

**Advanced  
instruments  
for your  
Chemistry**



**ChemSPX**

## Brands we represent



**Syrris** is a world leader in modular flow and batch chemistry reactor systems: applications including process development, drug discovery, calorimetry, crystallization and filtration.



**AGI Glassplant** engineered reactor systems for chemical processing: From laboratory to pilot plant and manufacturing scale. Off-the-shelf, as well as custom-made products.



**StoliChem** leverages extensive expertise in continuous chemical reactors from lab to production scale. StoliChem is our supplier of Scalable Agitated Baffled Reactors (SABRe), a series of continuous stirred tank reactors (CSTRs).



**Dolomite Microfluidics** provides microfluidics-based solutions for a wide range of applications, including drug encapsulation, droplet manufacturing, and particle generation. This includes application-specific systems, microfluidic components and custom devices.



**Emulseo** is specialized in the production of chemical formulations necessary to make microparticles potentially to be used in every microfluidic system on the market.

## Particle Works

**Particle Works** produces platforms for nanoparticle generation from screening to production. These nanoparticles are an excellent delivery method for vaccines, drugs, gene therapies and other APIs.



**ThalesNano** is widely recognized for its expertise in transforming chemical processes, with temperatures up to 450°C and pressures up to 200 bar, with both liquids, gasses (in situ made H<sub>2</sub> or gasses in bottles) and solids, to continuous flow operations.



**CEM** is the leading provider of microwave instrumentation for synthetic chemistry.



**Teledyne ISCO Chromatography** product line includes (FLASH/PREP-LC and PREP-SFC) instruments and accessories for the purification of organic compounds in normal-phase and reversed-phase, and for the isolation of proteins, peptides, and biopolymers.

**Teledyne ISCO Pumps** these rugged, do-anything pumps solve your toughest fluid delivery problems, from micro-flow to scale-up and pilot plant, pumping corrosive liquids, in a safe operation.



**Lauda** is the world's leading provider for high-precision temperature control for chemical processes.



**Teledyne Hanson** specializes in the design and manufacturing of dissolution testing, automated diffusion testing and disintegration instruments for the pharmaceutical industry.

## Foreword

ChemSPX, part of BRS, is an exclusive distributor of high-end lab instruments in the field of Chemical Synthesis and Purification. Our suppliers play a leading role as their products are designed to ensure the success of your chemistry.

We can deliver ready-made or custom-made solutions tailored to your specific applications. Don't hesitate to contact us with your needs. We are always open to discuss your projects and search for the best approach.

Our sales and support Xperts are directly trained by manufacturers to ensure they have in-depth knowledge of our entire product range. This hands-on expertise allows them to provide the best possible guidance and support to our customers.

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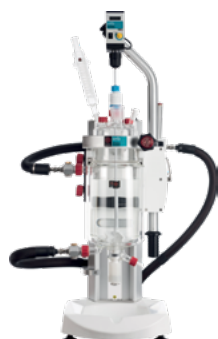
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## Batch synthesis From lab scale to pilot scale

### Atlas HD Automated Reactor System

- Fully automated control of parameters
- Vessel range: 50ml to 5L
- Temperature range: -90°C to +250°C
- Captures process data
- Intuitive Touch Screen
- High performance hotplate or circulator temperature control and stirring are optional
- Available in different configurations e.g. for crystallization & calorimetry



### ORB Affordable Reactor System

- Wide range of vessels: from 100ml to 10L
- Maximum chemical resistance: all wetted parts are glass or PTFE
- Temperature range: from -90°C to +250°C
- Pressure range: vacuum (50 mbara) to 0.25 bar
- Quick vessel change, no tools needed



### ORB PILOT effortless SCALE-UP

Wide range of vessels: 10L, 20L, 30L and 50L

- Rapid vessel change: easy motor lift
- Detachable bottom outlet valve: easy cleaning and maintenance
- Temperature range: from -40°C to +235°C
- Rapid change baffles: enables high performance stirring across a wide range of viscosities



Check pages 22 & 23 of this brochure for our thermostats



## Batch synthesis Pilot Reactors

# AG!

The AGI Glassplant Sakura Pilot Reactor Family is the next generation of premium pilot reactors. Featuring the latest reactor vessel technology, enhanced performance, and improved efficiency, Sakura and Sakura Mini offer everything you need to scale up your chemical process with ease.

### Sakura Mini Pilot Reactor

Sakura Mini gives you flexibility without compromise, with a range of interchangeable 10-30L vessels.



- 10L, 20L and 30L double or triple wall vessels
- Cyclone vessel technology as standard
- Quick vessel change
- Small footprint
- High performance stirring
- Liftless stirrer coupling
- Operating temperature: -90°C to +230°C



### Sakura Pilot Reactor

Premium pilot reactor featuring vessels of up to 100L.



- 50 and 100L double or triple wall vessels
- Cyclone vessel technology as standard
- Ring baffle vessel technology upgrade
- Superior vessel geometry
- High performance stirring
- Liftless stirrer coupling
- Operating temperature: -90°C to +230°C



Real-time control & monitoring of any pilot scale reactor and connected devices from a laptop or tablet.

- Modular & scalable design: hub + DAQ (data acquisition) system with customizable connectivity modules:
  - Serial (RS232)
  - RTD (Pt-100 sensors)
  - Thermocouple (K-type & T-type)
  - Digital out (valves, heaters, binary devices)
  - Analog in/out (4–20 mA & 0–10 V protocols)
- Capture and store data from up to 32 devices (.csv format)
- OPC-UA (Unified Architecture) communication protocols
- Built-in safety features through alarms and standby behavior
- Lifetime software license including any future updates



## 6 Hub

The Hub controls all processes and logs the data. It physically connects to the DAQ and wirelessly connects to the laptop or tablet running the Pilot Reactor Controller software.



## DAQ

The DAQ offers five customizable communication ports that can connect to a vast range of devices. Each DAQ has 16 connection ports.



## Software interface

All your devices are controlled via an intuitive drag and drop software interface that can support multiple users.

## Unlock the power of your reactor



Works with any reactor



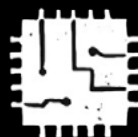
Easy-to-use lab control software



Saves lab time



Simple yet scalable

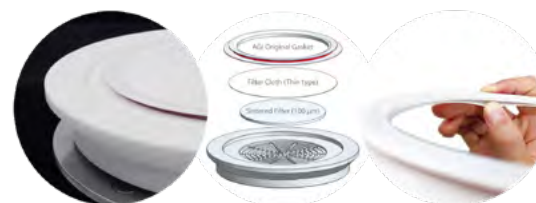


Comprehensive data logging

## Benchtop Filter reactor

Offers multi-mode product collection upon completion of a filtration process. A single support structure for vessels of up to 5L.

- Reaction and (vacuum) filtration in a single vessel
- Minimal direct handling - prevent product loss
- Temperature range: from -40°C to +200°C
- Interchangeable vessels and accessories



Filter with gasket

Filtration unit parts

Gasket for thicker filters



## Pilot Plant Filter Reactor PLUS

Available in 10-30L volumes with a large filtration area. A mobile filter base ensures safe and easy product cake collection with minimal loss. Suitable for complex reactions and filtration processes.

- Reaction and (vacuum) filtration in a single vessel
- Easy access to filter
- Wide temperature range: -90°C to +200°C
- Support structure with castors for mobility



Rotating handle located on the side of the stand. Can be fitted on either side of the stand

The filter plate can be easily pushed to the side

The product cake is easily accessible for collection





**Scalable Agitated Baffled Reactor (SABRe)**

The Scalable Agitated Baffled Reactor (SABRe) by StoliChem is a continuous flow reactor which contains 10 continuous stirred tank reactors (CSTRs) in series to improve mass and heat transfer.

- Scalable from 30 mL to 100 L reactor volume while maintaining consistent mixing and heat transfer rates
- High flexibility due to the modular design of the reactor
- Suitable for solids, gases, non-viscous and viscous liquids and combination thereof
- Improved Yield and Purity by ensuring consistent mixing and temperature control
- Versatile, which makes it suitable for various applications, including crystallization, polymerization, and reactions involving solids
- Temperature range: -190°C to +200°C
- Pressure: vacuum up to 100 bar
- 316 Stainless steel / C276 Hastelloy / glass



Dolomite offers state of the art microparticle synthesis systems, enabling its customers to optimise and scale up their vaccine, medicine, and therapy R&D.

**Mitos: Research and Development**

- 10 µm to 400 µm Droplet Diameter
- Versatile Particle Material
- 1 to 30 ml of Droplets
- Reconfigurable (and reusable)

**Mitos application packs:****Telos® : High Throughput System**

- Up to 3 ml/min emulsion per Telos Chip
- 30 to 400 ml of Droplets
- 30 µm to 200 µm Droplet Diameter
- Versatile Particle Material
- Reconfigurable (and reusable)
- Directly Scalable

**Telos® application packs:**

## Innovative high-quality solutions for your microfluidic applications

- Surfactants for optimal droplet stabilization
- Biocompatible fluorinated oils
- Surface treatments for adequate wetting
- Specialty Chemicals for successful microfluidic experiments



## Surfactants

High performance surfactants for droplet generation: FluoSurf-C™, FluoSurf-O™ and FluoSurf-S™ are high-performance fluorinated surfactants designed and optimized to stabilize aqueous droplets in fluorinated oils (proposed by Emulseo) for chemical or biotechnological applications.

- Inert block copolymer designed to stabilize droplets containing biological entities
- Particularly suitable for droplet-based microfluidic experiment such as droplet digital polymerase chain reaction (ddPCR) or single cell analysis

Table with overview of the different performance combinations of the most common droplet-based microfluidic applications:

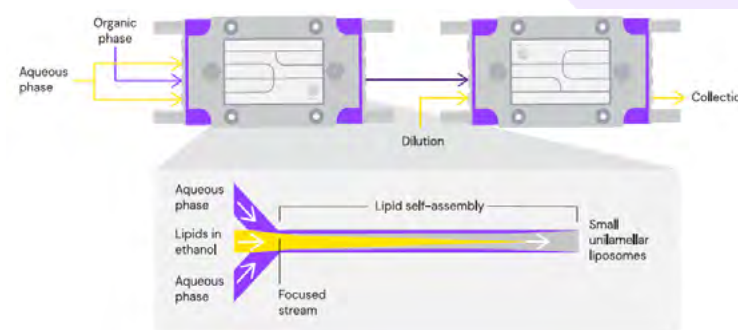
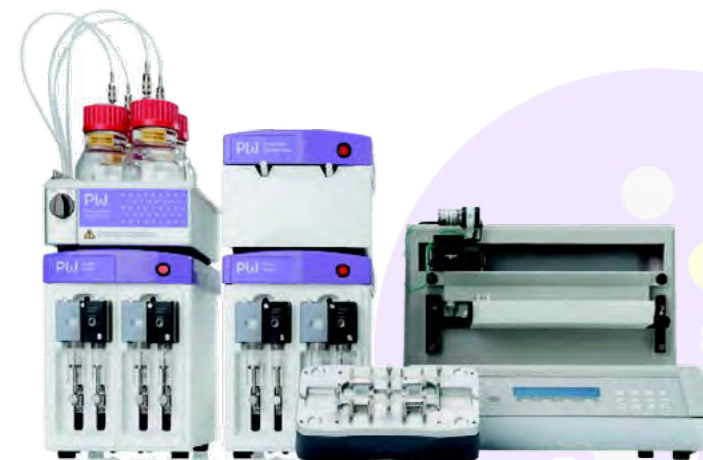
| Oil of dilution                              | FluoSurf™-C  |              |             |              | FluoSurf™-O   |              |             |              | FluoSurf™-S   |              |             |              |
|--|--|--------------|-------------|--------------|---------------|--------------|-------------|--------------|---------------|--------------|-------------|--------------|
|  | Fluo-Oil 7500  | Fluo-Oil 135 | Fluo-Oil 40 | Fluo-Oil 200 | Fluo-Oil 7500 | Fluo-Oil 135 | Fluo-Oil 40 | Fluo-Oil 200 | Fluo-Oil 7500 | Fluo-Oil 135 | Fluo-Oil 40 | Fluo-Oil 200 |
| Applications                                 |  |              |             |              |               |              |             |              |               |              |             |              |
| ddPCR  | 30 PCR cycles  | +++          | +++         | -            | +++           | +++          | -           | -            | +++           | +++          | -           | -            |
|  | 40 PCR cycles  | -            | -           | -            | -             | -            | -           | -            | +++           | +++          | -           | -            |
| Single Cell Analysis                         | Depends on the entities encapsulated inside droplets |              |             |              |               |              |             |              |               |              |             |              |
| Encapsulation of small dyes / leakage issues | +  | ++           | +++         | +++          | +             | ++           | +++         | +++          | -             | -            | -           | -            |
| Fluorescence measurements                    | +  | +            | +           | +            | +++           | +++          | +++         | +++          | ++            | ++           | ++          | ++           |

The +++ symbol: the formulation is optimal for the application and is our top recommendation  
The ++ symbol: the formulation is perfectly suited for the application and we recommend using it  
The + symbol: the formulation is suitable but not optimal for the application  
The - symbol: we do not recommend using this formulation for the cited application

## Automated Nanoparticle (ANP) System

The ANP system is designed for automation and acceleration of process development and initial production of larger samples.

- Monodispersity: Excellent PDI ( $< 0.2$ ) and encapsulation efficiency
- Broad range of particle sizes: 40 – 800 nm
- Scalability: From 200  $\mu$ l to continuous production
- Rapid optimization timeframes
- Highly reproducible
- Flexibility: Easy to set up and modify parameters
- Cost saving: Reduced reagent use and reusable chips
- No IP Licensing





## Flow synthesis From lab scale to production scale

### ASIA Modular Flow Chemistry

- Reactor temperature: -15°C to +250°C
- Liquid phase reactor volumes: 62.5 µl, 250 µl, 1 ml, 4 ml, 16 ml
- Solid phase reactor volumes: 0.7 ml, 2.4 ml, 5.6 ml, 12 ml
- Flow rate: 1 µl/min – 10 ml/min per pump channel
- Residence times: 1 second to several hours
- Pressure: 0 – 20 bar (300 psi)
- Rapid diffusional mixing
- Production volumes: mg to kg



Asia is a modular system. All modules can be acquired separately and arranged in any fashion to add new functionalities on an existing system.  
**Your system evolves with your needs!**

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#### Glass Microreactors



#### Tube Reactors



#### Solid Phase Reactors



### Asia Pressure Controller

The Asia pressure controller allows to set the back pressure of the system, which permits solvents to be heated up above the atmospheric boiling point and therefore enables to increase the reaction rates.

- Pressure range: 1 – 20 bar (maximal pressure depends on pressure of gas supply)
- Built-in pressure sensor with an accuracy of 0.1 bar
- Wetted materials: glass and PFA



## Flow synthesis From lab scale to production scale



### Asia Syringe pump

The Asia syringe pump provides extremely smooth flow rates and was specifically designed for flow chemistry.

- Each pump module offers two independent flow channels with integrated pressure sensor
- Ultra-smooth flow rate is delivered by each channel of the syringe pump
- Four different syringe volumes for optimal flow rates
- Can operate at pressures up to 20 bar (300 psi)
- User-friendly: easy to operate and to swap syringes
- Extremely chemically resistant: the wetted materials are PTFE and glass



### Asia Chip Climate Controller

This module is compatible with a range of glass microreactors, which can be heated or cooled by the integrated Peltier system.

- Temperature range: -15 to +150°C
- Compatible chips: 62.5 µL, 250 µL, 1 ml and micromixer chips
- Wetted materials (microreactor): glass or quartz



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### Asia Photochemistry module

Access a host of novel continuous photochemistry applications with Asia Photochemistry Reactor.

- Increase the light intensity (up to 108 W) to reduce reaction times and increase production rates
- No external cooling required
- Select from a wide range of wavelengths
- Process parameters are monitored





### H-Cube MINI plus

Safe and affordable hydrogenation



- $H_2$  is generated in situ
- Hydrogenation without cylinders
- Fast catalysed reactions
- Easy to use
- Max 100°C / Max 100 bar

### H-Cube® Advance

The future of safe and efficient hydrogenations driven by Next-Generation Water Electrolysis Cells



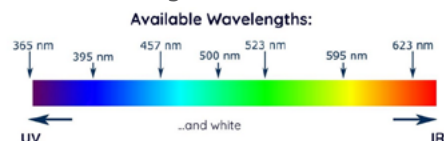
- Temperature range: 0-150°C
- Pressure range: 0-100 bar
- Number of CatCarts® per loop selector valve: 1-6
- Solvent and reagent flow rate range 0.001-10 mL/min
- Internal  $H_2$  gas flow rate range 1-70 NmL/min
- Built-in Mass Flow Controller (MFC)
- Gas types: Internal  $H_2$  or external supply ( $O_2$ ,  $N_2$ ,  $CO$  /  $CO_2$ )
- Also available in Hastelloy

### PhotoCube

Batch and flow reactions in one reactor with several wavelengths



- Batch, flow, stop-flow and CSTR reactions in the same platform
- 7+1 wavelengths in one instrument



### Phoenix II Flow Reactor

Multifunctional Module compatible with H-cube Pro™ and H-genie I and II

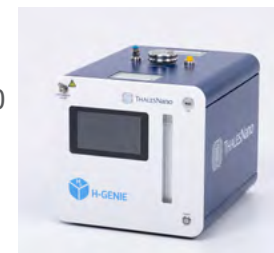


- Innovative: performs chemistry up to 450°C & 200 bar (for liquids)- not possible in standard lab reactors
- Simple: 2 buttons and automated touchscreen
- Fast: reactions in seconds
- Versatile: perform reactions in a loop homogeneously or use a range of different catalyst cartridges

### H-Genie II

Safe and powerful hydrogen generator

- Expand chemistry in batch and flow with up to 100 Bar of  $H_2$  generated from water
- Accurately log how much hydrogen is used in your reaction
- Up to 1 NL/min of  $H_2$
- Simple and safe

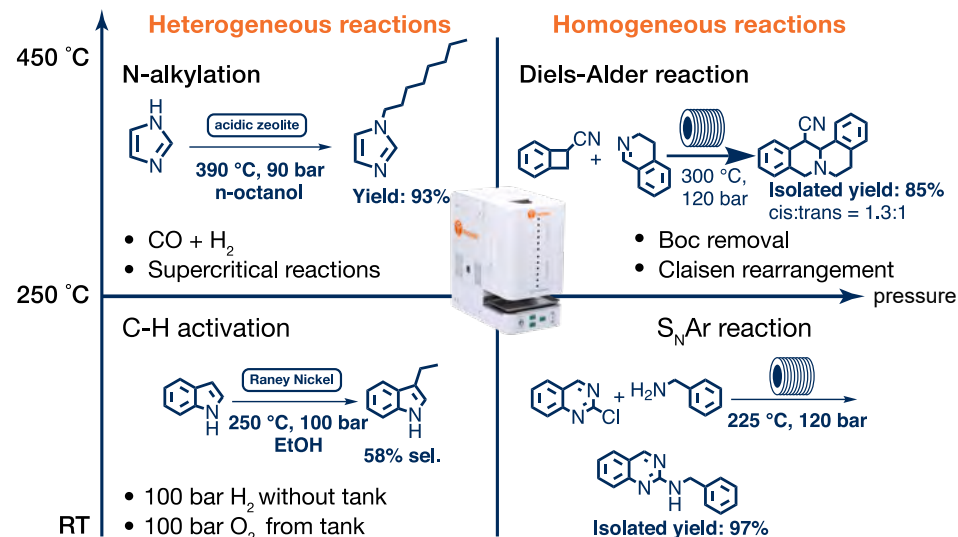


Eliminate the need for regular tank monitoring with the optional **automatic water filler**. Extend run time up to 1 week, monitor water levels, schedule refills, and maintain water quality automatically.



The H-Genie® II combined with the **Phoenix Flow Reactor™ II** is an **all-in-one flow chemistry setup** for catalyst screening, synthesis, optimization, and scale-up that fits in any fume hood in any lab.

This combination offers you a wide temperature and pressure range in addition to high pressure hydrogen generated safely without cylinders for your reactions, granting you the capability of synthesizing from milligrams to kilograms of product on the same system.

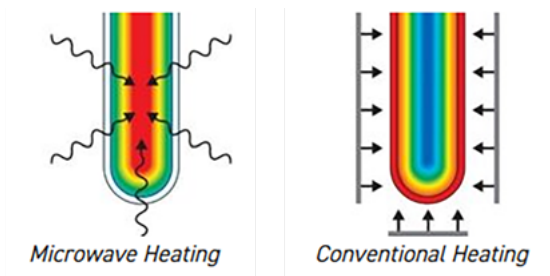




**Why should I use a microwave?**

Microwave technology has become a common tool for chemical synthesis both in academia and industry. Compared to conventional means of synthesis, the advantages of heating with a microwave system include:

- Faster reaction times
- Higher yields
- Improved purity
- Better reproducibility
- Enhanced reaction control

**Additional sensors ensure end-user safety at all times:**

- Tempguard™ — user defined safe temperatures to prevent programming errors
- DuoTemp™ — optional dual-infrared and fiber-optic temperature measurement that prevent exothermic reactions
- Reactiguard™ — acoustic sensor disables heating
- SafetyLock™ Door — reinforced, steel frame design
- Turntable sensor — disables heating if vessel carousel stalls

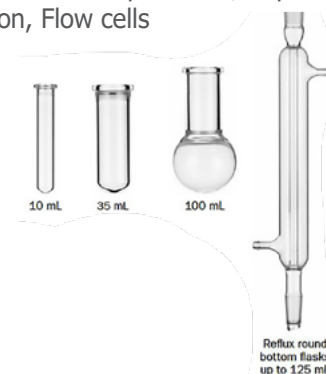
**Microwave Chemistry Applications**

Fully customizable, the MARS 6 Synthesis benchtop system can serve as an all-in-one microwave reactor for a variety of applications.

- Organic Synthesis
- Teaching Laboratories
- Inorganic Chemistry
- Nanomaterials Production
- Polymer Synthesis
- Parallel Reaction Processing
- High-throughput Laboratories
- Solvent Extraction

**Discover 2.0: The absolute best approach for Chemical Synthesis**

- Pressurized vessel sizes for a single-mode microwave - 10ml, 35ml, 100ml
- iWave Temperature Sensor can see through glass, Teflon and Quartz
- Vent and reseal technology for safe handling of over-pressurization (ActiVent)
- Variable speed magnetic stirring and rapid compressed air cooling
- Optional integrated camera to observe your reaction
- Upgrade options: Autosamplers - 12/48 positions; Gaseous Addition, Flow cells

**Autosampler**

Set up multiple reactions to run overnight with the 12- or 48-place autosampler. Both autosamplers can accommodate the 10 and 35 mL sealed vessels.

**Gas Addition Kit**

Specially designed for reactions involving gaseous reagents. Perform hydrogenations, carbonylations, or other reactions with gaseous reagents or use the vessel to ensure an inert atmosphere during microwave irradiation. Allows you to purge the reaction vessel and back-fill with a gas.

During the reaction, the gas source is completely shut off from the microwave, ensuring your safety at all times.

## Purification : SFC /Flash / Prep chromatography

### ACCQPrep SFC - Supercritical fluid Chromatography

Green Preparative SFC: Chiral or Achiral Separations in a single, compact solution. The only system enabling both bulk collection from stacked injections, and multi-sample, open access with an optional SFC AutoSampler.



- Flow rates from 50 to 200 ml/min for use with 2 and 3 cm columns
- Liquid co-solvent pump with standard 4-solvent selection valve capable of composition from 5 to 70%
- Column oven with selection valve for up to six columns
- Autoinjector to enable multiple injections of a single sample or stacked injection workflow
- Choice of UV, UV-Vis, ELSD and MS (PDA) detectors
- GLS handles easy sample collection



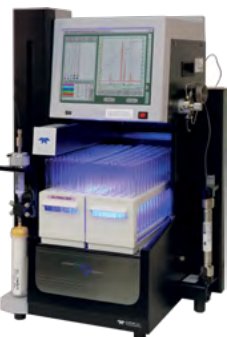
### ACCQprep HP 150 Preparative HPLC



- Pressure range: Up to 6000 psi (413 bar)
- Flow rate range: 1 to 150 ml/min
- Detection options: UV, UV-VIS, ELSD, and MS
- Compatible with automation modules: auto injector, autosampler, and column selector module
- Active solvent and waste level sensing
- Great sample recovery



### CombiFlash® EZ Prep



Streamline Flash and Preparative HPLC

- Up to 3500 psi (240 bar) and 200 ml/min
- Run Prep HPLC columns up to 50 mm in diameter
- Flash purification for 10 mg to 33 g
- UV, UV-VIS, ELSD and MS detection options available
- Switch between normal and reversed phase solvents automatically, without user interaction



## Purification : Flash & Prep chromatography

### CombiFlash® NEXTGEN 300+

RFID technology enables automated detection of columns and racks, adjusting flow rates for optimal results.

- Standard features include active solvent and waste level monitoring
- Flow rates range from 1 to 300 ml/min
- Operating pressure can reach up to 300 psi (20 bar)
- Detection options include UV, UV-VIS, ELSD and MS
- Compact design to save lab space
- Default methods increase flow speed without sacrificing performance
- Greener approach with optimized gradients to conserve solvent
- Advanced software features enabling optimized gradient from a single scouting run



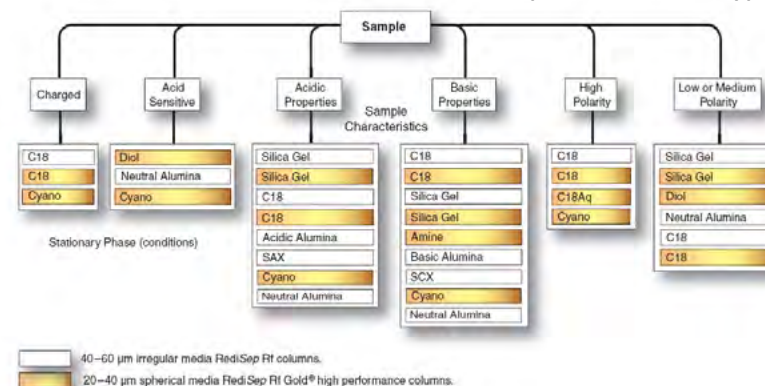
### REDISEP Flash Chromatography Columns

Designed to consistently produce high purity compounds.



Easy purification and scale-up from milligram to kilogram.

- Patented packing technique providing reliable and reproducible columns
- Extra thick walls for safe and robust columns
- Easy to use luer lock fittings
- A broad versatility on column phases for each type of purification



**Reaxus single head**



**M1 CLASS**

3 MODELS: 10 ml/min - 40 ml/min - 100 ml/min  
Up to 2.500 psi (10 ml/min)  
Fluid path: Stainless steel



**MX CLASS**

10 mL/min  
Up to 5.000 psi  
Fluid path: Stainless steel



**LS CLASS**

3 MODELS: 5 ml/min - 10 ml/min - 40 ml/min  
Up to 6.000 psi  
Fluid path: Stainless steel or Hastelloy



**SC CLASS - FOR LIQUID CO<sub>2</sub>**

24 ml/min  
Up to 10.000 psi  
Fluid path: Stainless steel

**Reaxus dual head**



**LD CLASS**

3 MODELS: 12 ml/min - 36 ml/min - 100 ml/min  
Up to 6.000 psi  
Fluid path: Stainless steel or Hastelloy



**PR CLASS**

2 MODELS: 100 ml/min - 300 ml/min  
Up to 4.000 psi  
Fluid path: Stainless steel



**CP CLASS**

3 MODELS: 12 ml/min - 24 ml/min - 100 ml/min  
Up to 18.000 psi  
Fluid path: Stainless steel or Hastelloy



**PeriXus peristaltic pump**



- 0.005 ml/min - 381 ml/min
- Up to 300 RPM
- Reversible motor



**SyriXus Syringe Pumps**

**When reliability & accuracy are critical**

Teledyne ISCO SyriXus syringe pumps offer precise flow and pressure control across a wide operating range. These pumps ensure accurate metering without pulsation or flow irregularities commonly found in other pump types.

They can handle a wide variety of fluids including:

- Aqueous and organic liquids
- Viscous fluids
- Corrosive solutions
- Slurries and pastes
- Heated fluids
- Precision fluid delivery
- Liquified gases
- Continuous flow mode is possible



|                                 | Capacity | Flow*<br>Range<br>(mL/min) | Flow**<br>Accuracy  | Pressure<br>Range<br>(psi, bar) | Standard<br>Pressure<br>Accuracy | Standard<br>Plumbing<br>Ports | Dimensions                        | Continuous<br>Flow Range<br>(mL/min) | Wetted Materials |
|---------------------------------|----------|----------------------------|---------------------|---------------------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------------------|------------------|
| <b>1000x</b>                    | 1015 mL  | 0.001-408                  | 0.5% of<br>Setpoint | 10-2,000<br>0.7-137.9           | 0.5% FS                          | 1/4" NPT                      | 40.3x10.7x18.4 in<br>102x27x47 cm | 0.01-265                             | N, H, PTFE       |
| <b>500x</b>                     | 507 mL   | 0.001-204                  | 0.5% of<br>Setpoint | 10-5000<br>0.7-345              | 0.5% FS                          | 1/8" NPT                      | 40.3x10.7x18.4 in<br>102x27x47 cm | 0.001-132                            | N, H, PTFE       |
| <b>500xv<br/>High Viscosity</b> | 507 mL   | 0.001-204                  | 0.5% of<br>Setpoint | 10-5000<br>0.7-345              | 0.5% FS                          | 3/8" NPT                      | 40.3x10.7x18.4 in<br>102x27x47 cm | 0.001-132                            | N, H, PTFE       |
| <b>260x</b>                     | 266 mL   | 0.001-107                  | 0.5% of<br>Setpoint | 10-9,500<br>0.7-655             | 0.5% FS                          | 1/8" Valco                    | 39.8x10.7x18.4 in<br>101x27x47 cm | 0.001-70                             | N, H, PTFE, G, T |
| <b>65x</b>                      | 68 mL    | 0.00001-25                 | 0.3% of<br>Setpoint | 10-20,000<br>0.7-1,390          | 0.1% FS                          | 1/8" Valco                    | 39.8x10.7x18.4 in<br>101x27x47 cm | 0.00001-16                           | N, H, PTFE       |

Wetted Materials: N=Nitronic 50, H=Hastelloy C-276, PTFE= Polytetrafluoroethylene, G=Gold, T=Titanium



### Universa bath thermostats

**Immersion - Cooling - Heating: Universa has them all**



- Bath edge ventilation prevents icing and condensation
- Speed controlled compressors: efficient refrigeration technology – minimal energy consumption, quiet operation
- Heating performance up to 3.6 kW
- Cooling capacity from 0.2 to 1.6 kW
- Advanced connectivity: USB, ethernet and Wi-Fi interfaces as standard



### PRO Circulation Thermostats

**Compact circulation thermostats for professional temperature control**



- Thermostating from -90 to 250°C @  $\pm 0.05^\circ\text{C}$
- Small heat transfer liquid volumes for quick temperature changes
- Hybrid cooling permits cooling using ambient air or cooling water
- Heating performance of 2.5 kW
- Cooling capacity up to 1.5 kW



### Integral

#### High-performance process thermostats

The Integral XT process thermostats are a state-of-the-art solution for precise temperature control in professional environments



- Power options ranging from 1.5 to 18 kW
- Wide temperature range (-90 to 320°C)
- Advanced flow principle with cold oil blanket
- Electronically controlled eight-stage LAUDA Variopump
- Seamless volume flow management
- Modular interface concept for integration
- Simple operation with TFT or touch display



### Variocool

**Versatile for dissipating process heat in laboratories, mini plants and production facilities**

The Variocool stands out due to its precise and flexible temperature control capabilities. It offers a wide temperature range, exceptional temperature stability, and high cooling and heating capacities.



- Variable process thermostats with cooling capacities from 1.2 to 10 kW
- Temperature range from -20 to 80°C
- Space-saving design and versatile applications
- User-friendly operation with a color TFT display
- Standard USB interface and alarm contact, additional interfaces can be added for enhanced connectivity
- Integrated bypass and optional pumps for adjusting operating pressure and flow rate



### LAUDA Ultracool

**The next stage of Energy-Efficient Temperature control**

Process circulation chiller with cooling capacity of up to 265 kW from -5 to 25°C for industrial applications



- Suitable for outdoor installation
- Ready-to-operate "Plug & Operate"
- Incl. cold water container, centrifugal pump and internal bypass
- Standard-issue temperature sensing prevents freezing of the heat exchanger
- Integrated pressure switches to protect the circuit against pressure that is too high or too low
- Chiller casing made of galvanized steel panels coated with epoxy resin protected against corrosion even in aggressive production environments



### Dissolution testers

Choose between 6 or 8 vessels. The dissolution testers are versatile performance machines, built with the highest quality components and engineering for manual and automated dissolution testing.



### Generic drug testing

The **CD14 Comparative Dissolution** with 14 vessels allows testing of two different drugs at once. It is often used in bio-equivalence and generic studies.



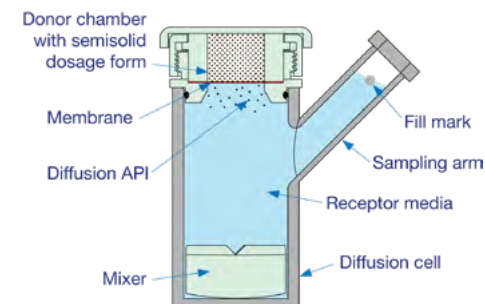
### Find the perfect dissolution testing solution for your needs

Teledyne Hanson has developed a unique online configurator. Find the best dissolution system based on your requirements and preferences!

Go to <https://dissolution-configurator.teledynehanson.com>

### Manual Diffusion testers

The patented Phoenix™ range of dry-heat systems makes diffusion-cell (or FRANZ) testing faster, easier, and more economical. The Phoenix DB-6 manual sampling system offers six-cell manual sampling in a compact footprint with an advanced touchscreen display.



### Automated Diffusion testers

The Phoenix RDS Robotic Diffusion Station delivers fully automated sampling, collection, and media replacement with the ability to run up to 24 cells at once from a single computer workstation.



### Ecodyst Cooling Technology

The Ecodyst products utilize Ecodyst's patented direct cooling of a metal condenser coil with refrigerant from the compressor, leading to pull-down times of just minutes. This eliminates the need for traditional chillers or water/dry ice condensers resulting in a more sustainable and energy-efficient system.

Designed to handle an extremely wide range of solvents, including water and all common solvents used throughout industry.

### Benchtop Evaporators

Modern high performance rotary evaporators with direct self-cooling condenser technology and zero consumables.

- More than twice as fast as traditional rotavaps
- Self-cooling technology
- Small footprint
- No need for glycol, dry ice, or water: eliminates the major sources of material waste associated with conventional rotavaps



### Large-scale Evaporators

The EcoChyll X series offers a combination of high-performance, energy-efficient, and sustainable solution for large-scale solvent evaporation and product recovery. Replacing a rotating flask with a stationary flask that is stirred instead of rotated and directly heated, both features creating greater energy efficiency.

- Best-in-class evaporation rates
- Available in 4 models: X1, X3, X5 and X7
- Evaporation flask ranges from 12 to 200L
- Continuous sample feed valve and drain on the evaporating flask, allows for uninterrupted operation
- Condensation units can reach -40°C in a couple of minutes



## Who are we?

### Support and Product Xperts

ChemSPX is part of BRS, a leading supplier of laboratory instruments for more than 30 years.

Within this group, ChemSPX is active in the field of Chemical Synthesis. For instance, instrumentation for batch- and flow synthesis, prep- and flash chromatography and thermostats are advised and installed by our Xperts.



Through our experience, versatility and organizational strength, our organization distinguishes itself as a company where every employee maximizes customer satisfaction, personal results, teamwork and communication skills. These principles help us establish a long-term relationship with our customers.

### Our Support & Service

Our Support Engineers and Product Specialists support the whole process from advising, demonstrating, developing the application, installing and maintaining your laboratory equipment.

1. Tailor-made installations of new equipment & training
2. Upgrades of existing equipment
3. Preventive maintenances with or without service contract
4. Technical support (hardware & software)
5. IQOQPQ + reporting
6. Validation & Calibration services
7. Omnium service contracts
8. Demo lab
9. Remote & application support





## Next to ChemSPX, BRS has 3 other business units:



**BioSPX**

*A new focus on life science*

BioSPX: Life Science – [www.biospx.com](http://www.biospx.com)



**ChemSPX**

*Chemistry connects*

ChemSPX: From Synthesis to Purification  
[www.chemspx.com](http://www.chemspx.com)



**AddSPX**

*Elemental & structure analysis*

AddSPX: Element and structure analysis  
[www.addspx.com](http://www.addspx.com)



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