

Company Type: **Concrete Contractor/Equipment**  
 GPI Model Number: **01N31GM and A109GMN100NA1**  
 Market: **Stone/Clay/Cement**  
 Application Category: **Monitoring**

••••• GPI Model Series: **01 and A1** •••••

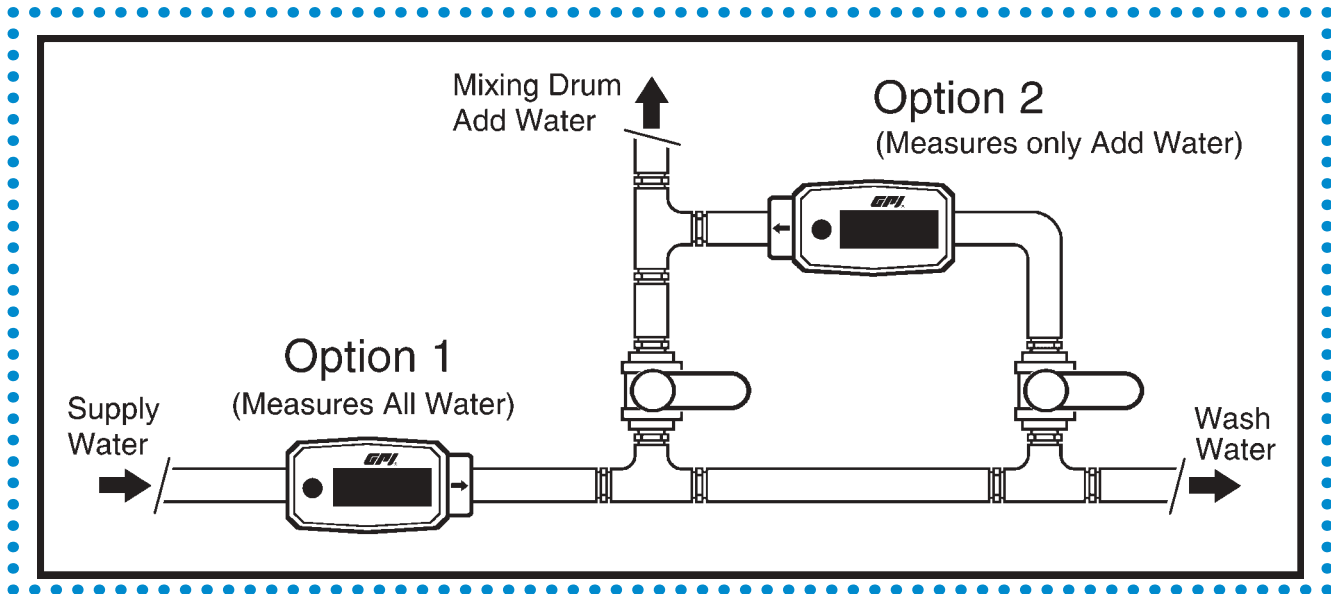
**Application:** Monitor the water added to the cement batch in the mixing truck after it has left the batch plant. Several state Departments of Transportation require that if a truck will be used in DOT contract work, it will be equipped with a meter and any water added to the mix will be logged. The strength of concrete is dependent, to a large degree, on the amount of water used in the mix. All DOT and most other contracts specify the "Slump" or stiffness of the mix along with a list of other attributes. Redi-mix plants maintain very specific recipes for the different grades of concrete. When excess water is added in the field, the quality of concrete is compromised. It is very important that the redi-mix company and the customer can verify that any specific batch falls within the tolerances of the original recipe. Place the meter in-line on the truck between the water storage tank and the mixing drum. Valves are arranged so that any water added to the mixing drum will be metered. **Note:** Remote display option requires A1 meter choice.

**Problem:** Drivers need to add water on site to bring the mix to suitable slump rating. The amount of add water is very subjective and is not monitored. This results in variances in batches and quality of product.

**Solution:** Add a flowmeter in line to monitor any water added to the mix.

- Advantages of using GPI:**
- ◆ Battery operated
  - ◆ Compact Design
  - ◆ NEMA 4 Enclosure
  - ◆ Accurate
  - ◆ Not dependent on mounting orientation
  - ◆ Remote display option requires A1 meter choice

**Drawing of Application:**



# GPI Application Sheet

#102

Company Type: **Cooling Tower Manufacture**

GPI Model Number: **A109GMN100NA1**

**113265-1 Remote Kit**

Market: **Fabrication Metal Products**

Application Category: **Monitoring**

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• GPI Model Series: **A1** •  
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**Application:** In the water chiller/cooling tower process there are multiple variables related to the Btu extracted from the incoming water. Those variables include Thermal Capacity, Air Flow Rate, Air and Water Contact Time and Circulating Water Rate. Two of these variables require a flow meter to accurately predict the efficiency of the cooler. Flow meters are required on the makeup water line and on the Circulating Water line in order to maintain the most efficient balance of recirculated water and makeup water to air flow. A flow meter is placed on the Circulating Water line to monitor flow rate. In some applications a second meter is placed on the makeup water line to monitor amount.

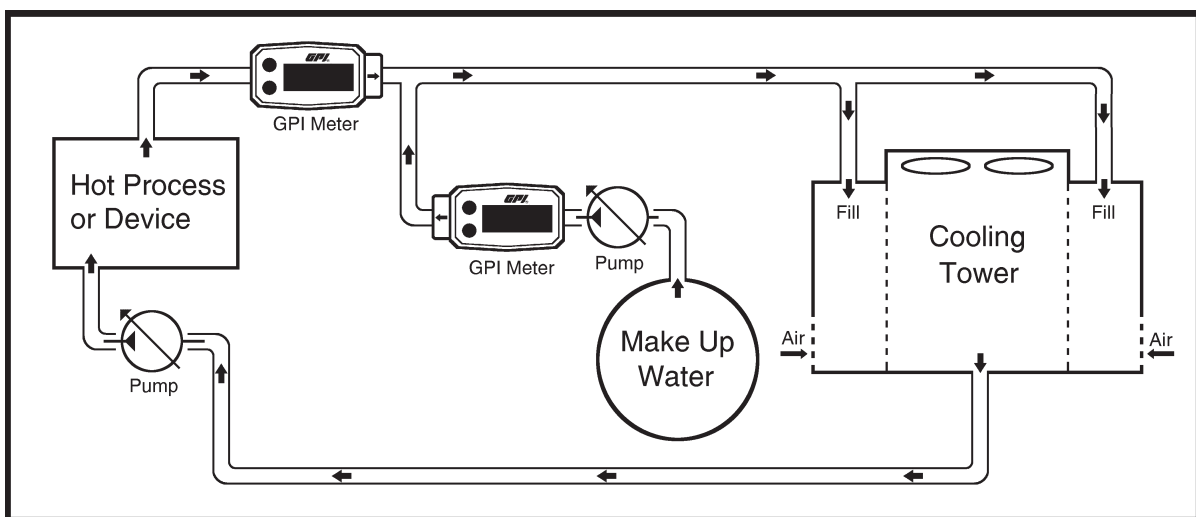
**Problem:** Companies need to adjust flowrate to maintain a constant temperature of cooling water used for various processes. Unstable or fluctuating chill water temperatures can cause quality problems or possibly even damage to expensive equipment.

**Solution:** Add a flowmeter in line to monitor the flowrate through the chiller.

### Advantages of using GPI:

- ◆ Battery operated
- ◆ Compact Design
- ◆ NEMA 4 Enclosure
- ◆ Accurate
- ◆ Not dependent on mounting orientation
- ◆ Display can be mounted remotely
- ◆ Display can be mounted remotely
- ◆ Nylon housing is compatible with raw water.

### Drawing of Application:



Company Type: **Filling Machine Manufacture**  
GPI Model Number: **GSCPS-150; GSCPS-100**  
Market: **Food, Beverage, Tobacco**  
Application Category: **Batching**

**Application:** Manufactures using filling machines require accurate batch sizes to maintain quality control while filling various size containers. When installed inline immediately before the filling head, the GPI turbine meters fluid flow with high K-factors giving exceptional signal resolution. The pulse count is sent to a controller that counts the pulses signaling the shut off valve to open or close as required. For most food applications, the 3A sanitary meter is required. The single post rotor design allows for repeated start/stop batching flows without damaging the meter.

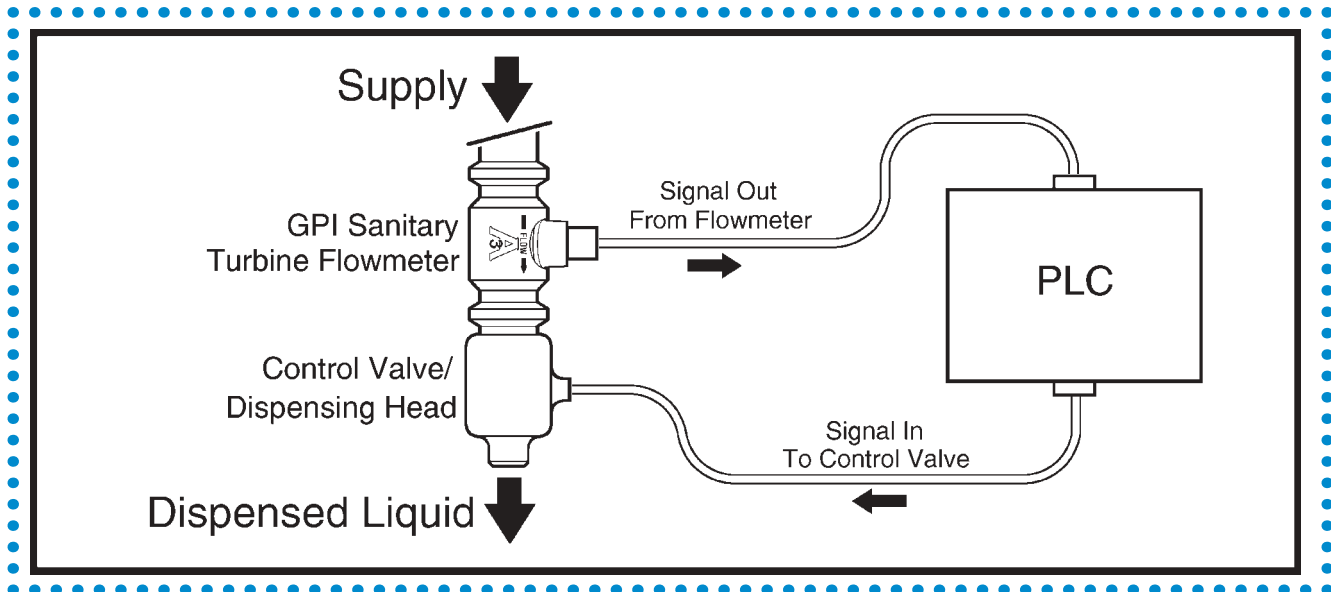
**Problem:** Accurately measure fluid into containers at a reasonable cost while maintaining 3A sanitary requirements with a meter that can withstand repeated stop/start batching flows.

**Solution:** GPI turbine meters measure at 0.5% of reading accuracy and are more cost effective than weight scales or other metering devices. These meters incorporate a single post rotor design for durability and meets 3A sanitary guidelines

**Advantages of using GPI:**

- ◆ 3A Sanitary Approval
- ◆ Accuracy
- ◆ Cost Savings

### Drawing of Application:



Company Type: **Municipality**  
GPI Model Number: **G2S10N09GMA**  
Market: **Water Supply/Irrigation**  
Application Category: **Monitoring**

GPI Model Series: **G2**

**Application:** Use this compact meter to verify/test the water flowrate from the city main to individual homes or businesses. Use the GPI meter in the test assembly (shown below) to perform two tests.

1. Install the G2 meter on the supply line of the city main to verify flowrate to the residence. Open valve and check flowrate.
2. Install the residential meter on the downstream of the testing assembly to verify proper functioning of residential meter.

These two tests allow troubleshooting to be done on-site, saving labor time and money. Field crews are able to isolate water main problems and identify residential meter malfunctions.

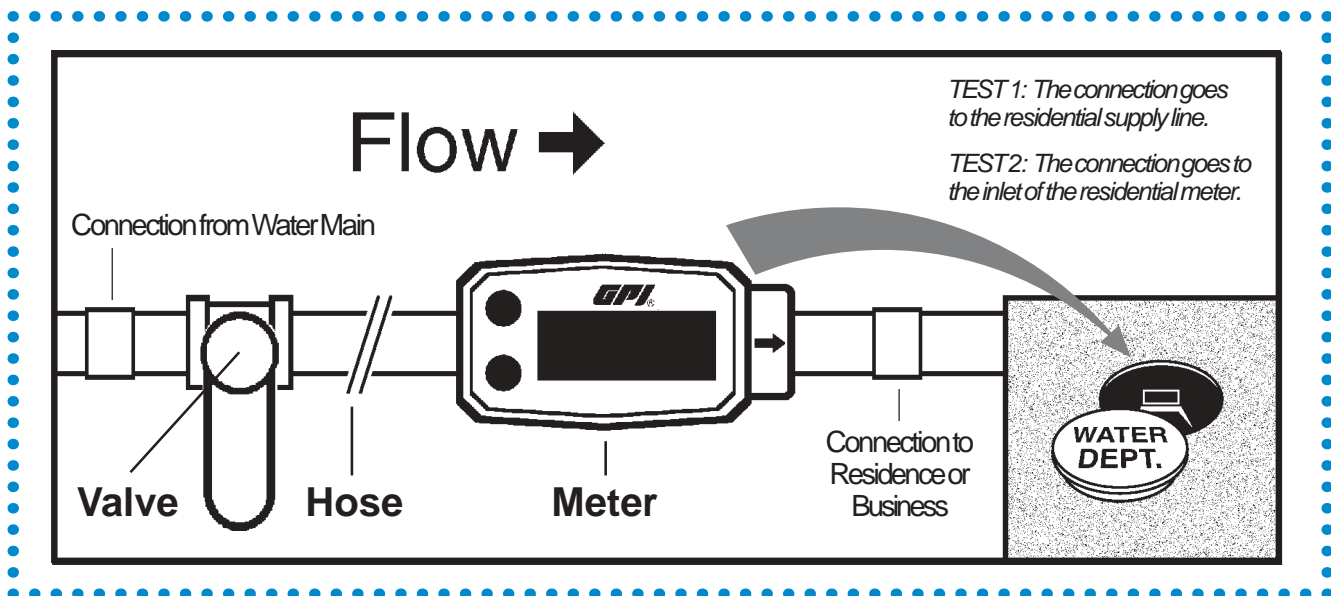
**Problem:** Homeowners and businesses need to verify flowrate of water supply and accuracy of city equipment from main water line to individual properties. Other methods of verification can be inconvenient, time consuming and costly.

**Solution:** Remove the residential meter from the line. Install either a G2S10 or G2S20 meter to the residential service line. Check flowrate. A secondary test is done by installing the residential meter on the downstream side of testing assembly. Check and compare accuracy.

### Advantages of using GPI:

- ◆ Cost savings
- ◆ Compact Design
- ◆ Accurate
- ◆ Digital Readout
- ◆ Reliable

### Drawing of Application:



Company Type: **Meat Packer**

GPI Model Number: **G2S07N09GMA**

Market: **Food**

Application Category: **Batching/dispensing**

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• GPI Model Series: **G2** •  
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**Application:** Portable cleaning solution carts are used to sterilize equipment and process rooms. These carts are loaded with caustic and acidic cleaning agents from large tanks or totes. The cleaning agents vary in density and pH so material compatibility is important. The G2S07N09GMA fits the application and provided a cost savings for the end user. The G2 meter is easy to calibrate to changing ingredients and is simple for the operator to use.

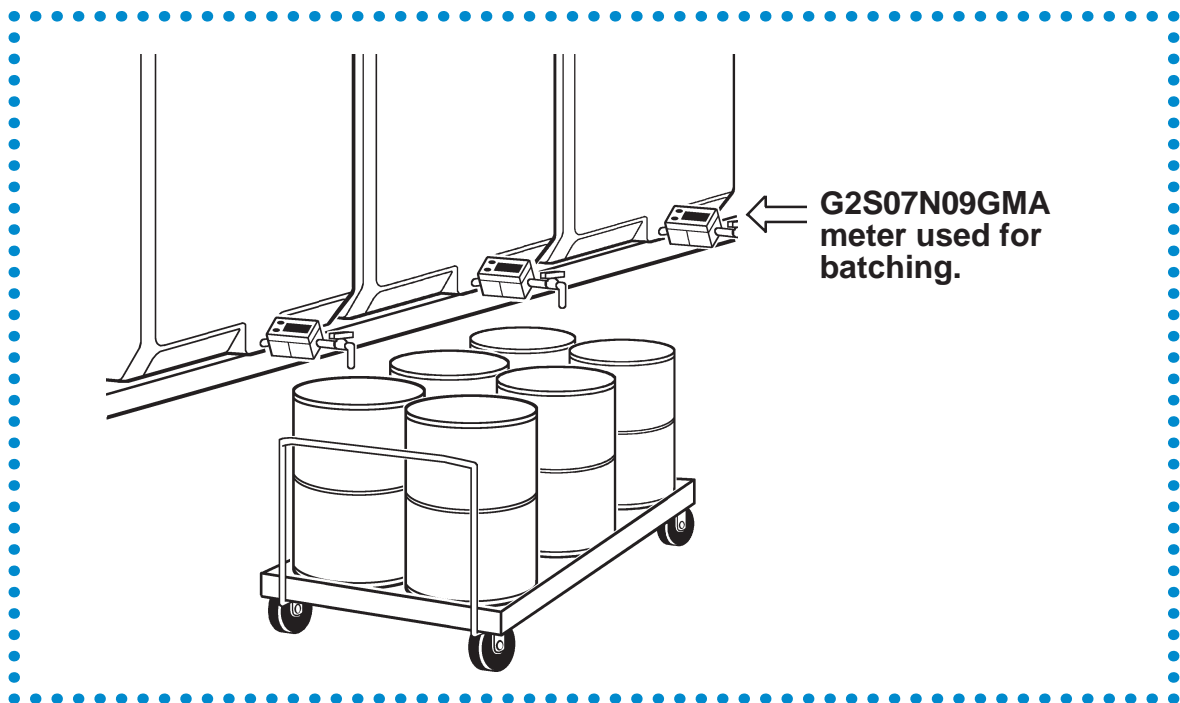
**Problem:** Portable cleaning solution carts need to be loaded with caustic and acidic cleaning agents. These agents vary in density and pH. Both batch and continuous total are required when loading the carts with solutions.

**Solution:** Choosing the G2 series meter allowed us to monitor batch and continuous totals during batching. The GPI meter is compatible with the variety of cleaning agents used in this process.

### Advantages of using GPI:

- ◆ Cost Savings
- ◆ Self Contained
- ◆ Compact Size
- ◆ Digital Readout
- ◆ Material Compatibility
- ◆ Upgrade in technology

### Drawing of Application:



# GPI Application Sheet

#106

Company Type: **Medical Device Manufacturing**

GPI Model Number: **GNT-051 with GX500**

Market: **Pharmaceuticals**

Application Category: **Batching**

GPI Model Series:  
**GNT-051 & GX500**

**Application:** The manufacturing process required an accurate measure of two different fluids into a day tank. The blended materials, acrylamide (ACR) and glycerine (GLY) are then used in a subsequent process. Accuracy of measurement (**+/-0.5%**) was a critical requirement of the process and provided a cost savings.

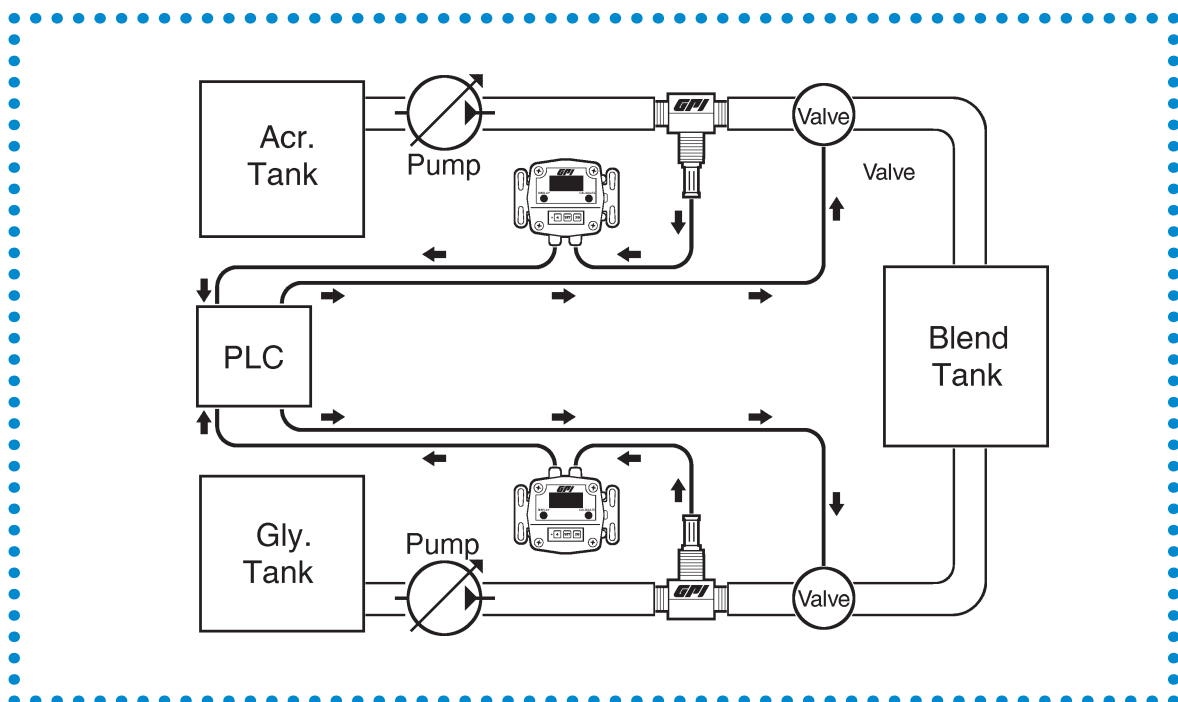
**Problem:** The manufacturing process required accurate measurement of two materials into a single batch. Two lines supply materials that are batched into a blend tank.

**Solution:** G Series Meters added to the individual lines send a signal (4-20 mA) back to the PLC. This signal at the PLC allows operators to monitor usage throughout the process.

### Advantages of using GPI:

- ◆ Cost Savings
- ◆ Self Contained
- ◆ Compact Size
- ◆ Accuracy

### Drawing of Application:



Company Type: **Drinking Water Utility**

GPI Model Number: **G2P05N09GMA**

Market: **Water Supply**

Application Category: **Monitoring**

GPI Model Series: **G2**

**Application:** At the end of the ozone chambers, there are instruments for measuring residual levels of ozone. These ozone analyzers require 1-5 GPM. The sample line runs to a closed waste line, in case there is a high level of ozone. Safety to technicians is a concern when working with ozone. Leaving valves wide open wastes too much water. Flowrate cannot be too low or too high and still expect accuracy in the analyzer reader. Rotameters had been used but failed due to turbidity levels and the float would stick.

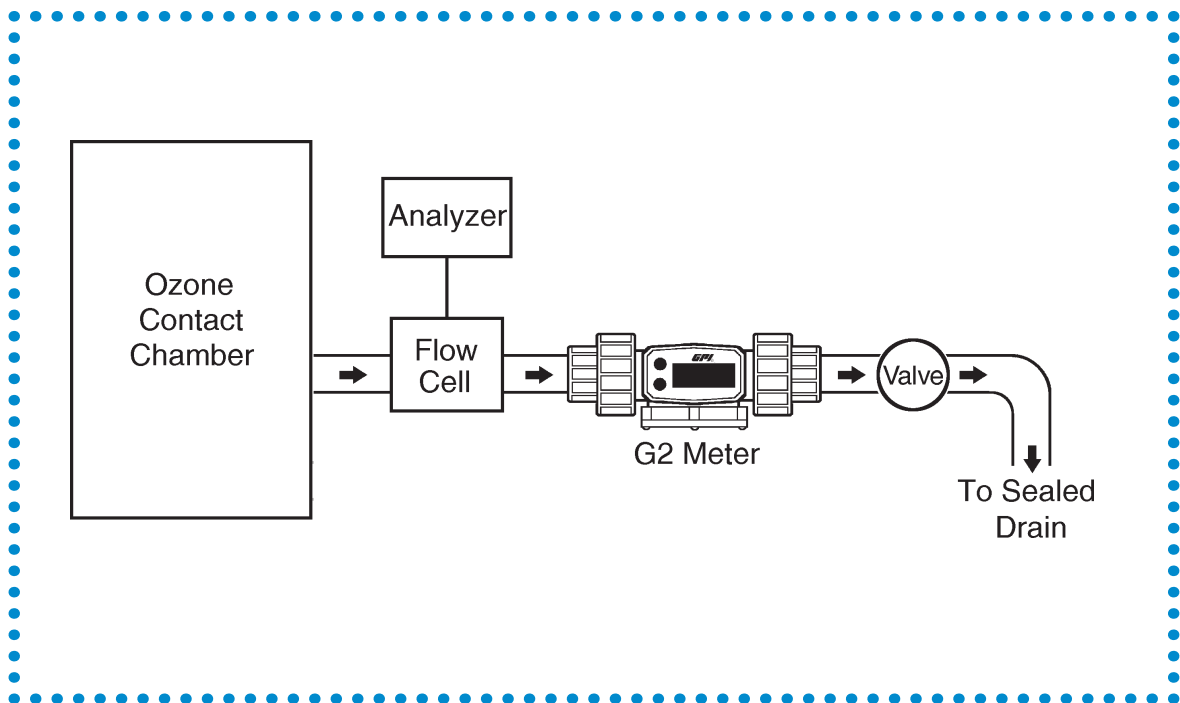
**Problem:** Opening the pipe to measure sample flow rate could expose technicians to toxic levels of ozone. Leaving valves wide open wastes large volumes of water. If the flowrate is too low or too high analyzer readings are not accurate.

**Solution:** Install the G2 meter to monitor sample flowrate. The flow can be adjusted with the throttle valve. The ease of maintenance allows the meter to be checked for build-up and cleaned or to be replaced as needed.

### Advantages of using GPI:

- ◆ Cost Savings
- ◆ Safety
- ◆ Compact Size
- ◆ Accuracy
- ◆ Easy to install

### Drawing of Application:





# GPI Application Sheet

#108

Company Type: **Chemical Sales & Delivery**

GPI Model Number: **GM007C2R22-5**

Market: **Industrial/Agricultural Chemicals**

Application Category: **Inventory Management**

GPI Model Series:  
**GM Series**

**Application:** Vendor delivers various chemicals to end-users in multiple markets. The meter is installed between the pump and hose reel to accurately measure and charge customers for the product delivered. Chemicals delivered range from detergents and deodorizers to caustics and acids. Accuracy of measurement was a critical requirement of this process.

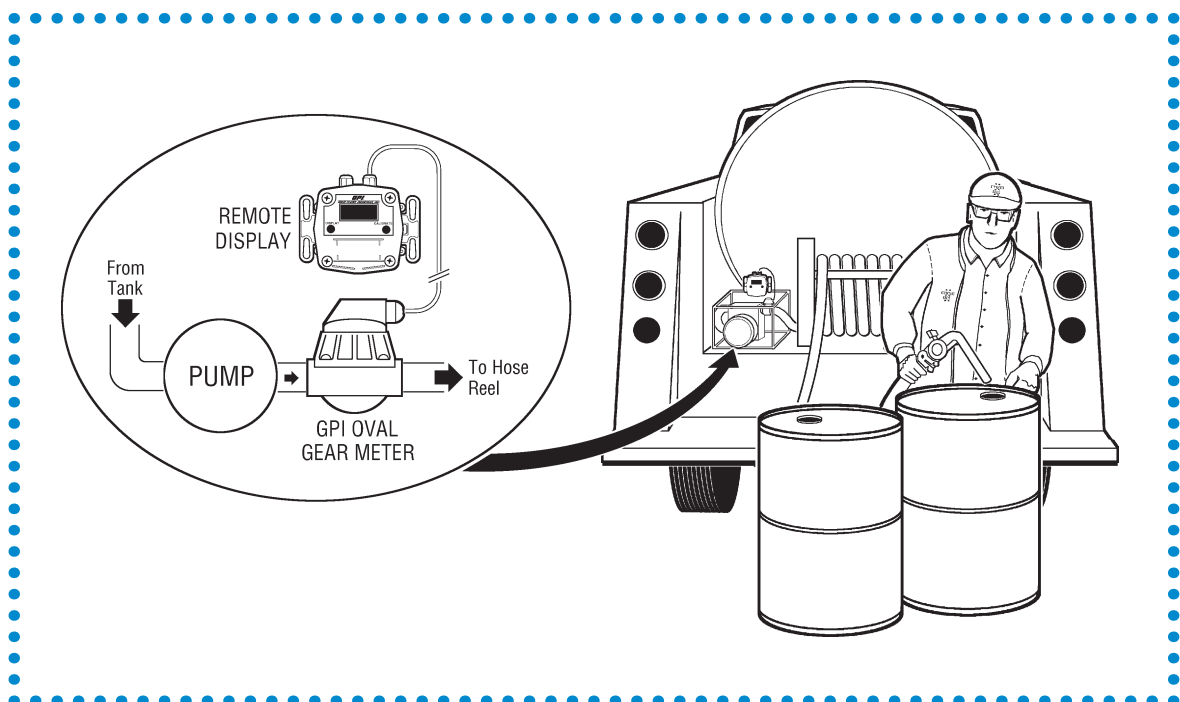
**Problem:** The range of chemicals delivered required a meter compatible with a wide range of chemicals. Other meters would fail or require more maintenance and repair. Accuracy was critical in billing end-users.

**Solution:** The GPI GM007 PPS Meter with Hastalloy shaft and Teflon® O-rings was less expensive to purchase and required fewer repairs when used with harsh chemicals.

### Advantages of using GPI:

- ◆ Accuracy
- ◆ Chemical Compatibility
- ◆ Cost Savings

### Drawing of Application:





# GPI Application Sheet

#109

Company Type: **Metro-Airport**

GPI Model Number: **G2S20N09GMB with 113265-1**

Market: **Transportation Equipment**

Application Category: **Inventory Management**

GPI Model Series: **G2**

**Application:** The airport uses trucks to dispense a water/Glycol mixture for deicing air-plane wings and body. This mixture is expensive and the user needed to know how much fluid was being used on each plane. Without an accurate measurement of the fluid, waste occurred and expenses increased. The end user preferred the display location in the cab.

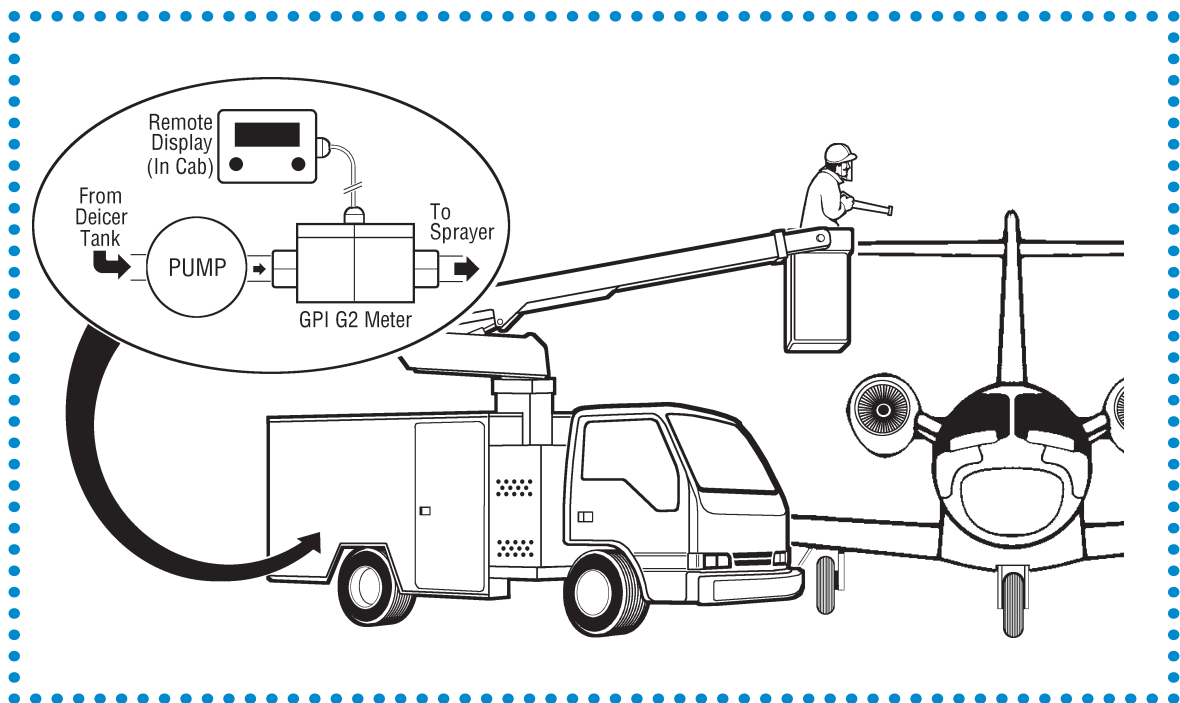
**Problem:** The expensive deicing mixture was being wasted causing expenses to increase. Monitoring usage by individual treatment was required. Accurate billing receipts were important.

**Solution:** The GPI G2S20N09GMB meter and condition signal output module reading in gallons sent a pulse out to a ticket printer. This provided an accurate billing receipt by usage. All equipment was contained within the truck and protected from tampering or elements.

### Advantages of using GPI:

- ◆ Cost Savings
- ◆ Accuracy
- ◆ Payback

## Drawing of Application:



# GPI Application Sheet

#110

Company Type: **Water Supply**

GPI Model Number: **A109GMN100NA1 and  
G2S20N09GMB**

GPI Model Series: **A1 & G2**

Market: **Water Supply/Irrigation**

Application Category: **Blending**

**Application:** The company used a blend of water and corn syrup in water wells to accumulate bacteria in contaminated water. Both the water and corn syrup volume must be accurately metered. Using this blending system, the water is purified in an efficient and economical method.

**Problem:** Water wells and or water tables were contaminated by a variety of chemicals. A mixture of corn syrup and water was introduced into the system to remediate the water. An economical metering device was needed as part of the remedy.

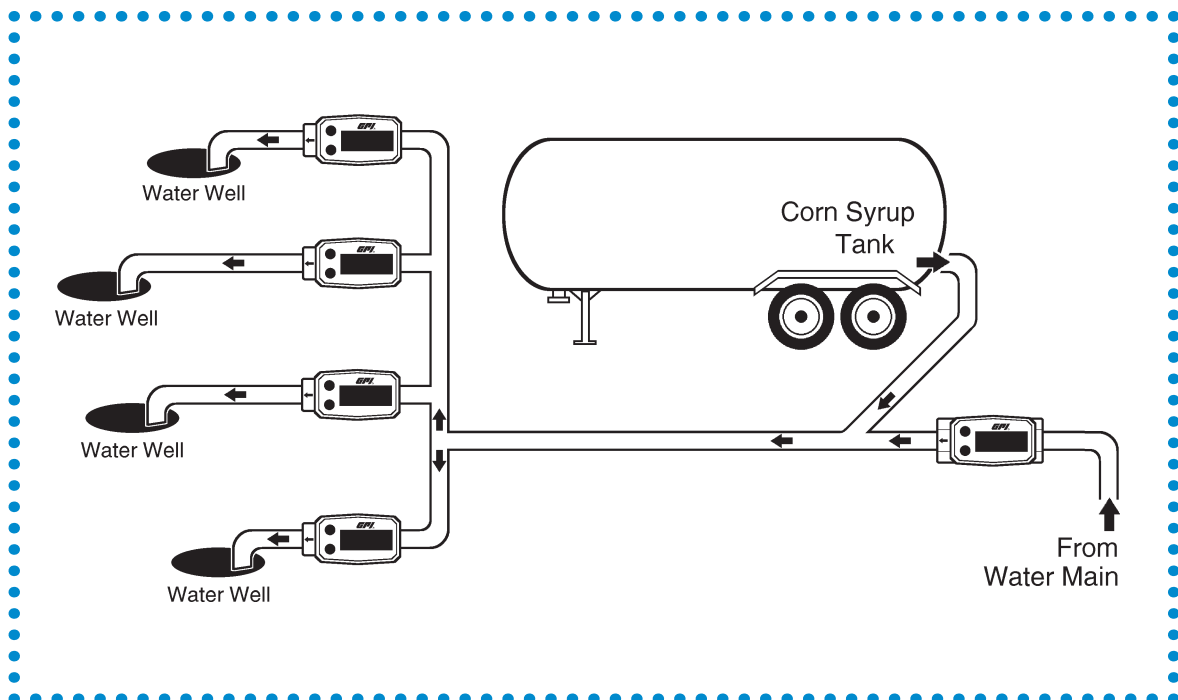
**Solution:** The solution requires multiple meters used for both water and corn syrup fluids. The rugged G2S20 was installed on the water main. The A109 meters worked great with the water and corn syrup mixture.

In both cases the GPI meters were accurate, compact and economical.

### Advantages of using GPI:

- ◆ Cost Savings
- ◆ Accuracy
- ◆ Digital Readout
- ◆ Compact Size

### Drawing of Application:



# GPI Application Sheet

#111

Company Type: **Power Company**

GPI Model Number: **GM007R2R21-4**

Market: **Fossil/Hydro/Other**

Application Category: **Monitoring**

••••• GPI Model Series:  
••••• **GM Series**

**Application:** A generator used to produce power has a recirculating fuel supply system that provides more fuel to the injectors than is consumed, resulting in a fuel return. Determining actual consumption, required subtracting the return volume from the supply volume. This requires two meters that match the flow range of the fuel supply/return.

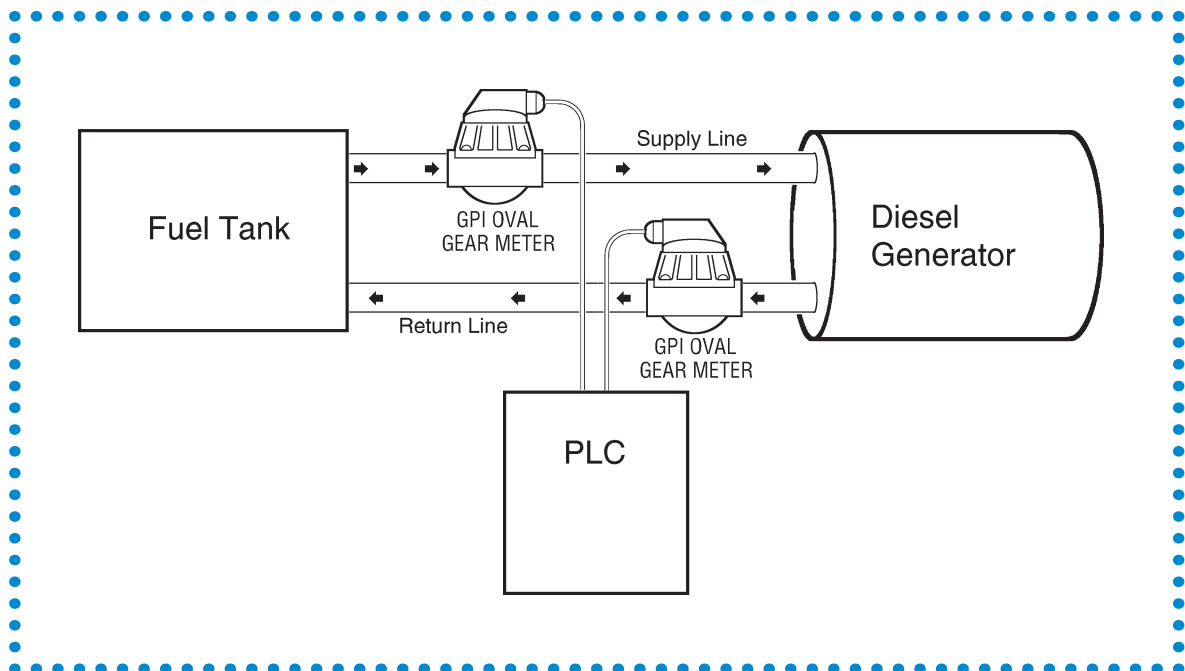
**Problem:** The customer needed to monitor the consumption rate of the generator from a remote location. A more accurate way of calculating service charges was desired. For example, actual use vs. time.

**Solution:** A pulse output to a PLC allowed for communication to the remote location. Using GPI Meters, service charges could be based on actual amount of fuel burned instead of other less accurate measures.

### Advantages of using GPI:

- ◆ Cost Savings
- ◆ Accuracy
- ◆ Safety
- ◆ Compact Size

## Drawing of Application:



# GPI Application Sheet

#112

Company Type: **Manufacturing**

GPI Model Number: **GM003S2R41-6**

Market: **Industrial Agricultural Chemicals**

Application Category: **Monitoring**

GPI Model Series:  
**GM Series**

**Application:** The GM Series Meter monitors flowrate of fuel usage in two diesel powered boilers. The steam produced is used in the facility. The meter records totals and flowrate on the local display then transmits a 4-20 mA signal to the PLC allowing for greater monitoring and control throughout the facility.

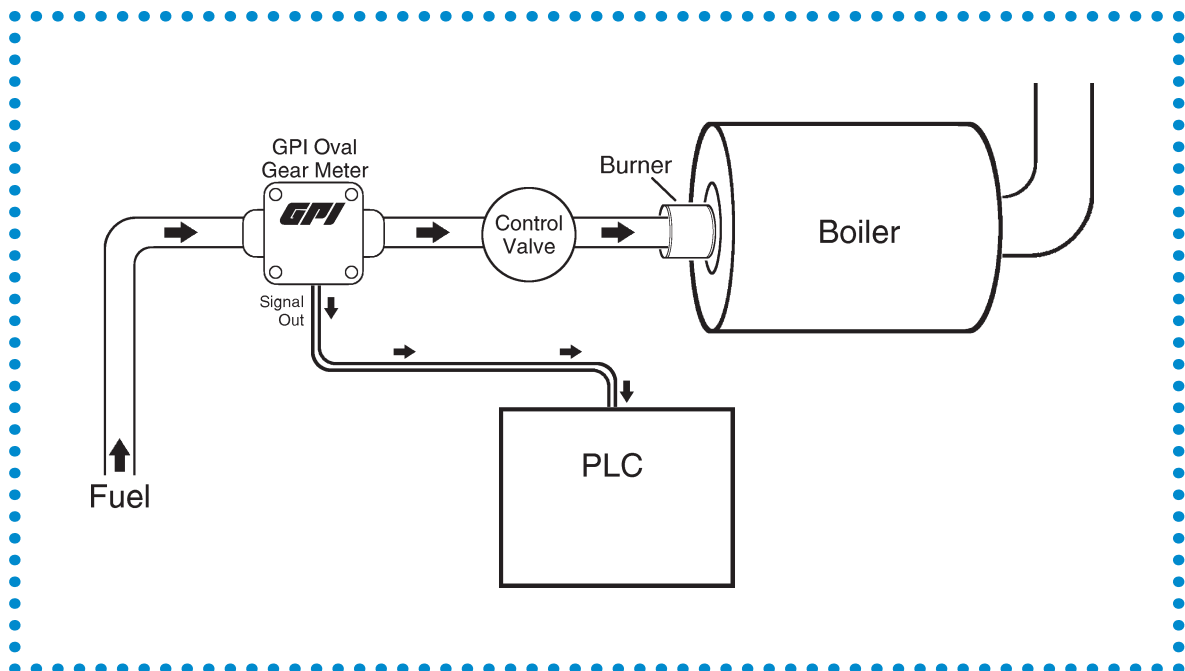
**Problem:** The customer needed to monitor the consumption rate of the generator from a remote location. Control of different systems within this facility is critical.

**Solution:** A pulse output to a PLC allowed for communication from the location to a remote site. The upgrade in technology for this company provided better accuracy and control.

### Advantages of using GPI:

- ◆ Cost Savings
- ◆ Accuracy
- ◆ Safety
- ◆ Upgrade in technology

### Drawing of Application:



# GPI Application Sheet

#113

Company Type: **Valve Manufacture**

GPI Model Number: **A109LMA025IA1,  
A109LMA100IA1 and  
A109LMA200IA2**

GPI Model Series: **A1**

Market: **Fabrication Metal Product**

Application Category: **Monitoring**

**Application:** The distributor designed a test rig using various GPI A1 meters to test hydraulic valves. GPI A1 meters were perfect for the application because various flowrates were required. Multiple meters in the design made economy a consideration in choosing this GPI meter.

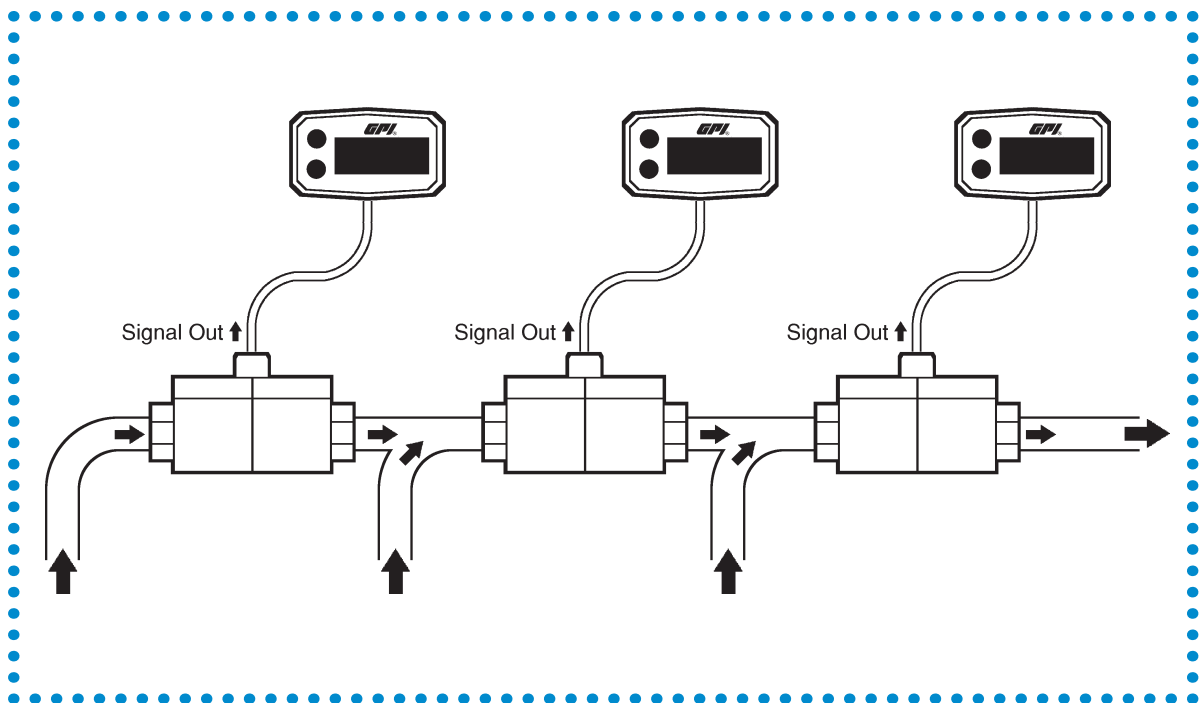
**Problem:** Measuring different flowrates in various stages of a test required multiple meters. In the test rig designed, three meters are used. Each meter is testing a different set of criteria in different stages.

**Solution:** Chemical compatibility matched the criteria for the A1 aluminum meters. This was a cost effective choice. The selection of meter flowrates met the requirements for the test rig. Mounting the meters on the test board was easy and compact. The digital display was easy-to-read.

### Advantages of using GPI:

- ◆ Cost Savings
- ◆ Accuracy
- ◆ Digital Readout
- ◆ Compact Size

### Drawing of Application:



# GPI Application Sheet

#114

Company Type: **Asphalt Manufacture**

GPI Model Number: **GM002 and GM010**

Market: **Construction, Paving**

Application Category: **Monitoring**

GPI Model Series: **GM**

**Application:** Controlling fuel costs in a plant with multiple fuel oil burners while maintaining asphalt at proper temperature is a big task. Plant managers require accurate records in monitoring, controlling and saving fuel consumption. Accurate and reliable measurement is critical.

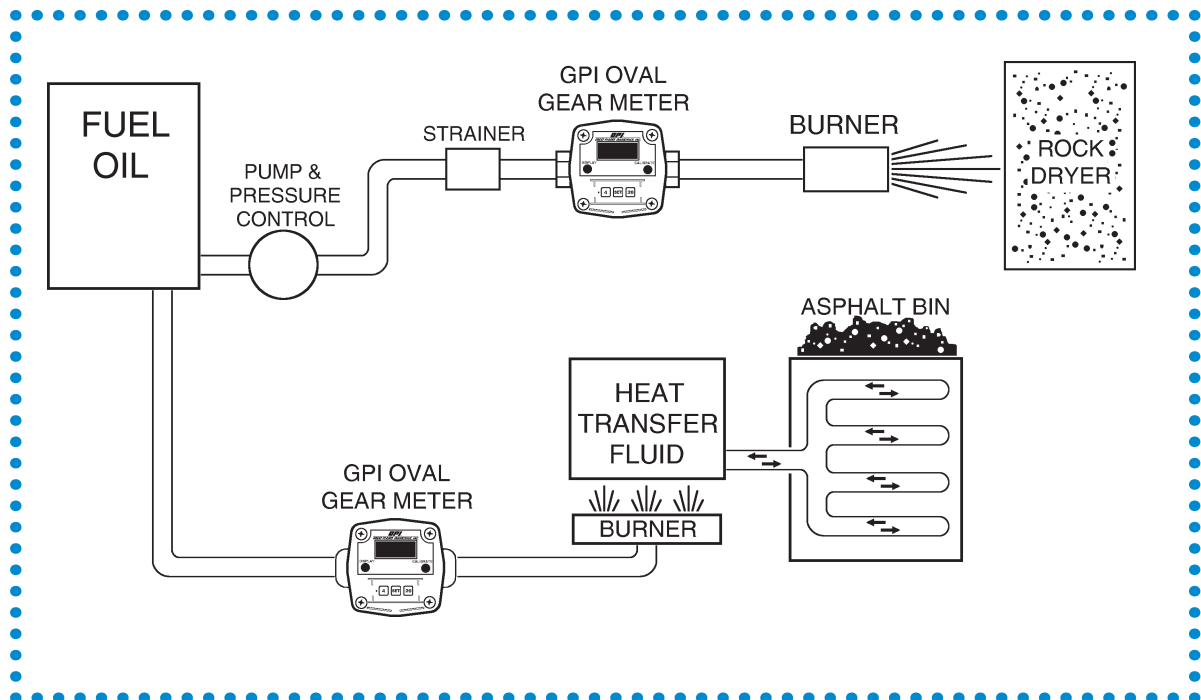
**Problem:** Monitoring and controlling fuel to maintain proper temperature while saving fuel consumption is critical. The task requires accurate and reliable measurement and display of fuel consumption at numerous locations. Inventory control and cost control need to be considered.

**Solution:** GPI Oval Gear Meters are reliable and accurate as well as cost effective. We install the GM010 between the fuel oil source and the burner measuring fuel used. The GM002 Meter measures the Heat Transfer Fluid in a separate line used for manufacturing asphalt. Both provide accuracy and Local display by using the GPI Display.

### Advantages of using GPI:

- ◆ Remote or Local Display
- ◆ Reliability in Operation
- ◆ Accuracy
- ◆ Fits Specialty Application
- ◆ Cost Savings

### Drawing of Application:



Company Type: **Wastewater Treatment Plant**

GPI Model Number: **Wireless Transmitter/Receiver**

Market: **Water Supply/Irrigation**

Application Category: **Monitoring**

GPI Model Series: **Wireless System**

**Application:** We need a cost effective way to measure flowrate and then transmit that data to different locations for monitoring. Overhead or underground wires from building to building is cost prohibitive. GPI G2 Meters are installed in throughout facility and working well.

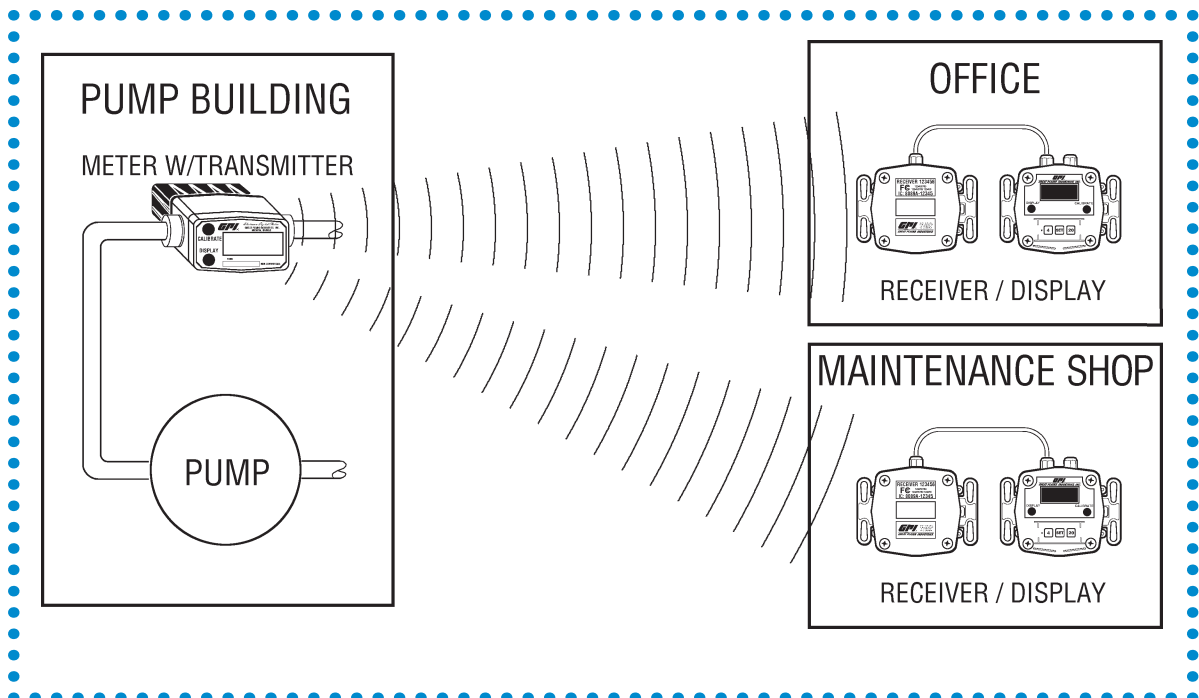
**Problem:** Design a cost effective way to measure flowrate and transmit that data to different locations for monitoring. Cost of running wire or a complicated installation was a concern. Installation needed to be easy and something we could do quickly to get on-line.

**Solution:** The GPI Wireless Transmitter was easy to install on existing G2 Meters in the plant. The battery powered transmitter was ideal for our location. Flowrate data transmits Receivers located in the Office and the Maintenance Shop. We saved both time and money with this system.

### Advantages of using GPI:

- ◆ Cost Savings
- ◆ Convenience
- ◆ Accuracy
- ◆ Simple to Use

### Drawing of Application:





Company Type: **Paving Company**  
GPI Model Number: **GM003S2H51-5**  
Market: **Asphalt Paving Production**

••••• GPI Model Series: **GM003S2H51-5** •••••

Application Category: **Process Control/Proportional Blending**

**Application:** During the manufacture of asphalt paving, a mixture of rock, gravel and sand are added to and mixed with liquid asphalt. Prior to this mixing process, the aggregate must be dried and heated to bond the liquid asphalt to the aggregate. Most states require that an additive be sprayed over the aggregate after the heating process and prior to mixing with the liquid asphalt. This additive increases the adhesion of the liquid asphalt to the aggregate. This additive also prevents any residual moisture in the form of steam from interfering with the adhesion process.

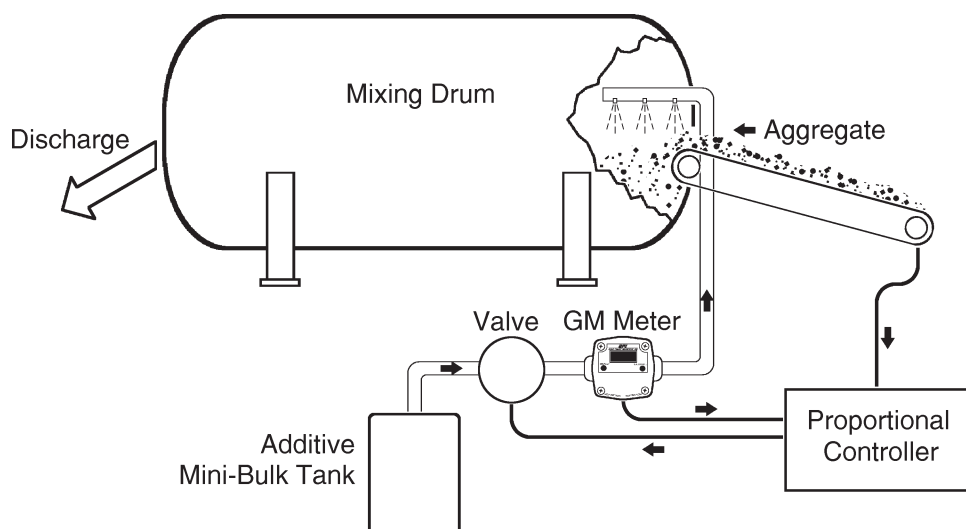
**Problem:** Expensive liquid additive must maintain a specific ratio to the amount of dried aggregate. Over application of the additive causes problems with adhesion and increases costs. High viscosity of the liquid additive and constantly changing flow rates is a problem with some meters used in the past.

**Solution:** The GPI GM Series meter selected handles the high viscosity fluids and changing flow rates. This meter performs well in rugged conditions and provides excellent accuracy rates. The GM003S2H51-5 replaced a nutating disc meter that was unable to accurately register wide variations in flow rate.

### Advantages of using GPI:

- ◆ Responds accurately and quickly to flow rate changes
- ◆ Durable in rugged conditions
- ◆ Accurate with high viscosity liquid
- ◆ Economical solution for this application

### Drawing of Application:



Company Type: Machine Builder  
GPI Model Number: **LM50P with GA500**  
Market: **Machinery**  
Application Category: **Monitoring**

••••• GPI Model Series: **LM50P/GA500** •••••

**Application:** Customer selected the GPI LM50P for an end-of-line test system used to test air conditioning compressors for automobiles. The LM50P combined with the GPI GA500 monitors the oil flowing through the compressors. The output signal (either a 4-20mA or 0-5 VDC signal) is sent to a PLC where flow data can be stored and also used for troubleshooting other parts of the test system.

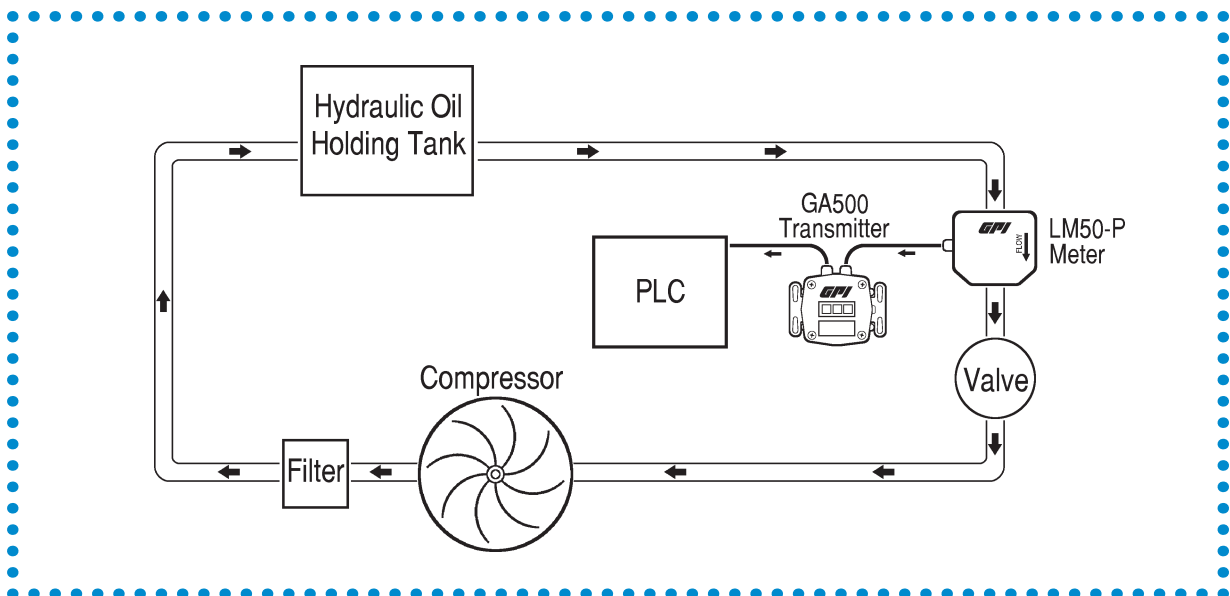
**Problem:** The customer needed to monitor the amount of oil flowing through a compressor. They wanted to monitor flow from a remote location. If the troubleshooting problems could be overcome, they could resolve and prevent the failures. This required actual flow data that was accurate and reliable. This customer needed an economical product and fast delivery.

**Solution:** The GPI LM50P meter combined with the GA500 provided a perfect solution to this problem. The output data sent to the PLC provided accurate flow data and helped technicians troubleshoot product and test system failures. The GPI solution saved time and money providing an economical solution to a problem that had been ongoing.

### Advantages of using GPI:

- ◆ Great product for metering oil
- ◆ LM50P is accurate and reliable
- ◆ GA500 provides remote signal to PLC
- ◆ Economical solution for this application

### Drawing of Application:



# GPI Application Sheet

#118

Company Propane (LPG) Marketer  
GPI Model Number: **G2S07N09GMA**  
Market: **Oil and Gas**  
Application Category: **Inventory Management**

••••• GPI Model Series: **G2** •••••

**Application:** Service stations and other fuel outlets sell propane via a traditional retail dispenser and also using a secondary line to fill portable LPG bottles. Selling propane in portable LPG bottles requires measurement by weight as opposed to volume. Customers require a simple, accurate way to capture total dispensed propane to control inventory. Reconciling records and inventory can take time and the confidence in accuracy is often a concern.

**Problem:** Stations need a way to monitor propane dispensed by volume and by weight for inventory tracking. The propane dispenser uses volume measurement while portable bottles are sold by weight. The solution to track both amounts requires accuracy, simplicity and must be economical. This application requires reliable measurement with easy maintenance.

**Solution:** GPI's G2 stainless steel meter provides an excellent solution for this application. The G2 meter is rugged and compact. This meter provides accuracy and displays 2 totals: 1 resettable and 1 cumulative. Power is provided by lithium batteries for about 9,000 hours of operation. Internal parts are simple to remove and replace. Maintenance is so simple with this meter.

### Advantages of using GPI:

- ◆ FM Approved - Intrinsically Safe for Class I, II, III, Division 1. All Groups
- ◆ Accurate and reliable
- ◆ Compact Design
- ◆ Provides digital readout
- ◆ Economical
- ◆ Rugged design



### Drawing of Application:

