

DAD-450

For medicine, chemistry, and food preparation

DAD series

Preparative Dynamic Axial Compression Column

Model DAD-450 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 by the closed system from supplying of gel to pressurized packing with ease.

Higher sealing performance is achieved by a uniquely developed sealing structure (Japanese Patent No. 3929407). 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, manufactured in Japan, 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. Preparation and purification will be realized to your satisfaction together with a group of products designed exclusively by YMC.



DAC COLUMN FOR PREPARATIVE HPLC

Main Characteristics

Product number	DAD-450-850
Inner diameter	450 mm
Packed bed length	100 - 500 mm
Maximum pressure	7 MPa
Compression	Constant pressurization (DAC)
Driving direction	Downward *
Temperature	10 - 40 deg C, Below 50% RH
Installation height	Over 4.5 m (Hoist is required)
Dimensions	Inquiry
Weight	About 2500 kg
Utility	0.5 MPa dry air
Maximum Packing material	40 kg

Recommended packing material:

Silica, Organic/inorganic hybrid silica 20 µm and larger

Resistance to solvent:

Ordinary solvents used in reverse phase and normal phase HPLC

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

Specifications

Name		Preparative Dynamic Axial Compression Column DAD-450
Product number		DAD-450-850
Body	Size	Inner diameter = ϕ 450 mm, Length = 850 mm
	Inner finishing	Electrolytic polishing after honing process
	Roughness	$Ra \leq 0.5$
Filter	Material	SUS316L (Sintered wire-mesh filter)
	Frit size	2 μ m
Seal	Material	PTFE
	Type	Uniquely developed sealing structure
	Feature	Packing seals effectively in response to inner pressure of column. Easy replacement
Cylinder	Source	Air-driven hydraulic pump
	Type	Stainless steel rod, Oil cylinder (Painted steel)
	Required air	MAX 3000 NL/min
	Relief valve	Overpressure measures
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
	Emergency stop	Stop supplied air
Wetted material		SUS316, SUS316L, PTFE
Connection	Inlet/Outlet	1/2" Swagelok tube fitting
	Slurry port	ISO 1S sanitary ferrule
	Air	ϕ 10 one-touch fitting

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

Slurry container	Feature	Slurry can be carried in closed system.
	Product number	SC-160-45
	Pump	Air-driven diaphragm pump
	Required air	MAX 300 NL/min
	Wetted material	SUS316, SUS316L, PTFE, PFA
	Inner finishing	Electrolytic polishing
	Connection	Column connection: ISO 1S sanitary ferrule Air connection: ϕ 10 one-touch fittings
Agitator	Required air: MAX 830 NL/min	
Cylinder oil	USDA, NSF H1 approved oil is available.	

For more information or to place an order, please contact us.
Please feel free to ask our specialists about products or service.



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