

New Range of Stirred Liquid Baths

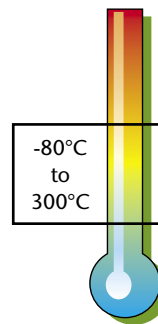
Model 798 Hydra

The Hydra Range of three baths is a completely new design and development from Isothermal Technology Limited.

The 798 Range, with their depth of 300mm, satisfies the needs of professional engineers who understand the need for sufficient immersion of at least 270mm as recommended in Supplementary Information to the International Temperature Scale of 1990 (ITS-90).

The baths have a 150mm diameter offering one of the largest calibration volumes available. The parallel tube concept where liquid flows up the rear volume and down the calibration volume virtually eliminates vertical and axial gradients.

Commercial grade 1/3 horse power chillers are used to give maximum cooling and smooth, quiet operation with long term reliability. The Absolute stability is $\pm 0.01^{\circ}\text{C}$ over the complete temperature range, and the Hydra 798 can provide comparison accuracies of $\pm 0.0002^{\circ}\text{C}$ with an appropriate measurement system. These baths are also suitable for creating and maintaining ITS-90 Fixed-Point Cells, both common large cells and Slim cells.

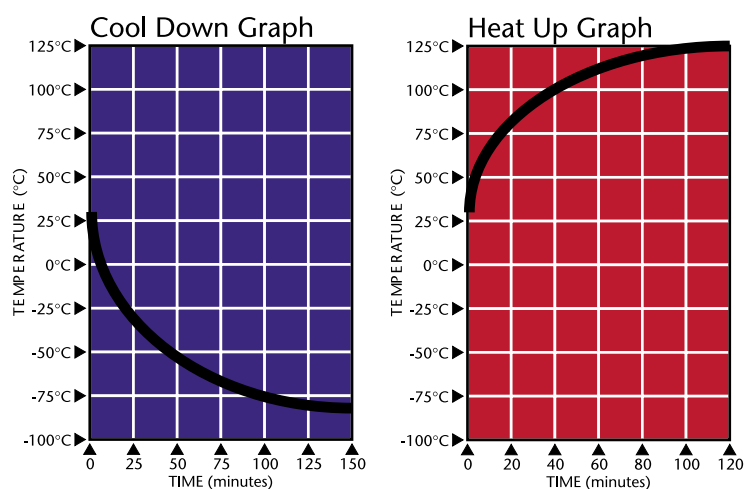


Features

- **Parallel Tube Action** — Liquid flows up the rear volume of the bath and down the working volume. This action creates very small vertical and axial gradients. Enabling the smallest overall uncertainties
- **Heating** — All heating is outside the container. By using a large area nickel foil heater the complete bath wall is heated uniformly
- **Cooling** — The cooling is built-in and also surrounds the calibration volume creating a low temperature ambient in which the heater can function efficiently
- **Wider Temperature Range** — A unique system removes the coolant from around the calibration volume above ambient and lets the bath heat up to 125°C (121°C is a key sterilization temperature)
- **Commercial Grade Chillers** — The chillers are 1/3 horse power commercial grade units (not cheaper domestic grade as used by some manufacturers)
- **Stability** — Better than $\pm 0.01^{\circ}\text{C}$ over the complete temperature range
- **Calibration Depth** — Double the depth of some baths, the Hydra Range has up to 300mm depth of immersion
- **Circular Design** — The circular design eliminates 'cold corners' in tank-shaped baths
- **Fast Cool Down** — Goes from ambient to -80°C in 150 min

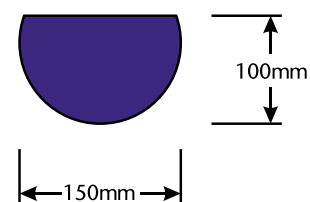


Performance



Calibration Volume

The 798 Calibration volume is 150mm by 100mm and 300mm deep and has a volume of approximately five liters.



SPECIFICATIONS

Temperature Range	798L: -80°C to +125°C 798M: -40°C to +125°C 798EHT: Ambient to 300°C
Volume	150mm diameter x 300mm deep (5 Liters)
Absolute Stability	±0.01°C
Best Comparison Accuracy	±0.002°C
Communications	RS422
Fast Cool Down	Yes
Dimensions	405mm x 610mm x 940mm (WxDxH)
Safety	Compliant to CE Regulations
Power	1.5 KW 110V 50/60Hz or 230V 50/60Hz

ACCESSORIES

798-01	Lid	Supplied as Standard
798-02	Equalizing Block	Metal Block to hold sensors
798-03	Cell Holder	Mercury, Water, Gallium & Indium
798-04	Twin Cell Holder	Holds two Water Triple Point Cells
798-05	Sensor Support	Holds thermometers in place

HOW TO ORDER

798L	Low-Temperature Hydra-798
798M	Medium-Temperature Hydra-798
798EHT	High-Temperature Hydra-798