# Thermo Scientific Heraeus Biofuge Stratos High-Speed Benchtop Centrifuges



Delivering superspeed performance and flexibility on the bench



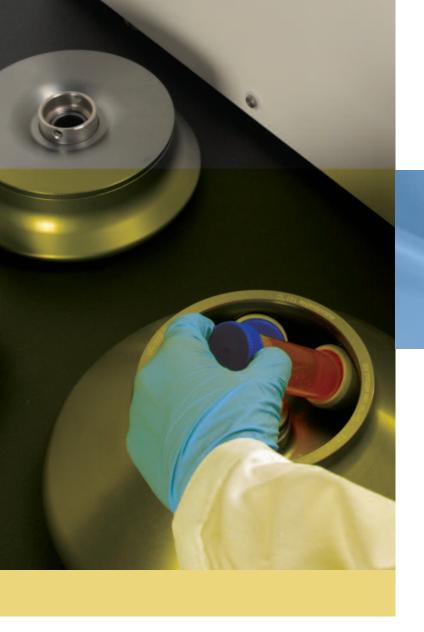
### **Thermo Scientific Heraeus Biofuge Stratos Centrifuges**

**Accelerating discovery through innovation** 



Maximize productivity by processing more samples in less time with our centrifugation solutions that offer exceptional performance, versatility, and reliability.

Our Thermo Scientific Heraeus Biofuge Stratos high-speed benchtop centrifuge series delivers speed and flexibility to allow reliable separations — all in a compact footprint. The centrifuge is available in refrigerated and continuous flow models, featuring intelligent technologies that eliminate imbalances and simplify operation — maximizing your productivity and results.



#### **Superior Consumable Compatibility**

Thermo Scientific Nalgene and Nunc brand centrifuge bottles and tubes deliver quality and performance. These products are in conformance with ISO 13485: 2003, cGMP and USP Class VI; you'll find updated speed ratings and lot specific product certificates online. Available in a variety of resins, with capacities from 1.0 ml to 2 L, Nalgene® and Nunc™ brand products are a perfect fit to Thermo Scientific centrifuges.



# Maximum Performance and Stability for Fast and Efficient Separations

Our Thermo Scientific Spindle Drive technology delivers high-speed capabilities on the benchtop including:

- Rapid acceleration and quick braking to speed sample throughput and improve instrument life
- Whisper-quiet operation
- High g-forces for faster separations over a wider variety of applications
- Dual lid-locking to engage lid quickly and safely

#### **Continuous Imbalance Tolerance to Protect Samples**

Our electronic imbalance recognition system safeguards samples:

- Sample loss detected during runs with automatic braking
- Improper rotor installation detected specifically for every rotor to protect drive
- Excessive speed detected and the maximum permissible value for the rotor is signaled
- Outstanding imbalance tolerance allows Eyebalancing of tubes, speeding sample preparation

#### **Versatility and Simplicity with Smart, Intuitive Controls**

The Thermo Scientific Easycontrol panel simplifies work with an easy-to-read display of system performance, including:

- 9 pre-saved programs for most important run parameters
- Pre-temp program for rapid pre-cooling





- Rapid, consistent performance
- Perfect for a wide range of volumes
- High-speed rotors
- Wide variety of rotors to meet a broad array of applications
- Portable and vibration-free

#### **Certified for Biocontainment**

Rotors and accessories are designed for biologically safe centrifugation with effective seals against hazards, and have been certified for biocontainment by CAMR\* Porton Down.

\*CAMR is now incorporated within the UK Health Protection Agency (HPA).

#### **Available with Continuous Flow Operation**

For processing large sample volumes rapidly and reliably in a single run, our Heraeus Biofuge Stratos centrifuge is available with continuous flow operation.

The Heraeus Contifuge Stratos centrifuge is a more convenient and faster solution over conventional batch separations, quickly separating large volumes of suspension, resulting in high yields.

Our Heraeus Contifuge Stratos is ideal for:

- Harvesting of plant and animal cell cultures
- Harvesting of bacteria and virus lysates
- · Precipitation of protein complexes
- Cell enrichment
- Separation of immunoglobulins
- Vaccine production
- Preparation of macrophages
- Separation of yeasts
- Sediment extraction from water samples
- Plankton enrichment





### **Thermo Scientific Heraeus Biofuge Stratos Rotors and Adapters**

|             | Description   | Conneite  | May Tuba        | May Casad     | May DCF       | May Casad        | May DCF       | Cat Na              |
|-------------|---|---|-----------------|---------------|---------------|------------------|---------------|---------------------|
|             | Description   | Capacity  | Max. Tube       |               | Max. RCF      | Max. Speed (rpm) |               | Cat. No.            |
|             | 4 x 180 Swinging Bucket Rotor, R <sub>max</sub> 17.4 mm                                 | (place x ml)<br>4 x 180                         | Dimensions (mm) | (rpm)<br>4500 | (x g)<br>3940 | 5000             | (x g)<br>4863 | 75003047            |
| <b>X</b>    |   |   |                 | 4300          | 3940          | 2000             | 4003          |                     |
|             | Round Buckets (each)  | 4 x 180   |                 |               |               |                  |               | 75008172            |
|             | Sealing Lids (each)   |   |                 |               |               |                  |               | 75008173            |
|             | Adapters for 4 x 180 Swinging Bucket Rotor  |   |                 |               |               |                  |               |                     |
|             | 180 ml Screw Cap Bottles  | 4 x 180   | 55 x 112        |               |               |                  |               | 76003020            |
|             | 100 ml Round bottom Tube  | 4 x 100   | 45 x 128        |               |               |                  |               | 7500818             |
|             | 50 ml Standard Tube   | 4 x 50  | 36 x 132        |               |               |                  |               | 7500818             |
|             | 50 ml Disposable Conical Tube   | 4 x 50  | 29 x 133        |               |               |                  |               | 7500818             |
|             | 25 ml Universal Tube  | 4 x 25  | 26 x 121        |               |               |                  |               | 7500819             |
|             | 25 ml Standard Tube   | 4 x 25  | 25 x 126        |               |               |                  |               | 7500818             |
|             | 15 ml Disposable Conical Tube   | 12 x 15   | 19 x 133        |               |               |                  |               | 7500818             |
|             | 15 ml Blood Collection Tube   | 16 x 15   | 18 x 129        |               |               |                  |               | 7500818             |
|             | 15 ml Standard Tube   | 28 x 15   | 18 x 126        |               |               |                  |               | 7500818             |
|             | 7 ml Blood Collection Tube  | 28 x 7  | 13 x 126        |               |               |                  |               | 7500818             |
|             |   |   |                 |               |               |                  |               |                     |
|             | 7 ml Standard Tube  | 36 x 7  | 13 x 125        |               |               |                  |               | 7500818             |
|             | 1.5/2 ml Microtube  | 48 x 1.5/2                                      | 11 x 42         |               |               |                  |               | 7500819             |
|             | 2 x 2 Standard Microplate Rotor, R <sub>max</sub> 13.6mm                                | 2 x 1 MP  |                 | 3000          | 1370          | 3000             | 1370          | 7500304             |
|             |   |   |                 |               |               |                  |               |                     |
| >           | 6 x 94 Fixed Angle Rotor, R <sub>max</sub> 10.1 mm, 26°                                 | 6 x 94  |                 | 13000         | 19080         | 15000            | 25410         | 7500333             |
|             | Adapters for 6 x 94 Fixed Angle Rotor   |   |                 |               |               |                  |               |                     |
|             | 94 ml Round Bottom Tube   | 6 x 94  | 38 x 114        |               |               |                  |               | Direct              |
|             | 50 ml Round Bottom Tube   | 6 x 50  | 29 x 114        |               |               |                  |               | 7500301             |
|             | 38 ml Round Bottom Tube   | 6 x 38  | 25 x 104        |               |               |                  |               | 7500301             |
|             | 16 ml Round Bottom Tube   | 6 x 16  | 18 x 114        |               |               |                  |               | 7600290             |
|             |   |   |                 |               |               |                  |               |                     |
|             | 12 ml Round Bottom Tube   | 12 x 12   | 16 x 89         |               |               |                  |               | 7500309             |
|             | 6.5 ml Round Bottom Tube  | 12 x 6.5  | 13 x 108        |               |               |                  |               | 7500309             |
|             | 3.5 ml Round Bottom Tube  | 24 x 3.5  | 11 x 91         |               |               |                  |               | 7500309             |
| _           | 1.5 ml Microtube  | 24 x 1.5  | 11 x 51         |               |               |                  |               | 7600290             |
| 8           | 8 x 50 Fixed Angle Rotor, R <sub>max</sub> 10.7 mm, 34°                                 | 8 x 50  |                 | 13000         | 20220         | 15000            | 26920         | 7500333             |
| •           | Adapters for 8 x 50 Fixed Angle Rotor   |   |                 |               |               |                  |               |                     |
|             | 50 ml Round Bottom Tube   | 8 x 50  | 29 x 114        |               |               |                  |               | Direct              |
|             | 38 ml Round Bottom Tube   | 8 x 38  | 25 x 104        |               |               |                  |               | 7500309             |
|             | 16 ml Round Bottom Tube   | 8 x 16  | 18 x 114        |               |               |                  |               | 7600290             |
|             | 12 ml Round Bottom Tube   | 8 x 12  | 16 x 89         |               |               |                  |               | 7500309             |
|             | 6.5 ml Round Bottom Tube  | 8 x 6.5   | 13 x 108        |               |               |                  |               | 7500303             |
|             |   |   |                 |               |               |                  |               |                     |
|             | 3.5 ml Round Bottom Tube  | 24 x 3.5  | 11 x 91         |               |               |                  |               | 7600290             |
|             | 1.5 ml Microtube  | 24 x 1.5  | 11 x 51         |               |               |                  |               | 7600290             |
| <b>&gt;</b> | 16 x 16 Fixed Angle Rotor, R <sub>max</sub> 9.8 mm, 23°                                 | 16 x 16   |                 | 14000         | 21475         | 17000            | 31660         | 7500333             |
|             | Adapters for 16 x 16 Fixed Angle Rotor  |   |                 |               |               |                  |               |                     |
|             | 16 ml Round Bottom Tube   | 16 x 16   | 18 x 114        |               |               |                  |               | Direct              |
|             | 6.5 ml Round Bottom Tube  | 16 x 6.5  | 13 x 108        |               |               |                  |               | 7500307             |
|             | 3.5 ml Round Bottom Tube  | 16 x 3.5  | 11 x 91         |               |               |                  |               | 7600290             |
|             | 1.5 ml Microtube  | 16 x 1.5  | 11 x 51         |               |               |                  |               | 7600230             |
| <u>\</u>    | Thermo Scientific Highconic Rotor, R <sub>max</sub> 12.4 mm, 45°                        | 6 x 50  | 11 A J1         | 8500          | 10015         | 8500             | 10015         | 7500305             |
| /           |   | 0 X 30  |                 | 0300          | 10013         | 0300             | 10013         | 7300305             |
|             | Adapters for Highconic® Rotor   | 0 50  | 20 110          |               |               |                  |               | 7500000             |
|             | 50 ml Disposable Conical Tube   | 6 x 50  | 29 x 119        |               |               |                  |               | 7500309             |
|             | 50 ml Round Bottom Tube   | 6 x 50  | 29 x 118        |               |               |                  |               | 7500301             |
|             | 38 ml Round Bottom Tube   | 6 x 38  | 25 x 112        |               |               |                  |               | 7500309             |
|             | 16 ml Round Bottom Tube   | 6 x 16  | 18 x 124        |               |               |                  |               | 7600290             |
|             | 15 ml Disposable Conical Tube   | 6 x 15  | 19 x 119        |               |               |                  |               | 7500309             |
|             | 12 ml Round Bottom Tube   | 12 x 12   | 16 x 96         |               |               |                  |               | 7500309             |
|             | 6.5 ml Round Bottom Tube  | 12 x 6.5  | 13 x 115        |               |               |                  |               | 7500309             |
|             | 3.5 ml Round Bottom Tube  | 24 x 3.5  | 11 x 103        |               |               |                  |               | 7500303             |
|             | 1.5 ml Microtube  | 24 x 3.5<br>24 x 1.5                            | 11 x 51         |               |               |                  |               | 7600290             |
|             |   |   | 11 X 31         | 17000         | 20110         | 17000            | 20110         |                     |
| *           | 24 x 1.5/2 Fixed Angle Rotor, R <sub>max</sub> 8.7 mm, 45°                              | 24 x 1.5/2.0                                    |                 | 17000         | 28110         | 17000            | 28110         | 7500333             |
|             | Adapters for 24 x 1.5/2 Fixed Angle Rotor (sets of 24)                                  |   |                 |               |               |                  |               | D:                  |
|             | 1.5/2 ml Microtube  | 24 x 1.5/2.0                                    | 11 x 51         |               |               |                  |               | Direct              |
|             | 0.5/0.6 ml Microtube  | 24 x 0.5/0.6                                    |                 |               |               |                  |               | 7600375             |
|             | 0.25/0.4 ml Microtube   | 24 x 0.25/0.4                                   |                 |               |               |                  |               | 7600375             |
| _           | 0.2 ml PCR Tube   | 24 x 0.2  |                 |               |               |                  |               | 7600375             |
| €           | 24 x 1.5 Fixed Angle Rotor, R <sub>max</sub> 8.3 mm, 45°                                | 24 x 1.5  |                 | 22000         | 44910         | 23300            | 50377         | 7500333             |
| <b>~</b>    | Adapters for 24 x 1.5 Fixed Angle Rotor (sets of 24)                                    |   |                 |               |               |                  |               |                     |
|             | 1.5 ml Microtube  | 24 x 1.5  | 11 x 51         |               |               |                  |               | Direct              |
|             | 0.5/0.6 ml Microtube  |   | 11 A J1         |               |               |                  |               | 7600325             |
|             |   | 24 x 0.5/0.6                                    |                 |               |               |                  |               |                     |
|             | 0.25 ml Microtube   | 24 x 0.25                                       |                 |               |               |                  |               | 7600325             |
|             | 0.2 ml PCR Tube   | 24 x 0.2  |                 |               |               |                  |               | 7600325             |
|             | Drum Rotor, R <sub>max</sub> 8.7 mm   | 24 x 1.5/2.0                                    |                 | 13000         | 16438         | 13000            | 16438         | 7500304             |
|             | Adapters for Drum Rotor   |   |                 |               |               |                  |               |                     |
|             | 1.5 ml Microliter Tube  | 80 x 1.5  |                 |               |               |                  |               | 7600149             |
|             | 1.5/2 ml Microliter Tube  | 80 x 1.5/2.0                                    |                 |               |               |                  |               | 7600124             |
|             | 0.3 ml Microcapillary Tube  | 64 x 0.3  |                 |               |               |                  |               | 7600124             |
|             |   |   |                 |               |               |                  |               | 7600124             |
|             | 0.5/0.6 ml Microlitar Tubo  | 170 v 0 6 /0 6                                  |                 |               |               |                  |               |                     |
|             | 0.5/0.6 ml Microliter Tube  | 120 x 0.5/0.6                                   |                 |               |               |                  |               |                     |
|             | 0.5/0.6 ml Microliter Tube 0.25/0.4 ml Microliter Tube 1.5/2.0 ml Microliter Tube (60°) | 120 x 0.5/0.6<br>160 x 0.25/0.4<br>48 x 1.5/2.0 |                 |               |               |                  |               | 7600124<br>75001498 |

<sup>1.5/2.0</sup> ml Microliter Tube (60°) \* Bottle number; no adapter is required. \*\* Adapters come standard with rotor.

### **Thermo Scientific Heraeus Biofuge Stratos Centrifuge Series**

| Specifications         | Heraeus Biofuge Stratos                           | Heraeus Contifuge Stratos                    |
|------------------------|---|--|
| Max Capacity (ml)      | 4 x 180   | 300 (sediment)                               |
| Max Speed (rpm)        | 22,000/23,300*                                    | 17,000                                       |
| Max RCF (x g)          | 44,910/50,377*                                    | 25,040                                       |
| Control System         | Microprocessor-controlled via Easycontrol II      | Microprocessor-controlled via Easycontrol II |
| Programs               | 9+1 pre-cooling program                           | 9+1 pre-cooling program                      |
| Speed Range (rpm)      | 300-23,300  | 300-17,000                                   |
| Drive System           | Brushless Induction Drive                         | Brushless Induction Drive                    |
| Functions              | RCF Selection, quick run, automatic rotor         | RCF Selection, quick run, automatic rotor    |
|                        | recognition, electronic imbalance detection       | recognition, electronic imbalance detection  |
| Braking / Accel Curves | 9/9   | 9/9  |
| Max Noise Level        | <60dB   | <60dB  |
| Run Time               | 0-9 hrs 59 mins, continuous operation,            | 0-9 hrs 59 mins, continuous operation,       |
|                        | alternatively 0-99 hrs                            | alternatively 0-99 hrs                       |
| Temperature Range (°C) | -19 to +40  | -19 to +40                                   |
| Safety                 | Lid lock and interlock                            | Lid lock and interlock                       |
| Standards              | CE, CSA   | CE, CSA                                      |
| Electrical             | 120 V, 50/60 Hz, 230 V, 50/60 Hz, 208 V, 50/60 Hz | 230 V, 50/60 Hz, 208 V, 50/60 Hz             |
| Dimensions (HxWxD)     | 15.6 x 25.2 x 23.4 in (395 x 640 x 595 mm)        | 15.6 x 25.2 x 23.4 in (395 x 640 x 595 mm)   |
| Weight (without rotor) | 295 lb (134 kg)                                   | 295 lb (134 kg)                              |

<sup>\*208/230</sup> V models only

| Ordering Information                       |                    |          |  |
|--|--------------------|----------|--|
| Heraeus Biofuge Stratos                    | 120V, 50/60Hz      | 75005286 |  |
| Heraeus Biofuge Stratos                    | 230 V, 50/60 Hz    | 75005282 |  |
| Heraeus Biofuge Stratos                    | 208 V, 50/60 Hz    | 75005284 |  |
| Heraeus Contifuge Stratos                  | 230 V, 50/60 Hz    | 75005283 |  |
| Heraeus Contifuge Stratos                  | 208 V, 50/60 Hz    | 75005285 |  |
| Accessory Cart                             |                    | 76000083 |  |
| Titanium Continuous Flow Rotor             |                    | 75003049 |  |
| High Performance Insert                    |                    | 75015339 |  |
| Masterflex® Easy Load Pump Head*           |                    | 77200-60 |  |
| Masterflex Peristaltic 600 rpm Pump Drive* | 120V-230V, 50/60Hz | 7523-60  |  |

<sup>\*</sup>Tubing not supplied; must order both pump parts.





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Use the above details to contact us if this literature doesn't answer all your questions.

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.





