

5600 Series



高精密可変温度液体バス

使い方は容易で、精密な温度コントロールができる高安定な液体バス



5600 SERIES FEATURES

- ◆ *NEW Guildline Design and Metrology Based Features!*
- ◆ *Full Automation Via Windows Based Tablet with Touch Screen (USB, IEEE)!*
- ◆ *Excellent Temperature Stability Low As
0.0015 K with Oil!
0.001 K with Water!*
- ◆ *Fluid Temperature Range -5°C to 55°C!*
- ◆ *Designed for use with Oil, Salt Water, Water, or other Fluids!*
- ◆ *Customer Choice of Tank Sizes – 50, 75, or 100 Liters!*
- ◆ *Fully EMI Shielded Stainless Steel Outer Tank!*
- ◆ *Choice of Stainless Steel or Fiberglass Inner Tank!*
- ◆ *Convenient Access with optional Removable Tank Cover!*
- ◆ *Excellent Control via a Monitoring Probe!*
- ◆ *Optional 2nd Probe to Monitor Temperature!*
- ◆ *Over and Under Temperature Protection!*

GUILDLINE INSTRUMENTS 5600 SERIES are high precision fluid/oil baths providing uniform constant fluid temperature over a range from -5°C to 55°C. This Series of Fluid Baths is designed for both metrology and oceanographic applications and can be used with oil, water, salt water, or other liquids.

These new baths are in direct response to customer requests. For over 55 years Guildline made the best oil and fluid baths in the world but had discontinued building baths a few years ago. Many customers, including National Metrology Institutes, have emphatically stated that competing baths do not match the performance, quality, or durability of Guildline's oil and fluid baths.

Three convenient sizes are available in this series. Customers have the option of a 50 Liter, 75 Liter or 100 Liter Fluid Bath. The 5600 Fluid Baths include excellent temperature accuracy and stability. Optionally a second temperature probe can be used for temperature monitoring. Temperature stability within 10 °C of ambient is 2 mK while temperature stability with oil in the range of 23°C ±2°C is 1.5 mK – the best performance of any commercially available fluid or oil baths.

The 5600 Series of Fluid Baths Provide a Perfect Environment Under a Wide Range of Operating Temperatures for Precision Equipment Such as the Oil Based Resistance Standards and CTD's.

Control is via a touch screen windows tablet which allows customers complete control over programming the 5600 Bath and on reporting temperature stability. The tablet can be mounted on a bracket connected to the bath, or connected to a near-by wall or fixture. Once a set temperature has been selected, the control circuitry defines the best heating (or cooling) curve to bring the bath to the set temperature with minimum overshoot, hysteresis or oscillation; in the shortest possible time.

A variable speed pump is provided to accommodate different fluids and operating conditions. The tank is of double wall construction to provide better temperature stability and to provide EMI shielding. The inner wall can be either stainless steel or fiberglass and the outer wall is metal to provide EMI shielding. The 5600 features a gravity drain, a sloped top (i.e. towards the bath) with a spillage lip plus an optional tank cover which is removable to allow full access.

5600 SERIES OF PRECISION FLUID/OIL BATHS

受動電源切断温度制限スイッチによる高温安全制限保護機能が備わっています。また、プログラマブルな過不足温度保護機能も備わっています。電源異常の場合にはバス温度は最後にプログラムされた温度に戻ります。

5600液体バスの用途： 一次あるいは実用標準抵抗の保持、温度プローブ、サーミスタ、標準抵抗の自動校正、CTDを含む海洋センサーのテスト、精密材料の温度ストレス

5600液体バスは、内側がステンレススチールあるいはファイバーグラス、外側がEMIシールドのための金属が使われている、二重タンクの構造になっています。全てのバスは、オプションで、バスへのフルアクセスが可能なりムーバブルなタンクカバーと、内部のパーツに容易にアクセス可能なリムーバブルエンドパネルを備えています。更に、最高の性能、容易な使用法、容易な保守を実現する設計になっています。オプションには標準抵抗のための絶縁シェルフもあります。



SPECIFICATIONS						
Temperature Range		-5 °C to 55 °C				
Temperature Set Point Accuracy ¹		± 0.005 °C over 24 hours, ± 0.02 °C over 1 year				
Set Point Resolution	0.0001 °C	Display Resolution		0.0001 °C		
Temperature Stability		Oil		Water		
23° ± 2°C over 24 hours		± 0.0015 K		± 0.001 K		
8°C to 21° ◀ ▶ 25°C to 35°C (24 Hours)		± 0.004 K		± 0.003 K		
Temperature Uniformity ²		± 0.002 K relative to chamber center, 5 cm minimum from walls				
Temperature Attenuation		± 0.0015°C/°C of ambient temperature				
Heating Rate		20°C/hour				
Cooling Rate		3°C/hour above 20°C 2°C/hour below 20°C				
Cold Power On Stabilization		1 hour to within ±2mK of set point at ambient				
Temperature Monitor Accuracy		± 0.001 °C				
Temperature Monitor Resolution		0.0001 °C				
Over Temperature Protection		Programmable, Automatic shutdown if temperature exceeds 60 °C ± 4 °C				
Maximum Power Dissipation of unit under test		10 W maximum				
Dimensions	5600-50L (HxWxL)		5600-75L (HxWxL)		5600-100L (HxWxL)	
Fluid Capacity	13.2 gal	50L	19.8 gal	75L	26.4 gal	100L
Chamber Size ²	13.2 x 12.8 x 22.2 In	33.5 x 32.5 x 56.4 cm	13.2 x 12.8 x 30.1 In	33.5 x 32.5 x 76.5 cm	15.2 x 12.8 x 30.1 In	38.6 x 32.5 x 76.5 cm
Exterior	24 x 21.2 x 54.2 In	61 x 53.8 x 137.7 cm	24 x 21.2 x 54.2 In	61 x 53.8 x 137.7 cm	24 x 21.2 x 54.2 In	61 x 53.8 x 137.7 cm
Model Weight	160 lbs	72.7 kg	170 lbs	77.3 kg	180 lbs	81.8 kg
Power	100, 115, 220, 230, 240 VAC ± 10% / 50 or 60 Hz ± 10%				Volt/Amps	1400 VA
Environmental		Operating		Storage		
Temperature		50°F to 95°F	10 °C to 35 °C	-4°F to 140°F		-20 °C to 60 °C
Humidity		10% to 60% RH		< 90% RH		

1 - Set Point Accuracy and stability is defined as the deviation of the mean hourly value from the 24 hour mean for a single ambient temperature point at one point in the bath chamber (typically the center).

2 - Temperature Uniformity is relative to the center of the bath chamber and at least 5 cm from the bottom or sides of the chamber.

3 - The specifications are applicable with the chamber filled with water or oil but without any object immersed.

5600 SERIES OF PRECISION FLUID/OIL BATHS**ORDERING INFORMATION****Guildline** Is Distributed By:

5600	Precision Temperature Fluid Bath, Includes Calibration Certificate (Report Optional). State Size after Model.
-50L	50 Liter Model
-75L	75 Liter Model
-100L	100 Liter Model
/CAL	Report of Calibration (Optional Charge)
/TM5600	Technical Manual included at no charge.
/LID	Optional Cover
/PRT	Optional Temperature Probe to Monitor Bath Temperature
/SHELF	Optional Shelf for Standard Resistors

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