

Fraction Collectors

Foxy R1
Foxy R2
Retriever 500

Reliable, efficient fraction
collection for over 40 years





R1 & R2

Teledyne Isco's new generation of fraction collectors

Foxy R1 and Foxy R2 fraction collectors are ideal for applications including prep HPLC, protein, and peptide purifications.

The basic model, Foxy R1, uses a single collection rack for a small footprint.

The Foxy R2 doubles the collection capacity, and uses Radio Frequency Identification (RFID) for error-free rack configuration.

Foxy R1



Foxy R2



Reliable and Easy to Use

1. Symbolic touch screen display for quick setup
2. Diverter valve with contained flow path
3. 1,000 mL/min diverter valve available
4. Integral drop former virtually eliminates delay volume
5. Drip tray provides secondary containment for safety
6. Grounded for organic compatible collection
7. Robust, single piece cast aluminum frame creates a reliable collector

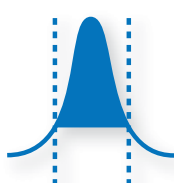
Get the Peaks You Want

Collect only the peaks you want by programming desired peak detector options.



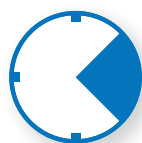
Level Sensing

Collect peaks above detector threshold, enabling “heart-cut” collection of concentrated part of the peak.



Slope

Collect peaks based on inflection points. Separate close peaks by valley triggers.



Time Window

Collect only during a specific interval of time.

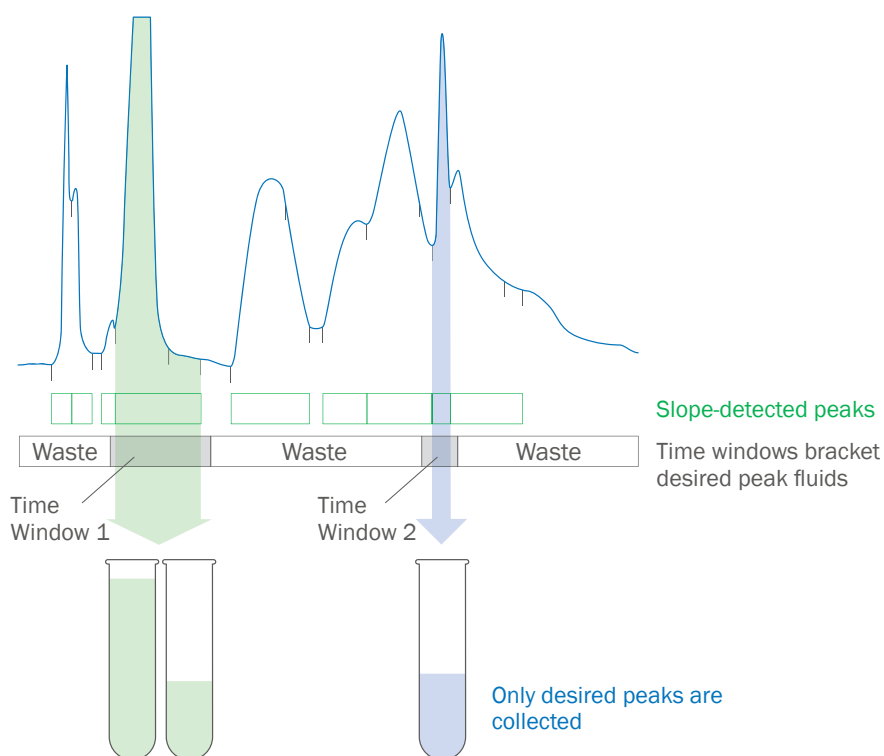


Delay Compensation

Cut peaks at the diverter valve regardless of system tubing lengths.



By combining Teledyne Isco’s accurate peak detection with uniform fraction options, desired peaks may be collected, diverting other peaks and baseline effluent to waste.



Versatile Selection of Racks

Collect your fractions in the vessel type best suited for your application.

For large volume collection, bottles and funnels enable virtually unlimited sample collection. Racks now include RFID tags for fast and accurate setup on the Foxy R2 fraction collector. The Foxy R1 and R2 use the same convenient, lift-out racks as the legacy Foxy Jr. and Foxy 200 fraction collectors.

The rigid and warp-proof racks are made from stainless steel and polypropylene. Funnel racks uses chemically resistant ETFE or ECTFE, and are available with tubing for organic as well as inorganic applications.



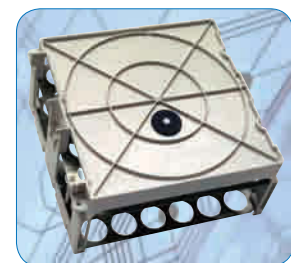
1. 12-13 mm Tubes
2. 16-25 mm Tubes
3. Bottles
4. Funnel Racks
5. Scintillation Vials
6. Microcentrifuge Tubes



96 Well Plates
Hold up to six on the Foxy R2



Funnel Racks
Collect unlimited volumes



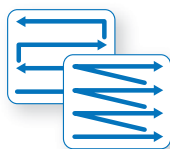
RFID Tags
Automatically configure the Foxy R2

Flexible Collection Options

User-selectable options such as collection patterns, injection restarts, and arm movement speed allow you to tailor the fraction collector operation to your specific collection needs.



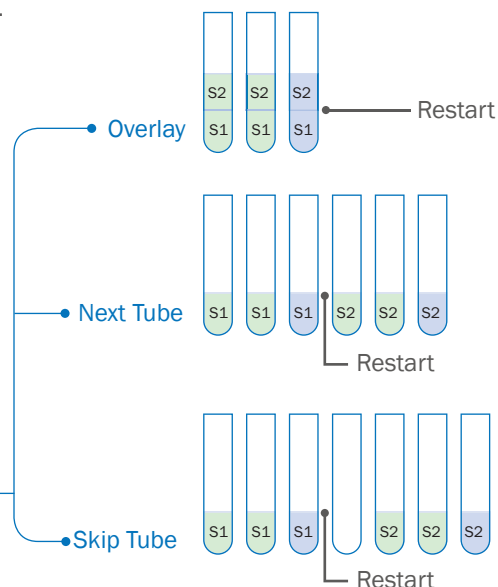
Tube-to-tube Speed
Select from five available speed settings.



Collection Patterns
Use serpentine patterns for fast row-to-row changes; L-R patterns for easy-to-find fractions.

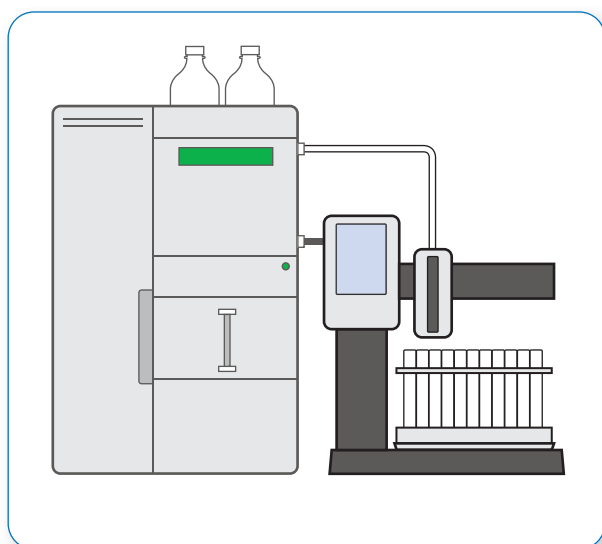


Multiple Injections
Collect from multiple purification runs restarted at regular time intervals or at Inject Pulse signals. When using multiple injections the **Restart Options** let you concentrate fractions or create tube groups.



Easily Interface with Systems

Rear panel connectors on the Foxy R1 and R2 fraction collectors support system integration with external pumps and detectors.



Detector I/O Signals

Analog Peak In
Inject Pulse In
External Peak In
Tube Advance In
Event Out

Pump I/O Signals

Volume Count In
Pause/Stop Out

For easy connection to a system controller, the fraction collectors support Ethernet and RS-232 communications. An extensive library of commands allow remote operation under software control.

Contact Teledyne Isco to discuss OEM Fraction Collector options for integration with your purification systems.

Retriever 500 Mini Fraction Collector

Time proven design for reliable and durable performance

Only the size of this page, the Retriever 500 fraction collector still holds over one hundred tubes. This fraction collector 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.

Key Features:

- Economical
- Stationary drop former
- Collect uniform fractions by time or drop count
- Cut peaks accurately with optional Teledyne Isco UA-6 UV detector
- Protect against spills with optional diverter valve



Rack Selection Guide

for Foxy R1, Foxy R2, and Retriever 500 Fraction Collectors

| Max Volume (mL) | Vessel Outer Diameter (mm) | Vessel Length (mm) | Rack Selection | Foxy R1 Capacity | Foxy R2 Capacity | Retriever 500 Capacity |
|-----------------|----------------------------|--------------------|--|------------------|------------------|------------------------|
| 3 | 10 | 75 | 10 mm Test Tubes | n/a | n/a | 68 |
| 5 | 12 | 75 | 12 mm Test Tubes | 144 | 288 | 68 or 102 |
| 7 | 12 | 100 | 12 mm Test Tubes | 144 | 288 | 68 or 102 |
| 9 | 13 | 100 | 13 mm Test Tubes | 144 | 288 | 68 or 102 |
| 11.5 | 16 | 100 | 16 mm Test Tubes | 100 | 200 | 68 |
| 15 | 16 | 125 | 16 mm Test Tubes | 100 | 200 | 68 |
| 20 | 16 | 150 | 16 mm Test Tubes | 100 | 200 | 68 |
| 27 | 18 | 150 | 18 mm Test Tubes | 72 | 144 | 68 |
| 32 | 18 | 180 | 18 mm Test Tubes | n/a | 144 | 68 |
| 60 | 25 | 150 | 25 mm Test Tubes | 36 | 72 | n/a |
| 70 | 25 | 180 | 25 mm Test Tubes | n/a | 72 | n/a |
| 1.5 | 10 | 40 | 1.5 mL Micro-Centrifuge or Eppendorf Tubes | 60 | 120 | n/a |
| 35 | 29 | 100 | 29 mm Centrifuge Tubes | n/a | n/a | 24 |
| 50 | 29 | 123 | 29 mm Centrifuge Tubes | n/a | n/a | 24 |
| 20 | 28 | 61 | 28 mm Scintillation Vials | 36 | 72 | 24 |
| 6-8 | 17 | 56-60 | 16/17 mm Scintillation Vials or Minivials | 72 | 144 | 68 |
| 0.33-2.2 | n/a | n/a | 96-Well Microplates | 2 | 4 or 6 | n/a |
| 480 | 68 | 165 | Bottle | 9 | 18 | n/a |
| Unlimited | n/a | n/a | Funnel | 36 | 26 or 72 | n/a |

Ordering Information

for Foxy R1, Foxy R2, and Retriever 500 Fraction Collectors

Foxy R2 and Foxy R1

Foxy R2 fraction collector with diverter valve. 68-2130-006
Includes 1/8-inch OD (0.062 ID) tubing for collection up to 125 mL/min and (2) racks for 13 mm tubes. Other racks may be substituted; specify racks when ordering.

Foxy R2 fraction collector with high-flow diverter valve. 68-2130-007
Includes compression fittings for 1/4-inch OD tubing. Maximum flow rate 1 L/min. Includes (2) racks for 25 mm tubes. Other racks may be substituted; specify racks when ordering.

Foxy R1 fraction collector with diverter valve. 68-3870-010
Includes 1/16-inch OD (0.031 ID) tubing for collection up to 25 mL/min and (1) rack for 13 mm tubes. Other racks may be substituted; specify rack when ordering.

Extra Racks for Foxy R1 & Foxy R2 (Order 2 racks for Foxy R2.)

12 mm diameter tubes (144). 60-2137-155
13 mm diameter tubes (144). 60-2137-150
16 mm diameter tubes (100). 60-2137-151
18 mm diameter tubes (72). 60-2137-152
25 mm diameter tubes (36). 60-2137-153
1.5 ml microcentrifuge tubes (60). 60-2137-154
28 mm diameter scintillation vials (36) 60-2137-156
96-well microplates (2) 60-2137-159
Mini Vials (72) 60-2137-158

Set of two racks for (18) 480 mL glass bottles. 60-5247-004
Each rack holds (9) bottles. Fits Foxy R2 only; requires qty. 1 set

96-well microplates (6). 60-2137-139
For Foxy R2 only, requires qty. 1.

Preparative funnel rack 60-2137-161
with 26 ETFE* or ECTFE** funnels and 50 ft. of 3/8-inch ID vinyl tubing. For Foxy R2 only, requires qty. 1. Non-organic.

Preparative funnel rack 60-2137-162
with 26 ETFE* or ECTFE** funnels and 50 ft. of 3/8-inch ID vinyl, FEP-lined tubing. For Foxy R2 only, requires qty. 1. Organic compatible.

Preparative funnel rack 60-2137-163
with 36 ETFE* funnels and 50 ft. of 1/4-inch ID vinyl tubing. (Requires 1 rack for Foxy R1; 2 racks for Foxy R2). Non-organic

Interface Cables for Foxy R1 & Foxy R2

HP1100/1200 system for remote start signal and peak separation. 60-5394-474
Non-Teledyne Isco pump connect cable 69-2134-170
External control of Foxy R1 or R2 by contact closure or TTL I/O 69-2134-171
Tris pump connect cable 69-2134-172
UA-6 UV detector connect cable 69-2134-173

Accessories for Foxy R1 & Foxy R2

Organizer shelf, 40 cm deep and 53 cm wide 69-2183-001

Tubing and fitting package for 25–125 mL/min, 1/8-inch OD (0.062 ID) 60-2139-032

Tubing and fitting package for 0–25 mL/min, 1/16-inch OD (0.031 ID) 60-2139-031

Glass bottles, 480 mL, case of 40. 60-2137-062

Funnel trays for 12 and 13 mm racks, package of 10. . 60-2137-013

Retriever 500

Retriever 500 fraction collector 68-3880-001
Includes 1/16-inch OD (0.031 ID) tubing for collection up to 25 mL/min and one set of 4-position racks for (68) 10–16 mm tubes. Other racks may be substituted; specify racks when ordering.

Rack sets for Retriever 500

Set of 18 racks (17 running, 1 shutoff) for:
12 and 13 mm tubes, 6-position (102). 60-3887-001
10 to 16 mm tubes, 4-position (68) 60-3887-002
18 mm tubes/scintillation vials, 4-position (68) . . 60-3887-003

Set of 9 racks (8 running, 1 shutoff) for 28 mm scintillation vials or 29 mm centrifuge tubes, 3-position (24) 60-3887-004

Accessories for Retriever 500

Valves include mounting brackets and compression fittings for 1/8-inch and 1/16-inch diameter tubing:
Security Valve, standard flow up to 100 mL/min . . 66-3887-005
Diverter Valve, standard flow up to 100 mL/min . . 66-3887-006

Rack stand. 60-1103-123
Organizer shelf, 40 cm deep and 53 cm wide 69-2183-001
PTFE tubing, 1/8-inch OD (0.062 ID), 20 ft. 60-0943-212

Interface Cables for Retriever 500

UA-6 UV detector connect cable 60-1020-217
Tris peristaltic pump connect cable. 60-1020-204
External control of Retriever 500 by contact closure or TTL I/O 60-1010-119

* Equivalent to Tefzel, a registered trademark of E.I. DuPont de Nemours & Co.

** Equivalent to Halar, a registered trademark of Allied Chemical Corp.

Visit www.isco.com/lc for complete information about Teledyne Isco chromatography products.

Fraction Collector Selection Guide

| | Foxy R2 68-2130-006 | High Flow Foxy R2 68-2130-007 | Foxy R1 68-3870-010 | Retriever 500 68-3880-001 |
|---|---|---|--|---|
| Inlet Tubing and Flow Rates | 1/8" OD (0.062" ID), 25 – 125 mL/min (up to 25 mL/min optional) | 1/4" OD (0.125" ID), up to 1 L/min | 1/16" OD (0.031" ID), up to 25 mL/min (25 – 125 mL/min optional) | 1/16" OD (0.031" ID), up to 25 mL/min (25 – 125 mL/min optional) |
| Maximum Tube Height | 196 mm | 180 mm | 160 mm | 180 mm |
| Racks | 2, with RFID | 2, with RFID | 1, no detection | 17, with infrared rack sensor |
| Maximum Tube Qty | 288 12/13 mm tubes | | 144 12/13 mm tubes | 102 12/13 mm tubes |
| Max Fraction Volume | Unlimited with funnel racks | | | 50 mL with 29 mm centrifuge tubes |
| Construction Materials: Racks Funnel Racks Diverter Valve Construction Drip Tray Drop Former | Stainless steel and polypropylene ECTFE (Halar) or ETFE (Tefzel) funnels PEEK and FFKM (fluoroelastomer) Cast Aluminum Polypropylene PEEK | | | Polypropylene n/a PCTFE (Kel-F*) Polypropylene Polypropylene and stainless steel ECTFE (Halar) or ETFE (Tefzel) |
| Solvent Compatibility | Aqueous and Organic | | | Aqueous (Organic with optional valve) |
| Test Tube Time Change | 0.10 – 0.58 seconds (dependent on collection vessel tube advance speed) | | | 0.35 seconds with 12/13 mm rack, within rack; 0.57 seconds between racks |
| Memory | Eight methods | | | Current program |
| Collection Modes: Time | 00:00:01 – 99:59:59, 1 second intervals | | | 5 – 999 sec; 0.1 – 99.9 min. in 0.1 min units; 1 – 999 min in 1 min units |
| Drop | 1 – 999 drops per fraction | | | 1 – 999 drops per fraction; up to 7 per second |
| Volume | Up to 999 units | | | Up to 999 units w/Tris Pump |
| Peak Detection | Slope, Threshold, four time windows, Combination of any of the above collection modes | | | External |
| System Control | Front panel touch screen, Ethernet or RS-232 | | | Front panel touchkey |
| Inputs | Pump counter, external peak, inject, tube advance: +3.3 to 5 VDC or contact closure, active low, 30 ms minimum, 5 VDC max. Analog peak voltage: 0 to 1.0 V nominal, -1.2 to + 1.2 V usable, -5 to +5 V max. | | | 18 volts, Max. Pump counter: CMOS or TTL logic "0" for 7.7 ms min, Max rate 60 counts per sec. Tube change: Open collector TTL logic "0" or contact closure. Pause: Selectable; inactive, active TTL logic "1", or active TTL logic "0" |
| Outputs | Pump pause/stop and event (tube change), 300 ms: open collector, active low, 15 VDC/100 mA maximum. | | | Event marks: Open collector active for tube or rack change |
| Automatic Shut-off | Rack full, last tube, end of time window or external signal | | | Last tube |
| Security Valve (2-way) | n/a | | | Optional |
| Diverter Valve (3-way) | Included | | | Optional |
| Valve Pressure Rating | 0 – 28 psi | | | 0 – 28 psi |
| Temperature Range | 0 – 40 °C, 32 – 104 °F | | | 0 – 40 °C, 32 – 104 °F |
| Cold Room Compatible | Yes | | | Yes |
| Dimension: WxHxD | 12.25 x 14.9 x 21.0 in 31.1 x 37.8 x 53.3 cm | 12.25 x 15.5 x 21.0 in 31.1 x 39.4 x 53.3 cm | 12.25 x 14.0 x 13.0 in 31.1 x 35.5 x 33.0 cm | 8.3 x 7.09 x 11.4 in 21.0 x 18.0 x 29.0 cm |
| Weight | 10.3 kg (22.8 lbs) | 10.4 kg (22.9 lbs) | 7.1 kg (15.6 lbs) | 3.0 kg (6.61 lbs) |
| Power Requirements | 100 – 240 VAC, 50-60 Hz, 1 ampere max. Includes one IEC power cord supplied for regional AC power (100, 117, 234 VAC) | | | 14 VAC, 50/60 Hz, 150 mA max. from Teledyne Isco 15W wall transformer for regional AC power (100, 117, 234 VAC) |
| Certification | CE, CSA | | | CE |

* A registered trademark of 3M

To order contact [Teledyne Isco](#) or your local representative



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