# TURBINE FLOWMETERS BY HOFFER Perfecting Measurement TM

### SADDLE TURBINE SERIES Economy Insertion Flowmeters for Liquids

Product Bulletin HFC-S-100C

## **TECHNICAL DATA SHEET**

#### **FEATURES**

- Low cost.
- Low pressure drop.
- Wide flow turndown ranges for liquids.
- Linearity +/-2% of reading or better.
- Insertion meter for pipe sizes 2", 3" and 4".
- Industrial grade construction.
- 3-Point one centistoke calibration at minimum, mid-range and maximum linear or extended range.

### **THEORY OF OPERATION**

The Saddle Turbine Series of Insertion Flowmeters are designed for measuring liquid flow in 2", 3" and 4" diameter pipes with accuracies inherent in the flowmeter at a substantially lower price than in-line flowmeters.



SPECIFICATIONS:		
Line Size:	Linear Flow Range:	Extended Flow Range:
2" schedule 40 pipe & 80 pipe	25 GPM TO 275 GPM	20 GPM TO 300 GPM
3" schedule 40 pipe & 80 pipe	58 GPM TO 650 GPM	54 GPM TO 825 GPM
4" schedule 40 pipe & 80 pipe	150 GPM TO 1650 GPM	No extended range

REPEATABILITY:	±.25%	OUPUT SIGNAL:	Output level - 10 mV RMS minimum.
BEARING TYPE:	Hard Carbon Composite Sleeve Bearings.	MAGNETIC COIL:	Wave shape - sinusoidal. DC resistance of sense coil - 2000 OHMS. Coil - magnetic pickup type. M-L 3/8X1.52 with flying leads.
MATERIALS:	Housing insert and rotor support Are 316 stainless steel. Rotor - 17.4 stainless steel (standard). Saddle is PVC.	MAX TEMPERATURE:	140 DEG. F
LINEARITY:	$\pm 2\%$ or better.	MAX PRESSURE:	235 PSI.

Designed for installation in metal, composite or plastic piping, the Saddle Series is an economical alternative to full-bore, in-line flow liquid flowmeters while providing good measurement performance in a rugged package. The rotor and signal housing is interchangeable for 2", 3" and 4" sizes in order to maximize its flexibility and requires only a change in the saddle fixture to change from one size to the next. The use of 316 stainless steel for the housing insert, 17-4 pH for the rotor, hard carbon composite sleeve bearings and PVC installation saddles also enable the meter to be used in a variety of liquid services.

		MODEL ST -	Α	- В	- C	- D -	E -	F-G
A. Process	Pipe Style:							
2/40	2" Pipe Sch	edule 40						
2/80	2" Pipe Sch	edule 80						
3/40	3" Pipe Sch	edule 40						
3/80	3" Pipe Sch	edule 80						
4/40	4" Pipe Sch	edule 40						
4/80	4" Pipe Sch	edule 80						
B. Minimu	m Flow Range	in GPM:						
	Linea	ar <u>Extended</u>						
	2″ 25	20						
	3″ 58	54						
	4″ 150	N/A						
C Maxim	m Flaur Dana							
J. Maximu	Im Flow Range							
	Linea							
	2" 275	300						
	3" 650	825						
	4" 1650	) N/A						
D. Bearing	:							
С	Hard Carbo	n Composite Sleev	ve Bearing	9				
E. Pickup	Coil:							
M/X	M-L-3/8x1.	52 with flying lead	ds.					
	Note: A 1	" MNPT riser is su d as a riser for trar	pplied sta	andard. It	is not exp	losion-pro	of but is	
	used		ISIIIILLEIS		uispiays.			
F. Saddle	Size:							
2PVC	2" PVC Sac	Idle for Schedule 4	10 or 80	oipe.				
3PVC		Idle for Schedule 4						
4PVC		Idle for Schedule		•				
	4 FVC 580			oipe.				
	I Features:							
CE		quired for Europe.						
Х	None.							



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.

