

Instructions for use

Adapter for HPLC vials

English (EN)

This document supplements the operating manual of the Centrifuge 5430/5430 R, Centrifuge 5702/5702 R/5702 RH, but does not replace it. Therefore, also read the operating manual. The current version can be found online at www.eppendorf.com.

1 Product description

Adapters for HPLC vials are designed for centrifugation of HPLC vials with max. 1.5 mL filling volume in the following centrifuge/rotor combinations:


- Rotor F-45-18-17-Cryo in Centrifuge 5430/5430 R
- Rotor F-45-18-17-Cryo in Centrifuge 5702/5702 R/5702 RH.

2 Safety notes

- ▶ Prior to using HPLC vials, observe manufacturer specifications on resistance to centrifugation (max. g -force).
- ▶ Do not exceed the maximum tube length of 33 mm (without cap) so the tubes can be optimally supported by the adapters.
- ▶ Do not exceed a g -force of $3\,500 \times g$ at a max. load of 9.5 g per rotor bore (adapter + vial + contents). At a load of up to 8.7 g per rotor bore, the adapters can be centrifuged at max. g -force (rcf)/rotational speed (rpm).
- ▶ Load the rotor symmetrically. When doing so, follow the loading instructions included in the instructions for use of the centrifuge.

3 Cleaning and Disinfection

- ▶ Use a mild cleaning agent for cleaning.
- ▶ Use alcohol (ethanol, isopropanol) or disinfectants containing alcohol for the disinfection.

 The adapter for HPLC vials can be autoclaved (121° C, 20 min).

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4 Technical data

For the Centrifuge 5430/5430 R, note that the *g*-force displayed during switch-over is standardized to the corresponding rotor without adapter and, for the Centrifuge 5702/5702 R/5702 RH, standardized to the A-4-38 rotor. You can achieve the following maximum *g*-forces (rcf) at maximum speed (rpm) when adapters are used:

Rotor, centrifuge	max. centrifugation radius	max. <i>g</i> -force (rcf)/ speed (rpm)
F-45-18-17-Cryo, Centrifuge 5430/ 5430 R	without adapter: 9.4 cm with adapter for HPLC vials: 8.3 cm	8 320 × <i>g</i> /8 900 rpm 7 350 × <i>g</i> /8 900 rpm
F-45-18-17-Cryo, Centrifuge 5702/ 5702 R/5702 RH	without adapter: 9.4 cm with adapter for HPLC vials: 8.3 cm	2 030 × <i>g</i> /4 400 rpm 1 800 × <i>g</i> /4 400 rpm

Max. allowed tube lengths without cap	33 mm
Adapter bore (Ø)	11.8 mm
Material	Polypropylen  > PP <

You can calculate the *g*-force (rcf) for a special adapter using the following formula according to DIN 58 970:

$$\text{rcf} = 1.118 \cdot 10^{-5} \cdot n^2 \cdot r_{\text{max}}, \text{ n: rotational speed (rpm), } r_{\text{max}}: \text{max. centrifugation radius (cm)}$$

Example: The max. centrifugation radius of the adapter for HPLC vials is 8.3 cm in the F-45-18-17-Cryo rotor. A max. *g*-force of 3 500 × *g* is reached at 6 142 rpm.

5 Ordering information

Order no. (International)	Order no. (North America)	Description
5427 708.006	5427708006	Adapter used in F-45-18-17-Cryo for 1.5 mL HPLC vials, 18 pieces

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