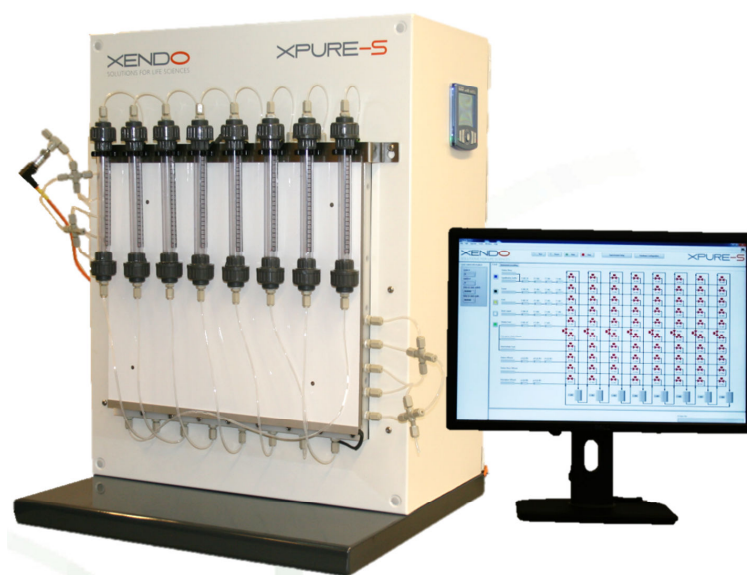


XPURE-S SYSTEM FOR SEPARATION, PURIFICATION AND RECOVERY



Xendo continuous IX / chromatography Simulated Moving Bed system

- It is the preferred technology to perform a continuous separation, purification and recovery with any feed solution
- It is a reliable continuous system due to the use of high quality components and materials
- Bench scale carrousel system with a powerful tool to evaluate design parameters and perform process simulation

Xendo XPure-S SMB composition

The system comprises of the following:

- Valve blocks dedicated to every single column, integrated to one valve block
- Multiple pumps
- Monitor and control system
- Tubing between pumps, valve block and columns
- With 4 up-to 16 columns

System Specifications

| Material | Sizing | | | | | | | | |
|--|--|---------------|----------|------|------------|------|---------|------|---------|
| Valve block | | | | | | | | | |
| PVDF, stainless steel 316L | 5 inlets and 5 outlets. Max pressure: 4 barg / 60psig Max temperature: 60°C | | | | | | | | |
| | <table border="0"> <thead> <tr> <th>Internal bore</th> <th>max flow</th> </tr> </thead> <tbody> <tr> <td>2 mm</td> <td>500 ml/min</td> </tr> <tr> <td>4 mm</td> <td>2 l/min</td> </tr> <tr> <td>5 mm</td> <td>3 l/min</td> </tr> </tbody> </table> | Internal bore | max flow | 2 mm | 500 ml/min | 4 mm | 2 l/min | 5 mm | 3 l/min |
| Internal bore | max flow | | | | | | | | |
| 2 mm | 500 ml/min | | | | | | | | |
| 4 mm | 2 l/min | | | | | | | | |
| 5 mm | 3 l/min | | | | | | | | |
| Pumps | | | | | | | | | |
| Positive displacement pump (e.g. peristaltic or gear pump) | Flow: 2 - 3000 ml/min | | | | | | | | |
| Columns | | | | | | | | | |
| PVC-U; PVDF; PTFE, glass or stainless steel, any other material possible | Internal diameter: 5 - 300mm Length: 10 - 150cm | | | | | | | | |
| Tubing | | | | | | | | | |
| Anything from PE to PFA or PTFE | Outer diameter: $\frac{1}{16}$ " - $\frac{1}{8}$ " - 2 - 12mm | | | | | | | | |
| Cabinet | | | | | | | | | |
| Epoxy coated or stainless steel | 4-8 column system: 760x600x330mm Nett weight: 75 kg. | | | | | | | | |
| | 10-16 column system: 760x1200x330mm Nett weight: 150 kg | | | | | | | | |

Process parameters for monitoring and control

pH, conductivity, UV, flow, temperature, pressure
Multiple sensors per type, quantity depending on process design

Control system

The XPure SMB is controlled by a comprehensive software package which runs under Windows operating system. The software package allows the user to perform experiments in an easy and automated manner.

The clean and intuitive graphic user interface gives the analyst an insight in the current state of the XPure through various overviews. It allows the user to define the recipe (single or series of recipes), runs through them while at the same time capturing and recording the data generated by the XPure. The recipe is introduced into the system through a recipe editor.

The data generated can easily be processed in spreadsheets such as Excel. The XPure can also easily be calibrated and configured with minimal effort.

Headquarters Leiden, The Netherlands

Bioscience Park
Schipholweg 73 - 75
2316 ZL Leiden

T +31 (0)71 524 4000

M office@xendo.com