



## GFT Turbine Flowmeters

The GFT range of Turbine Flowmeters are suitable for the measurement of dry gases ( inert and flammable ) and are designed to operate at line pressures down to 15 mbar .

They comprise of one cartridge assembly, fitted inside a stainless steel body ( locked with an internal circlip ) , which has a magnetic pick up fitted and come in a range of threaded , flanged or wafer ( designed for between flange installations ) styles .

The Rotor ( fitted with low inertia , precision bearings ) is turned by the kinetic energy of the flowing gas at an angular velocity , which in the linear range of the Flowmeter is proportional to the mean axial velocity of the gas .

The Rotor blades sweep out the full bore of the meter except for a small tip clearance space . As the blade tips pass the magnetic pick up they initiate a pulse . Flow rate is determined by the frequency of the pulses and Totalised Flow is obtained by summing the pulses .

“ Fluidwell “ Totalisers , which sum the pulses automatically and display Flow Rate and Total Flow instantly on the readout can be mounted on the Turbine or fitted remotely .

### GENERAL SPECIFICATIONS

#### Materials

Body : 316 Stainless Steel .  
Rotor Support : 316 Stainless Steel .  
Ball Race Bearings : 440C Stainless Steel .  
Rotor : ANC1A Stainless Steel .  
Rotor Shaft : 316 Stainless Steel .



#### Performance

Linearity : + / - 2.0 % ( better than 0.5 % when used with “ 101 ” Totaliser ) .  
Repeatability : + / - 0.2 % .  
Temperature : - 30 °C to + 120 °C .  
Pressure Drop : 12 mbar at maximum quoted Flow rate ( based on test pressure of 1 bar )

#### Style

BSP	: BSP Male Threaded .	NPT	: NPT Male Threaded .
FL1	: ANSI 150 Flanged .	FL2	: ANSI 300 Flanged .
FL3	: BS 4504 ( DIN ) PN16 .	FL4	: BS 4504 ( DIN ) PN25 .
WAF	: Wafer		

#### Option

IS : Intrinsically Safe Pick Up



**FL1 ( with “ Fluidwell “ Totaliser**

GFT Turbines fitted with the intrinsically safe pick up ( IS option ) are suitable for Hazardous Installations ( Eex ia IIC T4 ) .

**BSP & NPT Style                      Maximum Pressure : 250 Bar**

Style Size	Connection	Flow Range ( m <sup>3</sup> / h )	Length ( mm )
½ "	¾ " BSP or NPT	0.5 - 7	70
5/8 "	¾ " BSP or NPT	1 – 14	76
¾ "	¾ " BSP or NPT	2.5 – 35	76
1 "	1" BSP or NPT	5 – 70	88
1 ½ "	1 ½ " BSP or NPT	10 – 140	114
2 "	2 "BSP or NPT	18 - 252	133

**FL1 Style            Maximum Pressure : 19 Bar      FL2 Style            Maximum Pressure : 29 Bar**  
**FL3 Style            Maximum Pressure : 16 Bar      FL4 Style            Maximum Pressure : 25 Bar**

Style Size	Connection	Flow Range ( m <sup>3</sup> / h )	Length ( mm )
¾ "	¾ " FL1 , FL2 , FL3 or FL4	2.5 - 35	140
1 "	1 " FL1 , FL2 , FL3 or FL4	5 – 70	152
1 ½ "	1 ½ " FL1 , FL2 , FL3 or FL4	10 - 140	165
2 "	2 " FL1 , FL2 , FL3 or FL4	18 - 252	165
3 "	3 " FL1 , FL2 , FL3 or FL4	35 - 490	165
4 "	4 " FL1 , FL2 , FL3 or FL4	70 – 980	210
6 "	6 " FL1 , FL2 , FL3 or FL4	140 - 1960	240

**WAF Style                                      Maximum Pressure : 100 Bar**

Style Size	Connection	Flow Range ( m <sup>3</sup> / h )	Length ( mm )
¾ "	43 mm R.F. Diameter	2.5 - 35	50
1 "	52 mm R.F. Diameter	5 – 70	50
1 ½ "	73 mm R.F. Diameter	10 - 140	64
2 "	92 mm R.F. Diameter	18 - 252	76
3 "	127 mm R.F. Diameter	35 - 490	100

**Order code : GFT / Style / Size / ( Option )**

e.g. : GFT / NPT / 3/4 " / IS

Internals Kit 's ( calibrated ) can be supplied , which are very easy to retrofit in to an existing Body on location , ( eliminating the need to return the Turbine ) .

**GFT Internals Kit Order code : GFT / Style / Size**

e.g. : GFT / FL1 / 3

**GFT Turbines can be “ custom made to your requirements “**