

# Mark II and Mark IIE Turbo-Meters

The Market Leader in Turbine Meter Technology

Mark II 4" – 12"  
Turbo-Meters

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Mark IIE 2" & 3"  
Turbo-Meters

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# Mark II Turbo-Meters. The Market Leader!

## Selected Mark II Turbo-Meter Features and Benefits:

| Features  | Benefits  |
|---|---|
| 1 30-degree & 45-degree rotor blade angles available                | Effectively provides two separate performance envelopes per meter size.<br>(See capacity tables on pages 10-19) |
| 2 One or two pulse outputs via blade tip sensors                    | High resolution and redundant signals for reliable operation. Easier maintenance and longer life.               |
| 3 Top-entry design  | Access to the measuring module and all moving parts without removing the meter body from the line.              |
| 4 The measuring element is a calibrated, interchangeable module     | Repair/upgrade/calibrate modules without removing the meter body from the line.                                 |
| 5 Nose cone with integral straightening vanes                       | Additional flow conditioning when the upstream configuration is less than ideal.                                |
| 6 Robust rotor shaft ball bearings                                  | Durability and superior accuracy over a wide flow range.  |
| 7 Optional automatic oiler  | Trouble-free lubrication, without a site visit.   |
| 8 Mark II bodies can be fitted with Auto-Adjust Turbo-Meter modules | Cost-effective upgrade  |
| 9 New 2" & 3" Mark IIE (end entry) models                           | Extend the superior accuracy of turbine meter technology to lower flow ranges.                                  |

# Mark II

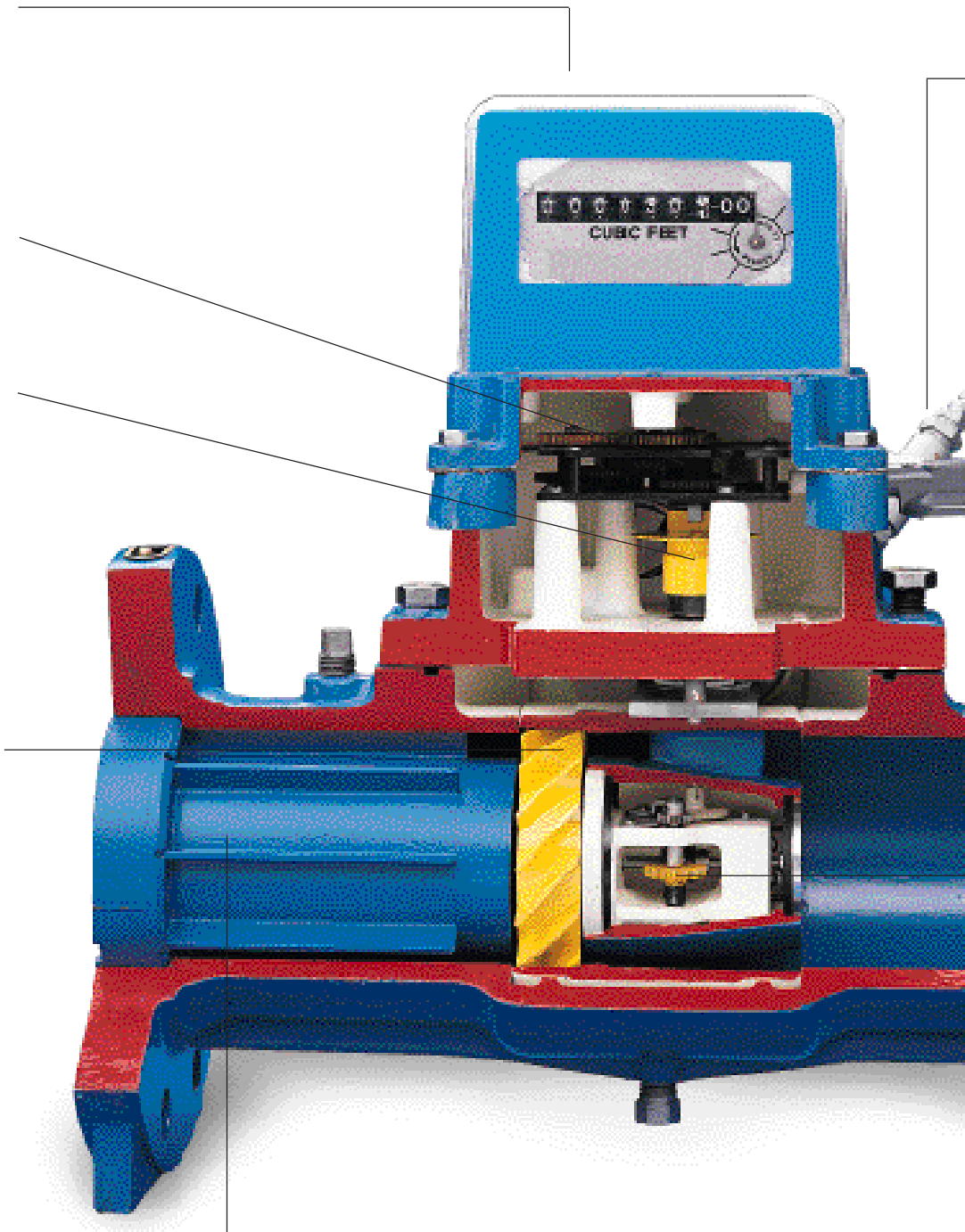


# Mark II Turbo-Meters, Design Features

- 1 Any of a wide variety of mechanical, electromechanical or electronic readout devices can be direct-mounted to the meter index plate.
- 2 Calibration of meter output shaft rotations to precise engineering units is effected by change gears that are readily accessible at the top of the intermediate gear assembly.
- 3 A magnetic coupling transmits rotor rotations from the pressurized to the non-pressurized area.
- 4 A calibrated, top-entry measurement module allows for quick removal and interchangeability among other Mark II and Auto-Adjust Turbo-Meter bodies.
- 5 Improved rotor design extracts the maximum kinetic energy from the flowing gas. Dynamic balancing of rotor and the hub assembly assures minimum drag at all flow rates.



- 6 Optimized nose cone with integral straightening vanes minimizes the need for long inlet piping runs.



# Mark II Turbo-Meters. The Market Leader.

## Mark II Product Improvements

- 7 An external fitting permits rotor shaft bearing lubrication and flushing while the meter is operating.



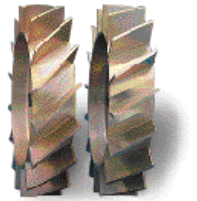
Automatic Oiler also available.

- 8 Optional slot-sensors or blade tip sensors provide high-frequency pulse outputs for electronic measuring systems.

- 9 Advanced meter design achieves thrust load balancing for rotor shaft bearings at all operating conditions.

- 10 Gears and other moving parts are housed in a sealed chamber protected from line contaminants. Pressure equalization is achieved via screened orifices located on the upstream and downstream sides of the chamber.

**30-Degree Rotor Blade Angle!** In addition to the standard 45-degree rotor, the Mark II now offers a 30-degree rotor that delivers capacity increases of up to 64%. This reasonably priced option allows the customer increased flexibility and the ability to upgrade a 45-degree model to a 30-degree version with a simple module changeout. Meter maintenance, body size, and installation methods do not change, regardless of the chosen blade angle.



**Blade Tip Sensors!** Mark II customers now have a choice between the traditional slot sensor design and a new blade tip sensor. Blade tip technology provides 2 to 4 times higher pulse resolution than slot sensors, as well as a redundant output. Its sturdy design is not sensitive to pressure changes or contaminants, and field maintenance is easier since the module doesn't need to be disassembled for blade tip sensor repair.



**Improved bearings!** The heavy-duty bearings that have been standard on our Auto-Adjust Turbo-Meters are now standard on Mark IIs. These robust bearings are designed for a minimum of 10 years ABEC L10 bearing life at maximum flow capacity and pressure, allowing for improved long-term accuracy.



**Automatic Oiler!** Users can now avoid regular maintenance trips to their meter sites by using the meter-mounted Automatic Oiler.



**NexCorr Volume Corrector!** A tailor-made volume corrector that allows you to purchase only the features you need, depending on the simplicity or complexity of your application.



# Mark II Meter Mounted Indexes & Instrumentation

The Mark II and Mark IIE Turbo-Meters are volumetric devices that measure volume at line conditions. Meter indexes are available to provide read-outs in desired units at line conditions. The NexCorr volume corrector can also be matched with all Turbo-Meters to display corrected volume and other key operational information locally as well as remotely via pulse outputs and serial communications. These accessories mount directly on the meter index plate without special adapters and are provided with weather proof cases.

## Indexes

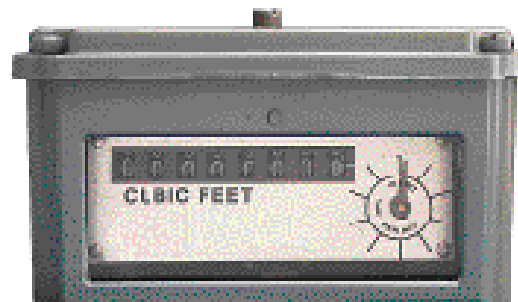
Circular reading (VCR) and direct reading (VDR) indexes are housed in clear polycarbonate covers. The VDR index is also available in an aluminum box with a pulse output to transmit totalized volume to a remote counter or instrument.



*Direct Reading (VDR) Index*



*Circular Reading (VCR) Index*



*Aluminum Box Direct Reading (VDR) Index*

## 2" T-4.5 MARK IIE TURBO-METER 45° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE | MAXIMUM FLOWRATE | MINIMUM FLOWRATE | MINIMUM FLOWRATE | MIN DIAL RATE | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS INCHES W.C. |
|-----------------------|----------------|------------------|------------------|------------------|------------------|---------------|--------------------|--------------------------------|
| S=(Fpv) <sup>2</sup>  | PSIG           | SCFH             | MSCFD            | SCFH             | MSCFD            | ACFH          |                    |                                |
| 1.0000                | 0.25           | 4,500            | 110              | 450              | 11               | 450           | 10                 | 2.2                            |
| 1.0008                | 5              | 6,000            | 140              | 520              | 12               | 390           | 12                 | 2.9                            |
| 1.0016                | 10             | 7,000            | 170              | 580              | 14               | 350           | 12                 | 4.0                            |
| 1.0024                | 15             | 9,000            | 220              | 640              | 15               | 320           | 14                 | 4.0                            |
| 1.0032                | 20             | 11,000           | 260              | 690              | 17               | 290           | 16                 | 5.0                            |
| 1.0040                | 25             | 12,000           | 290              | 740              | 18               | 270           | 16                 | 6.0                            |
| 1.0080                | 50             | 20,000           | 480              | 950              | 23               | 210           | 21                 | 10                             |
| 1.0121                | 75             | 28,000           | 670              | 1,120            | 27               | 180           | 25                 | 14                             |
| 1.0162                | 100            | 36,000           | 860              | 1,260            | 30               | 160           | 29                 | 17                             |
| 1.0203                | 125            | 43,000           | 1,030            | 1,400            | 34               | 140           | 31                 | 21                             |
| 1.0330                | 200            | 68,000           | 1,630            | 1,750            | 42               | 120           | 39                 | 33                             |
| 1.0502                | 300            | 101,000          | 2,420            | 2,130            | 51               | 100           | 47                 | 49                             |
| 1.0680                | 400            | 135,000          | 3,240            | 2,470            | 59               | 80            | 55                 | 66                             |
| 1.0863                | 500            | 171,000          | 4,100            | 2,770            | 66               | 70            | 62                 | 83                             |
| 1.1050                | 600            | 207,000          | 4,970            | 3,060            | 73               | 70            | 68                 | 101                            |
| 1.1241                | 700            | 245,000          | 5,880            | 3,320            | 80               | 60            | 74                 | 120                            |
| 1.1435                | 800            | 285,000          | 6,840            | 3,580            | 86               | 60            | 80                 | 139                            |
| 1.1630                | 900            | 325,000          | 7,800            | 3,820            | 92               | 50            | 85                 | 159                            |
| 1.1826                | 1,000          | 367,000          | 8,810            | 4,060            | 97               | 50            | 90                 | 179                            |
| 1.2021                | 1,100          | 409,000          | 9,820            | 4,290            | 103              | 50            | 95                 | 200                            |
| 1.2212                | 1,200          | 453,000          | 10,870           | 4,520            | 108              | 40            | 100                | 222                            |
| 1.2397                | 1,300          | 498,000          | 11,950           | 4,730            | 114              | 40            | 105                | 243                            |
| 1.2641                | 1,440          | 562,000          | 13,490           | 5,030            | 121              | 40            | 112                | 275                            |

2" Model T-4.5 meters of standard construction register 10 cubic feet per revolution of the mechanical output shaft. Tables are based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA. Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60° F and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
**Note:** Maximum flow rate (dial rate) at flowing conditions is equal to 4,500 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/- 1% measurement accuracy for all pressures and flowrates shown.

## 3" T-8.8 MARK IIE TURBO-METER 45° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE | MAXIMUM FLOWRATE | MINIMUM FLOWRATE | MINIMUM FLOWRATE | MIN DIAL RATE | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS INCHES W.C. |
|-----------------------|----------------|------------------|------------------|------------------|------------------|---------------|--------------------|--------------------------------|
| S=(Fpv) <sup>2</sup>  | PSIG           | SCFH             | MSCFD            | SCFH             | MSCFD            | ACFH          |                    |                                |
| 1.0000                | 0.25           | 8,800            | 210              | 600              | 14               | 600           | 15                 | 3.0                            |
| 1.0008                | 5              | 12,000           | 290              | 690              | 17               | 520           | 17                 | 4.0                            |
| 1.0016                | 10             | 15,000           | 360              | 770              | 18               | 470           | 19                 | 5.0                            |
| 1.0024                | 15             | 18,000           | 430              | 850              | 20               | 420           | 21                 | 6.0                            |
| 1.0032                | 20             | 21,000           | 500              | 920              | 22               | 390           | 23                 | 7.0                            |
| 1.0040                | 25             | 24,000           | 580              | 980              | 24               | 370           | 24                 | 8.0                            |
| 1.0080                | 50             | 39,000           | 940              | 1,260            | 30               | 290           | 31                 | 13                             |
| 1.0121                | 75             | 54,000           | 1,300            | 1,490            | 36               | 240           | 36                 | 18                             |
| 1.0162                | 100            | 70,000           | 1,680            | 1,690            | 41               | 210           | 41                 | 24                             |
| 1.0203                | 125            | 85,000           | 2,040            | 1,860            | 45               | 190           | 46                 | 29                             |
| 1.0330                | 200            | 133,000          | 3,190            | 2,330            | 56               | 150           | 57                 | 45                             |
| 1.0502                | 300            | 198,000          | 4,750            | 2,840            | 68               | 130           | 70                 | 67                             |
| 1.0680                | 400            | 265,000          | 6,360            | 3,290            | 79               | 110           | 81                 | 90                             |
| 1.0863                | 500            | 335,000          | 8,040            | 3,700            | 89               | 100           | 91                 | 114                            |
| 1.1050                | 600            | 407,000          | 9,770            | 4,070            | 98               | 90            | 100                | 138                            |
| 1.1241                | 700            | 481,000          | 11,540           | 4,430            | 106              | 80            | 109                | 164                            |
| 1.1435                | 800            | 558,000          | 13,390           | 4,770            | 114              | 80            | 117                | 190                            |
| 1.1630                | 900            | 637,000          | 15,290           | 5,100            | 122              | 70            | 125                | 217                            |
| 1.1826                | 1,000          | 719,000          | 17,260           | 5,410            | 130              | 70            | 133                | 244                            |
| 1.2021                | 1,100          | 803,000          | 19,270           | 5,720            | 137              | 60            | 140                | 273                            |
| 1.2212                | 1,200          | 889,000          | 21,340           | 6,020            | 144              | 60            | 148                | 302                            |
| 1.2397                | 1,300          | 977,000          | 23,450           | 6,310            | 151              | 60            | 155                | 332                            |
| 1.2641                | 1,440          | 1,102,000        | 26,450           | 6,700            | 161              | 50            | 164                | 374                            |

3" Model T-8.8 meters of standard construction register 100 cubic feet per revolution of the mechanical output shaft. Tables are based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA. Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60° F and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
**Note:** Maximum flow rate (dial rate) at flowing conditions is equal to 8,800 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/- 1% measurement accuracy for all pressures and flowrates shown.

## 50mm (G65) T-4.5 MARK IIE TURBO-METER 45° ROTOR ANGLE (S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/ MIN FLOW RANGE | APPROX. PRESS LOSS |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|---------------------|--------------------|
| $S=(Fpv)^2$           | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                     | kPa                |
| 1.0000                | 1.72           | 130                 | 3,000                | 13                  | 310                  | 13                 | 10                  | 0.5                |
| 1.0008                | 34             | 170                 | 4,000                | 15                  | 350                  | 11                 | 12                  | 0.7                |
| 1.0016                | 69             | 200                 | 5,000                | 16                  | 390                  | 10                 | 12                  | 1.0                |
| 1.0024                | 103            | 250                 | 6,000                | 18                  | 440                  | 9                  | 14                  | 1.0                |
| 1.0032                | 138            | 310                 | 7,000                | 20                  | 470                  | 8                  | 16                  | 1.2                |
| 1.0040                | 172            | 340                 | 8,000                | 21                  | 500                  | 8                  | 16                  | 1.5                |
| 1.0080                | 345            | 570                 | 14,000               | 27                  | 650                  | 6                  | 21                  | 2.5                |
| 1.0121                | 517            | 790                 | 19,000               | 32                  | 760                  | 5                  | 25                  | 3.0                |
| 1.0162                | 689            | 1,020               | 24,000               | 36                  | 860                  | 5                  | 29                  | 4.0                |
| 1.0203                | 862            | 1,220               | 29,000               | 40                  | 950                  | 4                  | 31                  | 5.0                |
| 1.0330                | 1,379          | 1,930               | 46,000               | 50                  | 1,190                | 3                  | 39                  | 8                  |
| 1.0502                | 2,068          | 2,860               | 69,000               | 60                  | 1,450                | 3                  | 47                  | 12                 |
| 1.0680                | 2,758          | 3,820               | 92,000               | 70                  | 1,680                | 2                  | 55                  | 16                 |
| 1.0863                | 3,447          | 4,840               | 116,000              | 78                  | 1,880                | 2                  | 62                  | 21                 |
| 1.1050                | 4,137          | 5,860               | 141,000              | 87                  | 2,080                | 2                  | 68                  | 25                 |
| 1.1241                | 4,826          | 6,940               | 167,000              | 94                  | 2,260                | 2                  | 74                  | 30                 |
| 1.1435                | 5,516          | 8,070               | 194,000              | 101                 | 2,430                | 2                  | 80                  | 35                 |
| 1.1630                | 6,205          | 9,210               | 221,000              | 108                 | 2,600                | 1                  | 85                  | 40                 |
| 1.1826                | 6,895          | 10,400              | 250,000              | 115                 | 2,760                | 1                  | 90                  | 45                 |
| 1.2021                | 7,584          | 11,590              | 278,000              | 122                 | 2,920                | 1                  | 95                  | 50                 |
| 1.2212                | 8,274          | 12,830              | 308,000              | 128                 | 3,070                | 1                  | 100                 | 55                 |
| 1.2397                | 8,963          | 14,110              | 339,000              | 134                 | 3,220                | 1                  | 105                 | 61                 |
| 1.2641                | 9,928          | 15,920              | 382,000              | 142                 | 3,420                | 1                  | 112                 | 68                 |

50mm (2") T-4.5 meters of standard construction register 0.1 m<sup>3</sup> per revolution of the mechanical output shaft.

Table is based on IGU standard reference conditions of Pb=101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa.

Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6° C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).

**Note:** Maximum flow rate (dial rate) at flowing conditions is equal to 250 m<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).

Performance ratings in the above tables are based on +/- 1% measurement accuracy for all pressures and flowrates shown.

## 80mm (G160) T-8.8 MARK IIE TURBO-METER 45° ROTOR ANGLE (S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/ MIN FLOW RANGE | APPROX. PRESS LOSS |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|---------------------|--------------------|
| $S=(Fpv)^2$           | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                     | kPa                |
| 1.0000                | 1.72           | 250                 | 6,000                | 17                  | 410                  | 17                 | 15                  | 0.7                |
| 1.0008                | 34             | 340                 | 8,000                | 20                  | 470                  | 15                 | 17                  | 1.0                |
| 1.0016                | 69             | 420                 | 10,000               | 22                  | 520                  | 13                 | 19                  | 1.2                |
| 1.0024                | 103            | 510                 | 12,000               | 24                  | 580                  | 12                 | 21                  | 1.5                |
| 1.0032                | 138            | 590                 | 14,000               | 26                  | 630                  | 11                 | 23                  | 1.7                |
| 1.0040                | 172            | 680                 | 16,000               | 28                  | 670                  | 10                 | 24                  | 2.0                |
| 1.0080                | 345            | 1,100               | 27,000               | 36                  | 860                  | 8                  | 31                  | 3.2                |
| 1.0121                | 517            | 1,530               | 37,000               | 42                  | 1,010                | 7                  | 36                  | 5.0                |
| 1.0162                | 689            | 1,980               | 48,000               | 48                  | 1,150                | 6                  | 41                  | 6.0                |
| 1.0203                | 862            | 2,410               | 58,000               | 53                  | 1,260                | 5                  | 46                  | 7.0                |
| 1.0330                | 1,379          | 3,770               | 90,000               | 66                  | 1,580                | 4                  | 57                  | 11                 |
| 1.0502                | 2,068          | 5,610               | 135,000              | 80                  | 1,930                | 4                  | 70                  | 17                 |
| 1.0680                | 2,758          | 7,510               | 180,000              | 93                  | 2,240                | 3                  | 81                  | 22                 |
| 1.0863                | 3,447          | 9,490               | 228,000              | 105                 | 2,520                | 3                  | 91                  | 28                 |
| 1.1050                | 4,137          | 11,530              | 277,000              | 115                 | 2,770                | 3                  | 100                 | 34                 |
| 1.1241                | 4,826          | 13,630              | 327,000              | 125                 | 3,010                | 2                  | 109                 | 41                 |
| 1.1435                | 5,516          | 15,810              | 379,000              | 135                 | 3,240                | 2                  | 117                 | 47                 |
| 1.1630                | 6,205          | 18,040              | 433,000              | 144                 | 3,470                | 2                  | 125                 | 54                 |
| 1.1826                | 6,895          | 20,370              | 489,000              | 153                 | 3,680                | 2                  | 133                 | 61                 |
| 1.2021                | 7,584          | 22,750              | 546,000              | 162                 | 3,890                | 2                  | 140                 | 68                 |
| 1.2212                | 8,274          | 25,180              | 605,000              | 171                 | 4,090                | 2                  | 148                 | 75                 |
| 1.2397                | 8,963          | 27,680              | 664,000              | 179                 | 4,290                | 2                  | 155                 | 83                 |
| 1.2641                | 9,928          | 31,220              | 749,000              | 190                 | 4,560                | 1                  | 164                 | 93                 |

80mm (3") T-8.8 meters of standard construction register 1 m<sup>3</sup> per revolution of the mechanical output shaft.

Table is based on IGU standard reference conditions of Pb=101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa.

Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6° C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).

**Note:** Maximum flow rate (dial rate) at flowing conditions is equal to 250 m<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).

Performance ratings in the above tables are based on +/- 1% measurement accuracy for all pressures and flowrates shown.

## 4" T-18 MARK II TURBO-METER 45° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE | MAXIMUM FLOWRATE | MINIMUM FLOWRATE | MINIMUM FLOWRATE | MIN DIAL RATE | MAX/ MIN FLOW RANGE | APPROX. PRESS LOSS INCHES W.C. |
|-----------------------|----------------|------------------|------------------|------------------|------------------|---------------|---------------------|--------------------------------|
| S=(Fpv) <sup>2</sup>  | PSIG           | SCFH             | MSCFD            | SCFH             | MSCFD            | ACFH          |                     | @18000 ACFH                    |
| 1.0000                | 0.25           | 18,000           | 430              | 1,200            | 29               | 1,200         | 15                  | 1.8                            |
| 1.0008                | 5              | 24,000           | 580              | 1,400            | 34               | 1,040         | 17                  | 2.4                            |
| 1.0016                | 10             | 30,000           | 720              | 1,500            | 36               | 930           | 20                  | 3.0                            |
| 1.0024                | 15             | 36,000           | 860              | 1,700            | 41               | 850           | 21                  | 3.6                            |
| 1.0032                | 20             | 42,000           | 1,010            | 1,800            | 43               | 780           | 23                  | 4.2                            |
| 1.0040                | 25             | 48,000           | 1,150            | 2,000            | 48               | 730           | 24                  | 4.8                            |
| 1.0080                | 50             | 79,000           | 1,900            | 2,500            | 60               | 570           | 32                  | 7.9                            |
| 1.0121                | 75             | 111,000          | 2,660            | 3,000            | 72               | 480           | 37                  | 11                             |
| 1.0162                | 100            | 142,000          | 3,410            | 3,400            | 82               | 430           | 42                  | 14                             |
| 1.0203                | 125            | 174,000          | 4,180            | 3,700            | 89               | 390           | 47                  | 17                             |
| 1.0330                | 200            | 271,000          | 6,500            | 4,700            | 113              | 310           | 58                  | 27                             |
| 1.0502                | 300            | 404,000          | 9,700            | 5,700            | 137              | 250           | 71                  | 40                             |
| 1.0680                | 400            | 541,000          | 12,980           | 6,600            | 158              | 220           | 82                  | 54                             |
| 1.0863                | 500            | 683,000          | 16,390           | 7,400            | 178              | 190           | 92                  | 68                             |
| 1.1050                | 600            | 830,000          | 19,920           | 8,100            | 194              | 180           | 102                 | 83                             |
| 1.1241                | 700            | 981,000          | 23,540           | 8,900            | 214              | 160           | 110                 | 98                             |
| 1.1435                | 800            | 1,138,000        | 27,310           | 9,500            | 228              | 150           | 120                 | 114                            |
| 1.1630                | 900            | 1,300,000        | 31,200           | 10,200           | 245              | 140           | 127                 | 130                            |
| 1.1826                | 1,000          | 1,466,000        | 35,180           | 10,800           | 259              | 130           | 136                 | 147                            |
| 1.2021                | 1,100          | 1,637,000        | 39,290           | 11,400           | 274              | 130           | 144                 | 164                            |
| 1.2212                | 1,200          | 1,812,000        | 43,490           | 12,000           | 288              | 120           | 151                 | 181                            |
| 1.2397                | 1,300          | 1,991,000        | 47,780           | 12,600           | 302              | 110           | 158                 | 199                            |
| 1.2641                | 1,440          | 2,247,000        | 53,930           | 13,400           | 322              | 110           | 168                 | 225                            |

4" Model T-18 meters of standard construction register 100 cubic feet per revolution of the mechanical output shaft.  
 Table is based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60°F and 0° CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
 Note: Maximum flow rate (dial rate) at flowing conditions is equal to 18,000 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.

## 4" T-27 MARK II TURBO-METER 30° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE | MAXIMUM FLOWRATE | MINIMUM FLOWRATE | MINIMUM FLOWRATE | MIN DIAL RATE | MAX/ MIN FLOW RANGE | APPROX. PRESS LOSS INCHES W.C. | (1) APPROX. PRESS LOSS INCHES W.C. |
|-----------------------|----------------|------------------|------------------|------------------|------------------|---------------|---------------------|--------------------------------|------------------------------------|
| S=(Fpv) <sup>2</sup>  | PSIG           | SCFH             | MSCFD            | SCFH             | MSCFD            | ACFH          |                     | @27000 ACFH                    | @18000 ACFH                        |
| 1.0000                | 0.25           | 27,000           | 650              | 1,800            | 43               | 1,800         | 15                  | 3.0                            | 1.5                                |
| 1.0008                | 5              | 36,000           | 860              | 2,070            | 50               | 1,560         | 17                  | 4.0                            | 1.9                                |
| 1.0016                | 10             | 45,000           | 1,080            | 2,320            | 56               | 1,400         | 19                  | 5.1                            | 2.4                                |
| 1.0024                | 15             | 54,000           | 1,300            | 2,550            | 61               | 1,270         | 21                  | 6.1                            | 2.9                                |
| 1.0032                | 20             | 63,000           | 1,510            | 2,760            | 66               | 1,170         | 23                  | 7.1                            | 3.4                                |
| 1.0040                | 25             | 73,000           | 1,750            | 2,950            | 71               | 1,100         | 25                  | 8.2                            | 3.9                                |
| 1.0080                | 50             | 119,000          | 2,860            | 3,780            | 91               | 860           | 31                  | 13                             | 6.4                                |
| 1.0121                | 75             | 166,000          | 3,980            | 4,460            | 107              | 730           | 37                  | 19                             | 9.0                                |
| 1.0162                | 100            | 213,000          | 5,110            | 5,060            | 121              | 640           | 42                  | 24                             | 12                                 |
| 1.0203                | 125            | 261,000          | 6,260            | 5,590            | 134              | 580           | 47                  | 29                             | 14                                 |
| 1.0330                | 200            | 406,000          | 9,740            | 6,980            | 168              | 460           | 58                  | 46                             | 22                                 |
| 1.0502                | 300            | 605,000          | 14,520           | 8,520            | 204              | 380           | 71                  | 68                             | 33                                 |
| 1.0680                | 400            | 811,000          | 19,460           | 9,870            | 237              | 330           | 82                  | 91                             | 44                                 |
| 1.0863                | 500            | 1,024,000        | 24,580           | 11,090           | 266              | 290           | 92                  | 115                            | 55                                 |
| 1.1050                | 600            | 1,245,000        | 29,880           | 12,220           | 293              | 270           | 102                 | 140                            | 67                                 |
| 1.1241                | 700            | 1,472,000        | 35,330           | 13,290           | 319              | 240           | 111                 | 166                            | 80                                 |
| 1.1435                | 800            | 1,707,000        | 40,970           | 14,310           | 343              | 230           | 119                 | 192                            | 92                                 |
| 1.1630                | 900            | 1,949,000        | 46,780           | 15,290           | 367              | 210           | 127                 | 219                            | 105                                |
| 1.1826                | 1,000          | 2,199,000        | 52,780           | 16,240           | 390              | 200           | 135                 | 248                            | 119                                |
| 1.2021                | 1,100          | 2,456,000        | 58,940           | 17,170           | 412              | 190           | 143                 | 276                            | 133                                |
| 1.2212                | 1,200          | 2,719,000        | 65,260           | 18,060           | 433              | 180           | 151                 | 306                            | 147                                |
| 1.2397                | 1,300          | 2,987,000        | 71,690           | 18,930           | 454              | 170           | 158                 | 336                            | 162                                |
| 1.2641                | 1,440          | 3,370,000        | 80,880           | 20,110           | 483              | 160           | 168                 | 379                            | 182                                |

4" Model T-27 meters of standard construction register 100 cubic feet per revolution of the mechanical output shaft.  
 Table is based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60°F and 0° CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
 Note: Maximum flow rate (dial rate) at flowing conditions is equal to 27,000 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.  
 (1) There is approximately 20% less pressure loss when compared to our T-18 Turbo-Meter at 18,000 ACFH.

# 100mm (G250) T-18 MARK II TURBO-METER 45° ROTOR ANGLE (S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/ MIN FLOW RANGE | APPROX. PRESS LOSS @510 Nm <sup>3</sup> /hr kPa |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|---------------------|---|
| S=(Fpv) <sup>2</sup>  | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                     |   |
| 1.0000                | 1.72           | 510                 | 12,000               | 34                  | 820                  | 34                 | 15                  | 0.4   |
| 1.0008                | 34             | 680                 | 16,000               | 40                  | 950                  | 29                 | 17                  | 0.6   |
| 1.0016                | 69             | 850                 | 20,000               | 42                  | 1,020                | 26                 | 19                  | 0.7   |
| 1.0024                | 103            | 1,020               | 24,000               | 48                  | 1,160                | 24                 | 21                  | 0.9   |
| 1.0032                | 138            | 1,190               | 29,000               | 51                  | 1,220                | 22                 | 23                  | 1.1   |
| 1.0040                | 172            | 1,360               | 33,000               | 57                  | 1,360                | 21                 | 24                  | 1.2   |
| 1.0080                | 345            | 2,240               | 54,000               | 71                  | 1,700                | 16                 | 32                  | 2.0   |
| 1.0121                | 517            | 3,140               | 75,000               | 85                  | 2,040                | 14                 | 37                  | 2.7   |
| 1.0162                | 689            | 4,020               | 97,000               | 96                  | 2,310                | 12                 | 42                  | 3.5   |
| 1.0203                | 862            | 4,930               | 118,000              | 105                 | 2,520                | 11                 | 47                  | 4.2   |
| 1.0330                | 1,379          | 7,680               | 184,000              | 133                 | 3,200                | 9                  | 58                  | 6.7   |
| 1.0502                | 2,068          | 11,440              | 275,000              | 161                 | 3,880                | 7                  | 71                  | 10  |
| 1.0680                | 2,758          | 15,330              | 368,000              | 187                 | 4,490                | 6                  | 82                  | 13  |
| 1.0863                | 3,447          | 19,350              | 464,000              | 210                 | 5,030                | 5                  | 92                  | 17  |
| 1.1050                | 4,137          | 23,510              | 564,000              | 229                 | 5,510                | 5                  | 102                 | 21  |
| 1.1241                | 4,826          | 27,790              | 667,000              | 252                 | 6,050                | 5                  | 110                 | 24  |
| 1.1435                | 5,516          | 32,240              | 774,000              | 269                 | 6,460                | 4                  | 120                 | 28  |
| 1.1630                | 6,205          | 36,830              | 884,000              | 289                 | 6,930                | 4                  | 127                 | 32  |
| 1.1826                | 6,895          | 41,530              | 997,000              | 306                 | 7,340                | 4                  | 136                 | 37  |
| 1.2021                | 7,584          | 46,370              | 1,113,000            | 323                 | 7,750                | 4                  | 144                 | 41  |
| 1.2212                | 8,274          | 51,330              | 1,232,000            | 340                 | 8,160                | 3                  | 151                 | 45  |
| 1.2397                | 8,963          | 56,400              | 1,354,000            | 357                 | 8,570                | 3                  | 158                 | 50  |
| 1.2641                | 9,928          | 63,650              | 1,528,000            | 380                 | 9,110                | 3                  | 168                 | 56  |

100mm (4") T-18 meters of standard construction register 1 m<sup>3</sup> per revolution of the mechanical output shaft.  
 Table is based on base conditions of 101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6° C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
 Note: Maximum flow rate (dial rate) at flowing conditions is equal to 510 Nm<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.

# 100mm (G400) T-27 MARK II TURBO-METER 30° ROTOR ANGLE (S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/ MIN FLOW RANGE | APPROX. PRESS LOSS @760 Nm <sup>3</sup> /hr kPa | (1) APPROX. PRESS LOSS @510 Nm <sup>3</sup> /hr kPa |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|---------------------|---|---|
| S=(Fpv) <sup>2</sup>  | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                     |   |   |
| 1.0000                | 1.72           | 760                 | 18,000               | 51                  | 1,220                | 51                 | 15                  | 0.76  | 0.36  |
| 1.0008                | 34             | 1,020               | 24,000               | 59                  | 1,410                | 44                 | 17                  | 1.0   | 0.48  |
| 1.0016                | 69             | 1,270               | 31,000               | 66                  | 1,580                | 40                 | 19                  | 1.3   | 0.60  |
| 1.0024                | 103            | 1,530               | 37,000               | 72                  | 1,730                | 36                 | 21                  | 1.5   | 0.73  |
| 1.0032                | 138            | 1,780               | 43,000               | 78                  | 1,880                | 33                 | 23                  | 1.8   | 0.85  |
| 1.0040                | 172            | 2,070               | 50,000               | 84                  | 2,010                | 31                 | 25                  | 2.0   | 1.0   |
| 1.0080                | 345            | 3,370               | 81,000               | 107                 | 2,570                | 24                 | 31                  | 3.3   | 1.6   |
| 1.0121                | 517            | 4,700               | 113,000              | 126                 | 3,030                | 21                 | 37                  | 5.0   | 2.2   |
| 1.0162                | 689            | 6,030               | 145,000              | 143                 | 3,440                | 18                 | 42                  | 6.0   | 2.9   |
| 1.0203                | 862            | 7,390               | 177,000              | 158                 | 3,800                | 16                 | 47                  | 7.0   | 3.5   |
| 1.0330                | 1,379          | 11,500              | 276,000              | 198                 | 4,750                | 13                 | 58                  | 11  | 5.5   |
| 1.0502                | 2,068          | 17,140              | 411,000              | 241                 | 5,790                | 11                 | 71                  | 17  | 8.1   |
| 1.0680                | 2,758          | 22,970              | 551,000              | 280                 | 6,710                | 9                  | 82                  | 23  | 11  |
| 1.0863                | 3,447          | 29,010              | 696,000              | 314                 | 7,540                | 8                  | 92                  | 29  | 14  |
| 1.1050                | 4,137          | 35,270              | 846,000              | 346                 | 8,310                | 8                  | 102                 | 35  | 17  |
| 1.1241                | 4,826          | 41,700              | 1,001,000            | 376                 | 9,040                | 7                  | 111                 | 41  | 20  |
| 1.1435                | 5,516          | 48,360              | 1,161,000            | 405                 | 9,730                | 7                  | 119                 | 48  | 23  |
| 1.1630                | 6,205          | 55,210              | 1,325,000            | 433                 | 10,400               | 6                  | 127                 | 55  | 26  |
| 1.1826                | 6,895          | 62,290              | 1,495,000            | 460                 | 11,040               | 6                  | 135                 | 62  | 30  |
| 1.2021                | 7,584          | 69,570              | 1,670,000            | 486                 | 11,670               | 5                  | 143                 | 69  | 33  |
| 1.2212                | 8,274          | 77,020              | 1,849,000            | 512                 | 12,280               | 5                  | 151                 | 76  | 37  |
| 1.2397                | 8,963          | 84,620              | 2,031,000            | 536                 | 12,870               | 5                  | 158                 | 84  | 40  |
| 1.2641                | 9,928          | 95,470              | 2,291,000            | 570                 | 13,670               | 5                  | 168                 | 94  | 45  |

100mm (4") T-27 meters of standard construction register 1 m<sup>3</sup> per revolution of the mechanical output shaft  
 Table is based on base conditions of 101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6° C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
 Note: Maximum flow rate (dial rate) at flowing conditions is equal to 760 Nm<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.  
 (1) There is approximately 20% less pressure loss when compared to our T-18 Turbo-Meter at 510 Nm<sup>3</sup>/hr.

## 6" T-35 MARK II TURBO-METER 45° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE | MAXIMUM FLOWRATE | MINIMUM FLOWRATE | MINIMUM FLOWRATE | MIN DIAL RATE | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS INCHES W.C. |
|-----------------------|----------------|------------------|------------------|------------------|------------------|---------------|--------------------|--------------------------------|
| S=(Fpv) <sup>2</sup>  | PSIG           | SCFH             | MSCFD            | SCFH             | MSCFD            | ACFH          |                    | @35000 ACFH                    |
| 1.0000                | 0.25           | 35,000           | 840              | 1,750            | 42               | 1,750         | 20                 | 2.4                            |
| 1.0008                | 5              | 46,000           | 1,100            | 2,010            | 48               | 1,520         | 23                 | 3.2                            |
| 1.0016                | 10             | 58,000           | 1,390            | 2,260            | 54               | 1,360         | 26                 | 4.0                            |
| 1.0024                | 15             | 70,000           | 1,680            | 2,480            | 60               | 1,240         | 28                 | 5.0                            |
| 1.0032                | 20             | 82,000           | 1,970            | 2,680            | 64               | 1,140         | 31                 | 6.0                            |
| 1.0040                | 25             | 94,000           | 2,260            | 2,870            | 69               | 1,070         | 33                 | 6                              |
| 1.0080                | 50             | 154,000          | 3,700            | 3,680            | 88               | 830           | 42                 | 11                             |
| 1.0121                | 75             | 215,000          | 5,160            | 4,340            | 104              | 710           | 50                 | 15                             |
| 1.0162                | 100            | 276,000          | 6,620            | 4,920            | 118              | 620           | 56                 | 19                             |
| 1.0203                | 125            | 338,000          | 8,110            | 5,440            | 131              | 560           | 62                 | 23                             |
| 1.0330                | 200            | 526,000          | 12,620           | 6,790            | 163              | 450           | 77                 | 36                             |
| 1.0502                | 300            | 785,000          | 18,840           | 8,290            | 199              | 370           | 95                 | 54                             |
| 1.0680                | 400            | 1,052,000        | 25,250           | 9,590            | 230              | 320           | 110                | 72                             |
| 1.0863                | 500            | 1,328,000        | 31,870           | 10,780           | 259              | 280           | 123                | 91                             |
| 1.1050                | 600            | 1,613,000        | 38,710           | 11,880           | 285              | 260           | 136                | 111                            |
| 1.1241                | 700            | 1,908,000        | 45,790           | 12,920           | 310              | 240           | 148                | 131                            |
| 1.1435                | 800            | 2,213,000        | 53,110           | 13,920           | 334              | 220           | 159                | 152                            |
| 1.1630                | 900            | 2,527,000        | 60,650           | 14,870           | 357              | 210           | 170                | 173                            |
| 1.1826                | 1,000          | 2,851,000        | 68,420           | 15,790           | 379              | 190           | 181                | 195                            |
| 1.2021                | 1,100          | 3,183,000        | 76,390           | 16,690           | 401              | 180           | 191                | 218                            |
| 1.2212                | 1,200          | 3,524,000        | 84,580           | 17,560           | 421              | 170           | 201                | 242                            |
| 1.2397                | 1,300          | 3,872,000        | 92,930           | 18,410           | 442              | 170           | 210                | 266                            |
| 1.2641                | 1,440          | 4,369,000        | 104,860          | 19,550           | 469              | 160           | 223                | 300                            |

6" Model T-35 meters of standard construction register 100 cubic feet per revolution of the mechanical output shaft.  
 Table is based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60°F and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
 Note: Maximum flow rate (dial rate) at flowing conditions is equal to 35,000 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.

## 6" T-57 MARK II TURBO-METER 30° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE | MAXIMUM FLOWRATE | MINIMUM FLOWRATE | MINIMUM FLOWRATE | MIN DIAL RATE | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS INCHES W.C. | (1) APPROX. PRESS LOSS INCHES W.C. |
|-----------------------|----------------|------------------|------------------|------------------|------------------|---------------|--------------------|--------------------------------|------------------------------------|
| S=(Fpv) <sup>2</sup>  | PSIG           | SCFH             | MSCFD            | SCFH             | MSCFD            | ACFH          |                    | @57000 ACFH                    | @35000 ACFH                        |
| 1.0000                | 0.25           | 57,000           | 1,370            | 2,850            | 68               | 2,850         | 20                 | 5.1                            | 2.1                                |
| 1.0008                | 5              | 75,000           | 1,800            | 3,280            | 79               | 2,480         | 23                 | 6.7                            | 2.7                                |
| 1.0016                | 10             | 95,000           | 2,280            | 3,680            | 88               | 2,210         | 26                 | 8.5                            | 3.4                                |
| 1.0024                | 15             | 114,000          | 2,740            | 4,040            | 97               | 2,010         | 28                 | 10                             | 4.1                                |
| 1.0032                | 20             | 134,000          | 3,220            | 4,370            | 105              | 1,860         | 31                 | 12                             | 4.8                                |
| 1.0040                | 25             | 153,000          | 3,670            | 4,680            | 112              | 1,740         | 33                 | 14                             | 5.5                                |
| 1.0080                | 50             | 252,000          | 6,050            | 5,990            | 144              | 1,360         | 42                 | 23                             | 9.0                                |
| 1.0121                | 75             | 350,000          | 8,400            | 7,070            | 170              | 1,150         | 50                 | 31                             | 13                                 |
| 1.0162                | 100            | 450,000          | 10,800           | 8,010            | 192              | 1,010         | 56                 | 40                             | 16                                 |
| 1.0203                | 125            | 551,000          | 13,220           | 8,860            | 213              | 920           | 62                 | 49                             | 20                                 |
| 1.0330                | 200            | 857,000          | 20,570           | 11,050           | 265              | 730           | 78                 | 77                             | 31                                 |
| 1.0502                | 300            | 1,278,000        | 30,670           | 13,500           | 324              | 600           | 95                 | 114                            | 46                                 |
| 1.0680                | 400            | 1,713,000        | 41,110           | 15,620           | 375              | 520           | 110                | 153                            | 62                                 |
| 1.0863                | 500            | 2,163,000        | 51,910           | 17,560           | 421              | 460           | 123                | 194                            | 78                                 |
| 1.1050                | 600            | 2,627,000        | 63,050           | 19,350           | 464              | 420           | 136                | 235                            | 94                                 |
| 1.1241                | 700            | 3,108,000        | 74,590           | 21,040           | 505              | 390           | 148                | 278                            | 112                                |
| 1.1435                | 800            | 3,604,000        | 86,500           | 22,660           | 544              | 360           | 159                | 322                            | 130                                |
| 1.1630                | 900            | 4,116,000        | 98,780           | 24,220           | 581              | 340           | 170                | 368                            | 148                                |
| 1.1826                | 1,000          | 4,643,000        | 111,430          | 25,720           | 617              | 320           | 181                | 415                            | 167                                |
| 1.2021                | 1,100          | 5,184,000        | 124,420          | 27,180           | 652              | 300           | 191                | 464                            | 186                                |
| 1.2212                | 1,200          | 5,739,000        | 137,740          | 28,600           | 686              | 280           | 201                | 514                            | 206                                |
| 1.2397                | 1,300          | 6,306,000        | 151,340          | 29,980           | 720              | 270           | 210                | 564                            | 227                                |
| 1.2641                | 1,440          | 7,115,000        | 170,760          | 31,840           | 764              | 260           | 223                | 637                            | 256                                |

6" Model T-57 meters of standard construction register 100 cubic feet per revolution of the mechanical output shaft.  
 Table is based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60°F and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
 Note: Maximum flow rate (dial rate) at flowing conditions is equal to 57,000 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.  
 (1) There is approximately 15% less pressure loss when compared to our T-35 Turbo-Meter @990 Nm<sup>3</sup>/hr.

# 150mm (G650) T-35 MARK II TURBO-METER 45° ROTOR ANGLE

(S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS @1000 Nm <sup>3</sup> /hr kPa |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|--------------------|--|
| S=(Fpv) <sup>2</sup>  | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                    |  |
| 1.0000                | 1.72           | 1,000               | 24,000               | 50                  | 1,190                | 50                 | 20                 | 0.6  |
| 1.0008                | 34             | 1,300               | 31,000               | 57                  | 1,370                | 43                 | 23                 | 0.8  |
| 1.0016                | 69             | 1,640               | 39,000               | 64                  | 1,540                | 39                 | 26                 | 1.0  |
| 1.0024                | 103            | 1,980               | 48,000               | 70                  | 1,690                | 34                 | 28                 | 1.2  |
| 1.0032                | 138            | 2,320               | 56,000               | 76                  | 1,820                | 32                 | 31                 | 1.5  |
| 1.0040                | 172            | 2,660               | 64,000               | 81                  | 1,950                | 30                 | 33                 | 1.5  |
| 1.0080                | 345            | 4,360               | 105,000              | 104                 | 2,500                | 24                 | 42                 | 2.7  |
| 1.0121                | 517            | 6,090               | 146,000              | 123                 | 2,950                | 20                 | 50                 | 4.0  |
| 1.0162                | 689            | 7,820               | 188,000              | 139                 | 3,390                | 18                 | 56                 | 5.0  |
| 1.0203                | 862            | 9,570               | 230,000              | 154                 | 3,700                | 16                 | 62                 | 6.0  |
| 1.0330                | 1,379          | 14,900              | 357,000              | 192                 | 4,620                | 13                 | 70                 | 9  |
| 1.0502                | 2,068          | 22,240              | 534,000              | 235                 | 5,640                | 10                 | 95                 | 13   |
| 1.0680                | 2,758          | 29,800              | 715,000              | 272                 | 6,520                | 9                  | 110                | 18   |
| 1.0863                | 3,447          | 37,620              | 903,000              | 305                 | 7,330                | 8                  | 123                | 23   |
| 1.1050                | 4,137          | 45,690              | 1,097,000            | 337                 | 8,080                | 7                  | 136                | 28   |
| 1.1241                | 4,826          | 54,050              | 1,297,000            | 366                 | 8,780                | 7                  | 148                | 33   |
| 1.1435                | 5,516          | 62,690              | 1,505,000            | 394                 | 9,460                | 6                  | 159                | 38   |
| 1.1630                | 6,205          | 71,580              | 1,718,000            | 421                 | 10,110               | 6                  | 170                | 43   |
| 1.1826                | 6,895          | 80,760              | 1,938,000            | 447                 | 10,740               | 5                  | 181                | 49   |
| 1.2021                | 7,584          | 90,170              | 2,164,000            | 473                 | 11,350               | 5                  | 191                | 54   |
| 1.2212                | 8,274          | 99,830              | 2,396,000            | 497                 | 11,940               | 5                  | 201                | 60   |
| 1.2397                | 8,963          | 109,690             | 2,633,000            | 522                 | 12,520               | 5                  | 210                | 66   |
| 1.2641                | 9,928          | 123,770             | 2,970,000            | 554                 | 13,290               | 5                  | 223                | 75   |

150mm (6") T-35 meters of standard construction register 1 m<sup>3</sup> per revolution of the mechanical output shaft.

Table is based on IGU standard reference conditions of Pb=101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa.

Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6°C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).

Note: Maximum flow rate (dial rate) at flowing conditions is equal to 1000 Nm<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).

Performance ratings in the above tables are based on +/- 1% measurement accuracy for all pressures and flowrates shown.

# 150mm (G1000) T-57 MARK II TURBO-METER 30° ROTOR ANGLE

(S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS @1620 Nm <sup>3</sup> /hr kPa | (1) APPROX. PRESS LOSS @1000 Nm <sup>3</sup> /hr kPa |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|--------------------|--|--|
| S=(Fpv) <sup>2</sup>  | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                    |  |  |
| 1.0000                | 1.72           | 1,620               | 39,000               | 81                  | 1,940                | 81                 | 20                 | 1.3  | 0.51   |
| 1.0008                | 34             | 2,120               | 51,000               | 93                  | 2,230                | 70                 | 23                 | 1.7  | 0.68   |
| 1.0016                | 69             | 2,690               | 65,000               | 104                 | 2,500                | 63                 | 26                 | 2.1  | 0.85   |
| 1.0024                | 103            | 3,230               | 78,000               | 114                 | 2,750                | 57                 | 28                 | 2.5  | 1.0  |
| 1.0032                | 138            | 3,800               | 91,000               | 124                 | 2,970                | 53                 | 31                 | 3.0  | 1.2  |
| 1.0040                | 172            | 4,330               | 104,000              | 133                 | 3,180                | 49                 | 33                 | 3.5  | 1.4  |
| 1.0080                | 345            | 7,140               | 171,000              | 170                 | 4,070                | 39                 | 42                 | 5.7  | 2.3  |
| 1.0121                | 517            | 9,910               | 238,000              | 200                 | 4,810                | 33                 | 50                 | 8.0  | 3.2  |
| 1.0162                | 689            | 12,750              | 306,000              | 227                 | 5,450                | 29                 | 56                 | 10   | 4.0  |
| 1.0203                | 862            | 15,610              | 374,000              | 251                 | 6,020                | 26                 | 62                 | 12   | 5.0  |
| 1.0330                | 1,379          | 24,280              | 583,000              | 313                 | 7,510                | 21                 | 78                 | 19   | 7.7  |
| 1.0502                | 2,068          | 36,200              | 869,000              | 382                 | 9,180                | 17                 | 95                 | 28   | 11   |
| 1.0680                | 2,758          | 48,530              | 1,165,000            | 442                 | 10,620               | 15                 | 110                | 38   | 15   |
| 1.0863                | 3,447          | 61,270              | 1,471,000            | 497                 | 11,940               | 13                 | 123                | 48   | 19   |
| 1.1050                | 4,137          | 74,420              | 1,786,000            | 548                 | 13,160               | 12                 | 136                | 59   | 23   |
| 1.1241                | 4,826          | 88,040              | 2,113,000            | 596                 | 14,300               | 11                 | 148                | 69   | 28   |
| 1.1435                | 5,516          | 102,090             | 2,450,000            | 642                 | 15,410               | 10                 | 159                | 80   | 32   |
| 1.1630                | 6,205          | 116,600             | 2,798,000            | 686                 | 16,470               | 10                 | 170                | 92   | 37   |
| 1.1826                | 6,895          | 131,530             | 3,157,000            | 729                 | 17,490               | 9                  | 181                | 103  | 42   |
| 1.2021                | 7,584          | 146,850             | 3,525,000            | 770                 | 18,480               | 8                  | 191                | 115  | 46   |
| 1.2212                | 8,274          | 162,570             | 3,902,000            | 810                 | 19,440               | 8                  | 201                | 128  | 51   |
| 1.2397                | 8,963          | 178,640             | 4,287,000            | 849                 | 20,380               | 8                  | 210                | 140  | 56   |
| 1.2641                | 9,928          | 201,550             | 4,837,000            | 902                 | 21,650               | 7                  | 223                | 158  | 64   |

150mm (6") T-57 meters of standard construction register 1 m<sup>3</sup> per revolution of the mechanical output shaft.

Table is based on IGU standard reference conditions of Pb=101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa.

Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6°C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).

Note: Maximum flow rate (dial rate) at flowing conditions is equal to 1620 Nm<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).

Performance ratings in the above tables are based on +/- 1% measurement accuracy for all pressures and flowrates shown.

(1) There is approximately 15% less pressure loss when compared to our T-35 Turbo-Meter @1000 Nm<sup>3</sup>/hr.

## 8" T-60 MARK II TURBO-METER 45° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE | MAXIMUM FLOWRATE | MINIMUM FLOWRATE | MINIMUM FLOWRATE | MIN DIAL RATE | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS INCHES W.C. |
|-----------------------|----------------|------------------|------------------|------------------|------------------|---------------|--------------------|--------------------------------|
| $S=(Fpv)^2$           | PSIG           | SCFH             | MSCFD            | SCFH             | MSCFD            | ACFH          |                    | @60000 ACFH                    |
| 1.0000                | 0.25           | 60,000           | 1,440            | 3,000            | 72               | 3,000         | 20                 | 2.0                            |
| 1.0008                | 5              | 79,000           | 1,900            | 3,500            | 84               | 2,610         | 23                 | 2.6                            |
| 1.0016                | 10             | 100,000          | 2,400            | 3,900            | 94               | 2,330         | 26                 | 3.3                            |
| 1.0024                | 15             | 120,000          | 2,880            | 4,200            | 101              | 2,120         | 29                 | 4.0                            |
| 1.0032                | 20             | 141,000          | 3,380            | 4,600            | 110              | 1,960         | 31                 | 4.7                            |
| 1.0040                | 25             | 161,000          | 3,860            | 4,900            | 118              | 1,830         | 33                 | 5.4                            |
| 1.0080                | 50             | 265,000          | 6,360            | 6,300            | 151              | 1,430         | 42                 | 8.8                            |
| 1.0121                | 75             | 369,000          | 8,860            | 7,400            | 178              | 1,210         | 50                 | 12                             |
| 1.0162                | 100            | 474,000          | 11,380           | 8,400            | 202              | 1,070         | 56                 | 16                             |
| 1.0203                | 125            | 580,000          | 13,920           | 9,300            | 223              | 970           | 62                 | 19                             |
| 1.0330                | 200            | 902,000          | 21,650           | 11,600           | 278              | 770           | 78                 | 30                             |
| 1.0502                | 300            | 1,345,000        | 32,280           | 14,200           | 341              | 630           | 95                 | 45                             |
| 1.0680                | 400            | 1,803,000        | 43,270           | 16,400           | 394              | 550           | 110                | 60                             |
| 1.0863                | 500            | 2,276,000        | 54,620           | 18,500           | 444              | 490           | 123                | 76                             |
| 1.1050                | 600            | 2,766,000        | 66,380           | 20,400           | 490              | 440           | 136                | 92                             |
| 1.1241                | 700            | 3,271,000        | 78,500           | 22,200           | 533              | 410           | 147                | 109                            |
| 1.1435                | 800            | 3,794,000        | 91,060           | 23,900           | 574              | 380           | 159                | 129                            |
| 1.1630                | 900            | 4,332,000        | 103,970          | 25,500           | 612              | 350           | 170                | 144                            |
| 1.1826                | 1,000          | 4,887,000        | 117,290          | 27,100           | 650              | 330           | 180                | 163                            |
| 1.2021                | 1,100          | 5,457,000        | 130,970          | 28,600           | 686              | 310           | 191                | 182                            |
| 1.2212                | 1,200          | 6,041,000        | 144,980          | 30,100           | 722              | 300           | 211                | 201                            |
| 1.2397                | 1,300          | 6,683,000        | 159,310          | 31,600           | 758              | 290           | 210                | 229                            |
| 1.2641                | 1,440          | 7,489,000        | 179,740          | 33,500           | 804              | 270           | 224                | 250                            |

8" Model T-60 meters of standard construction register 1000 cubic feet per revolution of the mechanical output shaft.  
 Table is based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60°F and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
**Note:** Maximum flow rate (dial rate) at flowing conditions is equal to 60,000 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above table are based on +/-1% measurement accuracy for all pressures and flowrates shown.

## 8" T-90 MARK II TURBO-METER 30° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE | MAXIMUM FLOWRATE | MINIMUM FLOWRATE | MINIMUM FLOWRATE | MIN DIAL RATE | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS INCHES W.C. | (1) APPROX. PRESS LOSS INCHES W.C. |
|-----------------------|----------------|------------------|------------------|------------------|------------------|---------------|--------------------|--------------------------------|------------------------------------|
| $S=(Fpv)^2$           | PSIG           | SCFH             | MSCFD            | SCFH             | MSCFD            | ACFH          |                    | @90000 ACFH                    | @60000 ACFH                        |
| 1.0000                | 0.25           | 90,000           | 2,160            | 4,500            | 108              | 4,500         | 20                 | 3.9                            | 1.9                                |
| 1.0008                | 5              | 119,000          | 2,860            | 5,180            | 124              | 3,910         | 23                 | 5.1                            | 2.4                                |
| 1.0016                | 10             | 150,000          | 3,600            | 5,810            | 139              | 3,490         | 26                 | 6.5                            | 3.1                                |
| 1.0024                | 15             | 181,000          | 4,340            | 6,370            | 153              | 3,180         | 28                 | 7.8                            | 3.7                                |
| 1.0032                | 20             | 211,000          | 5,060            | 6,900            | 166              | 2,940         | 31                 | 9.1                            | 4.3                                |
| 1.0040                | 25             | 242,000          | 5,810            | 7,380            | 177              | 2,740         | 33                 | 10                             | 5.0                                |
| 1.0080                | 50             | 397,000          | 9,530            | 9,450            | 227              | 2,140         | 42                 | 17                             | 8.2                                |
| 1.0121                | 75             | 553,000          | 13,270           | 11,160           | 268              | 1,810         | 50                 | 24                             | 11                                 |
| 1.0162                | 100            | 711,000          | 17,060           | 12,650           | 304              | 1,600         | 56                 | 31                             | 15                                 |
| 1.0203                | 125            | 870,000          | 20,880           | 13,990           | 336              | 1,450         | 62                 | 38                             | 18                                 |
| 1.0330                | 200            | 1,354,000        | 32,500           | 17,450           | 419              | 1,160         | 78                 | 59                             | 28                                 |
| 1.0502                | 300            | 2,018,000        | 48,430           | 21,310           | 511              | 950           | 95                 | 87                             | 41                                 |
| 1.0680                | 400            | 2,705,000        | 64,920           | 24,670           | 592              | 820           | 110                | 117                            | 56                                 |
| 1.0863                | 500            | 3,415,000        | 81,960           | 27,720           | 665              | 730           | 123                | 148                            | 70                                 |
| 1.1050                | 600            | 4,149,000        | 99,580           | 30,550           | 733              | 660           | 136                | 179                            | 85                                 |
| 1.1241                | 700            | 4,907,000        | 117,770          | 33,230           | 798              | 610           | 148                | 212                            | 101                                |
| 1.1435                | 800            | 5,691,000        | 136,580          | 35,780           | 859              | 570           | 159                | 246                            | 117                                |
| 1.1630                | 900            | 6,498,000        | 155,950          | 38,240           | 918              | 530           | 170                | 281                            | 134                                |
| 1.1826                | 1,000          | 7,330,000        | 175,920          | 40,610           | 975              | 500           | 180                | 317                            | 151                                |
| 1.2021                | 1,100          | 8,186,000        | 196,460          | 42,920           | 1,030            | 470           | 191                | 354                            | 168                                |
| 1.2212                | 1,200          | 9,062,000        | 217,490          | 45,150           | 1,084            | 450           | 201                | 392                            | 186                                |
| 1.2397                | 1,300          | 9,957,000        | 238,970          | 47,330           | 1,136            | 430           | 210                | 430                            | 205                                |
| 1.2641                | 1,440          | 11,234,000       | 269,620          | 50,280           | 1,207            | 400           | 223                | 486                            | 231                                |

8" Model T-90 meters of standard construction register 1000 cubic feet per revolution of the mechanical output shaft.  
 Table is based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60°F and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
**Note:** Maximum flow rate (dial rate) at flowing conditions is equal to 90,000 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above table are based on +/-1% measurement accuracy for all pressures and flowrates shown.  
 (1) There is approximately 7% less pressure loss when compared to our T-60 Turbo-Meter at 60,000 ACFH.

## 200mm (G1000) T-60 MARK II TURBO-METER 45° ROTOR ANGLE (S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS @1700 Nm <sup>3</sup> /hr kPa |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|--------------------|--|
| S=(Fpv) <sup>2</sup>  | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                    |  |
| 1.0000                | 1.72           | 1,700               | 41,000               | 85                  | 2,040                | 85                 | 20                 | 0.5  |
| 1.0008                | 34             | 2,240               | 54,000               | 99                  | 2,380                | 74                 | 23                 | 0.7  |
| 1.0016                | 69             | 2,830               | 68,000               | 110                 | 2,650                | 68                 | 26                 | 0.8  |
| 1.0024                | 103            | 3,400               | 82,000               | 119                 | 2,860                | 60                 | 29                 | 1.0  |
| 1.0032                | 138            | 3,990               | 96,000               | 130                 | 3,130                | 56                 | 31                 | 1.2  |
| 1.0040                | 172            | 4,560               | 109,000              | 139                 | 3,330                | 52                 | 33                 | 1.3  |
| 1.0080                | 345            | 7,510               | 180,000              | 178                 | 4,280                | 40                 | 42                 | 2.2  |
| 1.0121                | 517            | 10,450              | 251,000              | 210                 | 5,030                | 34                 | 50                 | 3.0  |
| 1.0162                | 689            | 13,430              | 322,000              | 238                 | 5,710                | 30                 | 56                 | 4.0  |
| 1.0203                | 862            | 16,430              | 394,000              | 263                 | 6,320                | 27                 | 62                 | 4.7  |
| 1.0330                | 1,379          | 25,550              | 613,000              | 329                 | 7,890                | 22                 | 78                 | 7.5  |
| 1.0502                | 2,068          | 38,100              | 914,000              | 402                 | 9,650                | 18                 | 95                 | 11   |
| 1.0680                | 2,758          | 51,080              | 1,226,000            | 465                 | 11,150               | 16                 | 110                | 15   |
| 1.0863                | 3,447          | 64,470              | 1,547,000            | 524                 | 12,580               | 14                 | 123                | 19   |
| 1.1050                | 4,137          | 78,360              | 1,880,000            | 578                 | 13,870               | 12                 | 136                | 23   |
| 1.1241                | 4,826          | 92,660              | 2,224,000            | 629                 | 15,090               | 12                 | 147                | 27   |
| 1.1435                | 5,516          | 107,480             | 2,580,000            | 677                 | 16,250               | 11                 | 159                | 31   |
| 1.1630                | 6,205          | 122,720             | 2,945,000            | 722                 | 17,340               | 10                 | 170                | 36   |
| 1.1826                | 6,895          | 138,440             | 3,323,000            | 768                 | 18,420               | 9                  | 180                | 41   |
| 1.2021                | 7,584          | 154,590             | 3,710,000            | 810                 | 19,440               | 9                  | 191                | 45   |
| 1.2212                | 8,274          | 171,130             | 4,107,000            | 853                 | 20,460               | 8                  | 201                | 50   |
| 1.2397                | 8,963          | 188,040             | 4,513,000            | 895                 | 21,480               | 8                  | 210                | 55   |
| 1.2641                | 9,928          | 212,150             | 5,092,000            | 949                 | 22,780               | 8                  | 224                | 62   |

200mm (8") T-60 meters of standard construction register 10 m<sup>3</sup> per revolution of the mechanical output shaft.

Table is based on IGU standard reference conditions of Pb=101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa. Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6°C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).

Note: Maximum flow rate (dial rate) at flowing conditions is equal to 1,700 Nm<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).

Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.

## 200mm (G1600) T-90 MARK II TURBO-METER 30° ROTOR ANGLE (S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS @2550 Nm <sup>3</sup> /hr kPa | (1) APPROX. PRESS LOSS @1700 Nm <sup>3</sup> /hr kPa |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|--------------------|--|--|
| S=(Fpv) <sup>2</sup>  | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                    |  |  |
| 1.0000                | 1.72           | 2,550               | 61,000               | 127                 | 3,060                | 127                | 20                 | 1.0  | 0.46   |
| 1.0008                | 34             | 3,370               | 81,000               | 147                 | 3,520                | 111                | 23                 | 1.3  | 0.61   |
| 1.0016                | 69             | 4,250               | 102,000              | 165                 | 3,950                | 99                 | 26                 | 1.6  | 0.77   |
| 1.0024                | 103            | 5,130               | 123,000              | 180                 | 4,330                | 90                 | 28                 | 1.9  | 0.92   |
| 1.0032                | 138            | 5,980               | 143,000              | 195                 | 4,690                | 83                 | 31                 | 2.3  | 1.1  |
| 1.0040                | 172            | 6,860               | 165,000              | 209                 | 5,020                | 78                 | 33                 | 2.6  | 1.2  |
| 1.0080                | 345            | 11,250              | 270,000              | 268                 | 6,420                | 61                 | 42                 | 4.3  | 2.0  |
| 1.0121                | 517            | 15,670              | 376,000              | 316                 | 7,590                | 51                 | 50                 | 6.0  | 2.8  |
| 1.0162                | 689            | 20,140              | 483,000              | 358                 | 8,600                | 45                 | 56                 | 7.6  | 3.6  |
| 1.0203                | 862            | 24,650              | 591,000              | 396                 | 9,510                | 41                 | 62                 | 9.4  | 4.4  |
| 1.0330                | 1,379          | 38,360              | 921,000              | 494                 | 11,860               | 33                 | 78                 | 15   | 6.9  |
| 1.0502                | 2,068          | 57,170              | 1,372,000            | 604                 | 14,490               | 27                 | 95                 | 22   | 10   |
| 1.0680                | 2,758          | 76,630              | 1,839,000            | 699                 | 16,770               | 23                 | 110                | 29   | 14   |
| 1.0863                | 3,447          | 96,740              | 2,322,000            | 785                 | 18,850               | 21                 | 123                | 37   | 17   |
| 1.1050                | 4,137          | 117,530             | 2,821,000            | 865                 | 20,770               | 19                 | 136                | 45   | 21   |
| 1.1241                | 4,826          | 139,010             | 3,336,000            | 941                 | 22,590               | 17                 | 148                | 53   | 25   |
| 1.1435                | 5,516          | 161,210             | 3,869,000            | 1,014               | 24,330               | 16                 | 159                | 61   | 29   |
| 1.1630                | 6,205          | 184,080             | 4,418,000            | 1,083               | 26,000               | 15                 | 170                | 70   | 33   |
| 1.1826                | 6,895          | 207,640             | 4,983,000            | 1,150               | 27,610               | 14                 | 180                | 79   | 37   |
| 1.2021                | 7,584          | 231,890             | 5,565,000            | 1,216               | 29,180               | 13                 | 191                | 88   | 42   |
| 1.2212                | 8,274          | 256,710             | 6,161,000            | 1,279               | 30,700               | 13                 | 201                | 97   | 46   |
| 1.2397                | 8,963          | 282,060             | 6,770,000            | 1,341               | 32,180               | 12                 | 210                | 107  | 51   |
| 1.2641                | 9,928          | 318,240             | 7,638,000            | 1,424               | 34,180               | 11                 | 223                | 121  | 57   |

200mm (8") T-90 meters of standard construction register 10 m<sup>3</sup> per revolution of the mechanical output shaft.

Table is based on IGU standard reference conditions of Pb=101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa.

Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6°C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).

Note: Maximum flow rate (dial rate) at flowing conditions is equal to 2,550 Nm<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).

Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.

(1) There is approximately 7% less pressure loss when compared to our T-60 Turbo-Meter at 1,700 Nm<sup>3</sup>/hr.

# 12" T-140 MARK II TURBO-METER 45° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE |         | MINIMUM FLOWRATE |       | MIN DIAL RATE | MAX/APPROX. MIN PRESS LOSS FLOW RANGE INCHES W.C. |     |
|-----------------------|----------------|------------------|---------|------------------|-------|---------------|---|-----|
|                       |                | SCFH             | MSCFD   | SCFH             | MSCFD |               |   |     |
| S=(Fpv) <sup>2</sup>  | PSIG           | SCFH             | MSCFD   | SCFH             | MSCFD | ACFH          | @140000 ACFH                                      |     |
| 1.0000                | 0.25           | 140,000          | 3,360   | 5,600            | 134   | 5,600         | 25  | 1.4 |
| 1.0008                | 5              | 185,000          | 4,400   | 6,400            | 154   | 4,870         | 29  | 1.9 |
| 1.0016                | 10             | 233,000          | 5,590   | 7,200            | 173   | 4,340         | 32  | 2.3 |
| 1.0024                | 15             | 281,000          | 6,740   | 7,900            | 190   | 3,950         | 36  | 2.8 |
| 1.0032                | 20             | 329,000          | 7,900   | 8,600            | 206   | 3,650         | 38  | 3.3 |
| 1.0040                | 25             | 377,000          | 9,050   | 9,200            | 221   | 3,410         | 41  | 3.8 |
| 1.0080                | 50             | 618,000          | 14,830  | 11,800           | 283   | 2,670         | 52  | 6.2 |
| 1.0121                | 75             | 861,000          | 20,660  | 13,900           | 334   | 2,260         | 62  | 9   |
| 1.0162                | 100            | 1,106,000        | 26,540  | 15,700           | 377   | 1,990         | 70  | 11  |
| 1.0203                | 125            | 1,353,000        | 32,470  | 17,400           | 418   | 1,800         | 78  | 14  |
| 1.0330                | 200            | 2,106,000        | 50,540  | 21,700           | 521   | 1,440         | 97  | 21  |
| 1.0502                | 300            | 3,139,000        | 75,340  | 26,500           | 636   | 1,180         | 118   | 31  |
| 1.0680                | 400            | 4,207,000        | 100,970 | 30,700           | 737   | 1,020         | 137   | 42  |
| 1.0863                | 500            | 5,312,000        | 127,490 | 34,500           | 828   | 910           | 154   | 53  |
| 1.1050                | 600            | 6,454,000        | 154,900 | 38,000           | 912   | 820           | 170   | 65  |
| 1.1241                | 700            | 7,633,000        | 183,190 | 41,400           | 994   | 760           | 184   | 76  |
| 1.1435                | 800            | 8,852,000        | 212,450 | 44,500           | 1,068 | 700           | 199   | 89  |
| 1.1630                | 900            | 10,108,000       | 242,590 | 47,600           | 1,142 | 660           | 212   | 101 |
| 1.1826                | 1,000          | 11,403,000       | 273,670 | 50,500           | 1,212 | 620           | 226   | 114 |
| 1.2021                | 1,100          | 12,733,000       | 305,590 | 53,400           | 1,282 | 590           | 238   | 127 |
| 1.2212                | 1,200          | 14,096,000       | 338,300 | 56,200           | 1,349 | 560           | 251   | 141 |
| 1.2397                | 1,300          | 15,488,000       | 371,710 | 58,900           | 1,414 | 530           | 263   | 155 |
| 1.2641                | 1,440          | 17,475,000       | 419,400 | 62,600           | 1,502 | 500           | 279   | 175 |

12" Model T-140 meters of standard construction register 1000 cubic feet per revolution of the mechanical output shaft.  
 Table is based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60°F and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
**Note:** Maximum flow rate (dial rate) at flowing conditions is equal to 140,000 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.

# 12" T-230 MARK II TURBO-METER 30° ROTOR ANGLE (U.S. Units - Cubic Feet)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE |         | MINIMUM FLOWRATE |       | MIN DIAL RATE | MAX/ MIN FLOW RANGE | APPROX. PRESS LOSS INCHES W.C. @230000 ACFH | (1) APPROX. PRESS LOSS INCHES W.C. @140000 ACFH |
|-----------------------|----------------|------------------|---------|------------------|-------|---------------|---------------------|---|---|
|                       |                | SCFH             | MSCFD   | SCFH             | MSCFD |               |                     |   |   |
| S=(Fpv) <sup>2</sup>  | PSIG           | SCFH             | MSCFD   | SCFH             | MSCFD | ACFH          |                     |   |   |
| 1.0000                | 0.25           | 230,000          | 5,520   | 9,200            | 221   | 9,200         | 25                  | 2.7   | 1.1   |
| 1.0008                | 5              | 304,000          | 7,300   | 10,580           | 254   | 8,000         | 29                  | 3.5   | 1.5   |
| 1.0016                | 10             | 383,000          | 9,190   | 11,870           | 285   | 7,130         | 32                  | 4.4   | 1.8   |
| 1.0024                | 15             | 461,000          | 11,060  | 13,030           | 313   | 6,500         | 35                  | 5.4   | 2.2   |
| 1.0032                | 20             | 540,000          | 12,960  | 14,100           | 338   | 6,000         | 38                  | 6.3   | 2.6   |
| 1.0040                | 25             | 619,000          | 14,860  | 15,090           | 362   | 5,610         | 41                  | 7.2   | 3.0   |
| 1.0080                | 50             | 1,015,000        | 24,360  | 19,330           | 464   | 4,380         | 53                  | 12  | 4.9   |
| 1.0121                | 75             | 1,414,000        | 33,940  | 22,810           | 547   | 3,710         | 62                  | 16  | 6.8   |
| 1.0162                | 100            | 1,816,000        | 43,580  | 25,850           | 620   | 3,270         | 70                  | 21  | 8.7   |
| 1.0203                | 125            | 2,222,000        | 53,330  | 28,600           | 686   | 2,960         | 78                  | 26  | 11  |
| 1.0330                | 200            | 3,459,000        | 83,020  | 35,680           | 856   | 2,370         | 97                  | 40  | 17  |
| 1.0502                | 300            | 5,157,000        | 123,770 | 43,560           | 1,045 | 1,940         | 118                 | 60  | 25  |
| 1.0680                | 400            | 6,912,000        | 165,890 | 50,430           | 1,210 | 1,680         | 137                 | 80  | 33  |
| 1.0863                | 500            | 8,727,000        | 209,450 | 56,670           | 1,360 | 1,490         | 154                 | 101   | 42  |
| 1.1050                | 600            | 10,602,000       | 254,450 | 62,460           | 1,499 | 1,360         | 170                 | 123   | 51  |
| 1.1241                | 700            | 12,541,000       | 300,980 | 67,930           | 1,630 | 1,250         | 185                 | 146   | 60  |
| 1.1435                | 800            | 14,543,000       | 349,030 | 73,160           | 1,756 | 1,160         | 199                 | 169   | 70  |
| 1.1630                | 900            | 16,607,000       | 398,570 | 78,170           | 1,876 | 1,080         | 212                 | 193   | 79  |
| 1.1826                | 1,000          | 18,733,000       | 449,590 | 83,030           | 1,993 | 1,020         | 226                 | 217   | 90  |
| 1.2021                | 1,100          | 20,919,000       | 502,060 | 87,740           | 2,106 | 960           | 238                 | 243   | 100   |
| 1.2212                | 1,200          | 23,158,000       | 555,790 | 92,320           | 2,216 | 920           | 251                 | 269   | 111   |
| 1.2397                | 1,300          | 25,445,000       | 610,680 | 96,770           | 2,322 | 870           | 263                 | 295   | 122   |
| 1.2641                | 1,440          | 28,709,000       | 689,020 | 102,790          | 2,467 | 820           | 279                 | 333   | 137   |

12" Model T-230 meters of standard construction register 1000 cubic feet per revolution of the mechanical output shaft.  
 Table is based on base conditions of Pb=14.73 PSIA and Tb=60° F, and average atmospheric pressure Pa=14.48 PSIA.  
 Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 60°F and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).  
**Note:** Maximum flow rate (dial rate) at flowing conditions is equal to 230,000 ACFH, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).  
 Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.  
 (1) There is approximately 20% less pressure loss when compared to our T-140 Turbo-Meter at 140,000 ACFH

## 300mm (G2500) T-140 MARK II TURBO-METER 45° ROTOR ANGLE (S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS @3970 Nm <sup>3</sup> /hr kPa |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|--------------------|--|
| S=(Fpv) <sup>2</sup>  | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                    |  |
| 1.0000                | 1.72           | 3,970               | 95,000               | 159                 | 3,810                | 159                | 25                 | 0.3  |
| 1.0008                | 34             | 5,240               | 126,000              | 181                 | 4,350                | 138                | 29                 | 0.5  |
| 1.0016                | 69             | 6,600               | 158,000              | 204                 | 4,900                | 123                | 32                 | 0.6  |
| 1.0024                | 103            | 7,960               | 191,000              | 224                 | 5,370                | 112                | 36                 | 0.7  |
| 1.0032                | 138            | 9,320               | 224,000              | 244                 | 5,850                | 103                | 38                 | 0.8  |
| 1.0040                | 172            | 10,680              | 256,000              | 261                 | 6,250                | 97                 | 41                 | 0.9  |
| 1.0080                | 345            | 17,510              | 420,000              | 334                 | 8,020                | 76                 | 52                 | 1.5  |
| 1.0121                | 517            | 24,390              | 585,000              | 394                 | 9,450                | 64                 | 62                 | 2.2  |
| 1.0162                | 689            | 31,330              | 752,000              | 445                 | 10,670               | 56                 | 70                 | 2.7  |
| 1.0203                | 862            | 38,330              | 920,000              | 493                 | 11,830               | 51                 | 78                 | 3.5  |
| 1.0330                | 1,379          | 59,660              | 1,432,000            | 615                 | 14,750               | 41                 | 97                 | 5.2  |
| 1.0502                | 2,068          | 88,920              | 2,134,000            | 751                 | 18,020               | 33                 | 118                | 8  |
| 1.0680                | 2,758          | 119,180             | 2,860,000            | 870                 | 20,870               | 29                 | 137                | 10   |
| 1.0863                | 3,447          | 150,480             | 3,612,000            | 977                 | 23,460               | 26                 | 154                | 13   |
| 1.1050                | 4,137          | 182,830             | 4,388,000            | 1,076               | 25,840               | 23                 | 170                | 16   |
| 1.1241                | 4,826          | 216,230             | 5,189,000            | 1,173               | 28,150               | 22                 | 184                | 19   |
| 1.1435                | 5,516          | 250,760             | 6,018,000            | 1,261               | 30,250               | 20                 | 199                | 22   |
| 1.1630                | 6,205          | 286,340             | 6,872,000            | 1,348               | 32,360               | 19                 | 212                | 25   |
| 1.1826                | 6,895          | 323,020             | 7,753,000            | 1,431               | 34,330               | 18                 | 226                | 28   |
| 1.2021                | 7,584          | 360,700             | 8,657,000            | 1,513               | 36,310               | 17                 | 238                | 32   |
| 1.2212                | 8,274          | 399,310             | 9,583,000            | 1,592               | 38,210               | 16                 | 251                | 35   |
| 1.2397                | 8,963          | 438,740             | 10,530,000           | 1,669               | 40,040               | 15                 | 263                | 39   |
| 1.2641                | 9,928          | 495,030             | 11,881,000           | 1,773               | 42,560               | 14                 | 279                | 44   |

300mm (12") T-140 meters of standard construction register 10 m<sup>3</sup> per revolution of the mechanical output shaft.

Table is based on IGU standard reference conditions of Pb=101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa.

Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6°C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).

Note: Maximum flow rate (dial rate) at flowing conditions is equal to 3970 Nm<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).

Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.

## 300mm (G4000) T-230 MARK II TURBO-METER 30° ROTOR ANGLE (S.I. Units - Cubic Meters)

| COMPRESSIBILITY RATIO | METER PRESSURE | MAXIMUM FLOWRATE    | MAXIMUM FLOWRATE     | MINIMUM FLOWRATE    | MINIMUM FLOWRATE     | MIN DIAL RATE      | MAX/MIN FLOW RANGE | APPROX. PRESS LOSS @6520 Nm <sup>3</sup> /hr kPa | (1) APPROX. PRESS LOSS @3970 Nm <sup>3</sup> /hr kPa |
|-----------------------|----------------|---------------------|----------------------|---------------------|----------------------|--------------------|--------------------|--|--|
| S=(Fpv) <sup>2</sup>  | kPa            | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | Nm <sup>3</sup> /hr | Nm <sup>3</sup> /day | m <sup>3</sup> /hr |                    |  |  |
| 1.0000                | 1.72           | 6,520               | 156,000              | 261                 | 6,250                | 261                | 25                 | 0.66   | 0.27   |
| 1.0008                | 34             | 8,610               | 207,000              | 300                 | 7,190                | 227                | 29                 | 0.88   | 0.36   |
| 1.0016                | 69             | 10,850              | 260,000              | 336                 | 8,070                | 202                | 32                 | 1.1  | 0.46   |
| 1.0024                | 103            | 13,060              | 313,000              | 369                 | 8,860                | 184                | 35                 | 1.3  | 0.55   |
| 1.0032                | 138            | 15,300              | 367,000              | 399                 | 9,590                | 170                | 38                 | 1.6  | 0.64   |
| 1.0040                | 172            | 17,540              | 421,000              | 427                 | 10,260               | 159                | 41                 | 1.8  | 0.74   |
| 1.0080                | 345            | 28,750              | 690,000              | 548                 | 13,140               | 124                | 53                 | 2.9  | 1.2  |
| 1.0121                | 517            | 40,060              | 961,000              | 646                 | 15,510               | 105                | 62                 | 4.0  | 1.7  |
| 1.0162                | 689            | 51,440              | 1,235,000            | 732                 | 17,570               | 93                 | 70                 | 5.0  | 2.2  |
| 1.0203                | 862            | 62,940              | 1,511,000            | 810                 | 19,440               | 84                 | 78                 | 6.0  | 2.7  |
| 1.0330                | 1,379          | 97,990              | 2,352,000            | 1,011               | 24,260               | 67                 | 97                 | 10   | 4.2  |
| 1.0502                | 2,068          | 146,090             | 3,506,000            | 1,234               | 29,620               | 55                 | 118                | 15   | 6.2  |
| 1.0680                | 2,758          | 195,800             | 4,699,000            | 1,429               | 34,290               | 48                 | 137                | 20   | 8.2  |
| 1.0863                | 3,447          | 247,220             | 5,933,000            | 1,605               | 38,530               | 42                 | 154                | 25   | 10   |
| 1.1050                | 4,137          | 300,330             | 7,208,000            | 1,769               | 42,460               | 39                 | 170                | 31   | 13   |
| 1.1241                | 4,826          | 355,260             | 8,526,000            | 1,924               | 46,180               | 35                 | 185                | 36   | 15   |
| 1.1435                | 5,516          | 411,970             | 9,887,000            | 2,072               | 49,740               | 33                 | 199                | 42   | 17   |
| 1.1630                | 6,205          | 470,440             | 11,291,000           | 2,214               | 53,150               | 31                 | 212                | 48   | 20   |
| 1.1826                | 6,895          | 530,670             | 12,736,000           | 2,352               | 56,450               | 29                 | 226                | 54   | 22   |
| 1.2021                | 7,584          | 592,590             | 14,222,000           | 2,485               | 59,650               | 27                 | 238                | 60   | 25   |
| 1.2212                | 8,274          | 656,020             | 15,744,000           | 2,615               | 62,770               | 26                 | 251                | 67   | 28   |
| 1.2397                | 8,963          | 720,810             | 17,299,000           | 2,741               | 65,790               | 25                 | 263                | 74   | 30   |
| 1.2641                | 9,928          | 813,270             | 19,519,000           | 2,912               | 69,880               | 23                 | 279                | 83   | 34   |

300mm (12") T-230 meters of standard construction register 10 m<sup>3</sup> per revolution of the mechanical output shaft.

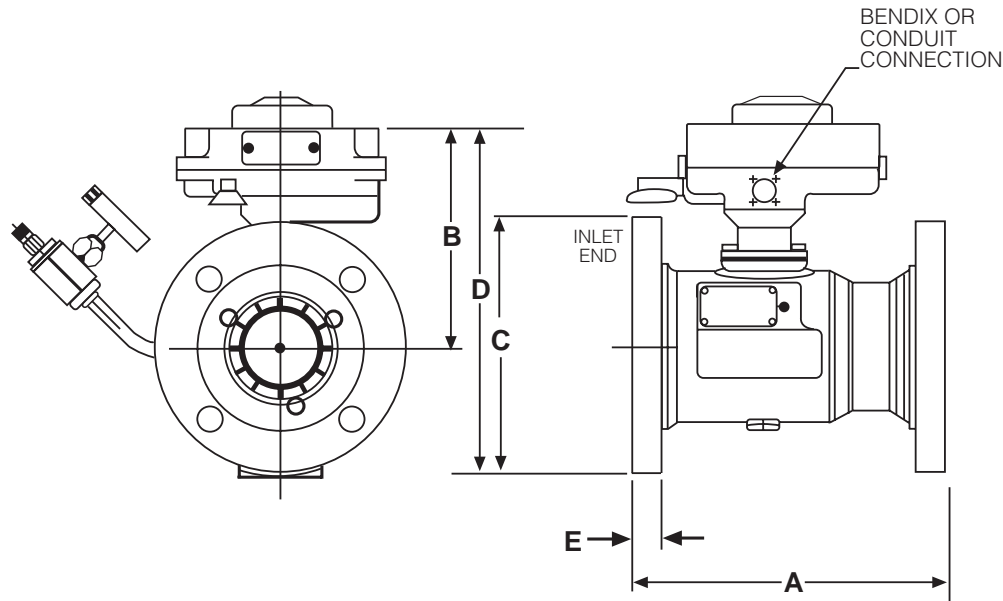
Table is based on IGU standard reference conditions of Pb=101.325 kPa and Tb=15° C, and average atmospheric pressure Pa=99.8 kPa.

Table incorporates effect of supercompressibility factor (Fpv) for 0.6 specific gravity natural gas at 15.6°C and 0% CO<sub>2</sub> and N<sub>2</sub> (per A.G.A. Report No. 8).

Note: Maximum flow rate (dial rate) at flowing conditions is equal to 6520 Nm<sup>3</sup>/hr, irrespective of the operating pressure (within the maximum allowable operating pressure of the meter).

Performance ratings in the above tables are based on +/-1% measurement accuracy for all pressures and flowrates shown.

(1) There is approximately 20% less pressure loss when compared to our T-140 Turbo-Meter at 3970 Nm<sup>3</sup>/hr.



## 2" T-4.5 MARK IIE (Dimension in inches)

| BODY MATERIAL         | MAXIMUM ALLOWABLE WORKING PRESSURE MAOP (PSIG) | A                               | B                              | C                             | D                              | E                             | METER SHIPPING WEIGHT (Kg.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|-----------------------|--|---------------------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|-----------------------------|---------------------------------|
| Ductile Iron/ANSI 150 | 240  | 5 <sup>15</sup> / <sub>16</sub> | 7 <sup>9</sup> / <sub>16</sub> | 6 <sup>1</sup> / <sub>8</sub> | 10 <sup>5</sup> / <sub>8</sub> | 3/4                           | 20                          | 35                              |
| Steel/ANSI 150        | 275  | 5 <sup>15</sup> / <sub>16</sub> | 7 <sup>9</sup> / <sub>16</sub> | 6 <sup>1</sup> / <sub>8</sub> | 10 <sup>5</sup> / <sub>8</sub> | 3/4                           | 22                          | 35                              |
| Steel/ANSI 300        | 720  | 5 <sup>15</sup> / <sub>16</sub> | 7 <sup>9</sup> / <sub>16</sub> | 6 <sup>5</sup> / <sub>8</sub> | 10 <sup>7</sup> / <sub>8</sub> | 7/8                           | 26                          | 35                              |
| Steel/ANSI 600        | 1440   | 5 <sup>15</sup> / <sub>16</sub> | 7 <sup>9</sup> / <sub>16</sub> | 6 <sup>5</sup> / <sub>8</sub> | 10 <sup>7</sup> / <sub>8</sub> | 1 <sup>1</sup> / <sub>4</sub> | 27                          | 35                              |

Meter mounted instruments and indexes mount directly on the index plate of Mark IIE Turbo-Meters. Turbo-Meters of standard construction register 10 cubic feet per revolution of the mechanical output shaft.

## 3" T-8.8 MARK IIE (Dimension in inches)

| BODY MATERIAL         | MAXIMUM ALLOWABLE WORKING PRESSURE MAOP (PSIG) | A                              | B                               | C                             | D                              | E                              | METER SHIPPING WEIGHT (Kg.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|-----------------------|--|--------------------------------|---------------------------------|-------------------------------|--------------------------------|--------------------------------|-----------------------------|---------------------------------|
| Ductile Iron/ANSI 150 | 240  | 9 <sup>7</sup> / <sub>16</sub> | 6 <sup>11</sup> / <sub>16</sub> | 7 <sup>5</sup> / <sub>8</sub> | 10 <sup>1</sup> / <sub>2</sub> | 1 <sup>1</sup> / <sub>16</sub> | 35                          | 50                              |
| Steel/ANSI 150        | 275  | 9 <sup>7</sup> / <sub>16</sub> | 6 <sup>11</sup> / <sub>16</sub> | 7 <sup>5</sup> / <sub>8</sub> | 10 <sup>1</sup> / <sub>2</sub> | 1 <sup>1</sup> / <sub>16</sub> | 35                          | 50                              |
| Steel/ANSI 300        | 720  | 9 <sup>7</sup> / <sub>16</sub> | 6 <sup>11</sup> / <sub>16</sub> | 8 <sup>3</sup> / <sub>8</sub> | 10 <sup>7</sup> / <sub>8</sub> | 1 <sup>1</sup> / <sub>8</sub>  | 48                          | 50                              |
| Steel/ANSI 600        | 1440   | 9 <sup>7</sup> / <sub>16</sub> | 6 <sup>11</sup> / <sub>16</sub> | 8 <sup>3</sup> / <sub>8</sub> | 10 <sup>7</sup> / <sub>8</sub> | 1 <sup>1</sup> / <sub>2</sub>  | 51                          | 50                              |

Meter mounted instruments and indexes mount directly on the index plate of Mark IIE Turbo-Meters. Turbo-Meters of standard construction register 100 cubic feet per revolution of the mechanical output shaft.

## 50mm T-4.5 MARK IIE (Dimension in millimeters)

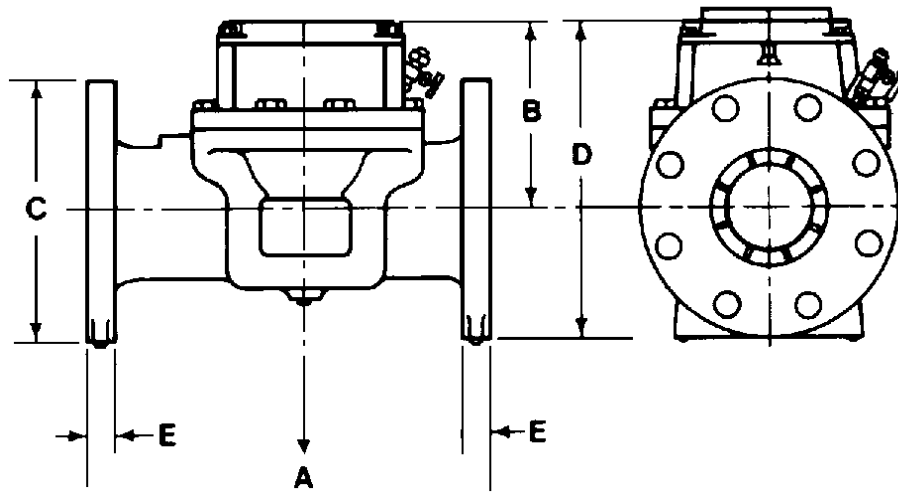
| BODY MATERIAL         | MAXIMUM ALLOWABLE WORKING PRESSURE MAOP (BAR) | A   | B   | C   | D   | E  | METER SHIPPING WEIGHT (Kg.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|-----------------------|---|-----|-----|-----|-----|----|-----------------------------|---------------------------------|
| Ductile Iron/ISO PN20 | 16  | 150 | 193 | 155 | 270 | 19 | 9.1                         | 35                              |
| Steel/ISO PN20        | 19  | 150 | 193 | 155 | 270 | 19 | 10.0                        | 35                              |
| Steel/ISO PN50        | 50  | 150 | 193 | 168 | 276 | 22 | 11.8                        | 35                              |
| Steel/ISO PN110       | 100   | 150 | 193 | 168 | 276 | 32 | 12.3                        | 35                              |

Meter mounted instruments and indexes mount directly on the index plate of Mark IIE Turbo-Meters. Turbo-Meters of standard construction register .1 cubic meter per revolution of the mechanical output shaft.

## 80mm T-8.8 MARK IIE (Dimension in millimeters)

| BODY MATERIAL         | MAXIMUM ALLOWABLE WORKING PRESSURE MAOP (BAR) | A   | B   | C   | D   | E  | METER SHIPPING WEIGHT (Kg.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|-----------------------|---|-----|-----|-----|-----|----|-----------------------------|---------------------------------|
| Ductile Iron/ISO PN20 | 16  | 240 | 170 | 193 | 267 | 24 | 15.9                        | 50                              |
| Steel/ISO PN20        | 19  | 240 | 170 | 193 | 267 | 24 | 16.8                        | 50                              |
| Steel/ISO PN50        | 50  | 240 | 170 | 212 | 276 | 29 | 21.8                        | 50                              |
| Steel/ISO PN110       | 100   | 240 | 170 | 212 | 276 | 38 | 23.2                        | 50                              |

Meter mounted instruments and indexes mount directly on the index plate of Mark IIE Turbo-Meters. Turbo-Meters of standard construction register 1 cubic meter per revolution of the mechanical output shaft.



### 4" T-18/27 MARK II (Dimension in inches)

| BODY MATERIAL  | MAXIMUM RATED WORKING PRESSURE (PSIG) | A   | B  | C   | D   | E  | METER SHIPPING WEIGHT (LBS.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|----------------|---------------------------------------|-----|----|-----|-----|----|------------------------------|---------------------------------|
| Aluminum       | 175                                   | 14  | 6½ | 9   | 11¾ | 1⅝ | 36                           | 70"                             |
| Steel/ANSI 150 | 275                                   | 15½ | 7⅞ | 9   | 11¾ | 1⅝ | 105                          | 70"                             |
| Steel/ANSI 300 | 720                                   | 15½ | 7⅞ | 10  | 12⅞ | 1¼ | 140                          | 70"                             |
| Steel/ANSI 600 | 1440                                  | 15½ | 7⅞ | 10¾ | 12⅞ | 1¾ | 175                          | 70"                             |

Meter mounted instruments and indexes mount directly on the index plate of Mark II Turbo-Meters. Turbo-Meters of standard construction register 100 cubic feet per revolution of the mechanical output shaft.

\* 50 seconds for plastic rotor T-18

### 8" T-60/90 MARK II (Dimension in inches)

| BODY MATERIAL  | MAXIMUM RATED WORKING PRESSURE (PSIG) | A   | B   | C   | D   | E  | METER SHIPPING WEIGHT (LBS.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|----------------|---------------------------------------|-----|-----|-----|-----|----|------------------------------|---------------------------------|
| Aluminum       | 175                                   | 21  | 9⅞  | 13½ | 16⅞ | 1⅝ | 134                          | 170                             |
| Steel/ANSI 150 | 275                                   | 27¼ | 9⅞  | 13½ | 16⅞ | 1⅞ | 284                          | 180                             |
| Steel/ANSI 300 | 720                                   | 27¼ | 10⅞ | 15  | 17⅞ | 1⅞ | 430                          | 180                             |
| Steel/ANSI 600 | 1440                                  | 27¼ | 10⅞ | 16½ | 18⅞ | 2⅞ | 596                          | 180                             |

Meter mounted instruments and indexes mount directly on the index plate of Mark II Turbo-Meters. Turbo-Meters of standard construction register 1000 cubic feet per revolution of the mechanical output shaft.

### 6" T-35/57 MARK II (Dimension in inches)

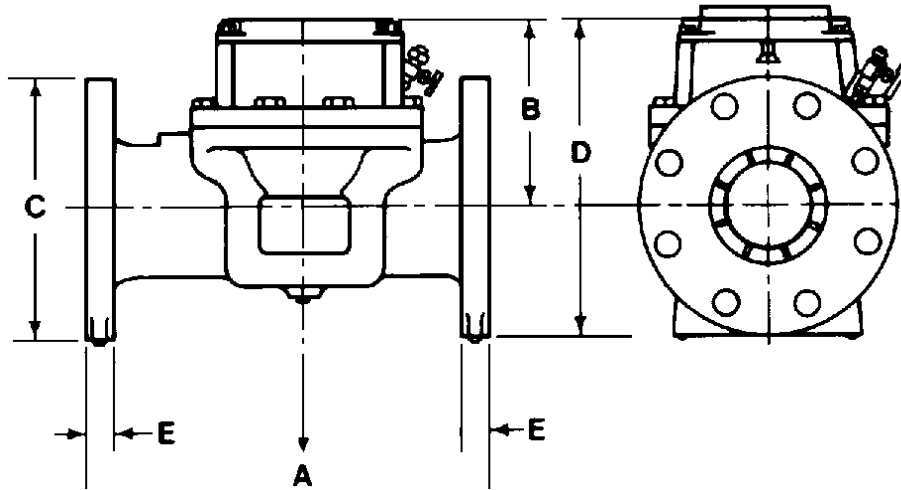
| BODY MATERIAL  | MAXIMUM RATED WORKING PRESSURE (PSIG) | A   | B  | C   | D   | E  | METER SHIPPING WEIGHT (LBS.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|----------------|---------------------------------------|-----|----|-----|-----|----|------------------------------|---------------------------------|
| Aluminum       | 175                                   | 16  | 8⅞ | 11  | 14¾ | 1⅞ | 75                           | 140                             |
| Steel/ANSI 150 | 275                                   | 22½ | 8⅞ | 11  | 14¾ | 1  | 174                          | 140                             |
| Steel/ANSI 300 | 720                                   | 22½ | 8⅞ | 12½ | 15⅞ | 1⅞ | 280                          | 140                             |
| Steel/ANSI 600 | 1440                                  | 22½ | 8⅞ | 14  | 15⅞ | 2⅞ | 336                          | 140                             |

Meter mounted instruments and indexes mount directly on the index plate of Mark II Turbo-Meters. Turbo-Meters of standard construction register 100 cubic feet per revolution of the mechanical output shaft.

### 12" T-140/230 MARK II (Dimension in inches)

| BODY MATERIAL  | MAXIMUM RATED WORKING PRESSURE (PSIG) | A   | B   | C   | D   | E  | METER SHIPPING WEIGHT (LBS.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|----------------|---------------------------------------|-----|-----|-----|-----|----|------------------------------|---------------------------------|
| Ductile Iron   | 220                                   | 30  | 12⅞ | 19  | 22¾ | 1¼ | 510                          | 300                             |
| Steel/ANSI 300 | 720                                   | 32½ | 12⅞ | 20½ | 23¾ | 2  | 790                          | 300                             |
| Steel/ANSI 600 | 1440                                  | 32½ | 12⅞ | 22  | 23¾ | 2⅞ | 1032                         | 300                             |

Meter mounted instruments and indexes mount directly on the index plate of Mark II Turbo-Meters. Turbo-Meters of standard construction register 1000 cubic feet per revolution of the mechanical output shaft.



## 100mm T-18/27 MARK II (Dimension in millimeters)

| BODY MATERIAL  | MAXIMUM RATED WORKING PRESSURE (bar) | A   | B   | C   | D   | E  | METER SHIPPING WEIGHT (Kg.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|----------------|--------------------------------------|-----|-----|-----|-----|----|-----------------------------|---------------------------------|
| Aluminum       | 12                                   | 355 | 165 | 229 | 284 | 24 | 16.3                        | 70*                             |
| Steel/ANSI 150 | 19                                   | 394 | 179 | 229 | 298 | 24 | 47.6                        | 70*                             |
| Steel/ANSI 300 | 50                                   | 394 | 186 | 254 | 313 | 32 | 63.5                        | 70*                             |
| Steel/ANSI 600 | 100                                  | 394 | 186 | 273 | 322 | 44 | 79.4                        | 70*                             |

Meter mounted instruments and indexes mount directly on the index plate of Mark II Turbo-Meter. Turbo-Meters of standard construction register 1 cubic meters per revolution of the mechanical output shaft. Optional construction with one cubic meter per revolution is available.

\* 50 seconds for plastic rotor T-18

## 200mm T-60/90 MARK II (Dimension in millimeters)

| BODY MATERIAL  | MAXIMUM RATED WORKING PRESSURE (bar) | A   | B   | C   | D   | E  | METER SHIPPING WEIGHT (Kg.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|----------------|--------------------------------------|-----|-----|-----|-----|----|-----------------------------|---------------------------------|
| Aluminum       | 12                                   | 533 | 249 | 343 | 434 | 33 | 61                          | 170                             |
| Steel/ANSI 150 | 19                                   | 692 | 249 | 343 | 424 | 29 | 129                         | 180                             |
| Steel/ANSI 300 | 50                                   | 692 | 262 | 381 | 452 | 41 | 195                         | 180                             |
| Steel/ANSI 600 | 100                                  | 692 | 262 | 419 | 471 | 62 | 270                         | 180                             |

Meter mounted instruments and indexes mount directly on the index plate of Mark II Turbo-Meter. Turbo-Meters of standard construction register 1 cubic meters per revolution of the mechanical output shaft.

## 150mm T-35/57 MARK II (Dimension in millimeters)

| BODY MATERIAL  | MAXIMUM RATED WORKING PRESSURE (bar) | A   | B   | C   | D   | E  | METER SHIPPING WEIGHT (Kg.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|----------------|--------------------------------------|-----|-----|-----|-----|----|-----------------------------|---------------------------------|
| Aluminum       | 12                                   | 406 | 217 | 279 | 360 | 29 | 33                          | 140                             |
| Steel/ANSI 150 | 19                                   | 572 | 217 | 279 | 360 | 25 | 79                          | 140                             |
| Steel/ANSI 300 | 50                                   | 572 | 225 | 318 | 384 | 37 | 127                         | 140                             |
| Steel/ANSI 600 | 100                                  | 572 | 225 | 356 | 403 | 54 | 152                         | 140                             |

Meter mounted instruments and indexes mount directly on the index plate of Mark II Turbo-Meter. Turbo-Meters of standard construction register 1 cubic meters per revolution of the mechanical output shaft. Optional construction with one cubic meter per revolution is available.

## 300mm T-140/230 MARK II (Dimension in millimeters)

| BODY MATERIAL  | MAXIMUM RATED WORKING PRESSURE (bar) | A   | B   | C   | D   | E  | METER SHIPPING WEIGHT (Kg.) | MINIMUM ACCEPT SPIN TIME (SEC.) |
|----------------|--------------------------------------|-----|-----|-----|-----|----|-----------------------------|---------------------------------|
| Ductile Iron   | 16                                   | 762 | 319 | 483 | 563 | 32 | 231                         | 300                             |
| Steel/ANSI 300 | 50                                   | 826 | 329 | 521 | 589 | 51 | 358                         | 300                             |
| Steel/ANSI 600 | 100                                  | 826 | 329 | 559 | 608 | 73 | 467                         | 300                             |

Meter mounted instruments and indexes mount directly on the index plate of Mark II Turbo-Meter. Turbo-Meters of standard construction register 1 cubic meters per revolution of the mechanical output shaft.