

General Lab Products



# It's Your Turn

Eppendorf Centrifuge 5702, 5702 R, and 5702 RH



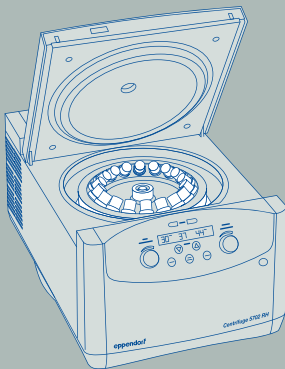
The Eppendorf approach to product development is – and has always been – about giving you more. More quality, more innovation. All of our centrifuges personalize this philosophy. They all go beyond speed and capacity to offer you unparalleled ergonomic operation, superior temperature control, and outstanding product quality.

# »Eppendorf Centrifuges – The Benchmark in Ergonomic Operation.«

The Centrifuge 5702 family was specifically developed for low to medium throughput applications with low speed requirements.

## Ergonomics

- > Very compact footprint to fit on every lab bench
- > Very quiet operation to benefit your environment
- > Low access height for simple loading and unloading of samples



## Temperature management

- > Optimized air flow minimizes sample warming during run (5702)
- > FastTemp function for fast precooling (5702 R/RH)
- > ECO shut-off engages after 8 hours of nonuse to reduce energy consumption and extend compressor life (5702 R/RH)



## Quality and safety

- > Stainless steel rotor chamber is rust-free and easy to clean
- > Imbalance detection for maximum safety
- > Key lock to prevent accidental parameter changes
- > Aerosol-tight caps for safe centrifugation of hazardous samples optionally available



# Product Benefits



**Ergonomic lid operation**

- > Soft-touch lid closure and low opening height for stress-free lid locking

**Optimized cooling performance**

- > Dynamic compressor control with ECO shut-off function (refrigerated models only)

**Quiet operation**

- > All models are designed to operate at low noise levels for a relaxing work environment

**Low access height**

- > Easy loading/unloading of samples

**The right model for your application:**

- > Centrifuge 5702 for standard applications
- > Refrigerated Centrifuge 5702 R for heat sensitive samples
- > Heated and refrigerated Centrifuge 5702 RH allows centrifugation under biological conditions to improve cell viability for more accurate results in downstream applications (e.g. cell cultivation)

**Product features**

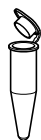
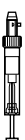
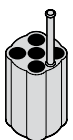
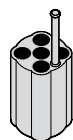
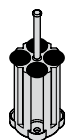
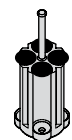
- > Max. speed:  $3,000 \times g$  (4,400 rpm)
- > Very compact footprint to fit on every lab bench
- > Very quiet operation to benefit your environment
- > Low access height for simple loading and unloading of samples
- > SOFT brake function for slow acceleration and braking. Optimized for cell separation by gradient centrifugation
- > »At set RPM« function starts the timer when the selected rotational speed is reached for reproducible centrifugation runs
- > Key lock to prevent unintentional adjustments
- > Electronic imbalance detection for maximum safety

**Special features for Centrifuge 5702 R and Centrifuge 5702 RH**

- > Temperature settings from  $-9\text{ }^{\circ}\text{C}$  to  $40\text{ }^{\circ}\text{C}$  (5702 R) /  $42\text{ }^{\circ}\text{C}$  (5702 RH)
- > FastTemp function for fast precooling
- > Continuous cooling maintains a constant temperature after the run has been completed – your samples stay cool
- > ECO shut-off engages after 8 hours of nonuse to reduce energy consumption and extend compressor life
- > Two program keys to store routine procedures
- > Active heating guarantees high temperature accuracy during the entire centrifugation cycle (only 5702 RH)

# Swing-Bucket Rotor A-4-38

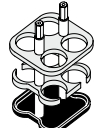
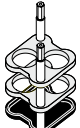
## Rotor A-4-38 with round buckets

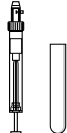
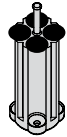
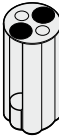
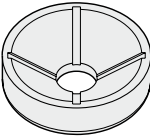
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |
| <b>Volume (mL)</b>                                                                | 1.5–2.0                                                                           | 1.1–1.4                                                                           | 2–7                                                                               | 2.6–7                                                                               | 4–10                                                                                |
| <b>Max. tube diameter</b>                                                         | 11 mm                                                                             | 8.5 mm                                                                            | 12.5 mm                                                                           | 13.5 mm                                                                             | 16 mm                                                                               |
| <b>Max. vessel height</b>                                                         | 43 mm                                                                             | 100 mm                                                                            | 100 mm                                                                            | 100 mm                                                                              | 100 mm                                                                              |
| <b>Max. vessel height for use with cap<sup>1)</sup></b>                           | 43 mm                                                                             | 100 mm                                                                            | 100 mm                                                                            | 100 mm                                                                              | 100 mm                                                                              |
| <b>Adapter</b>                                                                    |  |  |  |  |  |
| <b>Number of vessels per adapter/rotor</b>                                        | 4/16                                                                              | 5/20                                                                              | 5/20                                                                              | 4/16                                                                                | 4/16                                                                                |
| <b>Bottom shape</b>                                                               | round                                                                             | flat                                                                              | flat                                                                              | flat                                                                                | flat                                                                                |
| <b>Centrifugation radius</b>                                                      | 134 mm                                                                            | 132 mm                                                                            | 132 mm                                                                            | 132 mm                                                                              | 132 mm                                                                              |
| <b>Max. RCF</b>                                                                   | $2,900 \times g$                                                                  | $2,850 \times g$                                                                  | $2,850 \times g$                                                                  | $2,850 \times g$                                                                    | $2,850 \times g$                                                                    |
| <b>Order no. (set of 2)</b>                                                       | 5702 745.006                                                                      | 5702 736.007                                                                      | 5702 737.003                                                                      | 5702 719.005                                                                        | 5702 735.000                                                                        |

<sup>1)</sup> Exceeding the maximum tube length may reduce the loading capacity of the rotor. Please perform a manual swing-out test before starting the centrifuge run to make sure the tubes do not hit the rotor yoke.

<sup>2)</sup> Nominal tube volume as published by tube manufacturers

## Rotor A-4-38 with rectangular buckets

|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| <b>Volume (mL)</b>                                                                  | 2–7                                                                                 | 5–7                                                                                 | 9                                                                                   | 15                                                                                    | 20                                                                                    | 25                                                                                    |
| <b>Max. tube diameter</b>                                                           | 12 mm                                                                               | 13 mm                                                                               | 14.5 mm                                                                             | 17.5 mm                                                                               | 22 mm                                                                                 | 25 mm                                                                                 |
| <b>Adapter</b>                                                                      |  |  |  |   |  |  |
| <b>Number of vessels per adapter/rotor</b>                                          | 9/36                                                                                | 10/40                                                                               | 8/32                                                                                | 6/24                                                                                  | 4/16                                                                                  | 2/8                                                                                   |
| <b>Bottom shape</b>                                                                 | round                                                                               | flat                                                                                | flat                                                                                | flat                                                                                  | flat                                                                                  | flat                                                                                  |
| <b>Centrifugation radius</b>                                                        | 119 mm                                                                              | 127 mm                                                                              | 127 mm                                                                              | 127 mm                                                                                | 127 mm                                                                                | 127 mm                                                                                |
| <b>Max. RCF</b>                                                                     | $2,577 \times g$                                                                    | $2,750 \times g$                                                                    | $2,750 \times g$                                                                    | $2,750 \times g$                                                                      | $2,750 \times g$                                                                      | $2,750 \times g$                                                                      |
| <b>Order no. (set of 2)</b>                                                         | 5702 763.004                                                                        | 5702 710.008                                                                        | 5702 711.004                                                                        | 5702 712.000                                                                          | 5702 713.007                                                                          | 5702 716.006                                                                          |

|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| Eppendorf Tubes® 5.0 mL                                                           | 9–15                                                                              | 15 mL conical                                                                     | 15 mL conical                                                                     | 25                                                                                 | 50 mL conical                                                                       | 85–100 <sup>2)</sup>                                                                |
| –                                                                                 | 17.5 mm                                                                           | 17.2 mm                                                                           | 17.2 mm                                                                           | 25 mm                                                                              | 30 mm                                                                               | 38 mm                                                                               |
| 60 mm                                                                             | 100 mm                                                                            | 121 mm                                                                            | 121 mm                                                                            | 100 mm                                                                             | 115 mm                                                                              | 106 mm                                                                              |
| 60 mm                                                                             | 100 mm                                                                            | 120 mm                                                                            | –                                                                                 | 100 mm                                                                             | 115 mm                                                                              | 106 mm                                                                              |
|  |  |  |  |  |  |  |
| 1/4                                                                               | 4/16                                                                              | 1/4                                                                               | 2/8                                                                               | 1/4                                                                                | 1/4                                                                                 | 1/4                                                                                 |
| flat                                                                              | round                                                                             | conical                                                                           | conical                                                                           | round                                                                              | conical                                                                             | round                                                                               |
| 136 mm                                                                            | 130 mm                                                                            | 137 mm                                                                            | 137 mm                                                                            | 135 mm                                                                             | 135 mm                                                                              | 135 mm                                                                              |
| 2,943 × <i>g</i>                                                                  | 2,800 × <i>g</i>                                                                  | 3,000 × <i>g</i>                                                                  | 3,000 × <i>g</i>                                                                  | 2,900 × <i>g</i>                                                                   | 2,900 × <i>g</i>                                                                    | 2,900 × <i>g</i>                                                                    |
| 5702 733.008                                                                      | 5702 724.009                                                                      | 5702 732.001                                                                      | 5702 723.002                                                                      | 5702 717.002                                                                       | 5702 734.004                                                                        | 5702 718.009                                                                        |

#### Rotor A-4-38 with round buckets

- > Maximum speed: 3,000 × *g* (4,400 rpm)
- > Standard rotor for centrifugation of blood collection tubes or 15/50 mL conical tubes
- > Round buckets for vessels with 1.5–100 mL
- > Aerosol-tight caps for safe centrifugation of hazardous samples optionally available

#### Ordering information

| Description                                                   | Order no.    |
|---------------------------------------------------------------|--------------|
| <b>Rotor A-4-38</b>                                           |              |
| incl. 4 round buckets 100 mL                                  | 5702 720.003 |
| <b>Round bucket 100 mL</b> , for Rotor A-4-38, set of 4       | 5702 722.006 |
| <b>Aerosol-tight caps for 100 mL round buckets</b> , set of 2 | 5702 721.000 |

#### Rotor A-4-38 with rectangular buckets

- > Maximum speed: 2,750 × *g* (4,400 rpm)
- > Rectangular buckets for vessels with 5–25 mL

#### Ordering information

| Description                                                  | Order no.    |
|--------------------------------------------------------------|--------------|
| <b>Rotor A-4-38</b> , without buckets                        | 5702 740.004 |
| <b>Rectangular bucket 90 mL</b> , for Rotor A-4-38, set of 4 | 5702 709.000 |

**Rotor A-8-17 (5702 700.002)**

- > Maximum speed:  $2,800 \times g$  (4,400 rpm)
- > Low capacity rotor for centrifugation of 15 mL conical tubes or 15 mL glass tubes
- > Adapters for 15 mL conical tubes (5702 702.005, set of 8) and rubber mat inserts (5702 701.009, set of 8) for glass tubes optionally available

**Rotor F-45-24-11 (5702 746.002)**

- > Maximum speed:  $1,770 \times g$  (4,400 rpm)
- > Fixed-angle rotor for  $24 \times 1.5/2.0$  mL tubes
- > Quiet centrifugation even without rotor lid
- > Adapters optionally available for:
  - 0.2 mL PCR tubes (5425 715.005)
  - 0.4 mL centrifuge tubes (5425 717.008)
  - 0.5 mL micro test tubes and Microtainer® tubes (5425 716.001)
- > Rotor and adapters are autoclavable (121 °C, 20 min)

**Rotor F-35-30-17**

- > Maximum speed:  $2,750 \times g$  (4,400 rpm)
- > High capacity rotor for  $20 \times 15$  mL conical tubes or  $30 \times 15$  mL glass tubes
- > Inserts for 15 mL conical tubes and rubber mats for use with glass tubes are included
- > Available with 30 sleeves for 15 mL tubes, with 20 conical adapters and 30 rubber mats (5702 704.008) or with 10 steel sleeves for 15 mL conical tubes, incl. 10 conical adapters and 10 rubber mats (5702 705.004)

**Rotor F-45-18-17-Cryo (5702 747.009)**

- > Maximum speed:  $1,840 \times g$  (4,400 rpm)
- > Quiet centrifugation even without rotor lid
- > Centrifugation of 1–2 mL Cryotube® (max. 13 mm Ø, use with adapter) and tubes with screw cap (max. 17 mm Ø, no adapter required)
- > Rotor and adapters are autoclavable (121 °C, 20 min)

## Technical specifications

| Model                  | Centrifuge 5702                           | Centrifuge 5702 R                         | Centrifuge 5702 RH                        |
|------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| Max. RCF               | 3,000 × <i>g</i>                          | 3,000 × <i>g</i>                          | 3,000 × <i>g</i>                          |
| Speed                  | 100–4,400 rpm<br>(100 rpm increments)     | 100–4,400 rpm<br>(100 rpm increments)     | 100–4,400 rpm<br>(100 rpm increments)     |
| Max. capacity          | 4 × 100 mL                                | 4 × 100 mL                                | 4 × 100 mL                                |
| Rotors available       | 6                                         | 6                                         | 6                                         |
| Acceleration time      | 25 s                                      | 25 s                                      | 25 s                                      |
| Deceleration time      | 25 s                                      | 25 s                                      | 25 s                                      |
| SOFT brake function    | yes                                       | yes                                       | yes                                       |
| Timer                  | 0–99 min, with continuous<br>run function | 0–99 min, with continuous<br>run function | 0–99 min, with continuous<br>run function |
| Temperature settings   | –                                         | –9 °C to 40 °C                            | –9 °C to 42 °C                            |
| Noise level            | <51 dB(A) with Rotor A-4-38               | <45 dB(A) with Rotor A-4-38               | <45 dB(A) with Rotor A-4-38               |
| Max. power consumption | 200 W                                     | 380 W                                     | 380 W                                     |
| Dimensions (W × D × H) | 32 × 40 × 24 cm                           | 38 × 58 × 26 cm                           | 38 × 58 × 26 cm                           |
| Height (with open lid) | 53 cm                                     | 60 cm                                     | 60 cm                                     |
| Weight without rotor   | 20 kg                                     | 36 kg                                     | 36 kg                                     |

## Ordering information

| Description                                                                                                           | Order no.    |
|-----------------------------------------------------------------------------------------------------------------------|--------------|
| Centrifuge 5702, without rotor, 230 V/50–60 Hz                                                                        | 5702 000.010 |
| Centrifuge 5702, with Rotor A-4-38 incl. adapters for 15/50 mL conical tubes, 230 V/50–60 Hz                          | 5702 000.320 |
| Centrifuge 5702 R, refrigerated, without rotor, 230 V/50–60 Hz                                                        | 5703 000.010 |
| Centrifuge 5702 R, refrigerated, with Rotor A-4-38 incl. adapters for 15/50 mL conical tubes, 230 V/50–60 Hz          | 5703 000.425 |
| Centrifuge 5702 R, refrigerated, with Rotor A-4-38 incl. adapters for 13/16 mm blood collection tubes, 230 V/50–60 Hz | 5703 000.320 |
| Centrifuge 5702 RH, refrigerated/heated, without rotor, 230 V/50–60 Hz                                                | 5704 000.010 |

# Centrifuge Family Overview

## Eppendorf Microcentrifuges

|                         |                                       |                       |                                   |                                                 |                                                  |                                                        |                                                         |                 |
|-------------------------|---------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------|--------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|-----------------|
|                         |                                       |                       |                                   |                                                 |                                                  |                                                        |                                                         |                 |
| <b>Model</b>            | <b>MiniSpin®</b>                      | <b>MiniSpin® plus</b> | <b>5418 R</b>                     | <b>5424 R</b>                                   | <b>5425</b>                                      | <b>5427 R</b>                                          | <b>5430</b>                                             | <b>5430 R</b>   |
| <b>Positioning</b>      | Space saving 12-place mini-centrifuge |                       | Compact 18-place micro-centrifuge | Refrigerated 24-place standard micro-centrifuge | Whisper quiet 24-place standard micro-centrifuge | High-throughput refrigerated 48-place micro-centrifuge | Crossover microcentrifuge with multipurpose versatility |                 |
| <b>Max. Capacity</b>    | 12 x 1.5/2 mL                         |                       | 18 x 1.5/2 mL                     | 24 x 1.5/2 mL                                   | 10 x 5 mL                                        | 48 x 1.5/2 mL                                          | 48 x 1.5/2 mL (6 x 15/50 mL, 2 x MTP)                   |                 |
| <b>Max. speed (RCF)</b> | 12,100 x g                            | 14,100 x g            | 16,873 x g                        | 21,130 x g                                      | 21,300 x g                                       | 25,000 x g                                             | 30,130 x g                                              |                 |
| <b>Max. rpm</b>         | 13,400                                | 14,500                | 14,000                            | 15,000                                          | 15,060                                           | 16,220                                                 | 17,500                                                  |                 |
| <b>Rotor options</b>    | 2                                     |                       | 1                                 | 4                                               | 6                                                | 9                                                      | 12                                                      |                 |
| <b>Refrigerated</b>     | –                                     | –                     | 0 °C to 40 °C                     | –10 °C to 40 °C                                 | –                                                | –10 °C to 40 °C                                        | –                                                       | –11 °C to 40 °C |
| <b>Ordering no.</b>     | 5452 000.010                          | 5453 000.015          | 5401 000.010                      | 5404 000.610                                    | 5405 000.719                                     | 5409 000.010                                           | 5427 000.610                                            | 5428 000.610    |

## Eppendorf Multipurpose Centrifuges

|                                    |                                                                                                    |                |                |                                                         |                |                                                      |                |                                                            |                                                                 |
|------------------------------------|----------------------------------------------------------------------------------------------------|----------------|----------------|---------------------------------------------------------|----------------|------------------------------------------------------|----------------|------------------------------------------------------------|-----------------------------------------------------------------|
|                                    |                                                                                                    |                |                |                                                         |                |                                                      |                |                                                            |                                                                 |
| <b>Model</b>                       | <b>5702</b>                                                                                        | <b>5702 R</b>  | <b>5702 RH</b> | <b>5804</b>                                             | <b>5804 R</b>  | <b>5810</b>                                          | <b>5810 R</b>  | <b>5910 R</b>                                              | <b>5920 R</b>                                                   |
| <b>Positioning</b>                 | Low speed multipurpose centrifuge with medium capacity for clinical research and cell culture labs |                |                | High speed multipurpose centrifuge with medium capacity |                | Compact multipurpose centrifuge with medium capacity |                | Super versatile multipurpose centrifuge with high capacity | High-throughput multipurpose centrifuge with very high capacity |
| <b>Capacity</b>                    | 4 x 100 mL                                                                                         |                |                | 4 x 250 mL                                              |                | 4 x 750 mL                                           |                | 4 x 750 mL                                                 | 4 x 1,000 mL                                                    |
| <b>&gt; Conical tubes</b>          | 20 x 15 mL/4 x 50 mL                                                                               |                |                | 40 x 15 mL/16 x 50 mL                                   |                | 56 x 15 mL/28 x 50 mL                                |                | 64 x 15 mL/36 x 50 mL                                      | 108 x 15 mL/52 x 50 mL                                          |
| <b>&gt; Blood collection tubes</b> | 36 x 13 mm/30 x 16 mm                                                                              |                |                | 56 x 13 mm/52 x 16 mm                                   |                | 100 x 13 mm/80 x 16 mm                               |                | 120 x 13 mm/104 x 16 mm                                    | 196 x 13 mm/148 x 16 mm                                         |
| <b>&gt; Plates</b>                 | –                                                                                                  |                |                | 10 x MTP/2 x DWP                                        |                | 16 x MTP/4 x DWP                                     |                | 20 x MTP/4 x DWP                                           | 28 x MTP/8 x DWP                                                |
| <b>Max. speed (RCF)</b>            | 3,000 x g                                                                                          |                |                | 20,913 x g                                              |                | 20,913 x g                                           |                | 22,132 x g                                                 | 25,062 x g                                                      |
| <b>Max. rpm</b>                    | 4,400                                                                                              |                |                | 14,000                                                  |                | 14,000                                               |                | 14,000                                                     | 13,700                                                          |
| <b>Rotor options</b>               | 6                                                                                                  |                |                | 12                                                      |                | 18                                                   |                | –                                                          | –                                                               |
| <b>Refrigerated</b>                | –                                                                                                  | –9 °C to 40 °C | –9 °C to 42 °C | –                                                       | –9 °C to 40 °C | –                                                    | –9 °C to 40 °C | –11 °C to 40 °C                                            | –11 °C to 40 °C                                                 |
| <b>Ordering no.</b>                | 5702 000.010                                                                                       | 5703 000.010   | 5704 000.010   | 5804 000.010                                            | 5805 000.010   | 5810 000.010                                         | 5811 000.015   | 5942 000.010                                               | 5948 000.010                                                    |

Technical specifications subject to change. Errors and omissions excepted.