

XPURE-C LAB 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-C SMB composition

The carrousel system comprises of the following:

- Compact skid-mounted system
- Rotating valve with dedicated connections to every single column
- Multiple pumps
- Elementary control system with OPI
- Tubing between pumps, valve block and columns
- With 4 up to 20 columns

System Specifications

Material	Sizing
Rotating valve	
Stainless steel 316L or Hastalloy-C, and PTFE seal plate. Consists of one rotating index head, to connect the columns, and a stationary part to connect in- and outlet flows. The rotating index head is mechanically connected to the turntable and travels for a total distance of 18 degrees (20 columns)	20 inlets and 20 outlet ports with UNF ¼"-28 female connection Max pressure: 30 barg / 400psig Max temperature: 60°C Internal bore max flow/port 1/16" 300 ml/min Parallel flow configuration to accommodate higher flows
Pumps	
Positive displacement pump (e.g. peristaltic or gear pump)	Flow: 2 - 3000 ml/min
Skid	
All XPure-C elements –rotating valve- turn table – drive system have been assembled on a compact skid. The control unit will be delivered as a loose item and can be placed on a bench close to the SMB unit	540 x 540 x 1200 mm Weight: 75 kg
Columns	
PVC-U; PVDF; PTFE, glass or stainless steel, any other material possible The columns are mounted on a stainless steel turn table which is connected to the drive system	Internal diameter: 6 - 32mm Length: 5 - 100cm
Tubing	
Anything from PE to PFA, PVDF or PTFE	Outer diameter: 1/16" - 1/8" - 2 - 12mm
Cabinet	
Epoxy coated or stainless steel Features Operator Interface (OPI)	400x450x300mm Nett weight: 20 kg
Process parameters for monitoring and control	pH, conductivity, UV, flow, temperature, pressure can optionally be installed. Sensors cannot be integrated in the XPure-C control system

Control system

The XPure SMB is controlled by a stand-alone (AC) servo drive and a digital controller. The OPI allows the user to perform experiments in an easy and automated manner. Number of columns, drive speed and switch time are free parameters to set. Valve alignment procedure can be initiated on the OPI. The OPI displays the current state of the XPure, the relative position within a cycle and number of cycles.

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