

# TURBINE FLOWMETERS BY HOFFER

The Turbine Flowmeter Company

## Wing Nut High Pressure Turbine Flowmeters For Liquid Service

Product Bulletin HO-WF-107B

### TECHNICAL DATA SHEET

#### Wing Nut High Pressure (15,000 PSI) Turbine Flowmeters for Liquid Service

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



| Model Number                                      |   |   |    |                                                 |               |                                 |                                                                            |                                 |                     | Technical Data                         |                               |                    |
|---------------------------------------------------|---|---|----|-------------------------------------------------|---------------|---------------------------------|----------------------------------------------------------------------------|---------------------------------|---------------------|----------------------------------------|-------------------------------|--------------------|
| Flowmeter Size (Inches)<br>Wing Nut Size (Inches) |   |   |    | (Refer Note 1)<br>Linear Flow Range<br>(US GPM) |               | (Refer Note 2)<br>Bearing Types | (Refer Note 3 for<br>more options)<br><br>Standard Magnetic<br>Pickup Coil | Wing Nut<br>Type End<br>Fitting | Service<br>Types    | Nominal<br>Pulses/Gallon<br>'K' Factor | Nominal<br>Max. Freq.<br>(Hz) | Length<br>(inches) |
|                                                   |   |   |    | Min.                                            | Max.          |                                 |                                                                            |                                 |                     |                                        |                               |                    |
| Model HO                                          | 2 | X | 1  | -4<br>-8.4                                      | -60<br>-84    | -CB<br>-T                       | -1MX                                                                       | -1502                           | -H2O<br>-CO2<br>-CS | 670<br>650                             | 670<br>910                    | 12                 |
| Model HO                                          | 2 | X | 1½ | -5<br>-8                                        | -175<br>-130  | -CB<br>-T                       | -1MX                                                                       | -1502                           | -H2O<br>-CO2<br>-CS | 240<br>240                             | 700<br>520                    | 12                 |
| Model HO                                          | 2 | X | 2  | -42<br>-65                                      | -420<br>-650  | -CB<br>-T                       | -1MX                                                                       | -1502                           | -H2O<br>-CO2<br>-CS | 65<br>50                               | 455<br>540                    | 12                 |
| Model HO                                          | 3 | X | 3  | -84<br>-105                                     | -840<br>-1050 | -CB<br>-T                       | -1MX                                                                       | -1502                           | -H2O<br>-CO2<br>-CS | 55<br>50                               | 170<br>875                    | 11.38              |

#### FLOW RANGE (Note 1)

Ranges are standard ranges — other ranges are available. Contact Hoffer Flow Controls Engineering.

#### BEARING TYPE (Note 2)

(—CB) Hybrid ceramic, self-lubricating shielded ball bearings can be used on CO2 and H2O and never on Cement/Sand Slurry. Specify service when ordering.

(—T) Tungsten Carbide sleeve bearings can be used on H2O and CS and never on Liquid CO2.

#### PICKUP COILS (Note 3)

##### Optional

(—1MX) One magnetic pickup coil.

(—2MX180) Two magnetic pickup coils @ 180°.

(—ISMX) Intrinsically Safe Magnetic Coil.

(—(RPM\_ \_)) Redi-Pulse magnetic pickup coil providing a user specified conditioned pulse output. See Redi-Pulse Technical Data Sheet for available options.

(—(DMX\_ \_)) Intrinsically Safe Redi-Pulse magnetic pickup coil. See Intrinsically Safe Redi-Pulse Technical Data Sheet for available options.

(—3/0) Enclosure in place of the standard carrying handle.

#### Special Features (add at end of Model No.)

(—CE) CE mark required for Europe.

(—PED-CE) PED mark required for Europe.

FLOWMETERS ARE CALIBRATED AND SUPPLIED WITH 'K' FACTOR TAG.

\*FLOWMETER LIFE IS LIMITED IN CEMENT/SAND SLURRY. CUSTOMER MUST SPECIFY MAXIMUM PARTICULATE SIZE ON CEMENT/SAND SLURRY APPLICATIONS.

## GENERAL SPECIFICATIONS:

|                           |                                                                                                           |
|---------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Linearity:</b>         | <b>± 0.5% of reading ( ± 0.25% typical) over tabulated linear flow range.</b>                             |
| <b>Repeatability:</b>     | <b>± 0.1% over tabulated useable range.</b>                                                               |
| <b>Temperature Range:</b> | <b>-450° to + 450° F (Standard).</b>                                                                      |
| <b>Pressure Drop</b>      |                                                                                                           |
| <b>Characteristics:</b>   | <b>Request graphical data.</b>                                                                            |
| <b>Overrange:</b>         | <b>150% of maximum flow (intermittently).</b>                                                             |
| <b>Construction:</b>      | <b>Housing - 4130 high chrome alloy steel.<br/>Internals - All stainless steel (except "T" bearings).</b> |

| <b>Wing Nut Calibrated Spare Internal Kits</b> |      |                                                 |               |                                |              |                     |
|------------------------------------------------|------|-------------------------------------------------|---------------|--------------------------------|--------------|---------------------|
| Flowmeter Size (Inches)                        |      | (Refer Note 1)<br>Linear Flow Range<br>(US GPM) |               | (Refer Note 2)<br>Bearing Type |              | Service Types       |
|                                                |      | Min.                                            | Max.          |                                |              |                     |
| Part Number Kit (Note 5)                       | HO1  | -4<br>-8.4                                      | -60<br>-84    | -CB<br>-T                      | -internals-W | -H2O<br>-CO2<br>-CS |
| Part Number Kit                                | HO1½ | -5<br>-8                                        | -175<br>-130  | -CB<br>-T                      | -internals-W | -H2O<br>-CO2<br>-CS |
| Part Number Kit (Note 6)                       | HO2  | -42<br>-65                                      | -420<br>-650  | -CB<br>-T                      | -internals-W | -H2O<br>-CO2<br>-CS |
| Part Number Kit (Note 7)                       | HO3  | -84<br>-105                                     | -840<br>-1050 | -CB<br>-T                      | -internals-W | -H2O<br>-CO2<br>-CS |

**Note 5:** Kit 1 internals for Model HO 2 X 1.  
**Note 6:** Retainer Ring RR181 supplied with 2" kit.  
**Note 7:** Retainer Ring RR262 supplied with 3" kit.  
**Note:** Internal Kits and rotors are calibrated and supplied with 'K' factor.


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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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