

Instructions for use

Rotor FA-45-48-11, FA-45-20-17, FA-45-6-30

English (EN)

This document supplements the operation manual Centrifuge 5804/5804 R/5810/5810 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-45-20-17 and FA-45-6-30 are aerosol-tight fixed-angle rotors for Centrifuge 5804/5804 R/5810/5810 R.

Rotor	Maximum capacity
FA-45-48-11	48 micro test tubes with a volume of 2.0 mL
FA-45-20-17	20 micro test tubes with a volume of 5.0 mL
FA-45-6-30	6 conical tubes with a volume of 50 mL/15 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 due to limited aerosol tightness in the event of incorrect use.

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

- ▶ 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.
- ▶ After each proper cleaning and autoclaving process (121 °C, 20 min) apply a thin layer of pivot grease to the rotor lid screw thread. (Order no. Int. 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 Required software

Prerequisites

The required software version is installed.

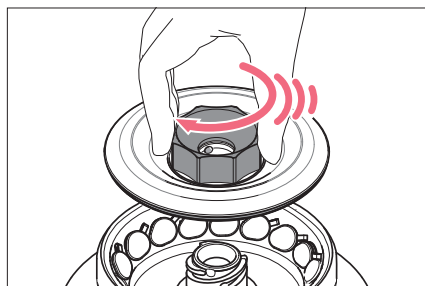
Rotor	Software version required for operating the rotor	Software update for older devices possible
FA-45-48-11, FA-45-20-17	from software version 8.4	from software version 7.0
FA-45-6-30	Operation without software update possible from serial number 60000	5804/5804 R/5810: from serial number 10000 5810 R: from serial number 12000

The installed software version is displayed shortly after switching on the device. The serial number can be found on the name plate of the centrifuge.

- ▶ Update the software of older centrifuges before using the rotor.
Software updates must be carried out by an authorized service technician. Please contact your dealer if necessary.

Operating the rotor with incompatible software may result in sample loss due to incorrect centrifugation parameters.

3.2 Closing the QuickLock rotor lid



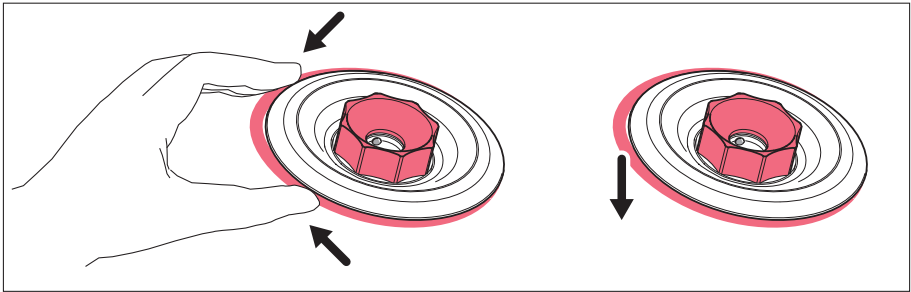
1. Check that the outer sealing ring is seated correctly in the groove.
2. Vertically fit the rotor lid on the rotor.
3. To lock the rotor, turn the red rotor lid screw clockwise, beyond an audible *click* until the stop is reached.

- i** The rotor is not closed properly until an audible click is heard!
- i** ▶ If the closing system is difficult to operate apply a thin layer of pivot grease to the pins in the rotor lid screw.

4 Maintenance

4.1 Replacing the rotor lid seal

4.1.1 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.

4.1.2 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
- i** 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

Rotor FA-45-48-11

Max. <i>g</i> -force (rcf)/speed (rpm): Outer ring Inner ring	19083 × <i>g</i> /13000 rpm 16816 × <i>g</i> /13000 rpm
Max. load per bore: (Adapter, tube and contents)	3.75 g
Max. centrifugation radius: Outer ring Inner ring	10.1 cm 8.9 cm

Rotor FA-45-20-17

Max. <i>g</i> -force (rcf)/speed (rpm):	20913 × <i>g</i> /13100 rpm
Max. load per bore: (Adapter, tube and contents)	9.5 g
Max. centrifugation radius:	10.9 cm

Rotor FA-45-6-30



▶ Do not use Corning® 50 mL PET Centrifuge Tubes. After centrifugation, the tubes may get stuck in the rotor bores.

Max. <i>g</i> -force (rcf)/speed (rpm): without adapter with adapter for conical tubes 15 mL	5804/5804 R/5810 16639 × <i>g</i> /11000 rpm 16233 × <i>g</i> /11000 rpm	5810 R 20133 × <i>g</i> /12100 rpm 19642 × <i>g</i> /12100 rpm
Max. load per bore: (Adapter, tube and contents)	75 g	
Max. centrifugation radius: without adapter with adapter for conical tubes 15 mL	12.3 cm 12.0 cm	

More technical data and order numbers can be found in the operating manual of Centrifuge 5804/5804 R/5810/5810 R.

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