

Cool Bath



Over **60** years of
consistent excellence



Cooling chamber for holding of
notched samples used during Impact testing



Simplicity in Construction



Increase the productivity and quality of testing



Easy to use for reliable impact test results



Indication of reaching the desired temperature



Features :

- Simplicity in construction.
- Inner case Stainless steel design.
- Increase the productivity and quality of testing
- Easy to use for reliable impact test results
- Indication of reaching the desired temperature

Influence of Thermal Conditioning Media on Charpy Specimen Test Temperature :

The Charpy V-notch (CVN) impact test is used extensively for determining the toughness of structural materials. American Society for Testing and Materials Method E 23 includes rather strict requirements regarding determination and control of specimen test temperature. It specifies minimum soaking times dependent on the use of liquids or gases as the medium for thermally conditioning the specimen.

The method also requires that impact of the specimen occur within 5 s of removal from the conditioning medium. It does not, however, provide guidance regarding choice of conditioning media.

This investigation was primarily conducted to investigate the changes in specimen temperature which occur when water is used for thermal conditioning.

A standard CVN impact specimen of low-alloy steel was instrumented with thermo-couples.

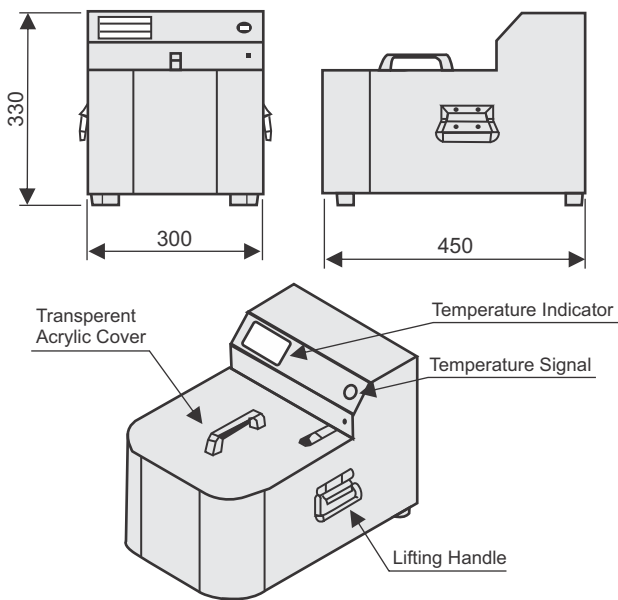
Dependent on the media used, the specimen was heated or cooled to selected temperatures using cold nitrogen gas, heated air, acetone and dry ice, methanol and dry ice, heated oil, or heated water.

After temperature stabilization, the specimen was removed from the conditioning medium. The results show that evaporative cooling causes significant changes in the specimen temperatures when water is used for conditioning.

Conditioning in the other media did not result in such significant changes. The results demonstrate that, even within the guidelines of E 23, significant test temperature changes can occur which may substantially affect the Charpy impact test results if water is used for temperature conditioning.

Source : <https://www.astm.org/stp1072-eb.html>

Construction :



Technical Specifications :

Measuring temperature range °C	-199°C to +199°C
Accuracy of cooling probe	± 0.25% of full scale
Resolution of display °C	± 0.1
Dimension of the bath in mm	L -240 W - 240
Depth in mm	160
Max. number of samples in the bath	10
Working environment temperature °C	10°C - 35°C
Recommended type of refrigerant used	Dry Ice or Liquid Nitrogen
Supply Voltage	1 Phase, 230 V, 50Hz.
Equipment Weight	8 kg.

Note :

- **Cooling media such as Dry ice or Liquid Nitrogen is not in our standard scope of supply.**
- **Technical changes reserved due to constant research and development**

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