

# **DAD-600**

**DAD** series

For pharmaceuticals, fine chemicals, and food ingredients purification

# **Preparative Dynamic Axial Compression Column**

Model DAD-600 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.

Main Characteristics		
Product number	DAD-600-700	
Inner diameter	600 mm	
Packed bed length	100 - 400 mm	
Maximum pressure	7 MPa	
Compression	Constant pressurization (DAC)	
Driving direction	Downward *1	
Temperature	10 - 40 deg C, Below 50% RH	
Installation height	Inquiry	
Dimensions	1800(W) × 1800(D) × 3500(H) mm *2	
Weight	About 5000 kg *2	
Utility	0.5 MPa dry air	
Maximum Packing material	80 kg	

#### Recommended packing material:

Silica, Organic/inorganic hybrid silica 20 µm and larger

#### Resistance to solvent:

Ordinary solvents used in reversed-phase and normal-phase HPLC

- \*1 It is easy to unpack and collect gels from the bottom of the column by moving the cylinder down
- \*2 The hydraulic unit is a separate unit and not included in the dimensions and weight above



# **Specifications**

Name		Preparative Dynamic Axial Compression Column DAD-600
Produc	t number	DAD-600-700
Body	Size	Inner diameter = Φ600 mm, Length = 700 mm, Column volume = 197.8 L
	Inner finishing	Acid washing after honing process
	Roughness	Ra ≤ 0.5
Filtor	Material	SUS316L (Sintered wire-mesh filter)
Filter	Frit size	2 μm
	Material	PTFE
Seal	Type	Uniquely developed sealing structure
Seai	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)
011	Source	Air-driven hydraulic pump
Oil pump	Air consumption	MAX 2200 L/min (ANR)*
	Switching valve	Change orientation of cylinder alignment (UP, DOWN, HOLD)
Operation	Pressure regulator	Adjust pressure of oil pump
	Pressure meter	Monitoring air operation and oil pressure
Cofoty dovice	Relief valve	Limit hydraulic pressure
Safety device	Emergency stop	Stop supplied air
Cart	Assembly support	Pallet jack made of steel
Jig	Assembly support	Support jig made of resin and stainless pallet for exclusive use
Wetted	material	SUS316, SUS316L, PTFE, PCTFE
Non-wett	ed material	SUS304, Brass, Steel (Hydraulic equipment parts)
	Inlet/Outlet	3/4" Swagelok tube fitting
Connection	Slurry port	ISO 1.5S sanitary ferrule
	Air	Φ12 one-touch fitting

 $<sup>{}^* \</sup>text{The specification of the hydraulic unit is subject to change depending on the installation site. Please contact us for details.}\\$ 

### **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-300-135
	Pump	Air-driven diaphragm pump Max flow rate 135 L/min
	Air consumption	MAX 1000 L/min (ANR)
	Wetted material	SUS316, SUS316L, PTFE, PFA, FEP, SCS14
	Slurry hopper inner finishing	Electrolytic polishing
	Connection	Column connection: ISO 1.5S sanitary ferrule
		Air connection: Φ12 one-touch fitting
	Air-driven agitator	Air consumption: MAX 440 L/min (ANR)
Slurry container option	Powder feeding system	Air consumption: MAX 420 L/min (ANR)
	Washing pump	Air consumption: MAX 300 L/min (ANR)
Flow path switching panel	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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