W. H. Cooke Times

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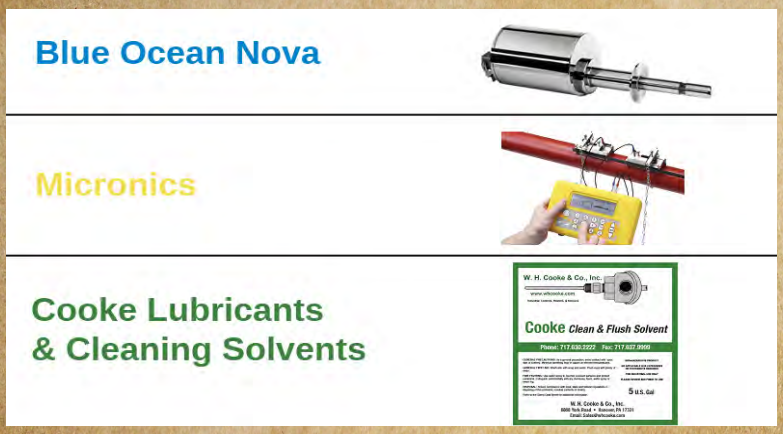
New Lines



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Quarter in Review

Quarter in Review

In the 3rd quarter of 2016 W. H. Cooke & Co. aquired some new lines and we are excited to be able to add to the products that we are able to supply to our customers. You can find more information on these starting on page 7. These new lines are as follows:

Blue Ocean Nova- These fiber optic sensors are used for applications including: moisture in powders, homogeneity of powder blends, API distribution and concentration in pharmaceutical products, protein content in agricultural products like grain milk, milk powder, meat and sausage production, color and turbidity measurement, crude oil traces in refined products, refinery gases (Methane, Ethan, Propane, Butane), Hydrogen Sulfide (H2S) in liquids or gases, biogase, Isocyanate during the production of Polyurethane, Ammonia (NH3) in processing of cosmetics and many more.

Micronics- A line of non-invasive clamp on flow meters used to measure flow in applications including: chemicals, cooling water, demineralized water, diesel and fuel oils, petroleum products, river water, water/glycol solutions, lube oil, raw water, pump stations, and more.

Lastly, we are private labeling cleaning solvents, greases and oils, including synthetics and H1, H2, and H3 food grade greases. If you have an oil, lubricant, grease or cleaning solvent/degreaser and can provide a manufacturer name and part number, we can cross and quote you our equal.

As always, our temperature sensors, manufactured in house in Hanover, PA are our primary focus but many of our customers have come to rely on us for many more products. We make it a point to respond to your requests in the fastest possible time frame and usually can provide a quote the same day except when we are at the mercy of a supplier. If you would like to check our pricing on any item, don't hesitate to shoot it my way. Just to refresh, our product offering includes but is not limited to:

Thermocouples, RTD's, and thermistors and we sell instrumentation and controls for temperature, pressure, level, flow, pH, RH, flame and gas detection, HVAC parts, and heaters for almost any application. We also carry chart recorders and chart paper and pens as well as paperless recorders, data loggers, pumps, valves, and motors, and industrial oils, solvents, and lubricants. Here is a link to our website. www.whcooke.com

We know that you have many choices when shopping for parts and instrumentation and we sincerely appreciate your business and the opportunity to quote for you. If there is anything we can help with, don't hesitate to pick up the phone or send an email to sales@whcooke.com

Thanks and have a great day!

Best regards,
Wayne Cooke Jr.

Tech Tips

Tech Tips on Temperature sensing:

Temperature is the variable mostly frequently monitored in a manufacturing environment. Of course, pressure, flow, level, pH, rH, speed, etc. are all important too and we can help with those parameters but we field more temperature sensing applications than anything else. Of course, we manufacture temperature sensors - so that has a lot to do with it.

We manufacture various types of temperature sensors including:

1. Thermocouples

2. RTDs (resistance temperature detectors)

3. Thermistors

4. Solid State sensors

Your application determines which type of temperature sensor can do the best job and what kind of accuracy and control you want to achieve. Many things should be considered when choosing the right temperature sensor for your application. Things like:

1. Temperature range over which you will operate
2. Environment in which sensor will operate – (high vibration, acidic or alkaline area, etc)
3. Speed of response desired
4. Methods available to mount sensor (through fittings, strap down, open air, easily removeable etc)
5. Durability needed (some applications are one shot)

There are so many things that can affect our recommendation and your ultimate decision on which sensor to use that we have a couple of places on our web site that you can use to send us more information about your application. We like to look at this info and then have a short conversation with you about your application and the kind of performance and results you can expect to see. Have a look at:

http://www.whcooke.com/customsolutions.php

http://www.whcooke.com/files/AppSheets/Interactive%20Temperature%20Sensor.pdf

And of course feel free to just pick up the phone and call.

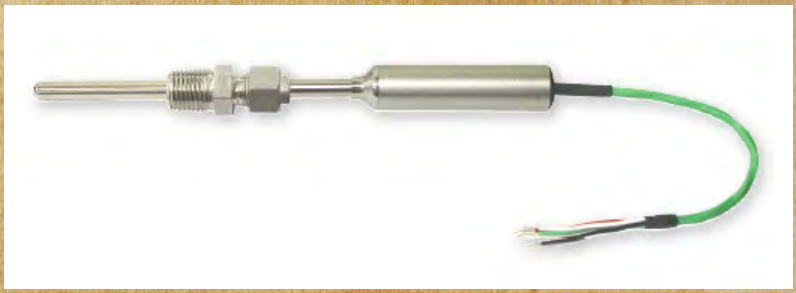
Best regards,
Wayne Cooke Sr.

Sensor of The Quarter

For customers that need an RTD with an inline transmitter, the below sensor is just the ticket. It is great for applications where there isn't room for a head. For more information call 717-630-2222 or email sales@whcooke.com

MODEL W22 RTD WITH BUILT-IN TEMPERATURE TRANSMITTER 4-20mA OUTPUT

Features
- 4-20 mA Transmitter Integrated Into Temperature Sensor
- Hermetically Sealed Electronics
- Easily Re-programmable Via PC or Factory Calibrated
- Low Cost and Easy Installation
- Highly Stable and Accurate Microprocessor Based Design



The W22 series integrated temperature transmitter is one of the most advanced designs in the market today. The transmitter section is integrated and hermetically sealed into the head of the sensor. For this reason, the W22 does not require a separate transmitter housing. The micro-miniature transmitter fits into a potting adaptor which is only 2.5 inches long! The W22 comes factory calibrated to a customer specified temperature range. The unique feature of the hermetically sealed transmitter is that it is able to be calibrated in the field, using a cable and Windows™ compatible software package. Temperature range, temperature offset, burnout options and other features can be selected without the need for recalibration. The output is very, very accurate!

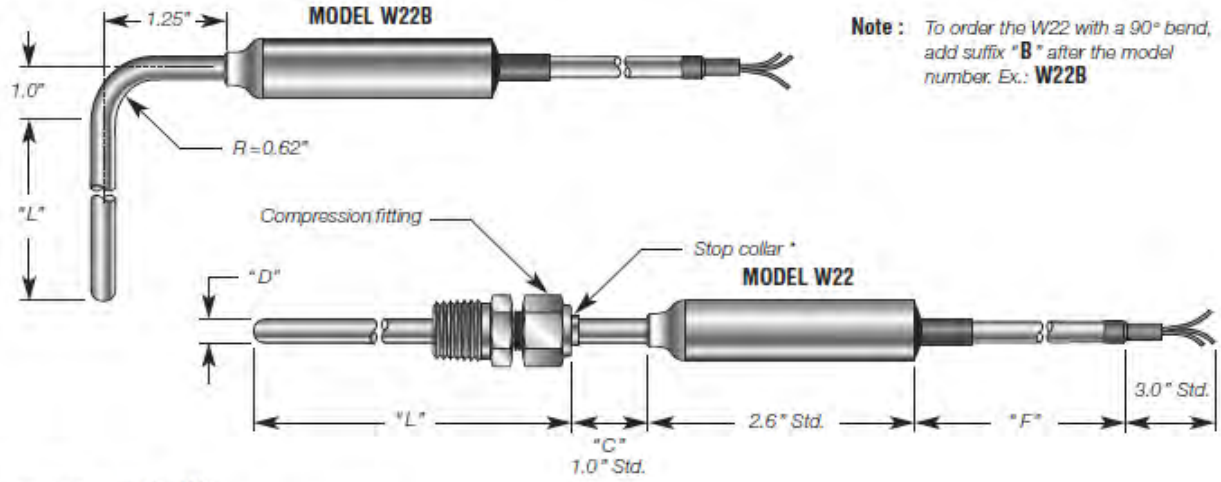
Stock Items

W.H. Cooke stocks the most commonly used W22 assemblies with the following features:
- Factory calibrated 4-20mA output to a customer specified temperature range
- Operating temperature range of -50 to 200 °C (-58 to 392 °F)
- Order MIST PKIT programming kit to re-program and re-calibrate in-house
- 1/4" probe diameter, stainless steel 316
- Adjustable compression fitting not included, order separately
- Cable supplied is a Teflon jacketed or Teflon armored 22AWG stranded 4-conductor, copper silver plated, 6ft long
- Probe lengths available are 4 ", 6 ", 9 " and 12 "

To order a W22 with 9 " probe and 4-20mA output calibrated to -25 to 125 OC, specify the inventory number and temperature range, ex.: W22L-N-TF090 (-25/125 OC) on your order. To calibrate the W22 in house, order the PKIT which includes the module and software.

Ordering Information (Order using W.H. Cooke inventory number)

Catalog Number	Inventory Number	Probe Length "L"	Extension Cable
W22-L-LP-250-S-040-N10-N-TF-072	W22L-N-TF040	4.0"	Teflon
W22-L-LP-250-S-060-N10-N-TF-072	W22L-N-TF060	6.0"	Teflon
W22-L-LP-250-S-090-N10-N-TF-072	W22L-N-TF090	9.0"	Teflon
W22-L-LP-250-S-120-N10-N-TF-072	W22L-N-TF120	12.0"	Teflon
W22-L-LP-250-S-040-N10-N-TA-072	W22L-N-TA040	4.0"	Teflon with SS armor
W22-L-LP-250-S-060-N10-N-TA-072	W22L-N-TA060	6.0"	Teflon with SS armor
W22-L-LP-250-S-090-N10-N-TA-072	W22L-N-TA090	9.0"	Teflon with SS armor
W22-L-LP-250-S-120-N10-N-TA-072	W22L-N-TA120	12.0"	Teflon with SS armor



Note : *To order the W22 with a 90° bend, add suffix "**B**" after the model number. Ex.:* **W22B**

* *No stop collar option ,* **" C " = N00**
Stop collar recommended for temperature above 100°C

Custom Builder

MODEL	1	2	3	4	5	6	7	8	9	10
W22	- __	- __	- _	- _	- ___	- ___	- __	- ____	- __	- ___

BOX 1 CODE	Calibrated Temperature Range
05	0°C to 50°C (32/122°F)
10	0°C to 100°C (32/212°F)
15	0°C to 150°C (32/302°F)
20	0°C to 200°C (32/392°F)
55	-50°C to 50°C (-58/122°F)
51	-50°C to 150°C (-58/302°F)
52	-50°C to 200°C (-58/392°F)
L*	-50°C to 200°C (-58/392°F)
H*	-200°C to 600°C (-328/1112°F)

* *Code **L** & **H** are not factory calibrated. Requires customer calibration using the **PKIT**.*

Notes:

1. *W22 Temperature Sensors are factory calibrated at one point to an accuracy of ±0.12°@0°C or better. See MIST specs.*
2. *For non-standard temperature ranges, indicate desired value in °C or °F in Box1 or see web site www.whcooke.com.*
3. *Order **PKIT** for sensor customization.*

BOX 2 CODE	Output
LP	4-20mA loop, upscale burnout (std.)
LD	4-20mA loop, downscale burnout
VA	0-5 Vdc, 3-wire
VB	1-5 Vdc, 3-wire
VD	0-10 Vdc, 3-wire

Other outputs available. Consult factory.

BOX 3 CODE	Probe Diameter " D "
125	1/8"
188	3/16"
250	1/4"
375	3/8"
500	1/2"

Other diameters available. Consult factory.

BOX 4 CODE	Probe Material
S	Stainless steel 316/316L

Other materials available. Consult factory.

BOX 5 CODE	Probe Length " L "
___	In 0.1" increments Ex.: **065** = 6.5" long

BOX 6 CODE	Extension Cold Leg Length " C "
N__	In 0.1" increments (1.0" Std.) Ex.: **N10** = 1.0" long

BOX 7 CODE	Instrument Connection
N	None, smooth shank
SR	Strain Relief
EN	1/2" NPT male
EE	1/2" NPS male

Other connections available. Consult factory.

BOX 8 CODE	Fitting Type
0	None
A**S	Adjustable fitting*

Ferrule material :
A *= Stainless steel** ***B*** *= Brass** ***T*** *= Teflon®*
** Not readjustable with metal ferrule*

Fitting material :
S *= Stainless steel* ***B*** *= Brass*

Ex.: ***T14B*** *= Teflon® ferrule, 1/4" NPT, Brass fitting*

Process NPT size :

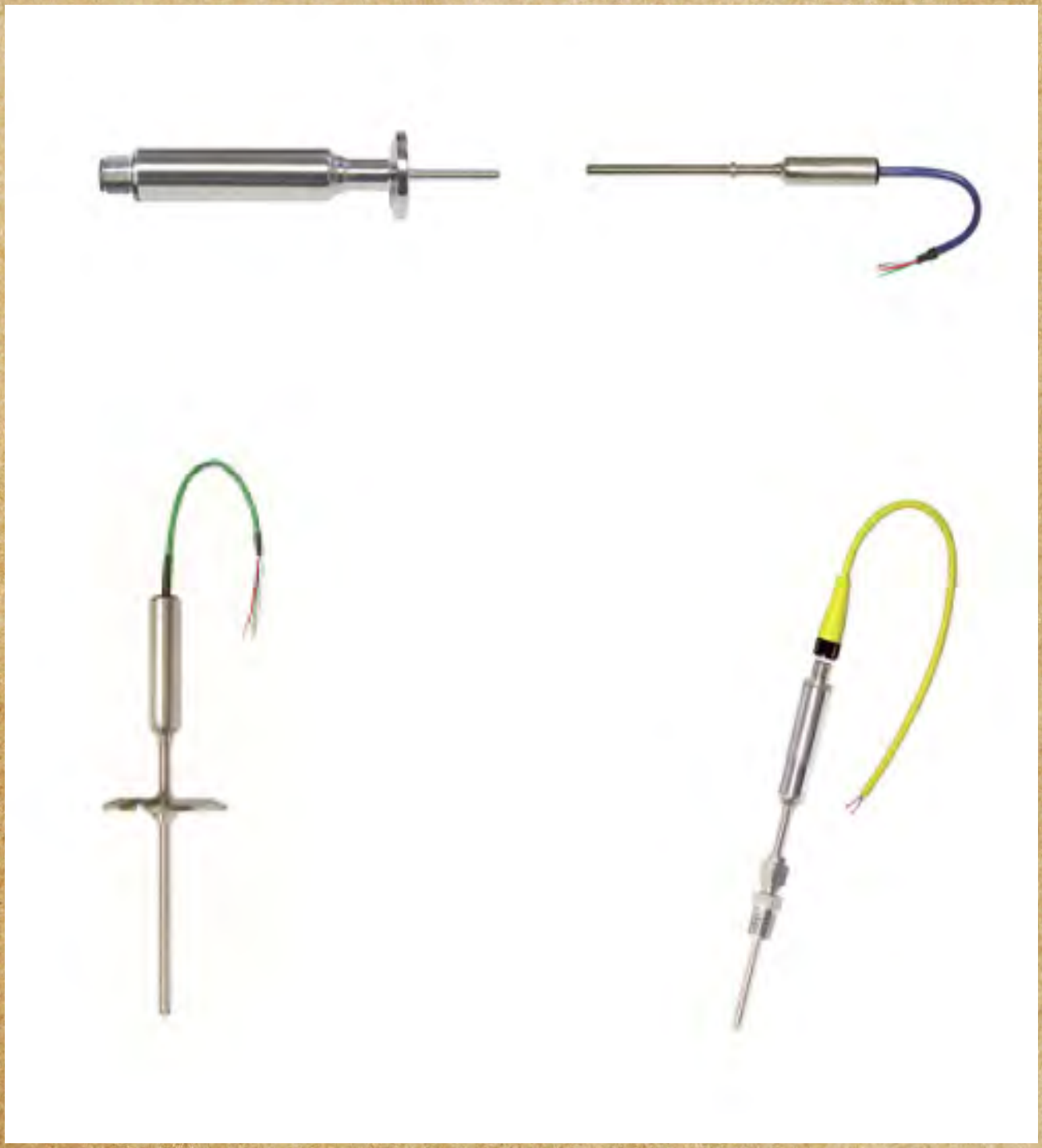
**	**18** = 1/8" NPT	**14** = 1/4" NPT
	38 = 3/8" NPT	**12** = 1/2" NPT
	34 = 3/4" NPT	**44** = 1" NPT

BOX 9 CODE	Extension Cable Type
PV	PVC insulation, 90°C (195°F) max.
TF	Teflon® insulation, 200°C (392°F) max.
TA	Teflon® with SS armor, 200°C (392°F) max.
TB	Teflon® with SS overbraid, 200°C (392°F) max.

BOX 10 CODE	Extension Cable Length " F "
___	In inches Ex.: **060** = 60" long

Note : *Leads "**F**" length 12" and less are single conductor Teflon® insulation, 22 AWG*

More styles of RTD's with the inline transmitter



New Lines

W. H. Cooke & Co. is introducing a line of synthetic lubricants that include:

- Cleaning Solvents & Flushes
- Food Grade Lubricants
- Compressor Oils
- Vacuum Pump Oils
- Gear & Bearing Oils
- Chain Oils
- Impregnating Oils & Gels
- Refrigeration Oils
- Assembly Fluid
- Greases
- Motor Oils
- Specialty Oils
- Oil/Water Separators
- Filters for Oil/Water Separators
- Chemicals & Cleaners

CONCENTRATED CLEANER AND SYSTEM FLUSH

Applications: Cooke Clean & Flush Solvent is a solvent-type fluid designed to dissolve varnish and solubilize sludge as an additive at 5% to 10% concentration in oil for cleaning many types of industrial systems such as Bowser Sumps in Paper Mills during operation. (Not for use in Ammonia Compressors or with Polyalkylene gylcol or silicone fluids.) It can also be used to help flush a system when changing over from mineral to synthetic oils in order to reduce contamination due to oil carry over. Regular use of Cooke Clean & Flush Solvent will help you get the most out of your synthetic oil and your equipment by removing varnish and reducing operating temperature.

Typical Industrial Applications: Rotary Screw Compressors, Rotary Vane Compressors, Centrifugal Compressors, Reciprocating Compressors, Hydraulic Systems, Gearboxes, Vacuum Pumps, Chains, Bearings, Reservoirs, Airline Valves, Heat Transfer Systems

Performance Benefits: Economical to use—only a 5% concentration required for most applications, solubilizes and removes harmful varnish and "sludge", compatible with mineral oils and synthetic hydrocarbons, safe to use as directed–does not contain carcinogens or other hazardous materials found in some competitors products, very mild odor, high flash point.

Cleaning Procedure: We recommend the use of 5% to 10%, generally 5%, of the Cooke Clean & Flush Solvent with 90% to 95% of the fluid in the system. Ultra-Solv can be used with petroleum and synthetic hydrocarbon (PAO) oils. Temperature/time concentration relationships for industrial equipment: (Oil should be circulating.)

If you have an industrial lubricant that you would like pricing on, please provide the manufacturers part number and we will be happy to cross and quote it!

New Lines

Below are the 2 new lines that we aquired this quarter.

Blue Ocean Nova which offers fiber optic process sensors for many applications including but not limited to:

- Moisture in powder and bulk material including granulates, pastes, and highly viscous samples.
- Contamination detection in distilled products
- Color measurement of liquid and solids for food & beverage, oil & gas, chemical, and more.
- Inline cleaning validation
- Blend monitoring for consistent batch mixing

Blue Ocean Nova has developed a new generation of highly integrated fiber optic process sensors for inline measurement of quality parameters in material processing manufacturing processes.

Optical detector technology ranging from 200nm - 11µm
Process interfaces for measurements in solids, liquids and gases
Mechanical flange adapters for compatibility with existing ports on manufacturing equipment

Through the use of new technologies, the integration of the spectral optical sensor directly into the measuring probe is now possible. Patented mechanisms for automatic self-cleaning during the process, allows capturing of the particular process quality parameters in real-time in almost all continuous and batch-based production environments.

To see product brochures on Blue Ocean Nova's products visit http://www.whcooke.com/optics.php or call us at 717-630-2222 and see the following page in this newsletter.

A NEW GENERATION FOR IN-LINE MEASUREMENTS

BLUE OCEAN NOVA®

Blue Ocean Nova has developed a new generation of highly integrated fiber optic process sensors for in-line measurement in manufacturing processes.

Combined with patented mechanisms for automatic self-cleaning and recalibration during the process, continuous and batch-based production environments can capture the particular process quality parameters in real-time.

Contact or non-contact measurements can be made throughout production with real-time quality control.

With the experience and market knowledge of several decades, Blue Ocean Nova has developed a new product category for the application of fiber-optical measurement methods in industrial manufacturing environments. This new category is based on a modular architecture, consisting of three main building blocks

- Optical detector technology
- Process interfaces for measurements in solids, liquids and gases
- Mechanical flange adapters for compatibility with existing ports on manufacturing equipment

Applications examples but not limited to: Moisture in Powders in Food and Beverage, Agriculture, Chemical, Metal, and Pharmaceutical industries. Color in Solids or liquids in Food and Beverage, Agriculture, Chemical, Pharmaceutical, Oil and Gas, and Metal industries. Cleaning validation for all industries.

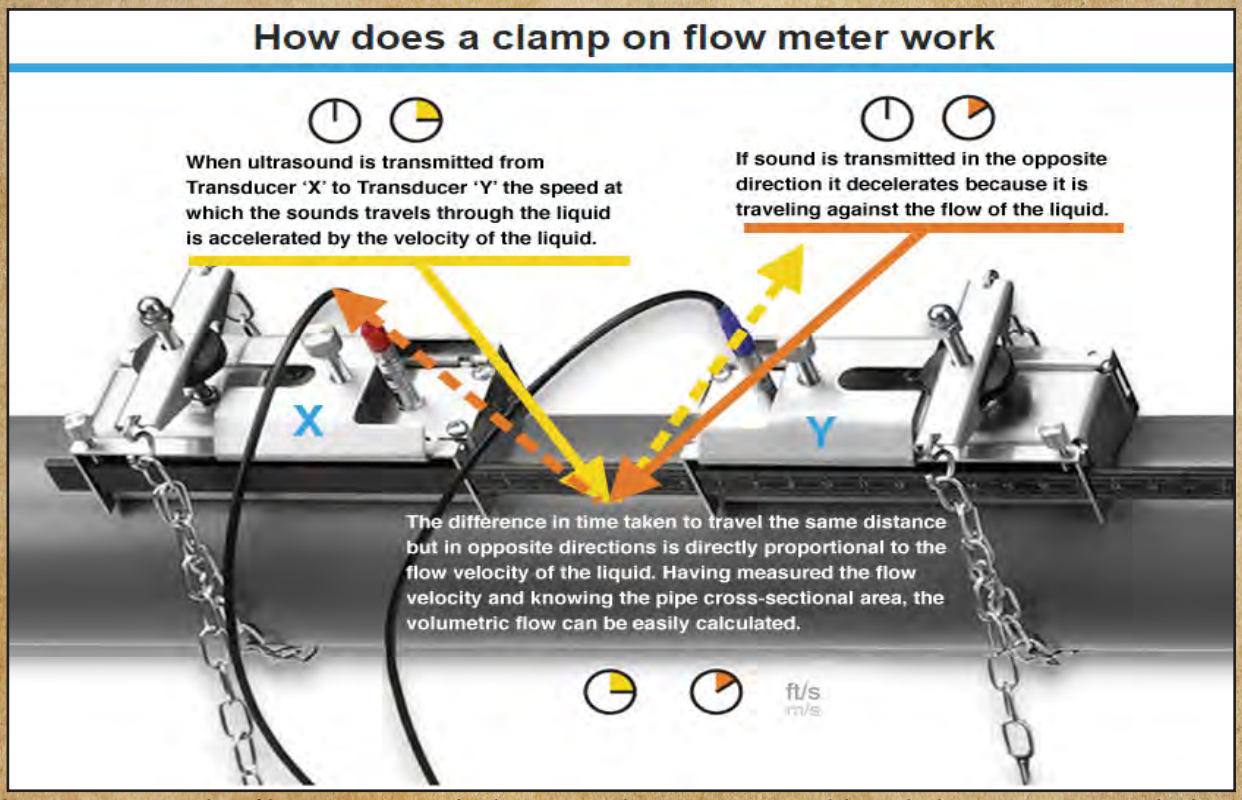
For the first time ever, the optical sensor is integrated directly with the measurement probe. The end of the probe has a display unit allowing operators to view real time measurements. This eliminates the need for operators to be skilled in spectroscopy and able to easily and quickly view if measurements are in spec. Our intelligent process sensors include the relevant optical spectroscopy regions ranging in UV-VIS-NIR-MIR spectrums. This allows for in-line analysis of liquids, gases and solids in manufacturing processes. This makes it possible to eliminate product risks, and increase profitability and efficiency of production processes.

W. H. COOKE & CO.
Phone: 717-630-2222
Email: sales@whcooke.com

New Lines

MICRONICS AMERICA

Micronics is another new line which we have picked up and they offer portable and fixed clamp on flow meters. Models include Ultrasonic, Doppler, Area Velocity, and Level Sensing clamp on flow meters. Below is a diagram showing how a clamp on flow meter works as well as a high temperature application where Micronics was able to help a customer to monitor the flow in their cooling system. For more information, please visit http://www.whcooke.com/manufacturer_stage.php?compid=23275 or call 717-630-2222.

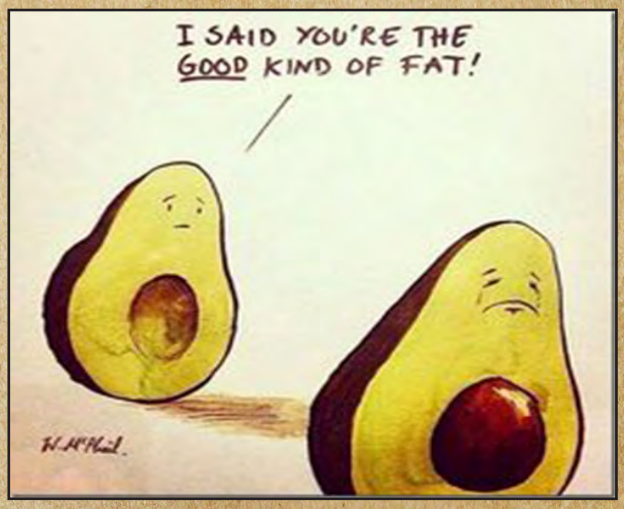


Below is an example of how Micronics' Clamp on Flow Meter was able to help a customer with their flow measurement.

Where: Wilson, North Carolina
Problem: No way to balance cooling system, record flow leaving sumps, and quickly identify leaks
Chosen Solution: 21 clamp on flow meters; U3000B and U3000B High Temperature (392°F) clamp on ultrasonic flow meters measuring flow.

Results:
- Ability to detect leaks
- Ability to balance cooling system
- Record flow leaving sump system

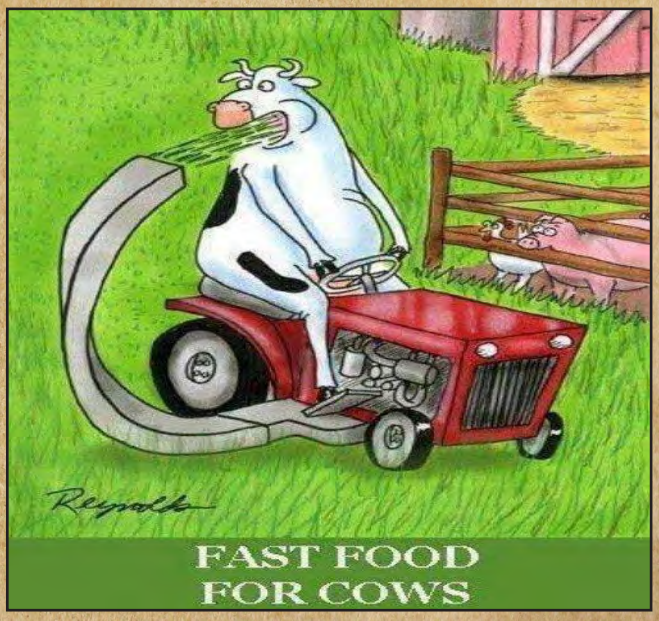
Funnies


I SAID YOU'RE THE GOOD KIND OF FAT!


I CAN'T BELIEVE YOU GOT PLASTIC SURGERY!!!


"Bad news, its curiosity"


Cat Treadmills


FAST FOOD FOR COWS

From our home state of Pennsylvania, W.C. Fields was born William Claude Dukenfield in Darby, PA, just outside of Philadelphia on January 29, 1880 and got hired as a juggler at a Norristown, PA amusement park at age 15. Below are some famous quotes from him. To learn more about W.C. Fields, visit these sites:

http://www.netstate.com/states/peop/people/pa_wcf.htm
http://www.thecanteen.com/fields.html

W.C. Fields Quotes

On Proper Cooking Technique:
"I cook with wine, sometimes I even add it to the food."

On Picking Battles:
"I don't have to attend every argument I'm invited to."

On Dealing With Criticism:
"It ain't what they call you, it's what you answer to."

On Wealth:
"A rich man is nothing but a poor man with money."

On Voting:
"I never vote for anyone. I always vote against."

On Lawyers:
"The only thing a lawyer won't question is the legitimacy of his mother."

On Success:
"If at first you don't succeed, try, try again. Then quit. There's no point in being a damn fool about it."

On The Key To Success:
"Attitude is more important than the past, than education, than money, than circumstances, than what people do or say. It is more important than appearance, giftedness, or skill."

On Dating:
"Never try to impress a woman, because if you do she'll expect you to keep up the standard for the rest of your life."

On Being Self Aware:
"I drink therefore I am."

On Sleep:
"Sleep – the most beautiful experience in life – except drink."

On Hate:
"I am free of all prejudices. I hate every one equally."

In the Community

Our town of Hanover, PA is known for its snack foods such as potato chips, pretzels, and other delicious crunchy carbs in many other forms. However, you may not have known that we are also home to the World's leading horse breeder by race earnings. I am referring to Hanover Shoe Farms which got its start in the early 1900's when Lawrence B. Sheppard, had the vision of transforming the Hanover Shoe Stables into Hanover Shoe Farms. In 1922 Sheppard began acquiring some of the finest racehorse of the era, with Baron Worthy and Peter Manning among them. In 1926, Mr. Sheppard bought a 69-horse package from the estate of A.B. Coxe and Hanover Shoe Farms burst onto the horseracing scene. For the next 42 years, Mr. Sheppard was determined to keep Hanover Shoe Farms "The greatest name in harness racing" and he eventually chose John Simpson as his successor. In 1972, Simpson added 2 horses that turned out to be "the franchise" for two decades-trotter Super Bowl and pacer Albatross.

Lawrence B. Sheppard, the late President and Co-Founder of Hanover Shoe Farms, with his all time favorite, Dean Hanover 3,T1:58 1/2.

Broodmares were crucial to the breeding business and Simpson never strayed from his goal of maintaining the Hanover broodmare flock as the best in the world, whatever the cost. "No breeding farm is going to reach the top, or remain on top, unless it consistently strives to improve its band of mares," said Simpson. Hanover Shoe Farms has reinvested $16,650,500 in the purchase of young, championship-caliber broodmares over the last ten years.

According to the USTA (United States Trotting Association) as of 10/25/16 Hanover Shoe Farms, so far in 2016 has 2033 wins and $22, 668, 746 in earnings.

For more information and to see a roster of horses past and present, please visit http://www.hanoverpa.com

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