

DAD-1000

DAD series

For medicine, chemistry, and food preparation

Preparative Dynamic Axial Compression Column

Model DAD-1000 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.

Main Characteristics		
Product number	DAD-1000-850	
Inner diameter	1000 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 5.0 m (Hoist is required)	
Dimensions	Inquiry	
Weight	About 12000 kg	
Utility	0.5 MPa dry air	
Maximum Packing material	200 kg	

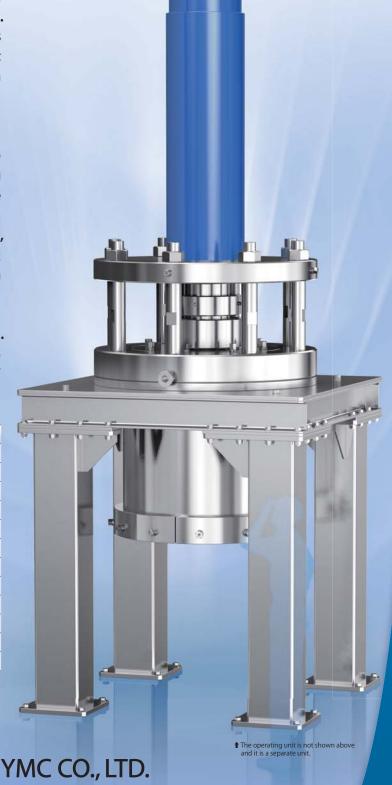
Recommended packing material:

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

Product number DAD-1000-850 Body Size Inner diameter = φ 1000 mm, Length = 850 mm Body Inner finishing Electrolytic polishing after honing process, Buff polishing, Acid wash Roughness Ra ≤ 0.5 Material SUS316L (Sintered wire-mesh filter) Frit size 2 μm Material PTFE Uniquely developed sealing structure Packing seals effectively in response to inner pressure of column. Easy replacement Easy replacement Type Stainless steel rod, Oil cylinder (Painted steel) Required air MAX 3000 NL/min * Relief valve Overpressure measures 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 <	Na	me	Preparative Dynamic Axial Compression Column DAD-1000
Body Inner finishing Roughness Roughness Ra ≤ 0.5 Material Filter Frit size Material SUS316L (Sintered wire-mesh filter) Frit size 2 μm Material PTFE Type Uniquely developed sealing structure Packing seals effectively in response to inner pressure of column. Easy replacement Source Air-driven hydraulic pump AMX 3000 NL/min * Required air Required air Relief valve Overpressure measures Switching valve Pressure regulator Pressure meter Emergency stop Stop supplied air Wetted material Surry port Inlet/Outlet I"Swagelok tube fitting Connection Slurry port ISO 15 sanitary ferrule	Product	number	DAD-1000-850
Roughness Ra ≤ 0.5 Material SUS316L (Sintered wire-mesh filter)		Size	Inner diameter = ϕ 1000 mm, Length = 850 mm
Filter Material SUS316L (Sintered wire-mesh filter)	Body	Inner finishing	Electrolytic polishing after honing process, Buff polishing, Acid wash
Filter Frit size Adjust pressure meter Festure Switching valve Operation Feature Frit size Type Adjust pressure of column. Feature Source Air-driven hydraulic pump Type Stainless steel rod, Oil cylinder (Painted steel) Required air MAX 3000 NL/min * Relief valve Overpressure measures 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 Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 15 sanitary ferrule		Roughness	Ra ≤ 0.5
Frit size Material PTFE Type Uniquely developed sealing structure Packing seals effectively in response to inner pressure of column. Easy replacement Source Air-driven hydraulic pump Type Stainless steel rod, Oil cylinder (Painted steel) Required air Relief valve Overpressure measures 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 Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 15 sanitary ferrule	Eiltor	Material	SUS316L (Sintered wire-mesh filter)
Type	riiter	Frit size	2 μm
Feature Packing seals effectively in response to inner pressure of column. Easy replacement Air-driven hydraulic pump Type Stainless steel rod, Oil cylinder (Painted steel) Required air Relief valve Overpressure measures 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 Inlet/Outlet 1" Swagelok tube fitting Slurry port ISO 1S sanitary ferrule		Material	PTFE
Packing seals effectively in response to inner pressure of column. Easy replacement Source Air-driven hydraulic pump Type Stainless steel rod, Oil cylinder (Painted steel) Required air MAX 3000 NL/min * Relief valve Overpressure measures 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 Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 15 sanitary ferrule	Soal	Туре	Uniquely developed sealing structure
Cylinder Source Air-driven hydraulic pump Type Stainless steel rod, Oil cylinder (Painted steel) Required air MAX 3000 NL/min * Relief valve Overpressure measures 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 Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 1S sanitary ferrule	Seal	Feature	Packing seals effectively in response to inner pressure of column.
Cylinder Type Stainless steel rod, Oil cylinder (Painted steel) Required air MAX 3000 NL/min * Relief valve Overpressure measures 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 Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 1S sanitary ferrule			Easy replacement
Cylinder Required air Relief valve Overpressure measures 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 Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 15 sanitary ferrule		Source	Air-driven hydraulic pump
Required air Relief valve Overpressure measures Switching valve Change orientation of cylinder alignment (UP, DOWN, HOLD) Pressure regulator Pressure meter Monitoring air operation and oil pressure Emergency stop Stop supplied air Wetted material SUS316, SUS316L, PTFE Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 1S sanitary ferrule	Culindor	Туре	Stainless steel rod, Oil cylinder (Painted steel)
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 Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 15 sanitary ferrule	Cylinder	Required air	MAX 3000 NL/min *
Operation Pressure regulator Pressure meter Monitoring air operation and oil pressure Emergency stop Stop supplied air Wetted material SUS316, SUS316L, PTFE Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 1S sanitary ferrule		Relief valve	Overpressure measures
Pressure meter Monitoring air operation and oil pressure Emergency stop Stop supplied air Wetted material SUS316, SUS316L, PTFE Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 15 sanitary ferrule		Switching valve	Change orientation of cylinder alignment (UP, DOWN, HOLD)
Pressure meter Monitoring air operation and oil pressure Emergency stop Stop supplied air Wetted material SUS316, SUS316L, PTFE Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 15 sanitary ferrule	Operation	Pressure regulator	Adjust pressure of oil pump
Wetted material SUS316, SUS316L, PTFE Inlet/Outlet 1" Swagelok tube fitting Connection Slurry port ISO 15 sanitary ferrule	Operation	Pressure meter	Monitoring air operation and oil pressure
Inlet/Outlet		Emergency stop	Stop supplied air
Connection Slurry port ISO 1S sanitary ferrule	Wetted	material	SUS316, SUS316L, PTFE
		Inlet/Outlet	1" Swagelok tube fitting
Air φ 10 one-touch fitting	Connection	Slurry port	ISO 1S sanitary ferrule
		Air	ϕ 10 one-touch fitting

^{*}The above specifications are subject to change due to installation environment.

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-1200-60
	Pump	Air-driven diaphragm pump
	Required air	MAX 600 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 1200 NL/min
Powder transfer device		Air-driven device
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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