

# Pure Chromatography Systems Pure space. Pure safety. Pure simplicity.







## **Pure Systems**

## The simple and space saving separation solution

The Pure chromatography systems are extremly compact, ensure safety on the highest level and are easy to use for any flash or prep HPLC application. The platform has been designed to get more purification into less space, protect you and your sample and to achieve best results in the most convenient way.



Space Saving

Compact and clever design



**Safe Operation** 

Protection of the lab staff, their research and working environment



Simple to Use

Intuitive and convenient operation

The Pure instruments enable efficient use of lab space. Several features make them fit in any limited environment:

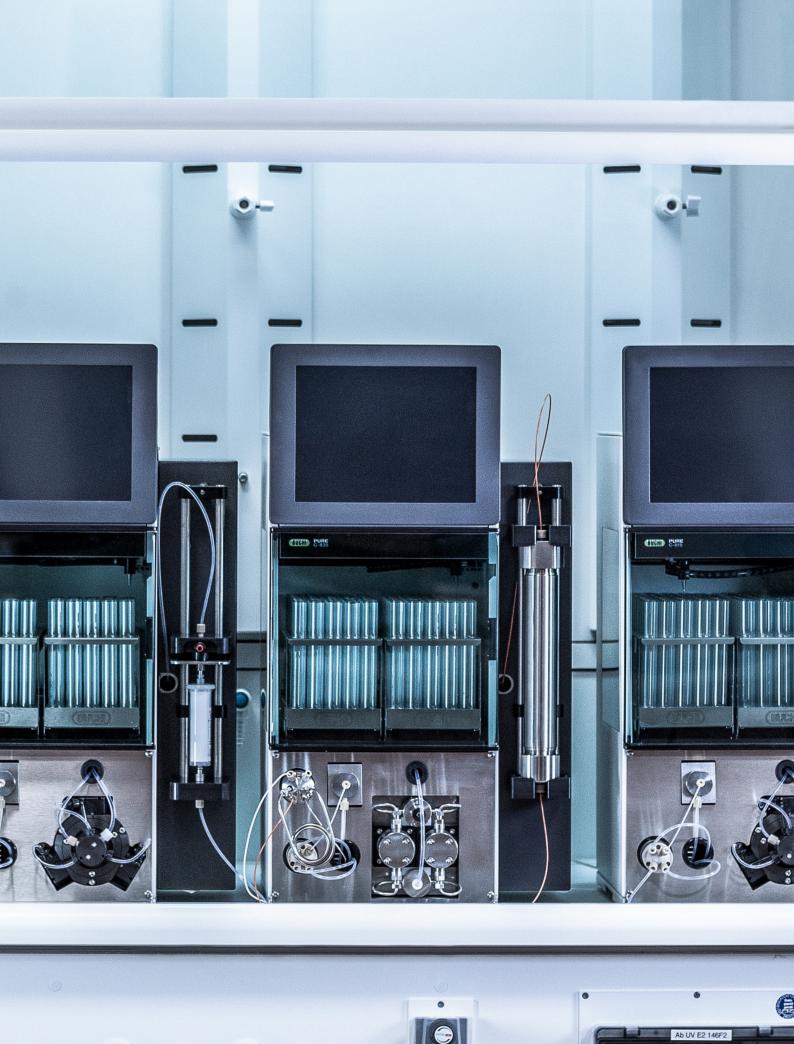
- Small footprint and an extra solvent platform
- Cartridge/ column holders on the front of the system
- · Integrated UV and ELSD
- Flash and prep HPLC in one system

Safety comes first! Therefore BUCHI developed and combined numerous state-of-the-art technologies for Pure:

- Closed fraction collector bay ensures clean air in the lab
- Leak and pressure sensors for safe operation
- · Remote control reduces exposure to the lab environment

Ease of use is what stands out in all Pure instruments. Key elements are:

- The software interface follows a proven logic
- The integrated ELSD technology is most user-friendly
- · The sample injector is universal
- All important parts are easily accessible for cleaning or maintenance











## **Space Saving**

## Compact and clever design

Lab space has a significant impact on costs. Hence, Pure offers a winning combination of high performance, superior quality and compact instrument size.

### Save space on your bench thanks to a small footprint

Pure is one of the smallest chromatography systems on the market. With a minimum width, it frees up bench space for storing your sample, consumables or other lab equipment. An extra solvent platform on top provides space for four bottles, eliminating the need to keep them on the bench.

The cartridge / column holders are positioned in front of the Pure instruments so that they are easily accessible and their side parts are free.

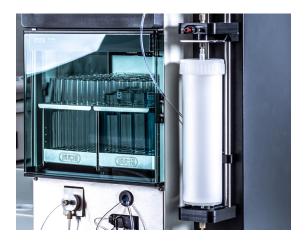
### Maximize your lab space with multifunctionality

With the Pure platform, it is possible to combine different techniques in one system without sacrificing features or functionality:

- · Flash and prep HPLC: pre purification and high resolution step
- · UV and ELS detection: detection of any compound (chromophoric and non-chromophoric)

These dual capability-instruments gives chemists highest flexibility and allow them to maintain hands-on control throughout the whole process in one single laboratory.

### Cartridge / Column holder



### Solvent platform





## **Safe Operation**

## Protects users, samples and environment

Any lab contains significant risks and the prevention of laboratory accidents requires great care. Pure has been designed to make chromatography safe for everybody.



## Enjoy clean air using a fume enclosure

Even though every lab is equipped with a fume hood, its space is rather limited and used mainly for chemical reactions.

The Pure instruments can be operated safely even outside of a fume hood as they are all equipped with a fume enclosure at the fraction collector and are capable of active ventilation.



### Reduced exposure to chemicals with remote control

Any scientific workplace has a considerable potential for health hazards and risks. The best prevention is to spend as little time as possible in a lab. The Pure remote control allows the user to monitor and to control their purification from a PC, tablet or smartphone.



## Feel safe with your system thanks to automatic monitoring and settings

The highest level of protection should be granted to the user, the sample and the system itself. All Pure systems are equipped with sensors monitoring the vapor, pressure and the solvent level in the bottles during the whole purification run. Thanks to the RFID technology on the cartridges and the racks, potential risks of wrong settings (e.g. max pressure) are eliminated.



## Simple to Use

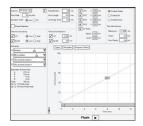
## Intuitive and convenient operation

The purification of a compound is time intensive and usually includes the handling of several different instruments. Consequently, the user attemps to minimize the time to get the device or the method running. The simple operation of the Pure instruments streamlines the purification process and makes it highly efficient.



### Flexible sample injection thanks to a smart design

The sample injection modes are as diverse as the applications themselves. Pure offers convenient ways for both liquid and solid injection. The universal flash cartridge holder allows the user to choose between bottom-top or top-bottom injection.



## Minimized time for user training thanks to its simple software

All Pure systems can be easily and safely operated thanks to its dedicated software. With a single programming screen featuring simple run controls the time to train a user is minimized. Single click to switch between flash and prep HPLC mode, simplified method optimization (Pure Navigator Software), quick parameter modification during a run and auto-recognition (RFID) of racks and cartridges help to achieve the best purification results, whether you are an expert or not.

### Make all your compounds easily visible with ELSD

Control of the integrated ELSD is beyond simple:

- · No temperature control or cleaning needed
- · Eluent split to ELSD is delivered using a gas stream so no additional pump or solvent required
- · Software-selectable sensitivity

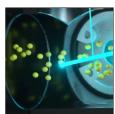
Since ELSD is a disruptive technique, sample diverted to ELSD is lost. With 30  $\mu$ l / min, the Pure ELSD features the lowest sample loss in the market.







Evaporation



Detection

## **Product Overview**

## The best solution for your need

	C-805	C-810	C-815	C-830	C-835	C-850
Method						
Flash	•	•	•	-	-	•
Prep HPLC	_	_	-	•	•	•
Pump						
3 piston pump	•	•	•	-	-	-
HPLC pump	_	_	-	•	•	•
Flow rate [mL / min]	250	250	250	100	100	250 100
Max pressure [bar]	50	50	50	300	300	300
Air purge	_	•	•	-	-	•
Solvent lines	2	4	4	4	4	4
Sample injection						
Direct liquid injection on cartridge	•	•	•	-	-	•
Liquid loop injection	_	_	-	•	•	•
Solid	Optional	Optional	Optional	-	-	Optional
Flash cartridge holder (≤ 330 g)	•	•	•	-	-	•
Flash cartridge holder (750 – 5000 g)	Optional	Optional	Optional	-	-	Optional
Prep HPLC column holder (≤ 30 mm ID)	_	_	-	•	•	•
Prep HPLC column holder (50 – 70 mm ID)	_	-	-	Optional	Optional	Optional
Detectors						
UV scan function	_	•	•	•	•	•
UV wavelengths	2	4	4	4	4	4
UV spectra [nm]	200 – 400	200 – 800	200 – 800	200 – 800	200 – 800	200 – 800
ELS detection	<del>_</del>	_	•	_	•	•
Discouries M/ D 115	005, 570, 000	005 5	70000		70000	005, 570, 000
Dimension WxDxH [mm]	365x570x680		70x680		70x680	365x570x680
Item Number	11C80500	11C81000	11C81500	11C83000	11C83500	11C85000

## Which system matches your task?

## Purification of a low complexity sample

- Low complex samples show easy or reasonable separation between the peak of interest and impurities
- Usage of medium to big size (15 60 µm) particles are the most economic solution for standard applications

## Purification of a high complexity sample

- High complex samples are difficult to separate and show partially overlapping peaks
- Usage of small size (5 15 μm) silica particles needed, which give excellent resolution (= purity) but generate high back pressures

## Injection of small to high sample concentrations

 Sample concentrations up to 300 g

## Injection of small sample concentrations

Sample concentrations up to 1 g

## **Detection of chromophoric** compounds

- Chromophoric compounds absorb light wavelength in the UV or visible wavelength range (200 – 800 nm)
- Compounds suitable for UV detection typically contain unsaturated bonds, aromatic groups, or functional groups containing heteroatoms

## **Detection of non chromophoric compounds**

- Non chromophoric compounds do not absorb light and therefore can't be visualized via an UV detector
- · Typical compounds are carbohydrates
- Non chromophoric compounds can be detected via evaporative light scattering (ELS) detection

## Pure C-815 Flash



**ELSD** flow splitting

**3 piston pump** 50 bar, 250 mL / min

Flexible cartridge holder

## Pure C-850 FlashPrep



**ELSD flow splitting** 

Prep HPLC pump 300 bar, 100 mL / min Column holder

## **Accessories**



## **Dry Air Supply**

The Dry Air Supply simplifies the operation of the Pure system by producing particle-free dry air on demand without the need for operator attention. Air is used in the Pure system to carry sample to the ELS detector and to purge solvents out of spent cartridges and sample loaders.

Pure Dry Air Supply unit	11069026
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## Solvent platform

The Pure system is equipped with an extra solvent platform on top which provides space for four bottles. This allows for better use of available space and reduces risk of spills.

Pure Solvent bottle platform kit	11069285
Pure Retaining container	11068468



#### **Racks**

The fraction collector of the Pure systems is compatible with several different sizes of racks and glass tubes, which enable an optimal collection depending on the fractions sizes. All racks get automatically identified by the Pure system via an RFID tag.

Pure Rack type 1 for 12 × 75 mm glass tubes (1 pc)	11066672
Pure Rack type 2 for $13 \times 100$ mm glass tubes (1 pc)	11066673
Pure Rack type 3 for 16 × 125 mm glass tubes (1 pc)	11066674
Pure Rack type 4 for 16 × 150 mm glass tubes (1 pc)	11066675
Pure Rack type 5 for 18 × 150 mm glass tubes (1 pc)	11066676
Pure Rack type 6 for $25 \times 150$ mm glass tubes (1 pc)	11066677
Pure Rack type 7 for squared bottles (ø 65 mm) (1 pc)	11068452
Pure Rack type 8 for funnels (ø 50 mm) (1 pc)	11069407
Pure Rack type 9 for 16 x 100 mm glass tubes (1 pc)	11069242



## Loops

In the prep HPLC mode, the sample is loaded into a stainless loop before it gets automatically transferred to the column. Three different loop sizes can be selected for the Pure systems.

Pure 2 mL sample loop	11068476
Pure 5 mL sample loop	11068205
Pure 10 mL sample loop	11068206
Pure 20 mL sample loop	11069768
Pure 50 mL sample loop	11069799



## Integrated big size cartridge holder

The Pure systems enables work with big size cartridges (750 - 5000 g) and prep HPLC columns (50 - 70 mm ID) which can be connected via an integrated holder.

Pure cartridge holder XXL	11070532
Pure column holder XL	11068467



### Solid loader hardware

The Pure platform offers a specific solution for solid loading, which allows an easy and flexible filling of the sample in an empty tube and connection directly to the Pure system. This equipment can handle up to 50 bar (725 psi) and therefore provides maximum flexibility.

Pure Solid loader S set, incl. adapter set, sleeve, tubes (20 pcs) and frits (40 pcs)	11068975
Pure Solid loader M set, incl. adapter set, sleeve, tubes (20 pcs) and frits (40 pcs)	11070505
Pure Solid loader frits S (40 pcs)	11068969
Pure Solid loader frits M (40 pcs)	11069654
Pure Solid loader tubes S (20 pcs)	11068971
Pure Solid loader tubes M (20 pcs)	11069653
Pure Solid loader insertion rod S (1 pc)	11068973
Pure Solid loader insertion rod M (1 pc)	11070569



## **Pure Consumables**

## More focus on your application

The Pure consumable portfolio offers an unrivaled range of products for any flash and prep HPLC application. Extra features and tools ensure optimal results even for challenging separations without compromising on convenience.



**High Flexibility** 

Multiple solutions for flash and prep HPLC applications

The wide range of Pure consumables cover any need:

- · Flash cartridges
- · Sample loader
- · Prep HPLC columns
- · Glass columns

The consumables are available with numerous stationary phases and dimensions. Furthermore all are compatible with any leading flash or prep HPLC systems on the market.



**Specialized Solutions** 

Features that go beyond your expectations

Some applications require specialized equipment. Therefore BUCHI offers customized solutions:

- Glass columns for loading capacities ≥ 300 g
- Solid loader equipment resistent up to 50 bar (725 psi)
- · 70 mm ID prep HPLC columns for large scale purifications



**Maximum Convenience** 

Development of a flash method in no time

Valuable tools make the setup of a flash purification run easier and faster:

- The digital tool FlashPure Scout helps to select the cartridge that best fits your needs
- The TLC to flash navigator software simplifies method optimization

Thanks to the RFID tag on the flash cartridges, important parameters of a run get automatically transferred to the Pure system.



## **Pure Consumables**

## Portfolio



#### **FlashPure**

FlashPure cartridges are offered in a wide range of sizes, covering different stationary phases, particle sizes and geometries. This enables the user to choose the flash cartridge which best suits his purification needs.



## **PrepPure**

PrepPure HPLC columns are filled with high quality silica and enable the performance of high resolution separations. Easy scalability from 4.6 – 70 mm ID and phases for standard and targeted applications make PrepPure the obvious choice for best results.



### **GlasPure**

When a purification has to be scaled up, GlasPure offers maximum flexibility in terms of scale and separation requirements. The glass columns are designed for sample amounts over 300 g and pressure up to 50 bar (725 psi).



### Sample Loader

The type of sample loading on a flash cartridge or a prep HPLC column has a big impact on the final purification results. With the Pure sample loading portfolio, the chemist has the choice between several convenient options.



## **Service & Training**

## **BUCHI Service packages**

## **BUCHI START - The highest efficiency from the very beginning**

From a professional installation all the way to a trouble and worry free agreement that will leave you with total cost predictability at the highest possible efficiency. <a href="https://www.buchi.com/start">www.buchi.com/start</a>

#### «Install»

- · Product set-up and testing
- · Hands-on training from a certified technician
- · Evaluation of the immediate surroundings of your new product
- · Best integration of your new product into the existing infrastructure

#### «IQ/QQ»

- · Product or system installation
- · Installation and Operational Qualification

#### BUCHI EXACT - Certified accuracy for highest level of confidence

It is the professional and comprehensive qualification of your BUCHI product. We perform qualification services on a level that can only be achieved by the Manufacturer. www.buchi.com/exact

#### «OO»

· Our one-time OQ service will provide you with the necessary documents and certificates. The service team remind you about the possibility for a follow-up OQ before the certificates expire.

#### «OQ Circle»\*

 Buying an OQ package instead of Individual OQs will grant you an additional discount on the documents, put you on top of the priority for service relevant topics and give you the piece of mind that BUCHI will take care of the scheduling aspects of the visits.

### **BUCHI CARE - Unbeatable Reliability**

Maintaining a heavily used device requires different parts and inspection frequencies than units that are operated occasionally. Our approach takes factors like these into consideration to provide you with an optimal yet cost-efficient solution.

· They are tailored for your required amount of visits

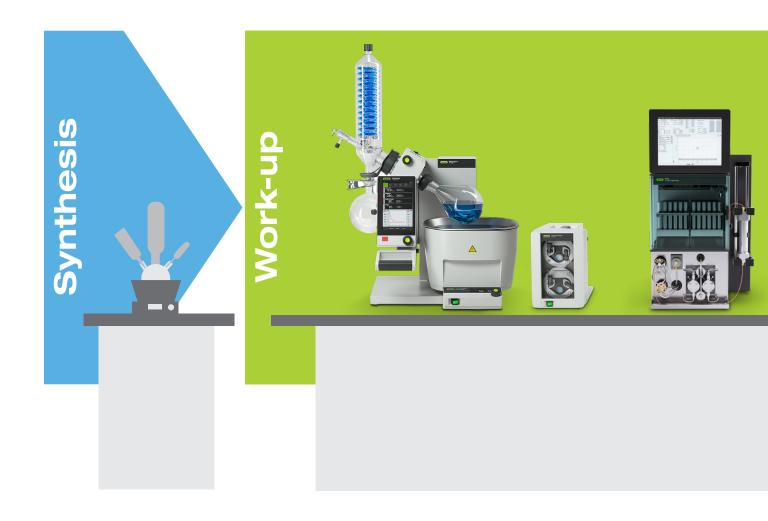
Learn more on www.buchi.com/care

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## Complete your portfolio

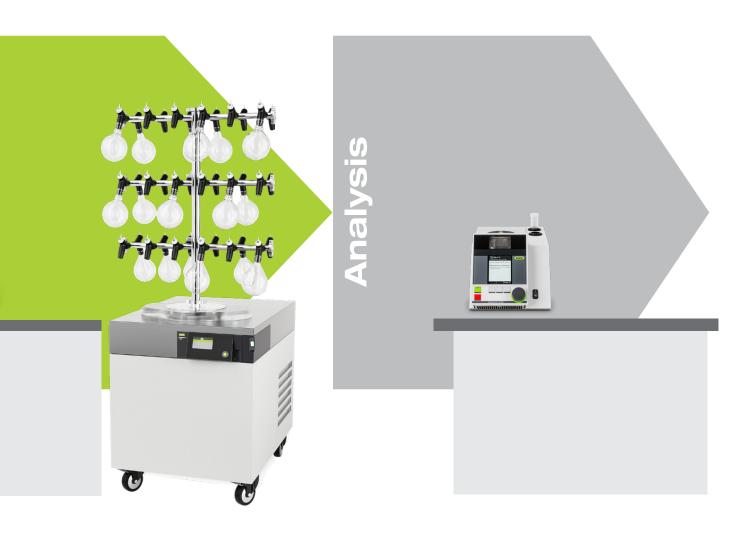


### **Evaporation**

We offer dedicated solutions for laboratory rotary evaporation for R&D or quality control. Based on our experience and knowledge, we offer tailor-made solutions to cover a wide range of distinct needs and achieve highest convenience.

## Chromatography

Whatever the complexity or the scale of your purification process is, the BUCHI preparative chromatography systems are designed to fulfill your changing needs. Together with a broad range of high performance flash chromatography columns, we provide you the optimized solution suited to your purification workflow.



## **Freeze Drying**

Our first laboratory Freeze Dryer with Infinite-Technology™ and Infinite-Control™. Applications range from R&D to quality control within a broad spectrum of market segments. Our solutions stand out by their efficiency and practical capability.

## **Melting Point**

To determine your melting and boiling points with high accuracy, visual or automatic determination and optional qualification packages meeting highest regulatory standards.

## Core messages to our customers

## BUCHI creates added value

«Quality in your hands» is the guiding principle that shapes our philosophy and our actions. It challenges us to provide outstanding services that are precisely tailored to your needs. This means that we must stay in close contact with our customers. That is why we keep in touch and continue to work very hard to understand you and your business even better.

We help you by providing high-quality products, systems, solutions, applications and services that offer you added value. This allows you to focus entirely on your processes and your work.



## Competent

We have the technological expertise and decades of experience needed to provide competent support and work with you to continually improve our services.



#### Reliable

We guarantee the quality and functionality of our equipment and will continue to help you quickly and efficiently whenever something does not operate to your satisfaction.



#### Safe

By collaborating closely with you, we do everything in our power to make our products, systems, solutions, applications and services as safe as possible for people and the environment.



#### **Cost-effective**

We strive to create a high level of economic benefit and maximum added value for you.



#### Global

As an international family-owned business with own subsidiaries and qualified distributors, we have a presence wherever you are located.



#### **Easy**

We support you by providing carefully designed solutions as well as instruments and systems that are easy to operate.



## Sustainable

We support environmentally friendly processes and manufacture products that have a long service life. We utilize advanced technologies to leave the smallest environmental footprint possible.

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