FLASH

TELEDYNE ISCO
Everywhereyoulook™

CombiFlash® NextGen

SOLUTIONS FOR ORGANIC PURIFICATION

Setting a New Standard in Flash Chromatography Performance

What's New

- Faster Flow rates, up to 300 mL/min
- Higher pressures, up to 300 psi (20 bar)
- Bigger touchscreen, 12 or 15 inches
- Wider Dynamic Range UV Detector
- Improved baseline correction supports use of absorbing solvents
- Faster processing with streamlined user interface
- Space saving top tray holds four 4 L bottles
- Improved gradient profiles use up to 50% less solvent

The **Combi*Flash*® NextGen** line of systems takes the guesswork out of your purifications and increases productivity whether you are purifying synthetic compounds, natural products, peptides, or polymers. The intuitive PeakTrak software starts a separation in seconds. Select a normal phase or reversed phase column based on the type and amount of sample to purify, allow the RFID tag to load the run parameters, confirm your detector settings (UV, Vis, ELS and MS), press play, load your sample, and walk away. Need to change the parameters? Modify any of the set points including solvent percentages, wavelengths, flow rates, and run time while the separation is taking place. No need to repeat a separation.

*The Combi*Flash *you trust, now even better*

The **Combi*Flash* NextGen** still has all the features you count on from Combi*Flash* systems including RFID identified columns and racks, active solvent and waste level sensing, optimized separations conditions, and an automated injection valve for walk away solid loading. What makes the **NextGen** even better is its larger touchscreen, higher maximum flow rate and pressure, UV detection with increased dynamic range to accommodate higher sample loading, and updated PeakTrak control with new methods to speed up the purification process without sacrificing purity.

This system is also available with an even larger 15 inch touchscreen, a variety of detection capabilities such as visible wave-lengths, Evaporative Light Scattering Detectors (ELSD) and mass spectrometry, an internal vapor sensor to alert you of spills or leaks, and a vapor enclosure for the collection racks for bench top operation.

Three Systems to Fit Your Needs

NEXTGEN 300+

Fully featured and ready to go

The **Combi*Flash*® NextGen 300+** features all available performance and safety options. Flow rate range is from 1 to 300 mL/min at operating pressures up to 300 psi (20 bar). The system is fitted with a solid load injection valve that can be bypassed if you decide to perform a liquid injection. RFID technology comes standard and automatically reads the size and type of RediSep or RediSep Gold® column being used for the purification. Based on this information, the proper method parameters are automatically programmed into the system. Simply insert the column, press Play and the separation starts. This same RFID technology automatically reads the rack types being used ensuring there is never a missed or overfilled tube. Active solvent and waste level monitoring is standard on the NextGen 300+ ensuring that the column never dries out and eliminates messy waste overflows.

- **Flow rates** from 1 to 300 mL/min
- **Operating pressure** up to 300 psi (20 bar)

NEXTGEN 300

Customizable for your application

The **Combi*Flash*® NextGen 300** is configurable to your needs. Like the 300+, active solvent and waste level sensing is standard. The system is designed for liquid injections, operating at up to 150 psi (10 bar). If needed, add the solid load injection valve (increases the operating pressure limit to 300 psi (20 bar)) and increase the system's versatility. Similarly, RFID rack and column read can be added if desired. You determine what your needs are; don't invest in unused or unwanted features.

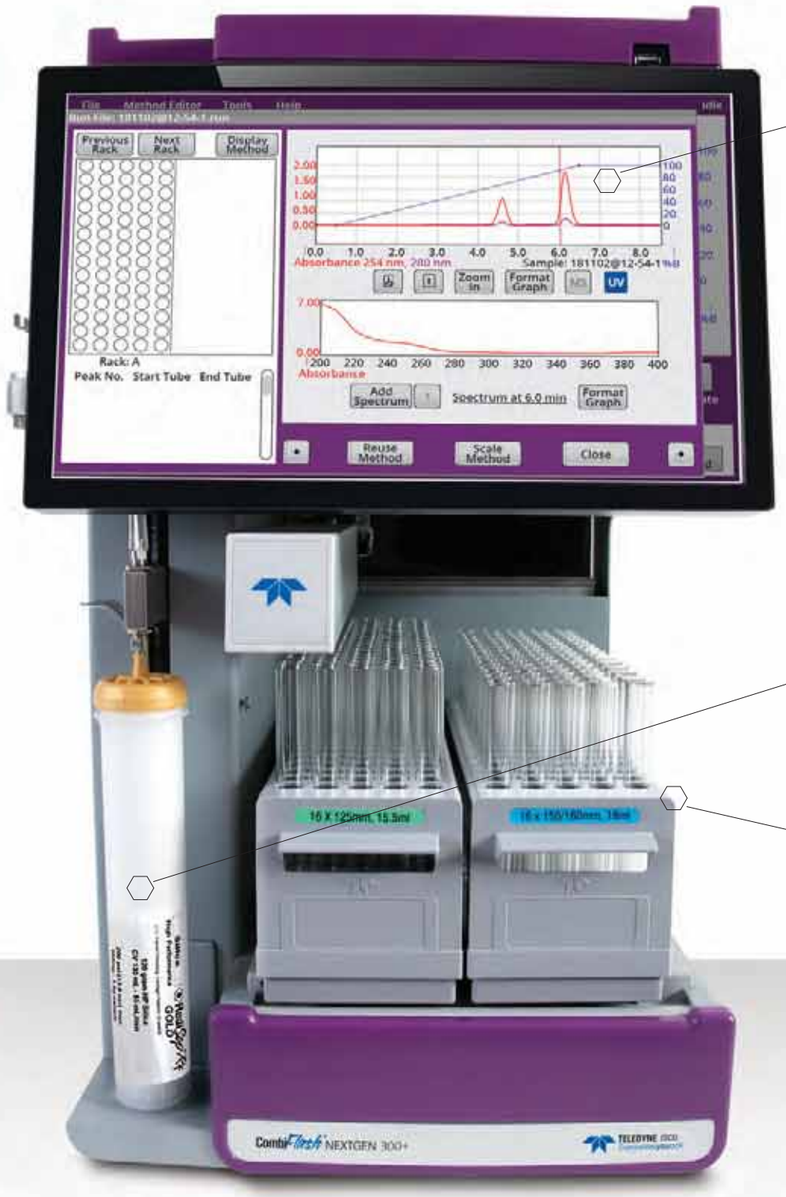
- **Flow rates** from 1 to 300 mL/min
- **Operating pressure** up to 150 psi (10 bar)
  Can be upgraded to 300 psi (20 bar)

NEXTGEN 100

Budget friendly gets the job done

The **Combi*Flash*® NextGen 100** offers flow rates up to 100 mL/min at operating pressures up to 150 psi (10 bar). This economical system is designed to perform both normal and reverse phase purifications.

- **Flow rates** from 1 to 100 mL/min
- **Operating pressure** up to 150 psi (10 bar)



Space Saving Design

- Place all four 4L solvent bottles on top of the units, saving hood space for chemistry
- Uses minimal hood space, only 14.1 inches wide and 17 inches deep including the columns
- Optional vapor enclosure allows for bench top operation

Powerful Easy-to-Use PeakTrak Control

Our intuitive PeakTrak software minimizes the learning curve, enabling the user to efficiently complete their purification, saving time and solvent consumption. Log in through a network connection and control the separation from your desktop.

One Screen Operation

Start a separation in seconds. Select a column based on the amount of sample to purify, allow the RFID tag to load the run parameters, press play, load your sample, and walk away. On-the-fly chromatographic changes are easy to make on the touchscreen, even during the run.

Active Solvent Level Sensing

- Never run a column dry or overfill a waste container

Purify more! Up to 75 g with Higher Flow Rates and Pressure

- Run 750 g columns at flow rates of 300 mL/min (with optional column stand)
- Purify lower solubility samples with higher, 300 psi (20 bar) pressure limit
- Extended dynamic range UV detection and dual sensitivity ELSD detects high sample loads while maintaining sensitivity for smaller samples

Rack Sensing

- System senses what size tubes are being used eliminating potential missed tubes or overfills
- Supports a variety of collection rack sizes so that purified compounds can be collected in volumes appropriate for the column size being used

Photo Diode Array Detection

- UV and UV-Vis detectors use PDA technology
- Display spectra in real time or post run
- Collect based on purity indicators

Mass Directed Purification

- Collect only those peaks matching the mass of your compound
- Eliminate the need for further analysis, save time in post-purification processing

Integrated ELSD to Collect Non-Chromophoric Non-Volatile Compounds

- Integrated into the Combi*Flash*: No additional system footprint
- All parameters programmed based on the solvent used or optimize operating conditions for your separation
- Offers scalability and sensitivity for a wide sample load range

Consumables

RediSep Rf Columns

Economic alternative for your normal-phase separations

- 40–60μm Irregular
- Market Leader
- Industry Standard
- Reliable/Reproducible

RediSep Rf Gold® Columns

Precision-packed spherical media for high resolution and reproducibility

- 20–40μm Spherical
- Load More
- High Purity
- Greener/Faster Separations

RediSep Rf Gold® Reverse Columns

Go green with environmentally friendly solvents and these reusable columns.

- 20–40μm Spherical C18 or C18Aq
- Medium to High-Polarity Compound Separations
- High Polar Compound
- Aqueous/Greener Solvents

Model Specifications

	NEXTGEN 100	NEXTGEN 300	NEXTGEN 300+
PART NUMBER			
12 Inch UV	685250010	685250005	685250001
12 Inch UV-Vis	685250011	685250006	685250002
15 Inch UV	NA	685250007	685250003
15 Inch UV-Vis	NA	685250008	685250004
Column Size Compatible	4–330 gram	4–750 gram	4–750 gram
Large Column Adapter	NA	605394551	605394551
Sample Size Recommendation	10 mg–66 gram	10 mg–150 gram	10 mg–150 gram
PUMP			
Heads	Single HPLC	Dual Syringe	Dual Syringe
Flow Rate	1–100 mL/min	1–300 mL/min	1–300 mL/min
Gradient Formation	Binary Low Pressure	Binary w/3rd Modifier Low Pressure	Binary w/3rd Modifier Low Pressure
Solvents	2 Solvents	4 Solvents	4 Solvents
Pressure Limit	150 psi (10 bar)	300 psi (20 bar) w/injection valve; 150 psi without	300 psi (20 bar)
Gradient Accuracy	2% typical	1%	1%
Air Purge	NA	Standard	Standard
Level Sensing	NA	Standard	Standard
RFID Support	NA	(option) 605257004	Standard
DETECTORS			
Integrated ELSD (Factory Installed)	605257002	605257001	605257001
1200 Dalton Mass Spec	685237083	685237083	685237083
2000 Dalton Mass Spec	685237084	685237084	685237084
ESI Probe	250000129	250000129	250000129
APCI Probe	250000128	250000128	250000128
USER INTERFACE			
PeakTrak software–Lynx OS	√	√	√
Change On The Fly	√	√	√
Software Upgrades–Free	√	√	√
Dimensions	14.1 x 17 x 26 in	14.1 x 17 x 26 in	14.1 x 17 x 26 in
(W x D x H)	36 x 43 x 66 cm	36 x 43 x 66 cm	36 x 43 x 66 cm
Certifications	CE, RoHS	CE, RoHS	CE, RoHS

	NEXTGEN 100	NEXTGEN 300	NEXTGEN 300+
INJECTION OPTIONS			
Injection Valve Electric	NA	(option) 605257003	Standard
5 gram SLCC	605237047	605237047	605237047
25 gram SLCC	605237048	605237048	605237048
65 gram SLCC	605237044	605237044	605237044
FRACTION COLLECTOR			
Maximum Racks	2	2	2
Max Number of 16 mm Test Tubes	150	150	150
13x100 mm	605237013	605237013	605237013
16x100 mm	605237061	605237061	605237061
16x125 mm	605237031	605237031	605237031
16x150 mm	605237032	605237032	605237032
18x150 mm	605237033	605237033	605237033
18x180 mm	605237034	605237034	605237034
25x150 mm	605237035	605237035	605237035
480 mL French Square Bottles	605237040	605237040	605237040
SAFETY			
Vapor Hood Enclosure	605257008	605257008	605257008
Vapor Sensor Option	NA	605257005	605257005
Solvent Level Sensing and RFID	NA	Standard	Standard
Fraction Area Lighting	NA	√	√
Audible Error Alarms	√	√	√

√ *Standard feature*

NA Not available or applicable

Accessories

Not available on all models, see chart.

Large Column Adapter

Supports 750 g, 1500 g, and 3000 g columns (sizes based on silica capacity)

12 or 15 inch Touch Screen

Choose the size that fits best in your lab

Vapor Enclosure

For bench use outside of a fume hood

Mass Spectrometer

Purlon® takes the guess-work out of your purification routine with mass directed purification

Going Green and Saving Time in the Laboratory

The **Combi*Flash*® NextGen** line of systems has been designed to be greener. The NextGen has improved gradient profiles which use less solvent. These solvent savings (up to 50% depending on column size) are seen using the NextGen's optimized default or Redi*Sep* Rf Gold® Resolution methods compared to previous Combi*Flash* systems. Switching to reusable reverse phase media packed columns for purifications provides another step forward in reducing your lab's carbon footprint.

"...another step forward in reducing your lab's carbon footprint."

This line of systems has been designed to be faster. By increasing flow rates while shortening gradient times and eliminating unnecessary re-equilibration steps, the NextGen offers faster methods which increase lab efficiency and throughput. Depending on column size, the time savings can be anywhere from 20–50% using newly optimized default or Redi*Sep* Rf Gold Resolution methods.

Reducing waste in our Chromatography line is just another way we are using our innovative products to increase productivity while improving the quality of life on our planet.

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