

Start-Up Service Prerequisites

Spartan Controls is scheduled to be at your site to provide startup installation and service. Our service personnel will be responsible for installing transducers, terminating transducer and temperature cables and performing calibration and commissioning of each system.

In order to ensure efficient execution of service, we recommend the following preconditions be met PRIOR to the ARRIVAL of our service personnel. You can schedule a Spartan field service technician, by contacting us at 780-468-5463.



Equipment

1. The Flexim Transmitter should be mounted and powered
2. Ensure the pipe is accessible and there is enough space to mount the transducers and temperature sensors, if applicable. The ideal transducer location should have sufficient straight run of upstream piping – 10 D upstream and 5 D downstream
3. The meter should be mounted within 10 feet of the pipe, if extension cable is not being used
4. In applications where Transducers are mounted on opposing sides of the pipe, please ensure both sides are accessible for the Spartan technician
5. If applicable, any extension cables should be run from the transmitter to the Flexim transducer junction box and temperature junction boxes – ss per site conduit/free air requirements
 - a. Flow transducer extension cables
 - i. If yellow extension cables: 2 yellow cables (single coax) per Transducer Set
 - ii. If black extension cables: 1 black cable (dual coax) per Transducer Set
 - b. Temperature extension cable: 1 Cable (4 wire) per temperature sensor/pipe
5. The pipe should be full and/or pressurized. Flow is strongly recommended
6. Any input, output wires should be run from the Transmitter to the Control System. We will need to be given instructions on output values, such as 4-20 output range, pulse values, etc. A loop test will be performed to confirm the output is read at the customers DCS/SCADA.
7. Insulation should be removed prior to a Spartan technician's arrival. To determine length of insulation removal, contact Spartan Controls.
8. Any MODBUS or BACNET Communication networks are in place and ready to receive values. The Flexim meter will need the following:
 - a. MODBUS: Device Address, Baud Rate, Parity, and Stop Bits
 - b. BACNET: Device Address, Device Instance, Max Master, Max Info Frames, Baud Rate, Parity, and Stop Bits

Access & Personnel

1. Spartan personnel should be cleared to work at your site through any security and training requirements. If anything is required, please contact Spartan Controls at 780-468-5463 and ask to speak to a Measurement Instrumentation Service Advisor
2. Ladders, lifts, and scaffolding as required, should be available or installed
3. If confined space, a supervisor, an attendant, and all required equipment (tripod, air detection, circulation, and harness) must be provided

The following requirements are specific to meter type. Please confirm all that apply.

Thermal Energy

1. Pipe is pressurized and able to flow
2. Air has been vented from any applicable lines
3. All applicable requirements from above are met

Flexim Gas Meter

1. Pipe is pressurized and able to flow
2. Temperature and pressure transmitters are installed, if applicable

Wave Injector

1. Pipe is pressurized and able to flow
2. Insulation is removed from pipe section and necessary scaffolding is erected
3. Pipe has clearance on both sides for pipe cleaning and to install wave injector
4. The use of belt sander and Flexim Wave Injector "Grinder" Tool is allowed on pipe
5. All applicable requirements from above are met

HPI

1. Pipe is pressurized and able to flow
2. The composition of the of liquid is identified. If multiple compositions, these are noted and identified
3. All applicable requirements from above are met

PIOX-S

1. Pipe is pressurized and able to flow
2. Availability to take lab sample for on-site concentration calibration
3. Insulation is removed from pipe section
4. Insulation must be re-installed before concentration calibration
5. All applicable requirements from above are met

