



FIRE HYDRANT HYDROSTATIC SEAL STRENGTH TESTER

Fire Hydrant Hydrostatic Seal Strength Tester — ToronFT™ FH-SH

ToronFT™ FH-SH Fire Hydrant Hydrostatic Seal Strength Tester is a precision hydraulic testing instrument designed for the sealing performance and hydraulic strength qualification of both indoor and outdoor fire hydrants. Covering indoor fire hydrant nominal diameters of DN25, DN50, DN65, and DN80 at a nominal pressure of 1.6 MPa (PN), and outdoor fire hydrants with a medium of water and foam mixture at a nominal pressure of 1.6 MPa, the ToronFT™ FH-SH delivers the controlled pressure environment required for reliable, standard-compliant fire hydrant certification testing.

With a pressure control range of 0–6 MPa, precision boost rate adjustment (0.5–5 MPa/min), and a pressure collection accuracy of ± 0.005 MPa, the fire hydrant sealing and hydraulic strength tester provides the measurement precision and pressure stability needed for thorough fire hydrant qualification programs.

APPLICATIONS

Fire Hydrant Hydrostatic Seal Strength Tester — ToronFT™ FH-SH Applications

- Fire hydrant manufacturers: sealing performance and hydraulic strength qualification for indoor and outdoor fire hydrants
- Third-party certification and listing laboratories: fire hydrant testing per ISO 14520, NFPA 14, and UL standards
- Building services and fire protection engineering: acceptance testing of new fire hydrant installations
- Quality assurance departments: production lot sampling and incoming inspection for fire hydrant sealing and strength compliance
- Field inspection and maintenance: periodic re-qualification of in-service fire hydrant assemblies



FEATURES

Fire Hydrant Hydrostatic Seal Strength Tester — ToronFT™ FH-SH Key Features

- Applicable to indoor fire hydrants: DN25, DN50, DN65, DN80 at nominal pressure 1.6 MPa (PN)
- Applicable to outdoor fire hydrants: water and foam mixture medium, nominal pressure 1.6 MPa
- Pressure control range: 0–6 MPa — covering all standard fire hydrant sealing and strength test pressure requirements
- Adjustable boost rate: 0.5–5 MPa/min — controlled pressurization to prevent shock loading
- Single test specimen per cycle — focused, precise testing for individual hydrant qualification
- Maximum flow rate: 20 L/min — efficient fill and pressurization of test fixtures
- Pressure collection accuracy: ± 0.005 MPa — fine-resolution pressure monitoring for complete test event documentation
- Compact, self-contained instrument with intuitive control interface for streamlined production and certification testing

THEORY & METHOD

Theory and Method

Sealing performance testing verifies that all seals, valve seats, and pressure-containing interfaces of the fire hydrant maintain leak-free integrity under the specified test pressures. The ToronFT™ FH-SH applies water pressure to the hydrant assembly at the rated test pressure and holds it for the required duration while all external surfaces and joints are inspected for leakage.

Hydraulic strength testing applies pressure above the rated working pressure to verify the structural integrity of the hydrant body and all pressure-containing components. The boost rate (0.5–5 MPa/min, adjustable) is controlled to prevent pressure

shock loading during pressurization. The ± 0.005 MPa pressure collection accuracy ensures that small pressure deviations during the hold period are detected and logged, providing a complete and reliable record of each test event. The maximum flow rate of 20 L/min enables rapid filling and pressurization of the hydrant test fixture, minimizing cycle time in high-throughput testing environments.

TECHNICAL SPECIFICATIONS

Fire Hydrant Hydrostatic Seal Strength Tester — ToronFT™ FH-SH

Technical Specifications

Parameter	Specification
Model	ToronFT™ FH-SH
Applicable Indoor Hydrant Diameters	DN25, DN50, DN65, DN80 (PN 1.6 MPa)
Applicable Outdoor Hydrant Medium	Water and foam mixture (PN 1.6 MPa)
Pressure Control Range	0 – 6 MPa
Boost Rate	0.5 – 5 MPa/min (adjustable)
Number of Test Specimens	1
Maximum Flow Rate	20 L/min
Pressure Collection Accuracy	± 0.005 MPa



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