

# TURBINE FLOWMETERS BY HOFFER

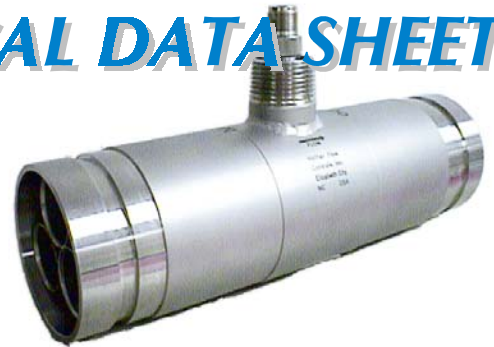
The Turbine Flowmeter Company

## Grooved Turbine Flowmeters Product Bulletin HO-GF-105A

### TECHNICAL DATA SHEET

### Grooved Turbine Flowmeters

for Water, Water/Sand, Liquid  
Carbon Dioxide and Cement Slurry.



Flow Range and Model Information									Technical Data				
Flowmeter Size (Inches) Victaulic® Size (Inches)				(Refer to Note 1) Linear Flow Range (US GPM)		(Refer to Note 2) Bearing Type	(Refer to Note 3 for coil options) Standard Magnetic Pickup Coil	Victaulic® Type End Fitting	Nominal Pulses/Gallon 'K' Factor	Nominal Max. Frequency (Hz)	Length (inches)	Working Pressure (PSI)	
Min.		Max.		Type 75	Type 77								
Model HO	1	X	1	-4	-60	-CB -C -T	-1MX	-VIC	670	670	4.0	500	1000
Model HO	1 ½	X	1 ½	-8	-130	-CB -C -T	-1MX	-VIC	220	500	6.0	500	1000
Model HO	2	X	2	-15	-225	-CB -C -T	-1MX	-VIC	126	500	6.0	500	1000
Model HO	2 ½	X	2 ½	-25	-400	-CB -C -T	-1MX	-VIC	75	500	10.0	500	1000
Model HO	3	X	3	-40	-650	-CB -C -T	-1MX	-VIC	45	500	12.5	500	1000
Model HO	4	X	4	-75	-1250	-CB -C -T	-1MX	-VIC	20	400	12.0	400	1000
Model HO	6	X	6	-200	-2900	-CB -C -T	-1MX	-VIC	8	400	12.0	400	1000
Model HO	8	X	8	-330	-5200	-CB -C -T	-1MX	-VIC	3	250	12.0	350	800
Model HO	10	X	10A	-650	-8000	-CB -C -T	-1MX	-VIC	1.11	150	16.0	N/A	800
Model HO	12	X	12A	-1400	-12000	-CB -C -T	-1MX	-VIC	.69	140	22.0	N/A	800

**FOR COMPLETE MODEL NUMBER INFORMATION, PLEASE SEE REVERSE.**

#### FLOW RANGE (Note 1)

Ranges shown are standard ranges — other ranges are available. Contact Hoffer Flow Controls Applications Group.

#### BEARING TYPES (Note 2)

- CB Hybrid Ceramic, Self-lubricating shielded ball bearings. Ball bearings must be used on CO<sub>2</sub>, may be used on H<sub>2</sub>O and never on H<sub>2</sub>O/Sand or CS.
- C Hard Carbon Composite sleeve bearings. For use on H<sub>2</sub>O only.
- T Tungsten Carbide sleeve bearings. Tungsten Carbide must be used on H<sub>2</sub>O/Sand and CS, may be used on H<sub>2</sub>O, and never used on CO<sub>2</sub>.

#### PICKUP COILS (Note 3)

- 1M One Magnetic Pickup Coil.
- 2M Two Magnetic Coils.
- 1MC3PA One RF Coil.
- 2MC3PA Two RF Coils.
- 1MC2PAHT One High Temp. 6" Pigtail RF coil.
- 2MC2PAHT Two High Temp. 6" Pigtail RF coils.
- 1HTM High Temp. Magnetic Coil (+450 to +850°F).
- 2HTM Two High Temp. Magnetic Coils.
- 1ISM Intrinsically Safe Mag Coil.
- 2ISM Two Intrinsically Safe Mag Coils.
- (RP\_) Redi-Pulse Coil (See Redi-Pulse Technical Data Sheet RP-XXX).
- ( ) Intrinsically Safe Redi-Pulse Coil (See I.S. Redi-Pulse Technical Data Sheet IRP-XXX).
- (P) Pigtail or Flying Leads, Add-P and the Length of leads after any coil except the high temp. coils.

Please Note: Flowmeter service life is reduced when flows contain particulate.

# GENERAL SPECIFICATIONS

Linearity:	±0.5% of reading (±0.25% typical) over tabulated linear flow range.	Pressure Drop Characteristics:	Request graphical data.
Repeatability:	±0.1% over tabulated useable range.	Overrange:	150% of maximum flow (intermittently).
Temperature Range:	-450°F to +450°F (Standard).	Construction:	All stainless steel.

Flowmeters are calibrated and supplied with "K" Factor Tag.

\*Victaulic is a registered trademark of Victaulic

## GROOVED TURBINE FLOWMETER MODEL NUMBERING SYSTEM

MODEL HO (A) X (B) - (C) - (D) - (E) - (F/G/H) - (I) - (J)

<b>A. End Fitting Size</b>										
<b>B. Flowmeter Size</b>										
<b>C. Minimum Operating Flow</b>										
<b>D. Maximum Operating Flow</b>										
<b>E. Bearing Type</b>										
(CB)	Self-Lubricating, Ceramic Hybrid Ball Bearing									
(C)	Hard Carbon Composite Sleeve Bearing									
(T)	Tungsten Carbide Sleeve Bearing									
<b>F. Pickup Coils</b>										
(1M)	One Magnetic Coil									
(2M)	Two Magnetic Coils									
(1MC3PA)	One RF Coil Two RF Coils									
(2MC3PA)	One High Temp 6" Pigtail RF coil									
(1MC2PAHT)	Two High Temp 6" Pigtail RF coils									
(2MC2PAHT)	High Temperature Magnetic Coil (+450 to +850°F)									
(1HTM)	Two High Temperature Magnetic Coils									
(2HTM)	Intrinsically Safe Mag Coil									
(1ISM)	Two Intrinsically Safe Mag Coils									
(2ISM)	Redi-Pulse Coil (See Redi-Pulse Technical Data Sheet RP-XXX)									
_(RP_)	Intrinsically Safe Redi-Pulse Coil (See I.S. Redi-Pulse Technical Data Sheet IRP-XXX)									
_( )	Pigtail or Flying Leads, Add-P and the Length of leads after any coil except the high temperature coils.									
(P)										
<b>G. Coil Spacing, Mechanical Degrees Apart</b>										
( )	Factory Assigned. Spacing required when meter has two pickup coils.									
<b>H. Explosion-Proof Coil Enclosure (Rated Class I, Groups C &amp; D)</b>										
(X)	1" MNPT riser, welded to body. Required for all types of enclosures.									
(X3/0)	1" riser with enclosure and without signal conditioner.									
(X3H/0)	1" riser with enclosure and dome cover for Style 1 signal conditioner.									
(X3B/0)	Same as (X3/0) with BASEEFA, FM and CENELEC-EEExd approvals.									
(X4H/0)	1" riser with dome cover for ACC22 and ACC96.									
(3B/0)	1" riser with dome cover for Style 1 signal conditioners to meet Group B.									
(4/0)	1" riser with flat cover for Style 2 signal conditioners to meet Groups C & D.									
(4B/0)	1" riser with dome cover for Style 2 signal conditioners to meet Group B.									
(X8S)	Add 8S after X riser for a 8" long S/S riser for hot and cold media applications.									
<b>I. End Fitting Types</b>										
(VIC)	Grooved End Fittings									
<b>J. Special Features</b>										
(CE)	CE Mark - Required for Europe									
(PED-CE)	PED Mark- Required for Europe									
(SP)	Any special features that are not covered in the model number, use -SP and a written description.									



The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specification 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.



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