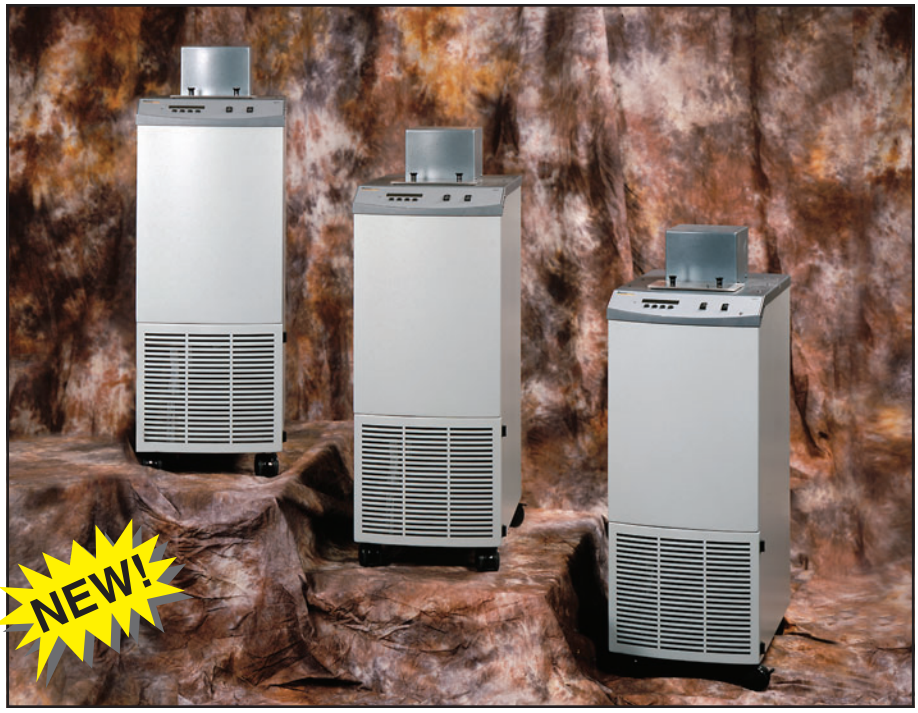
DEEP-WELL COMPACT BATHS



Deep-Well Compact Baths **Models 6331, 7321, 7341, and 7381**

- 18" of depth with just 4.2 gallons of fluid
- Perfect for liquid-in-glass thermometer calibrations with optional LIG kit
- Fast, quiet, compact (yet deep!), and economical

Need a bath with a lot of immersion depth, great stability, and a low price tag? How about one that minimizes fluid costs, changes temperatures quickly, and runs quietly? (Did we mention these new baths look fantastic?)

Hart's new Deep-Well Compact Bath series features four models covering temperatures from –80°C to 300°C.

Each model includes an 18-inch (457 mm) deep tank to accommodate long-stem PRTs, SPRTs, and liquid-in-glass (LIG) thermometers. Access openings are 4.7" by 6.8" (120 by 172 mm) so you can calibrate many thermometers simultaneously. Yet only 4.2 gallons (15.9 liters) of fluid are needed to get all the benefits Deep-Well Compact Baths offer.

Using Hart's own best-in-class temperature controller, these baths deliver the performance you need for confidence in your calibrations. The Model 7381 (–80°C to 110°C) features both stability and uniformity better than ±0.007°C over its entire range. The Models 7341 and 7321 (–40°C to 150°C and –20°C to 150°C, respectively) are stable to ±0.005°C and uniform to ±0.007°C at temperatures below ambient. And the Model 6331 provides stability and uniformity from ±0.007°C to ±0.025°C over its range from 40°C to 300°C.

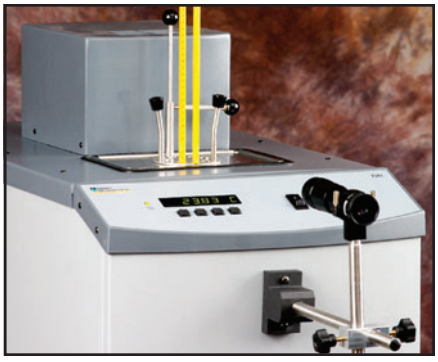
Be sure to understand the performance of the temperature calibration equipment you buy. Some manufacturers offer only limited (and often difficult to interpret) specifications. The table at right includes stability and uniformity values for the entire range of each bath—and tells you what fluid we used in the measurements. If that's still not enough, give us a call and we'll be happy to explain anything—and share data with you.

Hart's control system automatically adds refrigeration when you need to cool down quickly, and shuts down refrigeration when you need to heat up quickly. For maximum stability, refrigeration levels are automatically balanced to match the set-point temperature you're working at.

Connect any of these baths to a Hart thermometer readout and Hart's industry-leading MET/TEMP II temperature calibration software, and you'll be performing automated probe calibrations within minutes from switch-on.

Want to optimize your bath for calibrating liquid-in-glass thermometers? Simple. With the optional LIG Thermometer Calibration Kit, you get an easy-to-install fluid level adapter tube that raises the meniscus of the bath fluid to within about 0.5" of the top surface of the bath itself. The kit also includes a thermometer carousel that fits onto the top of the fluid level adapter tube and holds up to ten LIG thermometers in place. A magnifying scope (8X) is also available that mounts to the front of any Deep-Well Compact Bath so you can clearly see the liquid level of your thermometer against its temperature scale (see page 106).

Like all Hart baths, these units come with a report of test that includes one hour of stability data and a verification of set-point accuracy. A convenient overflow reservoir captures any excess fluid resulting from fluid expansion, allowing the trapped fluid to be reused following subsequent fluid contraction. A drain is also provided for easily emptying the bath's tank when needed.



The 2019-DCB Liquid-in-Glass Thermometer Calibration Kit includes a carousel which holds up to 10 thermometers and an adapter tube which raises the bath fluid level to within 5–15 mm of the thermometers' readings. The 2069 Magnifier Scope mounts easily to the front of any Deep-Well Compact Bath to provide magnification of 8X or greater.

Ranges from –80°C to 300°C

Specifications	6331	7321	7341	7381‡
Range	40°C to 300°C	–20°C to 150°C	–40°C to 150°C	–80°C to 110°C
Stability	±0.007°C at 100°C (oil 5012) ±0.010°C at 200°C (oil 5017) ±0.015°C at 300°C (oil 5017)	±0.005°C at –20°C (ethanol) ±0.005°C at 25°C (water) ±0.007°C at 150°C (oil 5012)	±0.005°C at –40°C (ethanol) ±0.005°C at 25°C (water) ±0.007°C at 150°C (oil 5012)	±0.006°C at –80°C (ethanol) ±0.005°C at 0°C (ethanol) ±0.005°C at 100°C (oil 5012)
Uniformity	±0.007°C at 100°C (oil 5012) ±0.017°C at 200°C (oil 5017) ±0.025°C at 300°C (oil 5017)	±0.007°C at –20°C (ethanol) ±0.007°C at 25°C (water) ±0.010°C at 150°C (oil 5012)	±0.007°C at –40°C (ethanol) ±0.007°C at 25°C (water) ±0.010°C at 150°C (oil 5012)	±0.007°C at –80°C (ethanol) ±0.007°C at 0°C (ethanol) ±0.007°C at 100°C (oil 5012)
Heating Time†	130 minutes, from 40°C to 300°C (oil 5017)	120 minutes, from 25°C to 150°C (oil 5012)	120 minutes, from 25°C to 150°C (oil 5012)	60 minutes, from 25°C to 100°C (oil 5012)
Cooling Time†	14 hours, from 300°C to 100°C (oil 5017)	110 minutes, from 25°C to –20°C (ethanol)	120 minutes, from 25°C to –40°C (ethanol)	6 hours, from 25°C to –80°C (ethanol)
Stabilization Time	15–20 minutes			
Temperature Setting	Digital display with push-button data entry			
Set-Point Resolution	0.01°; 0.00018° in high-resolution mode			
Display Resolution	0.01°			
Digital Setting Accuracy	±1°C			
Digital Setting Repeatability	±0.01°C			
Access Opening	4.7" x 6.8" (120 x 172 mm)			
Depth	18" (457 mm) without Liquid-in-Glass Thermometer Cal Kit 19" (482 mm) with Liquid-in-Glass Thermometer Cal Kit			
Wetted Parts	304 stainless steel			
Power†	115 VAC (±10%), 50/60 Hz, 15 A or 230 VAC (±10%), 50/60 Hz, 8 A, specify	115 VAC (±10%), 60 Hz, 14 A or 230 VAC (±10%), 50 Hz, 7 A, specify	115 VAC (±10%), 60 Hz, 16 A or 230 VAC (±10%), 50 Hz, 8 A, specify	230 VAC (±10%), 50 or 60 Hz, specify, 10 A
Volume	4.2 gal (15.9 liters)			
Size	14" W x 31" D x 42" H (37" from floor to tank access opening) (356 x 788 x 1067 mm) (940 mm from floor to tank access opening)			
Weight	72 lb. (33 kg)	103 lb. (47 kg)	105 lb. (48 kg)	167 lb. (76 kg)
Automation Package	Interface-*it* software and RS-232 included (IEEE-488 optional)			

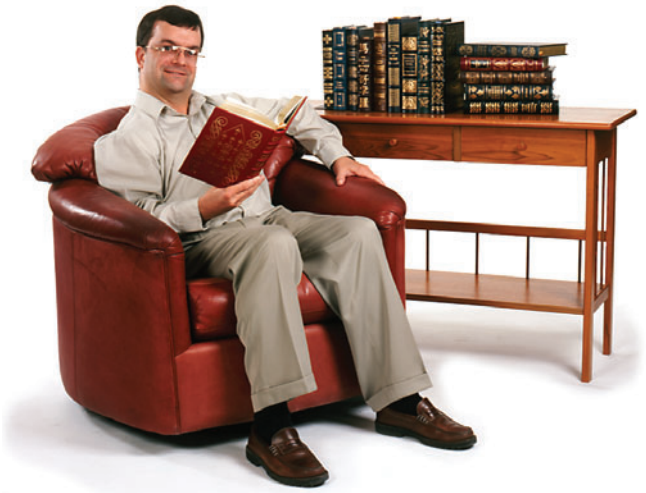
†Rated at nominal 115 V (or optional 230 V) ‡Call for availability. These specs are preliminary.

Ordering Information

6331	Deep Compact Bath, 40°C to 300°C
7321	Deep Compact Bath, –20°C to 150°C
7341	Deep Compact Bath, –40°C to 150°C
7381	Deep Compact Bath, –80°C to 110°C‡
2012-DCB	Spare Access Cover, Plastic, 7321, 7341, 7381
2020-6331	Spare Access Cover, Stainless Steel, 6331
2019-DCB	Liquid-in-Glass Thermometer Calibration Kit (includes bath adapter tube and thermometer carousel)
2069	8X Magnifier Scope, with mounts (page 106)
2001-IEEE	IEEE-488 Interface

See our selection of bath fluids on page 104.

Have you considered a good reference thermometer? See page 36.



Dickens and Tolstoy are OK, but Rick's (electrical engineering) favorite books are all about Ohm's Law.