Agilent 1200 Series Fraction Collectors

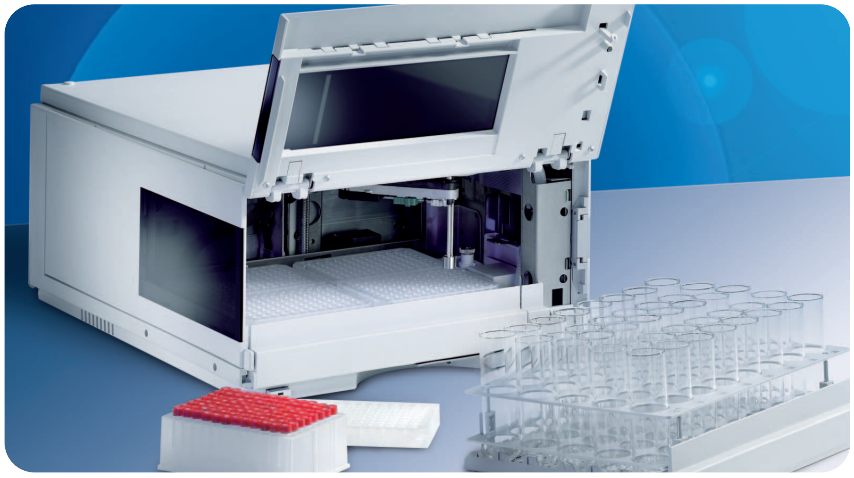
1200 Series fraction collector preparative scale (PS) (G1364B)
1200 Series fraction collector analytical scale (AS) (G1364C)
1200 Series micro collector/spotter (G1364D)

Flexible fraction collection ranging from nanogram to gram quantities

The Agilent 1200 Series fraction collectors are designed for optimized fraction collection capability without compromises. Users can choose between three dedicated fraction collectors depending on sample amount, flow rate and the types of collection containers. The fraction collectors for analytical scale (AS) and preparative scale (PS) provide:

- Lowest delay volume to minimize peak dispersion and carryover between fractions.
- Multiple collection modes, based on time, peak or mass, or manually with the 1200 Series instant pilot.
- Sophisticated trigger options to enable collection of only the desired fractions.
- Fraction preview helps identify the right trigger parameters.
- Unique delay sensor makes determining delay volumes an easy task.
- System intelligence with CAN network to process data in real time for instantaneous and precise fraction collection.
- GLP features, such as Early Maintenance Feedback (EMF), electronic instrument logbook, IQ and OQ/PV, as well as a 21 CFR Part 11 compliant software solution.
- Integrated safety concept, including safe leak handling and leak detection.
- Forced fume extraction makes it possible to use the fraction collector outside a fume cupboard.

Thermostatting module:
1200 Series thermostat for all autosamplers / fraction collectors (G1330B)



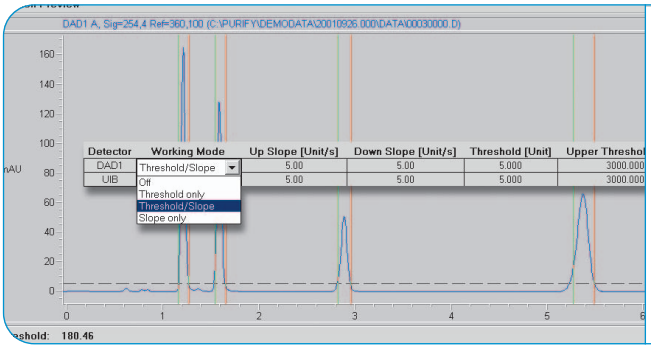
Standard solution	Advanced solution	Walk-up solution
Standard functionality for easy system usage. Security Pack for 21 CFR Part 11 compliance.	Easy management of large numbers of samples, flexible workflow integration.	System management for secure access. Ideal for novice users.
Agilent ChemStation Software	**Agilent Purification Software**	**Agilent Easy Access Software**

Remote data browsing and purity reports at your desk.
Agilent Data Browser

Software solutions for different users needs

Agilent Technologies

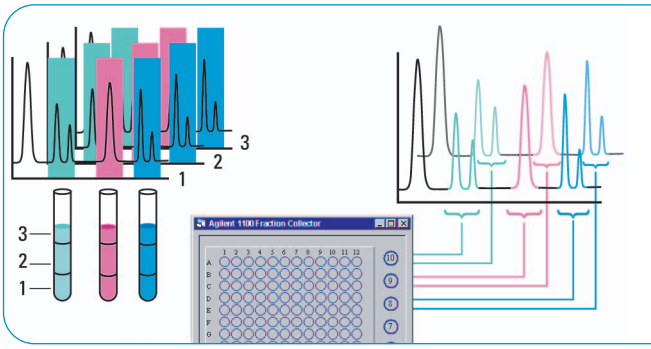
Agilent 1200 Series fraction collectors (AS) and (PS)
Features and specifications



Multiple collection modes

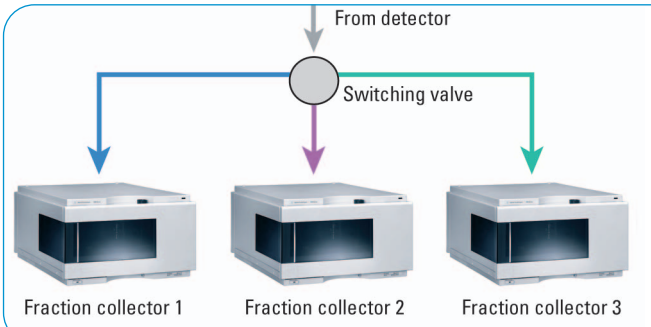
Collects fraction based on time, peak or mass, or manually with the Agilent 1200 Series instant pilot. Any combination of time windows, thresholds, up and down slopes, upper thresholds and trigger sources, such as UV and/or mass can be used. This enables you to collect exactly the fractions you need.

Fraction preview makes it easy to find the right trigger parameters.



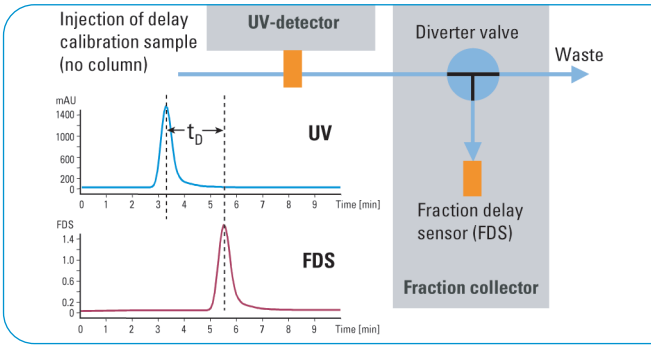
Various collection strategies

- **Pooling**
  If a sample volume is too large for a single injection, repetitive injections from the same sample container can be performed and the resulting fractions collected in the same fraction positions.
- **Recovery locations**
  Predefined recovery locations ensure that nothing gets lost. If, for any reason, an important compound was missed during fraction collection, it is not lost, but collected in the recovery location assigned to the sample.



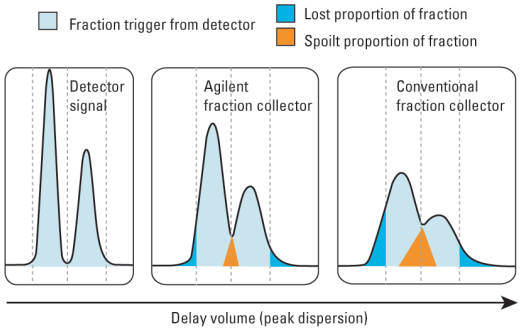
Fraction collection containers for a variety of trays for well-plates, vials and test tubes

Collection ranging from small volumes in 96 and 384 well-plates, up to unlimited volumes in 10, 40 or a maximum of 120 external vessels. Extended fraction collection capacity is provided by using up to three fraction collectors in parallel. Customization of trays with well-plate footprint allows the use of your own special sample containers (max. 100 mm in height). Automatic tray recognition prevents test tube overflow.



Unique delay sensor

Accurate fraction collection requires the user to know the delay volume. A patented fraction delay sensor makes determination of delay volume an easy task. This delay sensor, which is comparable to a detector within the fraction collector, provides data to the Agilent ChemStation which automatically calculates the delay volume after the calibration measurement.



Lowest delay volume

The Agilent 1200 Series fraction collectors are designed for lowest delay volumes to avoid peak dispersion and carry-over between fractions. This assures highest recovery and purity for your fractions, especially for low flow rates. The graph (left) shows the influence of delay volume on fraction recovery and purity.

Specifications for the 1200 Series fraction collector (AS)

Delay volume:	Approximately 37 µL
Maximum system flow:	10 mL/min
Fraction container:	• Shallow or deep well-plate (96 or 384 format) • Test tubes up to 48 mm height (up to 75 mm height*) • Autosampler vials (2 mL and 6 mL)
Fraction trays:	• 2 well-plates* + 10 x 2 mL vials • 2 well-plates* + 10 funnels for collection in external containers • 40 funnel tray* (up to 3 per module) • 4 well-plates* • 100 x 2 mL + 40 x 2-mL vials • 3 x 15 x 6 mL vials • Eppendorf safe-lock tube plate (0.5 mL, 1.5 mL and 2 mL) • 40 test tubes 30 mm OD x 48 mm • 60 test tubes 25 mm OD x 48 mm • 126 test tubes 16 mm OD x 48 mm • 215 test tubes 12 mm OD x 48 mm
Cooling:	Optional

Specifications for the 1200 Series fraction collector (PS)

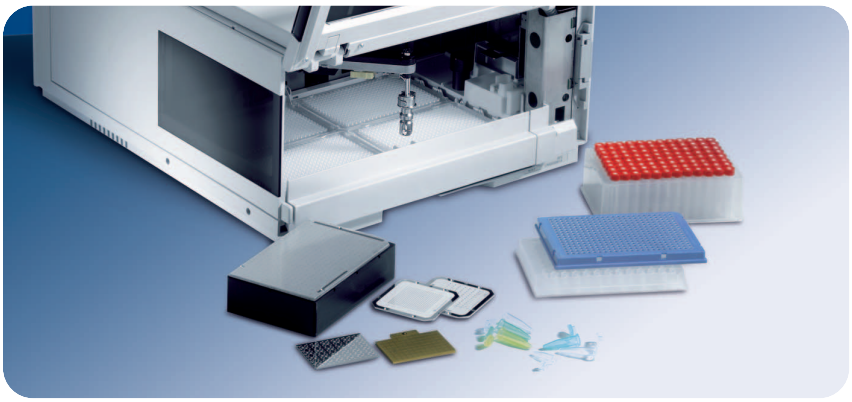
Delay volume:	Approximately 210 µL
Maximum system flow:	100 mL/min
Fraction container:	• 96 deep well-plates • Test tubes min. 48 mm up to max. 100 mm height (up to 45 mL) • Autosampler vials (2 mL and 6 mL)
Fraction trays:	• 2 well-plates + 10 x 2 mL vials • 4 well-plates + 3 x 15 x 6 mL vials • 100 x 2 mL + 40 x 2-mL vials • 40 funnel tray* (up to 3 per module), • 40 test tubes 30 mm OD x 100 mm • 60 test tubes 25 mm OD x 100 mm • 126 test tubes 16 mm OD x 100 mm • 215 test tubes 12 mm OD x 100 mm
Cooling:	Optional

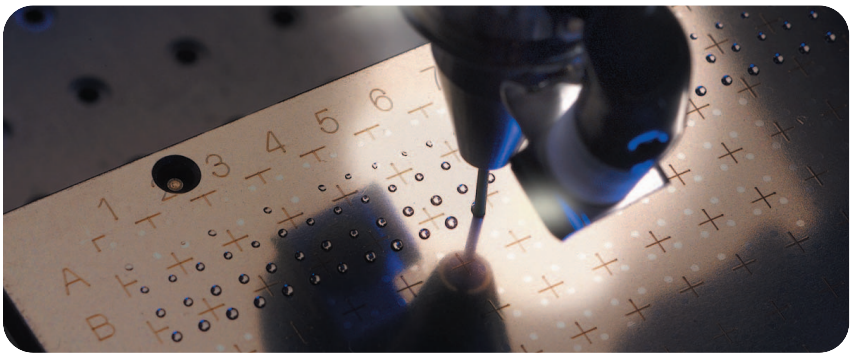
Specifications for both fraction collectors (AS/PS)

Trigger modes:	Time slices and peak (threshold, up-/downslope, upper threshold and timetable), boolean logic for different detector signals, combination of different modes, manual trigger (supported with 1200 Series instant pilot)
Trigger source:	Agilent 1200 VWD, MWD and DAD detectors, Agilent 6100 Series Quadrupole LC/MS, third party detectors (require UIB)
Diverter valve:	3/2 valve, switching time < 100 ms
Max. operating pressure:	6 bar
Max. collector capacity:	3 collectors in parallel connected via a 12-position/13-port selection valve
Environment:	4 – 55 °C constant temperature, < 95% humidity (non-condensing)

*requires hardware modification

Agilent 1200 Series micro collector/spotter
Features and specifications





The Agilent 1200 Series micro collector/spotter is designed for highly reproducible collection of small fraction volumes. Minimum delay volumes maintain the chromatographic resolution and provide superior fraction results:

- **Flexibility for LC/MALDI spotting** on various targets types from different vendors, as well as collection into well-plates (96 and 384) and Eppendorf tubes.
- **Liquid contact control** for reproducible and robust collection of small fraction volumes from nL to the lower µL range.
- **Matrix addition** either offline or online by premixing the matrix with the eluent using a syringe pump.
- **Peltier cooling** prevents thermal decomposition and evaporation of the micro fractions.
- **Thermostatting of targets** results in superior and reproducible crystallization between matrix and sample analytes.
- **Fraction collection** based on peak or time.

Specifications for the 1200 Series micro collector/spotter

Delay volume:	• 0.25 µL with 25 µm capillary (typically) • 1 µL with 50 µm capillary • 4 µL with 100 µm capillary
Fraction containers:	• 384 and 96 well-plate format (standard and conical shape), • Eppendorf safe-lock tubes (0.5, 1.5, 2.0 mL)
MALDI carriers:	For Agilent, Applied Biosystems, Bruker and Micromass targets
Fraction capacity:	4 well-plates, 4 MALDI plates or 4 x 27 Eppendorf tubes
Maximum collector capacity:	2 micro fraction collectors/spotters in parallel with 2-position/6-port micro valve
Typical volumes for spotting:	100 – 5000 nL
Spot frequency:	< 0.33 (Hz)
Matrix addition:	With syringe pump
Maximum system flow:	100 µL/min (higher flow rates requires system modifications)
Minimum fraction volumes:	Typically 2 µL (depending on fraction collection container)
Cooling:	Optional
Trigger modes:	Time and peak-based (threshold, up-/downslope, upper threshold and timetable), combination of different modes
Trigger source:	Agilent 1200 Series MWD and DAD detectors, third-party detectors (require UIB)
Environment:	4 – 55 °C constant temperature, < 95% humidity (non-condensing)

www.agilent.com/chem/1200

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