

# DAD-300

For pharmaceuticals, fine chemicals, and food ingredients purification

DAD series

## Preparative Dynamic Axial Compression Column

Model DAD-300 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 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-300-700
Inner diameter	300 mm
Packed bed length	100 - 400 mm
Maximum pressure	10 MPa
Compression	Constant pressurization (DAC)
Driving direction	Downward *
Temperature	10 - 40 deg C, Below 50% RH
Installation height	Over 4.2 m (Hoist is required)
Dimensions	1100(W) × 1200(D) × 3100(H) mm
Weight	About 1300 kg
Utility	0.5 MPa dry air
Maximum Packing material	20 kg

**Recommended packing material:**  
Silica, Organic/inorganic hybrid silica 15 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-300
Product number		DAD-300-700
Body	Size	Inner diameter = $\Phi$ 300 mm, Length = 700 mm, Column volume = 49.4 L
	Inner finishing	Electrolytic polishing after honing process
	Roughness	Ra $\leq$ 0.5
Filter	Material	SUS316L (Sintered wire-mesh filter)
	Frit size	2 $\mu$ m
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 800 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
Cart	Assembly support	Lift table cart made of stainless steel
Jig	Assembly support	Support jig made of resin
Wetted material		SUS316, SUS316L, PTFE, PCTFE
Non-wetted material		SUS304, Brass, Steel (Hydraulic equipment parts)
Connection	Inlet/Outlet	3/8" Swagelok tube fitting
	Slurry port	ISO 15 sanitary ferrule
	Air	$\Phi$ 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 easily
	Product number	SC-80-45
	Pump	Air-driven diaphragm pump Max flow rate 45 L/min
	Air consumption	MAX 300 L/min (ANR)
	Wetted material	SUS316, SUS316L, PTFE, PFA, SCS14
	Slurry hopper inner finishing	Electrolytic polishing
Slurry container option	Connection	Column connection: ISO 15 sanitary ferrule Air connection: $\Phi$ 10 one-touch fitting
	Air-driven agitator	Air consumption: MAX 275 L/min (ANR)
Flow path switching panel	Washing pump	Air consumption: MAX 200 L/min (ANR)
	Feature	3 three-way valves enable the flow path to be switched easily
Cylinder oil		NSF H1 approved oil is available

Before use (installation, operation, maintenance or check-up) of our products, instruction manuals should be carefully read and understood, and safety rules and precautions followed as outlined in the manuals.



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