GUARDIANTM5000 SERIES Hotplate Stirrers

Competitive Comparison





10 ×10 in.

VWR OHAUS Guardian[™] 5000 Corning Fisherbrand IKA Corning Thermo Model 5000 Series 97042-642 6795-420D 6795-220 SP88857100 SP88850200 3581201 Corning[®] 5 × 7 in. Top **Hotplate-Stirrer** Corning[®] 4 × 5 in. Top Thermo Scientific™ Advanced Hotplates, Stirrers & PC-420D e-G51HS07C PC-220 Analog Cimarec+™ Fisherbrand IsoTemp C-MAG 7 digital Description Hotplate-Stirrers Stirring Hot Plate with 120V US Hot Plate/Stirrer Stirring Hotplates Digital Displays Heating and Stirring Unit Type **Heating and Stirring** Heating and Stirring Microprocessor LED for temp, Digital display controlled with Digital display Digital display Analog with dials Speed 0-6 Scale **Control Type Knob** - Microprocessor with dials with dials with dials LED display with dials for set-point temp only n/a n/a n/a n/a n/a Programs n/a n/a **Top Dimensions** 7 × 7, 10 × 10, 5.3 in. Round 7×7 , 10×10 in. 5×7 in. 4 × 5 in. 7.25 × 7.25 in. 7.25 × 7.25 in. $180 \times 180 \text{ mm}$ **Ceramic (Square) Top Plate material** Ceramic Ceramic Ceramic Ceramic Ceramic Ceramic Aluminum (Round) Ambient to 500C (Ceramic) Ambient +5°C to 500°C Ambient +5 to 550°C Ambient +5 to 550°C RT to 540°C RT to 40°C 50 to 500°C **Temperature Range** Ambient to 380C (Aluminum) **Temperature Stability** +/-3% Plate, below 100C +/-2C ± 3% Not advertised Not advertised Not advertised Not advertised +/- 5 (Plate) (2 in. diameter center of top plate) 60 to 1600 rpm 60 – 1600 rpm 50 – 1,500 rpm 50 – 1,500 rpm 100 – 1500 pm Speed Range 60 – 1,150 rpm 60 – 1,100 rpm ± 2% ± 2% Not advertised Not advertised Not advertised Not advertised Not advertised Speed Stability Timer n/a n/a n/a n/a n/a n/a n/a 7 × 7 = 15L 7 × 7 in. Units 2500mL Max Capacity, H₂O $10 \times 10 = 18L$ Not advertised Not advertised Not advertised 10L n/a 10 × 10 in. Units 6000mL Round = 20L 1080/1210W 1000W 698W 1440 / 1560W 1440 / 1560W Heater Wattage (7×7) 283W 1000W 7×7 Units $14.8 \times 9.9 \times 4.3$ in. $7 \times 7 = 12.2 \times 8.8 \times 4.8$ $(37.6 \times 25 \times 10.9 \text{ cm})$ 4.25 × 7.75 × 11 in. $4.5 \times 5.8 \times 7.3$ in. 13 × 8.2 × 3.8 in. $13 \times 8.2 \times 3.8$ in. Footprint $10 \times 10 = 16.3 \times 11.3 \times 4.8$ $220 \times 335 \times 105 \text{ mm}$ 10×10 Units $17.9 \times 13 \times 4.3$ in. $(10.8 \times 19.7 \times 28 \text{ cm})$ $(112 \times 147 \times 185 \text{ mm})$ $(33 \times 20.8 \times 9.7 \text{ cm})$ $(33 \times 20.8 \times 9.7 \text{ cm})$ Round = $10.5 \times 6.8 \times 5.0$ $(45.5 \times 33 \times 10.9 \text{ cm})$ 2 Years 5 years Warranty 2 years 2 years 3 years 3 years 2 years

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GUARDIAN" 5000

Temp

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| Heidolph | Benchmark Scientific | Benchmark Scientific | | | |
|------------------------------|---|---|--|--|--|
| 505-30000-00 | H3770-HS | H4000-HS | | | |
| MR Hei-Tec | Digital Hotplate & Stirrer | Analog Hotplate & Stirrer | | | |
| Heating and Stirring | Heating and Stirring | Heating and Stirring | | | |
| Digital display with dial | Digital display for Temp with dials | Analog with dials | | | |
| n/a | No | No | | | |
| 145 mm (5.65 in.) | 7 × 7 in. | 7.1 × 7.1 in. | | | |
| Ceramic-coated aluminum | white ceramic work surface | white ceramic work surface | | | |
| 20 to 300°C | Ambient +5 to 400°C | 80 to 380°C | | | |
| +/- 1 | +/- 1°C | n/a | | | |
| 100 – 1,400 rpm | 150 – 1500 rpm | 60 – 1500 rpm | | | |
| +/- 1% | Not advertised | n/a | | | |
| n/a | no | no | | | |
| 20L | 5L | Not advertised | | | |
| 800W | 500W | 500W | | | |
| 173 × 277 × 94 mm | 7 × 11.5 × 4 in. (18 × 27.9 × 10.1 cm) | 8.5 × 10 × 4.5 in. (20 × 23 × 11.5 cm) | | | |
| 3 years | 2 years | 2 years | | | |



| | OHAUS Guardian™ 7000 | VWR | Thermo | Fisherbrand | Thermo | Fisherbrand | IKA | IKA | VELP | Heidolph |
|--------------------------------|---|---|---|--|--|--|------------------------------|--------------------------------|---|---|
| Model | 7000 Series | 97042-714 | 88880005 | 11-676-262 | S88857190 | S28482 | 20002695 | 5020001 | SB20510460 | 505-40000-00 |
| Description | Hotplate-Stirrer e-G71HS10C 120V US | VWR [®] Professional Hot Plate Stirrers | Thermo Scientific™ RT2 Advanced Hotplate Stirrer | Fisherbrand™ Isotemp™ RT Advanced Hotplate Stirrer | SuperNuova Stirrers | IsoTemp Advanced | C-MAG HS 7 Control | RET control-visc | Arex 6 Digital Arex 6 Digital Pro with VTF AREX-6 Connect PRO w/ VTF and EVO | Hi-Connect |
| Unit Type | Heating and Stirring | Heating and Stirring | Heating and Stirring | Heating and Stirring | Heating and Stirring | Heating and Stirring | Heating and Stirring | Heating, Stirring, Weighing | Heating and Stirring | Heating and Stirring |
| Control Type | Custom backlit LCD with knobs | Digital display with buttons | Digital display with dials | Digital display with dials | Digital display with dial | Digital display with dial | Digital display with dial | Digital display with dials | Digital display with dials | Digital display with dial and buttons |
| Programs | Programs loaded via USB Connection | n/a | n/a | n/a | Yes | Yes | No | Yes | No | Yes, external software |
| Top Dimensions | 7 × 7, 10 × 10, 5.3 in. Round | 7 × 7 in. | 140 mm (5.5 in.) | 140 mm (5.5 in.) | 7.25 × 7.25 in. | 7.25 × 7.25 in. | 7.25 × 7.25 in. | Ø 135 mm | Ø 135 mm | 145 mm |
| Top Plate material | Ceramic (Square) Aluminum (Round) | Ceramic | Ceramic-coated aluminum | Ceramic-coated aluminum | Ceramic | Ceramic | Ceramic | Ceramic-coated stainless steel | Ceramic-coated aluminum | Kera-Disk® (Silumin with ceramic coating) |
| Temperature Range | Ambient +5-500*C | Ambient +5-500°C | 50° to 350°C | 50° to 350°C | RT to 450°C | RT to 450°C | RT to 500°C | RT to 340°C | RT to 370°C | 20 to 300°C |
| Temperature Stability | +/-1% Plate, below 100°C +/-1°C and +/-0.5% Probe, below 100°C +/-1°C | +/-1% | Not advertised | Not advertised | Not advertised | Not advertised | 0.2 ±K | Not advertised | ±0.5°C (VTF/VTFEVO) ± 1°C (Pt100) | ±1 °C |
| Speed Range | 60-1600 RPM | 60-1600 rpm | 30 to 2000 rpm | 30 to 2000 rpm | 50 to 1,500 rpm | 50 to 1,500 rpm | 50 to 1,500 rpm | 50-1,700 rpm | 30-1700 rpm | 100 - 1,400 rpm |
| Speed Stability | +/-2% | +/- 2% | Not advertised | Not advertised | Not advertised | Not advertised | 2 ±% | 10 rpm | 5 rpm | ±2 % |
| Timer | 1 minute – 99 hours, 59 minutes | 1 sec to 160 hours | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Max Capacity, H ₂ O | 7 × 7 = 15L 10 × 10 = 18L Round = 20L | 2500mL | 20L | 20L | 10L | 10L | 20L | 20L | 20L | 20L |
| Heater Wattage (7/10) | 1080/1210W | 1000W | 600W | 600W | 1480W / 1580W | 1480W / 1580W | 1020W | 650W | 630W | 800W |
| Footprint | 7 × 7 = 12.2 × 8.8 × 4.8 10 × 10 = 16.3 × 11.3 × 4.8 Round = 10.5 × 6.8 × 5.0 | 14.8 × 9.9 × 4.3 in. (37.6 × 25 × 10.9 cm) | 11.42 × 6.34 × 3.94 in. (290 × 161 × 100 mm) | 11.42 × 6.34 × 3.94 in. (290 × 161 × 100 mm) | 8.2 W × 13 D × 3.8 in. H (20.8 × 33 × 9.7 cm) | 8.2 W × 13 D × 3.8 in. H (20.8 × 33 × 9.7 cm) | 220 × 88 × 354 mm | 160 × 270 × 85 mm | 6.5 × 4.1 × 11 in. (160 × 105 × 280 mm) | 173 × 277 × 94 mm |
| Warranty | 2 Years | 5 years | 2 years | 2 years | 3 years | 1 year | Lifetime | 3 years | 3 years | 3 years |