

Evolve®**D**

Process Columns





PURITY by DESIGN

TECHNOLOGY

Evolve[®]D columns are pre-packed, high performance process columns supplied in a convenient ready-to-use format. Designed to suit a wide range of applications, Evolve[®]D Process columns can be implemented straight into your workflow, streamlining and optimising processes by eliminating the need for time consuming preparation, packing, qualification and sanitisation, saving both time and money.

Building on the success of the Evolve® Process column range, Astrea Bioseparations have developed the Evolve®D column range.

Manufactured from pharmaceutical grade polypropylene, Evolve®D columns incorporate a non-metallic flow path and a woven polymer bed support, capable of operating at high flow rates whilst removing the risk of corrosion in the wetted flow areas.

Available in diameters up to 20 cm, with bed height options of 5, 10, or 20 cm, the columns can be directly implemented into bioprocessing and biomanufacturing applications. Ideally suited for continuous chromatography applications, Evolve®D columns provide cost-savings and convenience for the end user.



Evolve®D Process columns are supplied qualified and ready for use, pre-packed with chromatography media from the Astrea Bioseparations range of products for applications such as protein purification and contaminant removal. The columns can also be custom packed with a range of media types including agarose & polymethacrylate based adsorbents.

High Performance*

- 4 bar pressure rating
- Flow rates up to 1000 cm/h
- 2 30 °C operating temperature range
- · Scalability throughout column range

Ready to Use

- Pre-packed
- · Packed under ISO7 conditions
- Tested and certified (asymmetry, HETP & pressure at operational flow rate)
- Sanitary connections for quick & easy operation with other process equipment

Biocompatible

- Non-metallic flow path enables the use of high salt and guanidine HCl solutions, and eliminates corrosion risk in wetted flow areas
- All elastomers used in wetted regions suitable for biopharmaceutical applications & conform to both FDA & USP VI requirements
- Prevents any product inactivation through metal contact
- Chemical resistance (see technical information table for more details)

Fully Supported

- Supported with extensive data, including materials of construction, leachable & extractable data, ISTA transportation studies, and cleaning studies
- Regulatory Support File (RSF) available

^{*} pressure rating and flow rates are of the empty column

INTERNAL DIAMETER:	7 cm	10 cm	20 cm
PRODUCT CODE:	AD070050, AD070100 & AD070200	AD100050, AD100100 & AD100200	AD200100 & AD200200
CROSS SECTIONAL AREA (CM²):	38.5	78.5	314.2
BED HEIGHT (MM):	50, 100 & 200	50, 100 & 200	100 & 200
PRESSURE RATING (BAR)":	4	4	4
OPERATING TEMPERATURE (°C):	2 - 30	2 - 30	2 - 30
BED SUPPORT PORE SIZE (µm):	8	8	8
CHEMICAL CONFORMITY (WETTED COMPONENTS):	All commonly used downstream processing buffers & solutions including acids, alcohols, salts, glycols, detergents, denaturants, sodium hypochlorite & sodium hydroxide (see Operating Manuals for full details before use)		
TOTAL WEIGHT (KG):	2.6, 3.1 & 4.0	2.7, 3.3 & 4.6	11.8 ६ 16.7

 $^{^{**}}$ pressure rating of the empty column



Accessories

A wide range of disposable accessories are available for use with the Evolve®D column range, including:

- Bubble trap kits
- Flow reversal kits
- Column Isolation kits
- Connection kits
- Connectors and adaptors

Technical Support

- Astrea Bioseparations are experts in chromatography development and can help optimize all process parameters including column packing
- Astrea Bioseparations also supply the Evolve®
 Process Column range and associated accessories



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Evolve®D Process Columns - V1

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