HOFFER

Perfecting Measurement™

КАТАЛОГ ОБОРУДОВАНИЯ

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Брянск (4832)59-03-52
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Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Казань (843)206-01-48

Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
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Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41

Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78

Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Единый адрес для всех регионов: hrf@nt-rt.ru || www.hoffer.nt-rt.ru

INDUSTRIAL TURBINE FLOWMETERS

HO SERIES PRECISION TURBINE FLOWMETERS

Liquid Service, Inline
Repeatable Flow Range: .0625 to 15,000 GPM
Accuracy:
+/-.5% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 12"

Gas Service, Inline
Repeatable Flow Range: .15 to 12,000 ACFM
Accuracy:
+/-1% Linearity
+/-.25% Repeatability
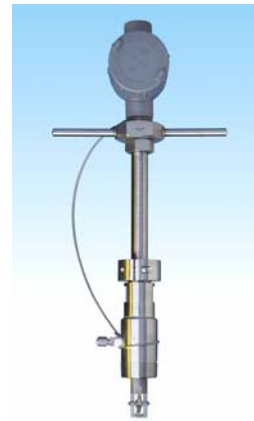**Flowmeter Sizes:** 1/4" to 12"

MF SERIES TURBINE MINI-FLOWMETERS FOR LOW FLOW RATES

Mini-Flow for Liquid
Repeatable Flow Range: .007 to 3.5 GPM
Accuracy:
+/-1% Linearity
+/-.25% Repeatability
Flowmeter Sizes: 1/2" line size

Mini-Flow for Gas
Repeatable Flow Range: .005 to 1 ACFM
Accuracy:
+/-2% Linearity
+/-.25% Repeatability
Flowmeter Sizes: 1/2" line

HP SERIES INSERTION FLOWMETERS FOR LARGE PIPE DIAMETERS

Insertion for Liquid
Repeatable Flow Range: .25 to 50 FPS
Accuracy:
+/-1% Linearity
+/-.25% Repeatability
Sizes: 4" to 72" pipe diameters

Insertion for Gas
Repeatable Flow Range: 5 to 250 FPS
Accuracy:
+/-2% Linearity
+/-.25% Repeatability
Sizes: 4" to 72" pipe diameters

SANITARY SERIES TURBINE FLOWMETERS FOR SANITARY APPLICATIONS

Liquid Service, Sanitary
Repeatable Flow Range: .25 to 800 GPM
Accuracy:
+/-.5% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 3"

STAR SERIES MID-COST, INDUSTRIAL TURBINE FLOWMETERS

Liquid Service, Inline
Repeatable Flow Range: .25 to 800 GPM
Accuracy:
+/-1% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 3"

LO-CO SERIES LOW-COST, INDUSTRIAL TURBINE FLOWMETERS

Liquid Service, Inline
Repeatable Flow Range: .45 to 225 GPM
Accuracy:
+/-1% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 2"

TEFLON SERIES TURBINE FLOWMETERS FOR CORROSIVE SERVICE

Liquid Service, Inline
Repeatable Flow Range: .35 to 485 GPM
Accuracy:
+/-1% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 3"

OIL & GAS TURBINE FLOWMETERS

WING NUT SERIES HIGH PRESSURE WING NUT 15,000 PSI

Liquid Service, Inline
Repeatable Flow Range: 4 to 1050 GPM
Accuracy:
+/-.5% Linearity
+/-1% Repeatability
Flowmeter Sizes: 1" to 3"

Gas Service, Inline
Repeatable Flow Range: 2.5 to 600 ACFM
Accuracy:
+/-1% Linearity
+/-.25% Repeatability
Flowmeter Sizes: 1" to 3"

API & CT SERIES CUSTODY TRANSFER TURBINE FLOWMETERS

API Bladed Liquid Service
Repeatable Flow Range: 2 to 1500 GPM
Accuracy:
+/-.25% Linearity
+/-.02% Repeatability
Flowmeter Sizes: 1" to 4"

CT Rimmed Liquid Service
Repeatable Flow Range: 85 to 15,000 GPM
Accuracy:
+/-.15% Linearity
+/-.02% Repeatability
Flowmeter Sizes: 4" to 12"

GROOVED SERIES OIL PATCH/INDUSTRIAL TURBINE FLOWMETERS

Liquid Service, Inline
Repeatable Flow Range: 4 to 12,000 GPM
Accuracy:
+/-.5% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1" to 12"

WAFER SERIES OIL & GAS SPECIAL OPTION END-FITTING

Liquid Service, Inline
Repeatable Flow Range: .2 to 6,400 GPM
Accuracy:
+/-.5% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 5/8" to 8"

Gas Service, Inline
Repeatable Flow Range: .5 to 4,800 ACFM
Accuracy:
+/-1% Linearity
+/-.25% Repeatability
Flowmeter Sizes: 5/8" to 8"

SUBSEA SERIES TURBINE FLOWMETERS FOR SUBSEA DEPTHS OF 15,000 FT.

Liquid Service, Custom Inline
Repeatable Flow Range: .25 to 15,000 GPM
Accuracy:
+/-.5% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 12"

TRIFLO SERIES FLEXIBLE MEASUREMENT SOLUTIONS FOR PRODUCE D WATER AND HYDROCARBON CONDESATE

Liquid Service, Inline
Repeatable Flow Range: 4 to 280 GPM
Accuracy:
+/-1% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1", 1-1/2, & 2"

PREMIER GAS SERIES HIGH ACCURACY GAS FLOWMETERS

Gas Service, Inline
Repeatable Flow Range: .15 to 12,000 ACFM
Accuracy:
+/-.5% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 12"

SPECIALTY TURBINE FLOWMETERS

HHP SERIES HIGH PRESSURE TURBINE FLOWMETERS

Liquid Service, Inline
Repeatable Flow Range: .0625 to 275 GPM
Accuracy:
+/-.5% Linearity
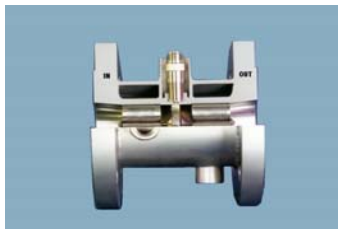+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 2"

Gas Service, Inline
Consult Factory for Gas Applications/Sizing.
Flowmeter Sizes: 1/4" to 2"

AUTOCLAVE SERIES TURBINE FLOWMETERS

Liquid Service, Inline
Repeatable Flow Range: .0625 to 35 GPM
Accuracy:
+/-.5% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 3/4"

Gas Service, Inline
Repeatable Flow Range: .15 to 20 ACFM
Accuracy:
+/-1% Linearity
+/-.25% Repeatability
Flowmeter Sizes: 1/4" to 3/4"

SADDLE SERIES LOW COST INSERTION FLOWMETERS

Liquid Service, Inline
Repeatable Flow Range: 20 to 1650 GPM
Accuracy:
+/-2% Linearity
+/-.25% Repeatability
Flowmeter Sizes: 2" to 4"

STEAM JACKETED SERIES

Liquid Service, Inline
Repeatable Flow Range: .25 to 800 GPM
Accuracy:
+/-.5% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 3"

HOSE SERIES BARBED AND BEADED HOSE FLOWMETERS

Liquid Service, Inline
Repeatable Flow Range: .0625 to 800 GPM
Accuracy:
+/-.5% Linearity
+/-.1% Repeatability
Flowmeter Sizes: 1/4" to 3"

OPTIONS COMMONLY RECOMMENDED:

Viscosity Calibrations and Curves
The standard calibration provided with all Hoffer Turbine Flowmeters consists of a 10 point, one centistoke calibration over the linear flow range of the meter. For more viscous applications, a Universal Viscosity Curve (UVC) may be necessary to document the flowmeter's performance for viscous service in order to achieve maximum accuracy.

Installation Kits
Installation piping kits are available for the Hoffer Sanitary Series and flowmeters with MS flared end fittings. The kits consist of two lengths of stainless steel tubing cut to a length appropriate for the up and downstream straight pipe runs. The kits are suitable for welding into existing pipe lines and can be provided with NPT or flanged connections. Optional flow straighteners and special kits to accommodate flanged and NPT meters are available.

Rate Indicator/Totalizers

HIT-4U

The HIT-4U Rate Indicator and Dual Totalizer with MODBUS communications protocol and Data Logging.

- Loop or battery powered indicator with data logger.
- 12 point linearization option.
- Configurable thru the ex-proof enclosure via magnetic pointer.
- Dual Set Point Alarm output for rate or total.

HRT1

The HRT1 Rate Indicator and Totalizer with HART® communications protocol. The unit can be ordered with an optional loop powered 4-20mA output.

- DC, AC, loop or battery powered indicator.
- 20 point linearization option.
- Alarm output for rate or total.
- RS 232 Port for Configuration and Monitoring.
- Windows configuration software.

Conditioners, Amplifiers, Totalizers

CAT-1

The CAT1 is a microprocessor controlled 2-wire 4-20mA transmitter. The CAT1 converts a low level, frequency signal from a flowmeter sensor into an analog 4-20mA output. The output is proportional to the flow rate.

- Loop powered 4-20mA.
- Optional linearization.
- Windows configuration software.

CAT-2

The CAT2 is a versatile DC or AC powered transmitter that can be interfaced with any Hoffer flow sensor. It provides a pulse output and an analog signal proportional to the flow rate. The CAT2 can be configured with high and low alarms.

- DC or AC powered transmitter.
- Pulse and analog output.
- Optional hi and low alarms.

CAT-3

The CAT3 is a DC or AC powered, microprocessor controlled transmitter. The CAT3 outputs a pulse scaled per unit of flow, and analog signal proportional to flow rate. The CAT3 can be configured with high and low alarms.

- DC or AC powered.
- Pulse and analog output scaled per unit of measure.
- Flowmeter linearization.
- Optional Hi and Low alarms.
- Windows configuration software.

PET-1, 3, 7
Digital to Analog
Converter Mag Type

The PET Series converter receives frequency input and converts it to a proportional 4-20mA or 0-10V analog output. It has been designed to fit a compact "ELBY" explosion-proof enclosure. This series is designed for use with the Lo-Co Series of low cost flowmeters.

- PET-1   0 to 10 VDC analog output.
- PET-3   4 to 20 mA analog output 3 wire.
- PET-7   4 to 20 mA analog output 2 wire with improved EMI noise immunity.

PET-4, 5, 6
Preamp Signal
Conditioner Mag Type

The PET Series mag-preamps are designed to convert low level sinusoidal signals into stable square wave pulses. The signal conditioners are built to fit a compact "ELBY" type explosion-proof enclosure.

- PET-4   TTL/CMOS (0-5 VDC)
- PET-5   0-10 VDC Square Pulse.
- PET-6   Open Collector.

Flow Computers

Nova-Flow Computer

Volumetric or Mass Flow Computer Rate Indicator/Totalizer for Liquids and Gases

The Nova-Flow multi-channel modular flow computer. More than 500,000 configurations are possible depending upon the application requirements.

- Up to four flowmeter inputs.
- Two each temperature and pressure inputs.
- Two alarm/relay outputs.
- Two level password protection.
- Flash Memory
- Modbus Protocol.
- Temperature/Pressure/Density protocol.
- 20– Point linearization.

Nova-Flow Batch Controller

Volumetric or Mass Batch Controller Flow Computer for Liquids and Gases

The Nova-Batch modular flow computer for liquid and gas batch control.

Batch Controller Features:
- Two Stage Batch Control.
- One flowmeter input.
- One each temperature and pressure input.
- Local display of flow rate, accumulated total and batch total.
- Additional options available, depending on application requirements.

Nova-Flow Energy Calculator

Volumetric or Mass Energy Calculator Flow Computer for Liquids and Gases

The Nova-Energy modular flow computer for energy measurement.

Energy Calculator Features:
- Two flowmeter inputs.
- Two each temperature and pressure inputs.
- Two alarm/relay outputs.
- Additional options available, depending on application requirements.
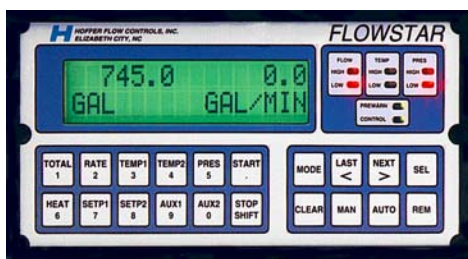
Flowstar 2000

Volumetric Flow Rate Indicator/Totalizer for Liquids and Gases

The Model 2000 is a volumetric flow rate indicator/totalizer that provides local display and transmits flow data for control capability. Flow rate and total may be simultaneously displayed on a two line 16 line character alphanumeric display that indicates unit of measure. English and metric units are available. Up to four flowmeter inputs can be handled simultaneously. This unit will accept pulse or analog inputs (4-20mA). Flowmeter linearization is standard on channel one and improves flowmeter linearity to ±.1% of reading when used with an HO Series flowmeter.

Flowstar 2005

Mass Flow Rate Indicator/Totalizer for Liquids

The Model 2005 provides Mass flow measurement via temperature and pressure compensation . Both flow rate and total may be displayed simultaneously or independently. User may change from mass readings to volumetric readings via the front panel of the unit. Unit is programmable via the front panel. Enclosure options include panel mount, NEMA 4x and explosion-proof. The Model 2005 is a single channel unit.

Flowstar 2007

Volumetric or Mass Batch Totalizer/Rate Indicator for Liquids

The Model 2007 is a batch controller that provides local display of flow rate, accumulated total and batch total. Optional temperature compensation is available for mass flow batching. This unit provides for a single flowmeter input with two stage preset capability. This feature allows the user to enter a "prewarn" value. This would be used to gradually close the valve prior to reaching the total preset value. Three analog inputs can support/display process variables.

Cryogenic Systems by Hoffer

ICE Integrated Cryogenic Electronics

The **ICE** is Hoffer's most advanced truck-mounted cryogenic flow metering system. ICE is a microprocessor-based totalizer designed to withstand the rigors and weather conditions imposed on truck-mounted, over-the-road cryogenic systems. Some features include: user-friendly software, preventive maintenance notification and system malfunction detection. An optional point-of-sales printed delivery ticket is available as well as a number of software options offering flexibility, customization and future expansion. The full color graphical display and electronic touch screen ensure user-friendly operator interface and provide direct access to all measurement and configuration parameters including total, rate and temperature. Designed in compliance with O.I.M.L.—R81 standard, Handbook 44 and various design approvals.

ICE

ACE II Advanced Cryogenic Electronics

ACE II incorporates technological advances in electronics and the time proven solutions in cryogenic measurements from the Hoffer ACE system. Graphical display and "soft keys" allows for easy interaction between operator and the instrument. Multiple, easy to follow messages displayed in full text help the user to navigate through the instrument menu. The menu is built up hierarchically for quick access to a desired function.

Electronic circuits are constructed with rugged, multi-layer boards and SMT (surface mount components). The advanced computation algorithm provides multiple methods for calculating volume, mass and density of the fluid. Extensive built-in diagnostic functions allow for quick troubleshooting and identifying faulty components. Communication to external computing devices is accomplished through the RS232 serial port, and front panel infrared port. ACE II supports standard MODBUS protocol.

ACE II

Cryogenic Systems

The Hoffer Cryogenic truck-mounted cryogenic flow metering system has been designed to withstand the rigors of over-the-road service and to operate reliably in the accompanying temperature extremes they will see in actual service. Hoffer Cryogenic systems allows for superior performance and ease of use. The system provides accurate measurement of commonly delivered industrial gases while having printer output capability. The system requires minimal operator involvement.

The cryogenic system provides advanced reporting and communication capabilities including reporting for delivery, trip and maintenance via Hoffer printers or computer communication. Designed to comply with O.I.M.L.—R81 standard, Handbook 44 and various design approvals.

P6

Cryogenic Printers

Hoffer offers a variety of cryogenic printers available for your Hoffer cryogenic system depending on your needs and specifications. Whether you need your printer shock mounted, water-proof or portable and lightweight, we have an option for you. Our P9 printer even offers printer capabilities in a wireless Bluetooth® design.

P8

P9

HOFFER FLOW CONTROLS, INC.