

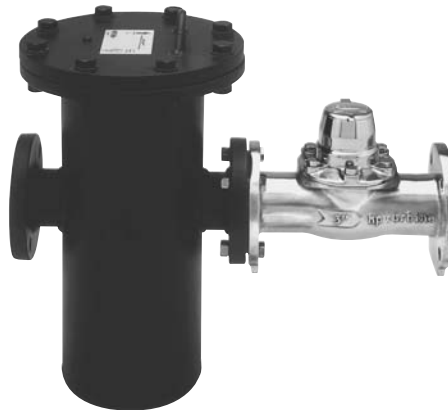


HIGH PERFORMANCE FIRE SERVICE TURBINE METER

SIZES: 3", 4", 6" 8" AND 10"



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All HP Fire Service Turbines meet or exceed the latest AWWA Standard C703. Maximum continuous flow rates may be exceeded by as much as 25% for intermittent periods.

APPLICATION

The High Performance (HP) Fire Service Turbine Meter is designed to measure both domestic and fire service usage where flow rates are moderate to high. All HP Fire Service Turbine meters are UL Listed and FM Approved and include an attached fire service strainer.

CONSTRUCTION

The HP Fire Service Turbine meter consists of an epoxy-coated steel fire service strainer, a rugged no-lead high copper alloy maincase, an AWWA Class II turbine measuring element, and a roll-sealed register.

The Unitized Measuring Element (UME) allows for quick, easy in-line interchangeability. Water volume is measured accurately at all flows by a specially designed assembly. The hydrodynamically balanced thrust compensated rotor relieves pressure on the thrust bearing. Stationary stainless steel shafts minimize wear and provide sustained accuracy over an extended operating life. Direct coupling of the rotor to the gear train eliminates revenue loss due to slippage during fast starts and line surges. A calibration vane allows in-field calibration of the UME to lengthen service life and to ensure accurate registration.

The roll-sealed register eliminates leaking and fogging. A magnetic drive couples the register with the measuring element. For reading convenience, the register can be mounted in any one of four positions on the meter.

SYSTEMS COMPATIBILITY

Adaptability to all present and future systems for flexibility.

KEY FEATURES

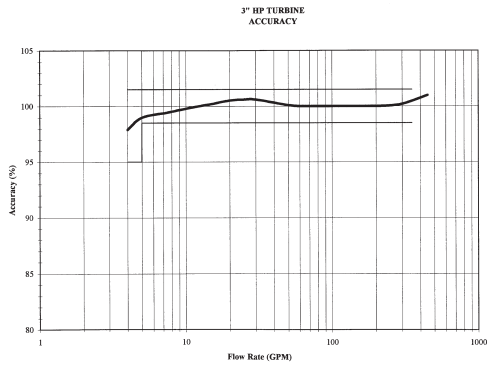
- Turbine Measuring Element
 - UL Listed
 - FM Approved
 - Wide flow ranges available at 98.5%—101.5% accuracy
 - Interchangeable measuring element
 - Calibration vane
 - Hydrodynamically balanced rotor
 - Reusable O-ring gasket provides superior seal
- No-Lead Maincase
 - Made from no-lead high copper alloy
 - Proven lifetime material
 - Corrosion resistant
- Epoxy-Coated Steel Strainer
 - Stops debris while permitting full flow
 - Lightweight, easy to handle
- Roll-Sealed Registers
 - Magnetic driven, low torque registration
 - Low flow indicator
 - In-line serviceability
 - Tamperproof seal design

WARRANTY

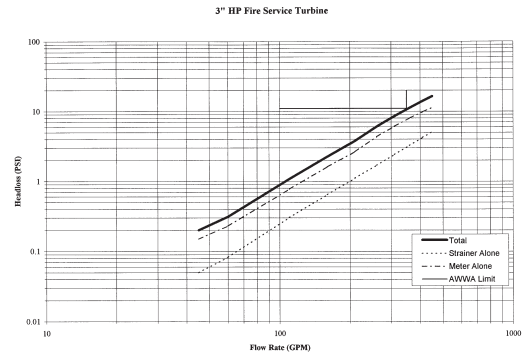
Neptune provides a limited warranty with respect to its HP Fire Service Turbine meters for performance, materials, and workmanship.

When desired, owner maintenance is easily accomplished by in-line replacement of the UME.

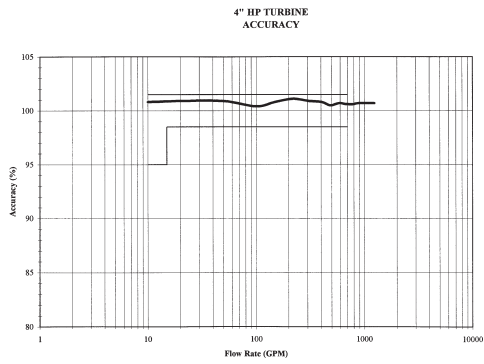
3" HP TURBINE ACCURACY



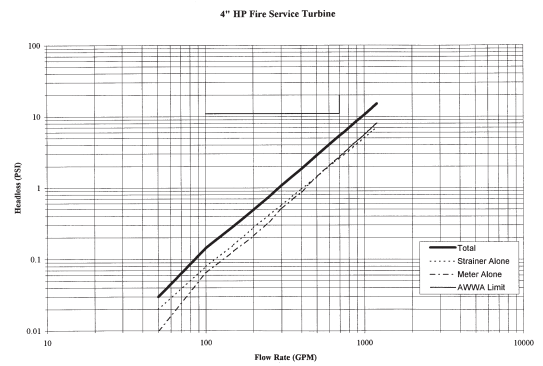
3" HP FIRE SERVICE TURBINE



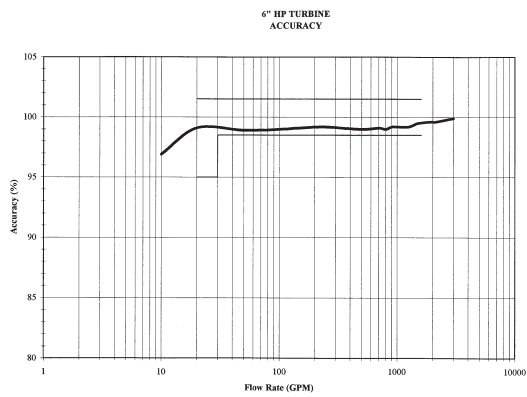
4" HP TURBINE ACCURACY



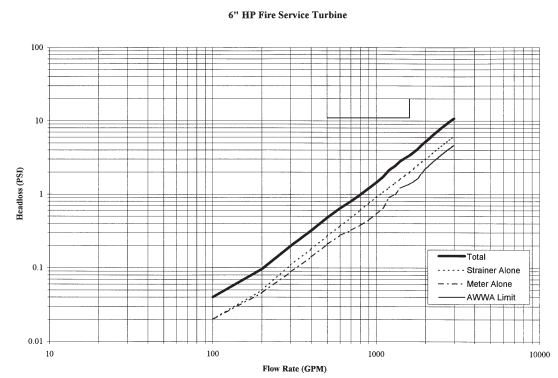
4" HP FIRE SERVICE TURBINE



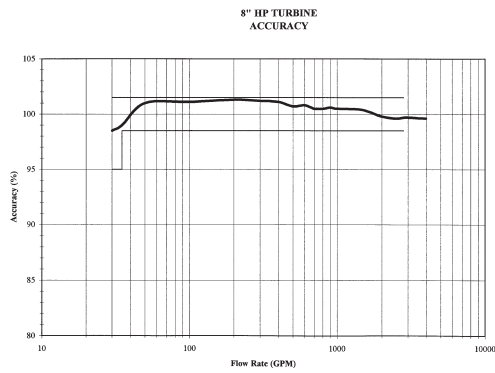
6" HP TURBINE ACCURACY



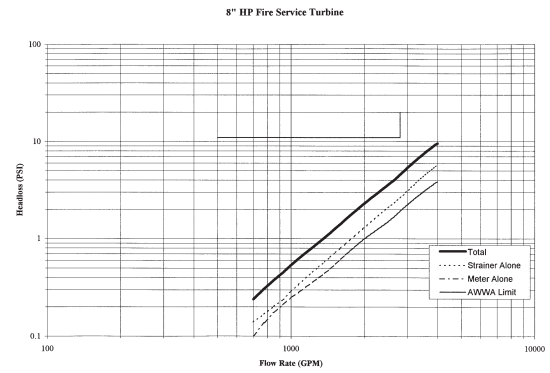
6" HP FIRE SERVICE TURBINE



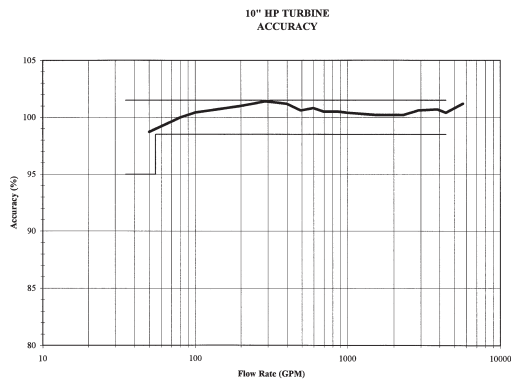
8" HP TURBINE ACCURACY



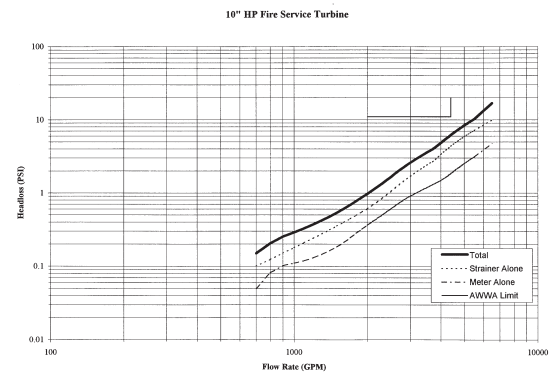
8" HP FIRE SERVICE TURBINE



10" HP TURBINE ACCURACY



10" HP FIRE SERVICE TURBINE



These charts show typical meter performance. Individual results may vary.

GUARANTEED SYSTEMS COMPATIBILITY

All HP Fire Service Turbine meters are guaranteed adaptable to our ARB®V, ProRead™ (ARB VI), E-Coder)R900*i*, E-Coder, TRICON®/S, TRICON/E3®, and Neptune meter reading systems without removing the meter from service.

REGISTRATION

| Registration (per sweep hand revolution) | | 3" & 4" | 6" | 8" & 10" |
|--|--------------|---------|----|----------|
| 1,000 | Gallons | | 3 | 3 |
| 100 | Gallons | 3 | | |
| 100 | Cubic Feet | | 3 | 3 |
| 10 | Cubic Feet | 3 | | |
| 10 | Cubic Metres | | 3 | 3 |
| 1 | Cubic Metre | 3 | | |
| Register Capacity (6-wheel odometer) | | 3" & 4" | 6" | 8" & 10" |
| 1,000,000,000 | Gallons | | 3 | 3 |
| 100,000,000 | Gallons | 3 | | |
| 100,000,000 | Cubic Feet | | 3 | 3 |
| 10,000,000 | Cubic Feet | 3 | | |
| 10,000,000 | Cubic Metres | | 3 | 3 |
| 1,000,000 | Cubic Metres | 3 | | |

OPERATING CHARACTERISTICS

| Meter Size | Normal Operating Range* @100% Accuracy (±1.5%) | Maximum Intermittent Flow | AWWA Standard |
|------------|--|----------------------------|--|
| 3" | 5 to 450 US gpm 1.14 to 102.2 m³/h | 560 US gpm 127.2 m³/h | 8 to 350 US gpm 1.8 to 79.5 m³/h |
| 4" | 10 to 1200 US gpm 2.27 to 272.5 m³/h | 1500 US gpm 340.7 m³/h | 15 to 630 US gpm 3.4 to 143.0 m³/h |
| 6" | 20 to 2500 US gpm 4.55 to 567.8 m³/h | 3100 US gpm 704.1 m³/h | 30 to 1400 US gpm 6.8 to 317.9 m³/h |
| 8" | 35 to 4000 US gpm 7.95 to 908.5 m³/h | 5000 US gpm 1135.6 m³/h | 50 to 2400 US gpm 11.4 to 545 m³/h |
| 10" | 50 to 6500 US gpm 11.36 to 1476.3 m³/h | 8000 US gpm 1817 m³/h | 75 to 3800 US gpm 17.0 to 863 m³/h |

DIMENSIONS

| Meter Size | A | B | C | D | E | F | G | Width | Weight |
|------------|----------------|-----------|-----------------|-----------------|----------------|-----------------|---------|---------------|------------|
| | in/mm | in/mm | in/mm | in/mm | in/mm | in/mm | in/mm | in/mm | lbs/kg |
| 3" | 14 1/8 359 | 12 305 | 10 3/4 273 | 10 5/8 270 | 17 1/2 445 | 26 1/8 664 | 2 51 | 13 1/2 343 | 150 68 |
| 4" | 21 533 | 14 356 | 10 3/4 273 | 10 5/8 270 | 17 1/2 445 | 35 889 | 2 51 | 13 1/2 343 | 200 91 |
| 6" | 26 7/8 683 | 18 457 | 11 3/8 289 | 11 1/16 281 | 21 1/4 540 | 44 7/8 1140 | 3 76 | 19 483 | 425 193 |
| 8" | 31 5/16 795 | 20 508 | 13 29/64 342 | 11 13/16 300 | 25 7/8 657 | 51 5/16 1303 | 3 76 | 25 635 | 600 272 |
| 10" | 30 782 | 26 660 | 15 381 | 14 13/16 376 | 30 1/16 764 | 56 1422 | 3 76 | 27 1/2 699 | 750 340 |

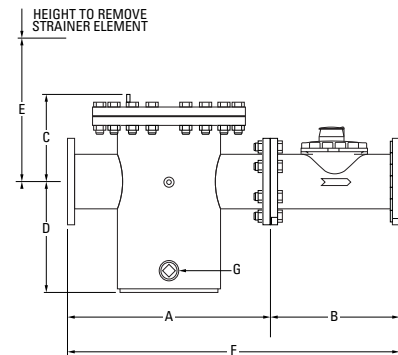
SPECIFICATIONS

- Application: cold water measurement of flow in one direction
- Maximum operating pressure: 175 psi (1206 kPa)
- Registers: direct reading, center sweep, roll-sealed magnetic drive with low-flow indicator
- Measuring element: AWWA Class II turbine, hydrodynamically balanced rotor
- Strainer: Epoxy-coated steel body stainless steel basket strainer element UL Listed and FM approved

OPTIONS

- Sizes: 3", 4", 6", 8", and 10"
- Units of measure: U.S. gallons, imperial gallons, cubic feet, cubic metres
- Register types:
 - Direct
 - Remote reading systems*: ProRead, E-Coder)R900*i*, E-Coder, TRICON/S, TRICON/E3
 - Reclaim
- Companion flanges:
 - Cast iron
 - Bronze (3" and 4" only)

* Consult factory for meter performance specifications when fitted with ARB.



Neptune engages in ongoing research and development to improve and enhance its products. Therefore, Neptune reserves the right to change product or system specifications without notice.

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