

HPLC PUMPS 2024

The Next Generation HPLC Pumps

2024 Models

Single & Dual Piston
Isocratic Pumps

Constant Flow or
Constant Pressure
HPLC Pumps

Replacement Parts &
Maintenance Supplies



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ORDERING INFORMATION

Orders can be placed by -
Post, Phone, Email or Online

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YOUR GLOBAL SCIENCE PARTNER

Greyhound Chromatography HPLC Pumps

Always dependable

Get the reliability you deserve with constant flow pumps for a multitude of applications in chemical engineering, process engineering and chromatography

Why Greyhound?

Since 1982 Greyhound has been providing technical expertise in the Chromatography field by recommending products to meet your analytical requirements

Common Maintenance and Troubleshooting

We recommend scheduling regular preventative maintenance to keep your pumps running smoothly. For most labs, we recommend PM once per year, or every 1,000 hours of use, but it is always a good idea to keep some spare replacement parts on hand. Do remember, for dual piston pumps, you will need to replace seals, check valves, etc. in both pump heads, so make sure you have at least two of each replacement part.

Dependability is essential for our pump customers. As with any pump, problems may occur, but we have quick and effective solutions for the most common pump issues.

First time using pump and solvent wont flow? Our pumps need back pressure to work properly. The easiest way to add back pressure is by connecting outlet tubing (typically 1.16" OD, depending on the pump).

Experiencing a leak? First, check all your connections are tightened correctly. If all your fittings are connected properly, the most common issue is a worn piston seal. We offer replacement seal kits for each pump, which can be identified using the replacement parts listed in this brochure.

Erratic flow rates? This usually signifies a problem with a check valve. It could be something as simple as a bubble caught in the check valve, particulates from worn seals getting caught in the check valves, or just a check valve that has been overused.

Have questions? Call our team, we are here to help.

Tel: +44 (0) 151 649 4000

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QUICK TIPS FOR SUCCESS

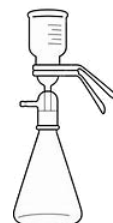


We recommend at least 50PSI of back pressure and ideally 1,000PSI for pumps with a pulse dampener

Cavitation can be problematic, so to avoid this issue, always place your



solvent bottles above the pump and remember to replace the inlet filter element during routing maintenance



Filter HPLC solvents so that the particulates do not build up inside the pump

Utilising the self-flush mechanism is strongly recommended, especially when pumping any buffers, acids/bases, any inorganic solution near saturation, or for harsh solvents like THF



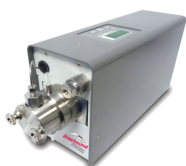
TECH TIP



Pump accessory kit shipped with all pumps includes:
 1/8" OD PTFE tubing (36" length),
 20µm inlet filter,
 1/8" and 1/16" outlet fittings
 (unless otherwise indicated)

Outlet tubing sold separately:
 1/16" OD PEEK tubing
 1/16" OD SS tubing

NEXT GENERATION HPLC PUMPS



| PUMP MODEL | M1 CLASS | MXT CLASS | LST CLASS |
|-------------------------------------|---------------------------------|-----------------|--|
| Max flow rate/pressure | 10 mL/2,000 PSI 40mL/500 PSI | 10 mL/5,000 PSI | 5 mL/6,000 PSI 10 mL/6,000 PSI 40 mL/1,600 PSI |
| Page | 5 | 6 | 7 |
| FEATURES | | | |
| 3 year warranty | • | • | • |
| SINGLE PISTON Isocratic Pump | • | • | • |
| Simple keypad control, LED display | • | • | • |
| Self-flushing pump heads | • | • | • |
| Pulse dampener | | • | • |
| Prime purge valve | | • | • |
| Real-time pressure monitoring | | • | • |
| Set upper and lower pressure limits | | • | • |
| Drip tray and leak sensor | | • | • |

A wide range of models with alternative specifications are available. Please contact our sales team to discuss your requirements.

TECH TIP



We recommend pump maintenance every year or 1,000 hours of use



| PUMP MODEL | LD CLASS | PR CLASS | CP CLASS | HF CLASS |
|-------------------------------------|--|--------------------------------------|--------------------------------------|----------|
| Max flow rate/pressure | 12 mL/6,000 PSI 36 mL/6,000 PSI 100 mL/1,000 PSI | 100 mL/4,000 PSI 300 mL/1,000 PSI | 24 mL/10,000 PSI 100 mL/5,000 PSI | 300 mL |
| Page | 8 | 8 | 9 | 10 |
| FEATURES | | | | |
| 3 year warranty | • | • | • | • |
| DUAL PISTON isocratic pump | • | • | • | • |
| Simple keypad control, LED display | • | • | • | • |
| Self-flushing pump heads | • | • | • | • |
| Pulse dampener | • | • | • | • |
| Prime purge valve | • | • | • | • |
| Real-time pressure monitoring | • | • | • | • |
| Set upper and lower pressure limits | • | • | • | • |
| Drip tray and leak sensor | • | • | • | • |

Low Profile Single Piston Isocratic Pumps - M1 Class

- Self-flushing pump head
- Stainless steel or PEEK fluid path
- Simple keypad controls, LED display
- Single piston
- Electronic rapid refill mechanism
- Motor stall detector
- 3 year warranty



The compact M1 Class consists of single-headed, positive displacement piston pumps that deliver high-performance and precision at an affordable price. Applications include precise chemical metering, dispensing, and specific HPLC separation. Having the smallest possible footprint for a high pressure pump, the M1 Class will easily integrate into any laboratory or industrial environment.



SPECIFICATIONS

| | |
|-------------------------------|---|
| Flow Accuracy | Within 2% of set flow rate* 10mL Within 5% of set flow rate* 40mL |
| Flow Precision | 1.0% RSD |
| Wetted Materials | Synthetic Ruby, Sapphire, UHMWPE, PTFE |
| Dimensions (h x w x d) | 5.5" x 3" x 10.5" (14 x 8 x 27 cm) |
| Weight | 3.5 lbs (1.6 kg) |
| Power | To Supply: 100-240 VAC, 50-60 Hz, 1A Supply to Pump: 24VDC, centre positive, |
| Control | Micro USB Port with RS-232 communication, Run/Stop |

*Flow rate range for flow accuracy specification:
10 mL - 0.20 mL/min and above; 80:20 Water/IPA at 1,000 PSI
40 mL - 0.80 mL/min and above; 80:20 Water/IPA at 100 PSI

ORDERING INFORMATION

| PART NO | SEAL TYPE | FLOW RATE (mL/min) | MATERIAL | PRESSURE (PSI) | PUMP HEAD |
|----------------------|-----------|--------------------|----------|----------------|-----------|
| P-M110S | standard | 10 | SS | 2,500 | MM |
| P-M110B | standard | 10 | PEEK | 2,500 | MM |
| P-M140S | standard | 40 | SS | 500 | MH |
| M1 FLASH PUMP | | | | | |
| P-M1FS-8 | standard | 100 | SS | 250 | |

Flow rate is dependent on solvent selection and operating pressure



TECH TIP

Standard vs Organic Seals

The standard seal is made of (UHMW-PE) Ultra High Molecular Weight Polyethylene for use with aqueous fluids. The organic seal is made of graphite-filled PTFE for use with harsh chemicals.

TECH TIP

Recommended Back pressure

The recommended minimum back pressure is 50PSI for optimum check valve performance. If your application will not provide adequate back pressure, adding restrictive tubing to the outlet of the pump is recommended.

| REPLACEMENT PARTS | MM HEAD | | MH HEAD | FLASH PUMP |
|---|---------|---------|---------|------------|
| | P-M110S | P-M110B | P-M140S | P-M1FS-8 |
| Piston Seal Kit*, Standard | P-1095 | 880272 | P-1096 | P-1199 |
| Piston Seal Kit*, Organic | P-0109 | P-1099B | P-3009 | --- |
| Check Valve Kit, Inlet & Outlet | P-1085 | P-1086 | P-1085 | P-1050 |
| Replacement Check Valve Capsules, 10/pk | P-1075 | P-1076 | P-1075 | --- |
| Self-Flush Assembly | P-1082 | P-1088 | P-1081 | --- |
| Replacement Piston | P-0101 | P-0101 | P-1298 | P-1157 |
| Inlet Filter Assembly (Fitting & Element) | 06-0110 | 06-0110 | 06-0110 | 06-0110 |
| Replacement Inlet Filter Elements, 2/pk | P-1170 | P-1170 | P-1170 | P-1170 |

*Seal Kits include: Self-flush seal, O-Ring, Primary Seal, and Removal Tool

Single Piston Isocratic Pumps - MXT CLASS

- Pressure monitoring with automatic pressure compensation
- Self-flushing pump heads and Integrated prime-purge valve
- Set upper and lower pressure limits
- Pulse dampener
- Stainless steel fluid path
- Simple keypad controls, LED display
- Leak sensor on drip tray
- Micro USB with RS-232 communication
- RJ11 with RS-232 communication
- Voltage control
- 3 year warranty
- MXT-MS Applications include -
 - Flow Injection Analysis
 - Infusion
 - Cone Wash



Models with alternative specifications are available, please contact our sales team for information.



Clarity Software Compatible

SPECIFICATIONS

| | | |
|-------------------------------|---|------|
| Flow Accuracy | Within 2% of set flow rate* | 10mL |
| Pressure Accuracy | ± 2% of full scale pressure | |
| Flow Precision | 0.5% RSD | |
| Wetted Materials | Synthetic Ruby, Sapphire, UHMWPE, PTFE | |
| Dimensions (h x w x d) | 6.5" x 7" x 16" (17 x 18 x 41 cm) | |
| Weight | 15.3 lbs (6.9 kg) | |
| Power | 100-240 VAC, (± 10%), 50-60 Hz | |
| Control | RS-232, Micro USB, Voltage Flow Control, Run/Stop (ML Class USB & Run Stop) | |

*Flow rate range for flow accuracy specification:
10 mL—0.20 mL/min and above; 80:20 Water/IPA at 1,000 PSI

MXT ORDERING INFORMATION

| PART No | FLOW RATE (mL/min) | MATERIAL | PRESSURE (PSI) | PUMP HEAD |
|----------|--------------------|----------|----------------|-----------|
| P-MXT10S | 10 | SS | 5,000 | MM |

Flow Rate is dependent on solvent selection and operating pressure

REPLACEMENT PARTS

| | MM HEAD |
|---|---------|
| Piston Seal Kit*, Standard | P-1095 |
| Piston Seal Kit*, Organic | P-0109 |
| Check Valve Kit, Inlet & Outlet | P-1085 |
| Replacement Check Valve Capsules, 10/pk | P-1075 |
| Self-Flush Assembly | P-1082 |
| Replacement Piston | P-0101 |
| Inlet Filter Assembly (Fitting & Element) | 06-0110 |
| Replacement Inlet Filter Elements, 2/pk | P-1170 |
| Replacement Outlet Filter Elements, 2/pk | P-1175 |
| Pulse Dampener Rebuild Kit | P-1063 |

*Seal Kits include: Self-flush seal, O-Ring, Primary Seal, and Removal Tool

Single Piston High Performance Isocratic Pumps - LST Class

- Pulse dampener
- Self-flushing pump heads and prime purge valve
- Stainless steel or PEEK fluid path
- Simple front panel keypad controls with LED display
- Real-time pressure monitoring
- Set upper and lower pressure limits
- Drip tray and leak sensor
- Micro USB with RS-232 communication
- RJ11 with RS-232 communication
- Voltage control
- 3 year warranty



Models with alternative specifications are available, please contact our sales team for information.

The reliable LST Class are single-headed positive displacement piston pumps incorporating advanced cam designs for very low pulsation. With micro-stepping motor technology and a proven single-piston pump mechanism, the LST class exceeds the performance of more expensive units at a fraction of the cost. The pumps are ideal for a wide variety of demanding HPLC applications (including biocompatible separations), semi-prep LC, metering & dispensing, and general lab use.



SPECIFICATIONS

| | |
|-------------------------------|---|
| Flow Accuracy | Within 2% of set flow rate * |
| Pulsation | ≤ 2% at 1 mL/min and 1,000 PSI |
| Pressure Accuracy | ± 2% of full scale pressure |
| Flow Precision | 0.2% RSD |
| Wetted Materials | Synthetic Ruby, Sapphire, UHMWPE, PTFE |
| Dimensions (h x w x d) | 6.5" x 7" x 16" (16.5 x 18 x 41 cm) |
| Weight | 15 lbs (7 kg) |
| Power | 100-240 VAC, (± 10%), 50-60 Hz |
| Control | RS-232, Micro USB, Voltage Flow Control, Run/Stop |

*Flow rate range for flow accuracy specification:
5mL and 10 mL - 0.20 mL/min and above; 80:20 Water/IPA at 1,000 PSI
40 mL - 0.80 mL/min and above; 80:20 Water/IPA at 100 PSI

ORDERING INFORMATION

| PART NO | FLOW RATE (mL/min) | MATERIAL | PRESSURE (PSI) | PUMP HEAD |
|----------|--------------------|----------|----------------|-----------|
| P-LST05S | 5 | SS | 6,000 | L |
| P-LST05B | 5 | PEEK | 6,000 | L |
| P-LST10S | 10 | SS | 6,000 | M |
| P-LST10B | 10 | PEEK | 6,000 | M |
| P-LST40S | 40 | SS | 1,600 | H |
| P-LST40B | 40 | PEEK | 1,600 | H |

Flow Rate is dependent on solvent selection and operating pressure



TECH TIP

The recommended minimum back pressure is 1,000 PSI for optimum pulse dampener and pump performance. If your application will not provide adequate back pressure, adding restrictive tubing to the outlet of the pump is recommended.

| REPLACEMENT PARTS | L HEAD | | M HEAD | | H HEAD | |
|---|----------|-------------|----------|-------------|----------|-------------|
| | P-LST05S | P-LST05B | P-LST10S | P-LST10B | P-LST40S | P-LST40B |
| Piston Seal Kit*, Standard | P-1595 | P-1595B | P-1095 | 880272 | P-1096 | P-1096B |
| Piston Seal Kit*, Organic | P-1596 | — | P-0109 | P-1099B | P-3009 | 890283 |
| Check Valve Kit, Inlet & Outlet | P-1085 | P-1086 | P-1085 | P-1086 | P-1085 | P-1086 |
| Replacement Check Valve Capsules, 10/pk | P-1075 | P-1076 | P-1075 | P-1076 | P-1075 | P-1076 |
| Self-Flush Check Valve Kit | P-1084 | P-1084 | P-1084 | P-1084 | P-1084 | P-1084 |
| Replacement Piston | P-1597 | P-1597 | P-1097 | P-1097 | P-1198 | P-1198 |
| Inlet Filter Assembly (Fitting & Element) | 06-0110 | 06-0110 | 06-0110 | 06-0110 | 06-0110 | 06-0110 |
| Replacement Inlet Filter Elements, 2/pk | P-1170 | P-1170 | P-1170 | P-1170 | P-1170 | P-1170 |
| Replacement Outlet Filter Elements, 2/pk | P-1175 | P-1171 (ea) | P-1175 | P-1171 (ea) | P-1175 | P-1171 (ea) |
| Pulse Dampener Rebuild Kit | P-1063 | P-1063 | P-1063 | P-1063 | P-1063 | P-1063 |

*Seal Kits include: Self-flush seal, O-Ring, Primary Seal, and Removal Tool

Dual Piston Isocratic Pumps - LD & PR Class

- Autoprime™ one button toggles flowrate to maximum for rapid solvent change
- Real-time pressure monitoring with upper and lower pressure limits
- Drip tray and leak sensor
- Pulse dampener
- Self-flushing pump heads and prime purge valve
- Stainless steel or PEEK fluid path
- Simple front panel keypad controls with LED display
- 3 year warranty



Models with alternative specifications are available, please contact our sales team for information.



SPECIFICATIONS

| | | |
|-------------------------------|---|--------|
| Flow Accuracy | Within 2% of set flow rate* | LD 12 |
| | Within 2% of set flow rate* | LD 36 |
| | Within 2% of set flow rate* | LD 100 |
| | Within 3% of set flow rate* | PR 100 |
| | Within 4% of set flow rate* | PR 300 |
| Pulsation | ≤ 0.5% at 1 mL/min and 1,000 PSI | LD 12 |
| | ≤ 2% at 1 mL/min and 1,000 PSI | LD 36 |
| | ≤ 4% at 50 mL/min and 250 PSI | LD 100 |
| | ≤ 4% at 50 mL/min and 500 PSI | PR 100 |
| | ≤ 4% at 50 mL/min and 500 PSI | PR 300 |
| Pressure Accuracy | ± 2% of full scale pressure | |
| Flow Precision | 0.2% RSD (12 mL) | |
| | 0.5% RSD (36 mL, 100mL, 300mL) | |
| Wetted Materials | Synthetic Ruby, Sapphire, UHMWPE, PTFE, Ceramic | |
| Dimensions (h x w x d) | 6.5" x 10" x 17" (16 x 25 x 43 cm) | |
| Weight | 30 lbs (14 kg) | |
| Power | 100-240 VAC, (± 10%), 50-60 Hz | |
| Control | RS-232, Micro USB, Voltage Flow Control, Run/Stop | |

* Flow rate range for flow accuracy specification:
 LD 12 - 0.20 mL/min and above; 80:20 Water/IPA at 1,000 PSI
 LD 36 - 0.80 mL/min and above; 80:20 Water/IPA at 1,000 PSI
 LD 100 - 2.0 mL/min and above; 80:20 Water/IPA at 1,000 PSI
 PR 100 - 2.0 mL/min and above; 80:20 Water/IPA at 1,000 PSI
 PR-300 - 5.0 mL/min and above; 80:20 Water/IPA at 100 PSI

ORDERING INFORMATION

| PART NO | FLOW RATE | MATERIAL | PRESSURE | PUMP HEAD | TUBING OUTLET |
|--------------|-----------|----------|----------|-----------|---------------|
| P-LD12S | 12 | SS | 6,000 | M | 1/16" OD |
| P-LD12B | 12 | PEEK | 6,000 | M | 1/16" OD |
| P-LD36S | 36 | SS | 6,000 | M | 1/16" OD |
| P-LD36B | 36 | PEEK | 6,000 | M | 1/16" OD |
| P-LD100S | 100 | SS | 1,000 | H | 1/8" OD |
| P-LD100B | 100 | PEEK | 1,000 | H | 1/8" OD |
| P-PR100S | 100 | SS | 4,000 | H | 1/8" OD** |
| P-PR100B | 100 | PEEK | 4,000 | H | 1/8" OD** |
| P-PR300S-8 * | 300 | SS | 1,000 | XH | 1/8" OD** |
| P-PR300B-8 * | 300 | PEEK | 1,000 | XH | 1/8" OD** |

* Does not come equipped with pulse dampener. 1/4" inlet (vs 1/8" OD)

** Note: no fittings adapter kit included

Flow Rate is dependent on solvent selection and operating pressure



TECH TIP

Dual Piston Pump Maintenance -

In order to do maintenance on a dual piston pump, kits are sold per head, quantity of two required.

| REPLACEMENT PARTS | M HEAD | | H HEAD | | XH HEAD |
|---|--|--------------------|----------------------|----------------------|-------------|
| | P-LD12S P-LD36S | P-LD12B P-LD36B | P-LD100S P-PR100S | P-LD100B P-PR100B | P-PR-300S-B |
| Piston Seal Kit*, Standard | P-1095 | 880272 | P-1096 | P-1096B | P-1795 |
| Piston Seal Kit*, Organic | P-0109 | P-1099B | P-3009 | 890283 | P-1796 |
| Check Valve Kit, Inlet & Outlet | P-1085 | P-1086 | P-1085 | P-1086 | P-1781 |
| Replacement Check Valve Capsules, 10/pk | P-1075 | P-1076 | P-1075 | P-1076 | --- |
| Self-Flush Check Valve Kit | P-1084 | P-1084 | P-1084 | P-1084 | P-1084 |
| Replacement Piston | P-1097 | P-1097 | P-1198 | P-1198 | P-1797 |
| Inlet Filter Assembly (Fitting & Element) | 06-0110 | 06-0110 | 06-0110 | 06-0110 | 06-0110 |
| Replacement Inlet Filter Elements, 2/pk | P-1170 | P-1170 | P-1170 | P-1170 | P-1170 |
| Replacement Outlet Filter Elements, 2/pk | P-1175 (0.5 µm) ¹ P-1172 (2 µm) ² | P-1171 (ea) | P-1172 | P-1171 (ea) | P-1172 |
| Pulse Dampener Rebuild Kit | P-1063 | P-1063 | P-1063 | P-1063 | P-1063 |

1) 0.5 µm outlet filter element standard with 12 mL pump

2) 2 µm outlet filter element standard with 36 mL pump

*Seal Kits include: Self-flush seal, O-Ring, Primary Seal, and Removal Tool

Constant Pressure Isocratic Pumps - CP Class

- Pressure monitoring with automatic pressure compensation
- Self-flushing pump heads and integrated prime-purge valve
- Stainless steel or PEEK fluid path
- Simple keypad controls, LED display
- 3 year warranty



Models with alternative specifications are available, please contact our sales team for information.



The CP Class pumps are widely used for LC Column packing, as well as many process applications. Advanced pressure control algorithms ensure consistent bed density and prevent pressure over-shoot by allowing the user to select a wide range of process parameters, including desired pressure set point, ramp rate, and upper flow rate limit. Control software included. Pressure Control Accuracy is dependent on hydraulic system parameters. Pump automatically adjusts fluid flow to maintain constant system pressure under typical column-packing usage. Pump does not contain an automatic pressure-relief valve.

SPECIFICATIONS

| | |
|-------------------------------|---|
| Pressure Accuracy | ± 2% of full scale pressure |
| Wetted Materials | Synthetic Ruby, Sapphire, UHMWPE, PTFE, Ceramic |
| Dimensions (h x w x d) | 6.3" x 10" x 17" (16 x 25.5 x 43 cm) |
| Weight | 30lbs (14 kg) |
| Power | 100-240 VAC, (± 10%), 50-60 Hz |
| Control | RS-232, Micro USB, Voltage Flow Control, Run/Stop |

ORDERING INFORMATION

| PART NO | FLOW RATE (mL/min) | MATERIAL | MAX. PRESSURE (PSI) | PUMP HEAD |
|------------|--------------------|----------|---------------------|-----------|
| P-CP24S | 24 | SS | 10,000 | M |
| P-CP100S-8 | 100 | SS | 4,000 | H |

*Flow Rate is dependent on solvent selection and operating pressure
* Note: no fittings adapter kit included*



TECH TIP

Pressure Control Accuracy

Pressure Control Accuracy is dependent on hydraulic system parameters. Pump automatically adjusts fluid flow to maintain constant system pressure under typical column-packing usage. Pump does not contain an automatic pressure-relief valve.



TECH TIP

Dual Piston Pump Maintenance

In order to do maintenance on a dual piston pump, kits are sold per head, a quantity of two is required.

REPLACEMENT PARTS

| | M HEAD | H HEAD |
|---|---------|----------|
| | P-CP24S | P-CP100S |
| Piston Seal Kit*, Standard | P-1095 | P-1096 |
| Piston Seal Kit*, Organic | P-0109 | P-3009 |
| Check Valve Kit, Inlet & Outlet | P-1085 | P-1085 |
| Replacement Check Valve Capsules, 10/pk | P-1075 | P-1075 |
| Self-Flush Check Valve Kit | P-1084 | P-1084 |
| Replacement Piston | P-1097 | P-1198 |
| Inlet Filter Assembly (Fitting & Element) | 06-0110 | 06-0110 |
| Replacement Inlet Filter Elements, 2/pk | P-1170 | P-1170 |
| Replacement Outlet Filter Elements, 2/pk | P-1175 | P-1175 |

**Seal Kits include: Self-flush seal, O-Ring, Primary Seal, and Removal Tool*

High Flow Dual Piston Pumps - HF 300

- Up to 300 mL/min and 10,000 PSI
- Dual piston design for precise flow rates and low pulsation
- 3 year warranty
- Ceramic pistons and ruby/sapphire check valves
- At 220V, entire power range available. At 110V, maximum pressure decreases above 250mL/min



HF 300 PUMP

| PART NO | MODEL | FLOW RATE (mL/min) | MAX PRESSURE |
|------------|-----------------|--------------------|--------------|
| P-5300CFNF | Constant flow * | 0.1 – 300 | 10,000 PSI |

* Constant Pressure model also available (P/N P-5300CPNF), please specify when ordering

** Note: no fittings adapter kit included

MF 300 SPECIFICATIONS

| | |
|------------------------|--|
| Flow Accuracy | < 5% of set point (above 5 mL/min, 1,000 PSI) |
| Flow Precision | 0.5% RSD |
| Pulsation | < ± 5.0% from 150 mL/min, 3,000 PSI |
| Dimensions (h x w x d) | 9" x 14" x 22" (22.8 x 35.8 x 55.9 cm) |
| Weight | 50 lbs (22.7 kg) |
| Input | RS-232 |

REPLACEMENT PARTS

| | |
|---------------------------------------|--------|
| Piston Seal Kit*, Standard | P-1795 |
| Check Valve Capsules, 4/pk | P-1781 |
| Self-Flush Check Valve Kit | P-1084 |
| Replacement Piston | P-1697 |
| Replacement Outlet Filter Element, ea | P-1172 |

*Seal Kits include: Self-flush seal, O-Ring, Primary Seal, and Removal Tool

Super Critical Fluid Pumps - SFC 24

- 3 year warranty
- Inlet/Outlet filter
- All aluminum pump heads (for heat transfer)
- Stainless Steel fluid path (other than pump heads)
- Integrated cooling system using Peltier thermoelectric modules
- In-line electronic pressure transducer

The SFC-24 features integrated cooling systems using Peltier thermoelectric modules. The cooling is fully self-contained within the pump cabinet, eliminating the need for external refrigeration units and the associated piping, coolants, and Freon. Peltier technology is 100% solid state.



SFC-24 PUMP

| PART NO | MODEL | FLOW RATE | MAX PRESSURE |
|--------------|-------------------|------------------|--------------|
| P-2024SFC | Constant pressure | 0.01 – 24 mL/min | 10,000 PSI |
| P-2024SFC-CF | Constant flow | 0.01 – 24 mL/min | 10,000 PSI |

REPLACEMENT PARTS

| | |
|--|--------|
| Piston Seal Kit*, Standard | P-1095 |
| Check Valve Kit, Inlet & Outlet | P-2485 |
| Replacement Bulkhead Filter Assembly, ea (Inlet or Outlet) | 050190 |
| Replacement Filter Element for Bulkhead Filter, 2/pk | P-1172 |
| Replacement Piston | P-1097 |

*Seal Kits include: Self-flush seal, O-Ring, Primary Seal, and Removal Tool

SPECIFICATIONS

| | |
|------------------------|--|
| Flow Accuracy | ± 5% |
| Pressure Accuracy | ± 2% of full scale pressure |
| Constant Pressure | Pressure monitoring (via transducer) with user-selected upper/lower pressure limits |
| Control Mode | User-selectable pressure point set. Pump flow rate auto-adjusts to maintain pressure |
| Dimensions (h x w x d) | 5.8" x 11.1" x 22.1" (14.6 x 28.3 x 53.7 cm) |
| Weight | 36 lbs (16.3 kg) |
| Input | RS-232 |

HPLC Pump Miscellaneous Supplies

| PART NO | DESCRIPTION | |
|---|--|-------|
| REPLACEMENT LOW PRESSURE INLET TUBING | | |
| T-10201 | 1/8" OD FEP Fluoropolymer tubing, 1/16" ID, 10' length | |
| REPLACEMENT LOW PRESSURE INLET FITTINGS FOR 1/8" OD TUBING | | |
| XP-301 | 1/4-28 Flat-Bottom Delrin Nut & ETFE Ferrule (P-300), each | |
| HIGH PRESSURE OUTLET FITTINGS | | |
| | FOR TUBING OD | |
| U-400X | 10-32, SS Nut, (10/pk) | 1/16" |
| U-401X | SS Ferrule (10/pk) | 1/16" |
| 6000-054 | 10-32 Coned, PEEK Nut, max. 7,000 PSI, ea | 1/16" |
| 6000-051 | PEEK Ferrule (10/pk) | 1/16" |
| 25-0155 | SS Bulkhead, 2 µm outlet filter, ea | 1/8" |
| 01-0141 | SS Gland Nut, (10/pk) | 1/8" |
| 01-0143 | SS Ferrule (10/pk) | 1/8" |
| REPLACEMENT HIGH PRESSURE OUTLET TUBING | | |
| 18-100203-S | 1/16" OD PEEK tubing (Blue), 0.010" ID, 1m length | |
| 18-100102 | 1/16" OD SS tubing, 0.010" ID, 1m length | |



XP-301



U-400
U-401X



6000-054
6000-051



TECH TIP

Back Pressures

The recommended minimum back pressure is 50 PSI for optimum check valve performance. For pumps with a pulse dampener, we recommend a minimum of 1,000 PSI back pressure.

If your application will not provide adequate back pressure, adding tubing for restriction to the outlet of the pump is recommended.

Custom Pump Options:

Some pump models are available in Hastelloy C, Titanium or jacketed head configurations. Speak with our sales team for further details

Model LP-21 LO-Pulse Dampener

The Model LP-21 LO-Pulse Dampener is a patented wide dynamic range pulse dampener designed for use with single piston HPLC pumps. It uses 1/4-28 SSI-type fittings and operates up to 6,000 PSI. The LO-Pulse Pulse Dampener reduces pulsations by compressing a fluid held within the bottom cavity of the unit. This fluid is isolated from the LC mobile phase by a durable but flexible inert diaphragm. As the HPLC system pressure increases, fluid in the bottom chamber is compressed. When the LC pump piston is retracting, the compressed fluid expands maintaining system pressure and, more importantly, keeps the mobile phase flowing at a constant rate. When the system pressure is at its maximum allowable pressure (6,000 PSI), the volume of mobile phase in the LO-Pulse is only 0.9 mL.



The noise level in the detector resulting from pump pulsations can significantly affect precision in qualification and the detection limit of trace components. The LO-Pulse™ Pulse Dampener smooths pump pulsations and maintains constant flow in flow sensitive detectors.

MODEL LP-21 LO-PULSE DAMPENER

| PART NO | DESCRIPTION |
|---------|--|
| 20-0218 | Model LP-21 LO-Pulse Dampener |
| 20-0220 | PEEK Model LP-21 LO-Pulse Dampener |
| 12-0527 | Low cost LO-Pulse (without case) |
| 12-0537 | Low cost PEEK LO-Pulse (without case) |
| P-1063 | Spare parts kit (includes diaphragm, O-rings, tools) |



TECH TIP

Ideal to have at least 100 PSI minimum back pressure for optimum efficiency

GREYHOUND / SSI PUMP REPLACEMENT PARTS

| NEW GENERATION PUMPS | L HEAD | M/MM HEAD | H/MH HEAD |
|---|-------------|--|---|
| FOR CURRENT PUMP MODELS | PLST05(S/B) | P-LST10(S/B) P-LD12(S/B) P-LD36(S/B) P-CP24S P-MXT10(S/B) P-M110(S/B) | P-LST40(S/B) P-LD100(S/B) P-PR100(S/B) P-CP100S-8 P-M140(S/B) |
| Replacement piston, ea | P-1597 | P-1097 | P-1198 |
| Standard piston seal kit, ea | P-1595 | P-1095 | P-1096 |
| Standard piston seals, 10/pk | P-1591 | P-1090 | P-3003 |
| Biocompatible piston seal kit*, ea | P-1595B | 880272 | P-1096B |
| Piston seal kit, Organic, ea | P-1596 | P-1099 | P-3009 |
| Biocompatible piston seal kit, Organic, ea | — | P-1099B | 890283 |
| Check valve SS (inlet & outlet) | P-1085 | P-1085 | P-1085 |
| Check valve PEEK kit (inlet & outlet) | P-1086 | P-1086 | P-1086 |
| Replacement capsules, SS (10/pk) | P-1075 | P-1075 | P-1075 |
| Replacement capsules, PEEK (10/pk) | P-1076 | P-1076 | P-1076 |
| Self flush check valve kit | P-1084 | P-1084 | P-1084 |
| Self flush assembly, SS | — | — | — |
| Self flush assembly PEEK | — | — | — |
| Inlet filter assembly (fitting & element) | 06-0110 | 06-0110 | 06-0110 |
| Inlet filter element, 20 µm (2/pk) | P-1170 | P-1170 | P-1170 |
| Outlet filter element, SS (2/pk) | P-1175 | P-1175 | P-1172 |
| Outlet filter elements for PEEK Pumps, ea | P-1171 | P-1171 | P-1171 |
| Prime purge valve rebuild kit, SS | P-1177 | P-1177 | P-1177 |
| Prime purge valve rebuild kit, PEEK | P-1178 | P-1178 | P-1178 |
| Prime purge valve assembly, SS, ea | 22-0292 | 22-0292 | 22-0292 |
| Prime purge valve assembly, PEEK, ea | 06-0115 | 06-0115 | 06-0115 |
| Pulse dampener w/transducer, SS - for models with real time pressure monitoring | P-1061 | P-1061 | P-1061 |
| Pulse dampener w/transducer, PEEK - for models with real time pressure monitoring | P-1062 | P-1062 | P-1062 |
| Pulse dampener (no transducer), SS | — | P-1065 | P-1065 |
| Pulse dampener (no transducer), PEEK | — | P-1066 | P-1066 |
| Pulse dampener rebuild kit | P-1063 | P-1063 | P-1063 |

*Seal kits include: Self flush seal, O-ring, primary seal, removal tool

TECH TIP

Seal Options

Standard seals - Ultra High Molecular Weight Polyethylene

Organic seals - Graphite-filled PTFE for use with harsh chemicals



Biocompatible Seals

Now offering biocompatible seals which contain a fluoropolymer energizer (vs the Stainless Steel Energizer)

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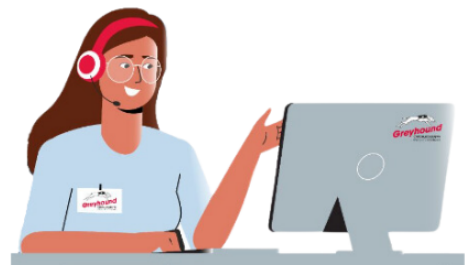
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