

Dynamic Axial Compression Column for Pharmaceuticals, Fine Chemicals, and Food Ingredients Purification

Preparative HPLC Columns

Model DAD-100 is an automatic packing column developed for high-pressure preparation. Constant pressurization of the packed bed enables self-packing of a high-durability column without creating voids. The slurry port enables operation from supplying of gel to pressurized packing with ease.

Higher sealing performance is achieved by a unique, patented sealing structure. It can be used in a packing cycle for long periods. This column is entirely free from electric parts and therefore, safety use in explosion-proof area is possible. The column corresponds to IQ/OQ validation. We ensure a thorough support system for the maintenance and supply of consumables.

It is possible to select from various packing materials depending on the preparative object. Together with a group of products designed exclusively by YMC, preparation and purification will be achieved to meet your precise requirements.

Specifications

Product number	DAD-100-700
Inner diameter	100 mm
Packed bed length	100 - 400 mm
Maximum pressure	10 MPa
Compression	Constant pressurization (DAC)
Driving direction	Downward *
Temperature	10 - 40 °C, below 50% RH
Installation height	Over 3.5 m (hoist is required)
Dimensions	800(W) × 800(D) × 2400(H) mm
Weight	About 250 kg
Utility	0.5 MPa dry air
Maximum Packing material	2 kg



Notes

- **Recommended packing material:** Silica, Organic/inorganic hybrid silica 10 µm and larger
- **Resistance to solvent:** Ordinary solvents used in reversed-phase and normal-phase HPLC

* It is easy to unpack and collect gels from the bottom of the column by moving the cylinder down

Specifications

Name	Preparative Dynamic Axial Compression Column DAD-100	
Product Number	DAD-100-700	
Body	Size	Inner diameter = Ø100 mm, Length = 700 mm, Column volume = 5.4 L
	Inner Finish	Electropolished after honing process
	Roughness	$Ra \leq 0.5$
Filter	Material	SUS316L (sintered wire-mesh filter)
	Frit Size	2 µm
Seal	Material	PTFE
	Type	Uniquely developed sealing structure
	Feature	Packing seals effectively in response to inner pressure of column. Easy replacement.
Cylinder	Feature	Stainless steel rod, oil cylinder (anti-rust coating on surface)
Oil Pump	Source	Air-driven hydraulic pump
	Air Consumption	MAX 600 L/min (ANR)
Operation	Switching Valve	Change orientation of cylinder alignment (UP, DOWN, HOLD)
	Pressure Regulator	Adjust pressure of oil pump
	Pressure Meter	Monitoring air operation and oil pressure
Safety Device	Relief Valve	Limit hydraulic pressure
	Emergency Stop	Stop supplied air
Wetted Material	SUS316, SUS316L, PTFE, PCTFE	
Non-wetted Material	SUS304, Brass, Steel (hydraulic equipment parts)	
Connection	Inlet/Outlet	1/4" Swagelok tube fitting
	Slurry Port	ISO 15A sanitary ferrule
	Air	Ø6 one-touch fitting

Options

It is recommended to use a slurry container at the time of pouring slurry.

Slurry Container	Feature	Slurry can be carried easily
	Product Number	SC-10-20SA
	Pump	Air-driven diaphragm pump maximum flow rate 20 L/min
	Air Consumption	MAX 200 L/min (ANR)
	Wetted Material	SUS316, SUS316L, PTFE, PFA, FEP, SCS14
	Slurry Hopper Inner Finish	Electropolished
	Connection	Column connection: ISO 15A sanitary ferrule Air connection: Ø6 one-touch fitting
Cart	Assembly Support	Lift table cart made of stainless steel
Jig	Assembly Support	Support jig made of resin
Flow Path Switching Panel	Feature	3 three-way valves enable the flow path to be switched easily
Funnel	Funnel Material / Connection	SUS316 / ISO15A sanitary ferrule
Cylinder Oil	NSF H1 approved oil is available	



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