

Instructions for use

Rotor FA-45-48-11, FA-45-30-11, FA-45-24-11-Kit, FA-45-16-17

English (EN)

This document supplements the operation manual Centrifuge 5430/5430 R and does not replace it. Therefore, please also read the operating manual before starting up the rotors for the first time. You can find the current version on the Internet at www.eppendorf.com.

1 Product description

The rotors FA-45-48-11, FA-45-30-11, FA-45-24-11-Kit, and FA-45-16-17 are aerosol-tight fixed-angle rotors for Centrifuge 5430/5430 R. The rotors feature a quick-lock rotor lid (QuickLock®).

| Rotor | Maximum capacity |
|-----------------|----------------------------------------------------------------|
| FA-45-48-11 | 48 micro test tubes with a volume of 2.0 mL |
| FA-45-30-11 | 30 micro test tubes with a volume of 2.0 mL |
| FA-45-24-11-Kit | 24 micro test tubes with a volume of 2.0 mL or 24 Spin Columns |
| FA-45-16-17 | 16 micro test tubes with a volume of 5.0 mL |

2 Safety notes



WARNING! Risk to health due to limited aerosol tightness with incorrect rotor/ rotor lid combination.

Aerosol-tight centrifugation is guaranteed only if the rotors and rotor lids intended for this purpose are used. The designation of aerosol-tight fixed-angle rotors always starts with **FA**. The aerosol-tight rotors and rotor lids of this centrifuge are additionally marked with a red ring on the rotor and a red rotor lid screw.

- ▶ For aerosol-tight centrifugation, always simultaneously use rotors and rotor lids which are marked as aerosol-tight in the centrifuge intended for the corresponding purpose. The details specifying in which centrifuge you may use the aerosol-tight rotors and rotor lids can be found on the rotor and, beginning from production date of October 2003, on the upper side of the rotor lid.
- ▶ Only use aerosol-tight rotor lids in combination with rotors which are marked on the rotor lid.



WARNING! Damage to health as a result of limited aerosol tightness and incorrect usage.

Autoclaving, mechanical stresses and contamination by chemicals or other aggressive solvents can impair the aerosol-tightness of the rotors and rotor lids.

- ▶ Check the integrity of the seals of the aerosol-tight rotor lids or caps before each use.
- ▶ Only use aerosol-tight rotor lids or caps if the seals are undamaged and clean.
- ▶ Lightly grease the threads of the rotor lid screw with pivot grease after every proper autoclaving (121 °C, 20 min.) (Order no.: International 5810 350.050, North America 022634330).
- ▶ Replace aerosol-tight rotor lids and caps after 50 autoclaving cycles.
- ▶ For QuickLock rotor lids, the seal must be replaced after 50 autoclaving cycles.
- ▶ **Never** store aerosol-tight rotors or buckets closed.

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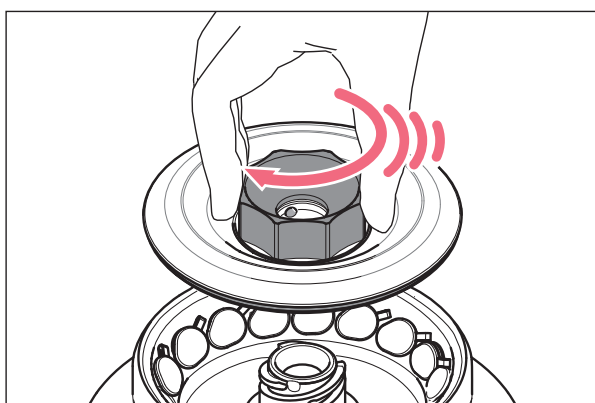
NOTICE! The rotor lid screw may become loose if it is improperly handled.

The lock on aerosol-tight QuickLock rotor lids may become loose if it is used to hold the rotor.

- ▶ Never hold or transport the locked rotor on the rotor lid screw.
- ▶ Always pick up the rotor using both hands.

3 Operation

3.1 Closing the QuickLock rotor lid



1. Check that the outer sealing ring is seated correctly in the groove.
2. Vertically fit the rotor lid on the rotor.
3. To lock the rotor, turn the red rotor lid screw clockwise, beyond an audible *click* until the stop is reached.



The rotor is not closed properly until an audible click is heard!



- ▶ If the closing system is difficult to operate apply a thin layer of pivot grease to the pins in the rotor lid screw.

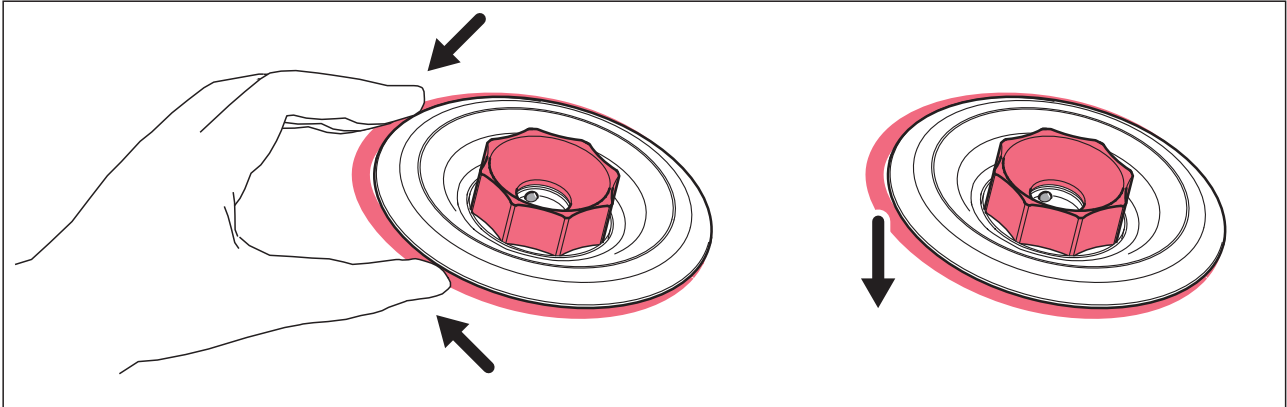
3.2 Retrofitting older centrifuges

You can view the software version on your device's display shortly after switching on the device. Retrofitting may only be carried out by a trained service technician. If you require retrofitting, please contact your dealer.

| Rotor | Operation possible without retrofit | Retrofit of older devices possible |
|--------------------------------|------------------------------------------------------------------------------|----------------------------------------------|
| FA-45-24-11-Kit FA-45-30-11 | from software version 1.0 onwards | – |
| FA-45-48-11 FA-45-16-17 | 5430: from software version 4.4 onwards | 5430: from serial number 10000 onwards |
| | 5430 R • with software version 1.5 • from software version 2.2 onwards | 5430 R: from software version 1.0 onwards |

4 Replacing the rotor lid seal

4.1 Removing the seal



- ▶ Lift the rubber seal from the groove. If necessary, use a blunt lever, for instance the rounded side of a paper clip. Please take care not to damage the seal.

4.2 Inserting the seal



NOTICE! Faulty sealing when the seal is handled incorrectly.

- ▶ Uniformly insert the seal.
- ▶ Do not pull the seal lengthwise.

1. Check the integrity of the seal.
Do not use any damaged, discolored or dirty seals.
2. Insert the seal in one location along the groove and spread with the fingers along the outer edge of the lid until the seal is fully seated in the groove.
3. Place the lid on the rotor and close the lid.
4. Remove the lid and check that the seal is seated correctly



If the seal is too long or too short remove it from the groove and repeat the inserting process.

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5 Technical data

FA-45-48-11

| | |
|------------------------------------------------------------------------------|--------------------------------------------------------------|
| Max. <i>g</i> -force (rcf)/rotational speed (rpm): Outer row Inner row | $18210 \times g/12700$ rpm $16048 \times g/12700$ rpm |
| Max. load per bore: (adapter, tube and contents) | 3.75 g |
| Max. centrifugation radius: Outer row Inner row | 10.1 cm 8.9 cm |

FA-45-30-11

| | |
|-----------------------------------------------------|----------------------------|
| Max. <i>g</i> -force (rcf)/rotational speed (rpm): | $20817 \times g/14000$ rpm |
| Max. load per bore: (adapter, tube and contents) | 3.75 g |
| Max. centrifugation radius: | 9.5 cm |

FA-45-24-11-Kit

| | |
|-----------------------------------------------------|----------------------------|
| Max. <i>g</i> -force (rcf)/rotational speed (rpm): | $19090 \times g/13200$ rpm |
| Max. load per bore: (adapter, tube and contents) | 3.75 g |
| Max. centrifugation radius: | 9.8 cm |

FA-45-16-17

| | |
|-----------------------------------------------------|----------------------------|
| Max. <i>g</i> -force (rcf)/rotational speed (rpm): | $21191 \times g/14200$ rpm |
| Max. load per bore: (adapter, tube and contents) | 9.5 g |
| Max. centrifugation radius: | 9.4 cm |

Additional technical data and order numbers can be found in the operating manual of Centrifuge 5430/5430 R.

QuickLock® is a registered trademark of Eppendorf AG.

Your local distributor: www.eppendorf.com/contact

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