

## Industrial Grade Metering Products Stainless Steel Turbine Model S050



Model S050 Turbine shown with standard Computer Electronics which are sold separately.

The Industrial Grade Model S050 Turbine Housing is a one-half inch, stainless steel turbine measuring in the 0.5 to 10 GPM (1.9 to 37.9 LPM) flow range. It addresses a wide range of industrial and commercial fluid measuring applications. These turbines offer high accuracy, compact design, and a modular approach to maximize flexibility and meet your specific needs.

GPI turbines are trouble-free. The turbine housing contains only one moving part and kits are available for the field replacement of all internal components. Wetted parts are held to a minimum of only four materials: 316 stainless steel, tungsten carbide, PVDF, and ceramic. The signal generator is fully encapsulated to increase chemical compatibility.

These turbines, when paired with the GPI Computer Electronics which are sold separately, provide a microprocessor-based LCD readout with a large six-digit display and an impressive 20:1 turndown ratio. Both totalizer and rate of flow features are available. Paired with one of the many optional accessory modules, the meter communicates with most process equipment in addition to providing local or remote indication.

## Field Replaceable Internal Parts

- Excellent Chemical Compatibility
- · High Accuracy
- · High Turndown Ratio
- Pressure Rating of 1,500 PSIG (103 bar)
- Extended Flow Range of 0.5 to 10 GPM (1.9 to 37.9 LPM)
- Linear Range of 1 to 10 GPM (3.8 to 37.9 LPM)
- · Signal Output Capabilities
- Repeatability of ±0.1%
- · Accessories easily upgrade meters

GPI is a registered trademark of Great Plains Industries, Inc. U.S. Patents 4,856,384; 4,700,579; and 5,046,370. Australian Patent 572,494. Canadian Patent 1,223,464. European Patent EU0147004. German Patent P3478494.2-08. Italian Patent 68074-BE/89.



## **Technical Specifications**

## Stainless Steel Turbine Model S050

Flow Ranges

Linear: 1 to 10 GPM (3.8 to 37.9 LPM) Extended: 0.5 to 10 GPM (1.9 to 37.9 LPM)

Maximum Flow: 15 GPM (56.8 LPM)

Fluid Velocity in

Extended Range: 0.5-10.6 ft./sec. (0.2-3.2 m/sec.)

Performance\*

Linear Range:  $10:1 @ \pm 1.0\%$  of reading Extended Range:  $20:1 @ \pm 5.0\%$  of reading

Repeatability: ±0.1%

Maximum Pressure

Drop in 10:1 Range: 8 PSIG (0.55 bar)
Pressure Rating: 1,500 PSIG (103 bar)<sup>+</sup>
Frequency Range: 45-450 Hz @ 1-10 GPM

Connections

Inlet and Outlet: 1\2 inch female NPT or ISO

Wrench Flat Size: 1-1/16 in. (27mm)

Temperatures\*\*

Operational: -40° to +250°F (-40° to +121°C) Storage: -40° to +250°F (-40° to +121°C)

 Results determined with 1 centipoise stoddard solvent test fluid at 70°F (21°C).

\*\* Turbine only without computer.

Consult factory for models rated to 3,000 PSIG (207 bar).



Approvals

All GPI turbines are Factory Mutual Approved and carry a Class 1, Division 1 Approval for hazardous environments.

Wetted Components

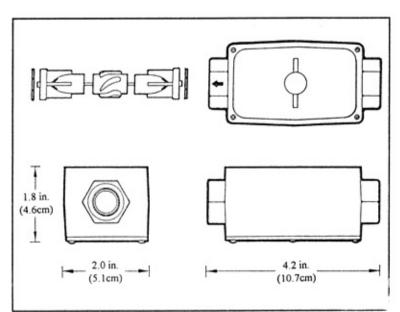
Housing: 316 Stainless Steel
Journal Bearings: Ceramic (96% Alumina)
Shaft: Tungsten Carbide
Rotor and Supports: PVDF
Retaining Rings: 316 Stainless Steel

Weight

Turbine only: 1.8 lbs.(0.8kg)
Turbine with computer: 2.0 lbs.(1.0kg)

Shipping Weight

Turbine only: 2.0 lbs.(1.0kg)
Turbine with computer: 2.2 lbs.(1.0kg)



Note: Computer electronics add 0.7 in. (1.8cm) to height of

turbine housing.



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APPROVED

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