

# Shaking Water Bath MSB 21

## Description

Stainless steel water bath with optional accessories for many applications. MSB shaking water bath extends the process of temperature control by a horizontal shaking movement. The vessels in the insert basket can be shaken to different strengths. From gentle mixing to vigorous shaking.

In addition to setting the temperature in degrees Celsius or Fahrenheit, it is possible to set three programmable fixed times up to 99.59 minutes and a lower and upper setpoint limit via a digital LED display.

Behind this is a microprocessor-controlled PID temperature control, which guarantees a temperature constancy of  $\pm 0.2$  K and is equipped with a visual and/or acoustic limit value alarm (acoustic alarm can be switched off).

The dry-heat protection integrated in the heater guarantee the possibility of unsupervised operation (if used properly with non-flammable liquids).

Furthermore, the bath vessel can be easily emptied via the screw plug of the bottom outlet or an optional drain tap.



Shaking water bath MSB 21



Shaking water bath MSB 21, open without optional accessories

## Technical Data

| Model                                                           | MSB 21             |
|-----------------------------------------------------------------|--------------------|
| Order No. Shaking Water Bath MSB 21 with standard insert basket | 104.9999           |
| Heating rate (20 to 70°C)                                       | < 1.8 min/l        |
| Heat emission                                                   | < 100 W/h          |
| Bath volume                                                     | 5 – 20 l           |
| Bath opening (basket)                                           | 370 x 165 mm       |
| Bath depth                                                      | 150 mm             |
| Shaking stroke                                                  | 16 mm              |
| Shaking frequency                                               | 20 – 200 pro min   |
| Working temperature range                                       | 25 – 100°C         |
| Temperature (at 70°C in water)                                  | $\pm 0.2$ K        |
| Ambient temperature                                             | 1 – 40°C           |
| Heating output                                                  | 2.0 kW             |
| Dimensions (W x D x H)                                          | 630 x 340 x 300 mm |
| Weight                                                          | 15 kg              |
| Safety class                                                    | 1 (DIN 12876)      |

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## Optional Accessories

| Figure | Designation                                              | Description                          |            | Suitable for model...    |
|--------|----------------------------------------------------------|--------------------------------------|------------|--------------------------|
|        | FL 5-1                                                   | Flat lid 5, 1 opening                | Ø = 130 mm | MWB 5                    |
|        | FL 5-2                                                   | Flat lid 5, 2 openings               | Ø = 92 mm  | MWB 5                    |
|        | FL 10-3                                                  | Flat lid 10, 3 openings              | Ø = 130 mm | MWB 10                   |
|        | FL 10-6                                                  | Flat lid 10, 6 openings              | Ø = 92 mm  | MWB 10                   |
|        | FL 20-3                                                  | Flat lid 20, 3 openings              | Ø = 130 mm | MWB 20                   |
|        | FL 20-8                                                  | Flat lid 20, 8 openings              | Ø = 92 mm  | MWB 20                   |
|        | WR 130                                                   | Water bath rings 6-piece             | Ø = 130 mm | FL 5-1; FL 10-3, FL 20-3 |
|        | WR 92                                                    | Water bath rings 4-piece             | Ø = 92 mm  | FL 5-2; FL 10-6, FL 20-8 |
|        | AH                                                       | Drain tap, complete                  |            | MWB 5 to MWB 80          |
|        | FK 10                                                    | Retaining clip for Erlenmeyer flasks | 10 ml      | MSB 21                   |
|        | FK 25                                                    | Retaining clip for Erlenmeyer flasks | 25 ml      | MSB 21                   |
|        | FK 50                                                    | Retaining clip for Erlenmeyer flasks | 50 ml      | MSB 21                   |
|        | FK 100                                                   | Retaining clip for Erlenmeyer flasks | 100 ml     | MSB 21                   |
|        | FK 250                                                   | Retaining clip for Erlenmeyer flasks | 250 ml     | MSB 21                   |
|        | FK 500                                                   | Retaining clip for Erlenmeyer flasks | 500 ml     | MSB 21                   |
|        | FK 1000                                                  | Retaining clip for Erlenmeyer flasks | 1000 ml    | MSB 21                   |
|        | Test tube racks in different sizes available on request. |                                      |            |                          |