

BÜCHI Sepacore™ Flash: Modularity taken a step further

Complicated glass assemblies are still widely used for Flash chromatography. As with the introduction of the revolutionary Rotavapor® for easy evaporation 50 years ago, Büchi now makes chemists life easier with Sepacore Flash – the break-through system for economical, fast and reliable modern Flash separation. The powerful pump-driven purification system improves efficiency and recovery rates whether you opt for the economical and fast method of self-packing your Flash cartridges with our unique Cartridge, or you choose from our range of high quality pre-packed Flash cartridges. BÜCHI Sepacore Flash gives you full flexibility for the optimal solution – today and tomorrow.

3 steps for a fast purification
1. Inject sample
2. Press green start button and adjust flow rate
3. Collect the samples and finish the run by pressing the red stop button.

Solutions for Flash Chromatography from your reliable partner in Rotary Evaporation!

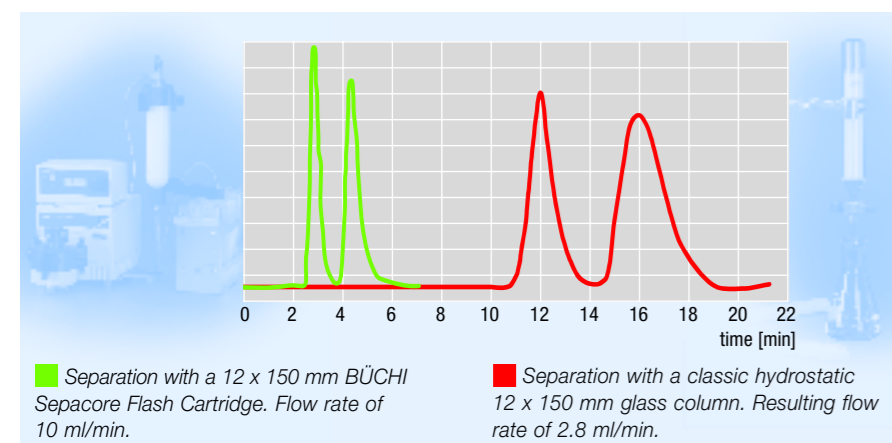
Modules of the Sepacore Flash system

- 1 Solvent Pump System:** Continuous pulse-free flow for increased speed and performance
- 2 Sample Loading Devices:** Convenient loading of liquid or preadsorbed samples
- 3 Cartridges:** High performance and instant use
- 4 Cartridge Adapter Set:** Easy handling and perfect solvent flow through any cartridge
- 5 Collection Rack:** Numbered for easy identification
- 6 Cartridge:** Fast self-packing of cartridges

The Advantages

- **Flexibility:** Portable and modular
- **Performance:** Precise separation
- **Reliability:** Consistent reproducibility
- **Technology:** Continuous flow up to 10 bar (150 psi)
- **Speed:** Fast setup and purification
- **Safety:** Clean way to pack columns
- **Design:** For chemists from chemists in Büchi quality
- **Cleverness:** Safe and reliable operation

Sepacore accelerates the isolation of chemical compounds



BÜCHI Flash Solvent Pump Systems – Small investment with immediate payback

Brilliant ideas are often simple. The new Sepacore Flash solvent pump system is brilliant, offering the maximum in simple and intuitive operation based on a unique modular concept.



Simple Flash System

System for **isocratic Flash separations**. Includes:

- **Pump Module C-601:** Continuous flow of solvents up to 250 ml/min at max. 10 bar (150 psi), chemically resistant and biocompatible
- **Pump Controller C-610:** Comfortable and easy adjustment of flow rate; with LCD-display
- System Stand for space saving attachment of cartridges via cartridge adapter set
- All tubing, fittings and ferrules included for fast and complete installation

Order No 45221



Gradient Flash System

System for **binary gradient Flash separations**. Includes:

- **2 x Pump Module C-601:** Continuous flow of solvents up to 250 ml/min at max. 10 bar (150 psi), chemically resistant and biocompatible
- **Pump Manager C-615:** Controls one or two pump modules; easy and intuitive setting and programming; with graphical LCD-display; calculation of time and solvent consumption; allows formation of precise binary solvent gradients from 0% – 100% for total flow rates of 2.5 – 250 ml/min; supports six languages.
- System Stand for space saving attachment of cartridges via cartridge adapter set
- All tubing, fittings and ferrules included for fast and complete installation

Order No 45230

Flash Systems shown with optional Injection Valve, Cartridge, Cartridge Adapter Set and Rack FC 60.

Sample Loading Devices

		Order No
1	Injection Valve	44850
2	4 Way Injection/Purge Device	45256
3	Injection Unit	44851
4	Sample Loop 20 ml	44852
	Sample Loop 5 ml	45222

BÜCHI Sepacore™ Cartridge System C-675 – High-performance prepacked Cartridges

Fundamental for every reliable Flash separation are high quality cartridges. Büchi Sepacore prepacked Flash Cartridges give you the optimal performance and comfort you need for Flash purification.



The Advantages

- **Rigid, transparent cartridges** – for visible and reproducible fast purifications of up to 10 bar (150 psi) without compression module
- **High quality silica gel** – resulting in improved separation, performance and transport stability
- **Application oriented design** – excellent flow characteristics combined with a leak-free connection system
- **Quality Control** – Lot.-Nr. and quality certificate for clear quality tracing of each cartridge
- **Individually sealed cartridges** – for extended storage and optimal handling
- **Robust and shock absorbing transport case** – reduction of shipping damages

Ordering Information

BÜCHI Cartridge System C-675				
Packing Material	Prepacked Cartridges filled with silica gel 40 – 63 µm particle size and 60 Å pore size (Si60)			
Materials of Cartridges	Chemically resistant high transparent Polypropylene (PP)			
Material of Frits	Porous HD-Polyethylene			
Cartridge inner diameter (ID)	12 mm	12 mm	40 mm	40 mm
Cartridge length	75 mm	150 mm	75 mm	150 mm
Used for sample range	up to 200 mg	up to 400 mg	up to 1 g	up to 5 g
Resulting packing weight with Si60 (40 – 63 µm)	4 g	8 g	40 g	90 g
pre-packed cartridges Si60:				
Set of				
Order No	44884	44885	44886	44887

Other stationary phases on request.



Cartridge Adapter Sets and Collection Racks



	Order No		Order No
Cartridge Adapter Set for fast installation of cartridges incl. tubings and fittings.	44814	Prep Elut Adapter Set For solid, preadsorbed sample application. Used with 12 mm Cartridges of 75 mm length for sample volumes of 1 – 9 ml or of 150 mm length for 9 – 18 ml. Incl. 2 cartridges 75 mm and 150 mm each and tubings and fittings.	44877
Cartridge Adapter Set 12 mm PP	44814	Rack FC30 for 30 Tubes of 26 mm diameter (without tubes)	45201
Cartridge Adapter Set 40 mm PP	44815	Rack FC60 for 60 Tubes of 16 mm diameter (without tubes)	45200
Cartridge Adapter Set 25 mm Glass	45235	20 x Glass Tubes 50 ml for FC30 (diameter 26 mm, h: 185 mm)	44961
Adapters for connecting a cartridge adapter set to a competitive System.	44027	100 x Glass Tubes 20 ml for FC60 (diameter 16 mm, h: 160 mm)	44962
Büchi – Biotage Adapter	44027		
Büchi – ISCO Adapter	45251		
Büchi – Jones/Argonaut Adapter	45250		
		Tubing Fitting Set 10 x 1/4 UNF-28 fittings D:1/8; 20 x ferrules 1/8; 10 x ferrules 1/16; 5 x 1/4 UNF-28 fittings D:1/16; 2 x adapter 1/4 UNF-28 (female) - M6 (male); 5 x union 1/4 UNF-28 to 1/4 UNF-28 (female/female); 1 x tube cutter; 1 x wrench for all fittings.	44021

BÜCHI Cartridge™ C-670 – Always ready when you are

Sepacore Flash offers you the choice between two perfect solutions: BÜCHI Cartridge C-670 – the economical, fast and safe way to self-pack your high quality cartridges when you need them – or the range of BÜCHI prepacked Cartridges C-675.



(see demo video www.synthesis.buchi.com)

Pack your cartridge when you need it and avoid storage or transport damage of cartridges. The method is very simple: Fill your choice of silica gel in the glass vessel, connect the Cartridge to vacuum (<20 mbar) and compressed air/gas (~1 bar) and **pack your cartridge in less than one minute!** We offer four different sizes of empty, highly transparent, chemical resistant disposable polypropylene (PP) cartridges or a reusable glass cartridge for packing with the Cartridge C-670.

The Advantages

- **Fast, safe and clean packing** – With the innovative proprietary Cartridge packing technology (patent pending)
- **Cost savings of up to 50 %** compared to prepacked cartridges – The economical solution for your separations
- **High performance cartridges** – Thanks to a homogenous packing
- **Outstanding reproducibility** – No compromise needed between separation performance and transport stability
- **High flow rates at pressures of up to 10 bar (150 psi)** – Possible due to our rigid and transparent cartridge tubes
- **High flexibility** – For stationary phases with a particle size of 30 – 200 µm
- **Various cartridge options** – 4 sizes of cartridges for sample amounts between 1 mg and 5 g

Cartridge C-670 cpl.	Order No
for packing of 12 mm and 40 mm PP cartridges	44500
for packing of 25 mm glass cartridges	45280



Order No
25 mm Glass Cartridge for packing with the Cartridge. Inner diameter 25 mm, length 150 mm, for samples up to 1.5 g, incl. 50 frits 45274
Set of frits for 25 mm Glass Cartridge, 50 pcs. 45272

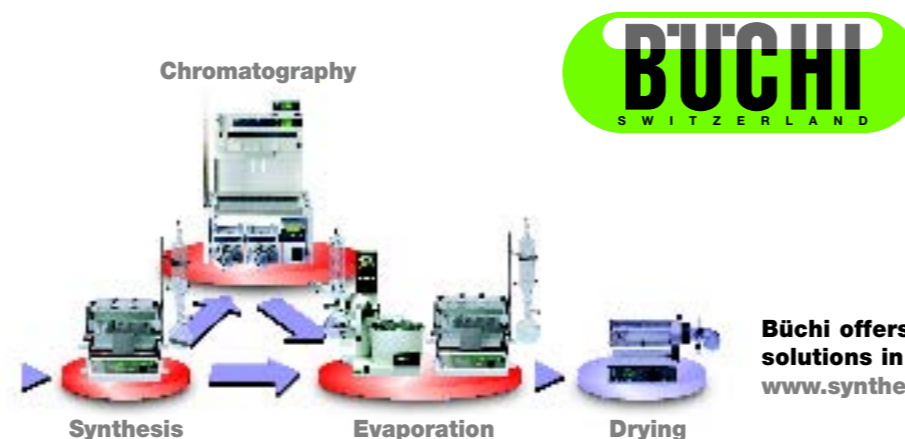


Cartridges for packing with the Cartridge™ C-670

High transparent, chemical resistant polypropylene cartridges (PP) including porous HD-polyethylene frits for packing with the BÜCHI Cartridge™ C-670.

Cartridge inner diameter (ID)	12 mm	12 mm	40 mm	40 mm
Cartridge length	75 mm	150 mm	75 mm	150 mm
used for sample range	up to 200 mg	up to 400 mg	up to 1 g	up to 5 g
resulting packing weight with Si60 (40-63 µm)	4 g	8 g	40 g	90 g
order code	50 cartridges incl. frits 44880	50 cartridges incl. frits 44881	50 cartridges incl. frits 44882	50 cartridges incl. frits 44883

Optional Accessories:	Order No
Cover Tool set for packing 12 mm and 40 mm PP cartridges	45275
Cover Tool set for packing 25 mm glass cartridges	45276
Büchi Vacuum Pump V-500	Inert PTFE membran pump, suction volume 1.6 m³/h, end vacuum < 10 mbar. 230 V / 50 Hz Order No. 37340 ; 230 V / 60 Hz Order No. 38404 ; 120 V / 50/60 Hz Order No. 37339 ; 100 V / 50/60 Hz Order No. 38050
Air Maintenance Unit	Compressed air maintenance unit. Unit to free compressed air from oil, excess water and organic contaminants. 04366



Büchi offers a broad range of laboratory solutions in high quality.
www.synthesis.buchi.com

Technical specifications

BÜCHI Cartridge™ C-670	
Order No.	44500
Dimensions (W x H x D)	220 x 315 x 450 mm
Cartridge size	all Cartridges C-675
Power consumption	none
Main voltage	none
Requirements	oil free pressurised gas/air (-1 bar (15 psi), flow: ~200 l/h) vacuum source: vacuum flow ≥ 1 m³/h vacuum ≤ 20 mbar (15 mm Hg)
Hose connections	ID 6 mm for pressurised gas/air and vacuum
Dimensions (W x H x D)	220 x 315 x 450 mm
weight empty	7.5 kg

BÜCHI Pump Module C-601	
Order No.	44100
Function	Compact pulsation free 3-piston Pump Module. Chemically resistant and biocompatible. Flowrate 2.5 – 250 ml/min.
Pressure Range	0 – 10 bar (0 – 145 psi)
Design	Radially arranged 3 piston pump
Flowrate	2.5 ml/min – 250 ml/min
Flow Rate Accuracy	± 2 %, Calibration possibility for solvents and temperature ± 0.5 %
Reproducibility	± 0.5 %
Materials in contact with solvent	PEEK, ruby, ceramic, FEP
Pump Head	Built-in piston rinsing
Main Voltage	100, 120, 230 V +/- 15 % 50/60 Hz
Dimensions (W x H x D)	160 x 153 x 305 mm
Certificates	CE; UL/CSA(NRTL/O) pending

BÜCHI Pump Controller C-610		BÜCHI Pump Manager C-615	
Order No.	44200	Order No.	44210
Function	Pump Controller for isocratic separations with Pump Module C-601. Convenient settings and indication of the flowrate on LCD-display.	Function	Pump Manager controls up to two Pump Modules C-601 or C-605 for the formation of precise binary gradients. Calculation of time and solvent consumption. Intuitive setting and programming. Large backlit graphical LCD-display. Various inputs/outputs for optional accessories like level sensors or solvent valves. With two Pump Modules C-601 or C-605 from 0 % – 100 % B for total Flow Rates of 2.5 – 250 ml, Linearity ± 2 %
Gradient Function	–	Gradient Function	–
Display	Backlit 3 x 7-, Segment LCD-display	Display	Backlit graphical LCD-display, 128 x 64 Pixel (58 x 29 mm)
Dialog Languages	–	Dialog Languages	E / D / F / I / SP / J
Power Supply	24 V DC from Pump Module C-601	Power Supply	24 V DC from Pump Module C-601/C-605
Connectors	1 x RS-485 (system bus) 1 x Mini-DIN (TTL In/Out for alarm line and/or ext. start)	Connectors	1 x RS-485 (system bus) 1 x RS-232 (process data output) 1 x Mini-DIN (TTL In/Out for alarm line and/or ext. start) 1 x Mini-DIN (pressure sensor) 2 x Mini-DIN (optional level sensor) 2 x Mini-DIN (solvent valve)
Dimensions (W x H x D)	150 x 80 x 120 mm	Dimensions (W x H x D)	150 x 80 x 120 mm

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Innovative Solutions for Flash Chromatography



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