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# 2018 AWWA/WEA Spring Conference

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**GET IT, USE IT, IT'S CHEAP OR FREE**

SCOTT J. OLIVER

CAROTEK, INC.

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# Goal

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We will discuss many different types of plant wide savings from product features and benefits to extended warranties that are either hidden or just not well known.

You should obtain a good insight to the sales and equipment marketing side of the supply chain and know the questions to ask to save your plant money.



# Agenda

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## Warranties

- Standard
- Extended
- Free
- Additional Expense

## Start-up Services

- Confirm Application and proper operation
- Has to be done anyway
- Savings

## Products

- Hart Protocol
- Heartbeat Technology
- Hand held communicators

## Discussion

# Warranties

## **Standard stated manufacturer warranties are:**

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“Our product warranty is 12 months from start up or 18 months from shipment, whichever is first, against product workmanship only regarding the product itself as long as it is used as intended and is start-up up by a factory trained technician, blah, blah, blah”.

Did you know:

- Electric actuator manufacturers give the valve OEM's a two year warranty.
- A pump warranty is only valid if you have and are using an approved **Moisture Relay and Thermal Overload** circuit and shut the pump down when either case happens.
- Submersible pump warranties are prorated.
- Instrumentation warranties can be easily extended.
- Most warranties can be extended if only you ask for it for free (manufacturers want you to use their product and are happy to sweeten the deal).

# Extended Warranties

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## **Extended warranties for a fee:**

- Instrumentation manufacturer Endress & Hauser will extend the warranty after start-up has been achieved for years 4 and 5 for 6% of the list price per year.
- Valve manufacturer DeZURIK/APCO/HILTON will extend their factory warranty:
  - 3 years/36 months for 2% additional charge of the net order value.
  - 4 years/48 months for 3% additional charge of the net order value
  - 5 years/60 months for 5% additional charge of the net order value

Most of the time, the intent of the extended warranties is for the general contractors building the plants that take several months to construct and will get the contractor through their warranty phase with their client. But it is available to the client also!

# Start-up Services


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## **Start-up services for a fee:**

- Instrumentation manufacturer Endress & Hauser will extend the warranty after start-up to 3 years.
  - This confirms for the manufacturer the proper instrument is being used in the application.
  - Must be done by an ASP – Authorized Service Provider.
  - The ASP has been technically trained on applications and product features and signs off on the application and wiring.
  - Start-up services are not FREE, but multiple instruments can be started up on each visit spreading the cost over multiple instruments.

To my knowledge, E & H is the only manufacturer offering this policy.

Start-up services need to be done on all equipment to ensure proper application and installation.



# Hart Protocol (introduced in the late 1980's by Rosemont)

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## \*Digital information on top of an analog signal

- 4-20 mA-linear signal, reliable over long cable runs, immune to electromagnetic interference and low power consumption. Mostly used in industry, been around since the **1970's**.
- \*A Transducer provides the Process Measurement, Monitor, Control Diagnostic and status of itself.
- Highway Addressable Remote Transducers is HART and make the instruments "Smart" like your phone. **ONLY 10% OF THE SMART INSTRUMENTS ARE USED AS "SMART" INSTRUMENTS.**
- The "SMART" instrument provides Status, Diagnostics and the Measured or Calculated values, Configuration, Calibration and \*Diagnostics on the sensor itself.
- Most instruments today are HART ready and multivariable: **Differential Pressure sensor** informs; Process Variable, Cell Temperature, Static Pressure and Sensor Status. **Coriolis Flow Sensor** informs; Mass Flow, Density and Process Temperature. **Digester Gas B200 Flowmeter** informs; Volume Flow, Calorific Value, Methane Content and Process Temperature.
- Using the HART portion of the "analog" signal let's you: Leverage ALL the "smart" sensors capability, Decrease Maintenance costs, Increase System Availability and Improve Regulation Compliance
- THE INVESTMENT HAS BEEN MADE, LET'S USE IT.

# “HEARTBEAT”

Endress & Hauser’s standard feature:

- Allowing diagnostic’s for reduced maintenance and quick remedies
- Verification Calibration with certificates
- Permanent Self monitoring and alarming of all self-monitored parameters.





# Hand Held Communicators

- Most of this function is done on-line through SCADA, with a laptop or Bluetooth device/smartphone.
- Several manufacturers manufacture calibrators
- Rosemont 475
- Meriam MFC5150x
- The device is used to Configure, Calibrate or Troubleshoot "HART" devices.
- Users are the Instrument Shop technicians, process and Control Engineers or Responsible parties to the plant operation.



# Discussion

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1. Do you have a spreadsheet with the shipment and start-up and warranty periods?
2. Do you want the responsibility of assisting the technicians or are you best suited to delegate that to a third party?
3. Does the thought of an extended warranty interest you?
4. What's best for you; Extended warranties or customer service?
5. Are you capable and willing to operate a HART Handheld?

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Questions?

