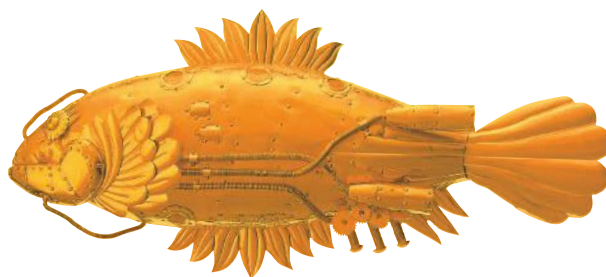


# Shodex™



## HPLC Columns

### MANUAL

### CLNpak PAE series

**SHOWA**  
**DENKO**  
EUROPE

Columns manufactured by Showa Denko K.K Japan  
Made in Japan

**Shodex HPLC Columns**  
Europe, Middle East, Africa, Russia

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## Operation Manual

### Shodex™ CLNpak™ PAE series

(Please read this manual carefully before using the column to keep its good performance and life.)

#### 1. Specifications

Column type	Column size	Shipping solvent	Plate count*	Fas**
CLNpak PAE-800	8.0mmID x 300mmL	Acetonitrile	>8000	0.80 – 1.3
CLNpak PAE-800 AC		Acetone		
CLNpak PAE-2000	20.0mmID x 300mmL	Acetonitrile	>7000	0.80 – 1.3
CLNpak PAE-2000 AC		Acetone		

\*1/2 Peak height

\*\*10% Peak height

#### 2. Usable conditions

Column type	Usable solvent	Maximum pressure	Maximum flow rate	Recommended flow rate (Flow rate of replacement)
CLNpak PAE-800	Acetonitrile Acetone	4.0MPa	1.2mL/min	0.8mL/min (0.5mL/min)
CLNpak PAE-800 AC				
CLNpak PAE-2000		5.0MPa	5.0mL/min	3.5mL/min (2.0mL/min)
CLNpak PAE-2000 AC				

#### 3. Warranty

1) Showa Denko K. K. warrants that the Shodex Column, at the time of delivery to the user, will conform to the specification of the attached Certificate of Analysis, if the Shodex Column is used in accordance with the operating manual. The foregoing warranty is exclusive and is in lieu of all other warranties with respect to the Shodex Column, whether written, oral, implied, statutory or otherwise. No warranties by Showa Denko K. K. are implied or otherwise created, including, but not limited to, the warranty of merchantability and fitness for particular purposes.

2) Any claim of inconformity to the specification must be notified to Showa Denko K.K. within ten (10) days after delivery to the user. User's exclusive remedy and Showa Denko K.K.'s exclusive liability for such claim are limited to the replacement of the Shodex Column in question. In no event is Showa Denko K.K. liable for any indirect, incidental or consequential damage arising out of in connection with the Shodex Instrument, whether or not such damage is allegedly based on breach of warranty, negligence or otherwise.

3) No warranty is made in any of the following cases:

(1) If the Shodex Column is not used in accordance with the operating manual.

- (2) If the Shodex Column is remodeled by anyone other than person or firm designated by Showa Denko K.K.
- (3) If the Shodex Column is resold by the user without giving prior written notice to Showa Denko K.K.
- (4) If the performance of the Shodex Column is not conform to the specification of the attached Certificate of Analysis due to any of the reasons below:
  - a) Computer virus
  - b) Impurities contained in the sample, reagent, gas air or cooling water provided by the user
  - c) Breakdown or malfunction of equipment, apparatus or component used in combination with the Shodex Column
  - d) Force majeure such as fire, earthquake, flood, other natural disaster, rime, riot, act of terrorism, war or radioactive contamination
- 4) In no event is Showa Denko K.K. liable for (i) the results of analyses or preparations using the Shodex Column or any portion of the same, including, but not limited to, the reliability, accuracy, efficacy and safety of said results, and (ii) the occupational hazard in the use of the Shodex Column, whether or not such use is made in accordance with the attached Conditions for use.
- 5) The Shodex instrument is for laboratory use only. It must not be used for clinical diagnosis. Showa Denko K.K. is not liable for any use of the Shodex Instrument except laboratory use.