

FE & FI Connector Series ***Improving Automated Product Testing***

- **Lower manufacturing costs** through testing efficiency
- **Maximize production capacity** with high volume automated testing
- **Durable & reliable** high performance seal material
- **Uniform seal movement** ensures leak tight connection
- **Instant connections** for testing up to 43 Bar

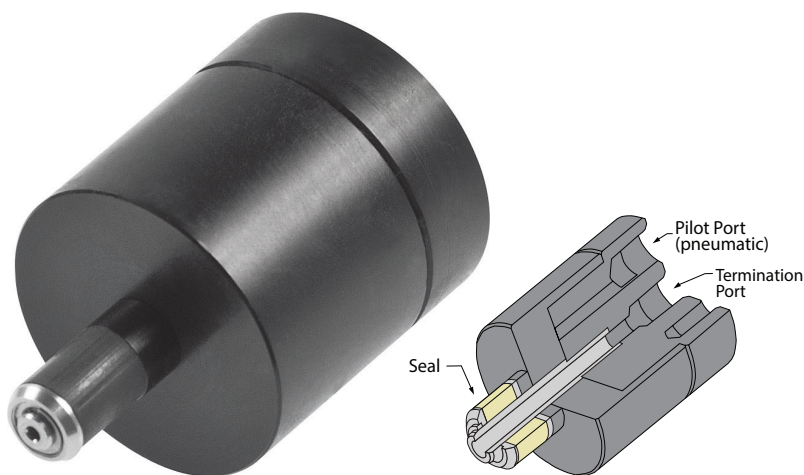
Industry Leading Tube/Bore and Thread Connectors

The FE and FI Series connectors deliver fast, leak free connections for vacuum and pressure testing, fluid filling or flushing applications. Compressed air activates the seals for a full-flow test with air, gas or liquid. The uniform seal movement makes a leak-proof connection for virtually all tube types, even over threaded, rough and oily surfaces.

FasTest Internal (FI) - Pneumatic Tube and Thread

FI Series

Internal Tube and Thread Connections



The FI Advantage

- **Pneumatic actuation** accommodates high volume production testing
- **Capable of sealing** smooth, porous, rough, threaded, and out-of-round ports
- **Delicate touch seals thin wall materials** will not mar test piece
- **Adaptable** for pick and place robotic applications
- **Simple** maintenance for extended life

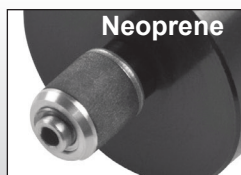
FasTest Internal (FI)

connectors use pneumatic pressure to expand seals, creating a leak-tight internal connection to virtually any type of port. FI Connectors are ideal for automation in high volume production testing.

Technical Specifications

Operating Pressure	Vacuum to 8 bar
Connection Profile	Internal Tubes, Bores and Threads
Termination Profile	Female 10-32" UNF, M5X8, NPT/BSPP: 1/8" to 2 1/2"
Mounting Port	Female 10-32" to 3/8-24" UNF, M5X8 to M11X1.5, 4-40" to 3/8-24" UNC
Pilot Port	Female 10-32" UNF, M5X8, 1/8" NPT/BSPP
Pilot Pressure	4.1-6.2 bar
Housing Material	Aluminum and Stainless steel
Seal Material	Standard: Neoprene, Urethane Optional: FKM (Viton), Buna-N or EPDM
Operating Temperatures	-17°C to 93°C Neoprene 0°C to 79°C Urethane

Offering Choice of Seal Materials & Special Applications



Example: FI5-51



Example: FI5-51UR

Neoprene Seals or Urethane Seals

Standard Seals for FI Connectors

- Neoprene for smooth bores and cast surfaces
- Urethane for irregular surfaces and high wear applications



Example: FI5-51-0100

Shaft Extensions

1" or 2" Extensions Available

- Access remote ports
- Offset connectors when side-by-side mounting is unavailable
- Integrated with stroke limiter, prevents excessive travel of the seals



Example: FI5-1 1/4NPT

Additional Face Seal

For threaded ports

- Prevent scratching of test pieces

Industry's Broadest Standard Product Offering

Sealing Range (Millimeters)	Base Connector (Metric)	Connector Seal Set*	Bulk Seal Kit **	Repair Kits
Internal (FI) Connectors for Smooth Tubes - Neoprene Seals				
7.87 mm - 8.38 mm	FIM01	FIS01-0300	FIB01-0300	FIR01
8.38 mm - 10.00 mm		FIS01-01	FIB01-01	
10.00 mm - 11.98 mm	FIM1	FIS1-11	FIB1-11	FIR1
11.98 mm - 13.99 mm		FIS1-12	FIB1-12	
13.99 mm - 16.00 mm		FIS1-13	FIB1-13	
16.00 mm - 18.00 mm	FIM2	FIS2-21	FIB2-21	FIR1
18.00 mm - 19.98 mm		FIS2-22	FIB2-22	
19.98 mm - 21.99 mm		FIS2-23	FIB2-23	
21.99 mm - 24.00 mm	FIM3	FIS3-31	FIB3-31	FIR3
24.00 mm - 26.00 mm		FIS3-32	FIB3-32	
26.00 mm - 27.99 mm		FIS3-33	FIB3-33	
27.99 mm - 29.99 mm	FIM4	FIS4-41	FIB4-41	FIR3
29.99 mm - 32.00 mm		FIS4-42	FIB4-42	
32.00 mm - 34.01 mm		FIS4-43	FIB4-43	
34.01 mm - 37.00 mm	FIM5	FIS5-51	FIB5-51	FIR6
37.00 mm - 40.00 mm		FIS5-52	FIB5-52	
40.00 mm - 43.00 mm		FIS5-53	FIB5-53	
43.00 mm - 46.99 mm	FIM6	FIS6-61	FIB6-61	FIR6
46.99 mm - 51.00 mm		FIS6-62	FIB6-62	
51.00 mm - 54.99 mm		FIS6-63	FIB6-63	
54.99 mm - 58.54 mm	FIM7	FIS7-71	FIB7-71	FIR7
58.54 mm - 62.10 mm		FIS7-72	FIB7-72	
62.10 mm - 65.65 mm		FIS7-73	FIB7-73	
65.65 mm - 69.21 mm	FIM8	FIS8-81	FIB8-81	FIR7
69.21 mm - 72.77 mm		FIS8-82	FIB8-82	
72.77 mm - 76.32 mm		FIS8-83	FIB8-83	

- FI connectors are also designed for NPT, BSPT, BSPP, SAE and NPS style ports, please contact FasTest for more information
- Metric base connectors are designed for BSPP and metric ports
- *Includes main seals and washers for one seal change; must choose one seal set when purchasing base connector
- **Includes only main seals for five seal changes, please contact FasTest for more information

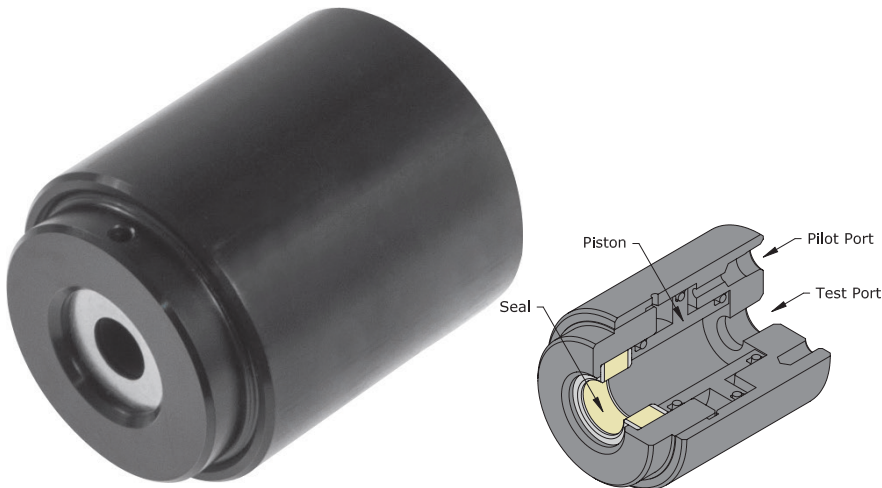
Visit www.fastestinc.com

For additional information on product dimensions, seal kits and connector variations

FasTest External (FE) - Pneumatic Tube and Thread

FE Series

External Tube and Thread Connections



The FE Advantage

- **Pneumatic actuation** accommodates high volume production testing
- **Capable of sealing** smooth, porous, rough, threaded, out-of-round, flared, beaded, swaged and formed end ports
- **Delicate touch seals thin wall materials** will not mar test piece
- **Adaptable** for pick and place robotic applications
- **Simple** maintenance for extended life

FasTest External (FE)

connectors use pneumatic pressure to expand seals, creating a leak-tight external connection to virtually any type of male port. FE connectors are ideally suited for flow accommodation.

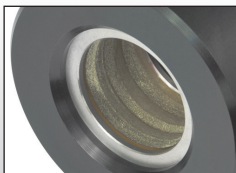
Technical Specifications

Operating Pressure	34 bar
Connection Profile	External Tubes and Threads
Termination Profile	Female 10-32" UNF, M5X8, NPT/BSPP: 1/8" to 2 1/2"
Mounting Port	Female 10-32" to 3/8-24" UNF, M5X8 to M11X1.5, 4-40" to 3/8-24" UNC
Pilot Port	Female 10-32" UNF, M5X8, 1/8" NPT/BSPP
Pilot Pressure	4.1-41.3 bar
Housing Material	Aluminum and Stainless steel
Seal Material	Standard: Neoprene, Urethane Optional: FKM (Viton), Buna-N or EPDM
Operating Temperatures	-17°C to 93°C Neoprene 0°C to 79°C Urethane

Offering Choice of Seal Materials & Special Applications



Example: FE3-31



Example: FE3-31UR

Neoprene Seals or Urethane Seals

Standard Seals for FE Connectors

- Neoprene for smooth bores and cast surfaces
- Urethane for irregular surfaces and high wear applications



Example: PB-1015

Pilot Pressure Booster

For threaded ports

- Deliver actuation pressure up to 27 - 41 bar using pneumatic pressure
- For FE connector only

Industry's Broadest Standard Product Offerings

Sealing Range (Millimeter)	Base Connector (Metric)	Connector Seal Set*	Bulk Seal Kit **	Repair Kits
External (FE) Connectors for Smooth Tubes - Neoprene Seals				
0.76 mm - 1.27 mm	FEM001	FES001-0050	FEB001-0050	FER001
1.27 mm - 2.03 mm		FES001-001	FEB001-001	
2.03 mm - 3.30 mm		FES001-002	FEB001-002	
3.30 mm - 4.57 mm	FEM01	FES01-01	FEB01-01	FER01
4.57 mm - 6.60 mm		FES01-02	FEB01-02	
6.60 mm - 8.63 mm		FES01-03	FEB01-03	
8.63 mm - 10.66 mm		FES01-04	FEB01-04	
10.66 mm - 12.95 mm		FES01-05	FEB01-05	
12.95 mm - 13.00 mm	FEM1	FES1-15	FEB1-15	FER1
13.00 mm - 15.01 mm		FES1-16	FEB1-16	
15.01 mm - 16.99 mm		FES1-17	FEB1-17	
16.99 mm - 19.05 mm		FES1-18	FEB1-18	
19.05 mm - 21.00 mm		FES1-19	FEB1-19	
21.00 mm - 21.99 mm	FEM2	FES2-21	FEB2-21	FER2
21.99 mm - 24.00 mm		FES2-22	FEB2-22	
24.00 mm - 26.00 mm		FES2-23	FEB2-23	
26.00 mm - 27.99 mm		FES2-24	FEB2-24	
27.99 mm - 29.99 mm		FES2-25	FEB2-25	
29.99 mm - 32.00 mm		FES2-26	FEB2-26	
32.00 mm - 34.01 mm		FES2-27	FEB2-27	
34.01 mm - 35.99 mm		FES2-28	FEB2-28	
35.99 mm - 38.35 mm		FES2-29	FEB2-29	
38.35 mm - 40.99 mm	FEM3	FES3-31	FEB3-31	FER3
40.99 mm - 43.99 mm		FES3-32	FEB3-32	
43.99 mm - 46.99 mm		FES3-33	FEB3-33	
46.99 mm - 50.01 mm		FES3-34	FEB3-34	
50.01 mm - 53.00 mm	FEM4	FES4-41	FEB4-41	FER4
53.00 mm - 56.00 mm		FES4-42	FEB4-42	
56.00 mm - 59.00 mm		FES4-43	FEB4-43	
59.00 mm - 62.00 mm		FES4-44	FEB4-44	
62.00 mm - 64.99 mm		FES4-45	FEB4-45	
64.99 mm - 67.99 mm		FES4-46	FEB4-46	
67.99 mm - 70.99 mm		FES4-47	FEB4-47	
70.99 mm - 73.99 mm		FES4-48	FEB4-48	
73.99 mm - 77.01 mm		FES4-49	FEB4-49	

- FasTest also offers additional FE connectors sizes, up to a 5.040" ceiling range, for smooth tube connections
- FE connectors are also designed for NPT, BSPT, BSPP, SAE and NPS style ports, please contact FasTest for more information
- English base connectors are designed for NPT and UNF ports; metric base connectors are designed for BSPP and metric ports
- *Includes main seals and washers for one seal change; must choose one seal set when purchasing base connector

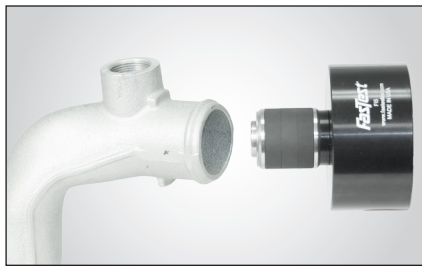
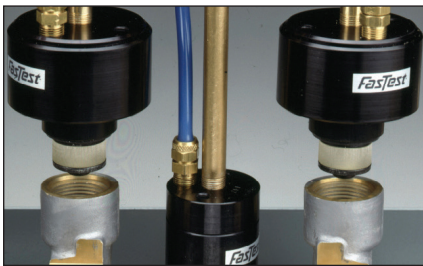
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For additional information on product dimensions, seal kits and connector variations

Applications & Innovative Technology

FI Series

Internal Tube and
Thread Connections



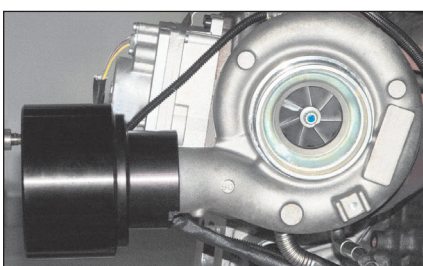
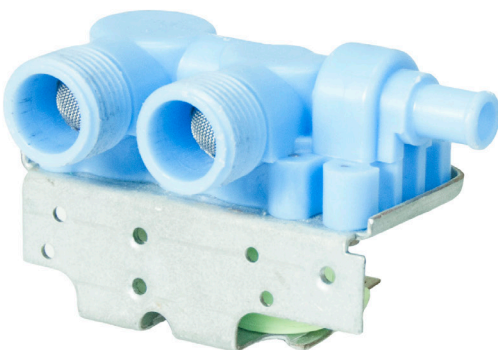
FasTest Internal (FI) & FasTest External (FE)

Connectors offer a leak-tight connection to virtually any type of tube and are ideal for automation in high volume production testing. FasTest's industry leading connectors allow for pneumatic and hydrostatic testing of a wide variety of applications, including:

- *Reservoir bottles*
- *Manifolds*
- *Suspension/Struts*
- *Transmissions*
- *Engines*
- *Castings/plumbing*
- *Radiators*
- *Plastic ports/features*
- *Run tests*
- *Hot engine testing*
- *Sensor/gauges*
- *Lamp assemblies*
- *Fuel pumps*
- *Heat exchangers*

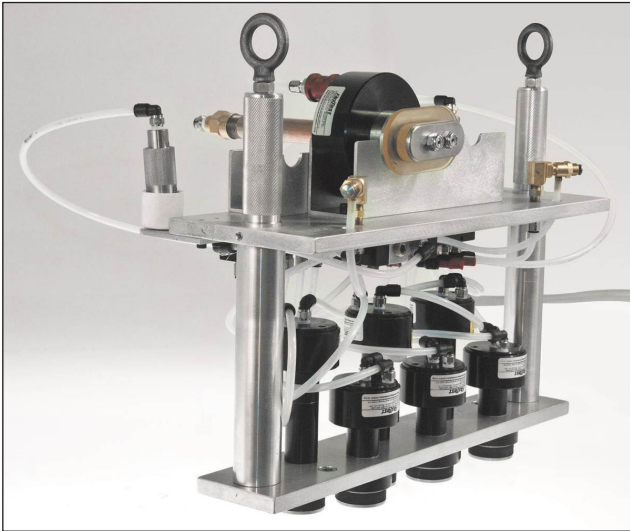
FE Series

External Tube and
Thread Connections



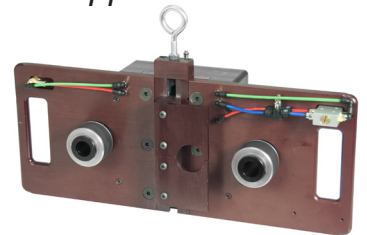
Fixturing for Leak Test Workholding

FasTest offers custom applications and integrated fixturing solutions and services



FasTest Deliverables:

- Integrated fixture & connectors
- Customized design solution
- Project scope & delivery
- Ongoing technical support



Technology Development



Instant data feedback on any platform

Cycle count management and tracking

Automated test pressure control

Electronic Tool System (ETS)

FasTest offers electronically controlled sealing options for leak test applications that require ultimate seal control and clean operation.

Compatible with all industry leading testing systems for:

- Air leak
- Air flow
- Mass flow
- Pressure decay
- Differential pressure
- Functional testing

Supports multiple independent channels & customized pneumatics

Visit www.fastestinc.com

For additional information on product dimensions, seal kits and connector variations

Where to Buy



Purchase through local distributor

- ➔ Factory authorized distributors provide local service and support across the U.S.A. and internationally.
- ➔ Contact your local distributor or visit: www.fastestinc.com/en/distributorlocator

Cost, Process and Quality Improvement

Since 1985, **FasTest, Inc.** has manufactured quick test connectors and valves that maximize efficiency, productivity and profitability for the Industrial Manufacturing, HVAC-R and Compressed Gas Industries.

Relying on our core engineering skills, FasTest has secured over 50 US and International patents. These patents serve as the design platform for innovative products that enable our customers to improve testing, manufacturing processes and productivity.

Proudly Serving



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All products are designed and manufactured by FasTest Inc. USA

Limited Express Warranty

FasTest Inc. warrants its products against defects in workmanship and materials for 12 months from the date of sale by FasTest Inc. or its authorized distributor. This warranty is void if the product is misused, tampered with or used in a manner that is contrary to FasTest Inc.'s written recommendations and/or instructions.

See website for complete warranty information.

Custom Applications

FasTest has full engineering and manufacturing capability to provide special accommodations to meet specific applications. Our engineers are available to review your unique application requirements.

Certifications

FasTest Inc. is ISO 9001: 2008 certified.