

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

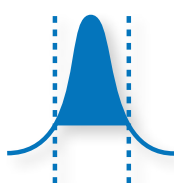
Get the Peaks You Want

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



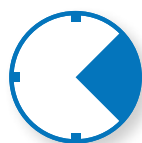
Level Sensing

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.

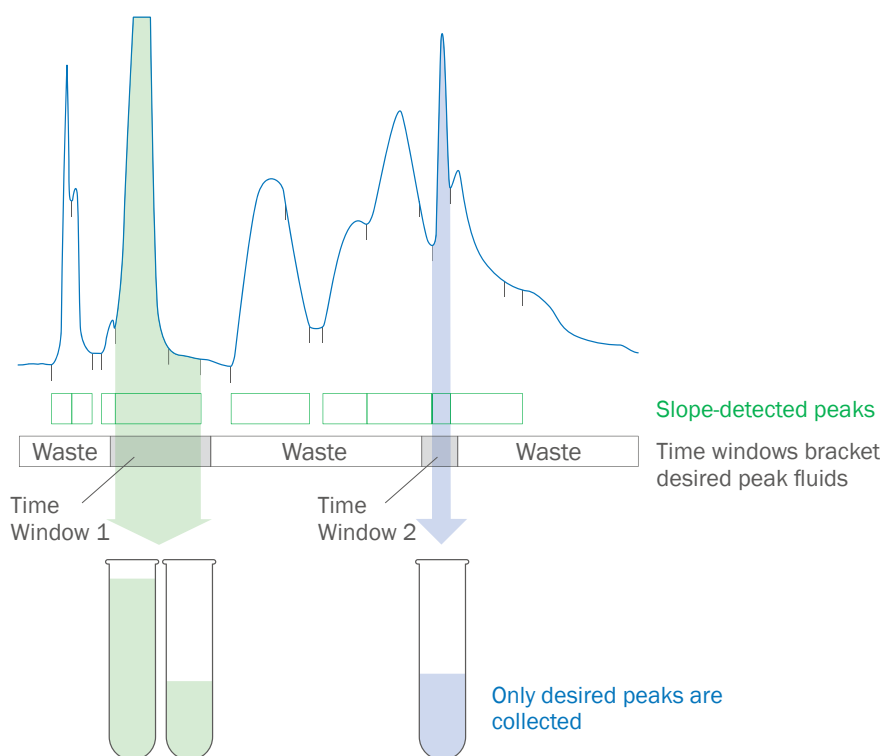


Delay Compensation

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

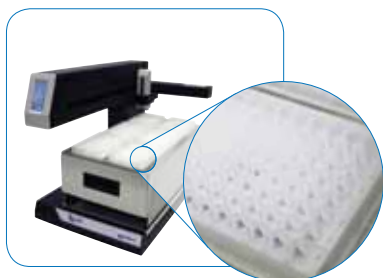
Collect your fractions in the vessel type best suited for your application.

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.



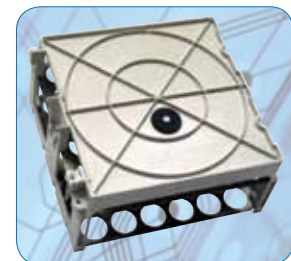
1. 12-13 mm Tubes
2. 16-25 mm Tubes
3. Bottles
4. Funnel Racks
5. Scintillation Vials
6. Microcentrifuge Tubes



96 Well Plates
Hold up to six on the Foxy R2



Funnel Racks
Collect unlimited volumes



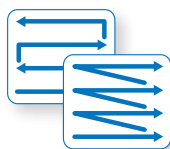
RFID Tags
Automatically configure the Foxy R2

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.



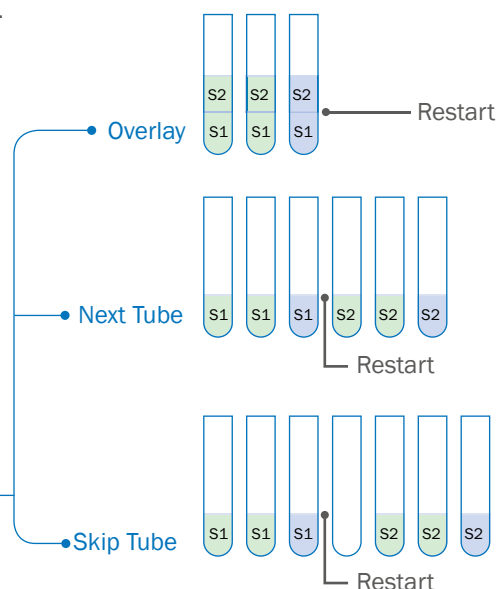
Tube-to-tube Speed
Select from five available speed settings.



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

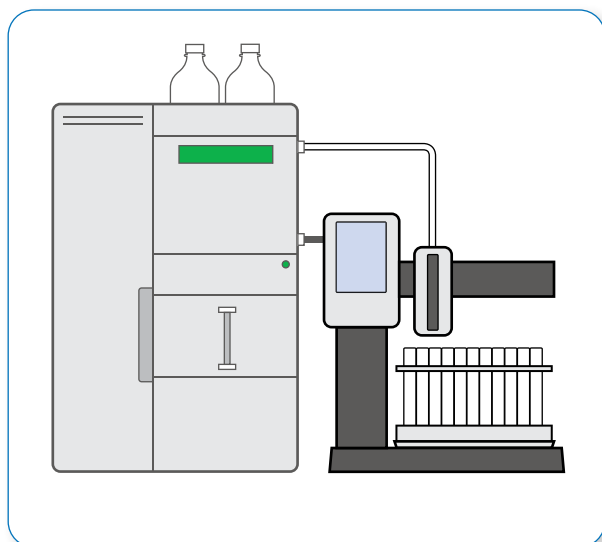


Multiple Injections
Collect from multiple purification runs restarted at regular time intervals or at Inject Pulse signals. When using multiple injections the **Restart Options** let you concentrate fractions or create tube groups.



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	36	72	24
50	29	123	29 mm Centrifuge Tubes	36	72	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 R1 fraction collector with diverter valve: 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 racks when ordering.

For operation at or above ambient temperature.....68-3870-010
For operation in cold room environment.....68-3870-012

Foxy R2 fraction collector with diverter valve: 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.

For operation at or above ambient temperature.....68-2130-006
For operation in cold room environment.....68-2130-009

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

.....68-2130-007

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
29 mm centrifuge tubes (36) 60-2137-157
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 R1	Foxy R2	High Flow Foxy R2	Retriever 500
Inlet Tubing and Flow Rates	1/16" OD (0.031" ID), up to 25 mL/min (25 to 125 mL/min with high flow option)	1/8" OD (0.062" ID), 25-125 mL/min (up to 25 mL/min with low flow option)	1/4" OD (0.125" ID), up to 1L/min	1/16" OD (0.031" ID), up to 25 mL/min (25 - 125 mL/min with high flow option)
Maximum Tube Height	160 mm	196 mm	180 mm	180 mm
Racks	1, no detection	2, with RFID	2, with RFID	17, with infrared rack sensor
Maximum Tube Qty	144 12/13 mm tubes	288 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, Three 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 - 25 °C, 32 - 77 °F 15 - 40 °C, 60 - 104 °F 0 - 40 °C, 32 - 104 °F	68-3870-012 68-3870-010	68-2130-009 68-2130-006	68-2130-007	68-3880-001
Dimension: WxHxD	12.25 x 14.0 x 13.0 in 31.1 x 35.5 x 33.0 cm	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	8.3 x 7.09 x 11.4 in 21.0 x 18.0 x 29.0 cm
Weight	7.1 kg (15.6 lbs)	10.3 kg (22.8 lbs)	10.4 kg (22.9 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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