



Поверочная установка SY14B

Технические характеристики

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TURBINE FLOWMETERS BY

HOFFE

Perfecting Measurement ™

CRYOGENIC PROVER

Product Bulletin SY14B-02A

TECHNICAL DATA SHEET

CRYOGENIC TRANSFER STANDARD FOR FIELD CALIBRATIONS OF BULK TRANSPORT SYSTEMS

The dream of a quick, simple, and reliable field calibration system for cryogenic flowmetering systems has become a reality with the introduction of the Hoffer SY14B Cryogenic Transfer Standard . When suitable documented by a NIST traceable laboratory, the system offers users a high accuracy standard of comparison to allow adjustment of bulk transport mounted systems. Maintaining accuracy to the requirement of Handbook 44/OIML was never so easy.

Historically, the accuracy of flowmetering systems for bulk transports has been verified by comparing the metered delivery with the net weight delivered on a certified truck scale. To eliminate road loss errors, the bulk transport had to pump, while on a weigh scale, into a second empty transport off the weigh scale. The low precision resulting from scale inaccuracy and resolution necessitated very large sample sizes and lack of control in pumping rates. In addition, the weight measurements could not be made while pumping. This resulted in a time-consuming process where the pump was started and stopped repeatedly and which tied up the two trailers and the weight scale for typically four hours per calibration check. In addition, when finished, both trailers had to be filled before going to their next delivery. With the Hoffer SY14B Cryogenic Transfer Standard these problems are eliminated.



First, only the trailer to be tested need from the trailer is pumped from the transport to the SY14B and back through the top fill connection to the trailer.

The system includes a transfer standard turbine flowmeter and a metering run mounted on a hand truck and an electronics console for portability. The electronic portion of the prover is provided in a small portable electronics enclosure with military style quick disconnect electrical fittings. Instantaneous indication of the flowrate and flowing temperature is provided as well as a total flow indicator and an accumulated test total indicator. Temperature compensation for LIN, LOX and LAR, and other product types are provided to allow the total display

to be in mass or volumetric units. A be present in most cases. The discharge prover cable interconnects the transfer standard to the trailer's meter system. A prover switch on the SY14B simultaneously starts and stops both systems electronically. The integrally mounted control valve allows the operator to simulate the typical flowrates and delivery pressures to be seen in actual service. You do not have to shut the pump down between test runs.

> For additional information and representative test procedures on how you can reduce calibration cost while exceeding legal metrology requirements, contact our applications group Hoffer offers on site liquid cryogenic calibration service, certified traceable to NIST on any cryogenic metering system, inquire for additional information.

Meter Run Specifications

All systems are provided with a water calibration at no extra charge. Traceablility through Calibration Traceability

Hoffer's Cryogenic Field Standards or directly from NIST are available at competitive pricing.

Includes upstream and downstream meter runs and pressure and temperature taps. Standard Meter Run

sizes are 1-1/2" and 2". Stainless steel construction; standard. End fittings per user

specification.

1-1/2" 8 to 130 GPM Standard Flow Ranges

15 to 225 GPM

Electronic packages are available for LIN/LOX/LAR, CO2, Hydrogen, LPG and LNG. Consult Service Fluid

factory for others.

Flowmeter Compatibility Compatible with magnetic pickup coils.

300 PSI **Pressure Rating**

Oxygen Compatibility Cleaning for oxygen service is provided at no charge.

Gas spinning for 6 months at 300% of liquid design velocity without damage. Overrange Compatibility

Two/four wire RTD, 1000/2500 ohm at 0°C, 0.003902 ohm/ohm degree C. **Temperature Probe**

Pressure Transmitter 1-5 VDC or 4-20 mA proportional to 0 to 300 PSIG (Optional)

Electronics Console Specifications

Compensation Limits Varies depending on fluid.

Controls (User) 16 key keypad, power pilot light, sensitivity adjustment, fuse.

32 Character Alphanumeric, Backlit LCD Display provides indication of flow rate, temperature, **Display Type**

test total and pressure, etc.

Portable Instrument Case, Environmental Cable Connectors, Internal Heaters. Enclosure

Environmental Operating: 0° to +120°F; Storage: -20° to +120°F.

Flow Input Magnetic Pickup Compatible

Volumetric; Temperature, or Temperature/Pressure; Compensated Prover Total **Operating Modes**

115/220 VAC 60/50 Hz, 1 amp Fuse **Power Requirements**

Provides printed results of calibration data. May be customized on special factory orders. **Printer Capability**

Serial Port RS-232 electrical specifications; for use with printer.

All setup of the instrument is performed through the front panel in a special mode requiring Scaling and Setup

operator password entry for access. Setup data retained in EEPROM.

Five point linearization of master; Two Phase Flow Operating Warning: Low and high flow **Special Features**

warning. US units, standard; Metric Units, optional.

Time and Date Clock Standard

Accessory Items Cable Sets, SY14B Printer Kit

HOFFER FLOW CONTROLS, INC.

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

The quality system covering the design, manufacture and testing of our products is certified to International Standard ISO 9001. TÜVRheinland



По вопросам продажи и поддержки обращайтесь:

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