



-40 to 125°C

Stirred Liquid Baths

7980

- Calibrate a larger number of probes simultaneously
- Specialised for Oceanographic Sensor Calibration
- Option for salt water tanks

The Isotech 7980 Stirred Liquid Bath is an evolution in precision calibration that builds upon the legacy of the Isotech 798 series. This comparison bath is designed to meet the growing demands for high-volume and specialized calibration, including oceanographic sensors, with its expanded calibration volume.

Compared to Isotech's other baths, the large volume of the 7980 allows the calibration of more thermometers and sensors simultaneously. This capability significantly enhances workflow efficiency, especially in environments where high-volume calibration is required.

The 7980 stands out with its precise oceanographic sensor calibration capabilities, enhanced by specialized accessories and additional tanks for saltwater calibration, "Oceanographic Calibration Reservoirs, (OCR)". This adaptability highlights the 7980's versatility in meeting a wide variety of needs. Its energy-efficient design ensures operational cost savings and minimizes environmental impact, aligning with the eco-conscious principles.

Designed to surpass traditional large volume saltwater baths, the 7980 offers faster calibration cycles, essential for time-sensitive processes. This highlights Isotech's commitment to innovation. Supported by Isotech's renowned quality assurance and comprehensive after-sales support, the 7980 delivers reliability, durability, and accuracy, making it a trusted solution for precise temperature control and calibration needs.

Capable of handling a wide range of calibration tasks, the 7980's versatility makes it an invaluable device in laboratories, research institutions, and industries requiring precise temperature calibration.



Its operational efficiency and advanced features solidify its status as a future-proof solution that integrates seamlessly into calibration workflows, providing unmatched performance and reliability. The Isotech 7980 Stirred Liquid Bath sets new standards in calibration technology, offering precision, speed, and an eco-friendly approach to modern calibration challenges.

■ Enhanced Calibration Volume

The 7980 version features a larger calibration volume, accommodating more thermometers simultaneously. This improvement addresses customer requests for greater capacity, making the bath ideal for high-volume calibration tasks.

■ Isotech Quality and Support

Renowned for quality and reliability, Isotech ensures precise control and stability in temperature calibration, supported by superior after-sales service for a complete calibration solution.

■ Oceanographic Sensor Calibration

Specifically designed accessories enable the calibration of oceanographic sensors.

■ Faster Calibration

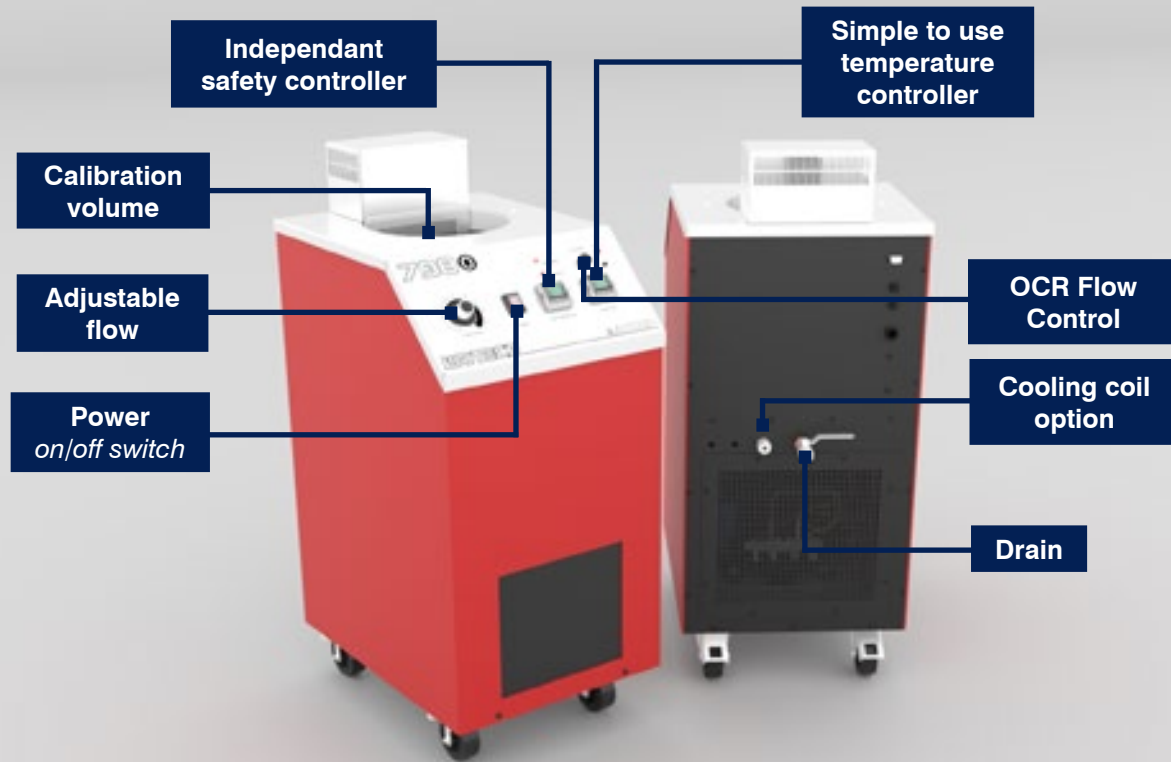
The bath can be equipped with accessories for saltwater calibration, catering to the unique needs of marine science instrumentation, ideal for urgent calibration tasks.

■ Versatile Calibration Solutions

The bath's design and accessories support a wide range of calibration options, including those for temperature sensors, oceanographic instruments, and more, providing a versatile tool for diverse calibration needs.

■ Enhanced Efficiency Over Large Volume Saltwater Baths

The 7980 significantly accelerates calibration cycles compared to traditional large volume salt water baths. Benefit from reduced energy costs without sacrificing performance.



Model	7980
Temp Range	-40°C to 125°C
Volume	7980: 240mm Diameter, 310mm Deep (15 Litres) OCR Salt Water Tank: 226mm Diameter, 250mm Deep (6 Litres)

Thermal Performance

	7980 Calibration Volume			Oceanographic Calibration Reservoir			
	Stability	Uniformity		Stability	Uniformity		
		Axial	Radial		Axial	Radial	
-40°C	±0.01°C	0.016	0.004	0°C	±0.003°C	0.007	0.006
-20°C	±0.008°C	0.004	0.009	50°C	±0.002°C	0.002	0.005
0°C	±0.008°C	0.011	0.005	Extended Range			
20°C	±0.008°C	0.011	0.004	-40°C	±0.007°C	0.015	0.003
50°C	±0.003°C	0.002	0.004	-20°C	±0.007°C	0.017	0.003
125°C	±0.008°C	0.014	0.005				

Heating Time	20°C to 125°C < 75 mins
Cooling Time	125°C to 40°C < 12 hours
	20°C to 0°C < 120 minutes
	20°C to -30°C < 300 minutes

Cooling Time (using Internal Cooling Coil)	125°C to 40°C < 3 hours
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Communications	Includes Serial Interface, PC Cable and Software
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Dimensions	405mm Wide, 610mm Deep, 980mm High (870mm to Top Panel)
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Weight	59kg
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Power	1.5kW 110V 50/60Hz or 230V 50/60Hz
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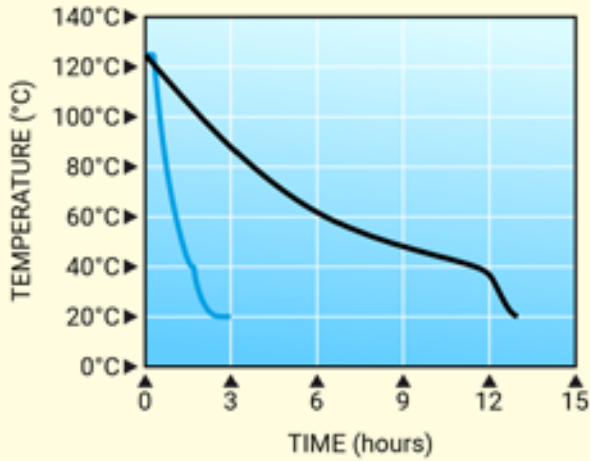
How to Order	Model 7980
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Cool Down Graph (125°C to 20°C)

In the Calibration Volume

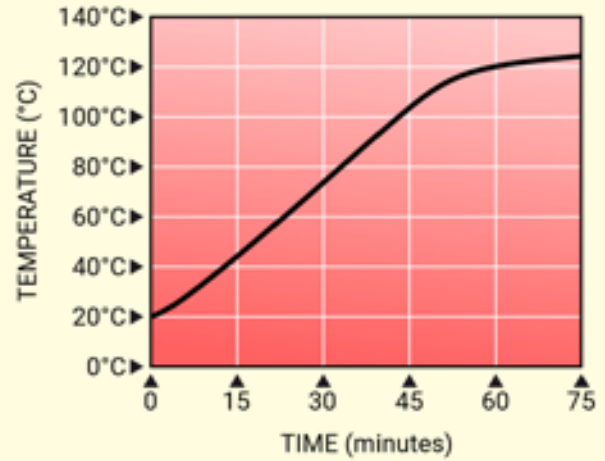
■ using internal cooling coil ■ without

The high efficiency of the insulating foam extends the cooling time from 125°C to ambient temperature. To cool more quickly, water can be passed through a cooling coil, enhancing heat dissipation and speeding up the process.



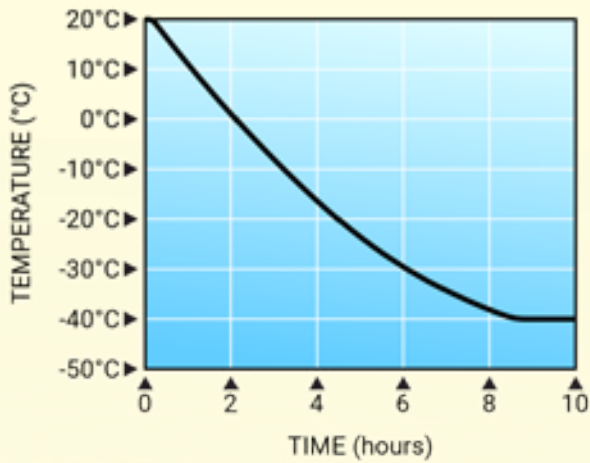
Heat Up Graph (20°C to 125°C)

In the Calibration Volume



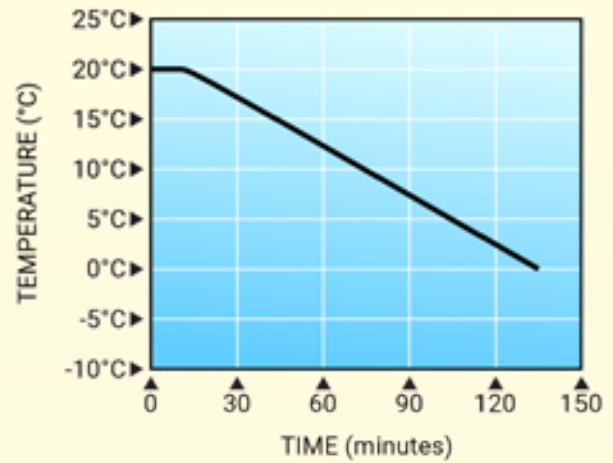
Cool Down Graph (20°C to -40°C)

In the Calibration Volume

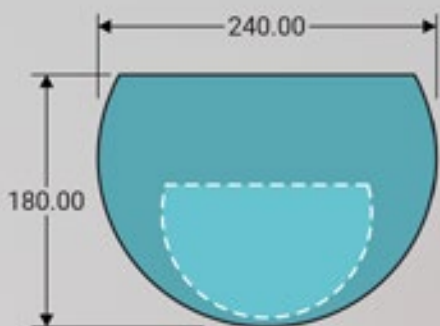


Cool Down Graph (20°C to 0°C)

In the Oceanographic Calibration Reservoir



Volume Comparison with the 798M



- 798O Calibration Area (volume 14 litres)
- 798M Standard Calibration Area (volume 5 litres)



Oceanographic Calibration Reservoirs

Introducing the Oceanographic Calibration Reservoirs (OCRs) - a pioneering addition to the Isotech 7980 Stirred Liquid Bath, designed to revolutionise oceanographic sensor calibration. These smaller reservoirs fit into the main calibration volume and can contain salt water for precise probe calibration. The design allows the smaller tank with salt water to sit within the Larger volume, enabling it to be quickly cooled to 0°C without ice formation. This benefits the User with fast cooldown times and significant energy and cost savings compared to using large-volume saltwater tanks.

Seawater Compatability

Designed with seawater-compatible materials, the OCRs ensure durability and corrosion resistance, offering a realistic calibration environment for accurately simulating marine conditions, providing a realistic calibration environment for marine sensors.

Precision Calibration

Designed to integrate seamlessly with the Isotech 7980, the OCRs offer a controlled calibration space that enhances the precision of temperature measurements for oceanographic sensors.

Speed

Using the smaller OCR in the 7980 allows for rapid cooling without ice formation and also fast heating with reduced energy costs.



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Oceanographic Calibration Reservoirs Specifications

The standard OCR is designed for up to four oceanographic probes (maximum diameter 40mm) to be suspended from the lid. Alternatively special OCRs can be designed to suit your specific probe(s), please contact Isotech for more details.



- A: OCR Stirrer Motor
- B: Reference Probe Clamp
- C: Oceanographic Sensor
- D: Saltwater Reservoir

Parameter	OCR
Model	798-OCR-A (Up to 4 probes of up to 40mm diameter) 798-OCR-S (Special, contact Isotech for more details)
Temperature Range	0°C to 50°C
Volume	5.3 Litres

