

## **INGENUITY AT WORK**

Resources for Special Tips, Tools, and Articles to Conquer Precision.

## USING AN INFRARED THERMOMETER IN THE KITCHEN



Posted in Tips & Advice on May 6, 2016 by General Tools.

Many restaurants rely on an infrared thermometer (IRT) to verify that the food in their hot and cold holding stations and buffet tables is within a range specified by their local food safety regulator. IRTs are accurate enough to do that job - and many more - in the privacy of your home kitchen. Following is a partial list.

**Check your oven temperature.** Most ovens run pretty close to the temperature shown on their digital readout or analog knob. But accuracy can deteriorate over time.

**Check your refrigerator and freezer temperatures**. Infrared Thermometers (IRTs) give actual temperature readings - unlike dials calibrated from 1 to 5.

Measure food and beverage temperatures. To be "piping hot", coffee and tea should be about 150°F. Because IRTs measure surface temperature, be sure to cut open meats and poultry so you're actually checking internal temperature against what's recommended for rare, medium and well-done. That is, unless you're cooking with a



microwave oven. Because microwaves heat substances from the inside out, the surface temperature of a microwaved solid or liquid is within a degree or two of its internal temperature. By

the way, the best way to check soups, sauces and other liquids with an infrared thermometer is to pull a ladle full of liquid up from the bottom of the pot before taking a measurement. Doing so will allow you to closely approximate the temperature of the whole batch. Whether it's a first batch of soup, or a plate of leftovers that's being reheated, you need to be sure to bring the liquid up to 165°F for at least 15 seconds to make the serving "ready to eat."

IR thermometers are also perfect for ensuring that semi-solids like stuffing, corn or mashed potatoes, have reached a temperature high enough to have killed off most bacteria present. Insert a spoon into the center of the material, pull it back to create a void, and immediately point your infrared thermometer into the void. A minimum temperature of 165°F should be reached before the food is considered ready to eat.

Make yogurt. IRTs are great for checking the temperature of boiling (185°F) and cooled (115°F) milk used to make yogurt. If the milk gets



too hot or isn't allowed to cool enough, the culture used to make the yogurt will die.

Measure the temperature of hot oil. For deep frying, an infrared

thermometer is as accurate as (and faster than) a stem thermometer.

But stem thermometers cannot measure oil temperature in shallow frying or sauteing because the pan isn't deep enough. Be aware that IRTs can't accurately measure the temperature of anything shiny, like a dry steel pan. They do, however, work well on matte-finish cast iron pans, however. A quick point-and-shoot with an IRT will let you know when a skillet, pan or pot has come to temperature (500°F), allowing you to create a perfect sear on steaks, roasts or chops. Infrared thermometers are ideal for recording fryer oil temperature (350°F), giving you the ability to perfectly gauge when your batter-dipped chicken is ready to fry.

Make yeast for bread or homebrewed beer. Yeast needs to be at a specific temperature to grow, but make it too hot and it will die. An infrared thermometer is great for proofing yeast in bread or pitching yeast when making a homebrew beer. IRTs are especially good for bringing the temperature of microwaved milk or water to exactly 100°F when making yeast breads--at least in this writer's experience.

Measure the temperature of hot water - NOT! IRTs aren't very good at measuring the temperature of boiling water because their infrared sensors get confused by the cooler water vapor coming off the surface. Boiling water actually measures 200°F on an IRT.

**Temper spices.** In Indian cooking, you add spices to hot oil or butter to release their natural oils and flavors. But too much heat burns and ruins the mixture. Oil at 400°F usually gives the best results.

## **INGENUITY AT WORK**

Resources for Special Tips, Tools, and Articles to Conquer Precision.

## DIY SUMMER PROJECTS WITH GENERAL TOOLS



Posted in Uncategorized on July 6, 2018 by General Tools.

Summer time is finally here! Time to relax in your backyard hammock, sip an ice-cold beverage and have a much awaited bbq. But before you kick back, spruce up your home with DIY summer projects! Whether it's creating a beautiful patio, repainting the family room, designing a new walkway or getting ready for a July 4th barbeque; the below DIY tools will help make your summer projects easy and your home the most attractive house on the block!

One way to enhance your backyard and minimize garden chores is to build an outdoor patio. The maintenance of a patio is simpler and cheaper than taking care of grass - and it adds value to your home.

Building a patio is not always simple if you want something other than a boxed-shaped patio. The ANGLE-IZER® can quickly and easily help you create any patio design you desire. Try adding borders, arches and maybe even a fire pit to add a special and unique touch to your home. With the ANGLE-IZER<sup>™</sup>, you can mix and match materials, designs and stone sizes with relative ease. Once you see how easy it is to create the patio of your dreams, take the ANGLE-IZER to the front of the house and create an



amazing walkway or driveway that will be sure to impress. View the ANGLE-IZER video to see the various ways you can use the ANGLE-IZER to beautify your home.

As beautiful as summer can be, there are days that are hot, muggy and sticky. One would think air conditioning would help. But...why isn't it? The air conditioner was on all night long and the thermostat still reads 78°? Obviously the air conditioner is either broken or the nice cool air is seeping somewhere causing your home to never quite get cool enough and your utility bills are sky rocketing! Don't fret,



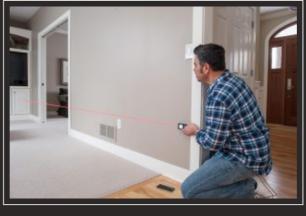
General Tools can help with the IRT207 Infrared Thermometer. Scan around windows in your home with the IRT207 to check for temperature variations. This can help determine if surrounding walls have gaps in

installation letting cool air escape on hot summer days.

Now it's barbeque time! After a long winter, make sure your grill is in tip top shape and ready to use with the PNG2000A Gas Leak Detector. The hose on your grill or the propane gas tank may be leaking. Make sure before you fire up your grill, to check for gas leaks with the PNG2000A. It can also be used for checking natural gas and butane that may be leaking from plumbing and appliances. Check out its many uses. Why stop here. Don't limit yourself with outdoor DIY Summer Projects, take yourself indoors and tackle those projects that you never get to in the colder months. Unsure how much gallons of paint to use when repainting a room?



With the Laser Distance Measure and ToolSmart Connect Precision App, it takes just seconds to measure a whole room with absolute



accuracy.

The app will adjust for extra coats, primer, subtract space for doors and windows, and puts those raw measurements into real-world numbers you can take to the

hardware store. You can also quickly and easily measure a room single-handedly with the TSO1 Laser Measure. Say goodbye to the conventional tape measure and cut down on project time with the laser measure.