot

Permanently mount lab frame rods directly to the wall, floor, or benchtop. Includes three mounting screws. Connector constructed of nickel-plated zinc or stainless steel. Accepts up to 1/2" (12.7 mm) dia rods.

Catalog number	Description	Material	Price/ea
WJ-08041-38	Lab frame foot	Zinc	\$24.50
WJ-08021-64		SS	57.50



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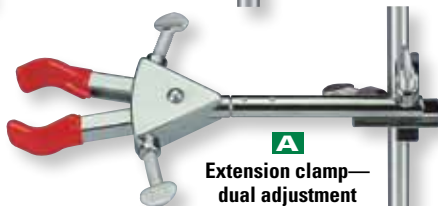


Lab Supplies Clamps & Supports

Highlighted items



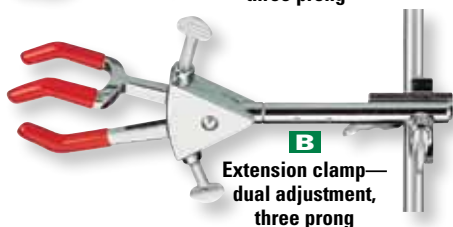
A
Extension clamp—
single adjustment



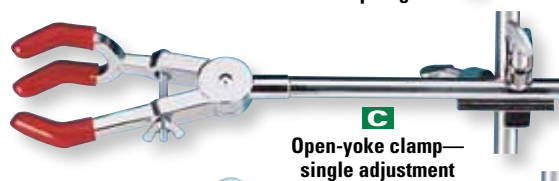
A
Extension clamp—
dual adjustment



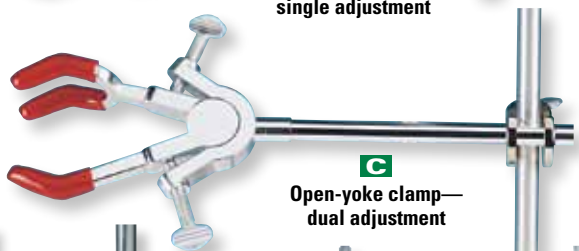
B
Extension clamp—
single adjustment,
three prong



B
Extension clamp—
dual adjustment,
three prong



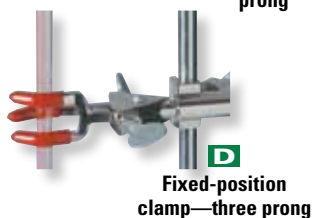
C
Open-yoke clamp—
single adjustment



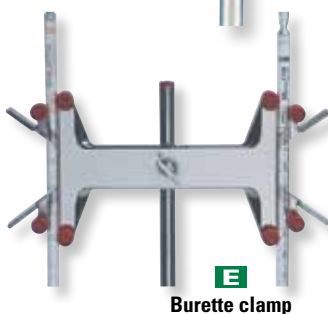
C
Open-yoke clamp—
dual adjustment



D
Fixed-position
clamp—two
prong



D
Fixed-position
clamp—three prong



E
Burette clamp



F
Thumbscrew
knob

F Thumbscrew Knob

The thumbscrew knob is placed over thumbscrews that are supplied with the two or three-prong clamps. Knob makes tightening of clamps easier on the hands and wrists.

Catalog number	Description	Price/ea
WJ-08047-95	Thumbscrew knob	\$41.75

Utility Clamps

Securely hold your flasks, beakers, and burettes

A Extension Clamps, Two-Prong

Ideal for cylinder type labware. Choose single adjustment for standard use or dual adjustment for greater flexibility over a wider range. Nickel-plated zinc construction with slip-on vinyl and fiberglass grip sleeves.

Catalog number	Type	Size	Opens to dia	Overall length	Price
WJ-08021-42	Single adjustment	Medium	3 ¹ / ₁₆ " (78 mm)	8 ¹ / ₂ " (215 mm)	\$34.50
WJ-08021-44		Large	3 ³ / ₈ " (92 mm)	9" (229 mm)	36.00
WJ-08021-46	Dual adjustment	Medium	2 ¹ / ₁₆ " (75 mm)	9" (229 mm)	\$34.50
WJ-08021-48		Large	3 ³ / ₄ " (95 mm)	9 ³ / ₄ " (248 mm)	36.00

B Extension Clamps, Three-Prong

Ideal for irregularly shaped objects. Choose single adjustment for standard use or dual adjustment for greater flexibility over a wider range. Available in nickel-plated construction or stainless steel. Durable stainless steel clamps offer chemical resistance and increased strength. All clamps include slip-on vinyl and fiberglass grip sleeves.

Catalog number	Type	Material	Size	Opens to dia	Overall length	Price
WJ-08021-22	Single adjustment	Nickel-plated zinc	Small	1 ¹ / ₁₆ " (39 mm)	6 ¹ / ₁₆ " (160 mm)	\$44.50
WJ-08021-24			Medium	2 ³ / ₈ " (71 mm)	8 ³ / ₁₆ " (218 mm)	44.50
WJ-08021-26			Large	4 ¹ / ₄ " (108 mm)	9 ³ / ₄ " (248 mm)	50.25
WJ-08021-32	Dual adjustment	Nickel-plated zinc	Small	1 ¹ / ₁₆ " (46 mm)	6 ¹ / ₁₆ " (168 mm)	44.50
WJ-08021-34			Medium	2 ³ / ₄ " (69 mm)	9" (229 mm)	44.50
WJ-08021-35			Medium	2 ³ / ₄ " (69 mm)	16" (406 mm)	56.00
WJ-08021-36	Large	Large	4 ¹ / ₈ " (105 mm)	10 ³ / ₄ " (273 mm)	50.25	
WJ-08021-37			4 ¹ / ₈ " (105 mm)	17 ³ / ₄ " (451 mm)	57.50	
WJ-08021-52	Dual adjustment	Stainless steel	Small	1 ⁷ / ₈ " (48 mm)	6 ¹ / ₄ " (172 mm)	87.50
WJ-08021-54			Medium	2 ³ / ₄ " (69 mm)	9" (229 mm)	90.25
WJ-08021-56			Large	4" (102 mm)	10 ³ / ₄ " (273 mm)	117.50

C Open-Yoke Extension Clamps, Three-Prong

Open-yoke design is easier to clean and decontaminate. This design also allows use of clamp's full depth—no springs or other internal workings to get in the way. Choose single adjustment for standard use or dual adjustment for greater flexibility over a wider range. Nickel-plated zinc construction with slip-on vinyl and fiberglass grip sleeves.

Catalog number	Type	Size	Opens to dia	Overall length	Price
WJ-08021-04	Single adjustment	Small	1 ⁵ / ₁₆ " (23 mm)	6 ³ / ₈ " (162 mm)	\$48.75
WJ-08021-02		Medium	2" (50 mm)	9" (229 mm)	50.25
WJ-08021-00		Large	2 ⁹ / ₁₆ " (72 mm)	10 ¹ / ₄ " (260 mm)	54.50
WJ-08021-12	Dual adjustment	Small	1 ¹ / ₄ " (32 mm)	6" (152 mm)	48.75
WJ-08021-14		Medium	2 ³ / ₄ " (70 mm)	8 ³ / ₄ " (222 mm)	50.25
WJ-08021-16		Large	3 ¹ / ₁₆ " (103 mm)	10 ¹ / ₄ " (260 mm)	54.50

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 grips rods up to 3/4" (19 mm) in diameter. Nickel-plated zinc construction with slip-on vinyl and fiberglass grip sleeves.

Catalog number	Type	Jaw type	Size	Opens to dia	Price
WJ-08022-00	Single	Two prong	Medium	3" (77 mm)	\$33.00
WJ-08022-02		Three prong	Large	2 ³ / ₄ " (69 mm)	41.75

E Double Burette Clamps, Research-Grade

Hold one or two burettes up to 100 mL. The one-handed, scissor-like mechanism provides quick and easy adjustment. Clamp is available separately or order together with stand. Nickel-plated zinc construction.

Catalog number	Description	Burette size	Price
WJ-08022-10	Double burette clamp only	Micro to 100 mL	\$ 61.75
WJ-08022-60	Double burette clamp with porcelain base stand 08022-50	Micro to 100 mL	236.50



Lab Supplies

Cleaning Solutions / Controlled Environment

Highlighted items

Cole-Parmer Cleaning Products

Clean glass, metal, plastic, rubber, and other hard materials

Purchase our full line of safe and effective cleaning products. Cleaners are free-rinsing, aqueous, and highly concentrated. All cleaners meet USDA guidelines for incidental contact with food processing systems, and contain no CFCs, phosphates, silicates, halogens, or phenols.

FREE Offer!

Request a free 8-oz sample of Micro-90® today! Ask for WJ-99999-14. Valid while supplies last.



Cleaner	Type	Cleaning applications	Dilution	pH	Pkg	Catalog number	Qty	Price/ea	Catalog number	Qty/cs	Price/cs
Micro-90®	Ionic, nonionic, USDA authorized	Manual or ultrasonic; removes blood and most biological materials; cleans glass, most metals, plastic, and rubber†	1:100 to 2:100	9.5	0.26 gal. (1 L)	WJ-18100-05	1	\$ 22.50	WJ-18100-04	12	\$200.75
					1 gal. (4 L)	—	—	WJ-18100-11	4	217.75	
					5 gal. (18.9 L)	—	—	WJ-18100-20	1	217.75	
					55-gal. drum (208 L)	WJ-18100-30	1	2001.00	—	—	—
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)	WJ-18101-30	1	38.00	WJ-18101-20	12	347.00
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)	WJ-18102-00	1	38.50	WJ-18102-10	12	311.00
					5.3 gal. (20 L)	WJ-18102-30	1	376.00	—	—	—
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)	WJ-18103-00	1	34.50	WJ-18103-10	12	281.00
					5.3 gal. (20 L)	WJ-18103-30	1	375.00	—	—	—
NEW 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)	WJ-18104-00	1	22.00	WJ-18104-01	12	240.75
					5.3 gal. (20 L)	WJ-18104-30	1	317.00	—	—	—

†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)	WJ-17775-05	1	\$ 40.25	WJ-17775-00	9	\$350.00
					25 lb (11.3 kg)	WJ-17775-50	1	223.50	—	—	—
					50 lb (22.7 kg)	WJ-17775-60	1	384.00	—	—	—
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)	WJ-17778-05	1	26.00	WJ-17778-00	12	270.00
					1 gal. (4 L)	WJ-17778-40	1	82.75	WJ-17775-40	4	281.00
Alcojet®	Low-subsiding, nonionic, corrosion-inhibited formula, free rinsing	Manual or ultrasonic, machine washing	1:200	12	4 lb (1.8 kg)	WJ-17776-05	1	41.50	WJ-17776-00	9	344.00
					25 lb (11.3 kg)	WJ-17776-50	1	195.00	—	—	—

Kimberly-Clark Critical Task Wipes

Absorbent, soft, and nonabrasive

Low-lint wipes won't scratch delicate surfaces and they wipe surfaces clean without leaving residue. Single-ply and two-ply Kimwipes® EX-L wipes are made of a finely textured tissue. Solvent-resistant KimTech CL4 wipes for cleanrooms are made of a single-ply, nonwoven fabric specially bonded to eliminate surface fibers and trap particles.



Kimberly-Clark critical task wipes

Catalog number	Description	Compliance	Wipe size	Qty/bx	Box/cs	Price/cs*
WJ-33670-04	Kimwipes EX-L, 1 ply	—	4 1/2" x 8 1/2" (11.4 x 21.6 cm)	280	60	\$261.00
WJ-33670-06	Kimwipes EX-L, 2 ply	—	15" x 16 3/4" (38.1 x 42.5 cm)	140	15	231.50
WJ-33670-10	Kimwipes EX-L, 2 ply	—	15" x 16 3/4" (38.1 x 42.5 cm)	90	15	301.00
WJ-33670-20	Kimtech CL4	ISO Class 4†	12" x 12" (30.5 x 30.5 cm)	100	5	221.25

*Discounts: Save 10% on 10-49 cases and 15% on 50+ cases.

†Formerly Class 10

Unique Products.

Exceptional Service.

Technical Support.



Lab Supplies Containers

Highlighted items



Wide-Mouth Sample Containers, PP

Chemical-resistant polypropylene (PP) containers come with white polypropylene linerless lids. Models 06101-31 and 06101-40 fit blenders with Mason jar threads. **Autoclavable.**



Catalog number	Capacity mL (oz)	Dimensions (H x OD)	Cap size	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-06101-11	30 (1)	1¾" x 1¾" (4.3 x 4.3 cm)	43 mm		\$28.25	\$25.50
WJ-06101-21	60 (2)	2" x 1¾" (5.1 x 4.8 cm)	53 mm	12	23.50	21.25
WJ-06101-31	120 (4)	2¾" x 2¾" (7.1 x 6.1 cm)	70 mm		39.00	35.25
WJ-06101-40	240 (8)	3½" x 2½" (8.9 x 6.4 cm)	89 mm		23.00	20.75
WJ-06101-50	480 (16)	3½" x 3¾" (8.9 x 9.5 cm)	89 mm	6	30.50	27.50
WJ-06101-60	960 (32)	4¾" x 4" (11.7 x 10.2 cm)	120 mm		47.00	42.50
WJ-06101-70	1190 (40)	4¾" x 5¼" (11.7 x 13.3 cm)	120 mm		59.75	53.75



Cole-Parmer Disposable Lab Containers, PPCO

Stackable, translucent polypropylene copolymer (PPCO) containers resist damage from boiling and freezing, and are impervious to most lab chemicals (including formaldehyde). Come with tight-fitting lids.

Catalog number	Capacity mL (oz)	Dimensions (H x OD)	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-06727-00	120 (4)	1½" x 3½" (2.8 x 8.9 cm)	250	\$149.00	\$134.25
WJ-06727-10	240 (8)	2¾" x 2¾" (7.0 x 7.0 cm)	250	177.75	160.00
WJ-06727-20	480 (16)	3¾" x 2¾" (9.2 x 7.0 cm)	100	143.25	129.00
WJ-06727-30	960 (32)	4¾" x 3¾" (11.7 x 8.6 cm)	100	200.75	180.50
WJ-06727-35	2000 (64)	6" x 5½" (15.2 x 14.0 cm)	50	137.75	124.00
WJ-06727-42	2500 (83)	5¾" x 6¾" (14.6 x 16.8 cm)	25	82.75	74.50
WJ-06727-50	5000 (170)	8¾" x 7¾" (20.6 x 19.7 cm)	25	137.75	124.00



Graduated 118-mL (4-oz) Sample Containers, PP

Graduated polypropylene (PP) containers are translucent, unbreakable, and chemical-resistant. Containers tolerate strong acids, alkalis, and most organic solvents. Full-turn screw thread provides leakproof seal. Choose from sterile or nonsterile versions; sterile containers are individually bagged. Containers come with identification labels and color-coded HDPE caps (green—sterile; white—nonsterile).



Catalog number	Capacity mL (oz)	Dimensions (H x OD)	Description	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-06049-40	118 (4)	3" x 2½" (7.6 x 6.4 cm)	Sterile	100	\$ 59.75	\$53.75
WJ-06049-50	118 (4)	3" x 2½" (7.6 x 6.4 cm)	Nonsterile	500	132.00	118.75

“Great for collection—
no leaks.”

KDog, MO



Collapsible Containers, LDPE

These containers nest uniformly when empty and expand readily when filled with liquid. They include polypropylene (PP) caps with injection-molded threads. Order optional quick service faucets and shipping cartons below.

Catalog number	Capacity L (gal.)	Cap size	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-06100-10	1 (¼)	38 mm	12	\$31.00	\$28.00
WJ-06100-20	4 (1)		12	36.75	33.00
WJ-06100-30	10 (2½)		10	54.00	48.50
WJ-06100-40	19 (5)		10	69.00	62.00



Quick Service Faucets

Each faucet has a 38-mm PP screw cap, PP spigot, and LDPE body. Model 06061-02 is vented for smooth flow. FDA approved.



Catalog number	Spigot size (mm)	Qty/ pk	Price/ 1 pk
WJ-06061-01	8	12	\$27.50
WJ-06061-02	20		51.75



Shipping Cartons

Delivered flat for easy delivery and storage. Model 06100-03 features double walls for added strength when shipping larger volumes.

Catalog number	Use with container	Test weight	Qty/ pk	Price/ 1 pk
WJ-06100-01	06100-10	200 lb	1	\$5.50
WJ-06100-03	06100-30	275 lb		5.75



**BUY MORE,
SAVE MORE**

6-29 packs **save 10%** 30-119 packs **save 15%** 120+ packs **save 20%**
Mix and match packs of any items from the "blue" tables to save!



Lab Supplies Cylinders

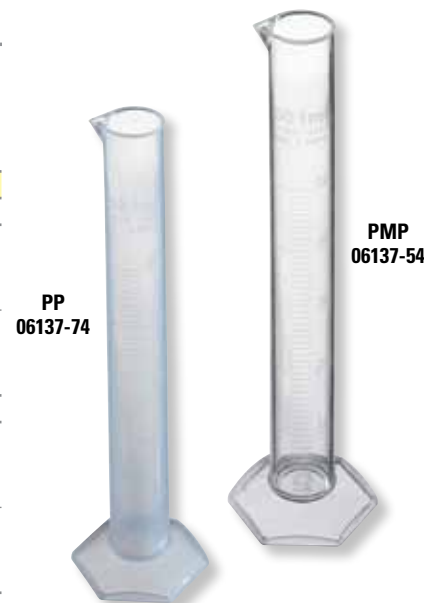
Highlighted items

Cole-Parmer Graduated Cylinders, PP and PMP

■ Meet ISO Standard 6706

Low-cost cylinders are calibrated "to contain" and feature molded graduations. Polypropylene (PP) cylinders offer very good chemical resistance; transparent polymethylpentene (PMP) cylinders offer good chemical and heat resistance. **Autoclavable**. Call for additional sizes.

Catalog number	Capacity (mL)	Graduations (mL)	Height	Qty/pk	Price/pk
Polypropylene (PP) cylinders					
WJ-06137-70	10	0.2	5½" (14.0 cm)	1	\$ 9.50
WJ-06137-72	25	0.5	6¾" (16.9 cm)	1	9.75
WJ-06137-74	50	1.0	7¾" (20.0 cm)	1	13.00
WJ-06137-76	100	1.0	9¾" (23.8 cm)	1	15.25
WJ-06137-78	250	2.0	12¾" (31.5 cm)	1	23.50
WJ-06137-80	500	5.0	14¼" (36.0 cm)	1	34.00
WJ-06137-82	1000	10.0	17¾" (44.0 cm)	1	39.00
WJ-06137-84	2000	20.0	21" (53.3 cm)	1	70.00
Polymethylpentene (PMP) cylinders					
WJ-06137-50	10	0.2	5½" (14.0 cm)	1	11.00
WJ-06137-52	25	0.5	6¾" (17.1 cm)	1	13.75
WJ-06137-54	50	1.0	7¾" (20.0 cm)	1	16.25
WJ-06137-56	100	1.0	9¾" (25.0 cm)	1	21.25
WJ-06137-58	250	2.0	12¾" (31.5 cm)	1	24.25
WJ-06137-60	500	5.0	14¼" (36.2 cm)	1	31.00
WJ-06137-62	1000	10.0	17¾" (44.0 cm)	1	42.50
WJ-06137-64	2000	20.0	21" (53.3 cm)	1	57.50



Corning® Calibrated Cylinders, PP

■ Meet ISO Standard 6706

Manufactured of translucent polypropylene, these sturdy cylinders feature raised graduations and a wide hexagonal base. Calibrated "to contain" at 20°C. **Autoclavable**; exposure to temperatures above 140°F (60°C) may affect accuracy.

Capacity (mL)	Graduation (mL)	Tolerance (mL)	Height	Catalog number	Qty/pk	Price/pk	Catalog number	Qty/cs	Price/cs
10	0.20	±0.20	5½" (14.5 cm)	WJ-06137-01	2	\$36.75	WJ-06137-31	12	\$192.25
25	0.50	±0.50	6¾" (17.0 cm)	WJ-06137-03	2	40.25	WJ-06137-33	12	209.50
50	1.00	±1.00	7¾" (20.0 cm)	WJ-06137-05	2	43.75	WJ-06137-35	12	227.50
100	1.00	±1.00	9¾" (25.0 cm)	WJ-06137-07	2	50.00	WJ-06137-37	12	247.75
250	2.00	±2.00	12¾" (31.5 cm)	WJ-06137-09	1	33.25	WJ-06137-39	6	167.75
500	5.00	±5.00	14¼" (36.0 cm)	WJ-06137-11	1	42.50	WJ-06137-41	6	218.00
1000	10.00	±10.00	17¾" (44.0 cm)	WJ-06137-13	1	58.50	WJ-06137-43	6	286.00
2000	20.00	±20.00	18½" (48.2 cm)	WJ-06137-15	1	95.25	WJ-06137-45	3	242.25

NEW

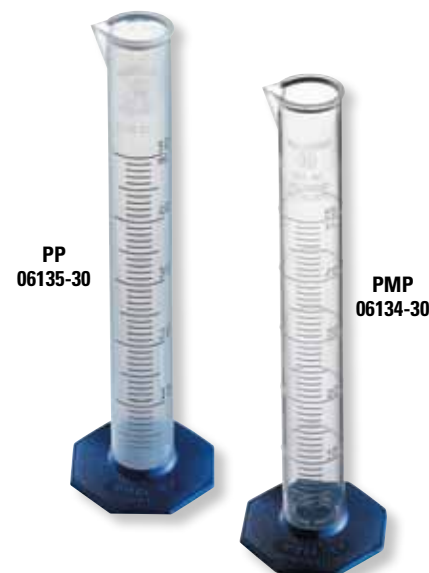


Thermo Scientific Nalgene Calibrated Graduated Cylinders, PP and PMP

■ Meet ASTM Class B, E 1272 specifications and ISO Standard 6706

Calibrated T.C./T.D. at 20°C. Polypropylene (PP) cylinders offer very good chemical resistance; transparent polymethylpentene (PMP) cylinders offer good chemical and heat resistance. Nonwetting; no meniscus. **Autoclavable**, but may affect accuracy. Call for additional sizes.

Catalog number	Capacity (mL)	Graduations (mL)	Tolerance (mL)	Height	Qty/pk	Price/1 pk	Save 10% 6-29 pks
Polypropylene (PP) cylinders							
WJ-06135-10	10	0.2	±0.20	4¾" (11.0 cm)	1	\$ 20.75	\$ 18.75
WJ-06135-30	50	1.0	±0.50	7¼" (18.4 cm)	1	26.50	23.75
WJ-06135-40	100	1.0	±1.00	9¾" (25.1 cm)	1	30.00	27.00
WJ-06135-60	500	5.0	±4.00	15½" (39.4 cm)	1	51.75	46.50
WJ-06135-70	1000	10.0	±6.00	17¾" (45.1 cm)	1	65.50	59.00
WJ-06135-90	4000	50.0	±29.00	24" (61.0 cm)	1	239.75	215.75
Polymethylpentene (PMP) cylinders							
WJ-06134-10	10	0.2	±0.20	4¾" (11.0 cm)	1	22.00	19.75
WJ-06134-30	50	1.0	±0.50	7¼" (18.4 cm)	1	27.50	24.75
WJ-06134-40	100	1.0	±1.00	9¾" (25.1 cm)	1	30.50	27.50
WJ-06134-60	500	5.0	±4.00	15½" (39.4 cm)	1	52.25	47.00
WJ-06134-70	1000	10.0	±6.00	17¾" (45.1 cm)	1	66.50	60.00
WJ-06134-90	4000	50.0	±29.00	24" (61.0 cm)	1	254.00	228.00



Unique Products.

Exceptional Service.

Technical Support.



Lab Supplies

Gloves

Highlighted items

MICR \oplus FLEX[®] Powder-Free Disposable Gloves

Proven performance that consistently exceeds the standards

Enjoy comfortable wear, durable protection, a secure grip, and tactile sensitivity. Powder-free to reduce skin irritation. Gloves feature a textured surface for excellent grip—wet or dry. Beaded cuffs improve tear resistance and protect hands. Disposable—for single use only. 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. These light-duty, liquid-proof gloves are a proven barrier for bloodborne pathogens. 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.

Catalog number	Size	Material	Length	Thickness	Qty/ bx	Price per box	
						1 bx	10 bx
Diamond Grip gloves							
WJ-86231-30	Small	Latex	9½" (24 cm)	7.1 mil	100	\$21.50	\$19.50
WJ-86231-31	Medium					21.50	19.50
WJ-86231-32	Large					21.50	19.50
WJ-86231-33	X-large					21.50	19.50
Diamond Grip Plus gloves							
WJ-86232-30	Small	Latex	9½" (24 cm)	6.3 mil	100	19.50	17.75
WJ-86232-31	Medium					19.50	17.75
WJ-86232-32	Large					19.50	17.75
WJ-86232-33	X-large					19.50	17.75
Evolution One gloves							
WJ-86231-00	Small	Polymer-coated latex	9½" (24 cm)	5.9 mil	100	22.25	20.00
WJ-86231-01	Medium					22.25	20.00
WJ-86231-02	Large					22.25	20.00
WJ-86231-03	X-large					22.25	20.00
FreeForm SE nitrile gloves							
WJ-86445-00	Small	Nitrile	9½" (24 cm)	5.1 mil	100	20.00	18.00
WJ-86445-01	Medium					20.00	18.00
WJ-86445-02	Large					20.00	18.00
WJ-86445-03	X-large					20.00	18.00
MidKnight nitrile gloves							
WJ-86445-10	Small	Nitrile	9½" (24 cm)	5.5 mil	100	19.00	17.25
WJ-86445-11	Medium					19.00	17.25
WJ-86445-12	Large					19.00	17.25
WJ-86445-13	X-large					19.00	17.25
NEW XCEED nitrile gloves							
WJ-86445-30	X-small	Nitrile	9¼" (23.5 cm)	4.3 mil	250	30.50	27.50
WJ-86445-31	Small				250	30.50	27.50
WJ-86445-32	Medium				250	30.50	27.50
WJ-86445-33	Large				250	30.50	27.50
WJ-86445-34	X-large				230	30.50	27.50



Diamond Grip[™]

“These gloves are strong and tough.”

Bonnie, MA



Diamond Grip Plus[™]



Evolution One[®]



Freeform[®] SE



MidKnight[™]



XCEED[®]



Lab Supplies Pipettes & Pipettors

Highlighted items

Volumetric Pipettes

Reusable, Class A and Class B borosilicate glass pipettes meet ASTM requirements



25560-10

Volume accuracies and capacities are permanently marked in amber on each pipette. These borosilicate glass pipettes feature treated and tempered tips to reduce chipping and breakage. Calibrated "to deliver".

Class A Pipettes meet all the requirements of ASTM E 969-95. Compliance with the CAP and other laboratory certifying groups is indicated by the letter "A" near the top of each pipette. All pipettes are calibrated in accordance with ASTM E 542 and meet the accuracy requirements of ASTM E 969; borosilicate glass meets ASTM E 438 for Type I, Class A requirements.

Class B Pipettes meet the flow time and volume accuracy requirements of ASTM E 969-95 and are marked with a "B" near the top of each pipette.

TECHNICAL information!

A "to deliver" pipette must be held vertically with the tip against the side of the receiving vessel and allowed to drain completely. The stated volume is obtained when draining stops.



Capacity (mL)	Color code	Class A pipettes					Class B pipettes				
		Catalog number	Accuracy (mL)	Minimum flow time	Qty	Price	Catalog number	Accuracy (mL)	Minimum flow time	Qty	Price
0.5	2-Black Blue	WJ-25560-00	±0.006	5 seconds	12	\$ 124.00	WJ-25561-00	±0.012	3 seconds	12	\$114.75
		WJ-25560-02		8 seconds		133.00	WJ-25561-02		114.75		
2	Orange Black	WJ-25560-04	±0.006 ±0.01	8 seconds	12	128.50	WJ-25561-04	±0.012 ±0.02	3 seconds	12	114.75
		WJ-25560-06				5 seconds	114.75				
4	2-Red White	WJ-25560-08	±0.01	8 seconds	12	128.50	WJ-25561-08	±0.02	5 seconds	12	137.75
		WJ-25560-10				8 seconds	133.00		WJ-25561-10		114.75
6	2-Orange 2-Green	WJ-25560-12	±0.01	10 seconds	12	137.00	WJ-25561-12	±0.04	8 seconds	12	153.00
		WJ-25560-14				137.75	WJ-25561-14				153.00
8	Blue Black	WJ-25560-16	±0.02	10 seconds	12	137.00	WJ-25561-16	±0.04	8 seconds	12	153.00
		WJ-25560-18				137.00	WJ-25561-18				153.00
10	Red Green	WJ-25560-20	±0.02 ±0.03	15 seconds	12	142.50	WJ-25561-20	±0.04 ±0.06	8 seconds	12	153.00
		WJ-25560-22		25 seconds		18.00	WJ-25561-22		23.00		
20	Yellow Blue	WJ-25560-24	±0.03	25 seconds	1	23.00	WJ-25561-24	±0.06	10 seconds	1	20.75
		WJ-25560-26				24.25	WJ-25561-26		20.75		
30	Black White	WJ-25560-28	±0.03 ±0.05	25 seconds	1	26.00	WJ-25561-28	±0.10	15 seconds	1	24.25
		WJ-25560-30				26.00	WJ-25561-30				24.25
50	Red Green	WJ-25560-32	±0.05 ±0.08	25 seconds 30 seconds	1	27.00	WJ-25561-32	±0.10 ±0.16	15 seconds 20 seconds	1	25.25
		WJ-25560-34				35.00	WJ-25561-34				32.75
100	Yellow —	WJ-25560-36	±0.08 ±0.10	30 seconds	1	35.00	WJ-25561-36	±0.16 ±0.20	20 seconds 30 seconds	1	35.00
		WJ-25560-38				51.00	WJ-25561-38				40.75

Pipette Controllers

scienceware Pipette Pump™ features a knurled wheel for precise level adjustment. Attach to pipette and dispense by depressing plunger or rotating wheel. Choose rapid-release lever models for quick and easy dispensing. HDPE construction.



06221-34

Eppendorf® Pipette Helper™ controls, aspirates, and dispenses with a single lever. Also features single-button blow-out. Fits pipettes from 0.1 to 100 mL. Wetted parts are PP, PTFE, and silicone. The special 3-µm membrane filter ensures proper flow rate.



24549-00

ISO9001:2008
CERTIFIED SUPPLIER

Brandtech Pipette Controllers are color-coded for quick identification. Measure and dispense with a single lever. When you're finished, blow-out button clears your pipette. Adapter is compatible with glass or plastic serological, volumetric, or graduated pipettes with a diameter up to 9.2 mm and volume of 0.1 to 200 mL. Membrane filter protects controller from liquids. Filter and adapter are autoclavable up to 250°F (121°C). Polypropylene construction.



24550-51

ISO9001:2008
CERTIFIED SUPPLIER

Catalog number	For pipettor volume	Color	Price
Pipette pumps			
WJ-06221-01	0.2 mL	Yellow	\$30.50
WJ-06221-02	2.0 mL	Blue	27.50
WJ-06221-03	10.0 mL	Green	28.75
WJ-06221-04	25.0 mL	Red	38.00

Pipette pumps with rapid-release lever			
WJ-06221-32	2.0 mL	Blue	29.25
WJ-06221-33	10.0 mL	Green	29.25
WJ-06221-34	25.0 mL	Red	39.75

Catalog number	Description	Price
WJ-24549-00	Pipette Helper™ controller	\$89.50

WJ-24549-50 Replacement membrane filter, 3 µm. Pack of 10. \$74.00

Catalog number	Colors	Price
WJ-24550-49	Neutral	\$91.75
WJ-24550-51	Blue	91.75
WJ-24550-53	Magenta	91.75
WJ-24550-57	Green	91.75

Unique Products.

Exceptional Service.

Technical Support.



Lab Supplies

Pipettes & Pipettors

Highlighted items

Cole-Parmer Disposable Transfer Pipettes

Easy draw and precision delivery

Use these unbreakable low-density polyethylene (LDPE) pipettes to eliminate the chance of contamination from rubber bulbs. They deliver repeatable, uniform drops and are configured to fit into a variety of vessels. Choose the bulb draw and graduations or drops/mL needed for measurement and delivery.



Key	Catalog number	Description	Graduations		Bulb draw	Total capacity	Drops per mL	Length in. (mm)	Qty/ pk	Price/ pk
			Increments	Maximum						
A	WJ-06226-37	Small bulb, graduated	0.1 mL	0.3 mL	0.8 mL	1.5 mL	21	4 ⁵ / ₈ (117)	500	\$43.00
B	WJ-06226-41	Small bulb, graduated	0.25 mL	1 mL	2.2 mL	3.9 mL	25	5 ¹ / ₂ (140)	500	44.75
C	WJ-06226-65	Large capacity, thin stem	—	—	3.3 mL	4.6 mL	25	6 ¹ / ₈ (156)	500	54.50
D	WJ-06226-67	Large capacity, fine tip	—	—	3.5 mL	5.8 mL	50	6 ³ / ₄ (159)	500	57.50
E	WJ-06226-61	Large capacity, graduated	0.25 mL	1 mL	3.4 mL	5.8 mL	25	6 ¹ / ₈ (156)	500	48.25
F	WJ-06226-69	Large capacity, extra-long stem	—	—	2.3 mL	6.0 mL	25	9 (229)	400	53.50
G	WJ-06226-63	Large capacity, graduated	0.5 mL	3.0 mL	3.2 mL	7.5 mL	20	6 ¹ / ₈ (156)	500	48.25
H	WJ-06226-51	Jumbo bulb, long stem	—	—	8.0 mL	15.0 mL	19	6 ¹ / ₈ (156)	250	44.75

Cole-Parmer Pipettors

Excellent accuracy and performance at an economical price

Ergonomic, lightweight design with soft plunger movement minimizes hand fatigue. Pipettors feature streamlined, low-pressure tip ejector for easy access to narrow containers. They facilitate last drop dispensing and reverse pipetting technique with two-stage plunger operation for blow-out. Easy to calibrate and disassemble for routine servicing or autoclaving.

Adjustable-volume and multichannel pipettors feature quick, easy click-stop, digital volume settings. Individually calibrated in accordance with DIN 12650 Standards and supplied with a computer-generated calibration document supplied by the manufacturer and calibration tool.

Specifications



Tip ejector: tip ejector with blow-out step

Autoclavable: single-channel models have autoclavable tip cone and lower section assembly; multichannel models are fully autoclavable

Catalog number	Volume	Increments (µL)	Accuracy	Reproducibility	Price
Single-channel fixed-volume pipettors					
WJ-21600-00	100 µL				\$97.50
WJ-21600-02	200 µL				97.50
WJ-21600-04	500 µL	—	±0.3%	±0.2%	97.50
WJ-21600-06	1000 µL				97.50
WJ-21600-08	5000 µL				97.50
Single-channel adjustable-volume pipettors					
WJ-21600-10	0.1 to 10 µL	0.1	±2.5%	±1.33%	160.50
WJ-21600-12	5 to 20 µL	1.0	±1.3%	±0.7%	160.50
WJ-21600-14	10 to 100 µL	1.0	±1.1%	±0.4%	160.50
WJ-21600-16	20 to 200 µL	1.0	±0.9%	±0.3%	160.50
WJ-21600-18	100 to 1000 µL	10.0	±0.8%	±0.2%	160.50
WJ-21600-20	500 to 5000 µL	100.0	±0.6%	±0.2%	160.50



NEW Eight-channel pipettors

Catalog number	Volume	Increments (µL)	Accuracy	Reproducibility	Price
WJ-21600-01	0.5 to 10 µL	0.1	±4.0 to ±1.5%	±4.0 to ±1.5%	327.00
WJ-21600-03	2 to 20 µL	0.1	±4.0 to ±1.5%	±4.0 to ±1.0%	327.00
WJ-21600-05	5 to 50 µL	1	±3.0 to ±0.5%	±2.0 to ±0.5%	327.00
WJ-21600-07	10 to 100 µL	1	±1.5 to ±0.5%	±1.5 to ±0.5%	327.00
WJ-21600-09	20 to 200 µL	1	±1.5 to ±0.5%	±1.0 to ±0.5%	327.00
WJ-21600-11	40 to 300 µL	1.0	±1.0 to ±0.5%	±0.8 to ±0.2%	327.00

NEW Twelve-channel pipettors

Catalog number	Volume	Increments (µL)	Accuracy	Reproducibility	Price
WJ-21600-13	0.5 to 10 µL	0.1	±4.0 to ±1.5%	±4.0 to ±1.5%	430.00
WJ-21600-15	2 to 20 µL	0.1	±4.0 to ±1.5%	±4.0 to ±1.0%	430.00
WJ-21600-17	5 to 50 µL	1	±3.0 to ±0.5%	±2.0 to ±0.5%	430.00
WJ-21600-19	10 to 100 µL	1	±1.5 to ±0.5%	±1.5 to ±0.5%	430.00
WJ-21600-21	20 to 200 µL	1	±1.5 to ±0.5%	±1.0 to ±0.5%	430.00
WJ-21600-23	40 to 300 µL	1.0	±1.0 to ±0.5%	±0.8 to ±0.2%	430.00

Tips

Catalog number	Volume (µL)	Qty/ pk	Price/ pk
WJ-25711-02	0.2 to 10	1000	\$51.75
WJ-25711-06		960	27.00
WJ-25711-12	0 to 200	1000	27.00
WJ-25711-14		960	51.75
WJ-25711-50	200 to 1300	1000	37.25
WJ-25711-70	1000 to 5000	1000	87.25
WJ-25711-71		500	43.75
WJ-25711-72		250	23.00

WJ-17104-00 NIST-traceable calibration with data. Price is per channel. \$74.50

**BUY MORE,
SAVE MORE**

6-29 packs **save 10%** 30-119 packs **save 15%** 120+ packs **save 20%**
Mix and match packs of any items from the "blue" tables to save!



Lab Supplies

Scoops / Spatulas / Spoons

Highlighted items

Cole-Parmer Scoops, 304 Stainless Steel (heavy gauge)

Catalog number	Capacity mL (oz)	Scoop (L x dia)	Handle length	Qty/pk	Price/1 pk	Save 10% 6-29 pks
WJ-07205-00	175 (5.5)	5" x 2½" (12.7 x 6.4 cm)	4"	1	\$ 9.50	\$ 8.75
WJ-07210-00	1550 (52)	7½" x 5¼" (18.1 x 13.3 cm)	(10.2 cm)	1	141.00	127.00



07205-00

07210-00

Round Scoops, Aluminum

More economical than stainless steel, these aluminum scoops feature durable one-piece construction and smooth polished finish. Ribbed handle provides easy gripping, even when your hands are wet.

Catalog number	Capacity mL (oz)	Scoop (L x W)	Handle length	Qty/pk	Price/1 pk	Save 10% 6-29 pks
WJ-07207-00	150 (5)	4¾" x 2⅝" (12.1 x 6.0 cm)	2½" (6.4 cm)	1	\$ 7.50	\$ 6.75
WJ-07207-02	350 (12)	6¼" x 3¼" (15.9 x 8.3 cm)	2⅞" (7.3 cm)	1	11.75	10.75
WJ-07207-04	700 (24)	8" x 4" (20.3 x 10.2 cm)	3¼" (8.3 cm)	1	17.25	15.50
WJ-07207-06	1100 (38)	9" x 4¾" (22.9 x 12.1 cm)	3½" (8.9 cm)	1	22.00	19.75
WJ-07207-08	1700 (57)	10½" x 5½" (26.7 x 14.0 cm)	4" (10.2 cm)	1	32.25	29.00
WJ-07207-12	2500 (84)	12" x 6¼" (30.5 x 15.9 cm)	4¼" (10.8 cm)	1	39.00	35.25



07207-06

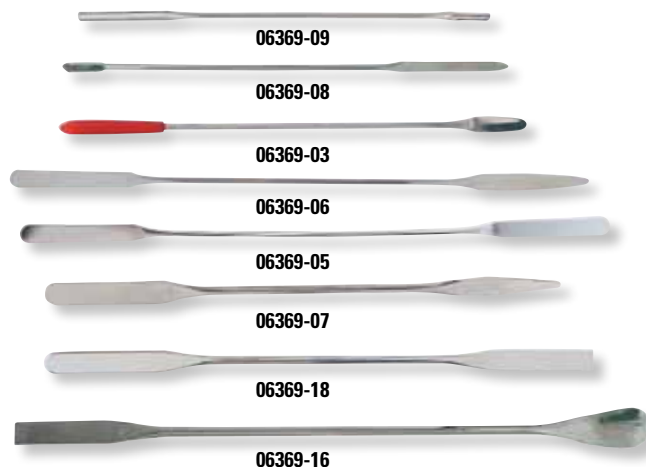
07207-08

Lab Spatulas, Nickel/Stainless Steel

Nickel/stainless steel spatulas come in a variety of end styles. All spatulas have a glazed finish, except for models 06369-05 and -16 which have a mirror finish.

Catalog number	Description	Overall length	Qty/pk	Price/1 pk	Save 10% 6-29 pks
WJ-06369-09†	½" (1.3 cm) L spooned end; 1¼" (3.2 cm) L flat end	5¾" (14.6 cm)	3	\$26.50	\$23.75
WJ-06369-08	½" (1.3 cm) L V-shaped end; 1½" (3.8 cm) L end with sharpened bent tip	6¼" (15.9 cm)	3	26.50	23.75
WJ-06369-03†	¾" (1.9 cm) L spooned end; 1½" (3.8 cm) L plastisol handle	6½" (16.5 cm)	3	17.25	15.50
WJ-06369-06	1⅝" (4.1 cm) L flat tapered end; 1⅝" (4.1 cm) L flat rounded end	8" (20.3 cm)	3	32.75	29.50
WJ-06369-05	1⅝" (4.1 cm) L flat rounded end; 1⅝" (4.1 cm) L flat rounded end	8¼" (21.0 cm)	3	27.50	24.75
WJ-06369-07	1½" (3.8 cm) L flat tapered end; 1¾" (4.4 cm) L flat rounded end	7⅞" (18.1 cm)	3	27.00	24.25
WJ-06369-18	1½" (3.8 cm) L flat squared end; 1¾" (4.4 cm) L flat rounded end	7½" (19.1 cm)	3	34.50	31.00
WJ-06369-16	1⅝" (2.9 cm) L spooned end; 1⅝" (4.1 cm) L flat squared end	8⅞" (22.5 cm)	3	31.75	28.50

†Hayman type end



06369-09

06369-08

06369-03

06369-06

06369-05

06369-07

06369-18

06369-16

Cole-Parmer Double-Ended Spoon Set, 304 SS

Double-ended spoons feature a solid rounded shaft that is comfortable to hold for long periods. Set contains three spoons: a 5⅞" (14.9 cm) long spoon with 0.5 mL and 2.0 mL bowls, an 8¼" (21 cm) long spoon with 1.6 mL and 5.0 mL bowls, and an 11⅞" (30.2 cm) long spoon with 2.0 mL and 8.0 mL bowls.

Catalog number	Qty/set	Price/1 set*	Save 10% 6-29 sets*
WJ-06261-00	Three spoons	\$87.25	\$78.50

*One set qualifies as one pack for discount savings.



Set 06261-00 contains the three spoons shown.

Unique Products.

Exceptional Service.

Technical Support.



Lab Supplies Syringes

Highlighted items

BD™ Disposable Syringes

Luer-Lok™ tips allow for easy connection of syringe filters

Use these latex-free, disposable polycarbonate syringes for your general-purpose applications. Available in either Luer-Lok or slip-tip versions. Sterile syringes come individually wrapped and can be autoclaved out of the package. Nonsterilized syringes come in bulk packages and can be autoclaved. Needles and shield tips are not included; order separately.



Catalog number	Capacity	Graduations	Type	Qty	Price
Sterilized syringes, individually wrapped					
WJ-07940-00	1 mL	1/100 mL	Luer-Lok	100/bx	\$ 75.75
WJ-07940-02	3 mL	1/10 mL	Luer-Lok	200/bx	35.00
WJ-07940-04			Slip tip		30.50
WJ-07940-06	5 mL	1/5 mL	Luer-Lok	100/bx	33.25
WJ-07940-08			Slip tip	125/bx	33.25
WJ-07940-12	10 mL	1/5 mL	Luer-Lok	100/bx	29.25
WJ-07940-14			Slip tip		29.25
WJ-07940-16	20 mL	1 mL, 3/4 oz in 1/2 oz	Luer-Lok	40/bx	32.75
WJ-07940-18			Slip tip		32.25
WJ-07940-20	30 mL	1 mL, 1 oz in 1/2 oz	Luer-Lok	40/bx	38.50
WJ-07940-22			Slip tip		38.50
WJ-07940-30	60 mL	1 mL, 2 oz in 1/4 oz	Luer-Lok	40/bx	60.75
WJ-07940-28			Slip tip		57.50

Catalog number	Capacity	Graduations	Type	Qty	Price
Nonsterilized syringes, bulk pack					
WJ-07945-00	1 mL	1/100 mL	Slip tip	3000/cs	390.00
WJ-07945-02	3 mL	1/10 mL	Luer-Lok	1600/cs	168.50
WJ-07945-04			Slip tip		168.50
WJ-07945-06	5 mL	1/5 mL	Luer-Lok	1400/cs	255.00
WJ-07945-08			Slip tip		255.00
WJ-07945-12	10 mL	1/5 mL	Luer-Lok	850/cs	191.50
WJ-07945-14			Slip tip		191.50
WJ-07945-16	20 mL	1 mL, 3/4 oz in 1/2 oz	Luer-Lok	325/cs	215.50
WJ-07945-18			Slip tip		215.50
WJ-07945-24	30 mL	1 mL, 1 oz in 1/2 oz	Luer-Lok	225/cs	174.25
WJ-07945-22			Slip tip		174.25
WJ-07945-28	60 mL	1 mL, 2 oz in 1/4 oz	Luer-Lok	125/cs	157.00
WJ-07945-30			Slip tip		157.00

- WJ-07940-99 Syringe tip shield, sterile. Pack of 200 \$28.75
- WJ-07945-85 Syringe storage bin, 10 3/4" L x 8 1/4" W x 7" H. Case of 6 \$120.50
- WJ-07945-88 Divider for syringe storage bin 07945-85. Case of 12 \$57.50
- WJ-07945-90 Syringe storage bin, 7 3/8" L x 4 1/8" W x 3" H. Case of 24 \$102.00
- WJ-07945-93 Divider for syringe storage bin 07945-90. Case of 12 \$31.00
- WJ-07945-95 Syringe storage bin, 5 3/8" L x 4 1/8" W x 3" H. Case of 24 \$54.00
- WJ-07945-98 Divider for syringe storage bin 07945-95. Case of 12 \$30.00

BD™ Polypropylene Sharps Collectors

Safely dispose of dangerous needles

Durable, puncture-resistant collectors can be autoclaved or incinerated. Both collectors are easily visible and feature biohazard warning labels.



07940-75 07940-76

Catalog number	Capacity	Entry	Qty/cs	Price/cs
WJ-07940-75	5.4 quarts	Horizontal	12	\$103.25
WJ-07940-76	2 gallons	Horizontal	10	107.75

Popper® Micro-Mate® Syringes

Precision made for accuracy and interchangeability

These durable syringes enable smooth, accurate liquid transfers. High-quality borosilicate glass and exacting manufacture combine for accurate, leak-proof performance and resistance to chemicals and thermal shock.

Graduations are fused onto the syringe barrel and barrel flanges are reinforced. Interchangeable plungers. Needles are not included; order separately below.



20 cc syringe with a metal luer lock tip 25701-51



10 cc syringe with a metal luer slip tip 25701-52



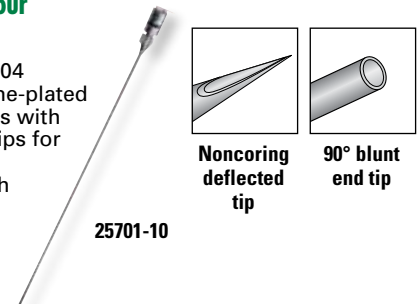
5 cc syringe with a glass luer slip tip 25701-54

Catalog number	Capacity	Graduations	Tip type	Price
WJ-25701-55	2 cc	1/10 cc	Glass luer slip tip	\$21.25
WJ-25701-61			Metal luer slip tip	21.25
WJ-25701-50			Metal luer lock tip	21.25
WJ-25701-54	5 cc	1/5 cc	Glass luer slip tip	24.25
WJ-25701-56			Metal luer slip tip	24.25
WJ-25701-59			Metal luer lock tip	24.25
WJ-25701-53	10 cc	1/5 cc	Glass luer slip tip	36.25
WJ-25701-52			Metal luer slip tip	36.25
WJ-25701-60			Metal luer lock tip	33.25
WJ-25701-58	20 cc	1 cc	Glass luer slip tip	36.25
WJ-25701-57			Metal luer slip tip	36.25
WJ-25701-51			Metal luer lock tip	36.25

Popper® Needles

Choice of tips to meet your syphoning needs

All needles are made of 304 stainless steel with chrome-plated luer hubs. Choose needles with the noncoring deflected tips for your septum piercing applications. Needles with the 90° blunt end tip are ideal for your pipetting needs. Needles fit all Popper syringes above.



Catalog number	Gauge	Length	Tip type	Qty/pk	Price/pk
WJ-25701-33	22	4" (10.2 cm)	Noncoring deflected	12	\$132.00
WJ-25701-10		6" (15.2 cm)			143.25
WJ-25701-30	20	4" (10.2 cm)	90° blunt end	12	117.00
WJ-25701-34		2" (5.1 cm)	Noncoring deflected	12	120.50
WJ-25701-31		4" (10.2 cm)			120.50
WJ-25701-11		6" (15.2 cm)			143.25
WJ-25701-12		12" (30.5 cm)			143.25
WJ-25701-20	18	6" (15.2 cm)	90° blunt end	12	162.75
WJ-25701-32		4" (10.2 cm)	Noncoring deflected	12	132.00
WJ-25701-13		6" (15.2 cm)			174.25
WJ-25701-14		12" (30.5 cm)			167.50
WJ-25701-21	16	2" (5.1 cm)	90° blunt end	12	130.75
WJ-25700-21		4" (10.2 cm)			137.75
WJ-25700-22	14	4" (10.2 cm)	90° blunt end	12	143.25
WJ-25701-22		6" (15.2 cm)			172.00

**BUY MORE,
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6-29 packs **save 10%** 30-119 packs **save 15%** 120+ packs **save 20%**
Mix and match packs of any items from the "blue" tables to save!



Lab Supplies Tweezers

Highlighted items

General-Purpose Tweezers and Forceps, Stainless Steel (SS) and Plastic

Recommended for all types of applications. Stainless steel tweezers have excellent tip hardness and are corrosion resistant.

SS Tweezers, straight tips and finger serrations.



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07288-04	7"	12	\$72.25	\$65.00

SS Straight: Thick, Flat Strong Tips

Same as 07287-02 at right, but with serrated tips and grips. Style OOD.



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07287-03	4 3/4"	1	\$9.25	\$8.25

SS Self-Locking Tweezers, straight narrow tips.



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07288-01	4 1/4"	12	\$56.75	\$51.25

SS Tweezers, smooth spade tips.



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07288-07	4 1/4"	12	\$57.50	\$51.75

SS Solder Utility Tweezers, curved tips and finger serrations.



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07288-03	7"	12	\$71.25	\$64.00

SS Tweezers, curved serrated tips.



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07288-05	4 1/4"	12	\$51.75	\$46.50

SS Forceps, straight serrated tips.



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07288-12	6"	1	\$7.50	\$6.75
WJ-07288-14	12"	1	9.75	9.00

SS Forceps, plastic-coated rounded tips.



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07288-10	12"	1	\$10.50	\$9.50

PTFE-Covered Nickel-Plated Forged Steel Forceps are heat and chemical resistant. **Autoclavable.**



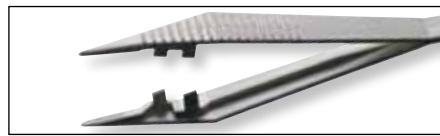
Catalog number	Length	Qty/ pk	Price/ 1 pk
WJ-06440-00	4 1/4"	2	\$48.75

Reinforced Nylon Forceps have corrugated handles, serrated blades, and rounded tips. Autoclavable. Sterile—individually wrapped.



Catalog number	Sterile	Length	Qty/ pk	Price/ 1 pk
WJ-06443-15	No	4 7/8"	100	\$111.25
WJ-06443-26	Yes			129.50

Nylon Forceps feature corrugated handles and serrated blades. **Autoclavable.**



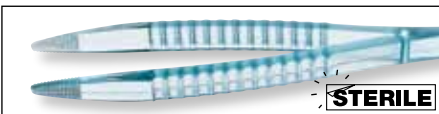
Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-06443-25	4 1/4"	100	\$110.25	\$99.25

PA (Polyamide) Tweezers, rounded tips.



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-06446-20	7"	1	\$8.75	\$7.75
WJ-06446-30	9 7/8"	1	\$12.75	\$11.50

Polystyrene Disposable Sterile Forceps feature corrugated handles and rounded serrated tips. Sterile—come individually wrapped.



Catalog number	Length	Qty/ pk	Price/ 1 pk
WJ-06443-20	4 7/8"	100	\$130.75

Plastic Curved: Smooth Rounded Tips 2AB



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07290-06	4 1/2"	12	\$27.50	\$24.75

Plastic Curved: Very Fine and Smooth Tips 7-STD



Catalog number	Length	Qty/ pk	Price/ 1 pk	Save 10% 6-29 pks
WJ-07290-08	4 1/2"	12	\$27.50	\$24.75

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Solve it Sooner!

Technical Resources—Your Way



Call Our Application Specialists can help you with product selection, troubleshooting, product certification, and more.

Chat Need further help while on ColeParmer.ca? Click to chat live with an Application Specialist and get answers sooner.

Online Find selection guides, white papers, and videos in our technical resource section at ColeParmer.ca—your source for information on product selection and troubleshooting.

“Over a week’s time I contacted three separate techs and each time they were not only very **knowledgeable** but **accurate** and **polite**. A real pleasure working with these individuals.”