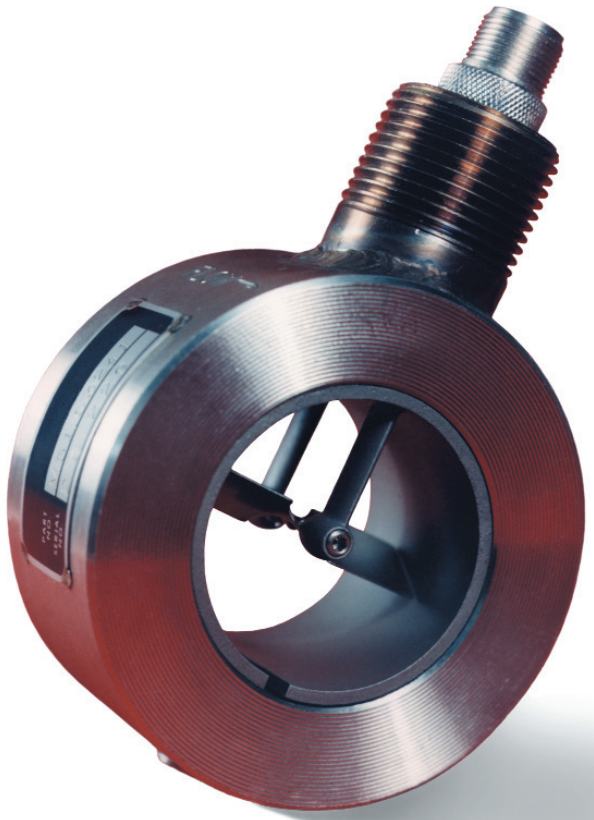
NUFLO™

Gas Turbine Flowmeters

Accurate Gas Flow Measurement



- Single gas turbine flowmeter handles wide range of flow rates
- Rugged carbide bearing design eliminates need for lubrication and withstands difficult service conditions
- Low inertia rotor design provides quick response to flow rate changes
- Two-bladed rotor offers large unobstructed flow area
- Electrical output signal adapts readily to a variety of readout devices
- Easily serviced – low cost precalibrated replacement turbine cartridge available

The NuFlo™ Gas Turbine Flowmeter introduces a new concept in accurate gas flow measurement. It features a transducer that utilizes a lightweight, low inertia rotor to sense gas velocity. It offers an output frequency that has a linear relationship to gas velocity over a wide flow range.

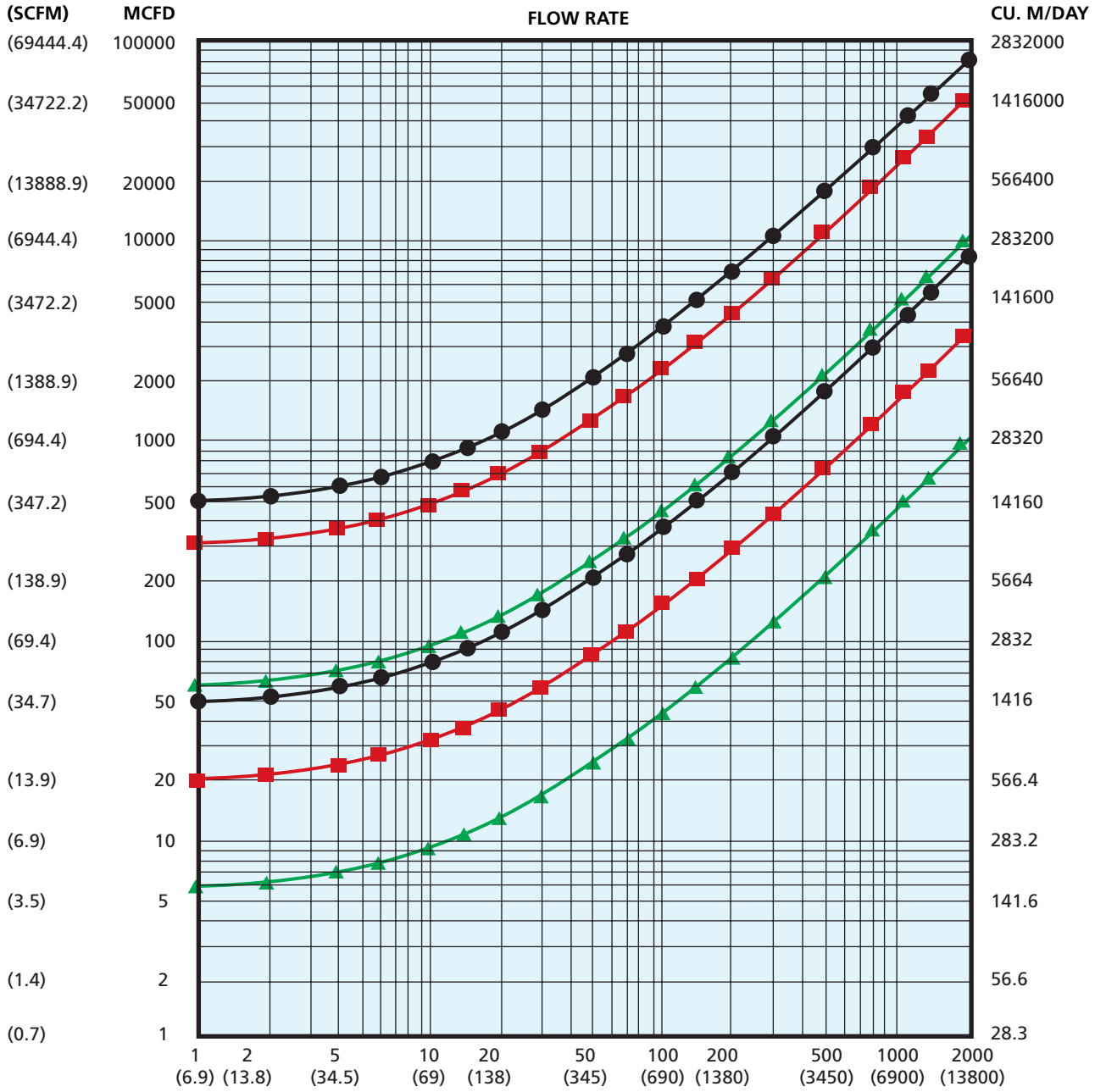
The meter tracks the flow rate continuously, offers little resistance to flow and has a unique cartridge design that allows removal of all internal parts as one assembly.

The meter exhibits little sensitivity to gas density above two atmospheres pressure. The low inertia of the rotor and vee bearings allows overranging of the meter to twice its rated capacity without damage for intermittent flow variations.

Designed for maximum life, carbide rotor shaft and bearings require no lubrication. The cartridge assembly makes replacement and inspection of parts easy. The meter is designed for installation between two flanges. The digital pulse output generated by the Gas Turbine Flowmeter can be fed to companion readout devices capable of providing direct measurement of flow rate and accumulated throughput.

These measurements can be automatically pressure-and/or temperature-compensated to obtain volumetric measurements in standard units.

Gas Meter Flow Rate Graph



High Range
Standard Range
Low Range

Flow rates are at standard conditions of 14.73 psia and 60°F and are based on 100% methane gas @ 0.6 s.g.

To determine the capacity for other gases use:

$Q_{(g)} = Q_{(0.6)} \sqrt{\frac{0.6}{G}}$ where:

$Q_{(0.6)}$ = flow rate on graph
G = Sp. Gr. of other gas
$Q_{(g)}$ = flow rate for other gas

Specifications

- Size — 2-in. (50.8 mm)
- Flow Range — See graph on page 2
- End Connections — Flowmeter installs between two raised face flanges
- Working Pressure — 0 to 2220 psig (15,306 kPa)

Nominal Calibration Factor

- Low Range — 325 p/ACF (16600 p/m3)
- Standard Range — 125 p/ACF (4415 p/m3)
- High Range — 70 p/ACF (2472 p/m3)
- Output Frequency — 5 to 320 Hz over rated range
- Output Voltage — 30 mV peak to peak at 5 Hz, 900 mV peak to peak at 320 Hz
- Pressure Drop — Less than 1-in. (24.5 mm) water column at maximum rated flow
- Linearity — +/- 2% of reading
- Repeatability — +/- 0.5% of reading
- Temperature — 0° to 225°F (-18° to 107°C)
- Pickup Connector — Mates with AN3106A-10SL-4P
- Conduit Connection — 1-in. (25.4 mm)
- Pressure Tap — 1/8-in. NPT (3.2 mm)
- Compliances — CSA Certified Hazardous locations Class I, Group A, B, C, D, Div. 1, ANSI 12.27.01-2003 Single Seal

Materials of Construction

- Body and Cartridge — Grade 316L stainless steel*
- Bearing Mounts — Grade 304 stainless steel
- Bearings — Tungsten carbide
- Rotor — Grade 455 stainless steel
- Rotor Shaft — Tungsten carbide
- Set Screws — Grade 304 stainless steel
- Pressure Port Plug — Grade 304 stainless steel

* Pre-qualified per NACE MR0175/ISO 15156 and MR0103

Gas Turbine Flowmeter

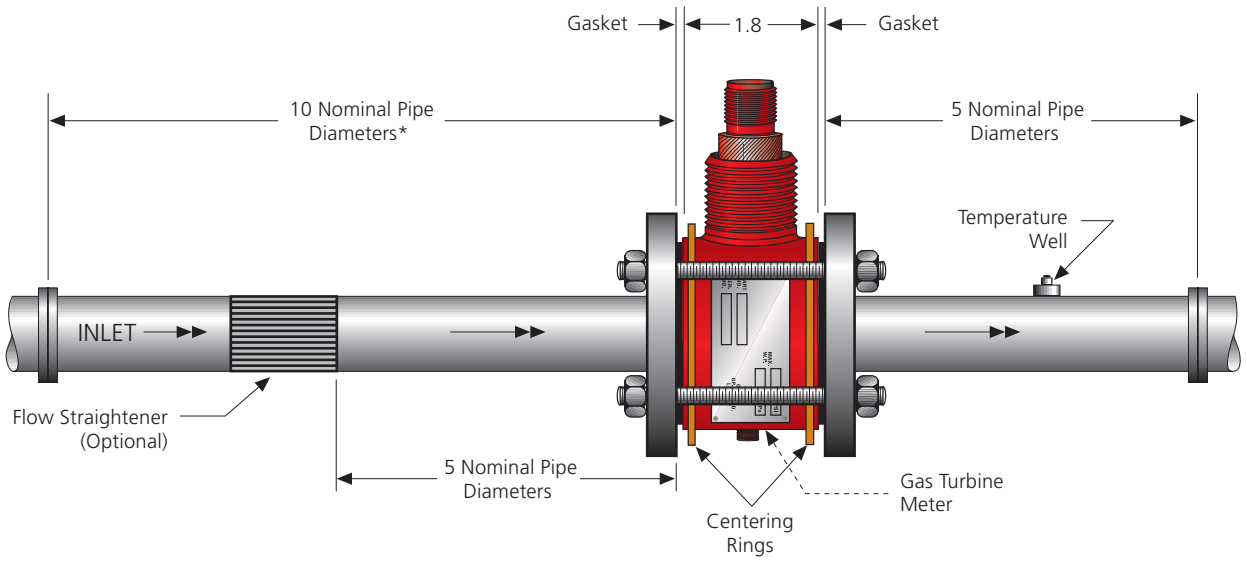
- Size — 2-in. (50.8mm)
- Rotor — Two bladed
- Bearings — Tungsten carbide, vee type

Accessories (optional)

A) Installation hardware kit (bolts, nuts and gaskets; specify flange rating when ordering)

B) Flow straightener tube bundle

Installation Diagram



*10 nominal pipe diameters is the minimum recommended upstream pipe length. If a flow straightener is not used, longer upstream pipe lengths may be required to minimize measurement uncertainty due to swirl or asymmetrical flow.

Cameron_NuFlo测量系统_流量及控制类仪表联系方式：

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