



BARTLETT Instrument Company

Test Your Kiln's Uniformity With Witness Cones

[Home](#) • [Error Codes](#) • [Genesis](#) • [V6CF](#) • [RTC1000](#) • [3Key](#)



Witness cones used to measure heatwork. Guide Cone (Left, shows over-fire), Firing Cone (Middle, shows even-fire), Guard Cone (Right, shows under-fire)

Witness cones are a great way to check your kiln's uniformity and ensure that all areas of the kiln are reaching your desired temperatures. This will help you determine the kiln's uniformity and what adjustments need to be made so ware isn't over or under-fired. The larger the kiln, the less uniform it will be because there is so much more space to heat than a smaller one. How fast the kiln is heated and the load size makes a big difference in temperature distribution as well.

Using witness cones properly gives good insight into your kilns exact firing temperatures. Often times, using 3 cones is the best way to measure heat work.

- Guide Cone - one cone number cooler than the firing cone
- Firing Cone - cone number the kiln is being fired to
- Guard Cone - one cone number hotter than the firing cone

Place the trio of cones in different areas in the kiln, far enough away from ware that they will not bend into them. At the end of the firing, the Guide Cone should show an over fire, the Firing Cone an accurate/even fire, and the Guard Cone should show no bend or under-fire. Once you've determined your kiln's performance in different areas, you can use cone or thermocouple offsets to help adjust your kiln's temperatures.

Witness cones do not need to be fired with every firing, but it is good to use them occasionally to ensure the kiln is continuing to fire properly. If you have

questions about using cones or about how to adjust your kiln for heat work, check our latest Enewsletters [here](#) or give us a call and we'll be happy to help!

BARTLETT

Instrument Company

1032 Avenue H

Fort Madison, IA 52627

Phone: 1(888)404-9026 Fax: (319)372-5560

www.bartinst.com

**Get social with us to keep up with
our latest deals and tips!**

