



# Isco, Inc.

#### Isco Is...

- ...a designer, manufacturer, and worldwide marketer of instruments used in the laboratory and field for water pollution monitoring, industrial quality control, environmental testing, and biological research.
- ...an ally in the quest to restore and maintain the quality of water. Our environmental instruments help industry, governmental agencies, and consulting engineers monitor wastewater and surface water.
- ...dedicated to offering outstanding instrumentation products and services that focus on water quality, environmental testing, industrial quality control and pharmaceutical research.



#### Isco Does...

- Focus on customers
- Value employees
- Work together
- Embrace change
- Have a passion for performance

# Isco's Customers...

- ...use our innovative, technologybased instruments to improve the quality of life on our planet.
- ...are scientists concerned with purifying and analyzing the components of a wide variety of materials, including foods, plastics, pharmaceuticals, and biologicals.



# **Isco Fraction Collectors**

First choice - for the best reasons



Our fraction collectors feature...

- Coldroom-friendly design with moisture-resistant materials and vital components that remain heated even when the system is not in use.
- Resistance to laboratory environments through the use of corrosionresistant polypropylene, stainless steel and Halar.
- Compliance with CE and CSA guidelines.
- Easy cleaning and maintenence.
- Superior Isco customer support.





Foxy® Jr.



Retriever® IV



Retriever® II



Retriever® 500

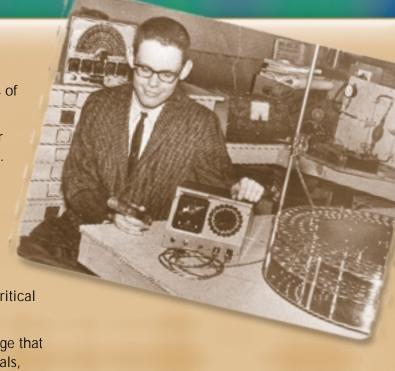
## **Isco Fraction Collectors**

Isco fraction collectors are the first choice in thousands of laboratories worldwide.

Forty years ago Isco delivered the first fraction collector to scientists who were involved in agricultural research. There simply was nothing available that would consistently and automatically collect the samples needed for the study. Isco's founder, Bob Allington, developed an automatic fraction collector which collected the samples that were critical to their research.

Since then more than 30,000 laboratories have chosen lsco fraction collectors to reliably collect the samples critical to success.

Isco's innovative fraction collectors reflect the knowledge that has been gained. You can see it in the choice of materials, simple user interfaces, wide variety of options and day-to-day reliability that keep our customers coming back again and again.



# Foxy Fraction Collectors

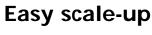
Isco was first in 1980 with x-y fraction collectors and now with over 24,000 Foxy systems delivered, we remain the first choice in the industry.

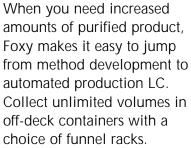
Foxy fraction collectors offer unmatched capabilities for interfacing with any chromatography equipment.















# You can trust Foxy collectors

Foxy thrives in your coldroom. Cold and condensation-proof design, using continuous warming, protects internal components in humid environments, even when turned off. Another plus for coldroom operation is that Foxy operates on 14 volts supplied by a wall transformer on the end of a thin, low-voltage cord that's easy to route past your refrigerator door gasket.

# The Versatile Foxy Fraction Collectors use just about any tube or vial.

Rigid, warp-proof racks hold test tubes from 12 to 25 mm diameter; 1.5 and 50 ml centrifuge tubes; 28 mm or mini scintillation vials; and even 96-well microplates. Numbered positions help you locate fractions easily. For large preps, put flasks directly on the tray, collecting only desired peaks and diverting the rest to waste.

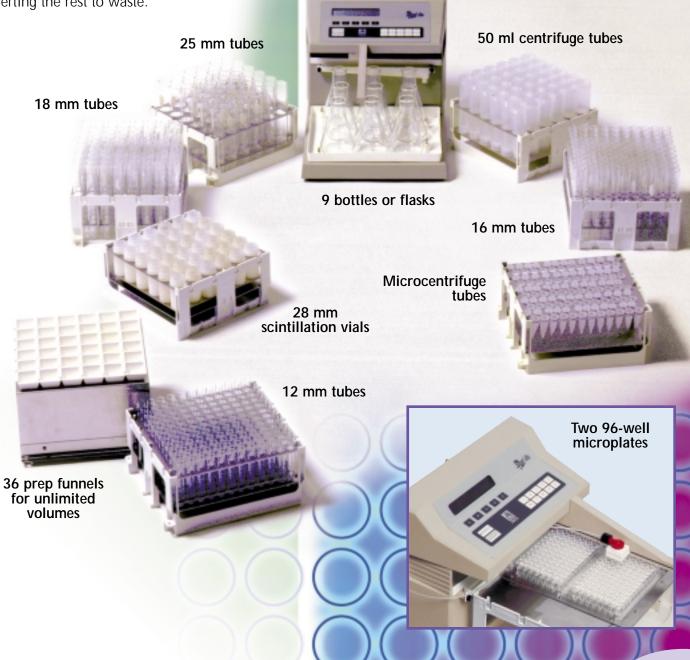
# **NEW!**

Disposable polypropylene half-racks hold 72 fractions with no glassware handling. Foxy 200 holds four; Foxy Jr. holds two



5

Sample included FREE with each Foxy.





Foxy 200 collects fractions *your* way for HPLC, classical LC, and production LC. It cuts peaks and controls valves and pumps to automate your protocols. You'll also get tremendous capacity – up to 288 tubes or 72 outboard containers – in only 29 cm of bench width. No wonder an Isco Foxy is the first choice in thousands of labs worldwide!



# **Key Features**

- Collect uniform fractions by time, drop count, or pumped volume.
- Collect peaks of interest separately using any combination of slope, level, and time windows.
- Collect up to 10 flow streams.
- Expand capacity to over 1,000 tubes by connecting up to 4 Foxy 200s.
- Collect in the containers that suit your application.
- Easy interfacing.
- Built-in fault prevention.



**Quick setup—**Foxy 200's easy-to-read display and intuitive programming make setup quick and error-free.

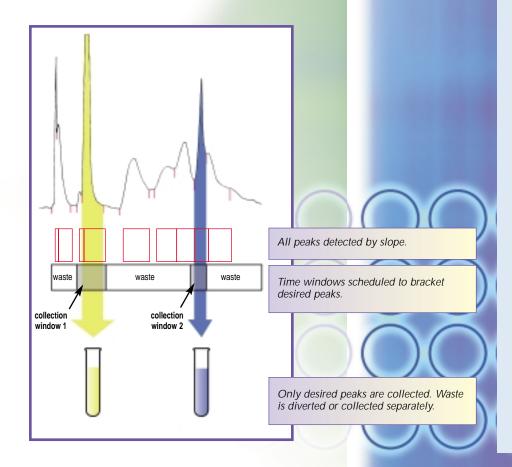
# Collect only your peaks of interest.

Foxy 200 reliably separates peaks by monitoring detector output, so you don't have to expend glassware on no-interest effluent. Combine this with time windows, level sensing, and waste diversion for the ultimate labor-saving collection of just the material you need.

Foxy slope detection provides the most accurate peak separation available.

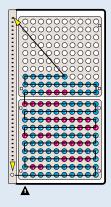
Level sensing collects peaks above any selected detector threshold, enabling "heart-cut" collection of the concentrated part of the peak.

Time windows let you specify intervals during the runs when fractions are to be collected, and can be combined with peak detection to select only the peaks you want.

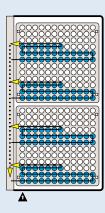


# Foxy 200 is ready to handle your collection scheme

Only a few of the possibilities.

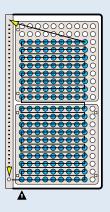


# Peak separation. Fraction collection with consistent collection drop count. Peaks (red) are separated.



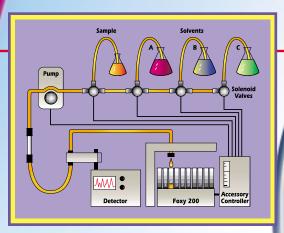
# **Multisource collection.** *No tricky programming is required:*





# Multiple separations.

In this example, 18 injections are collected in their own rows, always starting at the left end.



# Foxy 200 System Automation – no computer needed!

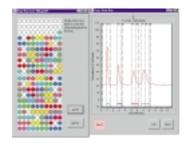
With the optional Foxy 200 valve controller you can automate solvent-or buffer-switching, generate gradients, inject samples, and regenerate or backflush columns. The valve controller has 6 outputs for valves, and 2 for pumps and other higher-current accessories. Up to 40 timed events can be controlled and continue even after Foxy shuts down.



Collect from one stream with multiple Foxys If you need a LOT of tubes, you can connect up to 4 Foxy 200s.

#### **PeakTrak™ Software**

Sample and fraction tracking



PeakTrak™ saves time and eliminates errors by tracking samples and identifying peak fractions. The Windowsbased software uses color-coded graphics to identify fractions with collection tubes, and works with any system using an Isco Foxy fraction collector and detector with analog output.

# **Organic and Bio Purification Systems**

Foxy 200 is a key component of these high-productivity systems. See separate literature for details. *Call 1-800-228-4373* 



#### CombiFlash Optix 10 Parallel Organic Purification

- Up to 10 samples at once
- UV detection on all channels
- Custom gradient for each sample
- Normal and reverse-phase 20 mg to 3 g sample loads



#### CombiFlash Sq16x Open-Access Organic Purification

- Up to 16 samples sequentially
- On-line detection with peak cutting
- User-defined method for each sample
- Normal and reverse-phase; 20 mg to 10 g sample loads

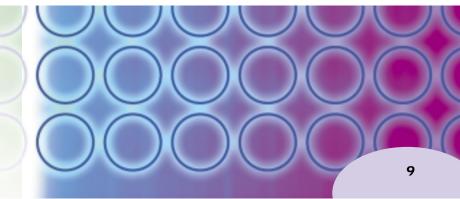


# ProTeam LC System 320 Gradient Biopurification

- Complete low-pressure system for protein separations
- Run any 2-buffer gradients at up to 25 ml/min and 30 psi
- Biocompatible
- Coldroom friendly

## Foxy 200 Ordering Information

| Foxy 200 Fraction Collector  | FOXY 200 GRADIENT FORMERS  |
|--|--|
| Specify your choice of included racks when ordering.  CombiFlash Foxy 200, for organic purification68-2130-010   | With stainless steel mixing chamber, 10-100 ml/min68-3877-057  |
| Organic compatible. Includes grounded drop former, Teflon diverter valve, and racks for 16 mm tubes.   | With polymer mixing chamber, 0.1-25 ml/min68-3877-055  |
|  | COLLECTION ADAPTERS AND BOTTLES  |
| EXTRA RACKS  | Adapter kit to convert standard Foxy 200 to prep 10 version. Includes preparative rack 68-2137-060, plus all   |
| Foxy disposable half-racks, 6 x12 array, 7.5 ml fractions.  Pkg. of 868-2137-121   | parts needed to use 1/4" ID inlet tubing   |
| Foxy 200 holds 2 racks. Per each, for:   | Glass, 400 ml bottles with caps, case of (36),   |
| (144) 12 mm dia. tubes   | with drop counter adapter. Bottles stand directly on Foxy 200 tray. No rack required   |
| (60) 1.5 ml microcentrifuge tubes       68-2137-048         (100) 16 mm dia. tubes       68-2137-043         (72) 18 mm dia. tubes       68-2137-044   | Polyethelene, 500 ml bottles with caps, case of (32), with drop counter adapter. Bottles stand directly on Foxy 200 tray. No rack required   |
| (72) MiniVials       68-2137-047         (36) 28 mm dia. scintillation vials       68-2137-046         (36) 25 mm dia. tubes       68-2137-045   | Foxy 200XT adapter kit. Converts standard Foxy 200 to XT version for collection into vessels over 180 mm tall68-2137-065   |
| (36) 50 ml cone-bottom centrifuge tubes  | Multiple CombiFlash Foxy 200 Connection kit for Sq16x. Includes cables, tubing, and fittings to connect one additional CombiFlash Foxy 200. Up to 3 additional units can be connected to Sq16x |
| Funnel tray for 12 or 13 mm tubes.  Prevents lost drops. Polypropylene. Pkg of 1068-2137-013   |  |
| Microcollection tray with (72) 0.6 ml conical wells. Polypropylene.  | CABLES   |
| Use in pairs, with 12 or 13 mm rack. Pkg of 1068-2137-014  | UA-6 connect cable   |
| Preparative rack, 36 Halar funnels. Foxy 200 holds 2 racks. Max flow 1.0 liters/min. Includes 50' of vinyl tubing, 1/4" ID68-3877-003  | Tris® connect cable  |
| Preparative rack, 26 Halar funnels. Foxy 200 holds 1 rack. Max   | Non-Isco pump control cable (117V only)68-1010-113   |
| flow 5 liters/min. Includes 50' of 3/8" ID Tygon tubing68-2137-060   | Foxy to HP1100   |
|  | Cable used to connect (2) Foxy 200 Fraction Collectors60-5394-408  |
| FOXY 200 VALVES (Foxy valve controller not required)   | Cable used to connect (3) Foxy 200 Fraction Collectors60-5394-409  |
| <b>Standard-flow valves (up to 100 ml/min).</b> Each includes mounting bracket and fittings for 1/8" and 1/16" OD tubing.  | Cable used to connect (4) Foxy 200 Fraction Collectors60-5394-405 Cable used to connect (5) Foxy 200 Fraction Collectors60-5394-410  |
| KelF Security valve, (on/off) for pressures up to 30 psi68-2137-052  |  |
| KelF Diverter valve (three-way) for pressures greater than 30 psi68-2137-051   | SOFTWARE, SPARE PARTS, USER MANUAL   |
| Teflon® Diverter valve (three-way) for pressures greater than 30 psi68-2137-067  | PeakTrak™ Windows-based sample tracking and data acquisition software  |
| High flow valves (up to 5 liters/min). Each includes compression   | Foxy 200 spare parts package   |
| fittings for 1/4" and 3/8" OD tubing   | Foxy 200 user manual (1 manual included w/unit)  |
| Teflon Security valve, (on/off) for pressures up to 30 psi68-2137-056  | .,,  |
| Teflon Diverter valve, (three-way) for pressures over 30 psi68-2137-057  |  |
| FOXY 200 ACCESSORY CONTROLLER  |  |
| External component interface and additional valve control.  System automation for Foxy 200 only68-2137-049   |  |
| Valves for Foxy 200 accessory controller only       68-2137-053         2-way KelF valve, up to 100 ml/min       68-2137-050         3-way KelF valve, up to 100 ml/min       68-2137-050         3-way Teflon valve, up to 100 ml/min       68-2137-068         2-way Teflon valve, up to 4.5 liter/min       68-2137-055         3-way Teflon valve, up to 4.5 liter/min       68-2137-054 |  |



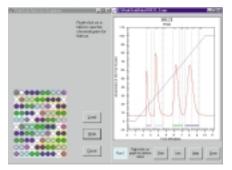
# The January of the

## Fraction Collector

Foxy Jr. combines smart collection and extraordinary capacity with reduced cost and space requirements.

# **Key Features**

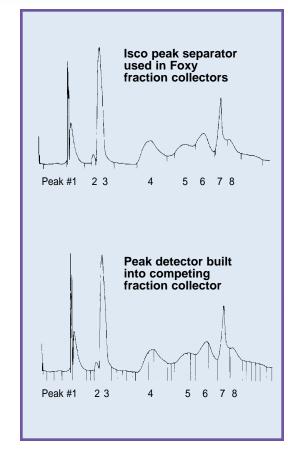
- Collect uniform fractions by time, drop count, or pumped volume.
- Collect peaks of interest separately using any combination of slope, level, and time windows.
- Collect in the containers that suit your application.
- Easy interfacing.
- Built-in fault prevention.
- Protection against spills.
- Easy programming.
- 9 program memory.



#### PeakTrak Software

PeakTrak™ software is Windows-based software that uses color-coded graphics to save time and eliminate errors by tracking samples and identifying fractions with collection tubes. It is compatible with any LC system using an Isco Foxy fraction collector.





#### Foxys have the peak separator that works.

Isco originated peak collection and has developed it over 30 years to assure you accurate peak cutting when you need it. In this enzyme separation, the Isco peak separator cut all peaks accurately. Only four peaks (2, 3, 7, and 8) were cut correctly by the competing device.

# **Collect peaks**

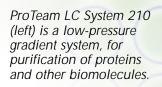
Foxy Jr. lets you choose three methods to identify and separate peaks individually, or in combination to select only the fractions you want.

- Highly accurate slope detection using any LC detector, identifies peaks by their shape.
- Level sensing collects peaks above a selected detector signal threshold.
   Useful for collecting only the most concentrated part of the peak.
- Time windows collect important fractions by known retention time. When combined with slope or level sensing, only certain desired peaks are selected, diverting other peaks and baseline effluent to waste.

# Complete LC systems

with Foxy Jr. as system controller.

CombiFlash System Sg100c (right) is our full-featured "personal" system for organic purification in synthetic and natural product applications.



| Fovy Ir Ordering Information   |             |
|--|-------------|
| Foxy Jr. Ordering Information  |             |
| Foxy Jr. Fraction Collector  | 68-3870-001 |
| Foxy Jr. Fraction Collector with diverter valve Includes one rack, please specify when ordering.                 | 68-3870-002 |
| Foxy Jr. Fraction Collector with security valve Includes one rack, please specify when ordering.                 | 68-3870-003 |
| CombiFlash Foxy Jr. Fraction Collector   | 68-3877-015 |
| FOXY RACKS   |             |
| Foxy disposable half-racks, 6 x12 array, 7.5 ml fractions. Pkg. of 8   | 68-2137-121 |
| Foxy Jr. holds one (144) 12 mm dia. tubes  | 60 0407 044 |
| (144) 13 mm dia. tubes(144) 13 mm dia. tubes   |             |
| (60) 1.5 ml microcentrifuge tubes  |             |
| (100) 16 mm dia. tubes   | 68-2137-043 |
| (72) 18 mm dia. tubes  | 68-2137-044 |
| (72) MiniVials   |             |
| (36) 28 mm dia. scintillation vials(36) 25 mm dia. tubes   |             |
| (36) 50 ml cone-bottom centrifuge tubes,   | 00-2137-043 |
| 28-29 mm diameter x 150 mm   | 68-2137-064 |
| (2) 96-well microplates  |             |
| Prep rack with (36) Halar funnels. Includes 50' of   | 00 0077 000 |
| 1/4" vinyl tubing, max flow 1.0 liters/min<br>Funnel tray for 12 or 13 mm racks. Pkg of 10                       |             |
| Microcollection tray with (72) 0.6 ml conical wells.   | 00-2137-013 |
| Use in pairs, with 12 or 13 mm rack. Pkg of 10   | 68-2137-014 |
| FOXY JR. VALVES (NOT for use with Foxy valve of  | controller) |
| Each includes mounting brackets and compression fittings 1/8" and 1/16" tubing. Standard flow, up to 100 ml/min. | for         |
| Teflon® Security valve (on/off) for pressures up to 30 psi   | 68-3877-002 |
| Teflon Diverter valve (three/way) for pressures over 30 psi  | 68-3877-001 |
|  |             |

#### **VALVE CONTROLLER**

| System automation for Foxy Jr. only     | 68-2137-069 |
|---|-------------|
| Valves for Valve Controller only.       |             |
| 2-way KelF valve, up to 100 ml/min      | 68-2137-053 |
| 3-way KelF valve, up to 100 ml/min      | 68-2137-050 |
| 3-way Teflon valve, up to 100 ml/min    | 68-2137-068 |
| 2-way Teflon valve, up to 4.5 liter/min | 68-2137-055 |
| 3-way Teflon valve, up to 4.5 liter/min | 68-2137-054 |
|   |             |

#### **MISCELLANEOUS**

| data acquisition software                                  | 68-2137-108 |
|--|-------------|
| Foxy Jr. Gradient Former. Must be used with a Foxy Jr. and |             |
| Tris® pump. Polymer mixing chamber, 0.1 - 25 ml/min        |             |
| Foxy Jr. spare parts package                               | 68-3879-100 |
| Foxy Jr. user manual (One manual included with unit.)      | 68-3873-152 |

| Cable for external control of Foxy Jr.                      |              |
|---|--------------|
| by contact closure or TTL I/O                               | 68-1010-119  |
| Cable to Isco Tris pump for volume count and pump shut-off. | .68-1020-204 |
| Cable to UA-6 or V4 for detector signal and event mark      | 68-1020-211  |
| Foxy to HP1100  | .60-5394-407 |

# **Retriever Fraction Collectors**

More than 30,000 of the workhorse Retriever<sup>™</sup> fraction collectors have found their way into laboratories throughout the world.

Retrievers were first with their linear motion tube transport system providing a stationary collection point and convenient racks holding small groups of tubes in a range of sizes.

# Retriever® IV

**Big Capacity** 

A Retriever IV is the fraction collector for most labs. It can collect over 9 liters, or up to 190 fractions without removing tubes.



# **Key Features**

- Stationary drop former.
- Collect fractions by time or drop count.
- Size fractions by pumped volume with an Isco Tris® pump.
- Automatic peak cutting with an Isco UA-6 detector.
- Remove filled tubes anytime during a run.
- Collect from up to 10 sources.
- Automatic pump shutoff.
- Protection against spills. Automatically stops or diverts flow before each tube change, at the end of the run, and during a power failure.



#### Collect from multiple streams

An optional accessory allows Retriever IV to collect from up to 10 sources for DNA alkaline elution, cell perfusion, or any other technique involving fractionation of multiple streams.

# Long-term dependability

Coldroom-friendly design allows unimpaired operation and long-term reliability even at 0°C and high humidity. Self-cleaning switches, stainless steel screws, and automatic warming in the standby mode prevent condensation damage.



**Retriever IV** comes with two heavy-duty stainless steel masts that provide sturdy, stable, and convenient mounting for columns, pumps, and other LC components.

## **Retriever IV Ordering Information**

| Retriever IV Fraction Collector                            | .68-2260-001 |
|--|--------------|
| Includes two masts, set of 20 racks (19 running, 1 shutoff | )            |
| holding (190) 10 to 18 mm tubes, and instruction manual.   |              |
| Other racks may be substituted, please specify when order  | ering.       |

#### **EXTRA RACKS**

| Set of 20 racks (19 running, 1 shutoff) for: |             |
|--|-------------|
| 10 to 18 mm tubes, 10 per rack (190)         | 68-0827-059 |
| 28 mm scintillation vials, 7 per rack (133)  | 68-0827-061 |
| 25 mm tubes, 7 per rack (133)                | 68-0827-060 |

#### **RETRIEVER IV VALVES**

Each includes compression fittings for 1/8" and 1/16" tubing, and handles flows up to 100 ml/min.

| KelF Security valve (on/off) for pressures up to 30 psi68-217 | 7-001 |
|---|-------|
| KelF Diverter valve (three/way) for pressures                 |       |
| greater than 30 psi68-217                                     | 7-002 |

#### **MISCELLANEOUS**

| Retriever IV manual (one manual included with unit) . | 60-2263-052 |
|---|-------------|
| Spare parts package                                   | 68-2269-100 |
| Multi-source collection accessory                     | 68-2267-001 |
| (Order 10-position rack, 68-0827-059 or               |             |
| scintillation vial rack, 68-0827-061 extra)           |             |

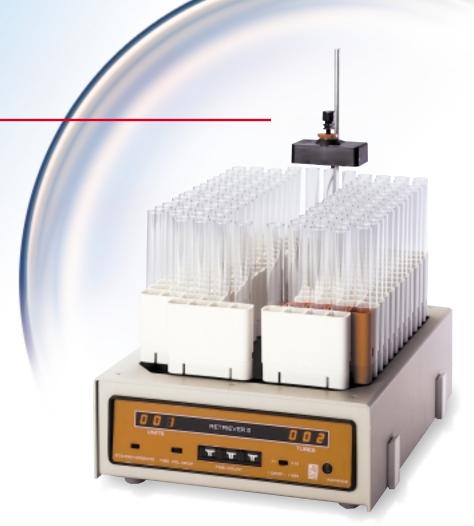
| 0.13110   |             |
|---|-------------|
| UA-6 or V4 connect cable  | 68-1020-213 |
| Tris® pump connect cable  | 68-1020-161 |
| Tris pump connect cable and volume count                        | 68-1020-159 |
| Non-Isco pump control cable (117V only)                         | 68-1010-103 |
| Cable for external control of Retriever IV by non-Isco detector | 68-1010-111 |
|   |             |



# Retriever® II

The smallest large-capacity fraction collector

Holding 174 small tubes or 116 large tubes in only 27 cm width, Retriever II combines large capacity with a small footprint. Its multiple-rack, linear-movement design lets you easily remove filled tube groups at any time.



# **Key Features**

- Stationary drop former.
- Collect uniform fractions by time or drop count.
- Size fractions by pumped volume when using an Isco Tris® pump.
- Automatic peak cutting is available with an Isco UA-6 detector.
- Automatic pump shutoff.
- Collect from up to four sources at once.
- Protection against spills. Automatically stops or diverts flow before each tube change, at the end of the run, and during a power failure.
- Remove tubes anytime during a run.



The Retriever II top tray unlatches in seconds and can be rinsed or submerged for cleaning. An internal drip shield protects electronics against spills.



Retriever II is also available in this complete isocratic LC system with pump and UV detector. Contact your Isco representative to describe your requirements, and determine which of our bio-purification sytems best meets your needs!

# Retriever II Ordering Information

| Retriever II Fraction Collector                    | 68-2180-001 |
|--|-------------|
| Includes one set of 4-position racks for (116)     |             |
| 10 to 16 mm tubes. Other racks may be substituted; |             |
| please specify substitute racks when ordering      |             |

#### **EXTRA RACKS**

| Extra set of 30 racks (29 running, 1 shutoff) for:      |              |
|---|--------------|
| 12 and 13 mm diameter tubes, 6-position (174)           | .68-2187-001 |
| 10 to 16 mm tubes and glass MiniVials, 4-position (116) | .68-2187-002 |
| 18 mm tubes and scintillation vials, 4-position (116)   | .68-2187-003 |
| Set of 15 racks (14 running, 1 shutoff) for 28 mm       |              |
| scintillation vials, 3-position (42)                    | .68-2187-004 |

#### **RETRIEVER 500 VALVES**

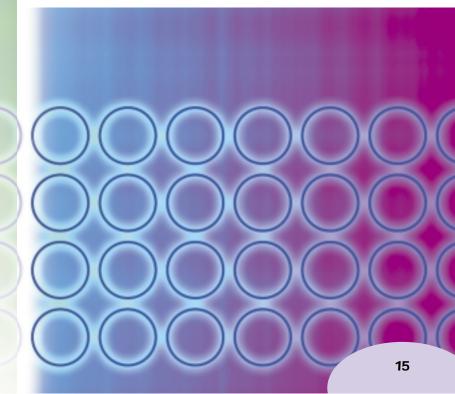
Each includes mounting brackets and compression fittings for 1/8" and 1/16" tubing. These valves handle up to 100 ml/min.

| KelF Security valve (on/off) for pressures up to 30 psi68-2177-001 |
|--|
| KelF Diverter valve (three/way) for pressures                      |
| greater than 30 psi68-2177-002                                     |

#### **MISCELLANEOUS**

| Retriever II 4-column adapter package. Includes special 4-pl<br>racks for 10 to 16 mm tubes. Requires mounting masts | ace         |
|--|-------------|
| 68-2187-005 (not included)   | 68-2187-006 |
| Pair of masts with attaching brackets.   | 68-2187-005 |
| Shelf assembly, 28 x 43 cm. Requires masts (not included)  | 68-1564-046 |
| Retriever II manual (one manual included with unit)  | 60-2183-053 |
| Spare parts package  | 68-2189-100 |
| Dust cover   | 69-2183-028 |
| Stand for 10 racks   | 68-1103-123 |
|  |             |

| UA-6 or V4 connect cable                   | 68-1020-213 |
|--|-------------|
| Tris® pump connect cable                   | 68-1020-161 |
| Cable for external control of Retriever II |             |
| by non-Isco detector                       | 68-1010-111 |



Retriever® 500

Mini Fraction Collector

Only the size of this page, Retriever 500 still holds over a hundred tubes. Retriever 500 takes minimal space in your HPLC or low-pressure LC system, and fits easily in a cramped coldroom.

Its multiple-rack, linear-movement configuration lets you remove filled tube groups at any time.



# More tubes in less space

Retriever 500 is more compact than other popular fraction collectors of similar or less capacity.

# **Key Features**

- Compact
- Stationary drop former
- Collect uniform fractions by time or drop count.
- Size fractions by pumped volume when using Isco's Tris® pump.
- Automatic peak cutting is available with an Isco UA-6 detector.
- Automatic pump shutoff.
- Protection against spills. Automatically stops or diverts flow before each tube change, at the end of the run, and during a power failure.
- Remove tubes anytime during a run.



Retriever 500 102 tubes 609 cm<sup>2</sup> 21 cm wide



Competitor B
95 tubes
870 cm<sup>2</sup>
29 cm wide



Competitor A 105 tubes 957 cm<sup>2</sup> 33 cm wide



Competitor C 80 tubes 792 cm<sup>2</sup> 24 cm wide



#### Reliable and durable

Retriever 500's simple drive mechanism uses only one motor and has been proven in over 30,000 similar Isco instruments. An infrared rack sensing device precisely locates when mixed racks are used or when racks are left out. You'll get reliable performance year after year.

Retriever 500 operates on 14 volts supplied by a wall transformer. A remote thin low-voltage cord passes easily by a refrigerator door gasket, and shock hazard is minimized.



**Retriever 500** is also available in this complete isocratic LC system with pump and UV detector. Contact your Isco representative to describe your requirements, and determine which of our bio-purification systems best meets your needs!

#### **Retriever 500 Ordering Information**

#### **EXTRA RACKS**

#### **RETRIEVER 500 VALVES**

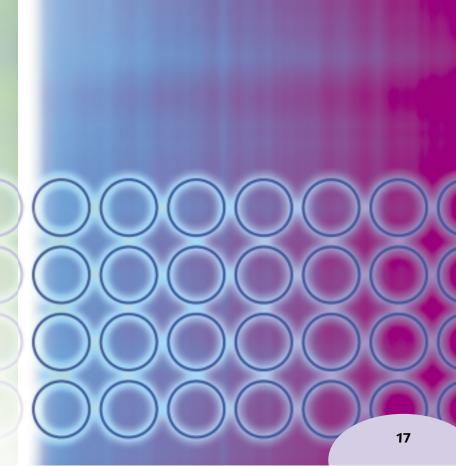
Each includes mounting brackets and compression fittings for 1/8" and 1/16" tubing. Standard flow, up to 100 ml/min.

KelF Security valve (on/off) for pressures up to 30 psi........68-3887-005 KelF Diverter valve (three/way) for pressures over 30 psi..68-3887-006

#### **MISCELLANEOUS**

| Retriever 500 manual (one manual included with the unit) | 60-3883-021 |
|--|-------------|
| Spare parts package                                      | 68-3889-100 |
| Dust cover   | 69-3883-017 |
| Stand for 10 racks                                       | 68-1103-123 |

| OABLEO                                      |             |
|---|-------------|
| UA-6 or V4 connect cable                    | 68-1020-217 |
| Tris® pump connect cable                    | 68-1020-204 |
| Cable for external control of Retriever 500 |             |
| by non-lsco detector                        | 68-1010-119 |

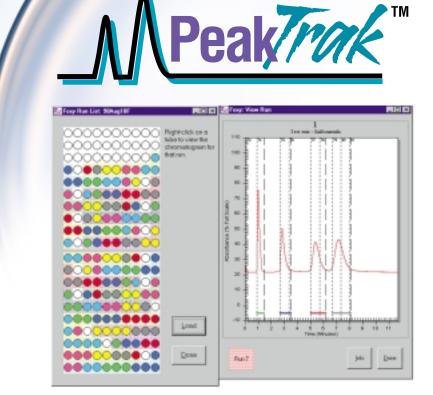


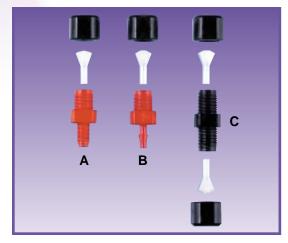
# Accessories

# **PeakTrak<sup>™</sup> Software**

PeakTrak™ software saves time and eliminates errors by tracking samples and identifying peak fractions. The Windows-based program uses colorcoded graphics to locate peak and non-peak fractions, and works with any other system using an Isco Foxy fraction collector and a detector with analog output.

See separate literature for details, or contact your Isco representative to request a PeakTrak demo/preview CD!





#### **Isco Exclusive Tubing connectors**

These compression fittings are used for tubing connection to Isco flow cells, peristaltic pumps, valves, and fraction collectors. Each instrument or system is supplied with necessary fittings, but once you discover how convenient these are, you're likely to need more for other lab plumbing.

#### **Tubing & Connectors Ordering Information**

| Universal connectors for Isco flow cells, valves, and fraction collectors. Red Halar body, 400 psi, 1/4" x 28 threads. (photo key A). Per 10                                     |
|--|
| Isco Tris® pump connectors. Barb fits both 1/16" and 1/8" ID flexible pump tubing. Connects to 1/16" or 1/8" OD firm plastic tubing. Red Halar. (photo key B). Per 1068-1617-023 |
| Unions, for linking of two lengths of 1/16" or 1/8" OD tubing.  Black Halar. (photo key C). Per 1068-1847-007  |
| Flow cell or fraction collector connectors for attaching flexible tubing 1/16" to 1/8" ID. Polypropylene. (not shown). Per 1068-0087-132   |
| High flow connectors for flow cells. Has 1/8" bore and compression nut and ferrule to connect to 1/4" OD tubing. Polypropylene. (not shown). Per 2                               |
| High flow connectors for flow cells.  Connects to 3/8" OD tubing. (not shown). Per 268-0087-135  |
| Teflon® tubing. (ID x OD). Per 20 feet (6 M):  |
| 0.022" x 1/8" White. 1000 psi68-1155-014   |
| 0.063" x 1/8" White. 400 psi68-0943-212  |
| 0.085" x 1/8" White68-1843-341   |
| 0.010" x 1/16" White. 750 psi  |
| 0.020" x 1/16" Black68-1843-314  |
| 0.034" x 1/16" White   |



# Organizer shelves

Organizer shelves consolidate a complete LC system into minimal bench width. Two 3/4" (19 mm) stainless steel masts hold columns, optical units, the Tris pump and/or accessories. All shelves are covered with easy-to-clean plastic laminate.



# **ProTeam racks**

The same sturdy metal rack with drip tray that's included with Isco's ProTeam systems makes a great organizer for other systems too. Minimize the number of electrical outlets required for your Isco LC system with an attachable power supply.

#### LC System Organizers Ordering Information

| Organizer shelf, 35 cm inside width x 40 cm D  | 68-3887-007   |
|--|---------------|
| Organizer shelf, 43 cm inside width x 40 cm D  | 68-2187-012   |
| LabStacker. Includes two shelves, 39.5 x 61 cm   | 68-2137-007   |
| ProTeam LC System 210 rack. Fits Foxy Jr. Includes drip tray, power supply not included  | . 68-3874-029 |
| ProTeam LC System 320 rack. Fits Foxy 200. Includes drip tray; power supply not included | . 68-2137-073 |
| Power supply for ProTeam LC System racks(Not CE marked)                                  | 68-3877-009   |

See fraction collector "Ordering Information" for appropriate selection of shelf unit.

## LabStacker™

The LabStacker organizes all your Isco chromatography equipment into a little over two square feet of bench space. It can straddle a Foxy or Retriever IV fraction collector or hold one on its two shelves. Additional space is still available for your detector, peristaltic pump, buffer reservoir, and other equipment.



## Isco Fraction Collector Selection Guide











| Model  | Foxy 200  | Foxy Jr.   | Retriever IV  | Retriever II   | Retriever 500   |
|--|---|--|---|--|---|
| Catalog #  | 68-2130-002   | 68-3870-001  | 68-2260-001   | 68-2180-001  | 68-3880-001   |
| Tube Capacity  | (288) 12 & 13 mm tubes;<br>(200) 16 mm tubes;<br>(144)18 mm tubes or MiniVials;<br>(120)1.5 microcentrifuge tubes;<br>(72)25 mm tubes, 28 mm scint.<br>vials or 50 ml centrifuge tubes;<br>(21) flasks or bottles to<br>65mm dia.; (26 or 72) funnels;<br>(4) 96-well microplates | (144) 12 & 13 mm tubes;<br>(100) 16 mm tubes;<br>(72)18 mm tubes or MiniVials;<br>(60) 1.5 microcentrifuge tubes;<br>(36)25 mm tubes, 28 mm scint.<br>vials or 50 ml centrifuge tubes;<br>(36) funnels; (9) bottles or<br>flasks to 65 mm diameter;<br>(2) 96-well microplates | (190) 10 to 18 mm tubes;<br>(133) 25 mm tubes;<br>(133) 28 mm vials | (174) 12 & 13 mm tubes;<br>(116) 10 to 16 mm tubes;<br>(116) 18 mm tubes<br>& scintillation vials;<br>(116) 17 mm MiniVials;<br>(42) 28 mm scintillation vials | (102) 12 & 13 mm tubes;<br>(68) 10 to 16 mm tubes;<br>(68) 18 mm tubes<br>& scintillation vials;<br>(68) 17 mm MiniVials;<br>(24) 28 mm scintillation vials |
| Collection Mode Time Drop Volume(with Isco Tris® Pump) Peak Slope Threshold Level Setting Time Windows | ******  | ******   | ✓<br>✓<br>✓(with UA-6 detector)                                     | ✓<br>✓<br>✓(with UA-6 detector)  | ✓<br>✓<br>✓(with UA-6 detector)   |
| Timer Range  | 1 second to 99 hr:59 min: 59 s  | 1 second to 99 hr:59 min: 59 s   | 0.1 to 99.9 in units of 0.1 min;<br>1 to 999 in units of 1 min      | 0.1 to 99.9 min in 0.1 min units;<br>1 to 999 min in 1 min units   | 5 to 999 seconds;<br>0.1 to 99.9 min in 0.1 min units;<br>1 to 999 min in 1min units  |
| Drop Counter Range   | 1 to 999,999 drops  | 1 to 999,999 drops   | 1 to 999 in units of 1;<br>10 to 9990 in units of 10                | 1 to 999 drops in units of 1;<br>10 to 9990 in units of 10   | 1 to 999 drops per tube   |
| Event Mark Output  | V   | V  | <b>V</b>  | V  | V   |
| Tube Change Time   | 340 to 450 ms   | 200 to 450 ms  | 300 ms  | 350 ms   | 350 ms  |
| User Memory  | 4 programs  | 9 programs   | Manual  | Manual   | Manual  |
| Gradient Formation   | Yes, with gradient former   | Yes, with gradient former  | No  | No   | No  |
| Multi-Column Collection  | Yes, 4 & 10 columns   | No   | Yes, 10 to 20 columns   | Yes, 3 & 4-column  | No  |
| Parameter Change During Run  | Yes   | No   | Yes   | Yes  | No  |
| Interfacing  | Serial (RS232); analog 10 mV,<br>100 mV, 1 V detector input;<br>contact closure I/O; time based<br>valve/accessory control  | Serial (RS232); analog 10 mV,<br>100 mV, 1 V detector input;<br>contact closure I/O; time based<br>valve/accessory control   | Event mark,<br>Pump shutoff   | Event mark,<br>Pump shutoff  | Event mark,<br>Pump shutoff   |
| Collection Pattern   | Unlimited   | Serpentine and<br>Linear   | Linear  | Linear   | Linear  |
| Temperature Range  | 0 to 40 °C  | 0 to 40 °C   | 0 to 40 °C  | 0 to 40 °C   | 0 to 40 °C  |
| Dimensions: W x H x D (cm)   | 29 x 38 x 61  | 28 x 27 x 31   | 32 x 10 (w/o racks) x 61  | 27 x 10 (w/o racks) x 35   | 21 x 18 (w/empty racks) x 29  |
| Weight   | 10.5 kg   | 4.7 kg   | 12.2 kg   | 5.0 kg   | 3.0 kg  |
| Power Requirements   | 100/117/234 VAC,<br>50/60 Hz. 62 W max  | 100/117/234 VAC,<br>50/60 Hz. 25 W max   | 100/117/234 VAC,<br>50/60 Hz. 56 W max                              | 100/234 VAC; 50/60 Hz; or 117 V<br>60 Hz only. 15 W max  | 100/234 VAC; 50/60 Hz; or 117 V<br>60 Hz only. 15 W max   |



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