



Baths

Compact -80°C Bath

Model 7380

Reaches -80°C in only 120 minutes

Stability and uniformity better than $\pm 0.01^{\circ}\text{C}$

When you need an ultracold temperature source for your laboratory, don't settle for a chiller or cheap utility bath from a company that really doesn't understand metrology. Hart's model 7380 Compact -80°C Bath is a real metrology bath—designed, manufactured, and used by the largest temperature calibration company in the world.

The 7380 covers temperatures quickly from -80°C to 100°C . Cooling time to -80°C is only 120 minutes and stabilization time is just 6 minutes.

Two-sigma stability is $\pm 0.006^{\circ}\text{C}$ at -80°C . Uniformity, measured as the difference between the warmest and coldest

locations in the bath tank, is also within $\pm 0.008^{\circ}\text{C}$ at -80°C .

The productivity of this ultracold source is enhanced by its large capacity. The one-gallon tank helps you achieve temperatures quickly while saving on bath fluid costs. Its large working area (3.25" x 4.5" access opening with a 7" immersion depth) lets you calibrate many sensors at once. Ethanol may be used from -80°C to 10°C and water from 5°C to 70°C ; and silicone oils such as type 200.05 are available from Hart for working at higher temperatures.

With sturdy casters and a footprint only 1 foot by 2 feet, the 7380 fits any-

where in your lab. Its two 1/4 HP compressors are so quiet that you may not realize the bath is running.

Hart's reputation is based on the performance of our products, not our promises. If you need an ultracold bath, don't settle for a chiller. Look to the company whose baths support leading metrologists all over the world.

Specifications

Range	-80°C to 100°C (-112°F to 212°F)
Ambient Operating Range	15°C to 25°C (59°F to 77°F)
Stability	$\pm 0.006^{\circ}\text{C}$ at -80°C (ethanol) $\pm 0.010^{\circ}\text{C}$ at 0°C (ethanol) $\pm 0.010^{\circ}\text{C}$ at 100°C (oil)
Uniformity	$\pm 0.008^{\circ}\text{C}$ at -80°C (ethanol) $\pm 0.012^{\circ}\text{C}$ at 0°C (ethanol) $\pm 0.012^{\circ}\text{C}$ at 100°C (oil)
Set-Point Accuracy	$\pm 0.5^{\circ}\text{C}$
Set-Point Repeatability	$\pm 0.01^{\circ}\text{C}$
Resolution	0.01°
Access Opening	3.25" x 4.5" (86 x 114 mm)
Immersion Depth	7" (180 mm) max
Tank Capacity	1 gallon (4 liters)
Cooling Time	From 25°C to -80°C , 120 minutes
Refrigeration Cascade	Two 1/4 HP compressors
Heater Power	500 W
Automation Package	Interface- <i>it</i> software and RS-232 included
Power	115 VAC ($\pm 10\%$), 60 Hz, 16 A or 230 VAC ($\pm 10\%$), 50 Hz, 8 A, specify, 1700 W
Size	12" W x 30" H x 24" D (305 x 762 x 610 mm)
Weight	115 lb. (52 kg)

Ordering Information

7380	Compact -80°C Bath
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