

# **Quarter in Review**

Happy New Year! We would like to thank our customers, employees, vendors, friends, and families, for a successful 2016 and wishing health, happiness, and profitability to everyone in 2017. It takes a team effort to keep a business running smoothly and all the above-mentioned people are integral to insuring that we can continue to provide responsive service with competitive prices and get the customer the right part for the job.

We continue to add new products to our line card (often at our customer's request) and we make every effort to see that we can come through for them. In 2016 we added some chemicals, cleaning solvents, and greases (food grade and non-food grade) to our line as well as fiber optic sensors for measuring moisture and/or color, and more. If you have a product that you would like us to source, please let us know.

As we settle in to Winter, heating will be more important for some of our customers so if you need an immersion heater for freeze protection in a cooling tower basin, heat trace cable and EPDM insulation over pipes, or thermocouples to measure your temperatures, please let us know if we can help. Thanks, and we look forward to a great 2017 with you!

Best Regards,

Wayne Cooke Sr.

#### 2

# **Paper or Peanuts? Vote!**

Survey:

I prefer peanuts to paper

Select

Page 8

#### I prefer paper to peanuts

When we ship packages, we tryto use recycled materials – boxes and the packaging material from the boxesthat we receive from our suppliers. Ofcourse, we also need to use virgin packaging material. We've recently invested in some

#### Select

I prefer another packaging material. Please contact me

#### Select

Packages I receive from W. H. Cooke are not packaged properly. Please contact me

Select

equipment to make it more efficient and wanted to give our customers anopportunity to provide some feedback.

We have discovered that the "peanut" packing material is not favored by some customers as it can get strewn about the receiving room. Parts tend to settle to the bottom of the box and can bedifficult to locate depending on the size and weight of the item. The peanuts we use today are made from a biodegradablestarch material. In fact, Wayne Jr's dogshave been known to eat an occasional peanut that might appear on the floor athis home.

Because of the negativefeedback about peanuts we have acquired 2 paper crinkle machines that haveproven to be useful in our shipping area. Clickthe YouTube link below to see the new machines in operation.



We also picked up a used heavy duty pneumatic staple gun and a plastic banding machine. Although we only average about 15 or so packages a day, it's nice to have this equipment when a particular package requires it to keep it secure on its' way to the customer. So, if you want to give us some feedback about how we are doing with the packages that you receive from us, please feel free to email us at: <u>sales@whcooke.com</u>

3

## RTDs

RTDs, also known as Resistance Temperature Detectors or Resistance Thermometers, come in various temperature vs resistance curves but



they all measure temperature by a change in the resistance that they generate when heated or cooled.

As you know, thermocouples produce a millivoltage as opposed to changing resistance. Thermocouples operate over a wider range than RTDs and generally are more rugged and can withstand harsher environments found in some manufacturing

environments.

RTDs are typically more accurate than thermocouples but their temperature range is more limited.

The most common types are made with platinum, copper, or nickel. They can be manufactured by winding the wire on a ceramic or glass core or by deposition on a flat substrate. We use both types depending on the application.

The platinum versions are typically either:

1. 100-ohm platinum .00385-ohm curve also known as the Europeanor DIN curve - see note below

This RTD produces 100 ohms at 0 Degrees C and for each degree C deviation from 0 C the resistance is increased or decreased by .385 ohms. Ex: At 1 degree C, the resistance reading is 100.385 ohms. At -1 degree C, the resistance is 99.615 ohms and so on.

2. 100-ohm platinum .00392-ohm curve also known as the American or NIST curve

The same rules apply as above except resistance changes by .00392 ohms per degree C

Of the two, the European or DIN curve is most popular

The platinum sensors are the most accurate over the widest range. The copper sensors are used up to about 300 F and nickel up to about 550 F due to non-linearity and oxidation issues above these temperatures. The copper sensors are often used in motor windings and the nickel sensors for bearing temperature measurements.

RTDs are available in 2, 3, or 4 wire configurations. Two wire units are used when the leads are short, under 6 ft. or so. When longer leads or better accuracy is required, a three (3) wire unit can be used. The extra wire is connected to one side of the RTD resistor bead and is used by the measuring device to subtract the extra resistance introduced by the longer lead wires. Same is true of the four (4) wire RTD except that an extra lead wire is added and measured on both sides of the resistor for even more accurate readings, providing your instrumentation has the capability to accept a 4 wire RTD.

## How to check a 100-ohm platinum .00385 RTD for proper

#### operation.

Two (2) wire version:

Using a multimeter set for resistance readings connect one meter lead to one lead of the RTD and the other meter lead to the other RTD lead. At 70 F, ambient temperature, your reading should be approximately 108 ohms.

To measure for a short to ground inside the RTD housing, connect both RTD leads to one lead of the multimeter and touch the other multimeter lead to the RTD metal sheath. You should read open or infinity. If you get any resistance reading, there is a short to ground which will cause the instrument to read erratically or give an incorrect value.

Please call us with your questions or applications. We're here to help.

Note: DIN is the abbreviated name of the Deutsches Institut für Normung (German Institute for Standardization) similar to the American NIST or National Institute of Standards & Technology. They set the "standards" for certain measurements such as size - in the case of 1/16th and 1/4 DIN instruments as well as electrical measurements such as the Din RTD curve

4

# Feedthroughs



We can provide wire "feedthroughs" that connect sensors located inside a vacuum autoclave or oven to a datalogger, recorder, or controller located on the outside of the chamber. These feedthroughs seal around bare or insulated wires or around a sheathed mineral insulated thermocouple. The sealing device could be a rubber or Teflon grommet. High temp sealants are also available for temperatures up to 1600 F.

Pictured here is a custom one that we provided with mini plugs so the customer can quickly connect sensors inside the oven to his thermocouples and then easily uncouple when the process is complete.

The stripped ends are wired to his datalogger or PLC.

### 5

## **Brother Gear Motors**

W. H. Cooke & Co. has acquired the Brother Gear Motorline which includes but is not limited to the following:

## MINI SERIES – Hollow Bore Gearmotor



- 1/50- 1/10 HP
- 1:5-1:240
- 1 & 3 Phase
- IP-65 and Brake Options IP-65 and Brake Options available

## **MID SERIES – Hollow Bore** Gearmotor



- 1/8 3 HP
- 1:5-1:1500

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- 1 & 3 Phase
- available

## MINI SERIES – Right Angle MID SERIES – Right Angle Gearmotor



- 1/50- 1/10 HP
- 1:5-1:1800
- 1 & 3 Phase
- IP-65 and Brake Options available

- 1/8 3 HP
- 1:5-1:1500

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- 1 & 3 Phase
- IP-65 and Brake Options available

### **MINI SERIES – Inline** Gearmotor

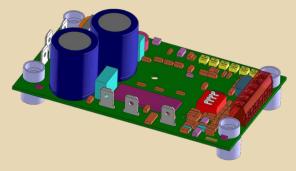
## MID SERIES - Inline





- 1/50- 1/6 HP
- 1:5-1:1800
- 1 & 3 Phase
- IP-65 and Brake Options available
- 1-/8 -3 HP
- 1:5-1:1200
- 1 & 3 Phase
- IP-65 and Brake Options available

Additionally,Brother has a line of Variable Frequency Drivesdesigned specifically for Brother Sub – Fractional Gearmotors



For more information please visit: <a href="http://www.whcooke.com/manufacturer\_stage.php?compid=13941">http://www.whcooke.com/manufacturer\_stage.php?compid=13941</a>

6

# **Silicone Rubber Heaters**

We sell silicone rubber heaters for applications wherecustomers need to apply heat to a surface and it isn't practical to use a metalstrip or cartridge heater to do the job.

As you can see below, this silicone rubber heater isattached to the underside of a ramp and heated to facilitate the movement andprevent sticking of material as it moves along its opposite side. This heater happens to have 3 zones alongwith thermocouples imbedded in them allowing them to be controlledindependently to optimize performance. Silicone rubber heaters can be supplied with an adhesive backing foreasy "stickon" application to a flat surface. However in this case they areoperating as high as 400-500



degrees F so we used a high temperature siliconeadhesive to attach to the metal ramp.

We welcome your unusual or difficult heatingapplications.

## 7

# **Funnies**

## **Punnies**

- Dynamite manufacturing is a booming business.
- The roundest knight at King Arthur's round table was SirCumference. He acquired his size from too much pi.
- I thought I saw an eye doctor on an Alaskan island, but it turned out tobe an optical Aleutian.
- She was only a whiskey maker, but he loved her still.
- No matter how much you push the envelope, it'll still be stationery.
- A dog gave birth to puppies near the road and was cited forlittering.
- A grenade thrown into a kitchen in France would result in LinoleumBlownapart.
- Two silk worms had a race. They ended up in a tie.
- Two hats were hanging on a hat rack in the hallway. One hat said to the other: 'You stay here; I'll go on a head.'
- I wondered why the baseball kept getting bigger. Then it hit me.
- A small boy swallowed some coins and was taken to a hospital. When his grandmother telephoned to ask how hewas, a nurse said 'No change yet.'
- A chicken crossing the road is poultry in motion.
- The short fortune-teller who escaped from prison was a small mediumat large.
- A backward poet writes inverse.
- In a democracy it's your vote that counts. In feudalism it's your countthat votes.

This canvas painting found in Delray Beach, Florida and givento me by my wife, hangs on the wall of my office. How many of these famous personalities canyou name?



8

# Hot Weiners ! (from Texas?)



We like to give you a little taste of our home town occasionally and the subject this quarter is dogs. The kind you put on a bun, decorate with toppings, and eat.

Hanover has at least 3 locations that serve up these "Hot Weiners" or "Texas Hot Weiners." They spell it weiner here instead of wiener for some reason. I was curious about the origin of the name so I googled "Hot Weiner" and "The Famous Hot Weiner" restaurant in Hanover came up first.

If you click on and read the link below you will see that this restaurant, in a classic old building on the corner of Broadway and York Streets, has been operating from this same location since 1928.

http://famoushotweiner.com/famous/

Then I googled "Texas Hot Weiners" because these chili dogs are also known by this name and the "Texas Hot Weiner Restaurant" came up first. I've provided a link to a Yelp site that shows several pictures of their dogs and their shoestring fries. One of the questions you get when you order the fries is "with or without" gravy on them. I recommend with. But many people reach for the vinegar bottle that's always on the table.

https://www.yelp.com/biz\_photos/texas-hot-weiner-lunch-hanover

There are many Texas Hot Weiners restaurants in nearby towns, independently owned and operated – mostly by Greek proprietors. Why Greek owners? And where did the "Texas" come from? Don't know but perhaps this article that I found on the Library of Congress site can shed some light. See below:

https://www.loc.gov/collections/working-in-paterson/articles-andessays/patersons-hot-texas-wiener-tradition/a-brief-history-of-the-hottexas-wiener/

What makes these hot dogs a little different is the chili and the onions. The chili is unique to each restaurant and is good enough that people buy it by the quart and take it home to put it on their own dogs. The onions are always finely chopped and taste like the Spanish variety to me – tangy and not too sweet like a Vidalia - but I could be wrong. My son went to a department store an hour after eating one of these and the sales clerk said, "Say, did you have Texas Hot Weiner for lunch?" The onions and chili permeate your clothes and your car. I transport mine in the trunk and it still finds its way into the cabin. I have learned to only eat one at a time. If you have two, they're talking to you an hour later.

When my relatives come to town, one of the first things I hear is, "When can we go get some Texas Hot Weiners!"

Here's another interesting article about Coney Island hot dogs and "coffee milk" – the official state drink in Rhode Island. The original owner was Greek too.

http://www.quahog.org/cuisine/index.php?id=54

Made you hungry, didn't I?

Send us the name and location (city) of your favorite hot dog joint and we'll publish it in the next newsletter. I know Chicago's got some good ones.

9

# **New Year's Eve Drops**

Instead of dropping a time ball like New York City does inTimes Square on New Year's Eve, some of the towns in Pennsylvania have theirown unique drops.

Here are some of the more unusual ones:

**Bologna** – **Lebanon, Lebanon County**It wouldn't be New Year's Eve incentral Pennsylvania without a famous Pennsylvania Dutchtreat descending from the sky. Join the excitement in Lebanon as crowds count down the seconds with the famous 16-foot Lebanon Bologna coming to a stop at the stroke of midnight.Start off the year by being amazed, amused, and maybe even hungry.

MarshmallowPeep® – Bethlehem, NorthamptonCountyFor a truly one-of-a-kind New Year's Eve celebration,First Night® Bethlehem "peeps" with pride. Start the evening by experiencing the celebration spanning downtownand offering artistic and cultural entertainment for young and old, sponsoredby the non-profit ArtsQuest. Enjoy a wide variety of music and art before watchingthe signature Marshmallow Peep® travel down toward the crowd, ringing in theNew Year as only Bethlehem can.

<u>YuenglingBeer Bottle</u> – Pottsville, SchuylkillCountyNew Year's Eve in Pottsville is marked by the raising of theYuengling© beer bottle to the top of the flagpole at Garfield Square. Ring in the New Year with a toast to the oldest brewery in America.

**Pickle** – **Dillsburg, York County**Although Dillsburg hasnothing to do with pickles, the town sure does know how to have fun with itsname. Get into a real "pickle" as Dillsburg celebratesits annual Pickle Drop at the stroke of midnight on New Year's Eve.Once the dill has descended into the barrel, the party continues with afireworks display lasting until 12:30 a.m.

<u>Sled</u> – Duncannon; Perry CountyDuncannon Borough brings in the New Year with its annual Sled Drop at midnight,during a fireworks display. The 10-foot sled used is a model of the famousLightning Guider sled manufactured at the Standard Sled Factory in Duncannon from 1904 until 1990. Festivities areheld from 10p.m. to midnight.



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