Instructions for using rotors

These instructions for using rotors are a supplement to the operating manual for the centrifuge and are not a substitute, so also read the operating manual before using the rotor for the first time. The current version of the operating manual can be found on the Internet at www.eppendorf.com.

Safety precautions and application limits

Damage from aggressive chemicals.
Rotors are high-quality components which withstand extreme stresses. This stability can be impaired by aggressive chemicals.

- Avoid damage from the use of aggressive chemicals such as strong and weak alkalis, strong acids, solutions of mercury, copper and other heavy metal ions, chlorinated hydrocarbons, concentrated salt solutions and phenol.
- If the rotor is contaminated by aggressive chemicals, clean it immediately with a mild cleaning agent. This applies to the rotor bores and the round/rectangular buckets of swing-bucket rotors in particular.
- The rotors labeled "coated" may fluctuate in color as a result of the production process. These fluctuations have no effect on service life or resistance to chemicals.

The transparent caps (polycarbonate, PC) of the aerosol-tight buckets may be weakened by the action of organic solvents (phenol, chloroform).

- Regularly check such caps for chemical attack and cracks. Replace immediately caps which have cracks and a milky discoloration.

Risk of injury from corroded or damaged rotors, rotor lids and buckets.
Even minor scratches and cracks can result in serious internal material damage.

- Protect all parts from mechanical damage.
- When inserting the buckets in swing-bucket rotors, ensure that no scratches result.
- Check accessories regularly.
- Do not use any rotor, rotor lid or bucket showing signs of corrosion or mechanical damage (e.g. deformation).
- Do not use rotors, rotor lids or buckets beyond their maximum service life (see below).

Risk of injury from incorrectly secured rotors and rotor lids.

- Tighten the rotor with the rotor key supplied.
- The centrifuges 5418 / 5418 R and 5424 / 5424 R can also be run without rotor lids.
- Centrifuge only with the rotor and rotor lid firmly tightened, with buckets inserted properly and caps secure.

Risk of injury from asymmetrical loading or overloading of a rotor.

- Fill rotors symmetrically with identical tubes or buckets and plates.
- Load adapters only with the right tubes/plates.
- Always use tubes of the same type.
- Observe the max. permissible g-force of tubes or plates specified by the manufacturer.
- Fill tubes opposite each other with the same quantity of liquid. You can check this by taring the tubes on a scale.
- Observe the information on each rotor relating to maximum load (adapter, tube and contents) per rotor bore/per bucket and do not exceed this.

Cleaning and disinfection

Regular cleaning of the rotors and buckets promotes hygiene and prevents corrosion and damage from adhering impurities. This applies to the rotor bores of fixed-angle rotors in particular.

- Clean the rotor at least once weekly and in case of acute contamination.
- Remove the rotor from the centrifuge for cleaning and disinfection.
- Use a mild detergent for cleaning.
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- For disinfecting, select a method which meets the legal regulations and directives applicable to your sphere of application. For example, use alcohol (ethanol, isopropanol) or disinfectants containing alcohol.

- All rotors, rotor lids and adapters except the rotor cross of the A-4-81 and the A-2-MTP are autoclavable (121°C, 20 min).

- You should also follow the operating manual for the centrifuge and the supplement sheet supplied with the aerosol-tight rotors with regard to aerosol-tight centrifugation.

- Dirty grooves and pivots on swing-bucket rotors prevent buckets from swinging out evenly.

- Pay particular attention to the cleanliness of pivots and grooves on swing-bucket rotors. Regularly grease the pivots of the rotor and the grooves of the buckets lightly with pivot grease (order no. International 5810 350.050; order no. North America 022634330), so that the buckets can move with a rocking motion.

- Regularly grease the lid thread of fixed-angle rotors lightly with pivot grease to prevent damage (International order no.: 5810 350.050; North America order no.: 022634330).

**Service life**

The following rotors, including the associated buckets and rotor lids have a maximum service life of 7 years after first being brought into use:

<table>
<thead>
<tr>
<th>Description</th>
<th>Centrifuge Order no.</th>
<th>Order no. International</th>
<th>Order no. North America</th>
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<tr>
<td>A-2-DWP-AT</td>
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<td>5810 743.001</td>
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Rotor lids and caps for round/rectangular buckets made of polycarbonate (PC) or polypropylene (PP), the swing buckets of Rotor A-8-11 and the lids of Rotors FA-45-18-11, F-35-6-30 and FA-45-6-30 have a maximum service life of 3 years after first being brought into use.

Adapters made of plastic have a maximum service life of 1 year after first being brought into use.

There is no limit on the service life of any other rotors and their rotor lids, as long as the following conditions are met: they are used properly, are looked after as recommended and are in an undamaged condition.

The date of manufacture is embossed on rotors in the form 03/09 (= March 2009) or, on the inside of plastic rotor lids, in the form of a clock ☑️.