

GPI Model Series: **01 and A1**

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

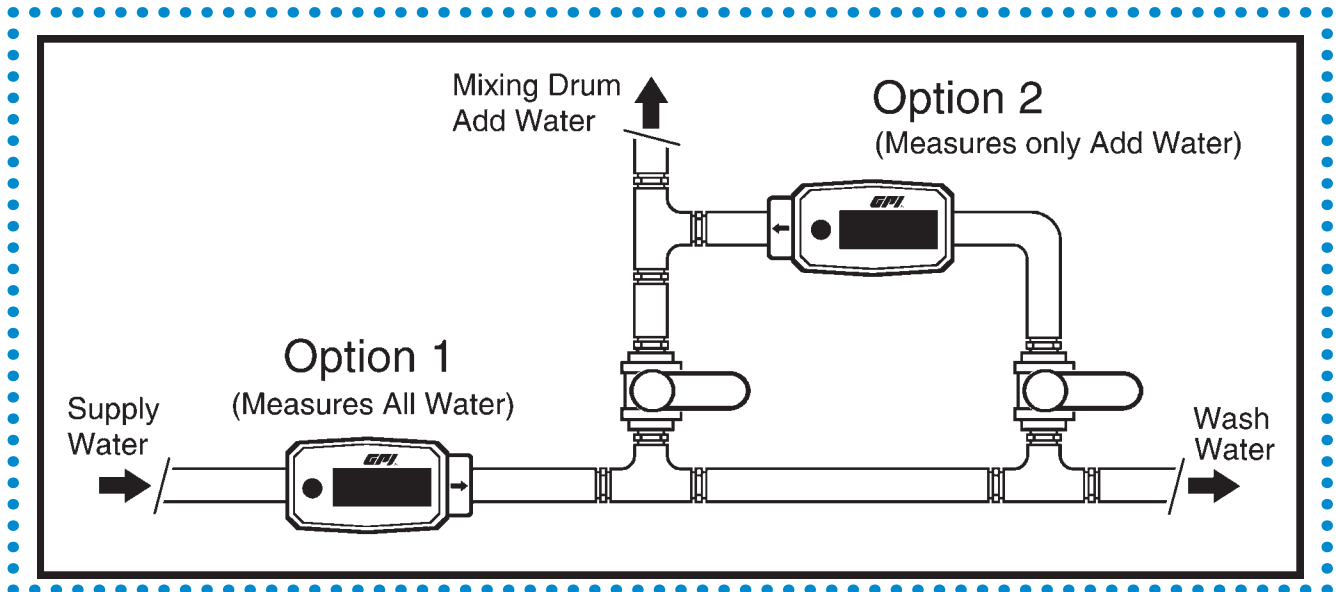
Application: Monitor the water added to the cement batch in the mixing truck after it has left the batch plant. Several state Departments of Transportation require that if a truck will be used in DOT contract work, it will be equipped with a meter and any water added to the mix will be logged. The strength 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 Manufacturer**

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.

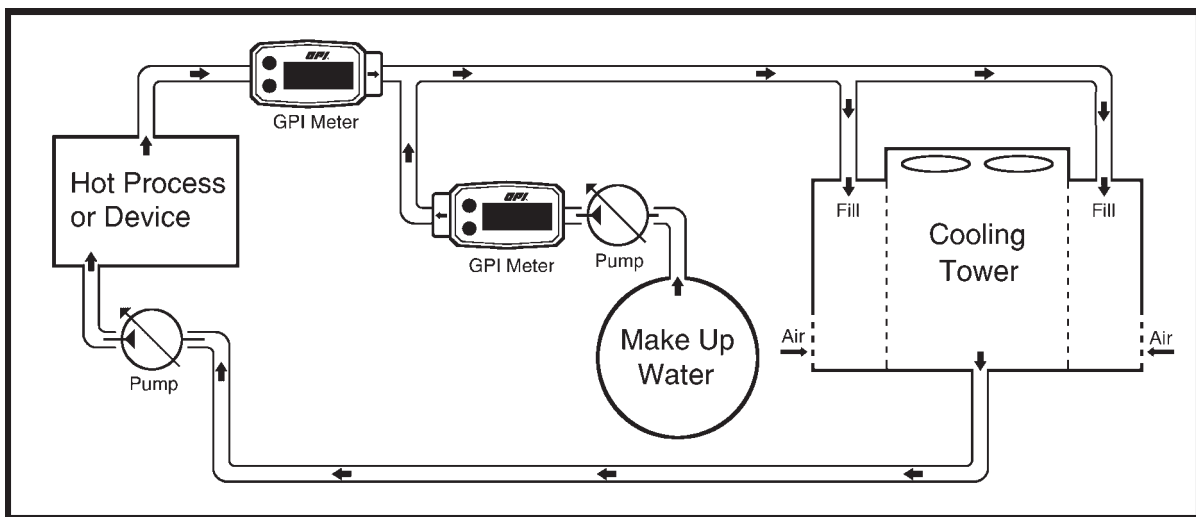
Problem: Companies need to adjust flowrate to maintain a constant temperature of cooling water used for various processes. Unstable or fluctuating chill water temperatures can cause quality problems or possibly even damage to expensive equipment.

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
- ◆ 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.

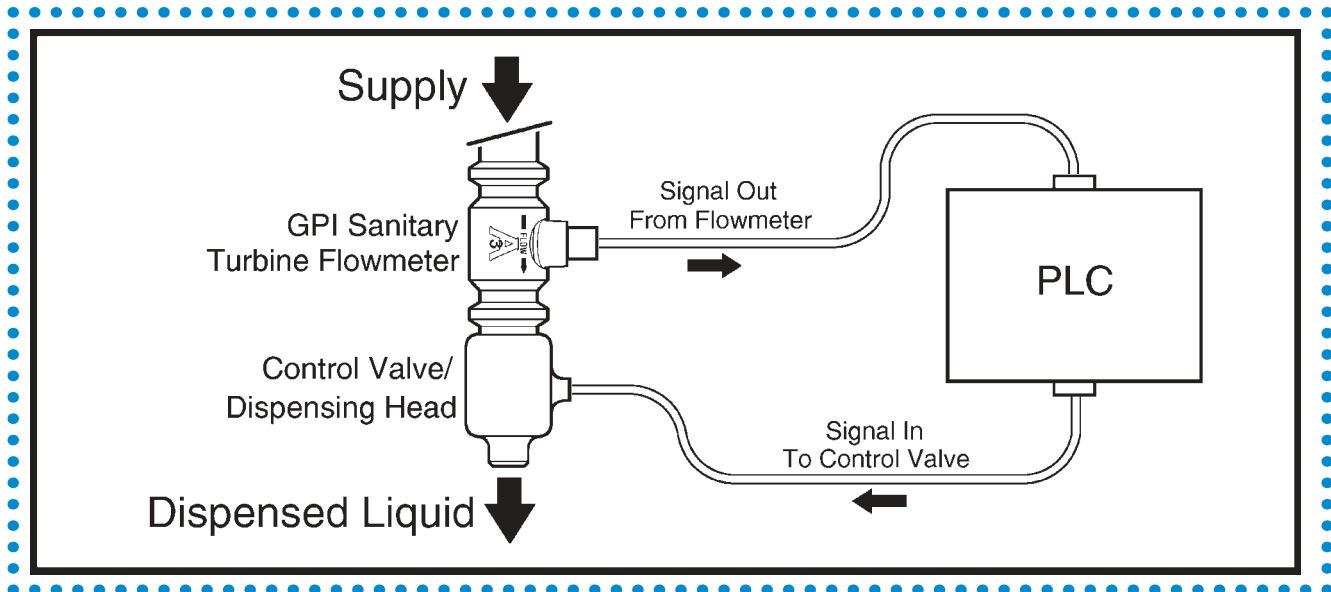
Problem: Accurately measure fluid into containers at a reasonable cost while maintaining 3A sanitary requirements with a meter that can withstand repeated stop/start batching flows.

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.

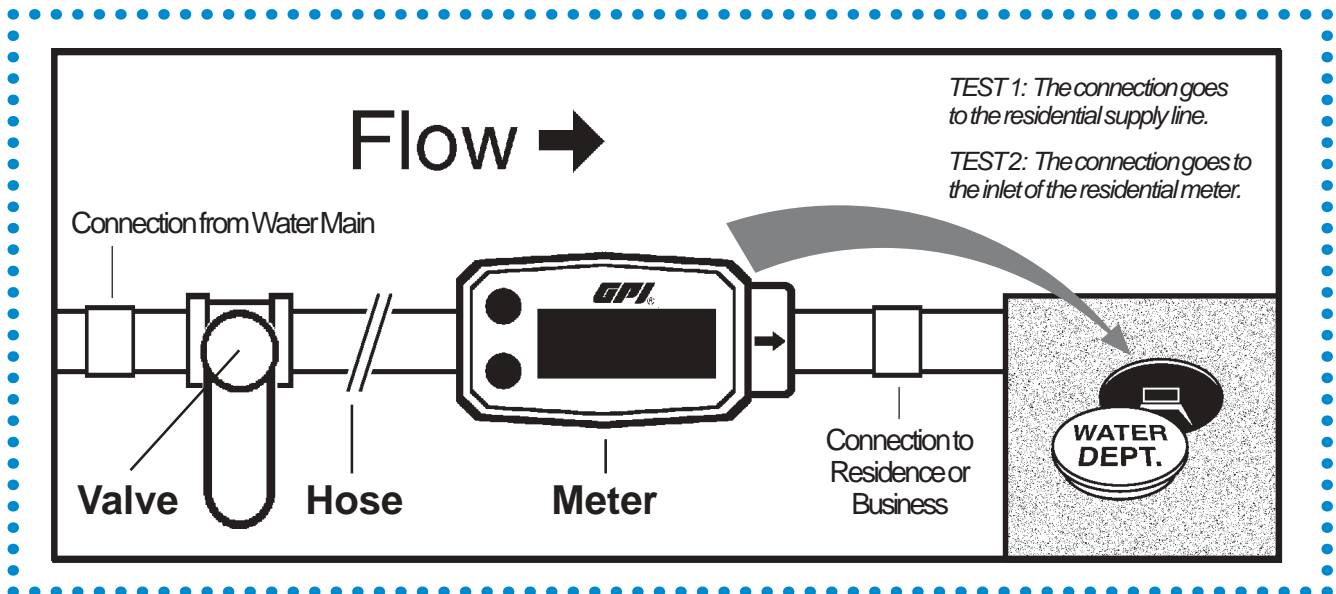
Problem: Homeowners and businesses need to verify flowrate of water supply and accuracy of city equipment from main water line to individual properties. Other methods of verification can be inconvenient, time consuming and costly.

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.

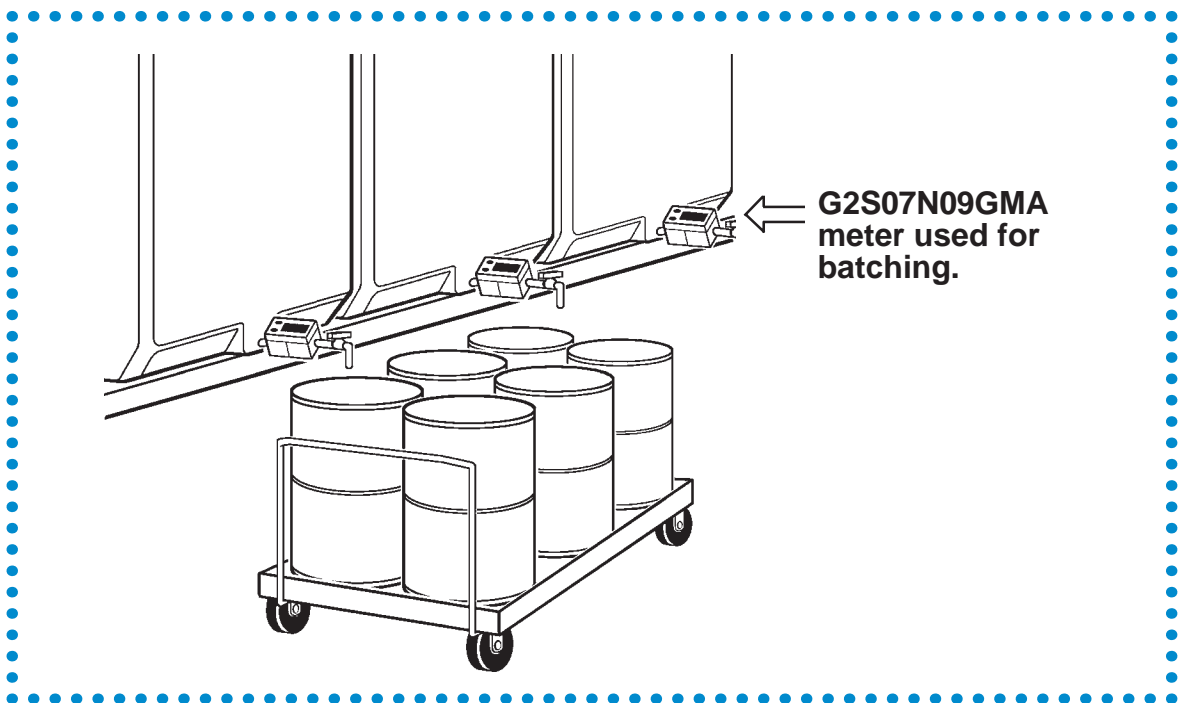
Problem: Portable cleaning solution carts need to be loaded with caustic and acidic cleaning agents. These agents vary in density and pH. Both batch and continuous total are required when loading the carts with solutions.

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.

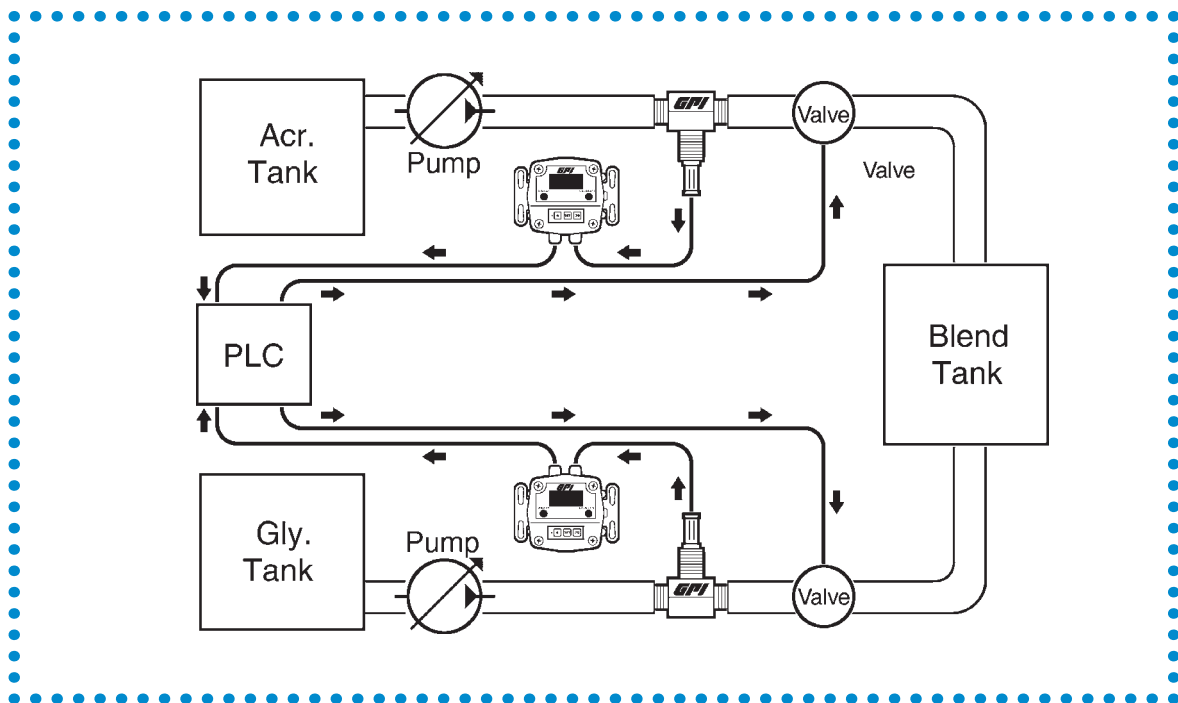
Problem: The manufacturing process required accurate measurement of two materials into a single batch. Two lines supply materials that are batched into a blend tank.

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.

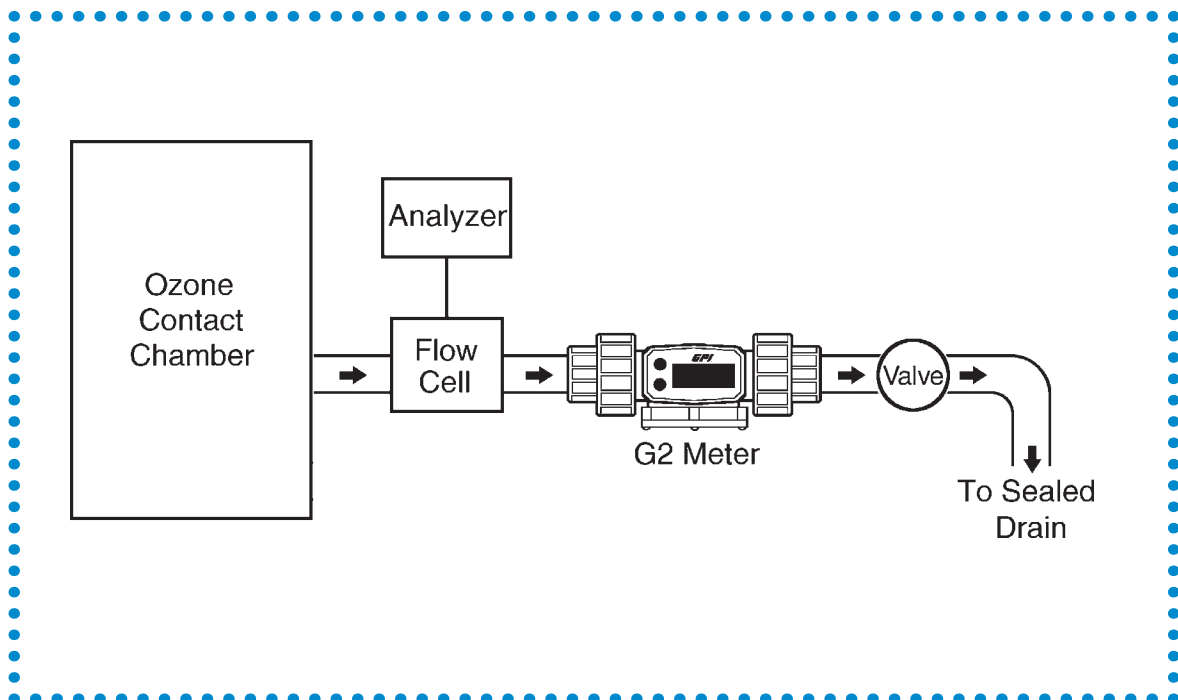
Problem: Opening the pipe to measure sample flow rate could expose technicians to toxic levels of ozone. Leaving valves wide open wastes large volumes of water. If the flowrate is too low or too high analyzer readings are not accurate.

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.

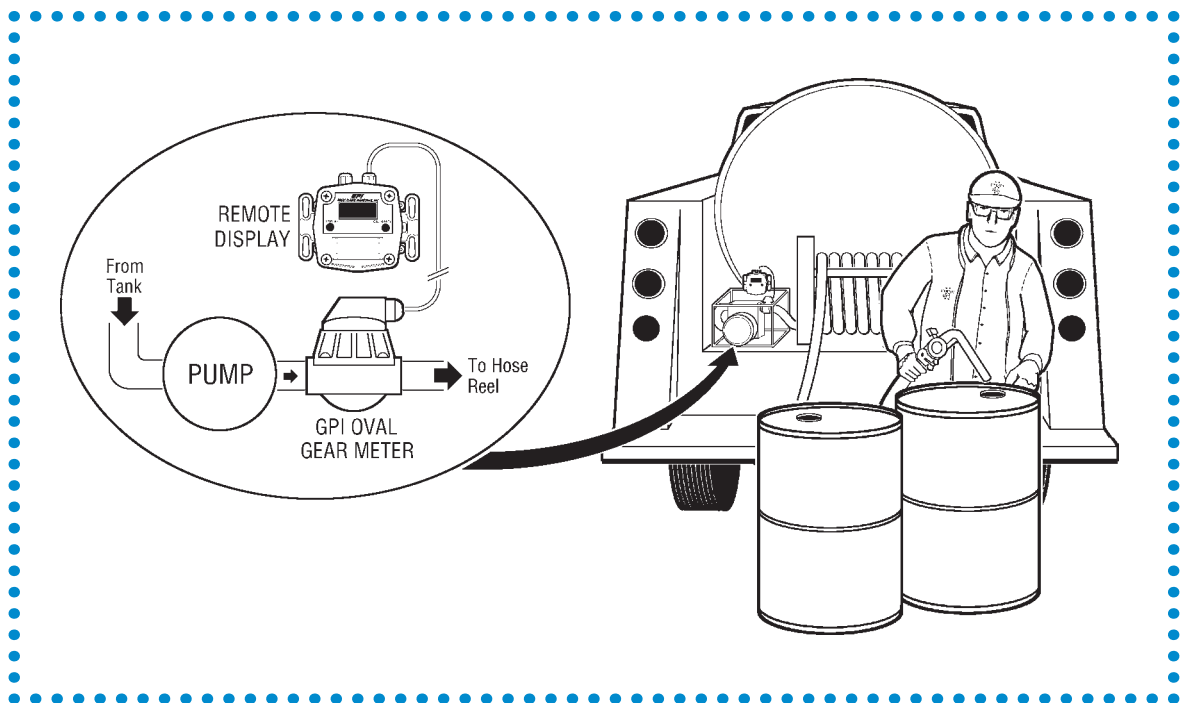
Problem: The range of chemicals delivered required a meter compatible with a wide range of chemicals. Other meters would fail or require more maintenance and repair. Accuracy was critical in billing end-users.

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.

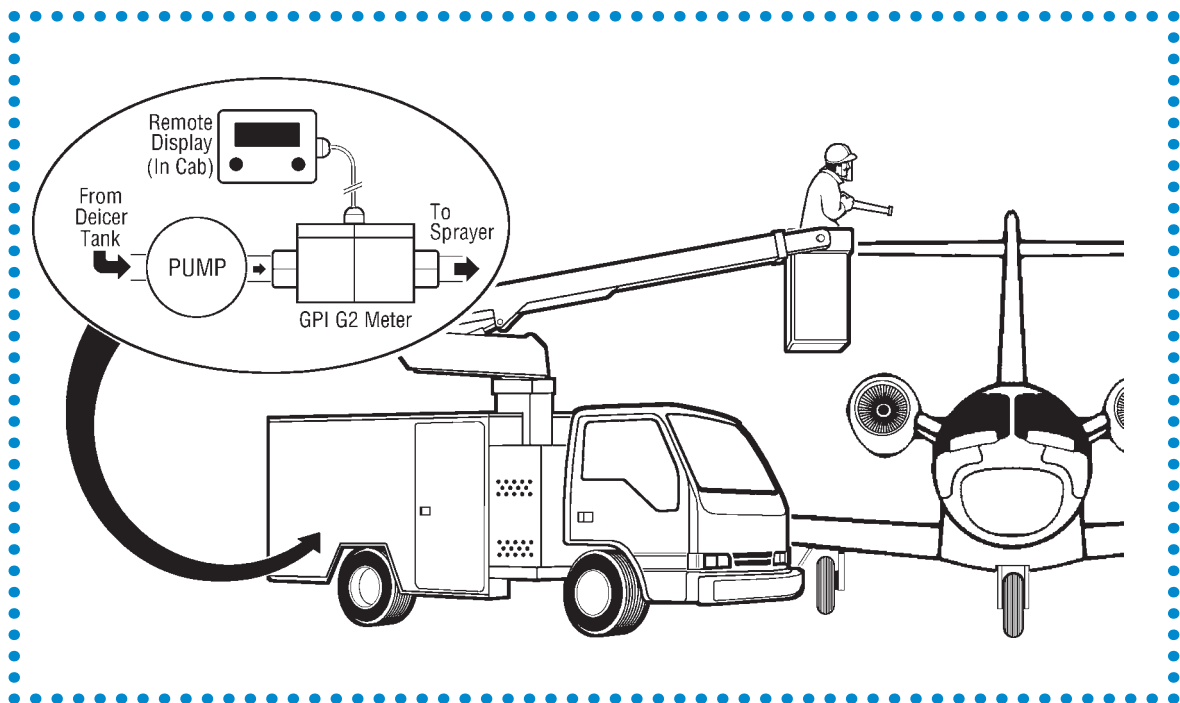
Problem: The expensive deicing mixture was being wasted causing expenses to increase. Monitoring usage by individual treatment was required. Accurate billing receipts were important.

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.

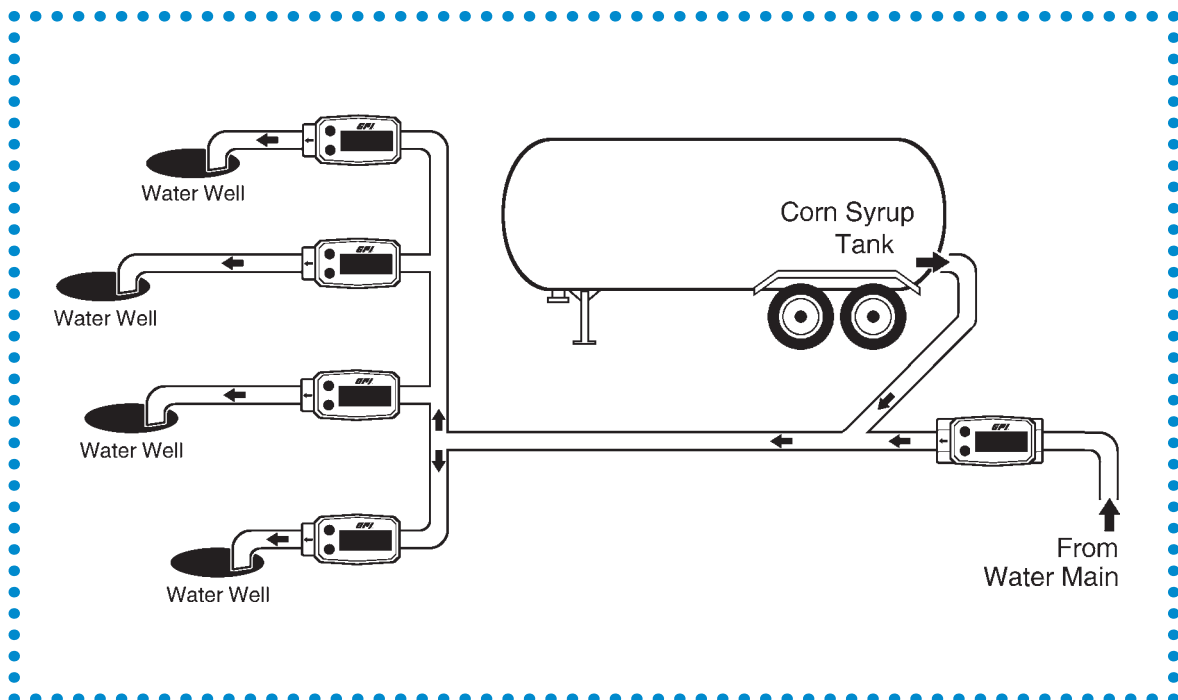
Solution: The solution requires multiple meters used for both water and corn syrup fluids. The rugged G2S20 was installed on the water main. The A109 meters worked great with the water and corn syrup mixture.

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.

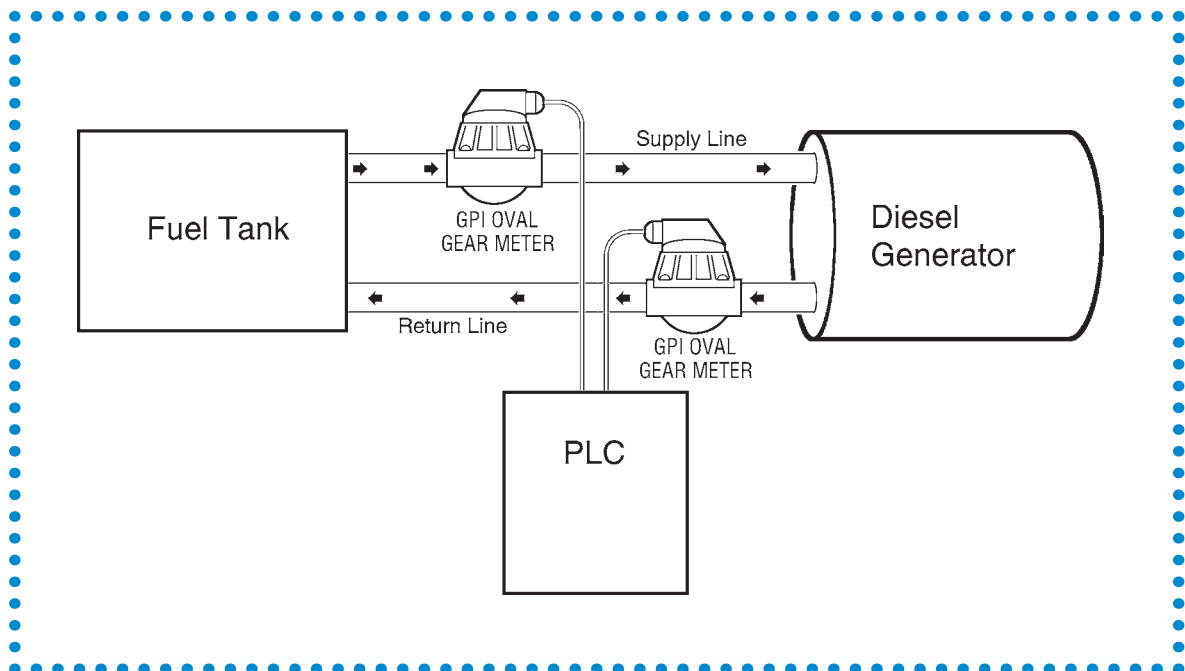
Problem: The customer needed to monitor the consumption rate of the generator from a remote location. A more accurate way of calculating service charges was desired. For example, actual use vs. time.

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.

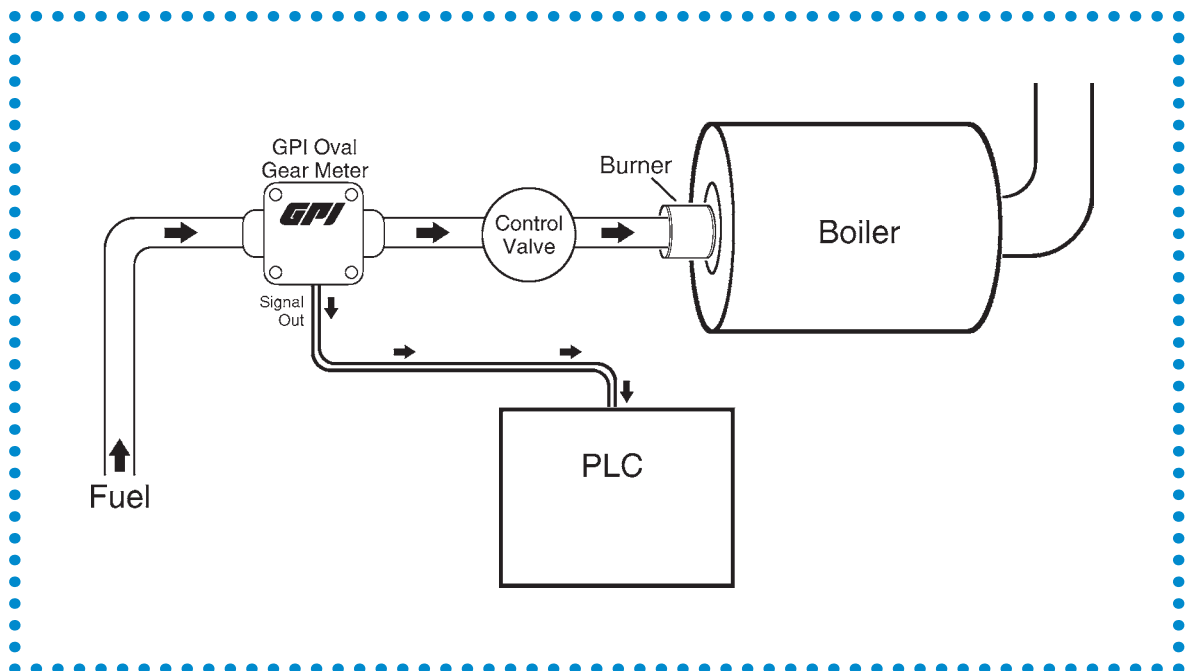
Problem: The customer needed to monitor the consumption rate of the generator from a remote location. Control of different systems within this facility is critical.

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.

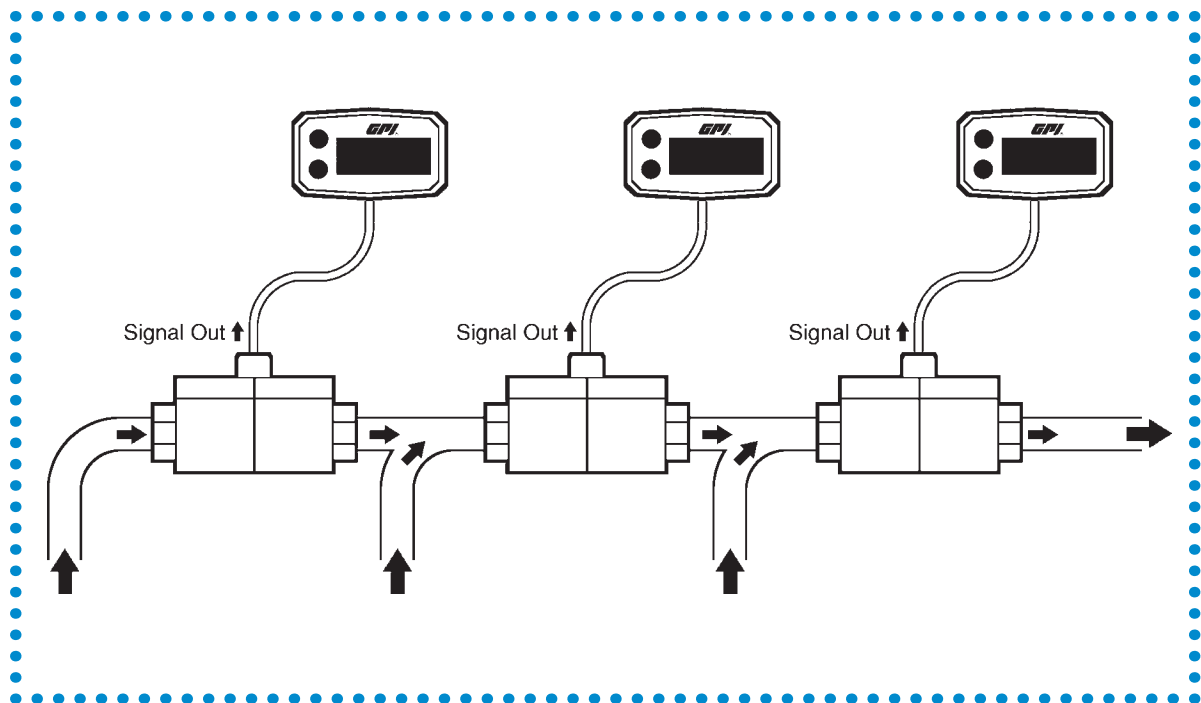
Problem: Measuring different flowrates in various stages of a test required multiple meters. In the test rig designed, three meters are used. Each meter is testing a different set of criteria in different stages.

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.

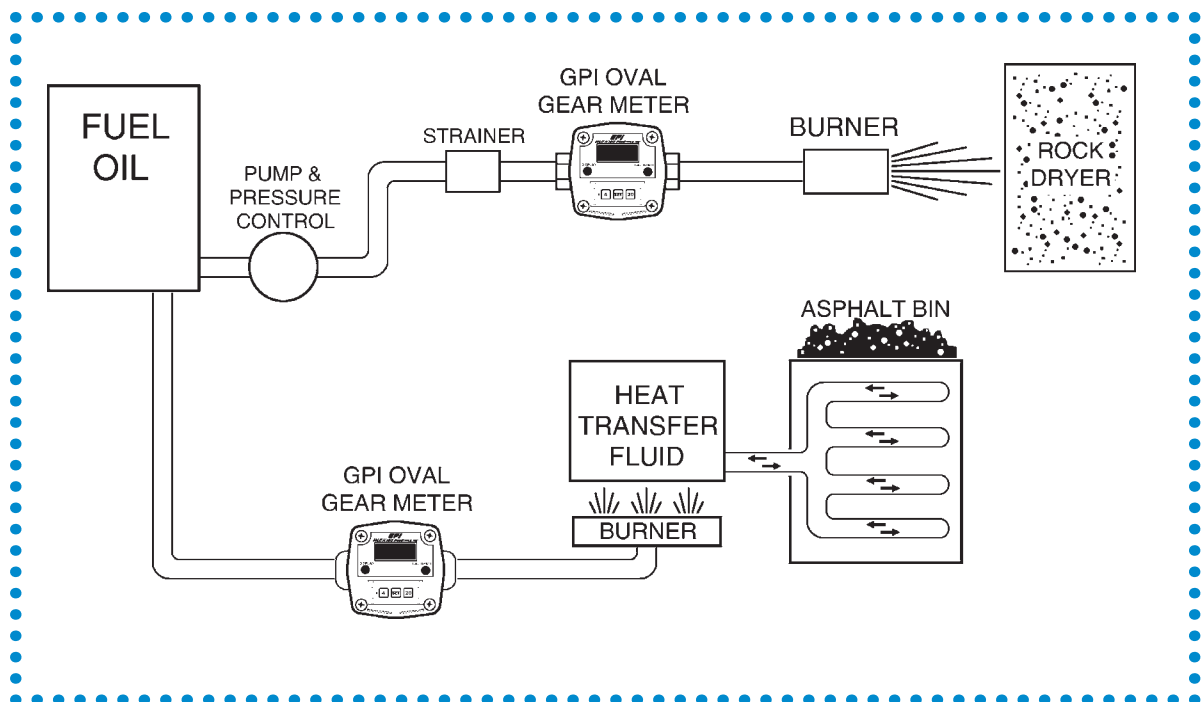
Problem: Monitoring and controlling fuel to maintain proper temperature while saving fuel consumption is critical. The task requires accurate and reliable measurement and display of fuel consumption at numerous locations. Inventory control and cost control need to be considered.

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.

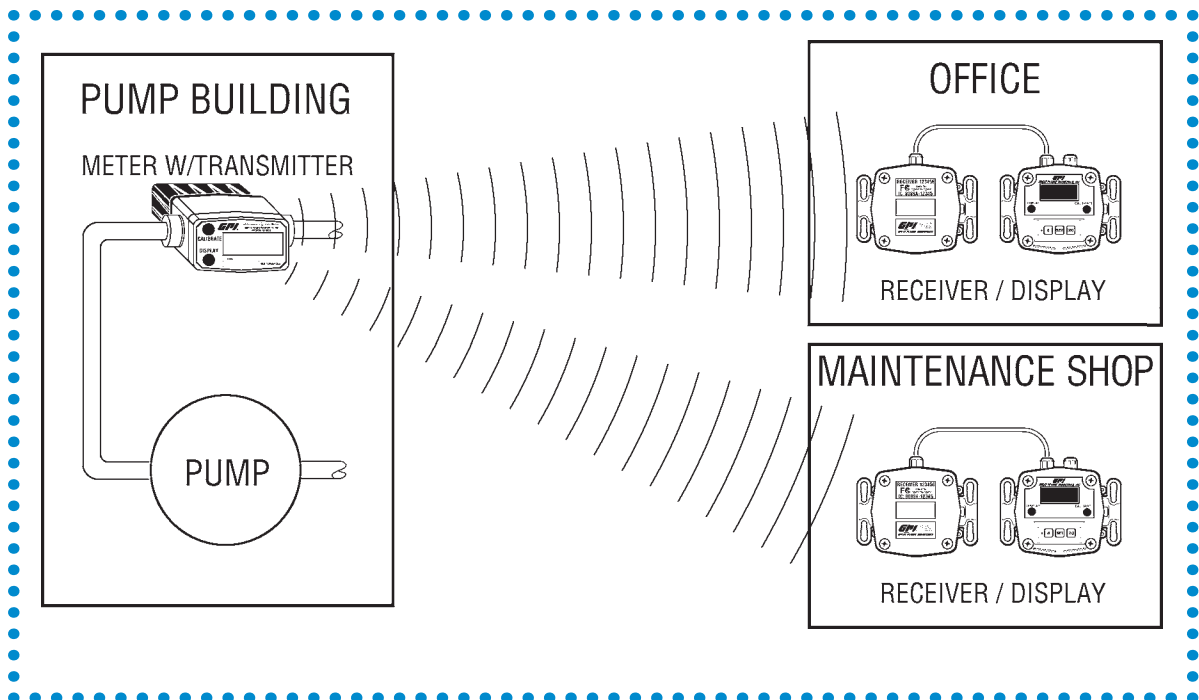
Problem: Design a cost effective way to measure flowrate and transmit that data to different locations for monitoring. Cost of running wire or a complicated installation was a concern. Installation needed to be easy and something we could do quickly to get on-line.

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.

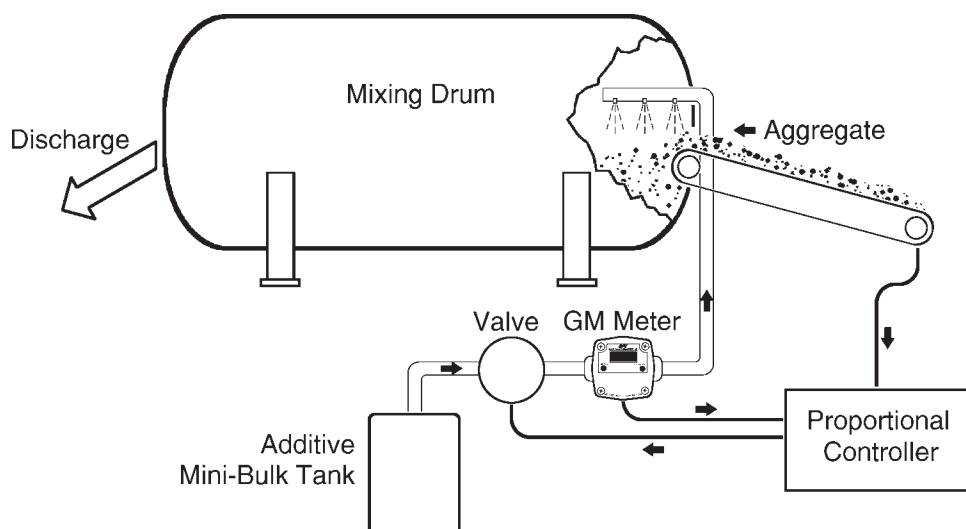
Problem: Expensive liquid additive must maintain a specific ratio to the amount of dried aggregate. Over application of the additive causes problems with adhesion and increases costs. High viscosity of the liquid additive and constantly changing flow rates is a problem with some meters used in the past.

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.

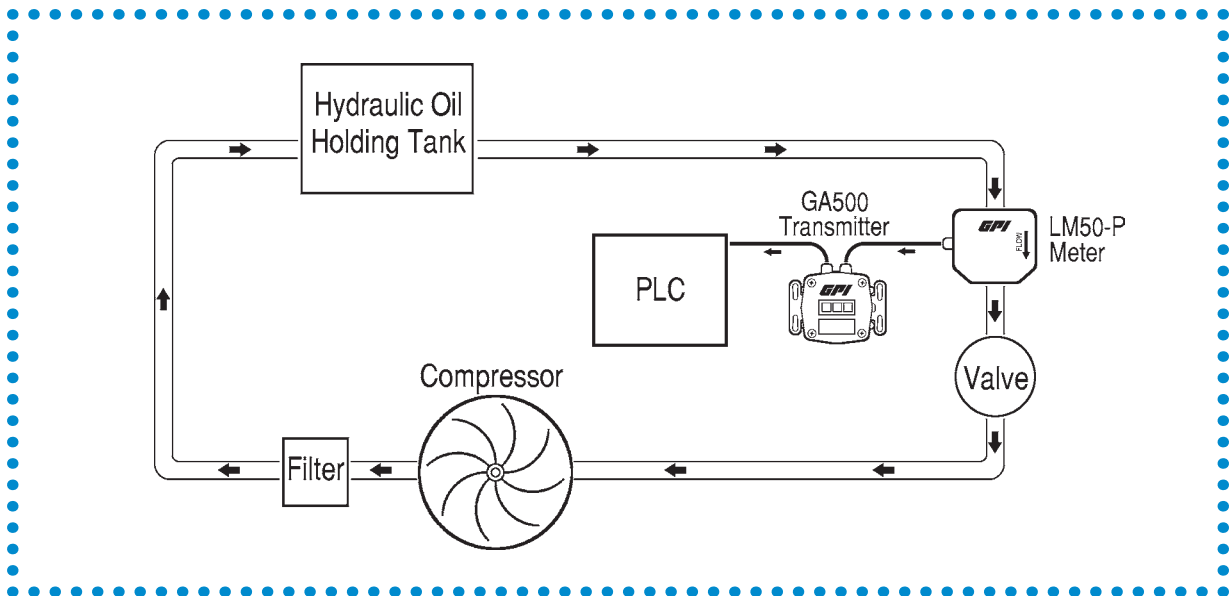
Problem: The customer needed to monitor the amount of oil flowing through a compressor. They wanted to monitor flow from a remote location. If the troubleshooting problems could be overcome, they could resolve and prevent the failures. This required actual flow data that was accurate and reliable. This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

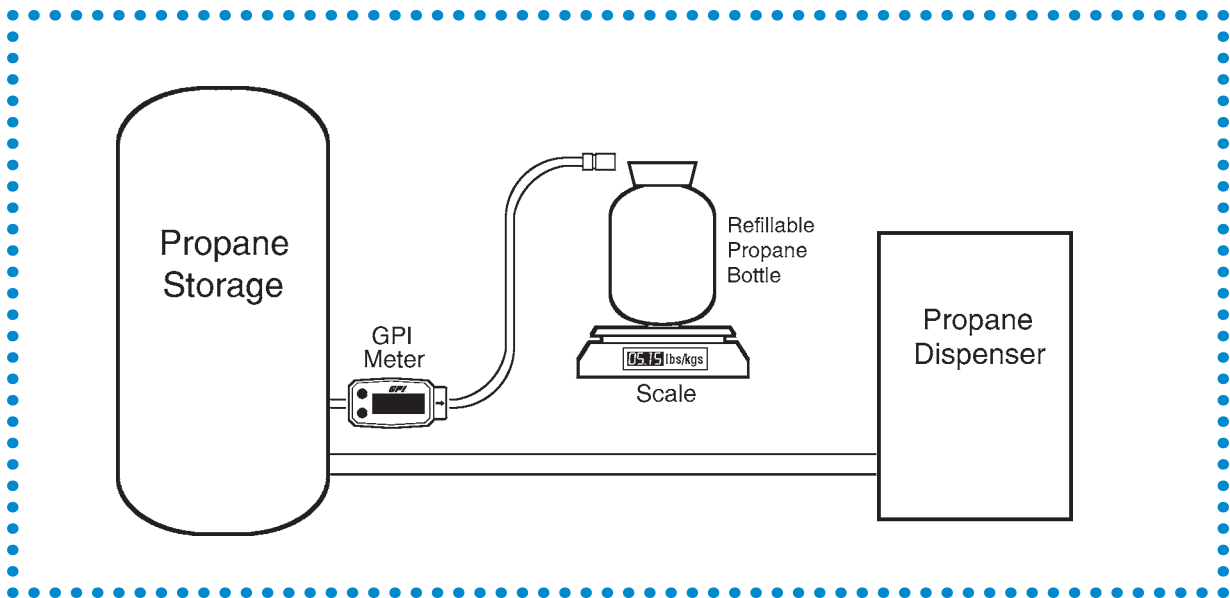
Solution: GPI's G2 stainless steel meter provides an excellent solution for this application. The G2 meter is rugged and compact. This meter provides accuracy and displays 2 totals: 1 resettable and 1 cumulative. Power is provided by lithium batteries for about 9,000 hours of operation. Internal parts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



Company: Food Processor
GPI Model Number: **G2S10N62GMC**
Market: **Food**
Application Category: **Blending/Ratio Control**

GPI Model Series: **G2 & GX500**

Application: Customer requires accurate blending of a preservative and an anti-foaming agent into a continuous stream of soybean oil. Lab reports determined that some batches did not meet specifications but that report came “after the fact.” The customer wanted to produce consistent batches even if the flow varied. Solving this problem could save time and money especially in rerun costs.

Problem: Customer needs a consistent and accurate way to blend soybean oil with additives. The flow of oil in the one inch pipe was not always consistent. An operator turns on the pump manually but during batching no intervention or checks are made. Results of the batch are not determined until final lab reports were produced.

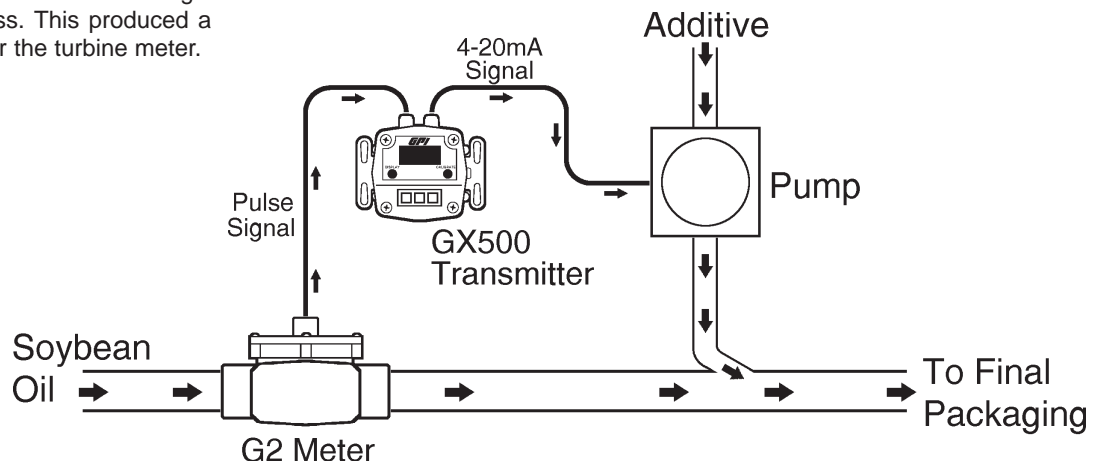
Solution: GPI’s G2 stainless steel meter installed in-line provides the pulse signal to the GX500. From this unit, the 4 to 20 ma signal matched the desired amount of additive in each batch. Blending was accurate batch after batch reducing the need for costly reruns. No operator intervention was required freeing up personnel for other functions. This solution was economical and reliable.

Advantages of using GPI:

- ◆ Accurate and reliable
- ◆ Cost Savings
- ◆ Upgrade in technology
- ◆ Self-contained

Drawing of Application:

Note: The temperature and viscosity of the soybean oil remained consistent throughout the process. This produced a great fit for the turbine meter.



GPI Application Sheet

#120

Company: Commercial Food Processor
GPI Model Number: **G2C10N19GMB***
Market: **Food**
Application Category: **Batching**

GPI Model Series: **G2**

Application: Customer measures water into cooking kettles containing food ingredients. The cooking area contains over twenty-five kettles. Individual kettles can require 40 to 100 gallons of water. The customer needed a low cost method to measure water but wanted an easy-to-read display that is convenient for the operator. Meter material must be compatible with water.

Problem: Operator needs to dispense water into cooking kettles in a consistent and accurate way. The operator requires an easy way to read the meter display in order to react quickly. The amount of water varied from 40 to 100 gallons per batch. Application requires a resettable batch and cumulative total.

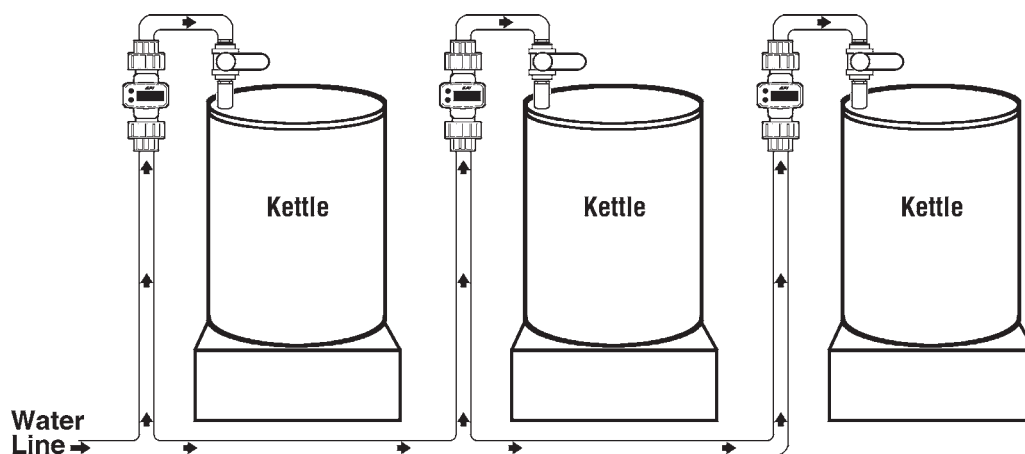
Solution: The G2 PVC meter provided a low cost way to measure water. Flowrange helped determine the meter selected from a group of possibilities offered by GPI. By combining this meter with the 90 degree adapter kit, the operator can easily read the display. Consistent batching meant less waste and GPI offered a variety of materials to fit the application.

Advantages of using GPI:

- ◆ Digital Readout
- ◆ Accurate and reliable
- ◆ Cost Savings
- ◆ Compact size
- ◆ Self-contained
- ◆ Multiple product offering

*GPI has other options to fit this application including G2 Brass and Stainless Steel Meters or the A1 nylon meter. Contact the factory for the benefits of different meters for this application.

Drawing of Application:



Application here shows G2C10N19GMB meter which comes from the factory with the Display Adapter Kit included.

Company: Office Building
GPI Model Number: **G2S20N62GMC**
Market: Water Supply/Irrigation
Application Category: Monitoring

GPI Model Series: **G2 & GX500**

Application: Customer requires an accurate method of measuring the flowrate and wants a total of the gallons of water coming from the chill water unit. The location of the water pipes (12 - 14 feet high) makes it impossible to read from the floor. The space between the pipes limits the access to equipment in the area.

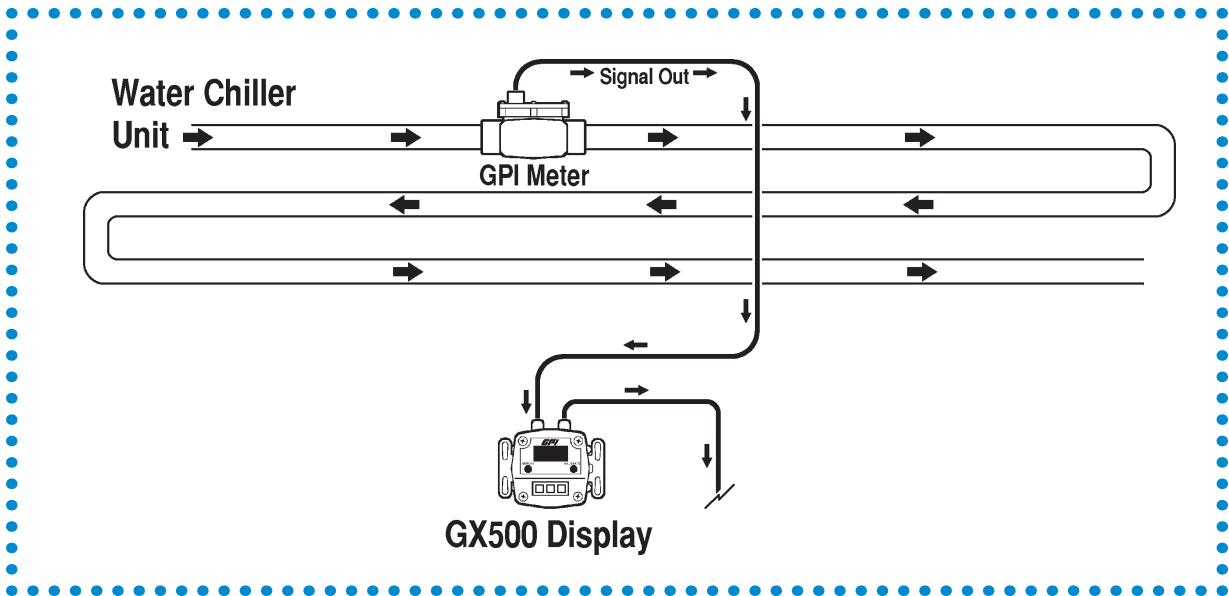
Problem: Customer needs an accurate way to measure water coming from the chill water unit to assess charges to various tenants. Access to the equipment is limited and inconvenient for staff. Operators must check and record flowrate and totals for water. All equipment must be compatible with water.

Solution: GPI's 2 inch stainless steel meter was installed in-line. The GX500 mounted to the wall below for easy reading by the operator. Staff requires both flow rate and totals. The combination of the G2 stainless steel meter and the remote 4-20 ma transmitter with display was a perfect way to determine how much chilled water was used for climate control. The 4 - 20 output went to the the maintenance control room for monitoring.

Advantages of using GPI:

- ◆ Accurate and reliable
- ◆ Multiple product offering
- ◆ Compact size
- ◆ Self-contained

Drawing of Application:



Company: Municipality Service Co.
GPI Model Number: **G2A15N52GMC**
Market: **Transportation and Public Utilities** (49)
Application Category: **Monitoring**

••••• GPI Model Series: **G2** •••••

Application: Customer needed a method to measure coolant as it was drained into a holding tank and then again as it refilled the coolant tank. Coolant going into the holding tank went through a filter system. This application required a meter compatible with a flow range of 10 - 100 GPM. Stainless steel construction is not required with this coolant.

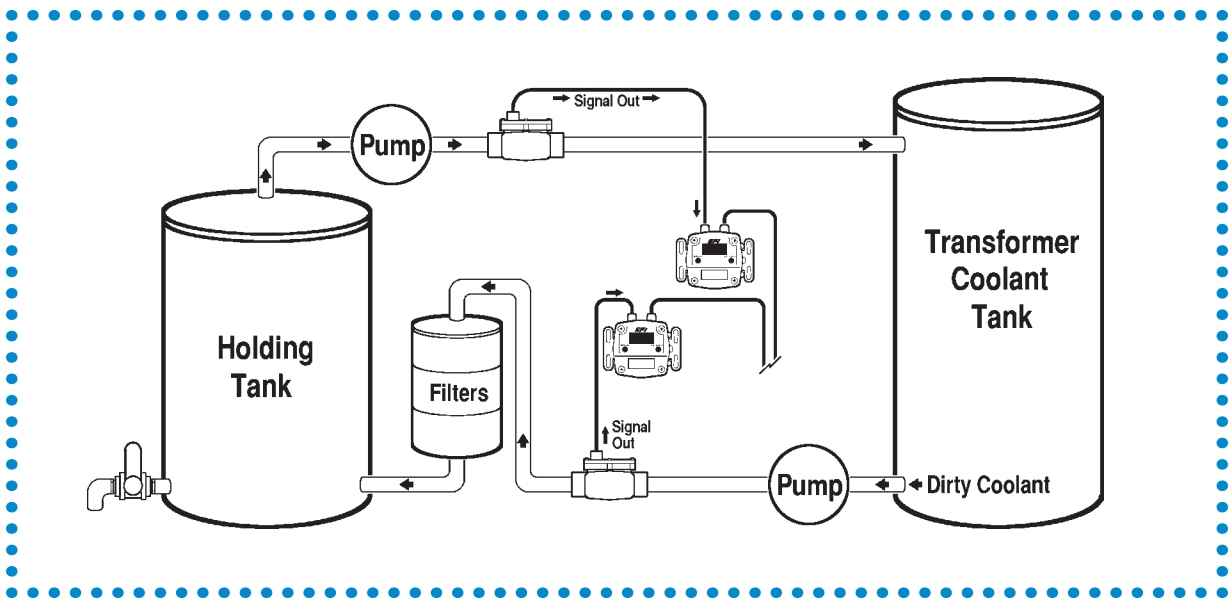
Problem: Customer needs an accurate way to measure coolant as it goes into a holding tank and then again after it refills the coolant tank. In the past the cost of two meters was cost prohibitive for this application. Having a remote display allowed the user to view all functions on a single control panel. In the past the staff monitored flow, pressure temperature and etc. from different points.

Solution: GPI's 1 1/2 inch aluminum meter is cost effective alternative to stainless steel. The aluminum material worked great with coolant. Using two meters allows for verification that the volume removed was replaced. This helped determine if all fluid had been filtered.

Advantages of using GPI:

- ◆ Accurate and reliable
- ◆ Multiple product offering
- ◆ Compact size
- ◆ Self-contained

Drawing of Application:



Company: Brewery

GPI Model Number: **G2S10T09GMA**

Market: **Food and Beverage**

Application Category: **Batching**

••••• GPI Model Series: **G2** •••••

Application: The beer brewing industry is a huge, global business including home brewing operations, thousands of smaller producers and a handful of major companies. Customers report that using GPI Meters improves the quality of beer by making each batch consistent. Brewing systems can differ depending on the size of tanks and the needs of the customer.

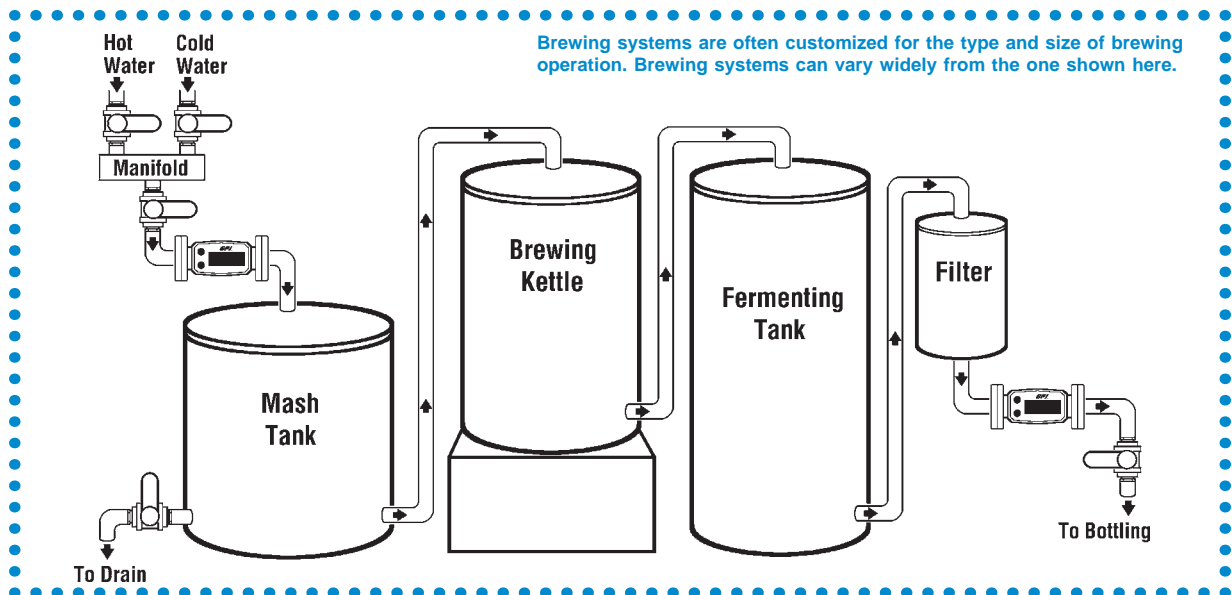
Problem: This customer needed an accurate way to measure hot water as it goes into a mash tank. Later, the meter is used to measure chemicals during the cleaning process. The staff needs a meter that is easy to install inline and includes an easy-to-read display. They prefer a meter that can be mounted in different orientations depending on piping layout.

Solution: GPI's G2 Stainless Steel Meter offered excellent fluid compatibility in the brewing process and later during cleaning. A meter was also used before the bottling process. Price can be a factor when using multiple meters but the GPI meters were cost effective. Cleaning the equipment is critical. The GPI meters can be removed easily. The internal parts can be replaced on-site reducing down time and making maintenance simple.

Advantages of using GPI:

- ◆ Accurate and reliable
- ◆ Battery operated
- ◆ Compact design
- ◆ Self-contained
- ◆ Not dependent on mounting orientation
- ◆ Digital Readout
- ◆ Easy to clean

Drawing of Application:



Company: **Battery Manufacturer**
 GPI Model Number: **G2P05N19GMA**
 Market: **Manufacturing**
 Application Category: **Process Control**

••••• GPI Model Series: **G2P05N19GMA** •••••

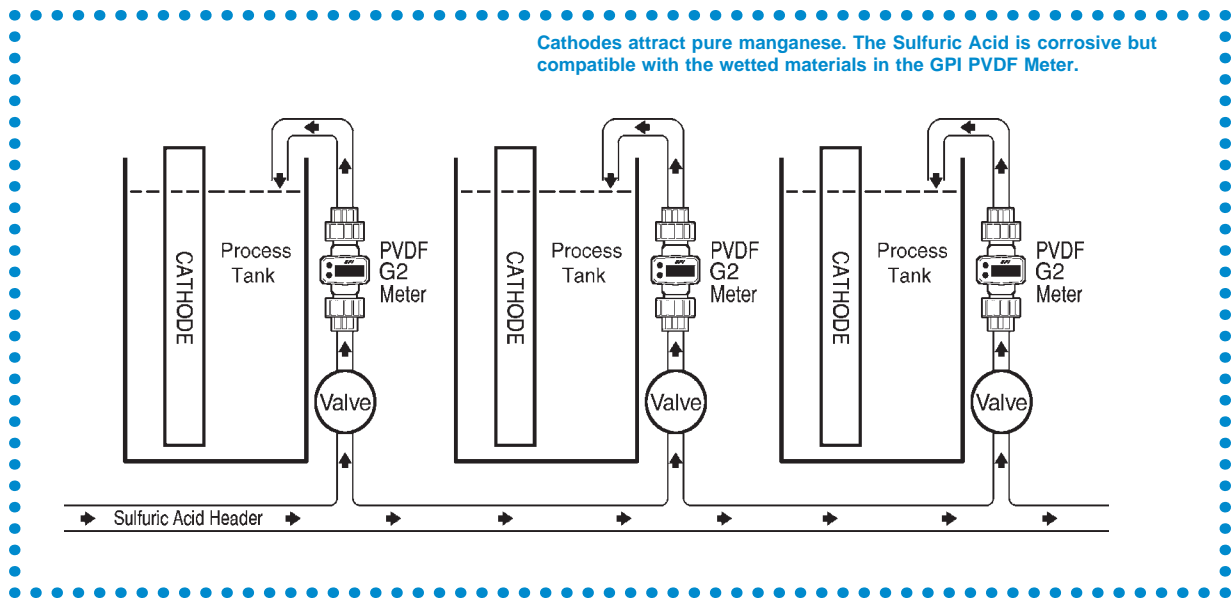
Application: Plant produces pure manganese for battery production. The Sulfuric acid must be metered when added to the tank. Sulfuric acid etches the glass tube in rotameters making them difficult to read. Constant cleaning of the glass tubes was costly and took the operators away from other critical operations.

Problem: The time required to maintain the old system using rotameters had become a burden. Crews were required to check and clean glass tubes. In some cases, the tubes could be cleaned but in others the etching was too severe. Replacement tubes were costly and the time for maintenance became a problem. Accuracy is important and consistency in each batch varied too much.

Solution: GPI's G2 PVDF Meters offer excellent chemical compatibility. The crew reduced their maintenance routine to one check every two to three months. Field replaceable parts in the GPI meter makes maintenance simple. The 90 degree display made reading each batch easy. The cost of glass tubes and the Hastelloy floats from the old method resulted in a sizeable cost savings in addition to the labor savings.

- Advantages of using GPI:**
- ◆ Maintenance is easy
 - ◆ Cost Savings
 - ◆ Compact design
 - ◆ Self-contained
 - ◆ Not dependent on mounting orientation
 - ◆ Chemical compatibility

Drawing of Application:



Company: **Work Boat Fleet Operator**
 GPI Model Number: **GM005A2H41-6**
 Market: **Transportation**
 Application Category: **Efficiency Improvement**

••••• GPI Model Series: **GM & GX500** •••••

Application: Determining fuel used for generating power on work boats reduces the amount of taxes owed. Additionally, accurate data about motor performance can pinpoint efficiency problems resulting in fuel savings. When fuel prices soar this cost savings increases, creating a demand for an accurate system to determine “net use.” The GPI GM005 meter combined with the GX500 provides a “green” solution for reducing fuel used in work boats.

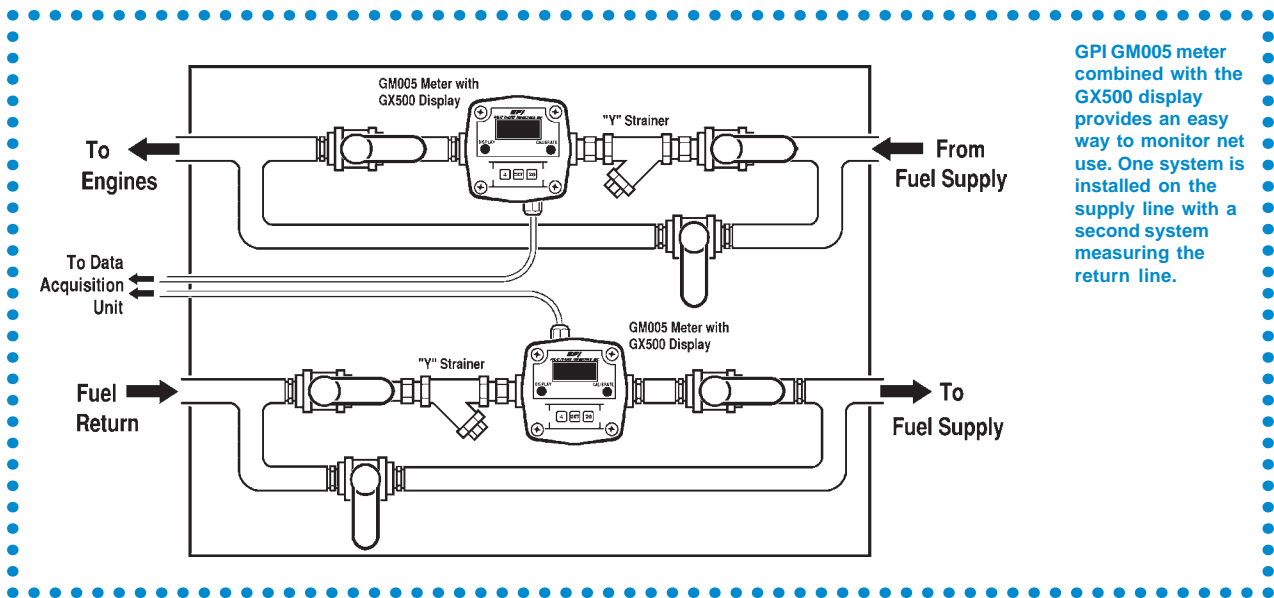
Problem: Fuel use on work boats determines the tax paid on fuel. Fuel used for generating power is not taxed. Until recently, boat captains had no way to accurately determine the amount of fuel used for generating power. Estimating this difference often resulted in overpayment of taxes. Determining accurate net use, helps compare efficiency between boat engines. Adjustments can then result in additional fuel savings.

Solution: GPI’s GM005 combined with the GX500 provides an accurate way to measure net use. One GM005 and GX500 is installed on the supply line with a second pair installed on the return line. This system allows an operator to compare fuel consumption versus speed and achieve the most efficient use of fuel. Reducing fuel costs, tax relief and “green” benefits result by using the GPI “net use” method.

Advantages of using GPI:

- ◆ Accurate
- ◆ Cost Savings
- ◆ Flowrate
- ◆ Provides “net use” data
- ◆ Low Maintenance
- ◆ Fuel Compatibility
- ◆ Supplies data on engine efficiency

Drawing of Application:



GPI GM005 meter combined with the GX500 display provides an easy way to monitor net use. One system is installed on the supply line with a second system measuring the return line.

GPI® Application Sheet

#126

Company: **Public School**

GPI Model Number: **TM400-F**

Market: **Public Administration**

Application Category: **Monitoring**

GPI Model Series: **TM**

Application: The Department of Natural Resources requires a permit for anyone using well water. To obtain a permit, you must report the total volume of water on an annual basis. The line from our pump to the storage tank measured four inches so some suppliers could not meet the spec. Finding a meter to fit this application had been too expensive until we found the GPI Meter. The other meters we looked at were also difficult to install.

Problem: The users needed an accurate way to measure total volume of well water used. The four-inch line size limited the number of meters available. The maintenance dept. needed a meter that was easy to install and easy to maintain in the future.

An accurate, easy-to-read and cost effective meter was required to solve the problem.

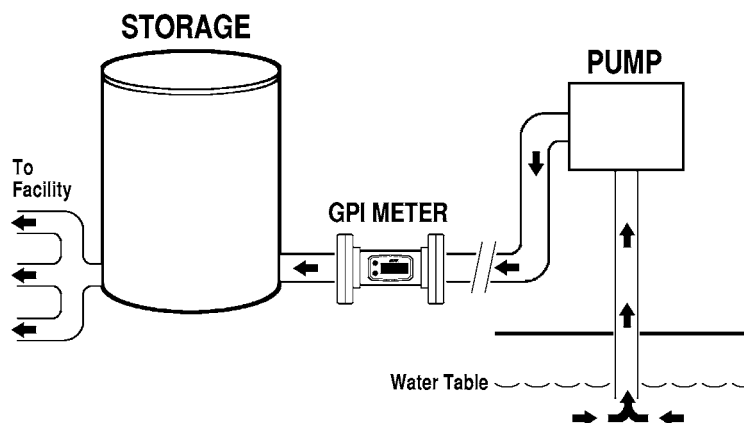
Solution: GPI's TM400-F fit perfectly in the line. The flange fittings made installation easy. This meter was significantly less than comparable meters.

The design of the internal parts makes the meter simple to clean with little down time. The five year battery life reduces maintenance time and the meter has non-volatile totals are not lost in case of power outage.

Advantages of using GPI:

- ◆ Cost Savings
- ◆ Digital Readout
- ◆ Accuracy
- ◆ Flowrate
- ◆ Low Maintenance
- ◆ Low profile

Drawing of Application:



The GPI TM400-F meter fits in the line between the pump and the storage tank. The display is easy-to-read and provides rate of flow plus batch and cumulative totals. Flow Range of the TM400-F is 60 - 600 GPM (227 - 2271 LPM).

GPI® Application Sheet

#127

Company: **Chemical Mixing**

GPI Model Number: **GM515A2M32-9**

Market: **Retail Trade**

Application Category: **Batching**

GPI Model Series: **GM515**

Application: Glycerin delivered in a rail tanker must be unloaded and measured as it is added into a large mixing tank used to make individual batches. The GM515 fits easily between the pump and the mixing tank. The Mechanical display is easy to read and this meter provides accurate measurement, batch after batch. The low maintenance on this meter proved perfect for this particular application.

Problem: The user needed a way to measure Glycerin from a rail tanker as it goes into a large mixing tank with other chemicals. The meter must be durable with low maintenance but accurate to control costs of each batch. Techs. required a meter that is easy to read from the mixing tank area.

An accurate, easy-to-read and cost-effective meter was required to solve the problem.

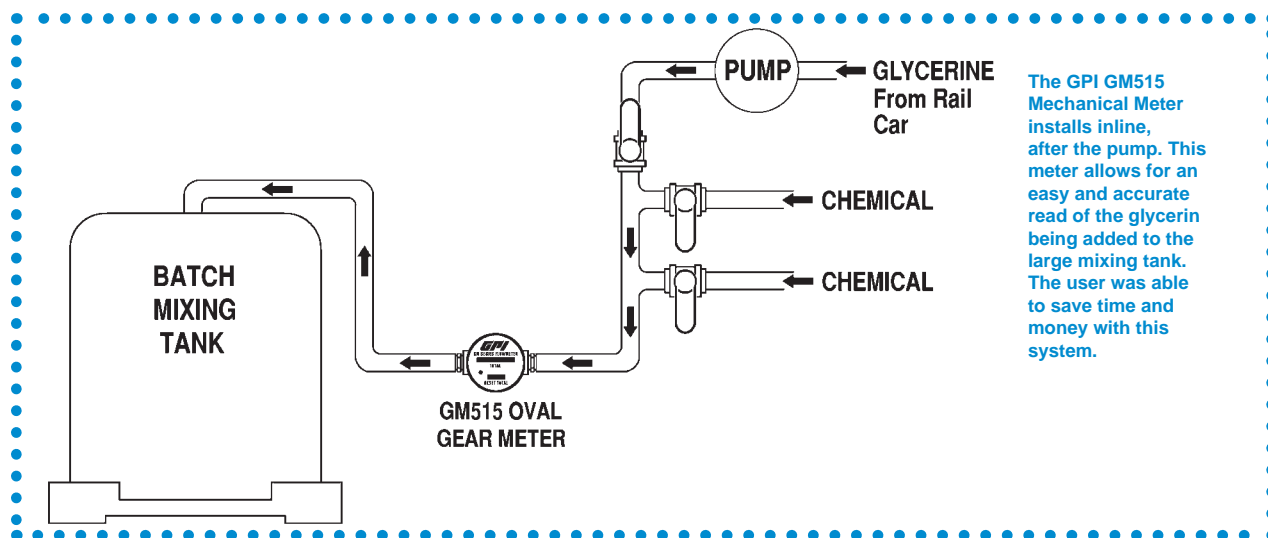
Solution: GPI's GM515 meter fit perfectly in the line after the pump but before the mixing tank. This meter was easy to install and provided the accuracy needed to control waste in each batch.

In addition, the end user realized a cost savings because this set up shortened the process. Techs. were able to complete more batches in the same amount of time.

Advantages of using GPI:

- ◆ Cost Savings
- ◆ Safety
- ◆ Accuracy
- ◆ Flowrate
- ◆ Low Maintenance

Drawing of Application:



The GPI GM515 Mechanical Meter installs inline, after the pump. This meter allows for an easy and accurate read of the glycerin being added to the large mixing tank. The user was able to save time and money with this system.

GPI® Application Sheet

#128

Company: **Chemical Mixing**

GPI Model Number: **GM002S2C41-5**

Market: **Mining**

Application Category: **Monitoring**

GPI Model Series: **GM**

Application: Measure the Kerosene Dilutant (KD) pumped into the earth to breakdown the gravity composition of crude oil. This process helps extract crude oil from oil wells for processing. Monitoring the amount of KD pumped, results in accurate cost for each oil well. After installing the GM002 with Standard Display, the user realized a cost savings and had an accurate count of KD used.

Problem: The user needed a way to monitor the amount of Kerosene Dilutant pumped into the earth during the process of extracting crude oil.

The cost of this product ranges from \$80 - \$100 per barrel so using unnecessary dilutant can drive up the cost of extracting the crude oil. An accurate, easy and cost-effective meter was required to solve the problem.

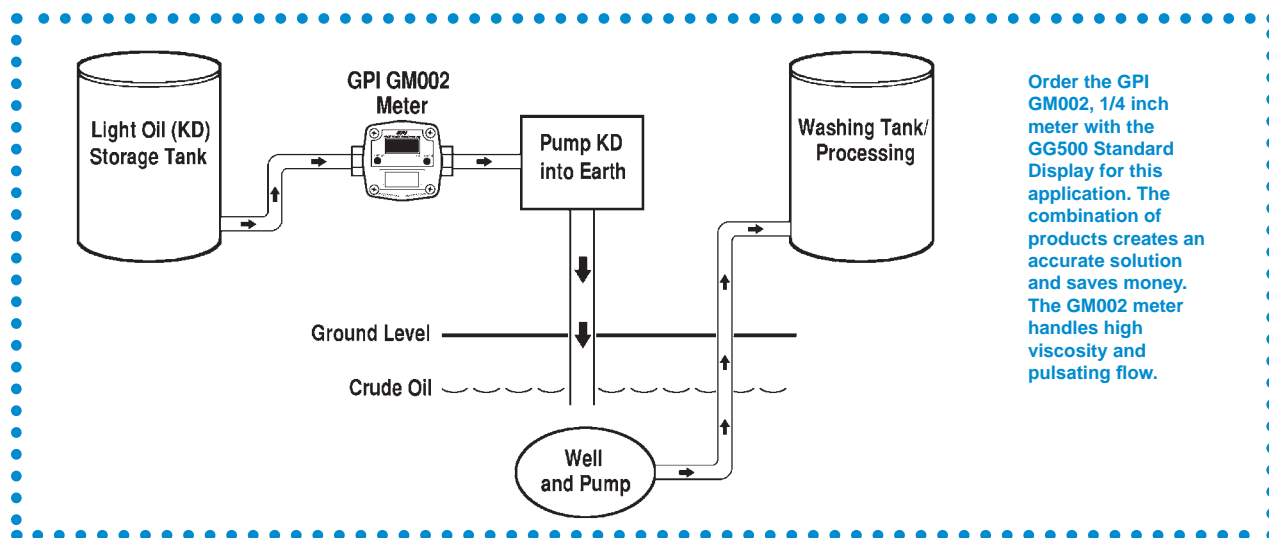
Solution: Tank holds 1,000 barrels of KD with various lines coming out to feed multiple oil site locations. Place the meter before the pump and above ground at the oil well site.

The pump mixes the KD fluid and transports it through rods into the earth. After the crude is broken down, another pump at the bottom of the well, pumps the crude above ground.

Advantages of using GPI:

- ◆ Cost Savings
- ◆ Payback
- ◆ Accuracy
- ◆ Flowrate
- ◆ Low Maintenance

Drawing of Application:



Order the GPI GM002, 1/4 inch meter with the GG500 Standard Display for this application. The combination of products creates an accurate solution and saves money. The GM002 meter handles high viscosity and pulsating flow.