



TOOLS & SYSTEMS

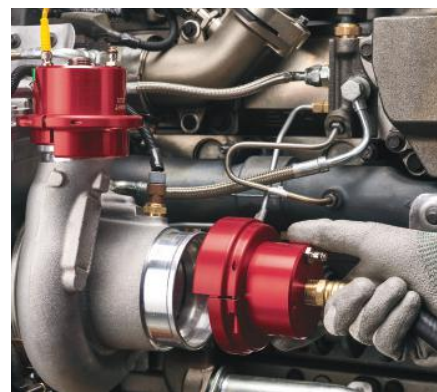
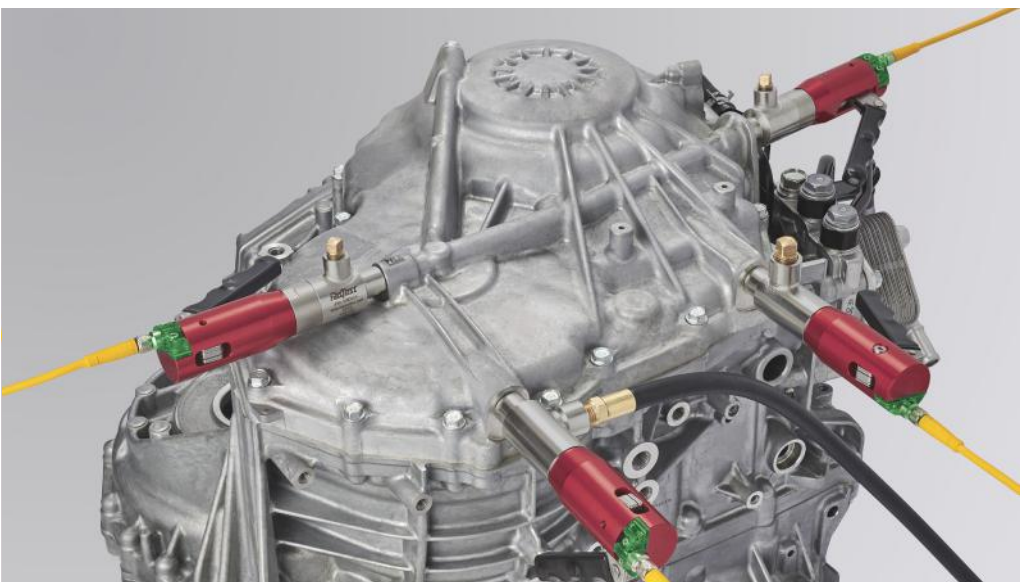
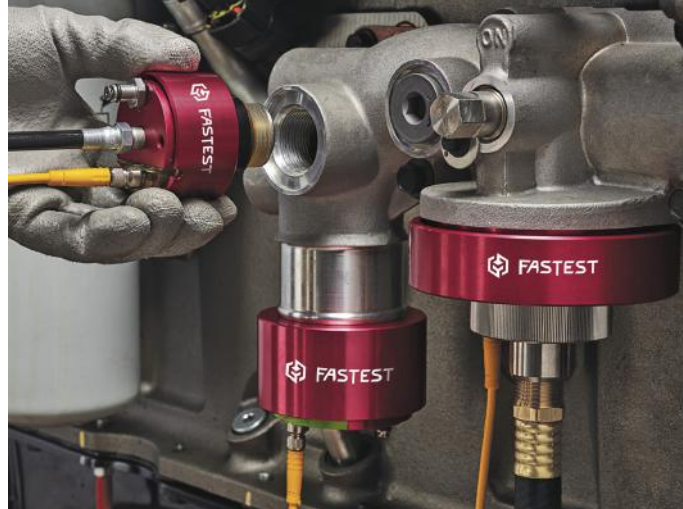
FASTEST[®]



**SAFE.
RELIABLE.
FAST.**

SEALING CONNECTION TOOLS

2020 PRODUCT GUIDE





FASTEST[®]

SAFE, RELIABLE, FAST SEALING CONNECTIONS

Enhance Test Safety | Drive Continuous Improvement | Ensure Product Quality

Standard and Custom Sealing Connection Tools for Leak Test and Fluid Transfer Applications.

FastTest is a dedicated manufacturer of advanced engineered Sealing Connection Tools for product testing, fluid transfer, and other processing applications. Our mission is to make your production safe, easy, and more efficient. **FasTest tools significantly increase operational throughput to reduce manufacturing costs.**

As your sealing and connection solution leader for over 35 years, FastTest is ready to assist you in specifying the optimal sealing connection tools for your application.

OUR CUSTOMERS

AUTOMOTIVE /
VEHICLE SYSTEMS

HVAC/
REFRIGERATION

COMPRESSED GAS

FLUID POWER

APPLIANCES

AEROSPACE

MEDICAL LIFE
SCIENCES

...AND MORE



APPLICATION EXPERTS

We work with you to provide the best solution for your application.



QUALITY

ISO 9001 Certified;
Robust tools improve the quality of your product.



BREADTH OF OFFERING

Extensive standard
and Custom Engineered
Solutions.



INTELLIGENT TOOLS

Industry 4.0 sensing &
data generating tools

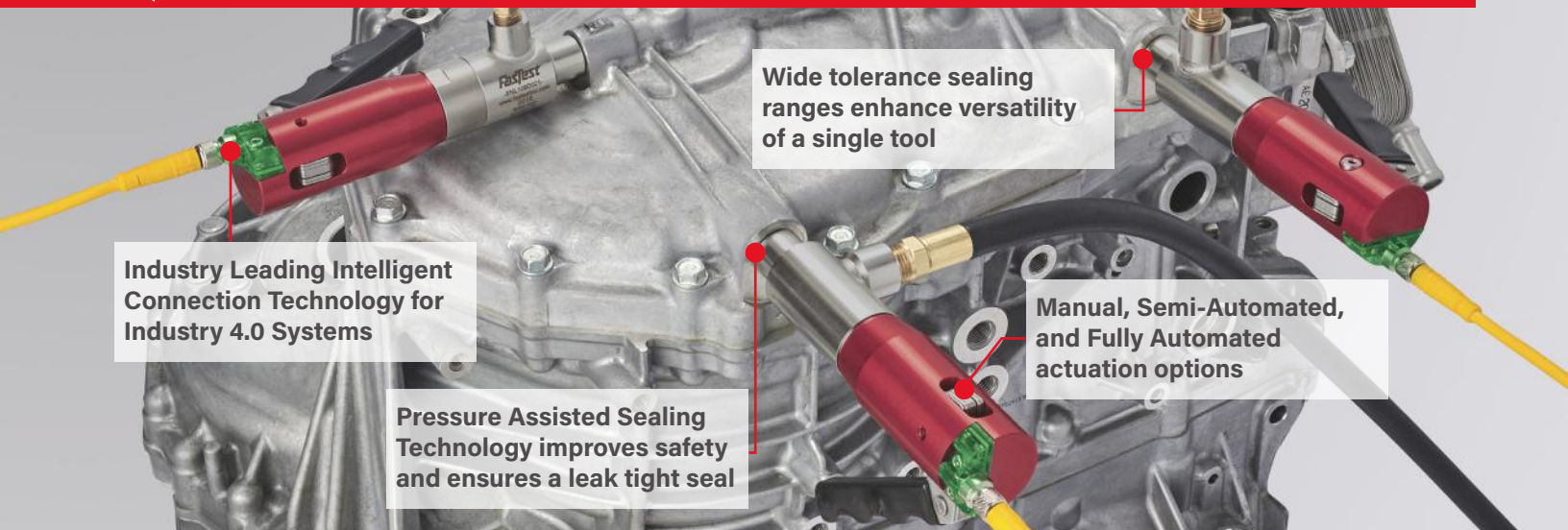


GLOBAL SUPPORT

Global distribution
coverage for local and
responsive distribution
support.



INTELLIGENCE AT THE POINT OF CONNECTION



Industry Leading Intelligent Connection Technology for Industry 4.0 Systems

Wide tolerance sealing ranges enhance versatility of a single tool

Manual, Semi-Automated, and Fully Automated actuation options

Pressure Assisted Sealing Technology improves safety and ensures a leak tight seal

FASTEST EXPERTISE

We are the Intelligence at the Point of Connection. We've seen it, we've done it, we live it.

FasTest® Sealing Connection Tool: A high performance device that provides a repeatable, ergonomic, and fast way to attach and seal applications for leak testing and fluid transfer processes.

Leak Testing

Sealing Connection integrity is imperative to get good leak testing results.

Fluid Transfer Testing

High flow, high pressure, and safe connections

HVAC/R Processing

Extreme leakage requirements for pressure and vacuum.

Compressed Gas Filling

Robust, secure, and leak free connections

CoreMax® Access Valve

CoreMax® access valve provides a leak free valve designed for refrigerant

Complete Sealing Connection Tool Provider

Single source provider of all Sealing Connection Tools for an entire application. FasTest® Sealing Connection Tools provide consistent connection and sealing for testing variation reduction.

Customer Intimacy

We work with you to improve your product and manufacturing process.

Largest Selection of Sealing Connection Tools

Hundreds of standard designs available along with Custom Engineering Solutions.

Faster and Better Real Time Decisions

FasTest® sealing connection integrity eliminates wasted time diagnosing leaks, allowing for focus on key process improvements.

Quick ROI

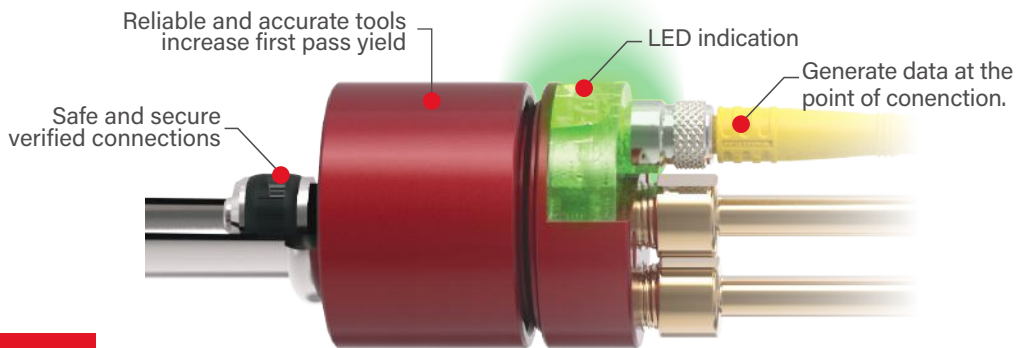
Improved safety, better ergonomics, and increased throughput.



ICON™

INTELLIGENT CONNECTION TECHNOLOGY

FasTest's ICON™ adds sensing capabilities to our mechanical Sealing Connection Tools. ICON™ Tools include instant LED visual feedback and data output to improve sealing connection accuracy, maximize production efficiency, and optimize maintenance.



ICON™ features:



SURE SEAL™

Instant LED feedback verifies a good connection prior to starting a test.



SEAL LIFE™

Alert when the main seal is at end of life and must be replaced.

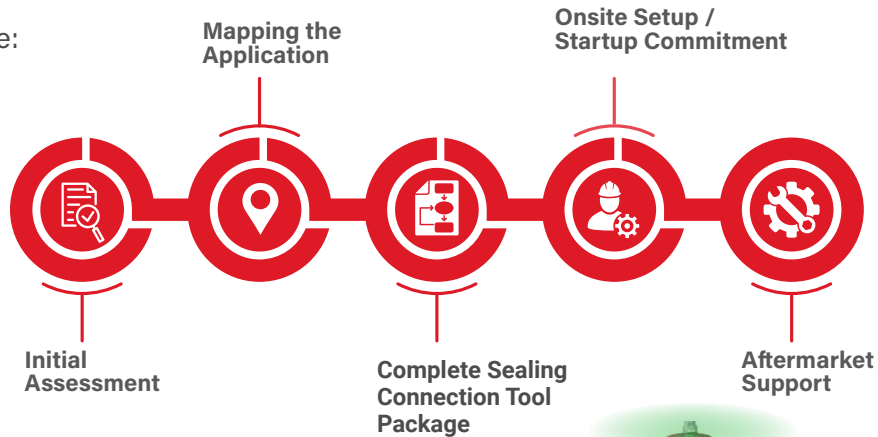
- » **Improve safety during functional tests.**
SURE SEAL™ provides an instant LED indication of a safe and secure connection. Identify short-connects before media is introduced.
- » **Eliminate leak test false failures to improve first pass yield.**
ICON™ verifies the connection. Know a leak is in the product, not the connection.
- » **Increase throughput and reduce downtime.**
Safe, reliable, and consistent connections every cycle - test more, quicker. Reduce rework and the need to retest.
- » **Collect tool data.**
Make better real time decisions through data. Utilize data on historical use and cycle count to eliminate waste and improve product quality.
- » **Optimize seal maintenance.**
SEAL LIFE™ indicates when the main seal needs to be replaced.

COMPLETE SYSTEM PROVIDER

ALL THE SEALING CONNECTION TOOLS FOR YOUR APPLICATION - ACHIEVE CONSISTENT SEALING AND REDUCE TESTING VARIATION

- » Work with our experienced engineers to solve your problems.
Let your engineers work on your products and leave sealing tools to us.

What we provide:

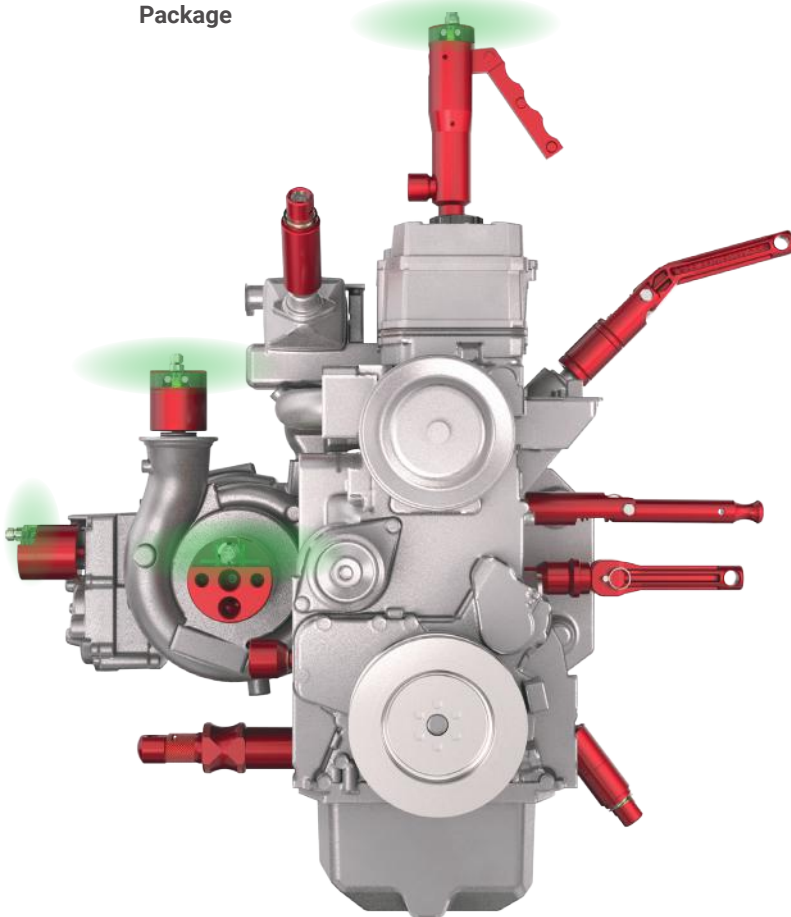


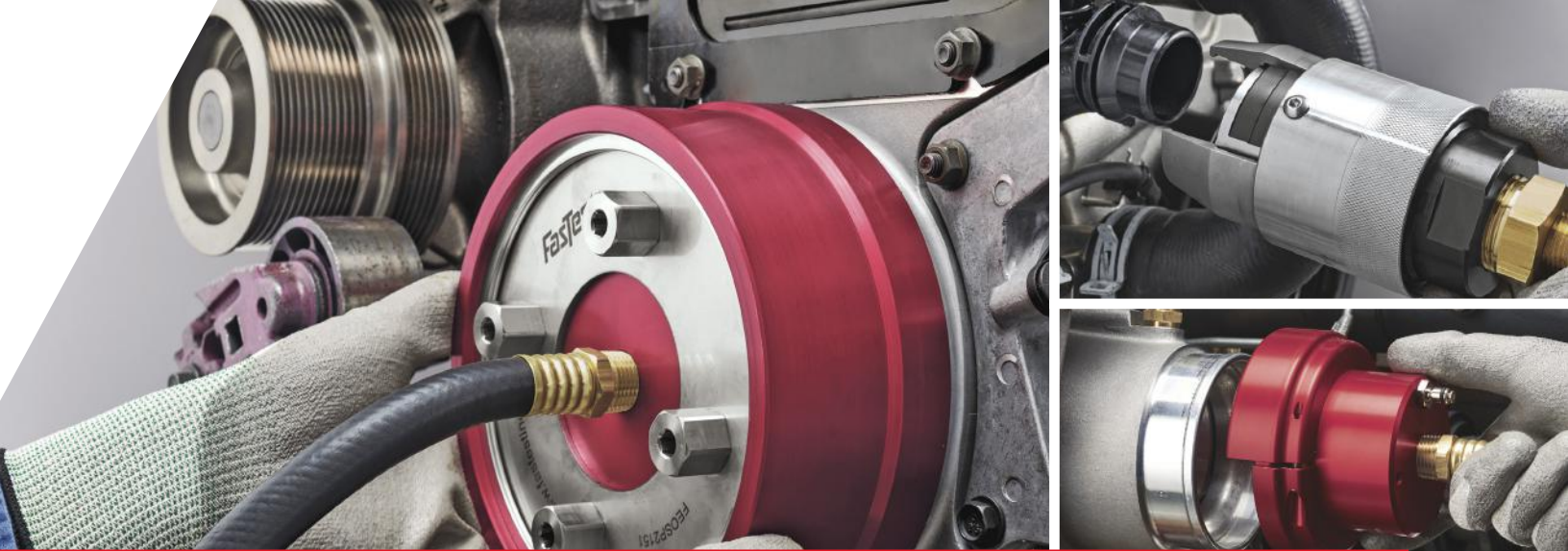
- » **Reduce testing variation** with a complete package of FasTest Sealing Connection Tools

- » **Ergonomic Sealing Connection Tools** with SURE SEAL™ eliminates false failures, improving takt time

- » **Multiple data points** provides insight for your testing process

- » **Leak-tight seals** prevents contamination of media and reduces scrap and test damage





CUSTOM ENGINEERED SOLUTIONS

WE TRANSFORM STANDARDIZED TOOLS INTO TAILOR-MADE SOLUTIONS TO FIT YOUR EXACT REQUIREMENTS.

» We have a dedicated team of Custom Experts - we have done thousands of custom applications and have likely seen yours.

Custom Sealing Connection Tools for:

Automotive / Vehicle Systems

- Unique port shapes/sizes
- Turbocharger
- Fuel systems

Fluid Power

- Hydraulic hose ends
- Hydrostatic drive components
- Cylinder testing

HVAC/R

- Distribution manifolds
- Compressor run testing
- Coil leak testing

Compressed Gas

- Pressure vessel proof testing
- Specialty gasses
- Fill plant ergonomics

Aerospace

- Specialty pressures/materials
- Hydraulic tubing
- Casting porosity

Appliance

- Washing machine mixing valves
- Coil/compressors
- Water dispensers and filtration

Medical / Life Science

- Drug delivery systems (insulin pumps/tube sets)
- Medical filtration (kidney dialysis)
- Medical devices (chest drains, angioplasty instruments)

Telecommunications

- Fiber optic cables
- Cloud server liquid cooling
- Casings



NEED A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

» We know our customers - Our breadth of product, innovative technologies, and over 35 years of sealing experience makes us sealing connection tool experts for these industries... and more.

AUTOMOTIVE / VEHICLE SYSTEMS

Industry Needs: safety, Industry 4.0, broad offering, repeatable, and durable.

Common Applications: Engine testing (leak & hot run test), cooling/braking/fuel systems leak testing, and fluid transfer.

Electric vehicle component testing, drive system, and battery cooling.

Suggested Products: FE/FI, JN/JX, FN/FX, ZF, ZN, ZGN, FR70, MET/MIT, 60/70, and customized solutions.



FLUID POWER

Industry Needs: safety, Industry 4.0, high pressure, and high flow.

Common Applications: Pneumatic/hydraulic hose assembly, cylinders, pumps, motors, hydrostatics, pneumatic components, and valves.

Suggested Products: FN/FX, HPB, MET/MIT, ZGN, 60/70, and customized solutions.



HVAC/R

Industry Needs: safety, Industry 4.0, extreme vacuum, current/next-gen refrigerants, safe, stringent leak test, system access valve.

Common Applications: Coil test, compressor test, burst test, manifold assembly test, evacuation/charging, furnace burner test, and system run test.

Suggested Products: ST, XT, GasMate, SnapMate, JNL/JXL, MBE/MRE, RQD, and customized solutions

CoreMax® Access Valve System: High flow OEM refrigerant valves for HVAC-R manufacturers and connectors for testing applications with refrigerant tubing, and process tips.



DON'T SEE A SOLUTION FOR YOUR INDUSTRY? Look on p. 6 to see our Custom Engineered Solutions capabilities.

COMPRESSED GAS

Industry Needs: safety, Industry 4.0, high pressure, vacuum capable, robust, and specific for compressed gas / oxygen systems.

Common Applications: Cylinder evacuation and fill.



Suggested Products: G540, G580, G346, G590, MediMate, High Purity, and Cryovent.

AEROSPACE

Industry Needs: safety, Industry 4.0, high pressure, non-marring, and stringent leak test

Common Applications: Tube assemblies, castings, fuel flow, calibration, and pitot tubes.



Suggested Products: HPB, FN/FX, MET/MIT, FE/FI, 60/70, and customized solutions.

APPLIANCE

Industry Needs: safety, Industry 4.0, broad offering, vacuum capable, stringent leak test, high cycle, and easy to maintain.

Common Applications: Refrigerant leak test, manifold assembly test, evacuation/charging, furnace burner test, mixing valve tests, plumbing testing, and system run test.



Suggested Products: JN/JX, FN/FX, MET/MIT, GasMate, SnapMate, 60/70, ST, XT, and customized solutions.

MEDICAL / LIFE SCIENCES

Industry Needs: safety, Industry 4.0, vacuum capable, certified cleanliness, FDA compliant seals, stringent leak test, high cycle, easy to maintain.

Common Applications: Angioplasty catheter, battery packs, needle, syringe, Luer testing, dialysis filters and specialty tools.



Suggested Products: ME, ML, LuerMate, 60/70, and customized solutions.

Connect and seal on the inside of the cavity, tube, or thread

Industry Specific Selection Guide on p. 13



| PRODUCT SERIES | | EZ Connect™ ZN (p. 17) | FI (p. 19) | EZ Connect™ ZGN (p. 25) |
|----------------|---------------------------|--|--------------------------------------|---------------------------------------|
| 3 | Pressure rating | Vacuum to 50 psi (3.5 bar) | Vacuum to 120 psi (8.3 bar) | Vacuum to 120-300 psi (8.3-20.7 bar) |
| | Application type | Manual | Semi-automated or Fully automated | Manual/Semi-automated/Fully automated |
| 4 | Actuation method | Lever | Pneumatic | Lever / Pneumatic |
| | Grip method | Seal friction | Fixturing/Seal friction | Grip collets |
| 5 | ICON™ Technology | | SURE SEAL™ and SEAL LIFE™ | |
| CAVITIES | HOLES / BORES | 2 0.375" to 1.339" 9.53 mm to 34.01 mm | 0.310" to 3.005" 7.87 mm to 76.33 mm | N/A |
| | | | | |
| TUBES | STRAIGHT | 0.375" to 1.339" 9.53 mm to 34.01 mm | 0.310" to 3.005" 7.87 mm to 76.33 mm | N/A |
| | SWAGED | | | |
| | EXPANDED | | | |
| | FLARED | | | |
| | BEADED | 0.375" to 1.339" 9.53 mm to 34.01 mm | 0.310" to 3.005" 7.87 mm to 76.33 mm | N/A |
| | BARBED | | | |
| | FORMED | | | |
| THREADS | NPT | N/A | 1/8 to 2 1/2 | 1/8 to 1/2 |
| | BSPT/BSPP (G) | N/A | 1/8 to 2 1/2 | 1/8 to 1/2 |
| | O-RING BOSS / FLARE PORTS | N/A | 7/16-20 to 2 1/2-12 M10 to M60 | 3/4-24 to 3/4-16 M10 to M20 |
| | JIC 37° FLARE SWIVEL NUT | N/A | N/A | N/A |
| | ORFS SWIVEL NUT | N/A | N/A | N/A |
| | | | | |

4

Choose preferred actuation method -
Lever / Sleeve for Manual or Pneumatic for Automation

5

Identify desired ICON™ features



| JNL (p. 29) | FasMate® FN (p. 33) | TwistMate® MIT (p. 43) |
|---|---------------------------------------|--|
| Vacuum 10 mtorr (micron) to 1000 psi (68.9 bar) | Vacuum to 5,000 psi (344.7 bar) | Vacuum to 10,000 psi (689.5 bar) |
| Manual | Manual | Manual |
| Lever | Lever/Pneumatic/ Thumb valve | Manual twist |
| Grip collets | Thread collets | Continuous thread |
| | SURE SEAL™ | |
| 0.375" to 1.625" 9.53 mm to 41.275 mm | N/A | N/A |
| 0.375" to 1.625" 9.53 mm to 41.275 mm | N/A | N/A |
| N/A | N/A | N/A |
| N/A | 1/8 to 3/4 | 1/8 to 4 |
| N/A | 1/8 to 3/4 | 1/8 to 1 |
| N/A | 7/16-20 to 1 1/16-16 M10 to M22 | 1/8-24 to 1 1/8-12 M10 to M22 |
| N/A | N/A | 7/16-20 to 3-12 (-4 to -40) |
| N/A | N/A | 9/16-18 to 2 1/2-12 (-4 to -32) |



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

EXTERNAL CONNECTIONS

1

Identify the appropriate Cavity / Tube / Thread type for the application

2

Select the tool(s) that fit the size requirement













3

Verify operation meets the application

Connect and seal on the outside of the tube, or thread

Industry Specific Selection Guide on p. 13



| | PRODUCT SERIES | EZ Connect™ ZF (p. 55) | FE (p. 57) | 60 (p. 65) | 70 (p. 67) |
|---|------------------|---|---|----------------------------------|-------------------------------------|
| 3 | Pressure rating | Vacuum to 300 psi (20.7 bar) | Vacuum to 500 psi (34.5 bar) | Vacuum to 750 psi (51.7 bar) | Vacuum to 750 psi (51.7 bar) |
| | Application type | Manual | Semi-automated or Fully automated | Manual | Manual |
| 4 | Actuation method | Sleeve | Pneumatic | Sleeve | Sleeve |
| | Grip method | Grip collets | Fixturing/Seal friction | Grip collets | Thread collets |
| 5 | ICON™ Technology | | SURE SEAL™ and SEAL LIFE™ | | |
| 1 | TUBES | STRAIGHT  | 2 0.030" to 5.040" 0.76 mm to 128.02 mm | N/A | 0.236" to 2.040" 6 mm to 51.8 mm |
| | | SWAGED  | | | |
| | | EXPANDED  | | | |
| | | FLARED  | | | |
| | BARBED | BEADED  | 0.030" to 5.040" 0.76 mm to 128.02 mm | N/A | 0.236" to 2.040" 6 mm to 51.8 mm |
| | | BARBED  | | | |
| | | FORMED  | | | |
| | THREADS | NPTF  | 1/8 to 2 1/2 | 1/8 to 1 | N/A |
| | | JIC 37° FLARE  | 7/16-20 to 1 7/8-12 | 7/16-20 to 1 5/16-12 (-4 to -16) | N/A |
| | | METRIC  | M10 to M60 | M10 to M33 | N/A |
| | | 45° FLARE  | 7/16-20 to 1 1/16-14 | 7/16-20 to 1 3/8-12 (-4 to -16) | N/A |
| | | BSPT/BSPP (G)  | 1/8 to 2 1/2 | Consult factory | N/A |

4

Choose preferred actuation method -
Lever / Sleeve for Manual or Pneumatic for Automation

5

Identify desired ICON™ features



| JXL (p. 69) | FasMate® FX (p. 71) | HPB (p. 77) | TwistMate® MET (p. 79) |
|---|---------------------------------------|---------------------------------------|-------------------------------------|
| Vacuum 10 mtorr (micron) to 1000 psi (68.9 bar) | Vacuum to 5,000 psi (344.7 bar) | Vacuum to 6,000 psi (413.7 bar) | Vacuum 10,000 psi (689.5 bar) |
| Manual | Manual | Manual | Manual |
| Lever | Lever/Pneumatic/ Thumb valve | Sleeve | Twist |
| Grip collets | Threaded / Grip collets | Threaded / Grip collets | Continuous thread |
| | | | |
| 0.25" to 0.875" 6.3 mm to 22.2 mm | N/A | N/A | N/A |
| N/A | 0.38" to 0.75" 9.7 mm to 19.2 mm | N/A | N/A |
| N/A | 1/8 to 1/2 | 1/4 to 3/4 | 1/8 to 3 |
| N/A | 3/8-24 to 3/4-16 | 7/16 to 3/4-16 | 7/16-20 to 2 1/2-12 (-4 to -32) |
| N/A | M10 to M20 | N/A | Consult factory |
| N/A | 3/8-24 to 3/4-16 | N/A | 7/16-20 to 1 1/16-14 (-4 to -12) |
| N/A | 1/8 to 1/2 | 1/4 to 1/2 | 1/8 to 1 |



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application
form and drawing to fastsales@fastestinc.com or to your local distributor.

Connect and seal specific tubes or threads



| DESIGNED FOR | FUEL RAILS | GAS BURNER TESTING | |
|------------------|------------------------------|------------------------------------|---|
| PRODUCT SERIES | 70 FR (p. 89) | GZNV (p. 91) | G60V (p. 93) |
| Pressure rating | Vacuum to 750 psi (51.7 bar) | Vacuum to 5 psi (0.4 bar) | Vacuum to 30 psi (2.1 bar) |
| Connects to | SAE J2044 fuel lines | Natural gas and propane regulators | Natural gas and propane regulator extension pipes |
| Sealing range | 1/4", 5/16", 3/8", 1/2" | 3/8, 1/2, 3/4 Female NPT/BSPP (G) | 3/8, 1/2, 3/4 Male NPT/BSPP (G) |
| Application type | Manual | Manual | Manual |
| Actuation method | Sleeve | Lever | Sleeve |
| Grip method | Jaws | Seal friction | Thread collets |



| DESIGNED FOR | MEDICAL-LIFE SCIENCES | | | | |
|------------------|--|--|--|---|--|
| PRODUCT SERIES | ME (p. 105) | ML (p. 109) | 60M (p. 111) | MLL (p. 113) | MLH (p. 115) |
| Pressure rating | Vacuum 10 mtorr (micron) to 500 psi (34.5 bar) | Vacuum 10 mtorr (micron) to 500 psi (34.5 bar) | Vacuum 10 mtorr (micron) to 750 psi (51.7 bar) | Vacuum 10 mtorr (micron) to 100 psi (6.9 bar) | Vacuum 10 mtorr (micron) to 500 psi (34.5 bar) |
| Connects to | Tubing and Luers (Full or partial thread) | Luers (Full thread) | Luers (Full or partial thread) | Luers (Full or partial thread) | Luers (Full thread) |
| Sealing range | 0.015" to 0.510" (0.38 mm to 13 mm) | Luer | Luer | Luer | Luer |
| Application type | Semi-automated or Fully automated | Semi-automated or Fully automated | Manual | Semi-automated or Fully automated | Semi-automated or Fully automated |
| Actuation method | Pneumatic | Pneumatic | Manual sleeve | Pneumatic | Pneumatic |
| Grip method | Fixturing / Seal friction | Fixturing / Collar | Collets | Fixturing / Seal friction | Fixturing / Collar |
| ICON™ Technology | SURE SEAL™ and SEAL LIFE™ | | | | |



| HVAC/R | | | | |
|--|--|--|--|--|
| XT (p. 95) | ST (p. 97) | RQD (p. 99) | SNAPMATE (p. 101) | MBE / MRE (p. 103) |
| Vacuum 10 mtorr (micron) to 625 psi (43.1 bar) | Vacuum 10 mtorr (micron) to 1,000 psi (68.9 bar) | Vacuum 10 mtorr (micron) to 750 psi (51.7 bar) | Vacuum 10 mtorr (micron) to 625 psi (43.1 bar) | Vacuum 10 mtorr (micron) to 625 psi (43.1 bar) |
| Expanded tubes | Straight tubes | Hansen® and PCU® male fittings | CoreMax® / Schrader® access ports | Expanded tubes |
| 5/16", 3/8", 1/2", 5/8", 3/4", 7/8" | 1/4", 5/16", 3/8" | 1/4", 3/8" | 7/16-20 flare | 1/4" to 1 3/8" |
| Manual | Manual | Manual | Manual | Manual |
| Sleeve | Sleeve | Sleeve / Lever | Sleeve | Sleeve |
| Ball latch | Thread collets | Ball latch | Thread collets | Ball / Ring latch |

» INDUSTRY LEADING RESPONSIVENESS

MAJORITY OF PRODUCTS SHIP WITHIN 2 DAYS.

CUSTOM ENGINEERED SOLUTIONS INCLUDING DESIGN,
SHIP IN WEEKS VS. MONTHS.

AT FASTEST WE TAKE PRIDE IN BEING RESPONSIVE TO ALL OUR
CUSTOMER'S NEEDS, INCLUDING PRODUCT AVAILABILITY.





INTERNAL CONNECTIONS



 FASTEST

 FASTEST

ZN™ / INTERNAL SEALING CONNECTION TOOL

Manual sealing connection tool for tubes and bores with broad tolerance and low pressures (<50 psi/3.4 bar).

CONNECTS TO:

Straight Expanded Flared Beaded Barbed Formed Swaged



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|----------------------------|--------------------------------|--|
| Vacuum to 50 psi (3.5 bar) | 0°F to +200°F (-17°C to +93°C) | Anodized Aluminum, Stainless Steel, Acetal (POM) |
| Termination Port | | Seal Material* |
| 1/8 NPT to 3/8 NPT | | Main seal: Neoprene® Internal seal: Buna-N |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Lever Handle: Two way actuation handle is simple and ergonomic for production applications

ICON™ TECHNOLOGY

Consult Factory

ACCESSORIES



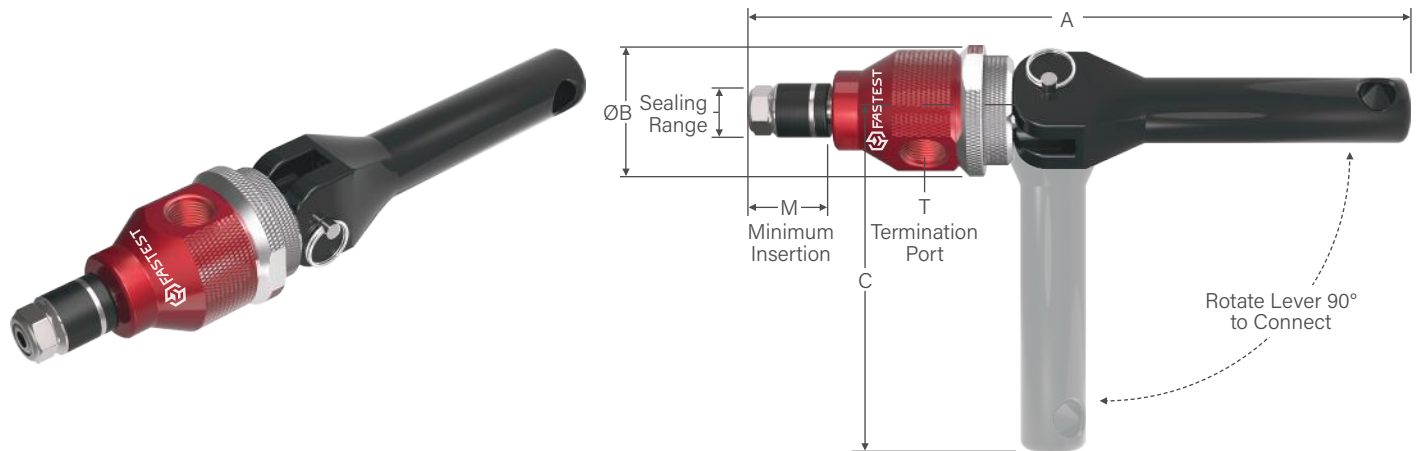
Safety Cable

- Additional safety feature in case of accidental blowoff.



- 1 Lockable collar to keep sealing pressure constant, handle hole for safety cable as needed
- 2 Adjustment ring to accommodate the widest sealing range in the industry; set preload and maximize seal life
- 3 High flow design can be quickly adapted for plug style applications
- 4 Quick change seal sets to accommodate multiple sizes of tubing and easy field maintenance

ZN / INTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | Dimensions | | | | |
|--------------------------------|-------------|---------------------------------|-----------------|----------------|-----------------|----------------|---------|
| Sealing Range | Part Number | Replacement Seals Bulk Pack (5) | A | B | C | M | T |
| 0.38 to 0.39 (9.5 to 10.0) | ZN101 | ZNB10360 | 7.30 (185.4) | 1.20 (30.5) | 4.09 (103.9) | 0.57 (14.5) | 1/8 NPT |
| 0.39 to 0.47 (10.0 to 12.0) | ZN111 | ZNB111 | | | | | |
| 0.47 to 0.55 (12.0 to 14.0) | ZN112 | ZNB112 | | | | | |
| 0.55 to 0.63 (14.0 to 16.0) | ZN113 | ZNB113 | | | | | |
| 0.63 to 0.71 (16.0 to 18.0) | ZN221 | ZNB221 | 7.50 (190.5) | 1.50 (38.1) | 4.09 (103.9) | 0.78 (19.8) | 1/4 NPT |
| 0.71 to 0.79 (18.0 to 20.0) | ZN222 | ZNB222 | | | | | |
| 0.79 to 0.87 (20.0 to 22.0) | ZN223 | ZNB223 | | | | | |
| 0.87 to 0.95 (22.0 to 24.0) | ZN331 | ZNB331 | 8.13 (206.6) | 1.50 (38.1) | 4.09 (103.9) | 1.20 (30.5) | 1/4 NPT |
| 0.95 to 1.02 (24.0 to 26.0) | ZN332 | ZNB332 | | | | | |
| 1.02 to 1.10 (26.0 to 28.0) | ZN333 | ZNB333 | | | | | |
| 1.10 to 1.18 (28.0 to 30.0) | ZN441 | ZNB441 | 8.18 (207.8) | 1.63 (41.4) | 4.09 (103.9) | 1.25 (31.8) | 3/8 NPT |
| 1.18 to 1.26 (30.0 to 32.0) | ZN442 | ZNB442 | | | | | |
| 1.26 to 1.34 (32.0 to 34.0) | ZN443 | ZNB443 | | | | | |

Dimensions: inch (mm)



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

FI / INTERNAL SEALING CONNECTION TOOL

Pneumatic sealing connection tool for internal sealing in automated and semi-automated processes.

CONNECTS TO:

Straight Expanded Flared Beaded Barbed Form End Swaged



- 1 Automated processes and high-volume production testing including pick and place and delicate robotic handling applications
- 2 Capable of sealing conventional and unique sealing surfaces including smooth, porous, out of round, and threaded
- 3 Quick change seal sets to accommodate multiple sizes of tubing and easy field maintenance
- 4 Available with Shaft Extensions for accessibility to seal remote ports or multiple ports with close center to center distances - consult factory for further information



SPECIFICATIONS

| Pressure Rating | Pilot Pressure | Operating Temperatures |
|--|--|---|
| Vacuum to 120 psi (8.3 bar) | 60 to 120 psi (4.1 to 8.3 bar) | 0°F to +200°F (-17°C to +93°C) |
| Termination Port | Materials of Construction | Seal Material* |
| Female 10-32 UNF, M5 x 0.8, NPT/BSPP (G): 1/8 to 3/4 | Anodized Aluminum, Stainless Steel, Potted PCA | Standard: Neoprene®, Urethane Optional: FKM, Buna-N, EPDM, FDA White Neoprene® |

* Additional seal material types available, consult factory.

** Operating Temp: 32°F-100°F (0°C-38°C) for ICON™.

- i** Sealing connection tool and test part should be rigidly fixtured to prevent separation when under pressure (fixture not required for vacuum applications).

ACTUATION METHOD

Pneumatic: Pilot pressure applied to seals with no metal contact and uniform seal movement seals inside tubes and pipes with no marring.

ICON™ TECHNOLOGY

SURE SEAL™

SEAL LIFE™

ACCESSORIES FOR DETAILS, VISIT FASTESTINC.COM



Shaft Extension
Consult factory.



Seal Retainer Nut
Consult factory.



ICON™

INTELLIGENT CONNECTION TECHNOLOGY

FasTest's ICON™ adds sensing capabilities to our mechanical Sealing Connection Tools. ICON™ Tools include instant LED visual feedback and data output to improve sealing connection accuracy, maximize production efficiency, and optimize maintenance.

ICON™ features:



SURE SEAL™

Instant LED feedback verifies a good connection prior to starting a test.



SEAL LIFE™

Alert when the main seal is at end of life and must be replaced.

How To Add ICON™ to FI

| Signal Output | Part Number Suffix | Example |
|-------------------------------------|--------------------|-------------|
| FI without ICON™ | None | FI01 |
| FI with ICON™; Analog Output Signal | CV04ANA | FI01CV04ANA |
| FI with ICON™; Solid State Relay | CV04SSR | FI01CV04SSR |

System Overview:

CONNECTED

Green indication of a good connection.

RECONNECT

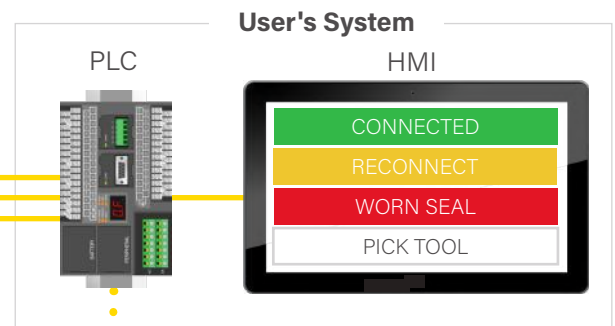
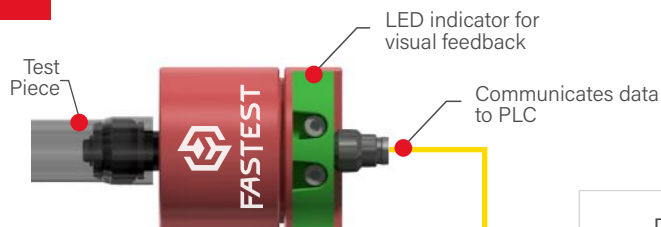
Recognize a connection issue before causing a false failure.

WORN SEAL

Alert when main seals should be replaced.

PICK TOOL

Controllable LED signals operator to use specific tool.



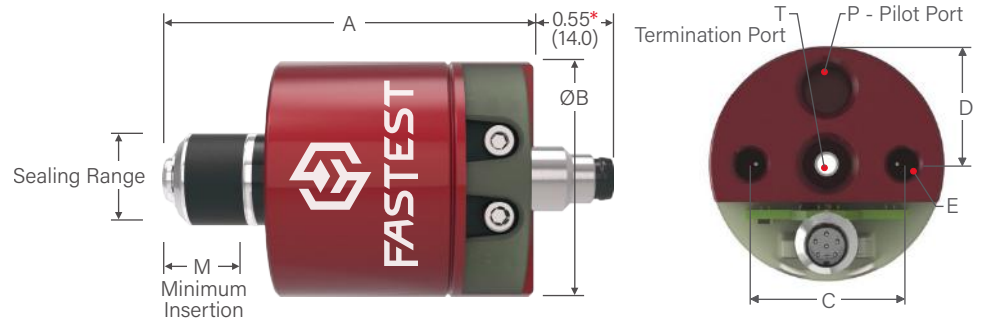
Standalone install or tie into PLC



- Quickly setup ICON™ Tools
- Eliminate the need for PLC programming
- Can be powered from wall adapter (included) or from a PLC (24VDC)

NOTE: Solid State Relay and Analog output options available.

FI / INTERNAL SEALING CONNECTION TOOL / STRAIGHT TUBES & BORES



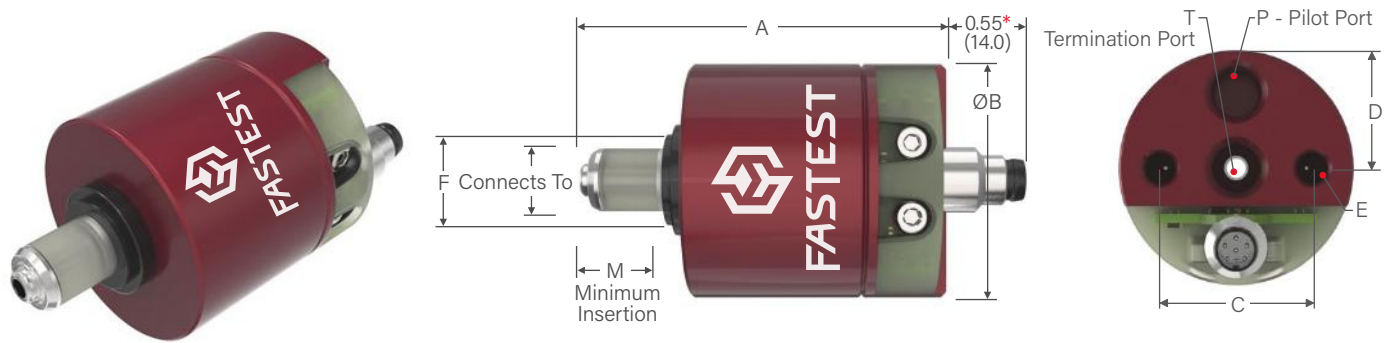
*Dimension only applies to FI with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | | |
|---|----------------|----------------------------|----------------------------|------------------------------|------------|---------|--------|--------|--------|--------|-----------|-----|
| Sealing Range | Main Seal Set* | Base Part Number | Replacement Seals Pack (5) | Rebuild Kit | A | B | C | D | E | M | P | T |
| 0.310 to 0.330 | FIS010300 | FI01 | FIB010300 | FIR01 | 1.98 | 1.25 | 0.80 | 0.40 | 10-32 | 0.48 | 10-32 UNF | |
| 0.330 to 0.394 | FIS0101 | FI01CV04ANA FI01CV04SSR | FIB0101 | FIR01CV04ANA FIR01CV04SSR | (50.3) | (31.7) | (20.3) | (10.2) | UNF | (12.2) | | |
| 0.394 to 0.472 | FIS111 | FI1 | FIB111 | FIR1 | 2.44 | 1.57 | 1.02 | 0.51 | 1/4-28 | 0.57 | 1/8 NPT | |
| 0.472 to 0.551 | FIS112 | FI1CV04ANA | FIB112 | FIR1CV04ANA | (62.0) | (39.9) | (25.9) | (12.9) | UNF | (14.5) | | |
| 0.551 to 0.630 | FIS113 | FI1CV04SSR | FIB113 | FIR1CV04SSR | | | | | | | | |
| 0.630 to 0.709 | FIS221 | FI2 | FIB221 | FIR1 | 2.44 | 1.57 | 1.02 | 0.51 | 1/4-28 | 0.57 | 1/8 NPT | |
| 0.709 to 0.787 | FIS222 | FI2CV04ANA | FIB222 | FIR1CV04ANA | (62.0) | (39.9) | (25.9) | (12.9) | UNF | (14.5) | | |
| 0.787 to 0.866 | FIS223 | FI2CV04SSR | FIB223 | FIR1CV04SSR | | | | | | | | |
| 0.866 to 0.945 | FIS331 | FI3 | FIB331 | FIR3 | 2.61 | 2.36 | 1.60 | 0.80 | 1/4-28 | 0.71 | 1/8 NPT | |
| 0.945 to 1.024 | FIS332 | FI3CV04ANA | FIB332 | FIR3CV04ANA | (66.3) | (59.9) | (40.6) | (20.3) | UNF | (18.0) | | |
| 1.024 to 1.102 | FIS333 | FI3CV04SSR | FIB333 | FIR3CV04SSR | | | | | | | | |
| 1.102 to 1.181 | FIS441 | FI4 | FIB441 | FIR3 | 2.61 | 2.36 | 1.60 | 0.80 | 1/4-28 | 0.71 | 1/8 NPT | |
| 1.181 to 1.260 | FIS442 | FI4CV04ANA | FIB442 | FIR3CV04ANA | (66.3) | (59.9) | (40.6) | (20.3) | UNF | (18.0) | | |
| 1.260 to 1.339 | FIS443 | FI4CV04SSR | FIB443 | FIR3CV04SSR | | | | | | | | |
| 1.339 to 1.457 | FIS551 | FI5 | FIB551 | FIR6 | 3.68 | 3.49 | 2.31 | 1.16 | 1/4-28 | 1.24 | 1/8 | 1/2 |
| 1.457 to 1.575 | FIS552 | FI5CV04ANA | FIB552 | FIR6CV04ANA | (93.5) | (88.6) | (58.7) | (29.5) | UNF | (31.5) | NPT | NPT |
| 1.575 to 1.693 | FIS553 | FI5CV04SSR | FIB553 | FIR6CV04SSR | | | | | | | | |
| 1.693 to 1.850 | FIS661 | FI6 | FIB661 | FIR6 | 3.68 | 3.49 | 2.31 | 1.16 | 1/4-28 | 1.24 | 1/8 | 1/2 |
| 1.850 to 2.008 | FIS662 | FI6CV04ANA | FIB662 | FIR6CV04ANA | (93.5) | (88.6) | (58.7) | (29.5) | UNF | (31.5) | NPT | NPT |
| 2.008 to 2.165 | FIS663 | FI6CV04SSR | FIB663 | FIR6CV04SSR | | | | | | | | |
| 2.165 to 2.305 | FIS771 | FI7 | FIB771 | FIR7 | 3.36 | 4.20 | 3.00 | 1.50 | 1/4-28 | 1.33 | 1/8 | 3/4 |
| 2.305 to 2.445 | FIS772 | FI7CV04ANA | FIB772 | FIR7CV04ANA | (85.3) | (106.7) | (76.2) | (38.1) | UNF | (33.8) | NPT | NPT |
| 2.445 to 2.585 | FIS773 | FI7CV04SSR | FIB773 | FIR7CV04SSR | | | | | | | | |
| 2.585 to 2.725 | FIS881 | FI8 | FIB881 | FIR7 | 3.36 | 4.20 | 3.00 | 1.50 | 1/4-28 | 1.33 | 1/8 | 3/4 |
| 2.725 to 2.865 | FIS882 | FI8CV04ANA | FIB882 | FIR7CV04ANA | (85.3) | (106.7) | (76.2) | (38.1) | UNF | (33.8) | NPT | NPT |
| 2.865 to 3.005 | FIS883 | FI8CV04SSR | FIB883 | FIR7CV04SSR | | | | | | | | |

Dimensions: inch (mm).

*Includes seals(s) and metal parts for one complete seal set. Neoprene® seals are standard.
For Urethane seals, add "UR" suffix to Main Seal Set Part Number. Example: FIS010300UR

FI / INTERNAL SEALING CONNECTION TOOL / NPT, BSPP (G), & BSPT THREADS



*Dimension only applies to FI with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | | | |
|---|----------------|------------------|----------------------------|-------------|------------|---|---|---|---|---|---|---|---|
| Connects To | Main Seal Set* | Base Part Number | Replacement Seals Pack (5) | Rebuild Kit | A | B | C | D | E | F | M | P | T |

FI | Connectors for NPT, BSPP (G), and BSPT Threads

| | | | | | | | | | | | | | |
|-------|-------------|------------------------------------|-------------|---------------------------------------|----------------|-----------------|----------------|----------------|---------------|----------------|----------------|-----------|---------|
| 1/8 | FIS011/8NPT | FI01 FI01CV04ANA FI01CV04SSR | FIB011/8NPT | FIR01 FIR01CV04ANA FIR01CV04SSR | 1.98 (50.3) | 1.25 (31.7) | 0.80 (20.3) | 0.40 (10.2) | 10-32 UNF | 0.62 (15.7) | 0.48 (12.2) | 10-32 UNF | |
| 1/4 | FIS11/4NPT | FI1 FI1CV04ANA FI1CV04SSR | FIB11/4NPT | FIR1 FIR1CV04ANA FIR1CV04SSR | 2.44 (62.0) | 1.57 (39.9) | 1.02 (25.9) | 0.51 (12.9) | 1/4-28 UNF | 0.76 (19.3) | 0.57 (14.5) | 1/8 NPT | |
| 3/8 | FIS23/8NPT | FI2 FI2CV04ANA FI2CV04SSR | FIB23/8NPT | FIR1 FIR1CV04ANA FIR1CV04SSR | 2.44 (62.0) | 1.57 (39.9) | 1.02 (25.9) | 0.51 (12.9) | 1/4-28 UNF | 0.88 (22.3) | 0.57 (14.5) | 1/8 NPT | |
| 1/2 | FIS21/2NPT | | FIB21/2NPT | | | | | | | 1.07 (27.2) | | | |
| 3/4 | FIS33/4NPT | FI3 FI3CV04ANA FI3CV04SSR | FIB33/4NPT | FIR3 FIR3CV04ANA FIR3CV04SSR | 2.61 (66.3) | 2.36 (59.9) | 1.60 (40.6) | 0.80 (20.3) | 1/4-28 UNF | 1.26 (32.0) | 0.71 (18.0) | 1/8 NPT | |
| 1 | FIS41NPT | FI4 FI4CV04ANA FI4CV04SSR | FIB41NPT | FIR3 FIR3CV04ANA FIR3CV04SSR | 2.61 (66.3) | 2.36 (59.9) | 1.60 (40.6) | 0.80 (20.3) | 1/4-28 UNF | 1.57 (39.9) | 0.71 (18.0) | 1/8 NPT | |
| 1-1/4 | FIS511/4NPT | FI5 FI5CV04ANA FI5CV04SSR | FIB511/4NPT | FIR6 FIR6CV04ANA FIR6CV04SSR | 3.68 (93.5) | 3.49 (88.6) | 2.31 (58.7) | 1.16 (29.5) | 1/4-28 UNF | 1.88 (47.8) | 1.24 (31.5) | 1/8 NPT | 1/2 NPT |
| 1-1/2 | FIS611/2NPT | FI6 FI6CV04ANA FI6CV04SSR | FIB611/2NPT | FIR6 FIR6CV04ANA FIR6CV04SSR | 3.68 (93.5) | 3.49 (88.6) | 2.31 (58.7) | 1.16 (29.5) | 1/4-28 UNF | 2.13 (54.1) | 1.24 (31.5) | 1/8 NPT | 1/2 NPT |
| 2 | FIS72NPT | FI7 FI7CV04ANA FI7CV04SSR | FIB72NPT | FIR7 FIR7CV04ANA FIR7CV04SSR | 3.36 (85.3) | 4.20 (106.7) | 3.00 (76.2) | 1.50 (38.1) | 1/4-28 UNF | 2.75 (69.9) | 1.33 (33.8) | 1/8 NPT | 3/4 NPT |
| 2-1/2 | FIS721/2NPT | | FIB721/2NPT | | | | | | | | | | |

Dimensions: inch (mm)

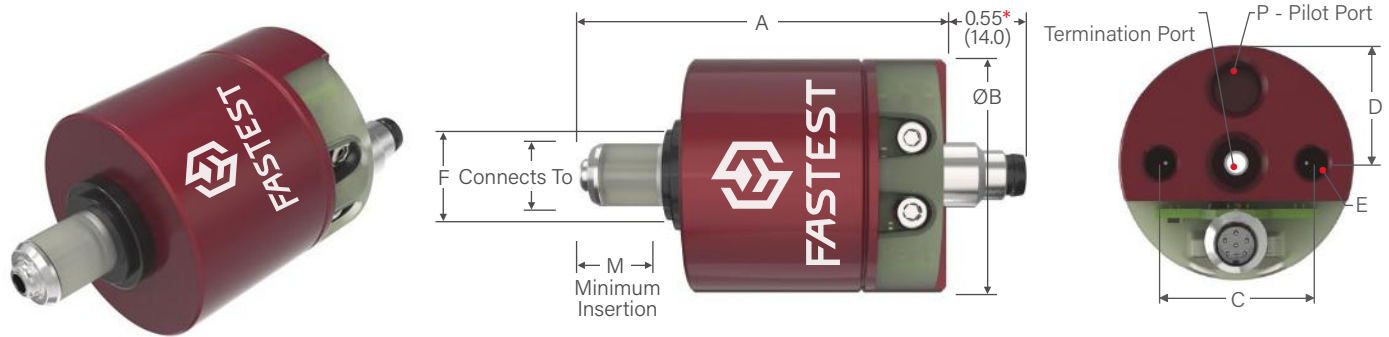
*Includes seals(s) and metal parts for one complete seal set. Urethane seals are standard.

Port Specifications: NPT per SAE J476a; BSPP (G) per ISO 228; BSPT per ISO 7, JIS B8363 and B2351



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

FI / INTERNAL SEALING CONNECTION TOOL / SAE O-RING BOSS PORT THREADS



*Dimension only applies to FI with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | | | |
|---|----------------|------------------|----------------------------|------------|------------|---|---|---|---|---|---|---|---|
| Connects To | Main Seal Set* | Base Part Number | Replacement Seals Pack (5) | Repair Kit | A | B | C | D | E | F | M | P | T |

FI | Connectors for SAE O-Ring Boss Port (ORB) Threads

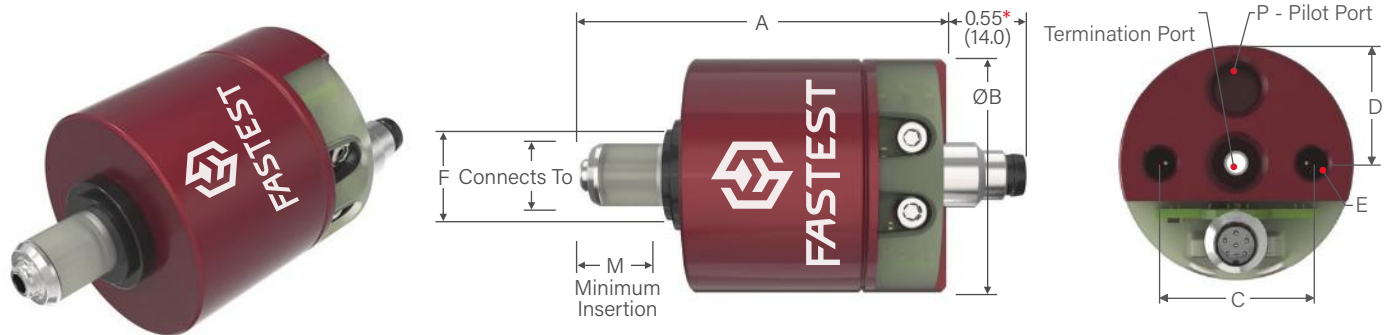
| | | | | | | | | | | | | | |
|-----------------|-----------|------------------------------------|-----------|---------------------------------------|----------------|-----------------|----------------|----------------|---------------|----------------|----------------|-----------|---------|
| -4 [7/16-20] | FIS014SAE | FI01 FI01CV04ANA FI01CV04SSR | FIB014SAE | FIR01 FIR01CV04ANA FIR01CV04SSR | 1.98 (50.3) | 1.25 (31.7) | 0.80 (20.3) | 0.40 (10.2) | 10-32 UNF | 0.62 (15.7) | 0.48 (12.2) | 10-32 UNF | |
| -5 [1/2-20] | FIS15SAE | FI1 FI1CV04ANA FI1CV04SSR | FIB15SAE | FIR1 FIR1CV04ANA FIR1CV04SSR | 2.44 (62.0) | 1.57 (39.9) | 1.02 (25.9) | 0.51 (12.9) | 1/4-28 UNF | 0.76 (19.3) | 0.57 (14.5) | 1/8 NPT | |
| -6 [9/16-18] | FIS16SAE | FI2 FI2CV04ANA FI2CV04SSR | FIB16SAE | FIR1 FIR1CV04ANA FIR1CV04SSR | 2.44 (62.0) | 1.57 (39.9) | 1.02 (25.9) | 0.51 (12.9) | 1/4-28 UNF | 0.88 (22.3) | 0.57 (14.5) | 1/8 NPT | |
| -8 [3/4-16] | FIS28SAE | FI2 FI2CV04ANA FI2CV04SSR | FIB28SAE | FIR1 FIR1CV04ANA FIR1CV04SSR | 2.44 (62.0) | 1.57 (39.9) | 1.02 (25.9) | 0.51 (12.9) | 1/4-28 UNF | 0.88 (22.3) | 0.57 (14.5) | 1/8 NPT | |
| -10 [7/8-14] | FIS310SAE | FI3 FI3CV04ANA FI3CV04SSR | FIB310SAE | FIR3 FIR3CV04ANA FIR3CV04SSR | 2.61 (66.3) | 2.36 (59.9) | 1.60 (40.6) | 0.80 (20.3) | 1/4-28 UNF | 1.26 (32.0) | 0.71 (18.0) | 1/8 NPT | |
| -12 [1 1/16-12] | FIS212SAE | FI3 FI3CV04ANA FI3CV04SSR | FIB212SAE | FIR3 FIR3CV04ANA FIR3CV04SSR | 2.61 (66.3) | 2.36 (59.9) | 1.60 (40.6) | 0.80 (20.3) | 1/4-28 UNF | 1.26 (32.0) | 0.71 (18.0) | 1/8 NPT | |
| -14 [1 3/16-12] | FIS416SAE | FI4 FI4CV04ANA FI4CV04SSR | FIB416SAE | FIR3 FIR3CV04ANA FIR3CV04SSR | 2.61 (66.3) | 2.36 (59.9) | 1.60 (40.6) | 0.80 (20.3) | 1/4-28 UNF | 1.57 (39.9) | 0.71 (18.0) | 1/8 NPT | |
| -16 [1 5/16-12] | FIS416SAE | FI4 FI4CV04ANA FI4CV04SSR | FIB416SAE | FIR3 FIR3CV04ANA FIR3CV04SSR | 2.61 (66.3) | 2.36 (59.9) | 1.60 (40.6) | 0.80 (20.3) | 1/4-28 UNF | 1.57 (39.9) | 0.71 (18.0) | 1/8 NPT | |
| -20 [1 5/8-12] | FIS520SAE | FI5 FI5CV04ANA FI5CV04SSR | FIB520SAE | FIR6 FIR6CV04ANA FIR6CV04SSR | 3.68 (93.5) | 3.49 (88.6) | 2.31 (58.7) | 1.16 (29.5) | 1/4-28 UNF | 1.88 (47.8) | 1.24 (31.5) | 1/8 NPT | 1/2 NPT |
| -24 [1 7/8-12] | FIS624SAE | FI6 FI6CV04ANA FI6CV04SSR | FIS624SAE | FIR6 FIR6CV04ANA FIR6CV04SSR | 3.68 (93.5) | 3.49 (88.6) | 2.31 (58.7) | 1.16 (29.5) | 1/4-28 UNF | 2.13 (54.1) | 1.24 (31.5) | 1/8 NPT | 1/2 NPT |
| -32 [2 1/2-12] | FIS732SAE | FI7 FI7CV04ANA FI7CV04SSR | FIB732SAE | FIR7 FIR7CV04ANA FIR7CV04SSR | 3.36 (85.3) | 4.20 (106.7) | 3.00 (76.2) | 1.50 (38.1) | 1/4-28 UNF | 2.75 (69.9) | 1.33 (33.8) | 1/8 NPT | 3/4 NPT |

Dimensions: inch (mm)

*Includes seals(s) and metal parts for one complete seal set. Urethane seals are standard.

Port Specifications: SAE J1926 or ISO 11926

FI / INTERNAL SEALING CONNECTION TOOL / METRIC ISO O-RING PORT THREADS



*Dimension only applies to FI with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | | | |
|---|----------------|------------------|----------------------------|------------|------------|---|---|---|---|---|---|---|---|
| Connects To | Main Seal Set* | Base Part Number | Replacement Seals Pack (5) | Repair Kit | A | B | C | D | E | F | M | P | T |

FI | Connectors for Metric ISO O-Ring Port Threads

| | | | | | | | | | | | | | |
|-----------|----------|------------------------------------|----------|---------------------------------------|----------------|-----------------|----------------|----------------|---------------|----------------|----------------|------------|------------|
| M10 x 1.0 | FIS01M10 | FI01 FI01CV04ANA FI01CV04SSR | FIB01M10 | FIR01 FIR01CV04ANA FIR01CV04SSR | 1.98 (50.3) | 1.25 (31.7) | 0.80 (20.3) | 0.40 (10.2) | 10-32 UNF | 0.62 (15.7) | 0.48 (12.2) | 10-32 UNF | |
| M12 x 1.5 | FIS1M12 | FI1 FI1CV04ANA FI1CV04SSR | FIB1M12 | FIR1 FIR1CV04ANA FIR1CV04SSR | 2.44 (62.0) | 1.57 (39.9) | 1.02 (25.9) | 0.51 (12.9) | 1/4-28 UNF | 0.76 (19.3) | 0.57 (14.5) | 1/8 NPT | |
| M14 x 1.5 | FIS1M14 | | FIB1M14 | | | | | | | | | | |
| M16 x 1.5 | FIS2M16 | FI2 FI2CV04ANA FI2CV04SSR | FIB1M16 | FIR1 FIR1CV04ANA FIR1CV04SSR | 2.44 (62.0) | 1.57 (39.9) | 1.02 (25.9) | 0.51 (12.9) | 1/4-28 UNF | 0.88 (22.3) | 0.57 (14.5) | 1/8 NPT | |
| M18 x 1.5 | FIS2M18 | | FIB2M18 | | | | | | | | | | |
| M20 x 1.5 | FIS2M20 | | FIB2M20 | | | | | | | | | | |
| M22 x 1.5 | FIS2M22 | | FIB2M22 | | | | | | | | | | |
| M24 x 1.5 | FIS3M24 | FI3 FI3CV04ANA FI3CV04SSR | FIB3M24 | FIR3 FIR3CV04ANA FIR3CV04SSR | 2.61 (66.3) | 2.36 (59.9) | 1.60 (40.6) | 0.80 (20.3) | 1/4-28 UNF | 1.26 (32.0) | 0.71 (18.0) | 1/8 NPT | |
| M26 x 1.5 | FIS3M26 | | FIB3M26 | | | | | | | | | | |
| M27 x 2 | FIS3M27 | | FIB3M27 | | | | | | | | | | |
| M28 x 1.5 | FIS3M28 | | FIB3M28 | | | | | | | | | | |
| M30 x 1.5 | FIS4M30 | FI4 FI4CV04ANA FI4CV04SSR | FIB4M30 | FIR3 FIR3CV04ANA FIR3CV04SSR | 2.61 (66.3) | 2.36 (59.9) | 1.60 (40.6) | 0.80 (20.3) | 1/4-28 UNF | 1.57 (39.9) | 0.71 (18.0) | 1/8 NPT | |
| M33 x 2 | FIS4M33 | | FIB4M33 | | | | | | | | | | |
| M36 x 2 | FIS4M36 | | FIB4M36 | | | | | | | | | | |
| M42 x 2 | FIS5M42 | FI5 FI5CV04ANA FI5CV04SSR | FIB5M42 | FIR6 FIR6CV04ANA FIR6CV04SSR | 3.68 (93.5) | 3.49 (88.6) | 2.31 (58.7) | 1.16 (29.5) | 1/4-28 UNF | 1.88 (47.8) | 1.24 (31.5) | 1/8 NPT | 1/2 NPT |
| M48 x 2 | FIS6M48 | FI6 FI6CV04ANA FI6CV04SSR | FIB6M48 | FIR6 FIR6CV04ANA FIR6CV04SSR | 3.68 (93.5) | 3.49 (88.6) | 2.31 (58.7) | 1.16 (29.5) | 1/4-28 UNF | 2.13 (54.1) | 1.24 (31.5) | 1/8 NPT | 1/2 NPT |
| M60 x 2 | FIS7M60 | FI7 FI7CV04ANA FI7CV04SSR | FIB7M60 | FIR7 FIR7CV04ANA FIR7CV04SSR | 3.36 (85.3) | 4.20 (106.7) | 3.00 (76.2) | 1.50 (38.1) | 1/4-28 UNF | 2.75 (69.9) | 1.33 (33.8) | 1/8 NPT | 3/4 NPT |

Dimensions: inch (mm)

*Includes seals(s) and metal parts for one complete seal set. Urethane seals are standard.

Port Specifications: ISO 6149, DIN 3852 Part 1 (ISO 9974)

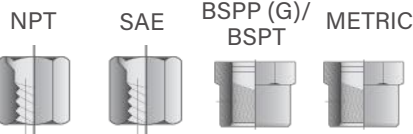


DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

ZGN / INTERNAL SEALING CONNECTION TOOL

Wide tolerance grip and seal connection tool for multiple sizes / types - fits any internal thread.

CONNECTS TO:



- 1 Pressure assisted sealing and gripping of threaded port to safely grip under pressure
- 2 Patented design allows for each tool to connect to multiple thread sizes / styles
- 3 Self aligning sleeve for repeatable / reliable connections, even with miss-alignment
- 4 Compact size fits into tight spaces and tightly spaced bores
- 5 Pneumatic operation can be used for automated testing or end of arm grip and hold - lever operation for manual applications



SPECIFICATIONS

| Pressure Rating | Pilot Pressure | Operating Temperatures |
|--|--|--------------------------------------|
| ZGNL: Vacuum to 120 psi (8.3 bar) | N/A | -40°F to +250°F (-40°C to +121°C) |
| ZGNP: Vacuum to 300 psi (20.7 bar) | 60 psi (4.1 bar) minimum | |
| Termination Port | Materials of Construction | Seal Material* |
| 1/8 NPT, 1/4 NPT | Anodized Aluminum, Stainless Steel, Handles PVC Dipped | Standard: Buna-N |

*Additional seal material types available, consult factory.

ACTUATION METHOD

ZGNL Lever Handles: Lever operation for manual applications.

ZGNP Pneumatic: Pneumatic operation can be used for automated testing or end of arm grip and hold.

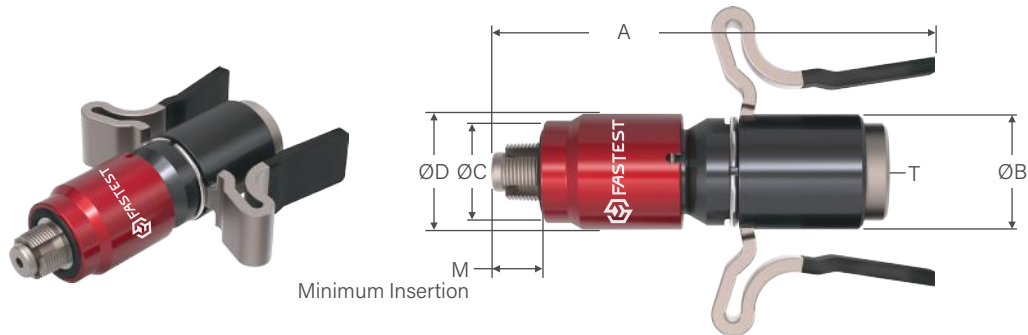
ICON™ TECHNOLOGY

Consult Factory

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ZGNL / MANUAL INTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | | Dimensions | | | | | | |
|----------------------|-------------|---------------|-------------|------------|---|---|---|----------------------|---|---|
| Connects To | Part Number | Main Seal Set | Rebuild Kit | A | B | C | D | Thread Minor Ø Range | M | T |

ZGNL | Wide Tolerance Manual Sealing Connection Tool for Internal Threads

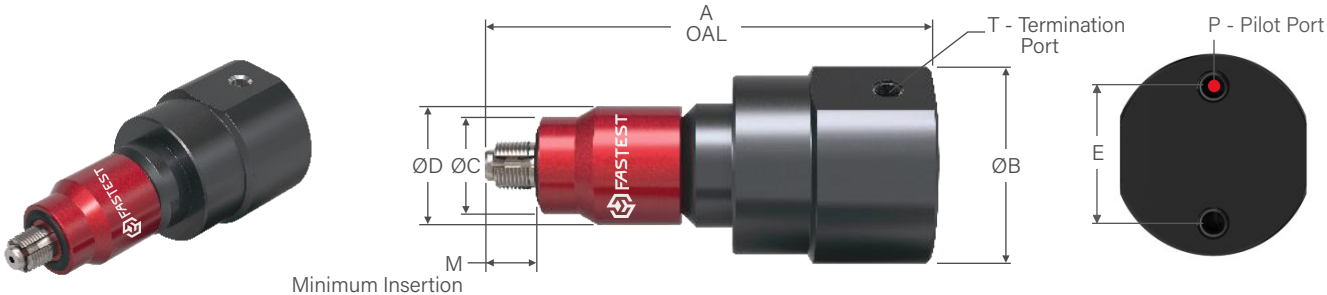
| | | | | | | | | | | |
|---|--------|--------------|--------|----------------|----------------|----------------|----------------|--------------------------------|----------------|---------|
| 1/8 NPT 3/8-24 SAE 1/8 BSPP (G) 1/8 BSPT M10x1.0 M10x1.25 M10x1.5 | ZGNL1 | S1110B60 | RZGNL1 | 3.25 (82.6) | 0.88 (22.4) | 0.64 (16.3) | 0.78 (19.8) | 0.34 to 0.36 (8.5 to 9.1) | 0.32 (8.1) | 1/8 NPT |
| 7/16-20 UNF | ZGNL1A | S21030391B70 | RZGNL1 | | | 0.67 (17.0) | | 0.38 to 0.40 (9.7 to 10.2) | | |
| 1/4 NPT 1/4 BSPP (G) 1/4 BSPT M14x1.5 1/2-20 SAE 9/16-18 SAE | ZGNL2 | S1112B60 | RZGNL2 | 3.34 (82.8) | 0.87 (22.1) | 0.77 (19.6) | 0.87 (22.1) | 0.45 to 0.50 (11.4 to 12.7) | 0.40 (10.2) | 1/8 NPT |
| M12x1.0 M12x1.5 | ZGNL2A | S21030456B70 | RZGNL2 | | | 0.74 (18.8) | | 0.42 to 0.44 (10.7 to 11.2) | | |
| 3/8 NPT 3/8 BSPP (G) 3/8 BSPT | ZGNL3 | S1114B60 | RZGNL3 | 3.61 (91.7) | 1.12 (22.4) | 0.90 (22.9) | 0.99 (25.1) | 0.59 to 0.61 (15.0 to 15.5) | 0.45 (11.4) | 1/4 NPT |
| M16x1.5 5/8-24 SAE | ZGNL3A | S1114B60 | RZGNL3 | | | | | 0.56 to .58 (14.2 to 14.7) | | |
| 1/2 NPT 1/2 BSPP (G) 1/2 BSPT M20x1.5 | ZGNL4 | S1116B60 | RZGNL4 | 3.62 (91.9) | 1.32 (33.5) | 1.06 (26.9) | 1.22 (31.0) | 0.71 to 0.74 (18.0 to 18.8) | 0.50 (12.7) | 1/4 NPT |
| M18x1.5 | ZGNL4A | S1115B60 | RZGNL4 | | | 1.03 (26.2) | | 0.65 to 0.67 (16.5 to 17.0) | | |
| 3/4-16 SAE | ZGNL4B | S1116B60 | RZGNL4 | | | 1.06 (26.9) | | 0.68 to 0.71 (17.3 to 18.0) | | |

Dimensions: inch (mm)



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

ZGNP / PNEUMATIC INTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | | Dimensions | | | | | | | | |
|----------------------|-------------|---------------|-------------|------------|---|---|---|---|----------------------|---|---|---|
| Connects To | Part Number | Main Seal Set | Rebuild Kit | A | B | C | D | E | Thread Minor Ø Range | M | P | T |

ZGNP | Wide Tolerance Pneumatic Sealing Connection Tool for Automated Testing of Internal Threads

| | | | | | | | | | | | | |
|---|--------|--------------|--------|----------------|----------------|----------------|----------------|----------------|--------------------------------|----------------|--------------|------------|
| 1/8 NPT 3/8-24 SAE 1/8 BSPP (G) 1/8 BSPT M10x1.0 M10x1.25 M10x1.5 | ZGNP1 | S1110B60 | RZGNP1 | 2.92 (74.2) | 1.30 (33.0) | 0.64 (16.3) | 0.78 (19.8) | 0.88 (22.4) | 0.34 to 0.36 (8.5 to 9.1) | 0.32 (8.1) | 10-32 UNF | 1/8 NPT |
| 7/16-20 SAE | ZGNP1A | S21030391B70 | RZGNP1 | | | 0.67 (17.0) | | | 0.38 to 0.40 (9.7 to 10.2) | | | |
| 1/4 NPT 1/4 BSPP (G) 1/4 BSPT M14x1.5 1/2-20 SAE 9/16-18 SAE | ZGNP2 | S1112B60 | RZGNP2 | 3.08 (78.2) | 1.30 (33.0) | 0.77 (19.6) | 0.87 (22.1) | 0.88 (22.4) | 0.45 to 0.50 (11.4 to 12.7) | 0.40 (10.2) | 10-32 UNF | 1/8 NPT |
| M12x1.0 M12x1.5 | ZGNP2A | S21030456B70 | RZGNP2 | | | 0.74 (18.8) | | | 0.42 to 0.44 (10.7 to 11.2) | | | |
| 3/8 NPT 3/8 BSPP (G) 3/8 BSPT | ZGNP3 | S1114B60 | RZGNP3 | 3.52 (89.4) | 1.75 (44.5) | 0.90 (22.9) | 0.99 (25.1) | 1.13 (28.7) | 0.59 to 0.61 (15.0 to 15.5) | 0.45 (11.4) | 1/8 NPT | 1/4 NPT |
| M16x1.5 5/8-24 SAE | ZGNP3A | S1114B60 | RZGNP3 | | | 0.90 (22.9) | | | 0.56 to .58 (14.2 to 14.7) | | | |
| 1/2 NPT 1/2 BSPP (G) 1/2 BSPT M20x1.5 | ZGNP4 | S1116B60 | RZGNP4 | 3.60 (91.4) | 1.75 (44.5) | 1.06 (26.9) | 1.22 (31.0) | 1.13 (28.7) | 0.71 to 0.74 (18.0 to 18.8) | 0.50 (12.7) | 1/8 NPT | 1/4 NPT |
| M18x1.5 | ZGNP4A | S1115B60 | RZGNP4 | | | 1.03 (26.2) | | | Contact Factory | | | |
| 3/4-16 SAE | ZGNP4B | S1116B60 | RZGNP4 | | | 1.06 (26.9) | | | Contact Factory | | | |

Dimensions: inch (mm)

Product Comparison Guide



| Product Comparison Guide | TwistMate® (MIT) | ZGN™ (ZGNL / ZGNP) | FasMate® (FNL / FNP / FNV) |
|---|------------------|--------------------|----------------------------|
| Low Pressure < 300 psi (20.7 bar) | | ✓ | |
| Low Volume Production < 100 units/day | ✓ | | |
| Difficult Interference | | ✓ | |
| High Pressure and High Volume > 500 units/day | | | ✓ |
| Prevent False Failures or High First Pass Yield | | | ✓ |

JNL / INTERNAL SEALING CONNECTION TOOL

Manual lever actuated internal grip and seal connection tool for straight tubes / bores.

CONNECTS TO:

Straight



SPECIFICATIONS

| Pressure Rating* | Operating Temperatures | Materials of Construction |
|---|--------------------------------------|--|
| JNL0 / JNL1: 10 mtorr (micron) to 1000 psi (68.9 bar) | -40°F to +250°F (-40°C to +121°C) | Aluminum Stainless Steel Acetal (POM) Urethane Collet Retainer |
| JNL2: 10 mtorr (micron) to 750 psi (51.7 bar) | | |
| Termination Port | | Seal Material** |
| 1/8 NPT | | Neoprene® |

i * Pressure rating based on the test piece having a surface finish greater than 16 rms and a hardness of no more than 95 Rb to grip and seal at the rated pressure. A surface finish of 8 rms may be acceptable if the test piece has a hardness no greater than 40 Rb.

**Additional seal material types available, consult factory.

ACTUATION METHOD

Lever Actuated: Simply flip the ergonomic handle for ease of use

ICON™ TECHNOLOGY

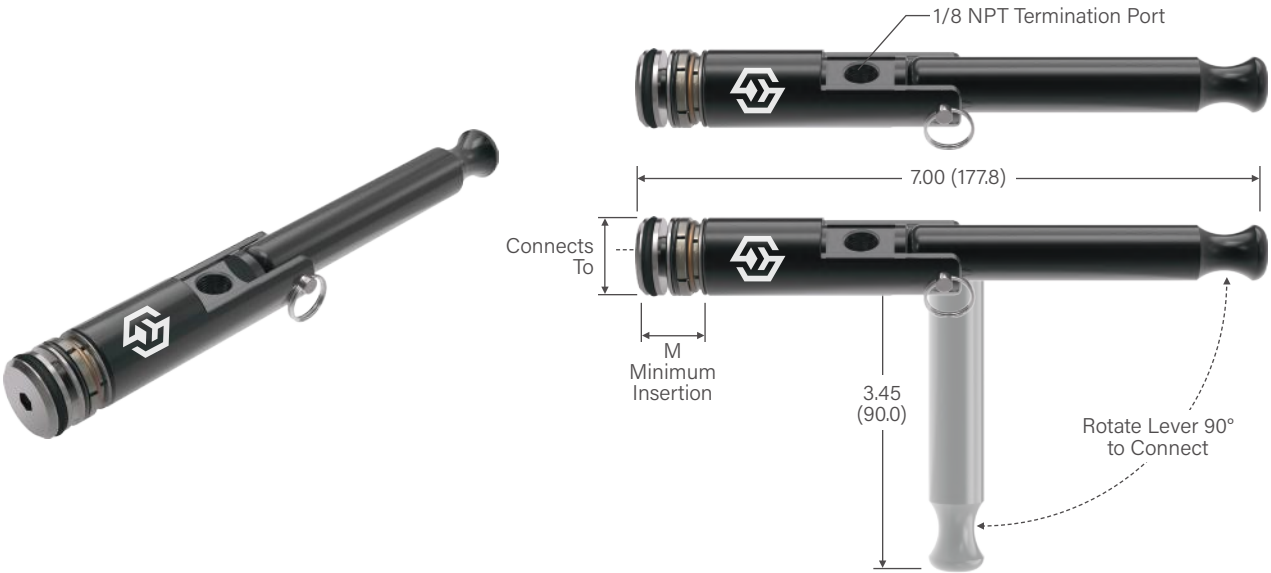
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 Pressure assisted sealing and gripping with internal safety lock feature prevents accidental disconnection under pressure if handle is released
- 2 Instant connection for copper, steel, and aluminum tubes commonly used in refrigeration and other industrial applications
- 3 Stainless steel collets provide maximum grip with minimum distortion of the test piece
- 4 Quick and easy seal replacement to minimize down time, maintenance and tool inventory
- 5 Self aligning connector requires no operator adjustment

JNL / INTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | Dimensions |
|---|-------------|------------------------------------|------------|
| Connects To +0.010/-0.010 (+0.25/-0.25) | Part Number | Replacement Seals Bulk Pack (5) | M |

JNL0 and JNL1 | Lever Actuated Connectors for Internal Tubes / Bores

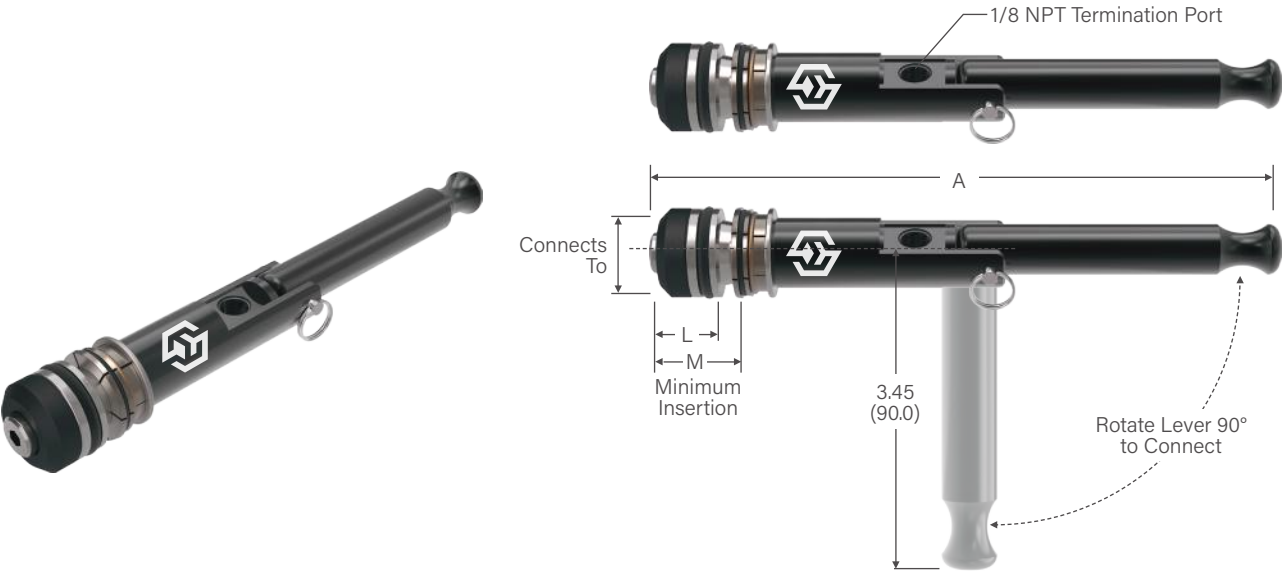
| | | | |
|--------------|-----------|----------|----------------|
| 0.375 (9.5) | JNL00375H | SN00375H | 0.53 (13.5) |
| 0.500 (12.7) | JNL00500H | SN00500H | |
| 0.590 (15.0) | JNL10590 | SN10590 | 0.63 (16.0) |
| 0.625 (15.9) | JNL10625 | SN10625 | |
| 0.750 (19.1) | JNL10750 | SN10750 | |
| 0.785 (19.9) | JNL10785 | SN10785 | |
| 0.875 (22.2) | JNL10875 | SN10875 | |

Dimensions: inch (mm)

NOTE: JNL sizes available in .005" (.13 mm) increments per customer request. Consult factory.



JNL / INTERNAL SEALING CONNECTION TOOL




| Ordering Information | | | Dimensions | | |
|---|-------------|------------------------------------|--------------|-------------|-------------|
| Connects To +0.030/-0.010 (+0.76/-0.25) | Part Number | Replacement Seals Bulk Pack (5) | A | L | M |
| JNL2 Lever Actuated Connectors for Internal Tubes / Bores | | | | | |
| 1.000 (25.4) | JNL21000 | SN21000 | 7.71 (195.8) | 1.31 (33.3) | 1.39 (35.4) |
| 1.125 (28.6) | JNL21125 | SN21125 | | | |
| 1.250 (31.8) | JNL21250 | SN21250 | 7.71 (195.8) | 1.44 (36.6) | 1.51 (38.4) |
| 1.375 (34.9) | JNL21375 | SN21375 | 7.84 (199.1) | 1.56 (39.7) | 2.05 (52.1) |
| 1.500 (38.1) | JNL21500 | SN21500 | 7.96 (202.2) | 1.69 (43.0) | 2.12 (53.9) |
| 1.625 (41.3) | JNL21625 | SN21625 | 8.09 (205.5) | 1.81 (46.0) | 2.30 (58.5) |

Dimensions: inch (mm)

NOTE: Additional JNL2 sizes available per customer request. Consult factory.

CUSTOM ENGINEERED SOLUTIONS

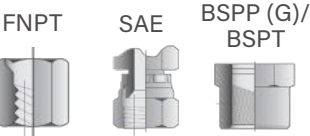


**WE TRANSFORM
STANDARDIZED
TOOLS INTO
TAILOR-
MADE SOLUTIONS
TO FIT YOUR EXACT
REQUIREMENTS.**

FN / INTERNAL SEALING CONNECTION TOOL

Internal thread grip and seal tool that uses threaded collets to grip threaded bores for high pressures.

CONNECTS TO:



- 1** Pressure assisted grip and proprietary design locks the connector securely in the port, even when used in dynamic hydraulic applications
- 2** Instant threaded sealing connection up to 5,000 psig without tape, sealant, or wrenches - significantly reduces process time
- 3** Split collet design locks securely and will not damage threaded ports
- 4** Self aligning connector requires no operator adjustment
- 5** Quick and easy seal replacement to minimize down time, maintenance and tool inventory



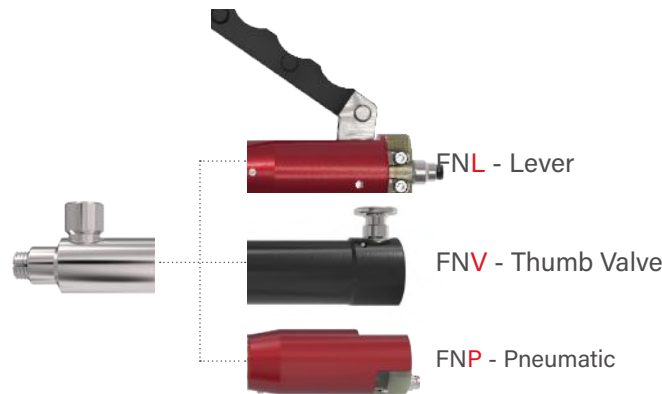
SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|------------------------------|-----------------------------------|--|
| Vacuum to 5000 psi (345 bar) | -40°F to +250°F (-40°C to +121°C) | Anodized Aluminum, Stainless Steel, Potted PCA |
| Termination Port | | Seal Material* |
| BSPP (G) or FNPT | | Buna-N |

*Additional seal material types available, consult factory.
 ** Operating Temp: 32°F-100°F (0°C-38°C) for ICON™.

i Side load rating varies depending on size and insertion.

ACTUATION OPTIONS



ICON™ TECHNOLOGY



ACCESSORIES

Visit website: fastestinc.com



ICON™

INTELLIGENT CONNECTION TECHNOLOGY

FasTest's ICON™ adds sensing capabilities to our mechanical Sealing Connection Tools. ICON™ Tools include instant LED visual feedback and data output to improve sealing connection accuracy, maximize production efficiency, and optimize maintenance.

ICON™ features:



SURE SEAL™

Instant LED feedback verifies a good connection prior to starting a test.

System Overview:

CONNECTED

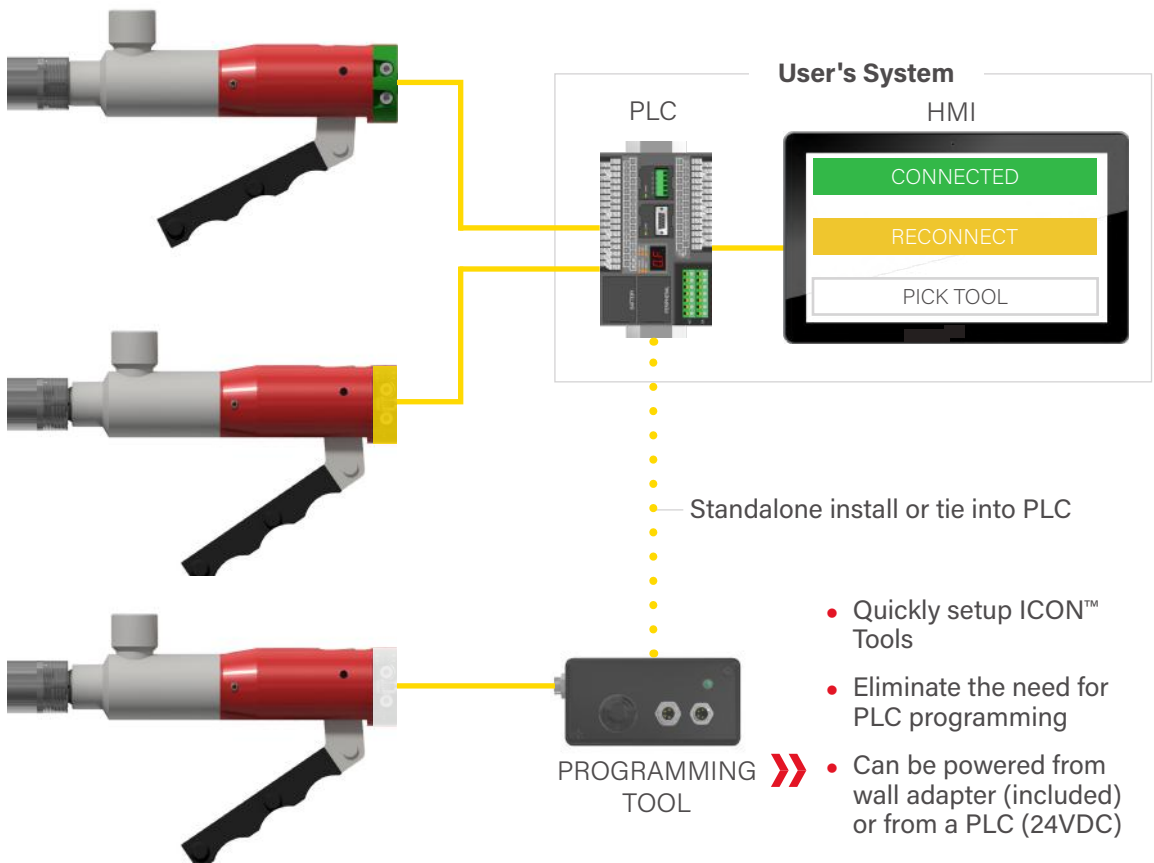
Verify connections are good prior to starting a leak test and provide operators instant positive feedback to simplify training.

RECONNECT

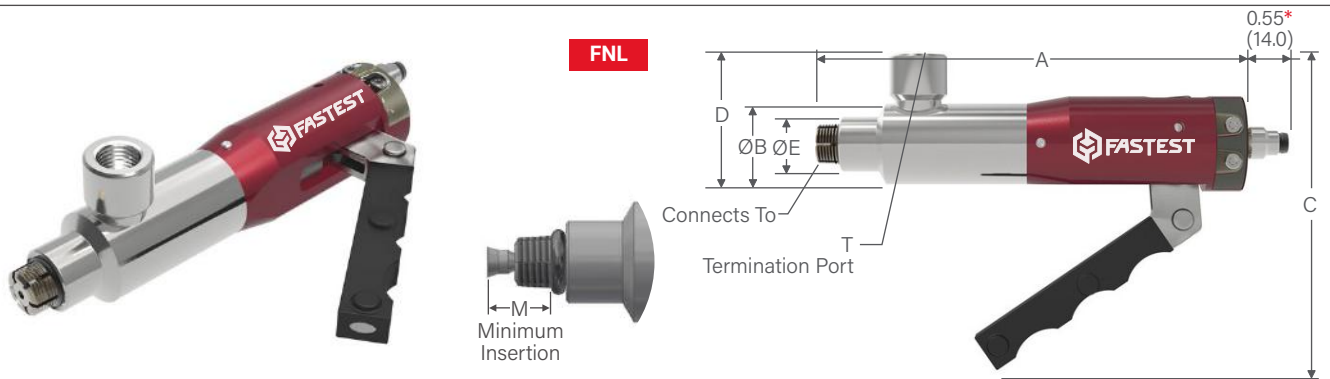
Recognize short connects before hazardous spills occur in functional testing, or prevent wasteful False Positive results in leak testing.

PICK TOOL

Controllable LED signals operator to use specific tool.



FN / INTERNAL CONNECTIONS / NPT



Ordering Information

| Connects To | Pressure Rating | FNL Part Number (with Lever) | FNV Part Number (with Thumb Valve) | FNP Part Number (with Pneumatic Pilot) | Replacement Seals Pack (5) | Rebuild Kit | ICON™ Repair Kit (FNL / FNP) |
|-------------|-----------------|------------------------------|------------------------------------|--|----------------------------|-------------|------------------------------|
|-------------|-----------------|------------------------------|------------------------------------|--|----------------------------|-------------|------------------------------|

FasMate® FN | NPT

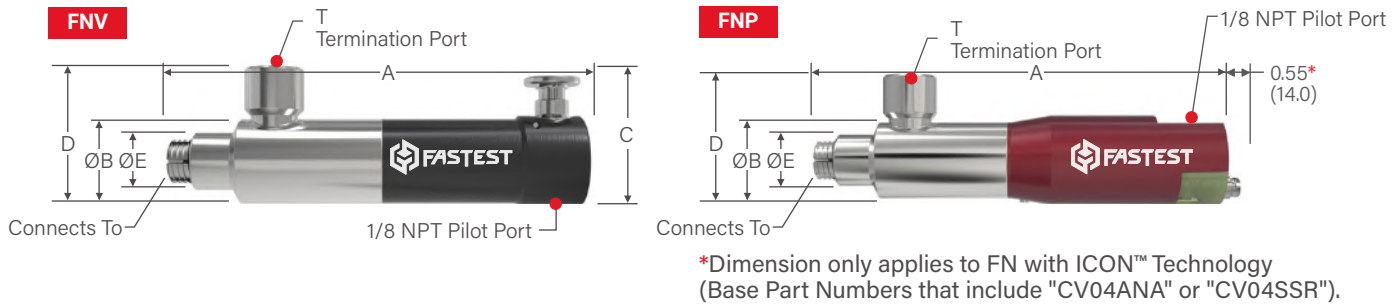
| | | | | | | | |
|---------|------------|---------------|------------|---------------|--------------|-----------|----------------------------------|
| 1/8 NPT | 5000 (345) | FNL022021[*] | FNV022021 | FNP022021[*] | S1108B70 | RFN022021 | RFNLBG1CV04ANA RFNLBG1CV04SSR |
| | 2500 (172) | FNL022021R[*] | FNV022021R | FNP022021R[*] | | | |
| | 5000 (345) | FNL022025[*] | FNV022025 | FNP022025[*] | | | |
| 1/4 NPT | 5000 (345) | FNL042041[*] | FNV042041 | FNP042041[*] | S21250327B60 | RFN042041 | RFNLBG1CV04ANA RFNLBG1CV04SSR |
| | 2500 (172) | FNL042041R[*] | FNV042041R | FNP042041R[*] | | | |
| | 5000 (345) | FNL042045[*] | FNV042045 | FNP042045[*] | | | |
| 3/8 NPT | 5000 (345) | FNL062061[*] | FNV062061 | FNP062061[*] | S1112B70 | RFN062061 | RFNLBG4CV04ANA RFNLBG4CV04SSR |
| | 2500 (172) | FNL062061R[*] | FNV062061R | FNP062061R[*] | | | |
| | 5000 (345) | FNL062065[*] | FNV062065 | FNP062065[*] | | | |
| 1/2 NPT | 5000 (345) | FNL082081[*] | FNV082081 | FNP082081[*] | S1208B70 | RFN082081 | RFNLBG4CV04ANA RFNLBG4CV04SSR |
| | | FNL082085[*] | FNV082085 | FNP082085[*] | | | |
| 3/4 NPT | 3500 (241) | FNL122121[*] | FNV122121 | FNP122121[*] | S1315B50 | RFNBG5 | RFNLBG5CV04ANA RFNLBG5CV04SSR |
| | | FNL122125[*] | FNV122125 | FNP122125[*] | | | |

Reduced Thread Connectors [FNxRxxxxxx]; The "R" in the part number indicates a shorter collet length for shallow ports.

Port specifications: NPT per SAE J476 or ANSI B1.20

*How To Add ICON™ to FN

| Signal Output | Part Number Suffix | Example |
|--------------------------------------|--------------------|--------------------------|
| FNL Connector without ICON™ | None | FNL022021 |
| FNL with ICON™; Analog Output Signal | CV04ANA | FNL022021 CV04ANA |
| FNL with ICON™; Solid State Relay | CV04SSR | FNL022021 CV04SSR |



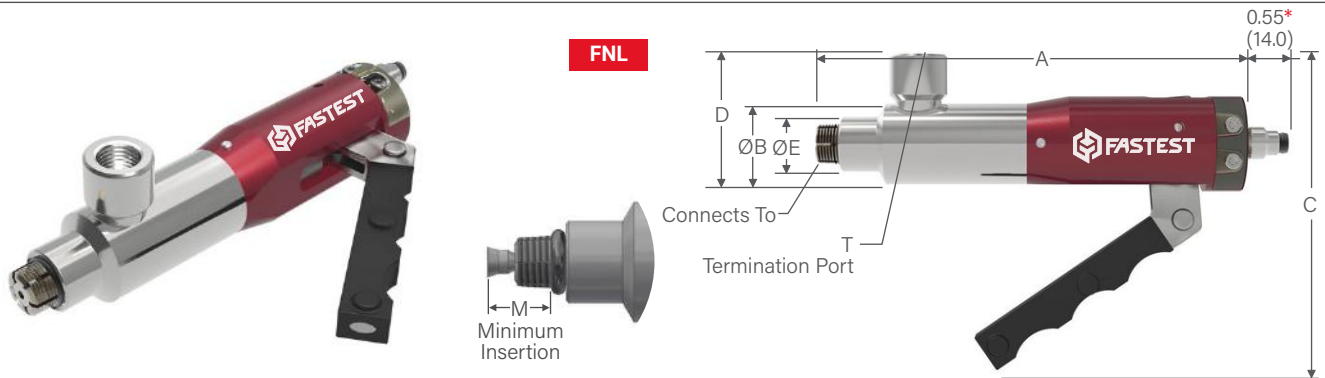
| Dimensions | | | | | | | | | |
|--------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|--------------|
| A (FNL) | A (FNV) | A (FNP) | B | C (FNL) | C (FNV) | D | E | M | T |
| 4.80 (121.9) | 5.13 (130.3) | 4.90 (124.5) | 1.06 (26.9) | 3.70 (94.0) | 1.58 (40.1) | 1.50 (38.1) | 0.65 (16.5) | 0.55 (14.0) | 1/8 NPT |
| | | | | | | | | 0.30 (7.6) | |
| | | | | | | | | 0.55 (14.0) | 1/8 BSPP (G) |
| 5.00 (127.0) | 5.21 (132.3) | 5.00 (127.0) | 1.06 (26.9) | 4.00 (101.6) | 1.58 (40.1) | 1.70 (43.2) | 0.72 (18.3) | 0.67 (17.0) | 1/4 NPT |
| | | | | | | | | 0.39 (9.9) | |
| | | | | | | | | 0.67 (17.0) | 1/4 BSPP (G) |
| 5.00 (127.0) | 5.05 (128.3) | 4.80 (121.9) | 1.25 (31.8) | 3.90 (99.1) | 1.58 (40.1) | 1.86 (47.2) | 0.86 (21.8) | 0.67 (17.0) | 3/8 NPT |
| | | | | | | | | 0.47 (11.9) | |
| | | | | | | | | 0.67 (17.0) | 3/8 BSPP (G) |
| 5.27 (133.9) | 5.27 (133.9) | 5.34 (135.6) | 1.43 (36.3) | 4.40 (111.8) | 1.85 (47.0) | 2.33 (59.2) | 1.09 (27.7) | 0.76 (19.3) | 1/2 NPT |
| | | | | | | | | | 1/2 BSPP (G) |
| 8.17 (207.5) | 8.75 (222.2) | 8.75 (222.2) | 1.78 (45.2) | 5.10 (129.5) | 2.11 (53.6) | 2.93 (74.4) | 1.49 (37.8) | 0.63 (16.0) | 3/4 NPT |
| | | | | | | | | | 3/4 BSPP (G) |

Dimensions: inch (mm)
Pressure Rating: psi (bar)



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

FN / INTERNAL CONNECTIONS / **BSPP (G)/T**



Ordering Information

| Connects To | Pressure Rating | FNL Part Number (with Lever) | FNV Part Number (with Thumb Valve) | FNP Part Number (with Pneumatic Pilot) | Replacement Seals Pack (5) | Rebuild Kit | ICON™ Repair Kit (FNL / FNP) |
|-------------|-----------------|------------------------------|------------------------------------|--|----------------------------|-------------|------------------------------|
| 1/2" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 3/4" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 1" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 1 1/2" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 2" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 2 1/2" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 3" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 3 1/2" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 4" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 4 1/2" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 5" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 6" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 8" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 10" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 12" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 14" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 16" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 18" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 20" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 24" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 30" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 36" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 42" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 48" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 60" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 72" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 84" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 96" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 108" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 120" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 144" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 168" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 192" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 216" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 240" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 264" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 288" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |
| 312" NPT | 150 PSI | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 | 1000000 |

FasMate® FN | BSPP (G)

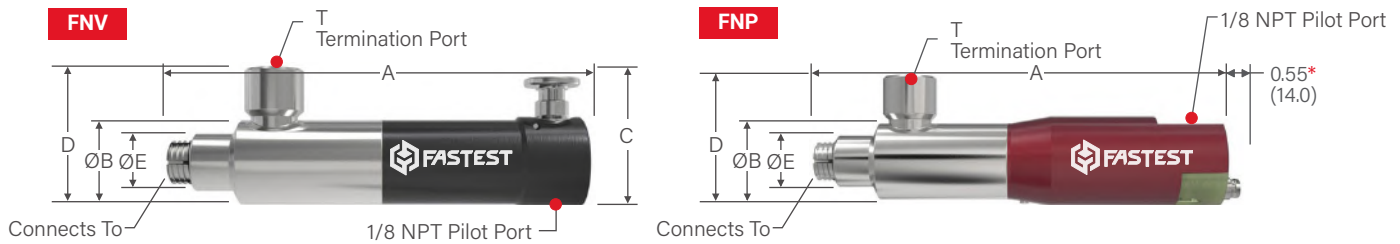
| | | | | | | | |
|-----------------|------------|---------------|------------|---------------|--------------|-----------|----------------------------------|
| 1/8 BSPP (G) | 5000 (345) | FNL026021[*] | FNV026021 | FNP026021[*] | S1108B70 | RFN026021 | |
| | 2500 (172) | FNLR026021[*] | FNVR026021 | FNPR026021[*] | | | |
| | 5000 (345) | FNL026025[*] | FNV026025 | FNP026025[*] | | | |
| | 2500 (172) | FNLR026025[*] | FNVR026025 | FNPR026025[*] | | | |
| 1/8 BSPT | 5000 (345) | FNL026T025[*] | FNV026T025 | FNP026T025[*] | | | |
| 1/4 BSPP (G) | 5000 (345) | FNL046041[*] | FNV046041 | FNP046041[*] | S21250327B60 | RFN046041 | RFNLBG1CV04ANA RFNLBG1CV04SSR |
| | 2500 (172) | FNLR046041[*] | FNVR046041 | FNPR046041[*] | | | |
| | 5000 (345) | FNL046045[*] | FNV046045 | FNP046045[*] | | | |
| | 2500 (172) | FNLR046045[*] | FNVR046045 | FNPR046045[*] | | | |
| 1/4 BSPT | 5000 (345) | FNL046T045[*] | FNV046T045 | FNP046T045[*] | | | |
| 3/8 BSPP (G) | 5000 (345) | FNL066061[*] | FNV066061 | FNP066061[*] | S1112B70 | RFN066061 | |
| | | FNL066065[*] | FNV066065 | FNP066065[*] | | | |
| 3/8 BSPT | | FNL066T065[*] | FNV066T065 | FNP066T065[*] | | | |
| 1/2 BSPP (G) | 5000 (345) | FNL086081[*] | FNV086081 | FNP086081[*] | S1208B70 | RFN086081 | RFNLBG4CV04ANA RFNLBG4CV04SSR |
| | | FNL086085[*] | FNV086085 | FNP086085[*] | | | |
| 1/2 BSPT | | FNL086T085[*] | FNV086T085 | FNP086T085[*] | | | |
| 3/4 BSPP (G) | 3500 (241) | FNL126121[*] | FNV126121 | FNP126121[*] | S1315B50 | RFNBG5 | RFNLBG5CV04ANA RFNLBG5CV04SSR |
| | | FNL126125[*] | FNV126125 | FNP126125[*] | | | |
| 3/4 BSPT | | FNL126T125[*] | FNV126T125 | FNP126T125[*] | | | |

Reduced Thread Connectors [FNxRxxxxxx]; The "R" in the part number indicates a shorter collet length for shallow ports.

Port Specifications: BSPP (G) per ISO 228, BS 2779, DIN 3852 Part 2 Type A and B; BSPT per ISO 7 or BS 21

*How To Add ICON™ to FN

| Signal Output | Part Number Suffix | Example |
|--------------------------------------|--------------------|--------------------------|
| FNL Connector without ICON™ | None | FNL022021 |
| FNL with ICON™; Analog Output Signal | CV04ANA | FNL022021 CV04ANA |
| FNL with ICON™; Solid State Relay | CV04SSR | FNL022021 CV04SSR |



*Dimension only applies to FN with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

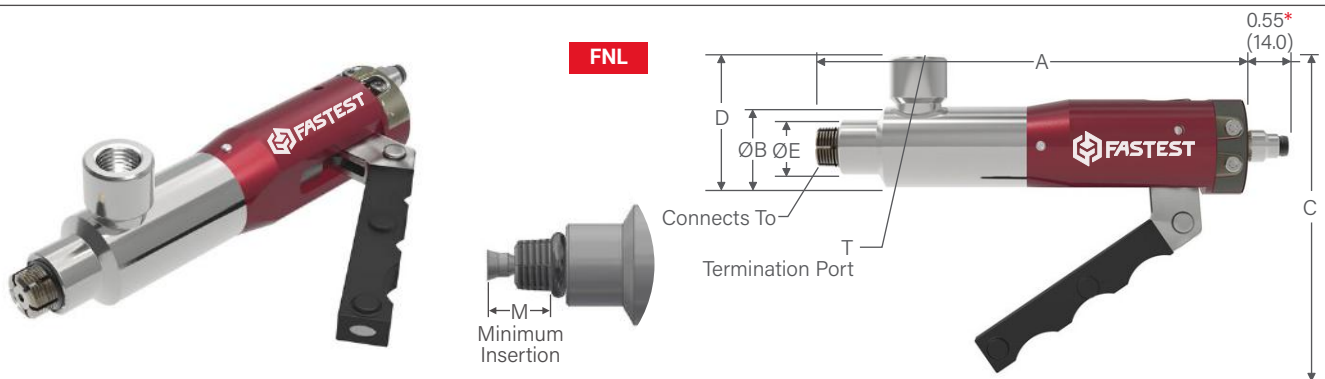
| Dimensions | | | | | | | | | |
|--------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|--------------|
| A (FNL) | A (FNV) | A (FNP) | B | C (FNL) | C (FNV) | D | E | M | T |
| 4.80 (121.9) | 5.13 (130.3) | 4.90 (124.5) | 1.06 (26.9) | 3.70 (94) | 1.58 (40.1) | 1.50 (38.1) | 0.65 (16.5) | 0.55 (14.0) | 1/8 NPT |
| | | | | | | | | 0.27 (6.9) | 1/8 NPT |
| | | | | | | | | 0.55 (14.0) | 1/8 BSPP (G) |
| | | | | | | | | 0.27 (6.9) | 1/8 BSPP (G) |
| | | | | | | | | 0.55 (14.0) | 1/8 BSPP (G) |
| 5.00 (127) | 5.21 (132.3) | 5.00 (127.0) | 1.06 (26.9) | 4.00 (101.6) | 1.58 (40.1) | 1.70 (43.2) | 0.72 (18.3) | 0.67 (17.0) | 1/4 NPT |
| | | | | | | | | 0.39 (9.9) | 1/4 NPT |
| | | | | | | | | 0.67 (17.0) | 1/4 BSPP (G) |
| | | | | | | | | 0.39 (9.9) | 1/4 BSPP (G) |
| | | | | | | | | 0.67 (17.0) | 1/4 BSPP (G) |
| 5.00 (127) | 5.05 (128.3) | 4.80 (121.9) | 1.25 (31.8) | 3.90 (99.1) | 1.58 (40.1) | 1.86 (47.2) | 0.86 (21.8) | 0.67 (17.0) | 3/8 NPT |
| | | | | | | | | | 3/8 BSPP (G) |
| | | | | | | | | | 3/8 BSPP (G) |
| 5.27 (133.9) | 5.27 (133.9) | 5.34 (135.6) | 1.43 (36.3) | 4.40 (111.8) | 1.85 (47.0) | 2.33 (59.2) | 1.09 (27.7) | 0.76 (19.3) | 1/2 NPT |
| | | | | | | | | | 1/2 BSPP (G) |
| | | | | | | | | | 1/2 BSPP (G) |
| 8.17 (207.5) | 8.75 (222.2) | 8.75 (222.2) | 1.78 (45.2) | 5.10 (129.5) | 2.11 (53.6) | 2.93 (74.4) | 1.49 (37.8) | 0.63 (16.0) | 3/4 NPT |
| | | | | | | | | | 3/4 BSPP (G) |
| | | | | | | | | | 3/4 BSPP (G) |

Dimensions: inch (mm)
Pressure Rating: psi (bar)



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

FN / INTERNAL CONNECTIONS / SAE O-RING



Ordering Information

| Connects To | Pressure Rating | FNL Part Number (with Lever) | FNV Part Number (with Thumb Valve) | FNP Part Number (with Pneumatic Pilot) | Replacement Seals Pack (5) | Rebuild Kit | ICON™ Repair Kit (FNL / FNP) |
|-------------|-----------------|------------------------------|------------------------------------|--|----------------------------|-------------|------------------------------|
|-------------|-----------------|------------------------------|------------------------------------|--|----------------------------|-------------|------------------------------|

FasMate® FN | SAE O-Ring

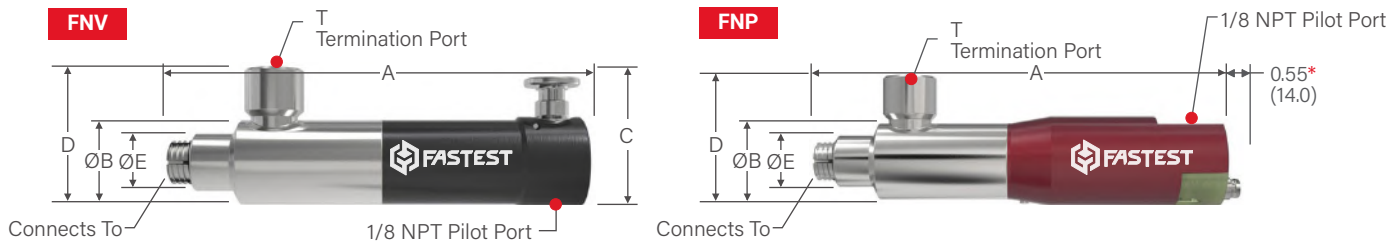
| | | | | | | | |
|-----------------|------------|----------------|-------------|----------------|---------------|-----------|----------------------------------|
| -3 [3/8-24] | 2500 (172) | FNLR034021[*] | FNVR034021 | FNPR034021[*] | S1108B70 | RFN022021 | RFNLBG1CV04ANA RFNLBG1CV04SSR |
| | | FNLR034025[*] | FNVR034025 | FNPR034025[*] | | | |
| -4 [7/16-20] | 5000 (345) | FNL044021[*] | FNV044021 | FNP044021[*] | S1109B70 | RFN044021 | |
| | 2500 (172) | FNLR044021[*] | FNVR044021 | FNPR044021[*] | | | |
| | 5000 (345) | FNL044025[*] | FNV044025 | FNP044025[*] | | | |
| | 2500 (172) | FNLR044025[*] | FNVR044025 | FNPR044025[*] | | | |
| -4 [7/16-24] | 2500 (172) | FNLR044K021[*] | FNVR044K021 | FNPR044K021[*] | | | |
| | | FNLR044K025[*] | FNVR044K025 | FNPR044K025[*] | | | |
| -5 [1/2-20] | 5000 (345) | FNL054041[*] | FNV054041 | FNP054041[*] | S21250327B60 | RFN054041 | |
| | 2500 (172) | FNLR054041[*] | FNVR054041 | FNPR054041[*] | | | |
| | 5000 (345) | FNL054045[*] | FNV054045 | FNP054045[*] | | | |
| | 2500 (172) | FNLR054045[*] | FNVR054045 | FNPR054045[*] | | | |
| -6 [9/16-18] | 5000 (345) | FNL064041[*] | FNV064041 | FNP064041[*] | S1111B70 | RFN064041 | |
| | 2500 (172) | FNLR064041[*] | FNVR064041 | FNPR064041[*] | | | |
| | 5000 (345) | FNL064045[*] | FNV064045 | FNP064045[*] | | | |
| | 2500 (172) | FNLR064045[*] | FNVR064045 | FNPR064045[*] | | | |
| -8 [3/4-16] | 5000 (345) | FNL084061[*] | FNV084061 | FNP084061[*] | S1207B70 | RFN084061 | |
| | | FNLR084065[*] | FNV084065 | FNP084065[*] | | | |
| -10 [7/8-14] | 5000 (345) | FNL104081[*] | FNV104081 | FNP104081[*] | S2M0401600B70 | RFN104081 | |
| | | FNL104085[*] | FNV104085 | FNP104085[*] | | | |
| -12 [1 1/16-12] | 3500 (241) | FNL124121[*] | FNV124121 | FNP124121[*] | S1315B50 | RFNBG5 | |

Reduced Thread Connectors [FNxRxxxxxx]; The "R" in the part number indicates a shorter collet length for shallow ports.

Port Specifications: SAE O-Ring per SAE J1926 or ISO 11926

*How To Add ICON™ to FN

| Signal Output | Part Number Suffix | Example |
|--------------------------------------|--------------------|--------------------------|
| FNL Connector without ICON™ | None | FNL022021 |
| FNL with ICON™: Analog Output Signal | CV04ANA | FNL022021 CV04ANA |
| FNL with ICON™: Solid State Relay | CV04SSR | FNL022021 CV04SSR |



*Dimension only applies to FN with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

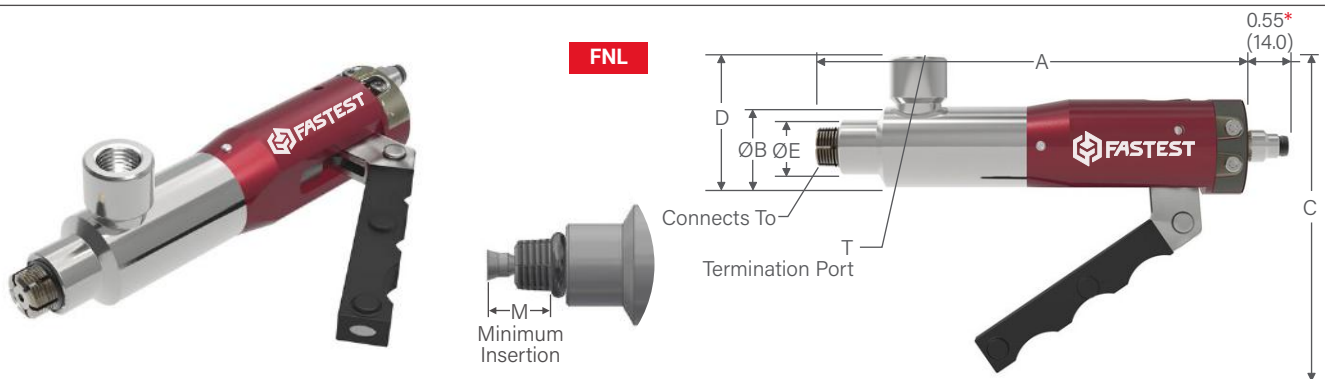
| Dimensions | | | | | | | | | |
|--------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|--------------|--------------|
| A (FNL) | A (FNV) | A (FNP) | B | C (FNL) | C (FNV) | D | E | M | T |
| 4.80 (121.9) | 5.13 (130.3) | 4.90 (124.5) | 1.06 (26.9) | 3.70 (94.0) | 1.58 (40.1) | 1.50 (38.1) | 0.65 (16.5) | 0.30 (7.6) | 1/8 NPT |
| | | | | | | | | 1/8 BSPP (G) | |
| 4.80 (121.9) | 5.13 (130.3) | 4.90 (124.5) | 1.06 (26.9) | 3.70 (94.0) | 1.58 (40.1) | 1.50 (38.1) | 0.65 (16.5) | 0.55 (14.0) | 1/8 NPT |
| | | | | | | | | 0.34 (8.6) | 1/8 NPT |
| | | | | | | | | 0.55 (14.0) | 1/8 BSPP (G) |
| | | | | | | | | 0.34 (8.6) | 1/8 BSPP (G) |
| | | | | | | | | 0.37 (9.4) | 1/8 NPT |
| | | | | | | | | 1/8 BSPP (G) | |
| 5.00 (127.0) | 5.21 (132.3) | 5.00 (127.0) | 1.06 (26.9) | 4.00 (101.6) | 1.58 (40.1) | 1.70 (43.2) | 0.72 (18.3) | 0.67 (17.0) | 1/4 NPT |
| | | | | | | | | 0.39 (9.9) | |
| | | | | | | | | 0.67 (17.0) | 1/4 BSPP (G) |
| | | | | | | | | 0.39 (9.9) | |
| 5.00 (127.0) | 5.21 (132.3) | 5.00 (127.0) | 1.06 (26.9) | 3.90 (99.1) | 1.58 (40.1) | 1.86 (47.2) | 0.79 (20.1) | 0.67 (17.0) | 1/4 NPT |
| | | | | | | | | 0.41 (10.4) | |
| | | | | | | | | 0.67 (17.0) | 1/4 BSPP (G) |
| | | | | | | | | 0.41 (10.4) | |
| 5.27 (133.9) | 5.27 (133.9) | 5.34 (135.6) | 1.43 (36.3) | 4.40 (111.8) | 1.85 (47.0) | 2.33 (59.2) | 1.09 (27.7) | 0.76 (19.3) | 3/8 NPT |
| | | | | | | | | 3/8 BSPP (G) | |
| 5.27 (133.9) | 5.27 (133.9) | 5.34 (135.6) | 1.43 (36.3) | 4.40 (111.8) | 1.85 (47.0) | 2.33 (59.2) | 1.25 (31.8) | 0.76 (19.3) | 1/2 NPT |
| | | | | | | | | 1/2 BSPP (G) | |
| 8.17 (207.5) | 8.75 (222.2) | 8.75 (222.2) | 1.78 (45.2) | 5.10 (129.5) | 2.11 (53.6) | 2.93 (74.4) | 1.49 (37.8) | 0.63 (16.0) | 3/4 NPT |

Dimensions: inch (mm)
Pressure Rating: psi (bar)



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

FN / INTERNAL CONNECTIONS / METRIC



Ordering Information

| Connects To | Pressure Rating | FNL Part Number (with Lever) | FNV Part Number (with Thumb Valve) | FNP Part Number (with Pneumatic Pilot) | Replacement Seals Pack (5) | Rebuild Kit | ICON™ Repair Kit (FNL / FNP) |
|-------------|-----------------|------------------------------|------------------------------------|--|----------------------------|-------------|------------------------------|
|-------------|-----------------|------------------------------|------------------------------------|--|----------------------------|-------------|------------------------------|

FasMate® FN | ISO O-Ring Metric

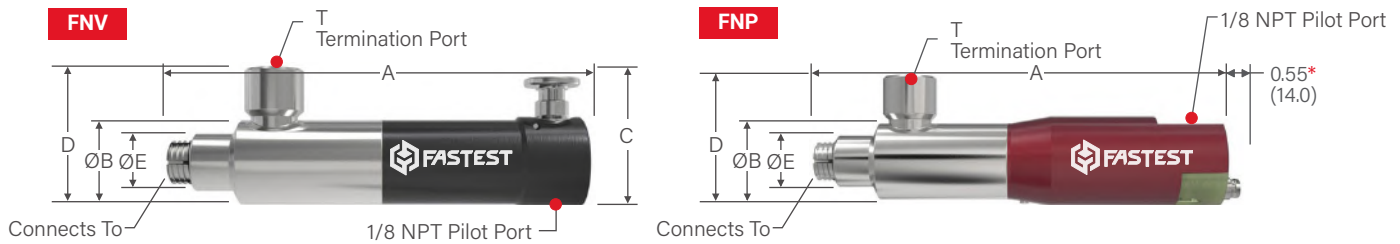
| | | | | | | | |
|------------|------------|----------------|-------------|----------------|--------------|-----------|----------------------------------|
| M10 × 1.0 | 5000 (345) | FNL108021[*] | FNV108021 | FNP108021[*] | S1108B70 | RFN022021 | RFNLBG1CV04ANA RFNLBG1CV04SSR |
| | 2500 (172) | FNLR108021[*] | FNVR108021 | FNPR108021[*] | | | |
| | 5000 (345) | FNL108025[*] | FNV108025 | FNP108025[*] | | | |
| | 2500 (172) | FNLR108025[*] | FNVR108025 | FNPR108025[*] | | | |
| M10 × 1.25 | 2500 (172) | FNLR108D021[*] | FNVR108D021 | FNPR108D021[*] | | | |
| | | FNLR108D025[*] | FNVR108D025 | FNPR108D025[*] | | | |
| M10 × 1.5 | 2500 (172) | FNLR108E021[*] | FNVR108E021 | FNPR108E021[*] | | | |
| | | FNLR108E025[*] | FNVR108E025 | FNPR108E025[*] | | | |
| M12 × 1.0 | 5000 (345) | FNL128021[*] | FNV128021 | FNP128021[*] | S21250327B60 | RFN042041 | |
| | 2500 (172) | FNLR128021[*] | FNVR128021 | FNPR128021[*] | | | |
| | 5000 (345) | FNL128025[*] | FNV128025 | FNP128025[*] | | | |
| | 2500 (172) | FNLR128025[*] | FNVR128025 | FNPR128025[*] | | | |
| M12 × 1.25 | 2500 (172) | FNLR128D021[*] | FNVR128D021 | FNPR128D021[*] | S1203B60 | | |
| | | FNLR128D025[*] | FNVR128D025 | FNPR128D025[*] | | | |
| M12 × 1.5 | 2500 (172) | FNLR128E021[*] | FNVR128E021 | FNPR128E021[*] | | | |
| | | FNLR128E025[*] | FNVR128E025 | FNPR128E025[*] | | | |
| M14 × 1.5 | 5000 (345) | FNL148045[*] | FNV148045 | FNP148045[*] | S21250327B60 | RFN042041 | |
| | 2500 (172) | FNLR148041[*] | FNVR148041 | FNPR148041[*] | S1203B60 | | |
| | 2500 (172) | FNLR148045[*] | FNVR148045 | FNPR148045[*] | | | |
| M16 × 1.5 | 5000 (345) | FNL168065[*] | FNV168065 | FNP168065[*] | S21200445B70 | RFN062061 | |
| | 2500 (172) | FNLR168061[*] | FNVR168061 | FNPR168061[*] | | | |
| | 2500 (172) | FNLR168065[*] | FNVR168065 | FNPR168065[*] | | | |
| M18 × 1.5 | 5000 (345) | FNL188065[*] | FNV188065 | FNP188065[*] | S1206B70 | RFN188061 | RFNLBG4CV04ANA RFNLBG4CV04SSR |
| M20 × 1.5 | 5000 (345) | FNL208065[*] | FNV208065 | FNP208065[*] | S21390576B70 | RFN208061 | |
| M22 × 1.5 | 5000 (345) | FNL228085[*] | FNV228085 | FNP228085[*] | S1208B70 | RHN228081 | |

Reduced Thread Connectors [FNxRxxxxxx]; The "R" in the part number indicates a shorter collet length for shallow ports.

Port Specifications: BSPP (G) per ISO 228, BS 2779, DIN 3852 Part 2 Type A and B; BSPT per ISO 7 or BS 21

*How To Add ICON™ to FN

| Signal Output | Part Number Suffix | Example |
|--------------------------------------|--------------------|--------------------------|
| FNL Connector without ICON™ | None | FNL022021 |
| FNL with ICON™: Analog Output Signal | CV04ANA | FNL022021 CV04ANA |
| FNL with ICON™: Solid State Relay | CV04SSR | FNL022021 CV04SSR |



*Dimension only applies to FN with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Dimensions | | | | | | | | | |
|--------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|--------------|
| A (FNL) | A (FNV) | A (FNP) | B | C (FNL) | C (FNV) | D | E | M | T |
| 4.80 (121.9) | 5.13 (130.3) | 4.90 (124.5) | 1.06 (26.9) | 3.70 (94.0) | 1.58 (40.1) | 1.50 (38.1) | 0.65 (16.5) | 0.55 (14.0) | 1/8 NPT |
| | | | | | | | | 0.30 (7.6) | |
| | | | | | | | | 0.55 (14.0) | 1/8 BSPP (G) |
| | | | | | | | | 0.30 (7.6) | |
| | | | | | | | | 0.32 (8.1) | 1/8 NPT |
| | | | | | | | | 0.32 (8.1) | 1/8 BSPP (G) |
| 5.00 (127.0) | 5.21 (132.3) | 5.00 (127.0) | 1.06 (26.9) | 4.00 (101.6) | 1.58 (40.1) | 1.70 (43.2) | 0.72 (18.3) | 0.34 (8.6) | 1/8 NPT |
| | | | | | | | | 0.34 (8.6) | 1/8 BSPP (G) |
| | | | | | | | | 0.67 (17.0) | 1/8 NPT |
| | | | | | | | | 0.38 (9.7) | |
| | | | | | | | | 0.67 (17.0) | 1/8 BSPP (G) |
| | | | | | | | | 0.38 (9.7) | |
| 5.00 (127.0) | 5.21 (132.3) | 5.00 (127.0) | 1.06 (26.9) | 4.00 (101.6) | 1.58 (40.1) | 1.70 (43.2) | 0.72 (18.3) | 0.38 (9.7) | 1/8 NPT |
| | | | | | | | | 0.38 (9.7) | 1/8 BSPP (G) |
| | | | | | | | | 0.40 (10.2) | 1/8 NPT |
| 5.00 (127.0) | 5.05 (128.3) | 4.80 (121.9) | 1.25 (31.8) | 3.90 (99.1) | 1.58 (40.1) | 1.86 (47.2) | 0.86 (21.8) | 0.40 (10.2) | 1/8 BSPP (G) |
| | | | | | | | | 0.67 (17.0) | 1/4 BSPP (G) |
| | | | | | | | | 0.43 (10.9) | 1/4 NPT |
| 5.27 (133.9) | 5.27 (133.9) | 5.34 (135.6) | 1.43 (36.3) | 4.40 (111.8) | 1.85 (47.0) | 2.33 (59.2) | 1.00 (25.4) | 0.43 (10.9) | 1/4 BSPP (G) |
| | | | | | | | | 0.67 (17.0) | 3/8 BSPP (G) |
| | | | | | | | | 0.43 (10.9) | 3/8 NPT |
| 5.27 (133.9) | 5.27 (133.9) | 5.34 (135.6) | 1.43 (36.3) | 4.40 (111.8) | 1.85 (47.0) | 2.33 (59.2) | 1.09 (27.7) | 0.43 (10.9) | 3/8 BSPP (G) |
| | | | | | | | | 0.76 (19.3) | 3/8 NPT |
| | | | | | | | | 0.76 (19.3) | 3/8 BSPP (G) |
| 5.27 (133.9) | 5.27 (133.9) | 5.34 (135.6) | 1.43 (36.3) | 4.40 (111.8) | 1.85 (47.0) | 2.33 (59.2) | 1.09 (27.7) | 0.76 (19.3) | 1/2 BSPP (G) |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

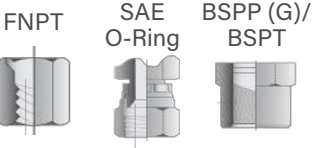


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MIT / INTERNAL CONNECTIONS

Manual twist sealing connection tool for internal threaded ports.

CONNECTS TO:



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|--------------------------------|----------------------------------|-------------------------------|
| Vacuum to 10,000 psi (689 bar) | -40°F to +200°F (-40°C to +93°C) | Stainless Steel |
| Termination Port | | Seal Material* |
| NPT, SAE 37° Flare | | Urethane, Neoprene, or Buna-N |

*Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Twist: Finger-tight connection eliminates tape and sealants

ICON™ TECHNOLOGY

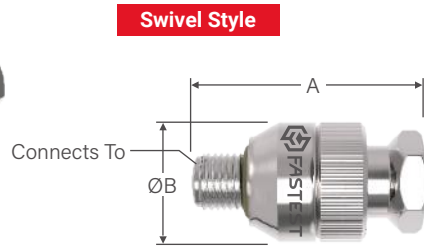
Consult Factory

ACCESSORIES

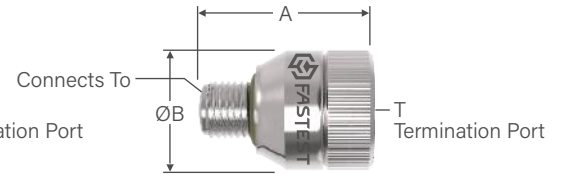
Visit fastestinc.com

- 1 Pressure assisted sealing eliminates leaks and resists movement under pressure
- 2 Leak-tight seal prevents contamination of media and reduces scrap and test damage
- 3 Available in flow or plug versions
- 4 Quick and easy seal replacement to minimize down time, maintenance, and tool inventory

MIT / INTERNAL CONNECTIONS / NPT

 Swivel Style
Non-Swivel Style


Non-Swivel Style



| Ordering Information | | | | | Dimensions | | |
|------------------------|--------------|---------------------------------|-------------|-----------------|-------------|--------------|---------|
| Connects To | Part Number* | Replacement Seals Bulk Pack (5) | Rebuild Kit | Pressure Rating | A | B | T** |
| NPT Swivel Style | | | | | | | |
| 1/8 NPT | MIT022021 | S1109U70 | MITR020 | 5000 (345) | 1.68 (42.7) | 0.82 (20.8) | 1/8 NPT |
| 1/4 NPT | MIT042041 | S1111U70 | MITR040 | | 1.88 (42.8) | 1.00 (25.4) | 1/4 NPT |
| 3/8 NPT | MIT062061 | S1113U70 | MITR060 | 4000 (276) | 2.09 (53.1) | 1.18 (30.0) | 3/8 NPT |
| 1/2 NPT | MIT082081 | S1209U70 | MITR080 | | 2.57 (65.3) | 1.36 (34.5) | 1/2 NPT |
| 3/4 NPT | MIT122121 | S1213U70 | MITR120 | | 2.73 (69.3) | 1.68 (42.7) | 3/4 NPT |
| 1 NPT | MIT162161 | S1216U70 | MITR160 | | 3.27 (83.1) | 2.00 (50.8) | 1 NPT |
| 1 ¼ NPT | MIT202201 | S1222U70 | MITR200 | 3000 (207) | 3.29 (83.6) | 2.38 (60.5) | 1 ¼ NPT |
| 1 ½ NPT | MIT242241 | S1327U70 | MITR240 | | 3.73 (94.7) | 3.73 (94.7) | 1 ½ NPT |
| NPT Non-Swivel Style | | | | | | | |
| 1/8 NPT | MIT022021X | S1109U70 | MITR02 | 5000 (345) | 1.24 (31.5) | 0.82 (20.8) | 1/8 NPT |
| 1/4 NPT | MIT042041X | S1111U70 | MITR04 | | 1.41 (35.8) | 1.00 (25.4) | 1/4 NPT |
| 3/8 NPT | MIT062061X | S1113U70 | MITR06 | 4000 (276) | 1.48 (37.6) | 1.18 (30.0) | 3/8 NPT |
| 1/2 NPT | MIT082081X | S1209U70 | MITR08 | | 1.85 (47.0) | 1.36 (34.5) | 1/2 NPT |
| 3/4 NPT | MIT122121X | S1213U70 | MITR12 | 4000 (276) | 1.94 (49.3) | 1.68 (42.7) | 3/4 NPT |
| 1 NPT | MIT162161X | S1216U70 | MITR16 | | 2.07 (52.6) | 2.00 (50.8) | 1 NPT |
| 1-1/4 NPT | MIT202201X | S1222U70 | MITR20 | 4000 (276) | 2.13 (54.1) | 2.38 (60.5) | 1 ¼ NPT |
| 1-1/2 NPT | MIT242241X | S1327U70 | MITR24 | 3000 (207) | 2.40 (61.0) | 2.74 (69.6) | 1 ½ NPT |
| 2 NPT | MIT322161X | S1331U70 | MITR32 | 2500 (172) | 2.68 (68.1) | 3.47 (88.1) | 1 NPT |
| 2-1/2 NPT | MIT402161X | S1335U70 | MITR40 | 1500 (103) | 3.42 (88.9) | 3.97 (100.8) | 1 NPT |
| 3 NPT | MIT482161X | S1340U70 | MITR48 | 1500 (103) | 3.68 (93.5) | 4.73 (120.1) | 1 NPT |
| 4 NPT | MIT642161X | S1348U70 | MITR64 | 1000 (69) | 3.68 (93.5) | 5.73 (145.5) | 1 NPT |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MIT022021X**V** = FKM

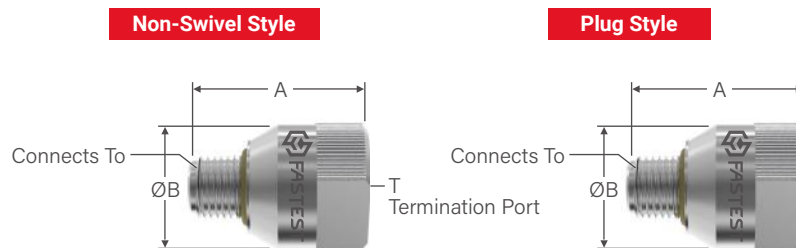
**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: NPT per SAE J476 or ANSI B1.20



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

MIT / INTERNAL CONNECTIONS / NPT (HIGH PRESSURE <10,000 PSI)



| Ordering Information | | | | | Dimensions | | |
|---|--------------|------------------------------------|-------------|--------------------|-------------|--------------|--|
| Connects To | Part Number* | Replacement Seals Bulk Pack (5) | Rebuild Kit | Pressure Rating | A | B | T** |
| NPT Non-Swivel Style for High Pressure | | | | | | | |
| 1/8 NPT | MITH022021X | S1109U70 | MITR02 | 10000 (689) | 1.24 (31.5) | 0.82 (20.8) | 1/8 NPT |
| 1/4 NPT | MITH042041X | S1111U70 | MITR04 | | 1.41 (35.8) | 1.00 (25.4) | 1/4 NPT |
| 3/8 NPT | MITH062061X | S1113U70 | MITR06 | 10000 (689) | 1.48 (37.6) | 1.18 (30.0) | 3/8 NPT |
| 1/2 NPT | MITH082081X | S1209U70 | MITR08 | 8000 (552) | 1.85 (47.0) | 1.36 (34.5) | 1/2 NPT |
| 3/4 NPT | MITH122121X | S1213U70 | MITR12 | 7500 (517) | 1.94 (49.3) | 1.68 (42.7) | 3/4 NPT |
| 1 NPT | MITH162161X | S1216U70 | MITR16 | 6500 (448) | 2.07 (52.6) | 2.00 (50.8) | 1 NPT |
| NPT Plug Style | | | | | | | |
| 1/8 NPT | MIT022P | S1109U70 | MITR02 | 5000 (345) | 1.24 (31.5) | 0.82 (21.8) | N/A (Plug Style No Termination Port) |
| 1/4 NPT | MIT042P | S1111U70 | MITR04 | | 1.41 (35.8) | 1.00 (25.4) | |
| 3/8 NPT | MIT062P | S1113U70 | MITR06 | 4000 (276) | 1.48 (37.6) | 1.18 (30.0) | |
| 1/2 NPT | MIT082P | S1209U70 | MITR08 | | 1.85 (47.0) | 1.36 (34.5) | |
| 3/4 NPT | MIT122P | S1213U70 | MITR12 | | 1.94 (49.3) | 1.68 (42.7) | |
| 1 NPT | MIT162P | S1216U70 | MITR16 | | 2.07 (52.6) | 2.00 (50.8) | |
| 1 ¼ NPT | MIT202P | S1222U70 | MITR20 | | 2.13 (54.1) | 2.38 (60.5) | |
| 1 ½ NPT | MIT242P | S1327U70 | MITR24 | 3000 (207) | 2.40 (61.0) | 2.74 (69.6) | |
| 2 NPT | MIT322P | S1331U70 | MITR32 | 2500 (172) | 2.68 (68.1) | 3.47 (88.1) | |
| 2 ½" NPT | MIT402P | S1335U70 | MITR40 | 1500 (103) | 3.42 (88.9) | 3.97 (100.8) | |
| 3 NPT | MIT482P | S1340U70 | MITR48 | | 3.68 (93.5) | 4.73 (120.1) | |
| 4 NPT | MIT642P | S1348U70 | MITR64 | 1000 (69) | 3.68 (93.5) | 5.73 (145.5) | |

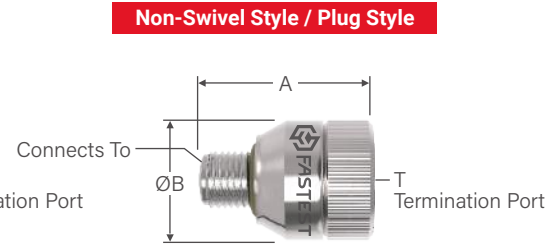
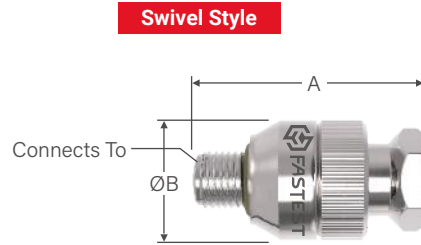
Dimensions: inch (mm)
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MITH022021XV = FKM

**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: NPT per SAE J476 or ANSI B1.20

MIT / INTERNAL CONNECTIONS / BSPP (G)



| Ordering Information | | | | | Dimensions | | |
|----------------------|--------------|---------------------------------|-------------|-----------------|------------|---|-----|
| Connects To | Part Number* | Replacement Seals Bulk Pack (5) | Rebuild Kit | Pressure Rating | A | B | T** |

BSPP (G) | Swivel Style

| | | | | | | | |
|--------------|-----------|----------|---------|------------|-------------|-------------|----------|
| 1/8 BSPP (G) | MIT026021 | S1109U70 | MITR020 | 5000 (345) | 1.66 (42.2) | 0.82 (20.8) | 1/8 FNPT |
| 1/4 BSPP (G) | MIT046041 | S1111U70 | MITR040 | | 1.83 (46.5) | 1.00 (25.4) | 1/4 FNPT |
| 3/8 BSPP (G) | MIT066061 | S1113U70 | MITR060 | 4000 (276) | 2.10 (53.4) | 1.18 (30.0) | 3/8 FNPT |
| 1/2 BSPP (G) | MIT086081 | S1209U70 | MITR080 | | 2.55 (64.8) | 1.36 (34.5) | 1/2 FNPT |

BSPP (G) | Non-Swivel Style

| | | | | | | | |
|--------------|------------|----------|--------|------------|-------------|-------------|----------|
| 1/8 BSPP (G) | MIT026021X | S1109U70 | MITR02 | 5000 (345) | 1.20 (30.5) | 0.82 (20.8) | 1/8 FNPT |
| 1/4 BSPP (G) | MIT046041X | S1111U70 | MITR04 | | 1.36 (34.5) | 1.00 (25.4) | 1/4 FNPT |
| 3/8 BSPP (G) | MIT066061X | S1113U70 | MITR06 | 4000 (276) | 1.50 (38.1) | 1.18 (30.0) | 3/8 FNPT |
| 1/2 BSPP (G) | MIT086081X | S1209U70 | MITR08 | | 1.83 (46.5) | 1.36 (34.5) | 1/2 FNPT |
| 3/4 BSPP (G) | MIT126121X | S1213U70 | MITR12 | | 1.94 (49.3) | 1.68 (42.7) | 3/4 FNPT |
| 1 BSPP (G) | MIT166161X | S1216U70 | MITR16 | | 2.07 (52.6) | 2.07 (52.6) | 1 FNPT |

BSPP (G) | Plug Style

| | | | | | | | |
|--------------|---------|----------|--------|------------|-------------|-------------|---|
| 1/8 BSPP (G) | MIT026P | S1109U70 | MITR02 | 5000 (345) | 1.24 (31.5) | 0.82 (20.8) | N/A (Plug Style No Termination Port) |
| 1/4 BSPP (G) | MIT046P | S1111U70 | MITR04 | | 1.41 (35.8) | 1.00 (25.4) | |
| 3/8 BSPP (G) | MIT066P | S1113U70 | MITR06 | 4000 (276) | 1.48 (37.6) | 1.18 (30.0) | |
| 1/2 BSPP (G) | MIT086P | S1209U70 | MITR08 | | 1.85 (47.0) | 1.36 (34.5) | |
| 3/4 BSPP (G) | MIT126P | S1213U70 | MITR12 | | 1.90 (48.3) | 1.68 (42.7) | |
| 1 BSPP (G) | MIT166P | S1216U70 | MITR16 | | 2.36 (59.9) | 2.07 (52.6) | |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MIT026021V = FKM

**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: BSPP (G) per ISO 228 or BS2779



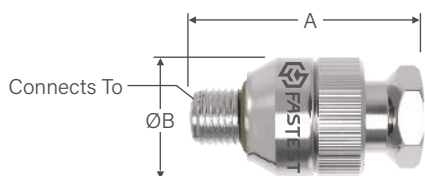
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MIT / INTERNAL CONNECTIONS / BSPT

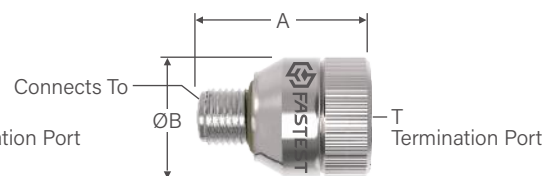
Swivel Style
Non-Swivel Style
Plug Style



Swivel Style



Non-Swivel Style / Plug Style



| Ordering Information | | | | | Dimensions | | |
|-------------------------|--------------|---------------------------------|-------------|-----------------|-------------|-------------|---|
| Connects To | Part Number* | Replacement Seals Bulk Pack (5) | Rebuild Kit | Pressure Rating | A | B | T** |
| BSPT Swivel Style | | | | | | | |
| 1/8 BSPT | MIT026T021 | S1109U70 | MITR020 | 5000 (345) | 1.70 (43.2) | 0.82 (20.8) | 1/8 FNPT |
| 1/4 BSPT | MIT046T041 | S1111U70 | MITR040 | | 1.88 (47.8) | 1.00 (25.4) | 1/4 FNPT |
| 3/8 BSPT | MIT066T061 | S1113U70 | MITR060 | 4000 (276) | 2.10 (53.4) | 1.18 (30.0) | 3/8 FNPT |
| 1/2 BSPT | MIT086T081 | S1209U70 | MITR080 | | 2.88 (64.8) | 1.36 (34.5) | 1/2 FNPT |
| BSPT Non-Swivel Style | | | | | | | |
| 1/8 BSPT | MIT026T021X | S1109U70 | MITR02 | 4000 (276) | 1.20 (30.5) | 0.82 (20.8) | 1/8 FNPT |
| 1/4 BSPT | MIT046T041X | S1111U70 | MITR04 | | 1.41 (35.8) | 1.00 (25.4) | 1/4 FNPT |
| 3/8 BSPT | MIT066T061X | S1113U70 | MITR06 | | 1.55 (39.8) | 1.18 (30.0) | 3/8 FNPT |
| 1/2 BSPT | MIT086T081X | S1209U70 | MITR08 | | 1.82 (46.2) | 1.36 (34.5) | 1/2 FNPT |
| 3/4 BSPT | MIT126T121X | S1213U70 | MITR12 | | 2.00 (50.8) | 1.68 (42.7) | 3/4 FNPT |
| 1 BSPT | MIT166T161X | S1216U70 | MITR16 | | 2.26 (57.4) | 2.00 (50.8) | 1 FNPT |
| BSPT Plug Style | | | | | | | |
| 1/8 BSPT | MIT026TP | S1109U70 | MITR02 | 5000 (345) | 1.20 (30.5) | 0.82 (21.8) | N/A (Plug Style No Termination Port) |
| 1/4 BSPT | MIT046TP | S1111U70 | MITR04 | | 1.41 (35.8) | 1.00 (25.4) | |
| 3/8 BSPT | MIT066TP | S1113U70 | MITR06 | 4000 (276) | 1.50 (38.1) | 1.18 (30.0) | |
| 1/2 BSPT | MIT086TP | S1209U70 | MITR08 | | 1.85 (47.0) | 1.36 (34.5) | |
| 3/4 BSPT | MIT126TP | S1213U70 | MITR12 | | 1.92 (48.8) | 1.68 (42.7) | |
| 1 BSPT | MIT166TP | S1216U70 | MITR16 | | 2.07 (52.6) | 2.00 (50.8) | |
| 1 1/2 BSPT | MIT246TP | S1327U70 | MITR24 | 3000 (207) | 2.54 (64.5) | 2.74 (69.6) | |
| 2 BSPT | MIT326TP | S1331U70 | MITR32 | 2500 (172) | 2.74 (69.6) | 3.47 (88.1) | |

Dimensions: inch (mm)

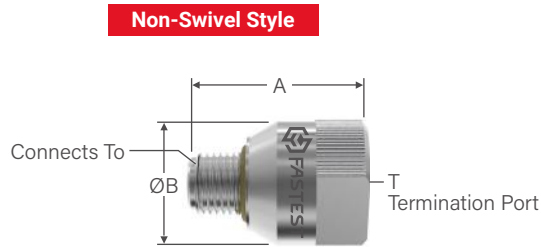
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MIT026T021V = FKM

**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: BSPT per ISO 7 or BS 21

MIT / INTERNAL CONNECTIONS / SAE ORB

Non-Swivel Style
Non-Swivel Style for High Pressure

| Ordering Information | | | | | Dimensions | | |
|----------------------|--------------|------------------------------------|-------------|--------------------|------------|---|-----|
| Connects To | Part Number* | Replacement Seals Bulk Pack (5) | Rebuild Kit | Pressure Rating | A | B | T** |

SAE ORB | Non-Swivel Style

| | | | | | | | |
|-----------------|------------|----------|--------|------------|-------------|-------------|------------|
| -3 [3/8-24] | MIT034021X | S1109U70 | MITR02 | 5000 (345) | 1.29 (32.8) | 0.82 (21.8) | 1/8 FNPT |
| -4 [7/16-20] | MIT044021X | | | | 1.29 (32.8) | 0.82 (21.8) | 1/8 FNPT |
| -5 [1/2-20] | MIT054041X | S1111U70 | MITR04 | | 1.41 (35.8) | 1.00 (25.4) | 1/4 FNPT |
| -6 [9/16-18] | MIT064041X | | | | 1.41 (35.8) | 1.00 (25.4) | 1/4 FNPT |
| -8 [3/4-16] | MIT084081X | S1209U70 | MITR08 | 4000 (276) | 1.85 (47.0) | 1.36 (34.5) | 1/2 FNPT |
| -10 [7/8-14] | MIT104081X | | | | 1.85 (47.0) | 1.36 (34.5) | 1/2 FNPT |
| -12 [1 1/16-12] | MIT124121X | S1213U70 | MITR12 | | 1.94 (49.3) | 1.68 (42.7) | 3/4 FNPT |
| -14 [1 3/16-12] | MIT144161X | S1216U70 | MITR16 | | 2.13 (54.1) | 2.00 (50.8) | 1 FNPT |
| -16 [1 5/16-12] | MIT164161X | S1217U70 | MITR16 | | 2.13 (54.1) | 2.00 (50.8) | 1 FNPT |
| -20 [1 5/8-12] | MIT204201X | S1222U70 | MITR20 | | 2.13 (54.1) | 2.38 (60.5) | 1 1/4 FNPT |

SAE ORB | Non-Swivel Style for High Pressure

| | | | | | | | |
|-----------------|-------------|----------|--------|-------------|-------------|-------------|----------|
| -4 [7/16-20] | MITH044021X | S1109U70 | MITR02 | 10000 (689) | 1.29 (32.8) | 0.82 (21.8) | 1/8 FNPT |
| -6 [9/16-18] | MITH064041X | S1111U70 | MITR04 | | 1.41 (35.8) | 1.00 (25.4) | 1/4 FNPT |
| -8 [3/4-16] | MITH084081X | S1209U70 | MITR08 | 8000 (552) | 1.85 (47.0) | 1.36 (34.5) | 1/2 FNPT |
| -10 [7/8-14] | MITH104081X | | | 7500 (517) | 1.85 (47.0) | 1.36 (34.5) | 1/2 FNPT |
| -12 [1 1/16-12] | MITH124121X | S1213U70 | MITR12 | | 1.94 (49.3) | 1.68 (42.7) | 3/4 FNPT |
| -14 [1 3/16-12] | MITH144161X | S1216U70 | MITR16 | 7000 (483) | 2.13 (54.1) | 2.00 (50.8) | 1 FNPT |
| -16 [1 5/16-12] | MITH164161X | S1217U70 | MITR16 | | 2.13 (54.1) | 2.00 (50.8) | 1 FNPT |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MIT034021XV = FKM

**Other terminations in metric / BSPP may be available. Contact factory.

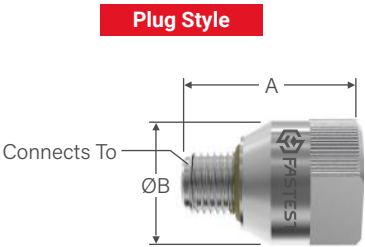
Port Specifications: SAE ORB per SAE J1926 or ISO 11926



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MIT / INTERNAL CONNECTIONS / SAE ORB

Plug Style



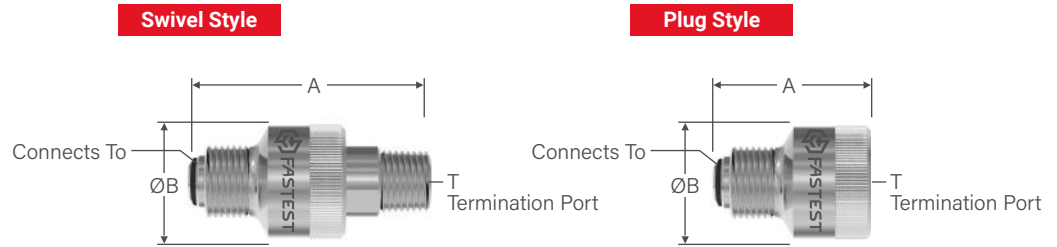
| Ordering Information | | | | | Dimensions | | |
|----------------------|--------------|------------------------------------|-------------|--------------------|-------------|-------------|--|
| Connects To | Part Number* | Replacement Seals Bulk Pack (5) | Rebuild Kit | Pressure Rating | A | B | T |
| SAE ORB Plug Style | | | | | | | |
| -4 [7/16-20] | MIT044P | S1109U70 | MITR02 | 5000 (345) | 1.29 (32.8) | 0.82 (21.8) | N/A (Plug Style No Termination Port) |
| -5 [1/2-20] | MIT054P | S1111U70 | MITR04 | | 1.41 (35.8) | 1.00 (25.4) | |
| -6 [9/16-18] | MIT064P | S1111U70 | MITR04 | 4000 (276) | 1.41 (35.8) | 1.00 (25.4) | |
| -8 [3/4-16] | MIT084P | S1209U70 | MITR08 | | 1.85 (47.0) | 1.36 (34.5) | |
| -10 [7/8-14] | MIT104P | S1209U70 | MITR08 | | 1.94 (49.3) | 1.68 (42.7) | |
| -12 [1 1/16-20] | MIT124P | S1213U70 | MITR12 | | 1.29 (32.8) | 0.82 (21.8) | |
| -14 [1 3/16-12] | MIT144P | S1216U70 | MITR16 | | 2.13 (54.1) | 2.00 (50.8) | |
| -16 [1 5/16-12] | MIT164P | S1217U70 | MITR16 | | 2.13 (54.1) | 2.00 (50.8) | |
| -20 [1 5/8-12] | MIT204P | S1222U70 | MITR20 | | 2.13 (54.1) | 2.38 (60.5) | |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MIT044P**V** = FKM

Port Specifications: SAE ORB per SAE J1926 or ISO 11926

MIT / INTERNAL CONNECTIONS / SAE 37° FLARE

 Swivel Style
Plug Style


| Ordering Information | | | | | Dimensions | | |
|----------------------|--------------|---------------------------------|-------------|-----------------|------------|---|-----|
| Connects To | Part Number* | Replacement Seals Bulk Pack (5) | Rebuild Kit | Pressure Rating | A | B | T** |

SAE 37° FLARE | Swivel Style

| | | | | | | | |
|-----------------|------------|--------------|--------|-------------|-------------|-------------|----------|
| -4 [7/16-20] | MITH040022 | S20540158B70 | METR02 | 10000 (689) | 2.11 (53.6) | 0.80 (20.3) | 1/8 NPTF |
| -6 [9/16-18] | MITH060042 | S20640239B70 | METR04 | | 2.36 (59.9) | 0.97 (24.6) | 1/4 NPTF |
| -8 [3/4-16] | MITH080062 | S1012B70 | METR06 | 8000 (552) | 2.54 (64.5) | 1.18 (30.0) | 3/8 NPTF |
| -10 [7/8-14] | MITH100082 | S1013B70 | METR08 | 7500 (517) | 2.94 (76.7) | 1.38 (35.1) | 1/2 NPTF |
| -12 [1 1/16-12] | MITH120122 | S20700583B70 | METR12 | 7500 (517) | 3.30 (83.8) | 1.72 (43.7) | 3/4 NPTF |
| -16 [1 5/16-12] | MITH160162 | S20800796B70 | METR16 | 7000 (483) | 3.77 (95.8) | 2.13 (54.1) | 1 NPTF |

SAE 37° FLARE | Plug Style

| | | | | | | | |
|-----------------|----------|--------------|--------|-------------|-------------|-------------|---|
| -4 [7/16-20] | MITH040P | S20540158B70 | METR02 | 10000 (689) | 1.42 (36.1) | 0.80 (20.3) | N/A (Plug Style No Termination Port) |
| -6 [9/16-18] | MITH060P | S20640239B70 | METR04 | | 1.51 (38.4) | 0.97 (24.6) | |
| -8 [3/4-16] | MITH080P | S1012B70 | METR06 | 8000 (552) | 1.65 (41.9) | 1.18 (30.0) | |
| -10 [7/8-14] | MITH100P | S1013B70 | METR08 | 7500 (517) | 1.86 (47.2) | 1.38 (35.1) | |
| -12 [1 1/16-12] | MITH120P | S20700583B70 | METR12 | 7500 (517) | 2.03 (51.6) | 1.72 (43.7) | |
| -16 [1 5/16-12] | MITH160P | S20800796B70 | METR16 | 7000 (483) | 2.29 (58.2) | 2.13 (54.1) | |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MITH040022V = FKM

**Other terminations in metric / BSPP may be available. Contact factory.

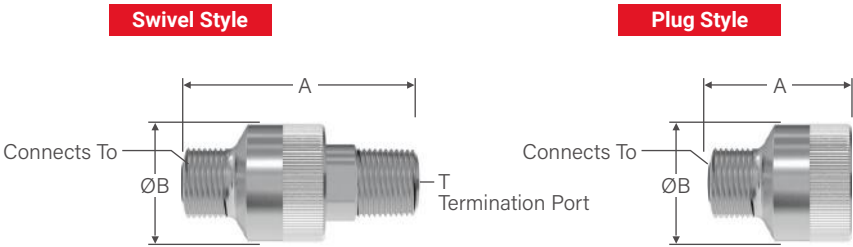
Port Specifications: SAE 37° FLARE per SAE J514



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

MIT / INTERNAL CONNECTIONS / SAE ORFS

Swivel Style
Plug Style



| Ordering Information | | | | | Dimensions | | |
|-------------------------|--------------|------------------------------------|-------------|--------------------|-------------|-------------|----------|
| Connects To | Part Number* | Replacement Seals Bulk Pack (5) | Rebuild Kit | Pressure Rating | A | B | T** |
| SAE ORFS Swivel Style | | | | | | | |
| -4 [9/16-18] | MITH04K042 | S1008B70 | METR04 | 10000 (689) | 2.11 (53.6) | 0.80 (20.3) | 1/8 MNPT |
| -6 [11/16-16] | MITH06K062 | S20700291B70 | METR06 | | 2.36 (59.9) | 0.97 (24.6) | 1/4 MNPT |
| -8 [13/16-16] | MITH08K082 | S1012B70 | METR08 | 8000 (552) | 2.54 (64.5) | 1.18 (30.0) | 3/8 MNPT |
| -10 [1-14] | MITH10K122 | S1014B70 | METR12 | 7500 (517) | 2.94 (76.7) | 1.38 (35.1) | 1/2 MNPT |
| -12 [1 3/16-12] | MITH12K122 | S1113B70 | METR12 | 7500 (517) | 3.30 (83.8) | 1.72 (43.7) | 3/4 MNPT |
| -16 [1 7/16-12] | MITH16K162 | S1117B70 | METR16 | 7000 (483) | 3.77 (95.8) | 2.13 (54.1) | 1 MNPT |

| | | | | | | | |
|-----------------------|----------|--------------|--------|-------------|-------------|-------------|--|
| SAE ORFS Plug Style | | | | | | | |
| -4 [7/16-20] | MITH04KP | S1008B70 | METR04 | 10000 (689) | 1.42 (36.1) | 0.80 (20.3) | N/A (Plug Style No Termination Port) |
| -6 [9/16-18] | MITH06KP | S20700291B70 | METR06 | | 1.51 (38.4) | 0.97 (24.6) | |
| -8 [3/4-16] | MITH08KP | S1012B70 | METR08 | 8000 (552) | 1.65 (41.9) | 1.18 (30.0) | |
| -10 [7/8-14] | MITH10KP | S1014B70 | METR12 | 7500 (517) | 1.86 (47.2) | 1.38 (35.1) | |
| -12 [1 1/16-12] | MITH12KP | S1113B70 | METR12 | 7500 (517) | 2.03 (51.6) | 1.72 (43.7) | |
| -16 [1 5/16-12] | MITH16KP | S1117B70 | METR16 | 7000 (483) | 2.29 (58.2) | 2.13 (54.1) | |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MITH04K042V = FKM
**Other terminations in metric / BSPP may be available. Contact factory.

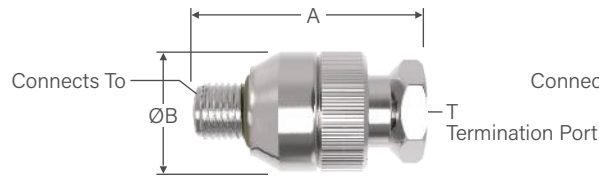
Port Specifications: SAE ORFS per SAE J1453

MIT / INTERNAL CONNECTIONS / ISO O-RING METRIC

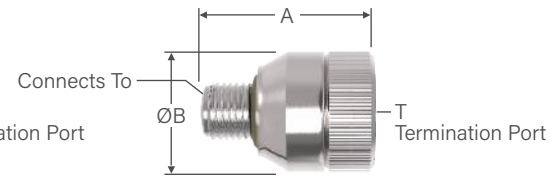
Swivel Style
Non-Swivel Style
Plug Style



Swivel Style



Non-Swivel Style / Plug Style



| Ordering Information | | | | | Dimensions | | |
|----------------------|-------------|---------------------------------|-------------|-----------------|------------|---|-----|
| Connects To | Part Number | Replacement Seals Bulk Pack (5) | Rebuild Kit | Pressure Rating | A | B | T** |

ISO O-Ring Metric | Swivel Style

| | | | | | | | |
|-----------|-----------|----------|---------|------------|-------------|-------------|----------|
| M10 x 1.0 | MIT108021 | S1109B70 | MITR020 | 4000 (276) | 1.76 (44.7) | 0.82 (21.8) | 1/8 FNPT |
| M12 x 1.5 | MIT128021 | S1110U70 | MITR040 | | 1.95 (49.5) | 1.00 (25.4) | 1/8 FNPT |
| M14 x 1.5 | MIT148041 | S1111U70 | MITR040 | | 1.84 (46.7) | 1.00 (25.4) | 1/4 FNPT |
| M16 x 1.5 | MIT168061 | S1113U70 | MITR060 | | 2.11 (53.6) | 1.18 (30.0) | 3/8 FNPT |
| M18 x 1.5 | MIT188061 | S1114U70 | MITR060 | | 2.16 (54.9) | 1.18 (30.0) | 3/8 FNPT |
| M20 x 1.5 | MIT208081 | S1209U70 | MITR080 | | 2.57 (65.3) | 1.36 (34.5) | 1/2 FNPT |
| M22 x 1.5 | MIT228081 | S1116U70 | MITR080 | | 2.55 (64.8) | 1.37 (34.8) | 1/2 FNPT |

ISO O-Ring Metric | Non-Swivel Style

| | | | | | | | |
|-----------|------------|----------|--------|------------|-------------|-------------|----------|
| M10 x 1.0 | MIT108021X | S1109U70 | MITR02 | 5000 (345) | 1.30 (33.0) | 0.82 (21.8) | 1/8 FNPT |
| M12 x 1.5 | MIT128041X | S1110U70 | MITR04 | | 1.37 (34.8) | 1.00 (25.4) | 1/4 FNPT |
| M14 x 1.5 | MIT148041X | S1111U70 | MITR04 | | 1.37 (34.8) | 1.00 (25.4) | 1/4 FNPT |
| M16 x 1.5 | MIT168061X | S1113U70 | MITR06 | 4000 (276) | 1.50 (38.1) | 1.18 (30.0) | 3/8 FNPT |
| M18 x 1.5 | MIT188061X | S1114U70 | MITR06 | | 1.56 (39.6) | 1.18 (30.0) | 3/8 FNPT |
| M20 x 1.5 | MIT208081X | S1209U70 | MITR08 | | 1.85 (47.0) | 1.36 (34.5) | 1/2 FNPT |
| M22 x 1.5 | MIT228081X | S1116U70 | MITR08 | | 1.85 (47.0) | 1.36 (34.5) | 1/2 FNPT |

ISO O-Ring Metric | Plug Style

| | | | | | | | |
|-----------|---------|----------|--------|------------|-------------|-------------|---|
| M10 x 1.0 | MIT108P | S1109U70 | MITR02 | 5000 (345) | 1.29 (32.8) | 0.82 (21.8) | N/A (Plug Style No Termination Port) |
| M12 x 1.5 | MIT128P | S1111U70 | MITR04 | | 1.37 (34.8) | 1.00 (25.4) | |
| M14 x 1.5 | MIT148P | S1113U70 | MITR06 | | 1.37 (34.8) | 1.00 (25.4) | |
| M16 x 1.5 | MIT168P | S1209U70 | MITR08 | 4000 (276) | 1.50 (38.1) | 1.18 (30.0) | |
| M18 x 1.5 | MIT188P | S1213U70 | MITR12 | | 1.56 (39.6) | 1.31 (33.3) | |
| M20 x 1.5 | MIT208P | S1209U70 | MITR08 | | 1.85 (47.0) | 1.36 (34.5) | |
| M22 x 1.5 | MIT228P | S1216U70 | MITR16 | | 1.82 (46.2) | 1.37 (34.8) | |

Dimensions: inch (mm)

Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MIT108021V = FKM

**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: ISO O-RING METRIC per ISO 6149 or SAE J2244



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

A detailed close-up photograph of industrial machinery, likely a pump or engine component. The image shows various metal parts, including a large curved pipe with embossed markings such as "274 200 02 56 JP" and "Q104". A black flexible hose is connected to the machinery. A red rectangular box is overlaid on the bottom right, containing the text "EXTERNAL CONNECTIONS" in white, bold, sans-serif capital letters.

EXTERNAL CONNECTIONS



ZF / EXTERNAL SEALING CONNECTION TOOL

Wide tolerance sealing connection tool for formed tubes.

CONNECTS TO:

Beaded Barbed Formed



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|----------------------------|--------------------------------|--|
| Vacuum to 300 psi (21 bar) | 0°F to +200°F (-17°C to +93°C) | Anodized Aluminum |
| Termination Port | | Seal Material* |
| 1/8 NPT to 3/8 NPT | | Main seal: Neoprene Internal seal: Buna-N |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

INTELLIGENT CONNECTION TECHNOLOGY

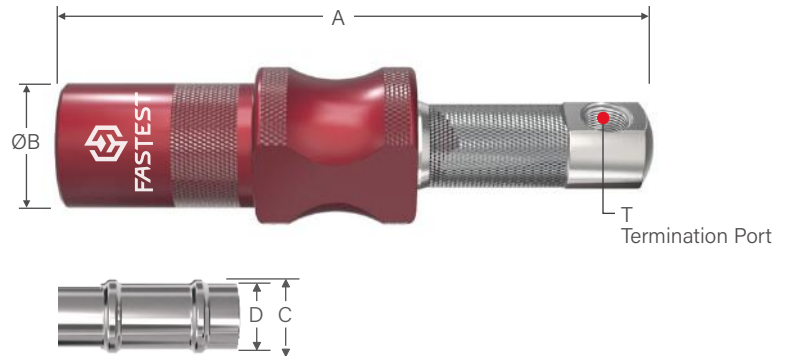
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 Wide tolerance seal design provides fit to a range of tube diameters
- 2 Color coded handles to assist operator in proper tool identification
- 3 Self aligning connector requires no operator adjustment
- 4 Quick and easy seal replacement to minimize down time, maintenance, and tool inventory

ZF / EXTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | | | | Dimensions | | |
|----------------------------------|--------------------------------|-------------|----------|-------------|-----------------|--------------|-------------|---------|
| Connects To: | | Part Number | Seal Kit | Rebuild Kit | Pressure Rating | A | B | T |
| Bead Dia. Range (C) | Tube Dia. Range (D) | | | | | | | |
| 0.310 to 0.400 (7.9 to 10.2) | 0.25 to 0.34 (6.5 to 8.7) | ZF1 | SZF1 | RZF1 | 300 (21) | 4.60 (116.8) | 0.98 (24.8) | 1/8 NPT |
| 0.400 to 0.490 (10.2 to 12.4) | 0.34 to 0.44 (8.7 to 11.0) | ZF2 | SZF2 | RZF2 | | 4.90 (124.5) | 1.14 (28.9) | 1/8 NPT |
| 0.490 to 0.580 (12.4 to 14.7) | 0.44 to 0.52 (11.0 to 13.2) | ZF3 | SZF3 | RZF3 | | 4.96 (126.0) | 1.23 (31.2) | 1/4 NPT |
| 0.580 to 0.670 (14.7 to 17.0) | 0.52 to 0.61 (13.2 to 15.5) | ZF4 | SZF4 | RZF4 | | 5.18 (131.6) | 1.38 (35.0) | 1/4 NPT |
| 0.670 to 0.760 (17.0 to 19.3) | 0.61 to 0.70 (15.5 to 17.8) | ZF5 | SZF5 | RZF5 | 250 (17) | 5.25 (133.0) | 1.55 (39.4) | 3/8 NPT |

Dimensions: inch (mm)
Pressure Rating: psi (bar)



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

FE / EXTERNAL SEALING CONNECTION TOOL

Pneumatic sealing connection tool for external sealing in automated and semi-automated processes.

CONNECTS TO:



SPECIFICATIONS

| Pressure Rating | Pilot Pressure | Operating Temperatures** |
|--|--|---|
| Vacuum to 500 psi (34 bar) | 60 psi (4.1 bar) | 0°F to +200°F (-17°C to +93°C) |
| Termination Port | Materials of Construction | Seal Material* |
| Female 10-32 UNF, M5X8, NPT/BSPP (G): 1/8 to 2 1/2 | Anodized Aluminum, Stainless Steel, Potted PCA | Standard: Neoprene, Urethane Optional: FKM, Buna-N, EPDM, FDA White Neoprene |

* Additional seal material types available, consult factory.
** Operating Temp: 32°F-100°F (0°C-38°C) for ICON™.

i Sealing Connection Tool and test part should be rigidly fixtured to prevent separation when under pressure (fixture not required for vacuum applications).

- 1** Automated processes and high volume production testing including pick-and-place and delicate robotic handling applications
- 2** Capable of sealing conventional and unique sealing surfaces including threads with the addition of a pilot booster (see page p. 64)
- 3** Quick change seal sets to accommodate multiple sizes of tubing and easy field maintenance - use neoprene for standard sealing, use urethane for maximum abrasion resistance / high pressure and duty cycle applications

ACTUATION METHOD

Pneumatic: Pilot pressure applied to seals with no metal contact and uniform seal movement seals inside tubes and pipes with no marring.

ICON™ TECHNOLOGY

- SURE SEAL™
- SEAL LIFE™

ACCESSORIES FOR DETAILS, SEE PG. 64



Pilot Booster



ICON™

INTELLIGENT CONNECTION TECHNOLOGY

FasTest's ICON™ adds sensing capabilities to our mechanical Sealing Connection Tools. ICON™ Tools include instant LED visual feedback and data output to improve sealing connection accuracy, maximize production efficiency, and optimize maintenance.



ICON™ features:



SURE SEAL™

Instant LED feedback verifies a good connection prior to starting a test.



SEAL LIFE™

Alert when the main seal is at end of life and must be replaced.

System Overview:

CONNECTED

Green indication of a good connection.

RECONNECT

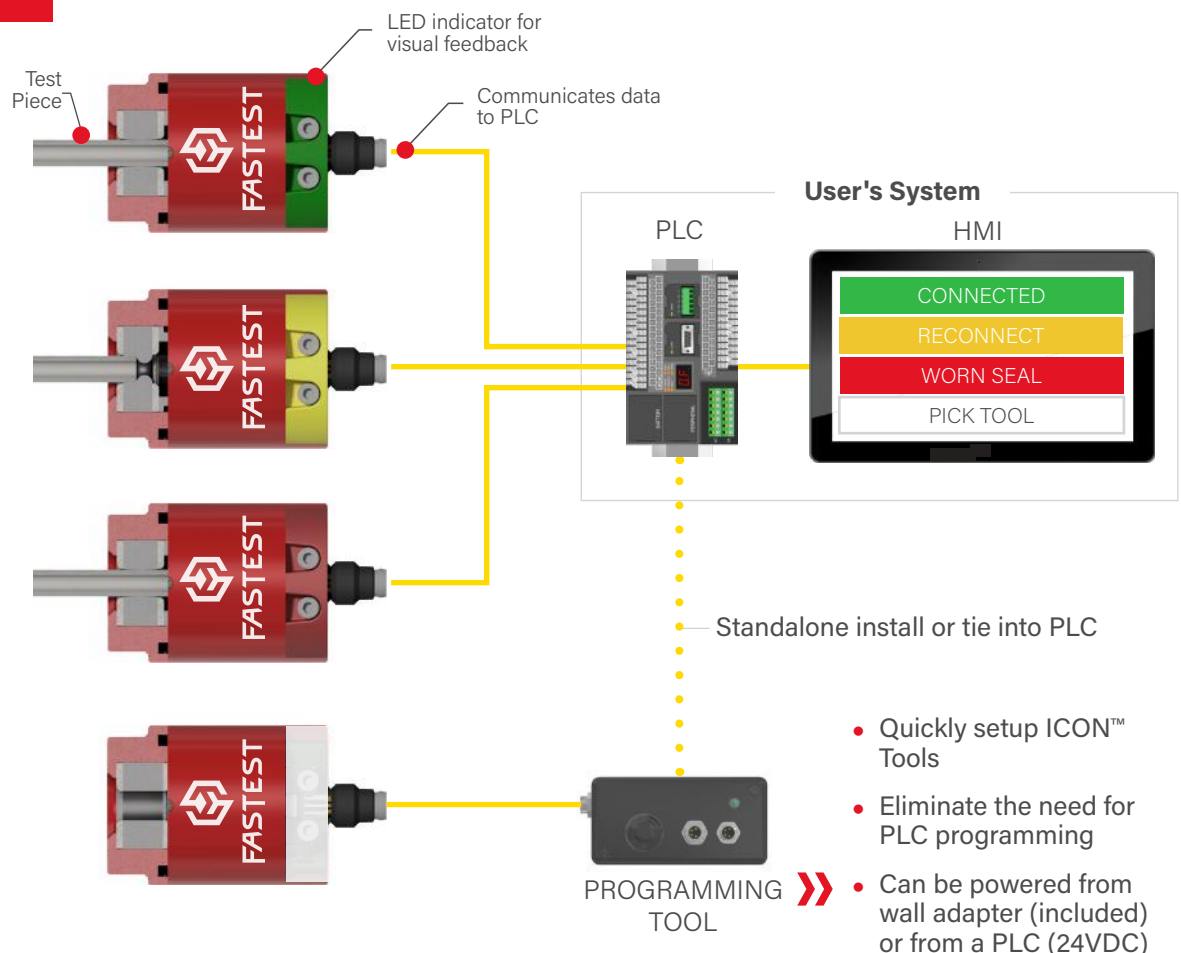
Recognize a connection issue before causing a false failure.

WORN SEAL

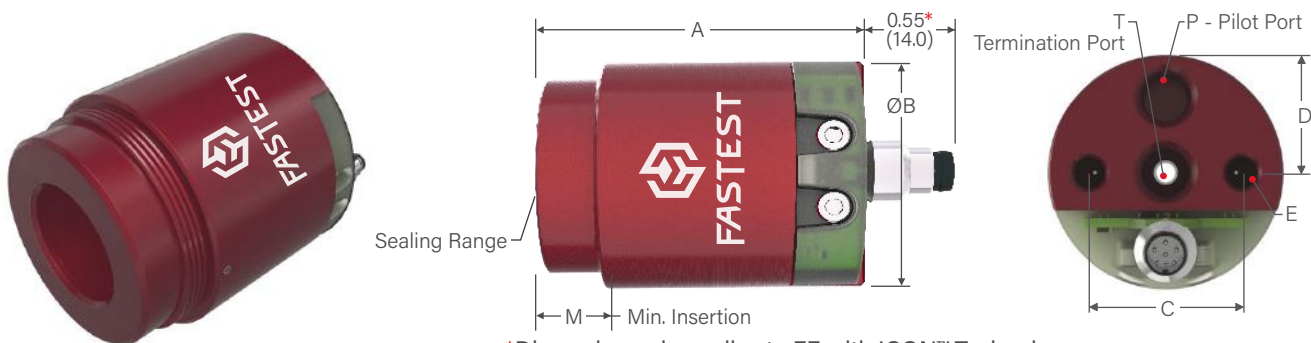
Alert when main seals should be replaced.

PICK TOOL

Controllable LED signals operator to use specific tool.



FE / EXTERNAL SEALING CONNECTION TOOL / STRAIGHT TUBES & BORES



*Dimension only applies to FE with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | | |
|---|----------------|------------------|------------------------------|-------------|------------|---|---|---|---|---|---|---|
| Sealing Range | Main Seal Set* | Base Part Number | Replacement Seals Pack (5)** | Rebuild Kit | A | B | C | D | E | M | P | T |

FE | Connectors for Straight Tubes

| | | | | | | | | | | | | |
|----------------|-----------|------------------------------------|------------|---------------------------------------|-----------------|-----------------|----------------|----------------|---------------|----------------|--------------|------------|
| 0.030 to 0.050 | FE0010050 | | FEB0010050 | FER001 | 1.72 (43.7) | 0.84 (21.3) | 0.63 (16.0) | N/A | 4-40 UNC | 0.16 (4.1) | 10-32 UNF | 1/8 NPT |
| 0.050 to 0.080 | FE001001 | | FEB001001 | | | | | | | | | |
| 0.080 to 0.130 | FE001002 | | FEB001002 | | | | | | | | | |
| 0.100 to 0.180 | FES0101 | FE01 FE01CV04ANA FE01CV04SSR | FEB0101 | FER01 FER01CV04ANA FER01CV04SSR | 2.05 (52.1) | 1.49 (37.8) | 1.10 (27.9) | 0.55 (14.0) | 10-32 UNF | 0.58 (14.7) | 10-32 UNF | 1/8 NPT |
| 0.180 to 0.260 | FES0102 | | FEB0102 | | | | | | | | | |
| 0.260 to 0.340 | FES0103 | | FEB0103 | | | | | | | | | |
| 0.340 to 0.420 | FES0104 | | FEB0104 | | | | | | | | | |
| 0.420 to 0.510 | FES0105 | FE1 FE1CV04ANA FE1CV04SSR | FEB0105 | FER1 FER1CV04ANA FER1CV04SSR | 2.72 (69.1) | 2.22 (56.4) | 1.62 (41.1) | 0.81 (20.6) | 1/4-28 UNF | 0.61 (15.5) | 1/8 NPT | 1/4 NPT |
| 0.433 to 0.512 | FES115 | | FEB115 | | | | | | | | | |
| 0.512 to 0.591 | FES116 | | FEB116 | | | | | | | | | |
| 0.591 to 0.669 | FES117 | | FEB117 | | | | | | | | | |
| 0.669 to 0.750 | FES118 | FE2 FE2CV04ANA FE2CV04SSR | FEB118 | FER2 FER2CV04ANA FER2CV04SSR | 3.50 (88.9) | 3.11 (79.0) | 2.50 (63.5) | 1.25 (31.8) | 1/4-28 UNF | 1.06 (26.9) | 1/8 NPT | 1/2 NPT |
| 0.750 to 0.827 | FES119 | | FEB119 | | | | | | | | | |
| 0.787 to 0.866 | FES221 | | FEB221 | | | | | | | | | |
| 0.866 to 0.945 | FES222 | | FEB222 | | | | | | | | | |
| 0.945 to 1.024 | FES223 | FE3 FE3CV04ANA FE3CV04SSR | FEB223 | FER3 FER3CV04ANA FER3CV04SSR | 4.48 (113.8) | 4.23 (107.4) | 3.25 (82.6) | 1.63 (41.4) | 1/4-28 UNF | 1.64 (41.7) | 1/8 NPT | 1 NPT |
| 1.024 to 1.102 | FES224 | | FEB224 | | | | | | | | | |
| 1.102 to 1.181 | FES225 | | FEB225 | | | | | | | | | |
| 1.181 to 1.260 | FES226 | | FEB226 | | | | | | | | | |
| 1.260 to 1.339 | FES227 | FE3 FE3CV04ANA FE3CV04SSR | FEB227 | FER3 FER3CV04ANA FER3CV04SSR | 4.48 (113.8) | 4.23 (107.4) | 3.25 (82.6) | 1.63 (41.4) | 1/4-28 UNF | 1.64 (41.7) | 1/8 NPT | 1 NPT |
| 1.339 to 1.417 | FES228 | | FEB228 | | | | | | | | | |
| 1.417 to 1.510 | FES229 | | FEB229 | | | | | | | | | |
| 1.496 to 1.614 | FES331 | | FEB331 | | | | | | | | | |
| 1.614 to 1.732 | FES332 | FE3 FE3CV04ANA FE3CV04SSR | FEB332 | FER3 FER3CV04ANA FER3CV04SSR | 4.48 (113.8) | 4.23 (107.4) | 3.25 (82.6) | 1.63 (41.4) | 1/4-28 UNF | 1.64 (41.7) | 1/8 NPT | 1 NPT |
| 1.732 to 1.850 | FES333 | | FEB333 | | | | | | | | | |
| 1.850 to 1.969 | FES334 | | FEB334 | | | | | | | | | |

Dimensions: inch (mm). Sealing Range listed in inches (1 in = 25.4 mm).

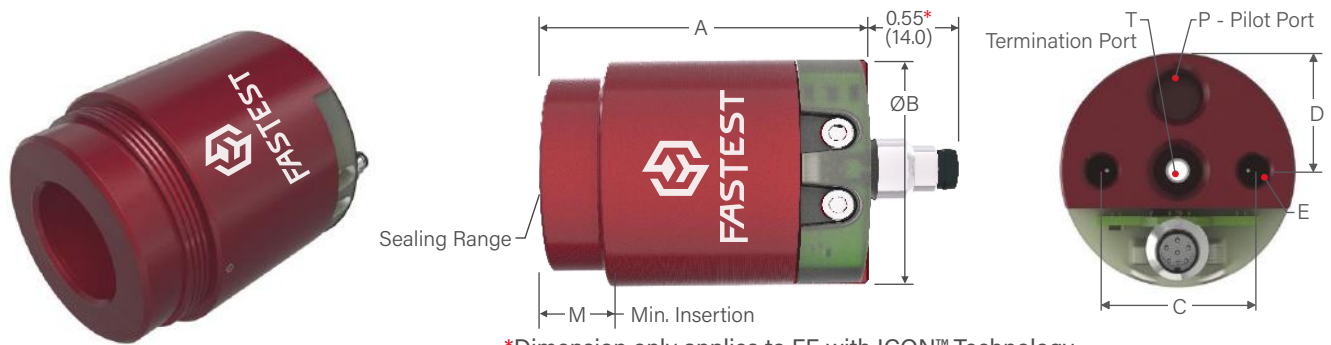
*Includes seals(s) and metal parts for one complete seal set. Neoprene® seals are standard.

For Urethane seals, add "UR" suffix to Main Seal Set Part Number. Example: FES0101UR

**Neoprene® seals are standard.

For Urethane seals, add "UR" suffix to Main Seal Set Part Number. Example: FEB0101UR

FE / EXTERNAL SEALING CONNECTION TOOL / STRAIGHT TUBES & BORES



*Dimension only applies to FE with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | | |
|---|----------------|---------------------------------|------------------------------|------------------------------------|-----------------|-----------------|-----------------|-----------------|---------------|----------------|------------|--------------|
| Sealing Range | Main Seal Set* | Base Part Number | Replacement Seals Pack (5)** | Repair Kit | A | B | C | D | E | M | P | T |
| FE Connectors for Straight Tubes | | | | | | | | | | | | |
| 1.969 to 2.087 | FES441 | FE4 FE4CV04ANA FE4CV04SSR | FEB441 | FER4 FER4CV04ANA FER4CV04SSR | 4.60 (116.8) | 5.48 (139.2) | 4.25 (108.0) | 2.13 (54.1) | 1/4-28 UNF | 1.64 (41.7) | 1/8 NPT | 1 1/2 NPT |
| 2.087 to 2.205 | FES442 | | FEB442 | | | | | | | | | |
| 2.205 to 2.323 | FES443 | | FEB443 | | | | | | | | | |
| 2.323 to 2.441 | FES444 | | FEB444 | | | | | | | | | |
| 2.441 to 2.559 | FES445 | | FEB445 | | | | | | | | | |
| 2.559 to 2.677 | FES446 | | FEB446 | | | | | | | | | |
| 2.677 to 2.795 | FES447 | | FEB447 | | | | | | | | | |
| 2.795 to 2.913 | FES448 | | FEB448 | | | | | | | | | |
| 2.913 to 3.032 | FES449 | FE5 FE5CV04ANA FE5CV04SSR | FEB449 | FER5 FER5CV04ANA FER5CV04SSR | 4.60 (116.8) | 6.98 (177.3) | 5.50 (139.7) | 2.25 (57.15) | 3/8-24 UNF | 1.64 (41.7) | 1/8 NPT | 2 NPT |
| 2.970 to 3.100 | FES551 | | FEB551 | | | | | | | | | |
| 3.100 to 3.230 | FES552 | | FEB552 | | | | | | | | | |
| 3.230 to 3.360 | FES553 | | FEB553 | | | | | | | | | |
| 3.360 to 3.490 | FES554 | | FEB554 | | | | | | | | | |
| 3.490 to 3.620 | FES555 | | FEB555 | | | | | | | | | |
| 3.620 to 3.750 | FES556 | | FEB556 | | | | | | | | | |
| 3.750 to 3.880 | FES557 | | FEB557 | | | | | | | | | |
| 3.880 to 4.010 | FES558 | FE6 FE6CV04ANA FE6CV04SSR | FEB558 | FER6 FER6CV04ANA FER6CV04SSR | 4.97 (126.2) | 7.48 (190.0) | 6.12 (155.4) | 3.06 (77.7) | 3/8-24 UNF | 1.64 (41.7) | 1/8 NPT | 2 1/2 NPT |
| 4.010 to 4.130 | FES559 | | FEB559 | | | | | | | | | |
| 4.130 to 4.260 | FES661 | | FEB661 | | | | | | | | | |
| 4.260 to 4.390 | FES662 | | FEB662 | | | | | | | | | |
| 4.390 to 4.520 | FES663 | | FEB663 | | | | | | | | | |
| 4.520 to 4.650 | FES664 | | FEB664 | | | | | | | | | |
| 4.650 to 4.780 | FES665 | | FEB665 | | | | | | | | | |
| 4.780 to 4.910 | FES666 | | FEB666 | | | | | | | | | |
| 4.910 to 5.040 | FES667 | | FEB667 | | | | | | | | | |

Dimensions: inch (mm). Sealing Range listed in inches (1 in = 25.4 mm).

*Includes seals(s) and metal parts for one complete seal set. Neoprene seals are standard. For Urethane seals, add "UR" suffix to Main Seal Set Part Number. Example: FES441UR

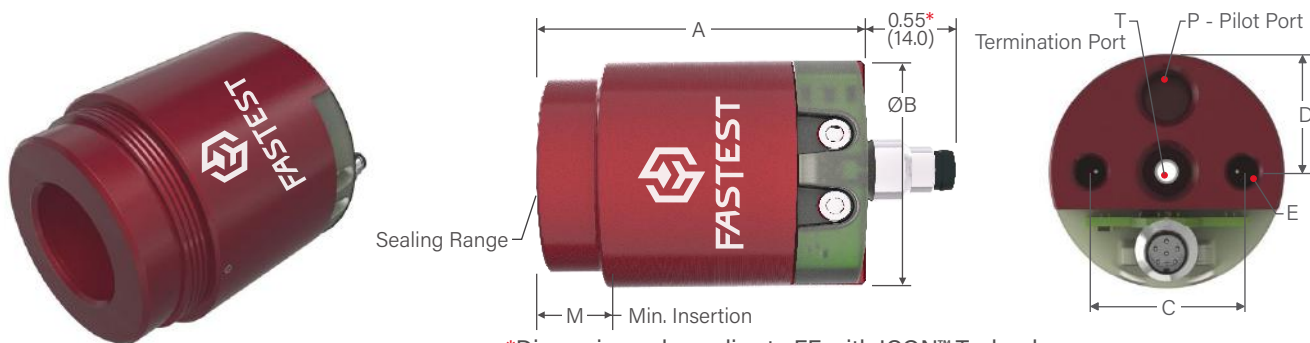
**Neoprene® seals are standard.

For Urethane seals, add "UR" suffix to Main Seal Set Part Number. Example: FEB441UR



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

FE / EXTERNAL SEALING CONNECTION TOOL / NPT, BSPP (G), & BSPT THREADS



*Dimension only applies to FE with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | | |
|---|----------------|------------------|------------------------------|-------------|------------|---|---|---|---|---|---|---|
| Connects To | Main Seal Set* | Base Part Number | Replacement Seals Pack (5)** | Rebuild Kit | A | B | C | D | E | M | P | T |

FE | Connectors for NPT, BSPP (G) and BSPT Threads

| | | | | | | | | | | | | |
|-------|-------------|------------------------------------|--------------|-------|-----------------|-----------------|-----------------|----------------|---------------|----------------|--------------|--------------|
| 1/8 | FES011/8NPT | FE01 FE01CV04ANA FE01CV04SSR | FEB011/8 NPT | FER01 | 1.72 (43.7) | 0.84 (21.3) | 0.63 (16.0) | N/A | 10-32 UNF | 0.58 (14.7) | 10-32 UNF | 1/8 NPT |
| 1/4 | FES11/4NPT | FE1 FE1CV04ANA FE1CV04SSR | FEB11/4NPT | FER1 | 2.72 (69.1) | 2.22 (56.4) | 1.62 (41.1) | 0.81 (20.6) | 1/4-28 UNF | 0.61 (15.5) | 1/8 NPT | 1/4 NPT |
| 3/8 | FES13/8NPT | FE1 FE1CV04ANA FE1CV04SSR | FEB13/8NPT | | | | | | | | | |
| 1/2 | FES21/2NPT | FE2 FE2CV04ANA FE2CV04SSR | FEB21/2NPT | FER2 | 3.50 (88.9) | 3.11 (79.0) | 2.50 (63.5) | 1.25 (31.8) | 1/4-28 UNF | 0.89 (22.6) | 1/8 NPT | 1/2 NPT |
| 3/4 | FES23/4NPT | FE2 FE2CV04ANA FE2CV04SSR | FEB23/4NPT | | | | | | | | | |
| 1 | FES21NPT | FE2 FE2CV04ANA FE2CV04SSR | FEB21NPT | | | | | | | | | |
| 1-1/4 | FES311/4NPT | FE3 FE3CV04ANA FE3CV04SSR | FEB311/4NPT | FER3 | 4.48 (113.8) | 4.23 (107.4) | 3.25 (82.6) | 1.63 (41.4) | 1/4-28 UNF | 0.89 (22.6) | 1/8 NPT | 1 NPT |
| 1-1/2 | FES311/2NPT | FE3 FE3CV04ANA FE3CV04SSR | FEB311/2NPT | | | | | | | | | |
| 2 | FES42NPT | FE4 FE4CV04ANA FE4CV04SSR | FEB42NPT | FER4 | 4.60 (116.8) | 5.48 (139.2) | 4.25 (108.0) | 2.13 (54.1) | 1/4-28 UNF | 0.89 (22.6) | 1/8 NPT | 1 1/2 NPT |
| 2-1/2 | FES421/2NPT | FE4 FE4CV04ANA FE4CV04SSR | FEB421/2NPT | | | | | | | | | |

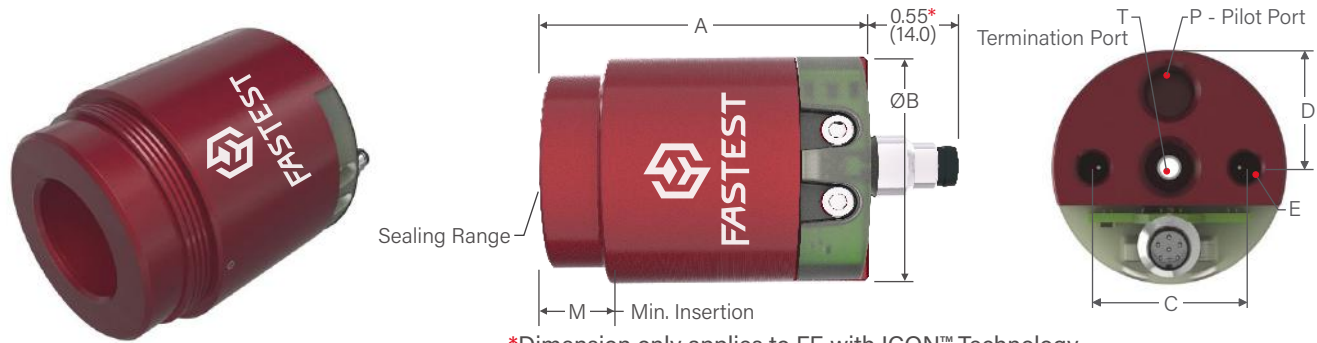
Dimensions: inch (mm)

*Includes seals(s) and metal parts for one complete seal set. Urethane seals are standard.

Port Specifications: NPT per SAE J476; BSPP (G) per ISO 228; BSPT per ISO 7

NOTE: For sealing external threads or irregular shapes with the FE connectors, typically 400 to 600 psi (27.6-41.4 bar) pilot pressure is required to seal deep rooted external threads (see pg. 64 Pilot Booster).
DO NOT use a pilot booster with FI connectors.

FE / EXTERNAL SEALING CONNECTION TOOL / SAE O-RING BOSS PORT THREADS



*Dimension only applies to FE with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | | |
|---|----------------|----------------------------|-------------------------------|-------------|------------|---|---|---|---|---|---|---|
| Connects To | Main Seal Set* | Base Connector Part Number | Replacement Seals Package (5) | Rebuild Kit | A | B | C | D | E | M | P | T |

FE | Connectors for Male Inch Straight Threads

| | | | | | | | | | | | | |
|---------|-------------|------------------------------------|-------------|---------------------------------------|-----------------|-----------------|-----------------|----------------|---------------|----------------|--------------|--------------|
| 7/16 | FES010450UR | FE01 FE01CV04ANA FE01CV04SSR | FEB010450UR | FER01 FER01CV04ANA FER01CV04SSR | 2.05 (52.1) | 1.49 (37.8) | 1.10 (27.9) | 0.55 (14.0) | 10-32 UNF | 0.58 (14.7) | 10-32 UNF | 1/8 NPT |
| 1/2 | FES10510UR | FE1 FE1CV04ANA FE1CV04SSR | FEB10510UR | FER1 FER1CV04ANA FER1CV04SSR | 2.72 (69.1) | 2.22 (56.4) | 1.62 (41.1) | 0.81 (20.6) | 1/4-28 UNF | 0.61 (15.5) | 1/8 NPT | 1/4 NPT |
| 9/16 | FES10570UR | | FEB10570UR | | | | | | | | | |
| 5/8 | FES10640UR | | FEB10640UR | | | | | | | | | |
| 11/16 | FES10700UR | | FEB10700UR | | | | | | | | | |
| 3/4 | FES2T0760UR | FE2 FE2CV04ANA FE2CV04SSR | FEB2T0760UR | FER1 FER1CV04ANA FER1CV04SSR | 3.50 (88.9) | 3.11 (79.0) | 2.50 (63.5) | 1.25 (31.7) | 1/4-28 UNF | 0.69 (17.5) | 1/8 NPT | 1/2 NPT |
| 13/16 | FES2T0800UR | | FEB2T0800UR | | | | | | | | | |
| 7/8 | FES2T0885UR | | FEB2T0885UR | | | | | | | | | |
| 1 | FES2T1010UR | | FEB2T1010UR | | | | | | | | | |
| 1-1/16 | FES23/4NPT | | FEB23/4NPT | | | | | | | | | |
| 1-3/16 | FES2T1200UR | | FEB2T1200UR | | | | | | | | | |
| 1-1/4 | FES2T1260UR | | FEB2T1260UR | | | | | | | | | |
| 1-5/16 | FES21NPT | | FEB21NPT | | | | | | | | | |
| 1-3/8 | FES2T1385UR | FE3 FE3CV04ANA FE3CV04SSR | FEB2T1385UR | FER3 FER3CV04ANA FER3CV04SSR | 4.48 (113.8) | 4.23 (107.4) | 3.25 (82.6) | 1.63 (41.4) | 1/4-28 UNF | 0.89 (22.6) | 1/8 NPT | 1 NPT |
| 1-7/16 | FES3T1460UR | | FEB3T1460UR | | | | | | | | | |
| 1-5/8 | FES3T1640UR | | FEB3T1640UR | | | | | | | | | |
| 1-11/16 | FES3T1710UR | | FEB3T1710UR | | | | | | | | | |
| 1-7/8 | FES3T1890UR | | FEB3T1890UR | | | | | | | | | |
| 2 | FES4T2020UR | FE4 FE4CV04ANA FE4CV04SSR | FEB4T2020UR | FER3 FER3CV04ANA FER3CV04SSR | 4.60 (116.8) | 5.48 (139.2) | 4.25 (108.0) | 2.13 (54.1) | 1/4-28 UNF | 0.89 (22.6) | 1/8 NPT | 1 1/2 NPT |
| 2-1/2 | FES4T2520UR | | FEB4T2520UR | | | | | | | | | |

Dimensions: inch (mm)

*Includes seals(s) and metal parts for one complete seal set. Urethane seals are standard.

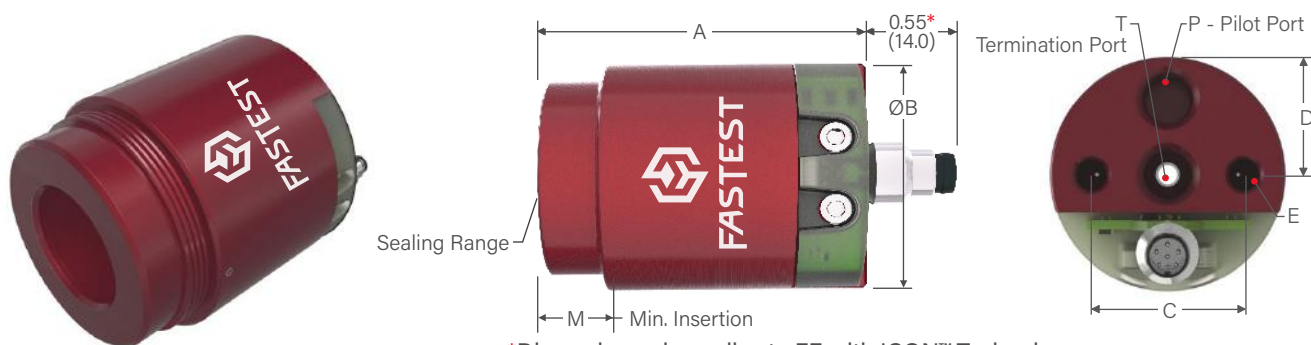
Port Specifications: O-Ring Port per SAE J1453; JIC 37° Flare per SAE J514; 45° Flare per SAE J512/513; 24° Cone per SAE J514

NOTE: For sealing external threads or irregular shapes with the FE connectors, typically 400 to 600 psi (27.6-41.4 bar) pilot pressure is required to seal deep rooted external threads (see pg. 64 Pilot Booster).
DO NOT use a pilot booster with FI connectors.



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

FE / EXTERNAL SEALING CONNECTION TOOL / METRIC STRAIGHT THREADS



*Dimension only applies to FE with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | | |
|---|----------------|----------------------------|-------------------------------|-------------|------------|---|---|---|---|---|---|---|
| Connects To | Main Seal Set* | Base Connector Part Number | Replacement Seals Package (5) | Rebuild Kit | A | B | C | D | E | M | P | T |

FE | Connectors for Metric Straight Threads

| | | | | | | | | | | | | |
|-----|-------------|---------------------------------------|-------------|---------------------------------------|-----------------|-----------------|-----------------|----------------|-------------|----------------|--------------------|----------------------|
| M10 | FES011/8NPT | FEM01 FEM01CV04ANA FEM01CV04SSR | FEB011/8NPT | FER01 FER01CV04ANA FER01CV04SSR | 2.05 (52.1) | 1.49 (37.8) | 1.10 (27.9) | 0.55 (14.0) | M5 x 1.0 | 0.58 (14.7) | M5 x 1.0 | 1/8 BSPP (G) |
| M12 | FES10480UR | FEM1 FEM1CV04ANA FEM1CV04SSR | FEB10480UR | FER1 FER1CV04ANA FER1CV04SSR | 2.72 (69.1) | 2.22 (56.4) | 1.62 (41.1) | 0.81 (20.6) | M6 x 1.0 | 0.61 (15.5) | 1/8 BSPP (G) | 1/4 BSPP (G) |
| M14 | FES10570UR | | FEB10570UR | | | | | | | | | |
| M16 | FES10640UR | | FEB10640UR | | | | | | | | | |
| M18 | FES10720UR | FEM2 FEM2CV04ANA FEM2CV04SSR | FEB10720UR | FER2 FER2CV04ANA FER2CV04SSR | 3.50 (88.9) | 3.11 (79.0) | 2.50 (63.5) | 1.25 (31.8) | M6 x 1.0 | 0.69 (17.5) | 1/8 BSPP (G) | 1/2 BSPP (G) |
| M20 | FES2T0800UR | | FEB2T0800UR | | | | | | | | | |
| M22 | FES2T21UR | | FEB2T21UR | | | | | | | | | |
| M24 | FES2T22UR | | FEB2T22UR | | | | | | | | | |
| M26 | FES2T23UR | | FEB2T23UR | | | | | | | | | |
| M27 | FES2T1075UR | | FEB2T1075UR | | | | | | | | | |
| M28 | FES2T24UR | | FEB2T24UR | | | | | | | | | |
| M30 | FES2T25UR | | FEB2T25UR | | | | | | | | | |
| M33 | FES2T1320UR | | FEB2T1320UR | | | | | | | | | |
| M35 | FES2T1400UR | | FEB2T1400UR | | | | | | | | | |
| M36 | FES3T1440UR | FEM3 FEM3CV04ANA FEM3CV04SSR | FEB3T1440UR | FER3 FER3CV04ANA FER3CV04SSR | 4.48 (113.8) | 4.23 (107.4) | 3.25 (82.6) | 1.63 (41.4) | M6 x 1.0 | 0.89 (22.6) | 1/8 BSPP (G) | 1 BSPP (G) |
| M40 | FES3T1595UR | | FEB3T1595UR | | | | | | | | | |
| M42 | FES3T1675UR | | FEB3T1675UR | | | | | | | | | |
| M45 | FES3T1790UR | | FEB3T1790UR | | | | | | | | | |
| M48 | FES4T1910UR | FEM4 FEM4CV04ANA FEM4CV04SSR | FEB4T1910UR | FER4 FER4CV04ANA FER4CV04SSR | 4.60 (116.8) | 5.48 (139.2) | 4.25 (108.0) | 2.13 (54.1) | M6 x 1.0 | 0.89 (22.6) | 1/8 BSPP (G) | 1 1/2 BSPP (G) |
| M52 | FES4T2070UR | | FEB4T2070UR | | | | | | | | | |
| M60 | FES4T2380UR | | FEB4T2380UR | | | | | | | | | |

Dimensions: inch (mm)

*Includes seals(s) and metal parts for one complete seal set. Urethane seals are standard.

Port Specifications: 24° Cone Flareless per ISO 8434-1 and -4, JIS B2353, DIN3902/3853/3861. 60° Cone per DIN 7831/7647.

NOTE: For sealing external threads or irregular shapes with the FE connectors, typically 400 to 600 psi (27.6-41.4 bar) pilot pressure is required to seal deep rooted external threads (see pg. 64 Pilot Booster).
DO NOT use a pilot booster with FI connectors.

FE / ACCESSORIES

Pilot Booster PBA02

The Pilot Pressure Booster is an air over oil pressure intensifier. It uses 30-65psi (2.1-4.5bar) air pressure to generate 400-600psi (27.6-41.4bar) hydraulic pressure for sealing external threads and irregular surfaces with the FE Sealing Connection Tool. A sealing system consisting of an FE with a urethane main seal and the PB1015 Pressure Booster can produce the seal movement and long life performance needed in production testing applications.

Urethane sealing material is superior to Neoprene® material in high pressure, high abrasion, and high cycle applications. The increased elastomer movement required for sealing irregular shapes or into threads requires urethane seal material. Up to 600 psi pilot pressure is needed to seal deep root external threads. Production testing of threads and hard to seal surfaces can now be automated using the Pilot Pressure Booster and a proper sized urethane seal set in an FE.

DO NOT USE WITH FL.



SPECIFICATIONS

| Ordering Information | |
|----------------------|--|
| Part Number | Description |
| PB1015 | Pilot Pressure Booster |
| PBH32 | 1 quart hydraulic oil, 60 SSU petroleum based |
| A02M3 | Manifold - 1/8" FNPT inlet with three 1/8" FNPT outlets |
| A02M4 | Manifold - 1/8" FNPT inlet with four 1/8" FNPT outlets |
| A02M5 | Manifold - 1/8" FNPT inlet with five 1/8" FNPT outlets |
| AT021R | Run Tee - 1/8" NPT |
| H012X036 | Hose - 10-32 male x 1/8" NPT male - 36" length |
| H012X072 | Hose - 10-32 male x 1/8" NPT male - 72" length |
| H022X018 | Hose - 1/8" NPT male x 1/8" NPT male - 18" length |
| H022X036 | Hose - 1/8" NPT male x 1/8" NPT male - 36" length |
| H022X072 | Hose - 1/8" NPT male x 1/8" NPT male - 72" length |
| PBA01 | 1 quart hydraulic oil, 0-600 psi Gauge, Run Tee, Hose - 10-32 male by 1/8" MNPT - 72" length |
| PBA02 | 1 quart hydraulic oil, 0-600 psi Gauge, Run Tee, Hose - 1/8" MNPT by 1/8" MNPT - 72" length |

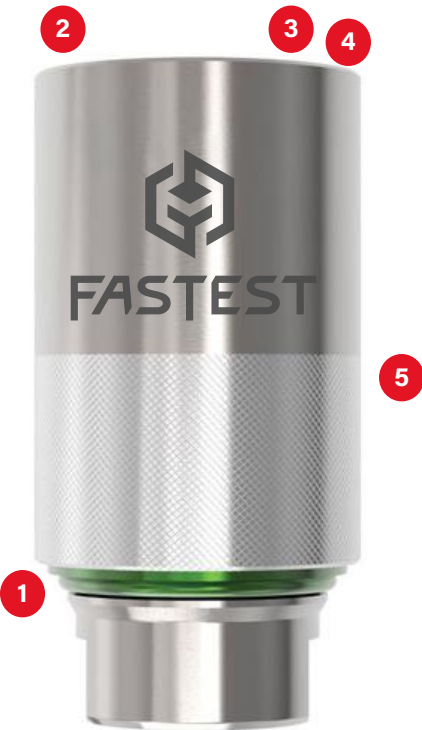
| Seals | Material | Inlet Port | |
|----------------|--------------------|----------------|----------------------|
| Buna-N | Aluminum | 1/4 NPT | |
| Inlet Pressure | Outlet Pressure | Pressure Ratio | Displacement |
| 65 psi max. | 600 psi (41.4 bar) | 9.2 to 1 | 1.5 in. ³ |

| Booster Guidelines |
|---------------------|
| FE01 - 8 Connectors |
| FE1 - 4 Connectors |
| FE2 - 2 Connectors |
| FE3 - 1 Connector |
| FE4 - 1 Connector |

60 / EXTERNAL SEALING CONNECTION TOOL

Sleeve actuated external grip and seal connection tool for threaded applications.

CONNECTS TO:



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|----------------------------|-----------------------------------|------------------------------------|
| Vacuum to 750 psi (51 bar) | -40°F to +250°F (-40°C to +121°C) | Stainless Steel, Anodized Aluminum |
| Termination Port | | Seal Material* |
| NPT, BSPP (G) | | Buna-N |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

ICON™ TECHNOLOGY

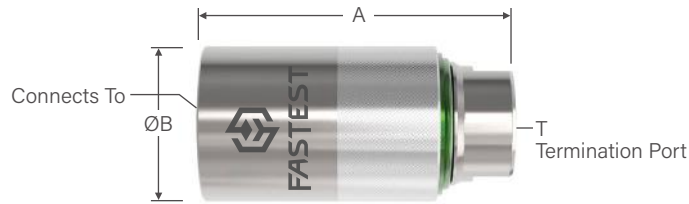
Consult Factory

ACCESSORIES

Visit Fastestinc.com

- 1 SurConnect™ - Green to go visible indicator to ensure complete connection
- 2 Instant external threaded connection with floating piston to ensure proper face / ID sealing position
- 3 Collet design locks securely into external threads or behind the threads
- 4 Connect and seal to compression fittings, NPT, SAE 37° "AN" and 45° flare male threads - custom sizes also available
- 5 Internal shut-off valve option stops flow upon disconnection

60 / EXTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | | Dimensions | | |
|----------------------|-------------|---------------------------------|--------------|------------|---|---|
| Connects To | Part Number | Replacement Seals Bulk Pack (5) | Rebuild Kits | A | B | T |

60 Series | NPT Threads

| | | | | | | |
|---------|---------|----------|---------|-------------|-------------|------------------|
| 1/8 NPT | 60G1T02 | S1105B70 | R60G03 | 2.95 (74.9) | 1.19 (30.2) | 1/8 NPT/BSPP (G) |
| 1/4 NPT | 60G1T04 | S1109B70 | R60GBG3 | | | 1/4 NPT/BSPP (G) |
| 3/8 NPT | 60G1T06 | S1110B70 | R60GBG4 | 3.15 (80.0) | 1.38 (35.0) | 3/8 NPT/BSPP (G) |
| 1/2 NPT | 60G1T08 | S1112B70 | R60GBG5 | | 1.58 (40.1) | 1/2 NPT/BSPP (G) |
| 3/4 NPT | 60G1T12 | S1115B70 | R60GBG6 | 3.54 (89.9) | 1.78 (45.2) | 3/4 NPT/BSPP (G) |
| 1 NPT | 60G1T16 | S1212B70 | R60GBG7 | | 1.97 (50.0) | |

60 Series | SAE 37° Flare for JIC and AN Male Fittings

| | | | | | | |
|-----------------|--------|----------|---------|-------------|-------------|------------------|
| -4 [7/16-20] | 60G049 | S1010B70 | R60GBG2 | 2.95 (74.9) | 0.99 (25.2) | 1/8 NPT/BSPP (G) |
| -6 [9/16-18] | 60G069 | S1012B70 | R60GBG3 | | 1.19 (30.2) | 1/4 NPT/BSPP (G) |
| -8 [3/4-16] | 60G089 | S1014B70 | R60GBG4 | 3.15 (80.0) | 1.38 (35.0) | 3/8 NPT/BSPP (G) |
| -10 [7/8-14] | 60G109 | S1016B70 | R60G05 | | 1.58 (40.1) | 1/2 NPT/BSPP (G) |
| -12 [1-1/16-12] | 60G129 | S1116B70 | R60GBG6 | 3.54 (89.9) | 1.78 (45.2) | 3/4 NPT/BSPP (G) |
| -16 [1-5/16-12] | 60G169 | S1120B70 | R60GBG7 | | 1.97 (50.0) | 3/4 NPT/BSPP (G) |

60 Series | SAE 45° Flare Threads

| | | | | | | |
|-----------------|--------|-----------------|---------|-------------|-------------|------------------|
| -4 [7/16-20] | 60GA04 | S1010B70 | R60GBG2 | 2.95 (74.9) | 0.99 (25.2) | 1/8 NPT/BSPP (G) |
| -6 [5/8-18] | 60GA06 | S1012B70 | R60GBG4 | 3.15 (80.0) | 1.38 (35.0) | 3/8 NPT/BSPP (G) |
| -8 [3/4-16] | 60GA08 | S1014B70 | R60GBG4 | | | |
| -10 [7/8-14] | 60GA10 | S1016B70 | R60GBG5 | 3.15 (80.0) | 1.58 (40.1) | 1/2 NPT/BSPP (G) |
| -12 [1-1/16-14] | 60GA12 | S1117B70 | R60GBG6 | 3.54 (89.9) | 1.78 (45.2) | 3/4 NPT/BSPP (G) |
| -14 [1-1/4-12] | 60GA14 | Consult Factory | | | | |
| -16 [1-3/8-12] | 60GA16 | | | | | |

Dimensions: inch (mm)

NOTE: Table above shows common connections. Additional sizes available for 60 Series connectors. Dimension A can be application dependant for other sizes. Consult factory for details.

Port Specifications: NPT per SAE J476; SAE 37° Flare per SAE J514; SAE 45° Flare per SAE J512/513

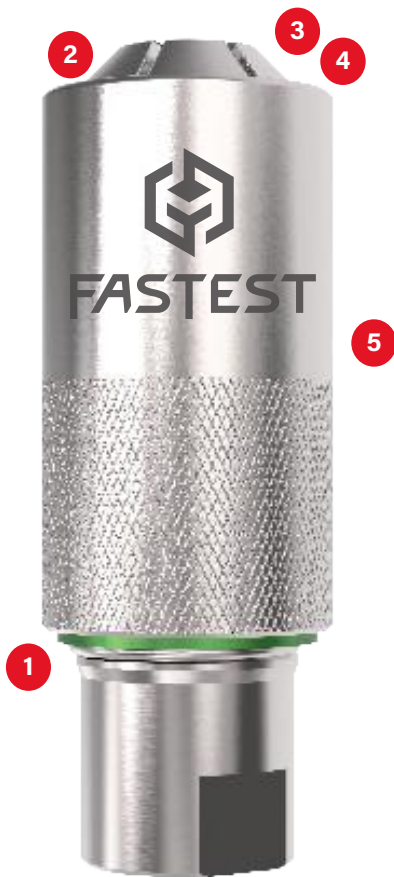
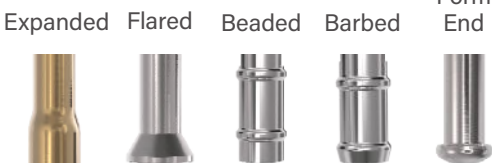


DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

70 / EXTERNAL SEALING CONNECTION TOOL

Custom sleeve actuated external grip and seal connection tool for formed tube applications.

CONNECTS TO:



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|----------------------------|-----------------------------------|------------------------------------|
| Vacuum to 750 psi (51 bar) | -40°F to +250°F (-40°C to +121°C) | Stainless Steel, Anodized Aluminum |
| Termination Port | | Seal Material* |
| NPT, BSPP (G) | | Buna-N |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

ICON™ TECHNOLOGY

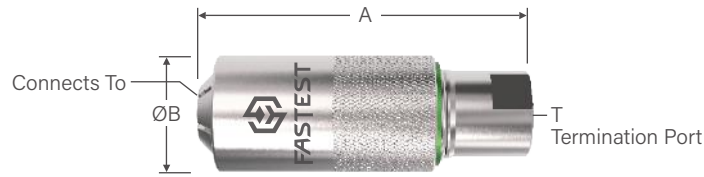
Consult Factory

ACCESSORIES

Visit website: fastestinc.com

- 1 SurConnect™ - Green to go visible indicator to ensure complete connection
- 2 Instant external formed tube connection with floating piston to ensure proper OD / face / ID sealing position
- 3 Collet design locks securely over formed tube feature
- 4 Connect and seal to expanded, flared, beaded, barbed and formed end tubing - custom built per application
- 5 Internal shut-off valve option stops flow upon disconnection

70 / EXTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | Dimensions | | |
|-----------------------------|--|--|--------------|-------------|--------------------|
| Sealing Range | Part Number | Main Seal Package | A | B | T |
| Up to 0.32 (8.0) | Determined by Application Consult Factory | Determined by Application Consult Factory | 2.91 (74.0) | 0.87 (22.0) | 1/8 NPT/BSPP (G) |
| 0.32 to 0.43 (8.0 to 11.0) | | | | 0.99 (25.0) | 1/8 NPT/BSPP (G) |
| 0.43 to 0.59 (11.0 to 15.0) | | | | 1.19 (30.0) | 1/4 NPT/BSPP (G) |
| 0.59 to 0.79 (15.0 to 20.0) | | | 3.15 (80.0) | 1.38 (35.0) | 3/8 NPT/BSPP (G) |
| 0.79 to 0.98 (20.0 to 25.0) | | | | 1.58 (40.0) | 1/2 NPT/BSPP (G) |
| 0.98 to 1.18 (25.0 to 30.0) | | | 3.54 (90.0) | 1.78 (45.0) | 3/4 NPT/BSPP (G) |
| 1.18 to 1.42 (30.0 to 36.0) | | | | 1.97 (50.0) | 3/4 NPT/BSPP (G) |
| 1.42 to 1.65 (36.0 to 42.0) | | | | 2.17 (55.0) | 3/4 NPT/BSPP (G) |
| 1.65 to 1.85 (42.0 to 47.0) | | | 4.28 (109.0) | 2.36 (60.0) | 1 NPT/BSPP (G) |
| 1.85 to 2.04 (47.0 to 52.0) | | | 3.92 (100.0) | 2.75 (70.0) | 1 1/4 NPT/BSPP (G) |

Dimensions: inch (mm)

NOTE: Dimensions for reference.

How to Order

The 70 Series connectors are designed, engineered and manufactured to your specific application requirements.

For part number and a price quotation:

- 1) Identify the gripping and sealing areas of your test piece.
- 2) Contact FasTest with information on test pressure, media and provide detailed drawing, including tolerances of test piece.
- 3) Two sample parts will be required at the time of order for final design and testing purposes.



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

JXL / EXTERNAL SEALING CONNECTION TOOL

Manual lever actuated external grip and seal connection tool for straight tube.

CONNECTS TO:

Straight Swaged



SPECIFICATIONS

| Pressure Rating* | Operating Temperatures | Materials of Construction |
|---|--------------------------------|--|
| 10 mtorr (micron) to 1,000 psi (69 bar) | 0°F to +200°F (-17°C to +93°C) | Anodized Aluminum, Stainless Steel, and Acetal (POM) |
| Termination Port | | Seal Material** |
| 1/8 to 1/4 NPT/BSPP (G) | | Neoprene® |

i *Pressure rating based on metal test piece not exceeding 30 Rockwell C hardness. As a general guideline, surface must be 5 micro inches or greater. Surfaces less than 5 micro inches not recommended.

**Additional seal material types available, consult factory.

ACTUATION METHOD

Lever Actuated: Simply flip the ergonomic handle in either direction for ease of use

ICON™ TECHNOLOGY

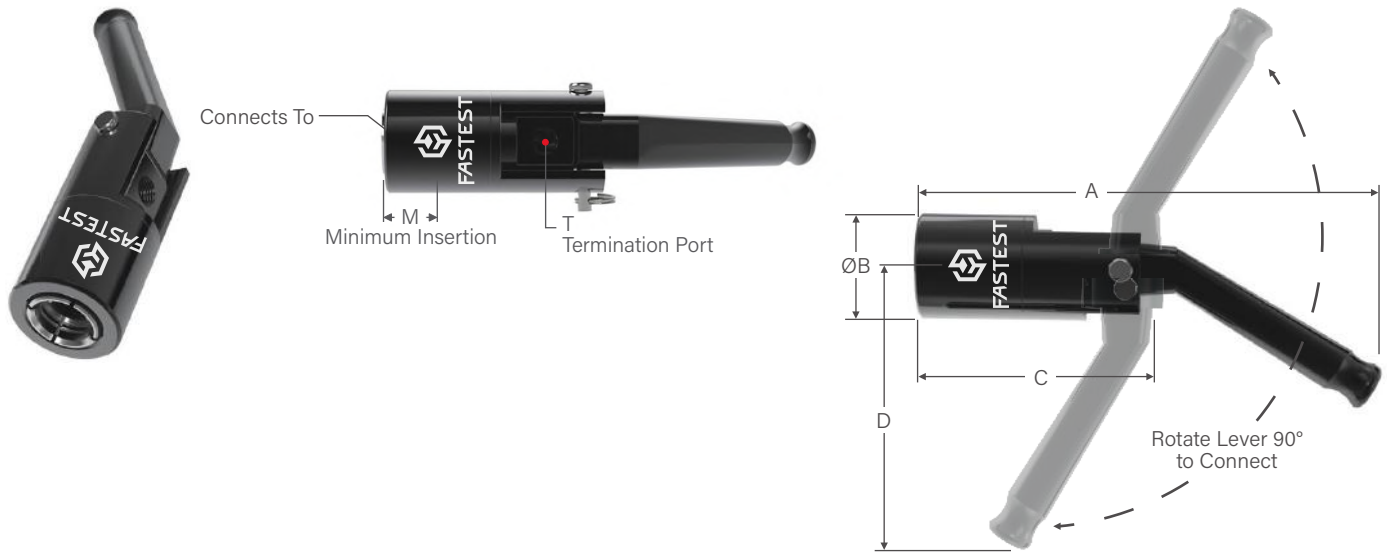
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1** Pressure assisted sealing and gripping with internal safety lock feature resists accidental disconnection under high pressure if handle is released
- 2** Instant connection for copper, steel, and aluminum tubes commonly used in refrigeration and other industrial applications
- 3** Stainless steel collets provide maximum grip with minimum distortion of the test piece
- 4** Quick and easy seal replacement to minimize down time, maintenance, and tool inventory
- 5** Self aligning connector requires no operator adjustment

JXL / EXTERNAL CONNECTION TOOL / IMPERIAL / METRIC EXTERNAL TUBES



| Ordering Information | | | Dimensions | | | | | | |
|----------------------|-------------|---------------|------------|---|---|---|---|---|---------------|
| Sealing Range | Part Number | Main Seal Set | A | B | C | D | M | T | Flow Diameter |

JXL0 and JXL1 | Lever Actuated Connectors for Imperial External Tubes

| | | | | | | | | | |
|--------------|----------|----------|-----------------|----------------|----------------|-----------------|----------------|---------|------------|
| 0.25 ± .010 | JXL00250 | SXL00250 | 7.27 (184.7) | 1.13 (28.8) | 3.65 (92.7) | 4.22 (107.2) | 0.79 (20.1) | 1/8 NPT | 0.24 (6.1) |
| 0.312 ± .010 | JXL00312 | SXL00312 | | | | | | | |
| 0.375 ± .010 | JXL00375 | SXL00375 | | | | | | | |
| 0.500 ± .010 | JXL00500 | SXL00500 | | | | | | | |
| 0.625 ± .010 | JXL10625 | SXL10625 | | | | | | | |
| 0.750 ± .010 | JXL10750 | SXL10750 | | | | | | | |
| 0.875 ± .010 | JXL10875 | SXL10875 | | | | | | | |

JXL0 and JXL1 | Lever Actuated Connectors for Metric External Tubes

| | | | | | | | | | |
|---------------|---------|----------|-----------------|----------------|----------------|-----------------|----------------|--------------|------------|
| 6mm ± 0.25mm | JXL0M6 | SXL00236 | 7.27 (184.7) | 1.13 (28.8) | 3.65 (92.7) | 4.22 (107.2) | 0.79 (20.1) | 1/8 BSPP (G) | 0.24 (6.1) |
| 8mm ± 0.25mm | JXL0M8 | SXL00312 | | | | | | | |
| 10mm ± 0.25mm | JXL0M10 | SXL00394 | | | | | | | |
| 12mm ± 0.25mm | JXL0M12 | SXL00472 | | | | | | | |
| 16mm ± 0.25mm | JXL1M16 | SXL10630 | | | | | | | |
| 18mm ± 0.25mm | JXL1M18 | SXL10710 | | | | | | | |
| 20mm ± 0.25mm | JXL1M20 | SXL10787 | | | | | | | |
| 22mm ± 0.25mm | JXL1M22 | SXL10865 | | | | | | | |

Dimensions: inch (mm)

NOTE: Table above shows common connections. Additional sizes available for JXL Series connectors. Consult factory or details.



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

FX / EXTERNAL SEALING CONNECTION TOOL

External grip and seal connection tool that uses collets to grip threads or part feature for high pressures.

CONNECTS TO:



- 1 Pressure assisted grip and proprietary design locks the connector securely to the test part under pressure
- 2 Instant threaded sealing connection up to 5000 psig without tape sealant or wrenches - significantly reduces process time
- 3 Stainless steel collets provide maximum grip with minimum distortion of the test piece
- 4 Self aligning connector requires no operator adjustment
- 5 Three ergonomic modular operating methods - lever, thumb valve, and pneumatic (straight through port for remote operation ie. foot valve)

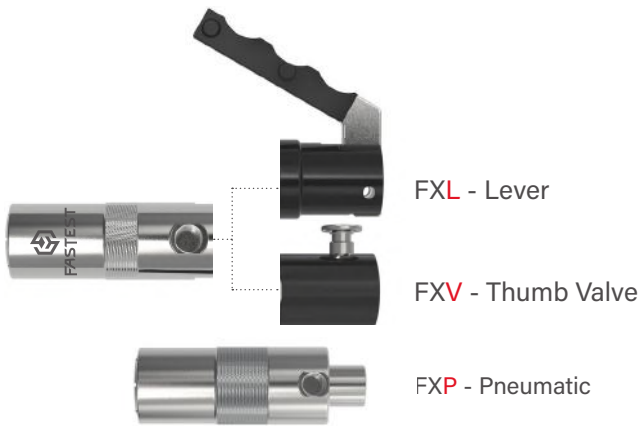


SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|-------------------------------|-----------------------------------|------------------------------------|
| Vacuum to 5,000 psi (345 bar) | -40°F to +250°F (-40°C to +121°C) | Anodized Aluminum, Stainless Steel |
| Termination Port | | Seal Material* |
| BSPP (G) or FNPT | | Buna-N |

* Additional seal material types available, consult factory.

ACTUATION OPTIONS



ICON™ TECHNOLOGY

Consult Factory

ACCESSORIES

Visit fastestinc.com

FX / MODULAR DESIGN

FASMATE FX MODULAR DESIGN

The innovative modular design of the connectors allows the technician to change the method of actuation by simply unscrewing the rear portion of the connector and replacing it with the desired form of actuation.

This feature provides flexibility to accommodate changes in the manufacturing processes, production increases and operator use preference. An additional advantage is the ease of field service for these components should they become damaged or require maintenance.



LEVER

Simple, straight forward mechanical operation.



THUMB VALVE

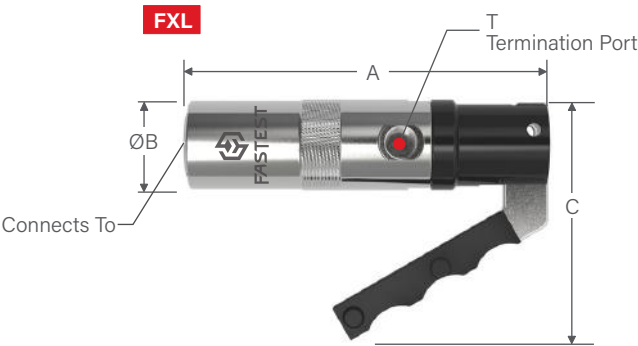
Easy, ergonomic thumb button. When depressed, allows insertion / removal of connector from port.



PNEUMATIC

Requires a separate air valve. Desired for applications that require freedom of movement of technician's hands.

FX / EXTERNAL SEALING CONNECTION TOOL / **NPT**



| Ordering Information | | | | | | | |
|----------------------|---------------------------------|---------------------------------------|---|------------------------------------|----------------------|------------------------------|--------------------|
| Connects To | FXL Part Number (with Lever) | FXV Part Number (with Thumb Valve) | FXP Part Number (with Pneumatic Pilot) | Replacement Seals Bulk Pack (5) | Rebuild Kit (FXL) | Rebuild Kit (FXV and FXP) | Pressure Rating |

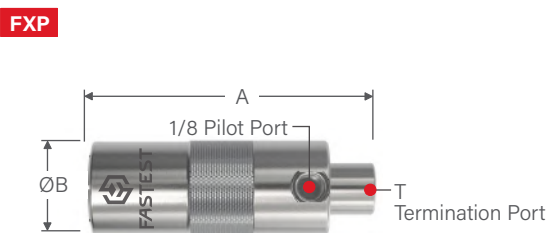
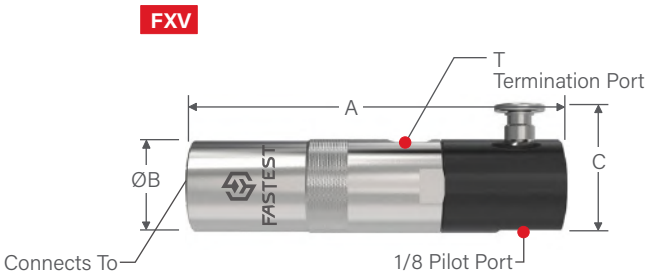
FasMate® FX | NPT

| | | | | | | | |
|---------|-----------|-----------|-----------|----------|---------|--------|------------------------|
| 1/8 NPT | FXL021041 | FXV021041 | FXP021041 | S1105B70 | RFXL021 | RFX021 | 5,000 psi (345 bar) |
| 1/4 NPT | FXL041041 | FXV041041 | FXP041041 | S1108B70 | RFXL041 | RFX041 | |
| 3/8 NPT | FXL061061 | FXV061061 | FXP061061 | S1110B70 | RFXL061 | RFX061 | |
| 1/2 NPT | FXL081061 | FXV081061 | FXP081061 | S1112B70 | RFXL081 | RFX081 | |

FasMate® FX | NPT Thin Walled Pipe

| | | | | | | | |
|---------|-------------|-------------|-------------|----------|-----------|----------|---------------------|
| 3/8 NPT | FXL061061PT | FXV061061PT | FXP061061PT | METB06PT | RFXL061PT | RFX061PT | 750 psi (51 bar) |
| 1/2 NPT | FXL081061PT | FXV081061PT | FXP081061PT | SFX081PT | RFXL081PT | RFX081PT | |

Port Specifications: NPT per SAE J476 or ANSI B1.20

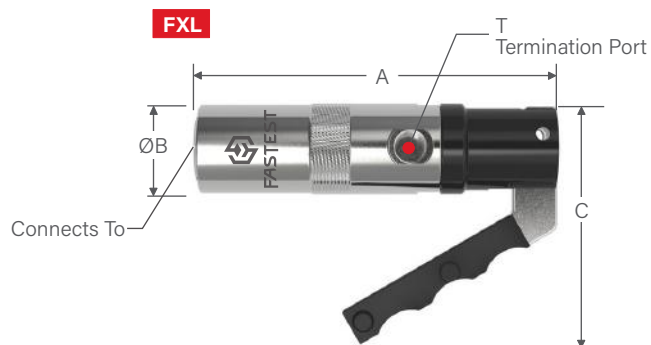


| Dimensions | | | | | | |
|--------------|--------------|-------------|-------------|-------------|-------------|---------|
| A (FXL) | A (FXV) | A (FXP) | B | C (FXL) | C (FXV) | T |
| 5.25 (133.4) | 5.04 (128.0) | 3.78 (96.0) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | 1/4 NPT |
| 5.27 (133.9) | 5.04 (128.0) | 3.80 (96.5) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | |
| 5.44 (138.2) | 5.22 (132.6) | 3.87 (98.3) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | 3/8 NPT |
| 5.45 (138.4) | 5.22 (132.6) | 3.87 (98.3) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | |
| 5.44 (138.2) | 5.22 (132.6) | 3.87 (98.3) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | 3/8 NPT |
| 5.45 (138.4) | 5.22 (132.6) | 3.87 (98.3) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | 3/8 NPT |

Dimensions: inch (mm)
Pressure Rating: psi (bar)



FX / EXTERNAL SEALING CONNECTION TOOL / BSPP (G) / BSPT / SAE



Ordering Information

| Connects To | FXL Part Number (with Lever) | FXV Part Number (with Thumb Valve) | FXP Part Number (with Pneumatic Pilot) | Replacement Seals Pack (5) | Rebuild Kit (FXL) | Rebuild Kit (FXV and FXP) | Pressure Rating |
|-------------|---------------------------------|---------------------------------------|---|-------------------------------|----------------------|------------------------------|--------------------|
|-------------|---------------------------------|---------------------------------------|---|-------------------------------|----------------------|------------------------------|--------------------|

FasMate® FX | BSPP (G)

| | | | | | | | |
|--------------|-----------|-----------|-----------|----------|---------|--------|------------------------|
| 1/8 BSPP (G) | FXL025041 | FXV025041 | FXP025041 | S1105B70 | RFXL021 | RFX021 | 5,000 psi (345 bar) |
| 1/4 BSPP (G) | FXL045041 | FXV045041 | FXP045041 | S1108B70 | RFXL041 | RFX041 | |
| 3/8 BSPP (G) | FXL065061 | FXV065061 | FXP065061 | S1110B70 | RFXL061 | RFX061 | |
| 1/2 BSPP (G) | FXL085061 | FXV085061 | FXP085061 | S1112B70 | RFXL081 | RFX081 | |

FasMate® FX | BSPT

| | | | | | | | |
|----------|------------|------------|------------|----------|---------|--------|------------------------|
| 1/8 BSPT | FXL025T041 | FXV025T041 | FXP025T041 | S1105B70 | RFXL021 | RFX021 | 5,000 psi (345 bar) |
| 1/4 BSPT | FXL045T041 | FXV045T041 | FXP045T041 | S1108B70 | RFXL041 | RFX041 | |
| 3/8 BSPT | FXL065T061 | FXV065T061 | FXP065T061 | S1110B70 | RFXL061 | RFX061 | |
| 1/2 BSPT | FXL085T061 | FXV085T061 | FXP085T061 | S1112B70 | RFXL081 | RFX081 | |

FasMate® FX | SAE 37° Flare

| | | | | | | | |
|--------------|-----------|-----------|-----------|--------------|---------|--------|------------------------|
| -4 [7/16-20] | FXL049041 | FXV049041 | FXP049041 | S20700270B70 | RFXL049 | RFX049 | 5,000 psi (345 bar) |
| -5 [1/2-20] | FXL059041 | FXV059041 | FXP059041 | S20700334B70 | RFXL059 | RFX059 | |
| -6 [9/16-18] | FXL069041 | FXV069041 | FXP069041 | S1012B70 | RFXL069 | RFX069 | |
| -8 [3/4-16] | FXL089061 | FXV089061 | FXP089061 | S1015B70 | RFXL089 | RFX089 | |

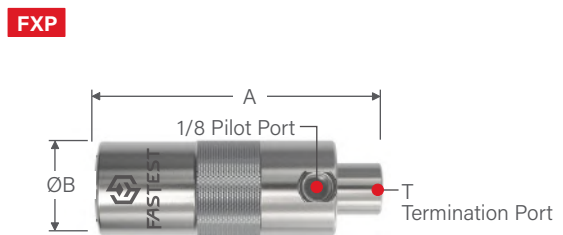
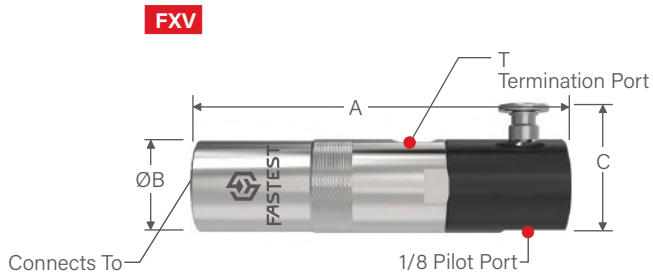
FasMate® FX | SAE 45° Flare

| | | | | | | | |
|--------------|-----------|-----------|-----------|--------------|---------|--------|------------------------|
| -4 [7/16-20] | FXL04A041 | FXV04A041 | FXP04A041 | S20600246B70 | RFXL04A | RFX04A | 5,000 psi (345 bar) |
| -5 [1/2-20] | FXL05A041 | FXV05A041 | FXP05A041 | S1011B70 | RFXL05A | RFX05A | |
| -6 [5/8-18] | FXL06A061 | FXV06A061 | FXP06A061 | S1012B70 | RFXL06A | RFX06A | |
| -8 [3/4-16] | FXL08A061 | FXV08A061 | FXP08A061 | S1014B70 | RFXL08A | RFX08A | |

FasMate® FX | SAE O-Ring Face Seal

| | | | | | | | |
|---------------|-----------|-----------|-----------|----------|---------|--------|------------------------|
| -4 [9/16-18] | FXL009041 | FXV009041 | FXP009041 | S1020U70 | RFXL009 | RFX009 | 5,000 psi (345 bar) |
| -6 [11/16-16] | FXL011061 | FXV011061 | FXP011061 | S1023U70 | RFXL011 | RFX011 | |
| -8 [13/16-16] | FXL013061 | FXV013061 | FXP013061 | S1023U70 | RFXL013 | RFX013 | |

Port Specifications: BSPP (G) per ISO 228 or BS 2279; BSPT per ISO 7 or BS 21; SAE 37° Flare per SAE J514 or ISO 12151-5; SAE 45° Flare per SAE J512 or J513; SAE O-Ring Face Seal per SAE J1453



| Dimensions | | | | | | |
|--------------|--------------|--------------|-------------|-------------|-------------|---------|
| A (FXL) | A (FXV) | A (FXP) | B | C (FXL) | C (FXV) | T |
| 5.25 (133.4) | 5.04 (128.0) | 3.78 (96.0) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | 1/4 NPT |
| 5.27 (133.9) | 5.04 (128.0) | 3.80 (96.5) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | |
| 5.44 (138.2) | 5.22 (132.6) | 3.87 (98.3) | 1.26 (32.0) | 3.57 (90.7) | 1.87 (47.5) | 3/8 NPT |
| 5.45 (138.4) | 5.22 (132.6) | 3.87 (98.3) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | |
| 5.25 (133.4) | 5.04 (128.0) | 3.78 (96.0) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | 1/4 NPT |
| 5.27 (133.9) | 5.04 (128.0) | 3.80 (96.5) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | |
| 5.44 (138.2) | 5.22 (132.6) | 3.87 (98.3) | 1.26 (32.0) | 3.57 (90.7) | 1.87 (47.5) | 3/8 NPT |
| 5.45 (138.4) | 5.22 (132.6) | 3.87 (98.3) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | |
| 5.25 (133.4) | 5.04 (128.0) | 3.77 (95.6) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | 1/4 NPT |
| 5.25 (133.4) | 5.04 (128.0) | 3.77 (95.6) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | |
| 5.25 (133.4) | 5.04 (128.0) | 3.77 (95.6) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | |
| 5.45 (138.4) | 5.22 (132.6) | 3.87 (98.3) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | 3/8 NPT |
| 5.25 (133.4) | 5.04 (128.0) | 3.77 (95.6) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | 1/4 NPT |
| 5.25 (133.4) | 5.04 (128.0) | 3.77 (95.6) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | |
| 5.36 (136.1) | 5.13 (130.3) | 3.77 (95.6) | 1.48 (37.6) | 3.45 (87.6) | 1.87 (47.5) | |
| 5.51 (140.0) | 5.28 (134.1) | 3.92 (99.6) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | 3/8 NPT |
| 5.25 (133.4) | 5.04 (128.0) | 3.77 (95.6) | 1.26 (32.0) | 3.45 (87.6) | 1.77 (45.0) | 1/4 NPT |
| 5.36 (136.1) | 5.13 (130.3) | 3.77 (95.6) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | 3/8 NPT |
| 5.56 (141.2) | 5.33 (135.4) | 3.97 (100.8) | 1.48 (37.6) | 3.57 (90.7) | 1.87 (47.5) | |

Dimensions: inch (mm)
Pressure Rating: psi (bar)



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

HPB / EXTERNAL SEALING CONNECTION TOOL

Sleeve actuated tool that uses collets to grip threads or part feature for high pressures.

CONNECTS TO:



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|-------------------------------|-----------------------------------|--|
| Vacuum to 6,000 psi (414 bar) | -40°F to +250°F (-40°C to +121°C) | Stainless Steel |
| Termination Port | | Seal Material* |
| 1/8 Female NPT | | Standard: Buna-N Optional: FKM, EPDM, Neoprene® |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

ICON™ TECHNOLOGY

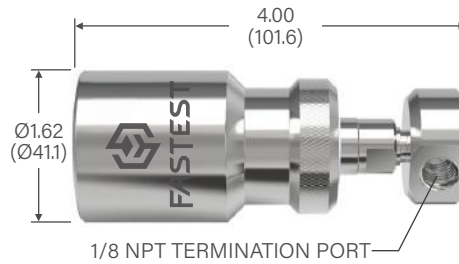
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 Internal ball latch locking mechanism prevents accidental disconnection under pressure
- 2 Instant threaded sealing connection up to 6000 psi without tape sealant or wrenches - significantly reduces process time
- 3 Collet design locks securely into external threads or behind tube features
- 4 Customizable to external threaded ports or any tube feature
- 5 Self aligning connector requires no operator adjustment

HPB / EXTERNAL SEALING CONNECTION TOOL



Ordering Information

| Connects To | Part Number* | Replacement Seals Bulk Pack (5) | Rebuild Kits |
|---|--------------|------------------------------------|--------------|
| HPB NPT Thread | | | |
| 1/4 NPT | HPB041021 | S1108B70 | HPB0406R |
| 3/8 NPT | HPB061021 | S1110B70 | HPB0406R |
| 1/2 NPT | HPB081021 | S1112B70 | HPB08R |
| HPB BSPP (G) Thread | | | |
| 1/4 BSPP (G) | HPB045021 | S1108B70 | HPB0406R |
| 3/8 BSPP (G) | HPB065021 | S1110B70 | HPB0406R |
| 1/2 BSPP (G) | HPB085021 | S1112B70 | HPB08R |
| HPB SAE 37° Flare for JIC and AN Male Fittings | | | |
| -4 [7/16-20] | HPB049021 | S20700270B70 | HPB04HR |
| -6 [9/16-18] | HPB069021 | S1012B70 | |
| -8 [3/4-16] | HPB089021 | S1015B70 | |
| HPB SAE 37° Flare for JIC and AN Male Fittings | | | |
| -4 [7/16-20] | HPB049H021 | S20560176B70 | HPB04R |
| -6 [9/16-18] | HPB069H021 | S20760266B70 | |
| -8 [3/4-16] | HPB089H021 | S20800406B70 | |
| HPB SAE ORFS Swivel Nut Fitting | | | |
| -4 [7/16-20] | HPB009H021 | S1107B70 | HPB04R |
| -6 [9/16-18] | HPB011H021 | S1109B70 | |
| -8 [3/4-16] | HPB013H021 | S1110B70 | |
| HPB Compression Fitting (Swagelok® or Equivalent) | | | |
| 1/4 [7/16-20] | HPBCF04021 | S1008B70 | HPB04HR |
| 3/8 [9/16-20] | HPBCF06021 | S1011B70 | |
| 1/2 [3/4-20] | HPBCF08021 | S1013B70 | |

*Buna-N seals are standard. Optional seal materials include V = FKM, E = EPDM. Example: HPB041021**V**. For HPB Ferulok Style Compression Fittings, add suffix of "F" to HPB Compression Fitting Part Number. Example: HPBCF04021**F**

Port Specifications: NPT per SAE J476; BSPP (G) per ISO 228; SAE 37° Flare per SAE J514; SAE ORFS per SAE J1453



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

MET / EXTERNAL SEALING CONNECTION TOOL

Manual twist sealing connection tool for external threads.

CONNECTS TO:
NPT SAE 37° SAE 45° BSPP(G) BSPT



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|--------------------------------|----------------------------------|---------------------------|
| Vacuum to 10,000 psi (689 bar) | -40°F to +200°F (-40°C to +93°C) | Stainless Steel |
| Termination Port | | Seal Material* |
| NPT, SAE 37° Flare | | Urethane |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Twist: Finger-tight connection eliminates tape and sealants

ICON™ TECHNOLOGY

Consult Factory

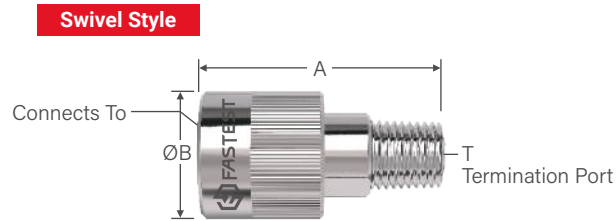
ACCESSORIES

Visit fastestinc.com

- 1 Pressure assisted sealing eliminates leaks and resists movement under pressure
- 2 Leak-tight seal prevents contamination of media and reduces scrap and test damage
- 3 Available in flow or cap versions
- 4 Quick and easy seal replacement to minimize down time, maintenance, and tool inventory

MET / EXTERNAL CONNECTIONS / NPT THREADS

Swivel Style
Swivel Style for High Pressure



| Ordering Information | | | | | Dimensions | | |
|---------------------------|--------------|-----------------------|-------------|-----------------|-------------|--------------|------------|
| Connects To | Part Number* | Main Seal Package (5) | Rebuild Kit | Pressure Rating | A | B | T** |
| NPT Swivel Style | | | | | | | |
| 1/8 NPT | MET021022 | S1105U70 | METR02 | 5000 (345) | 1.51 (38.4) | 0.80 (20.3) | 1/8 MNPT |
| 1/4 NPT | MET041042 | S1108U70 | METR04 | | 1.74 (44.2) | 0.93 (23.6) | 1/4 MNPT |
| 3/8 NPT | MET061062 | S1110U70 | METR06 | 4000 (276) | 1.78 (45.2) | 1.20 (30.5) | 3/8 MNPT |
| 1/2 NPT | MET081082 | S1112U70 | METR08 | | 2.05 (52.1) | 1.36 (34.5) | 1/2 MNPT |
| 3/4 NPT | MET121122 | S1115U70 | METR12 | 4000 (276) | 2.34 (59.4) | 1.68 (42.7) | 3/4 MNPT |
| 1 NPT | MET161162 | S1212U70 | METR16 | | 2.74 (69.6) | 1.99 (50.5) | 1 MNPT |
| 1-1/4 NPT | MET201202 | S1217U70 | METR20 | 2500 (172) | 3.27 (83.1) | 2.37 (60.2) | 1-1/4 MNPT |
| 1-1/2 NPT | MET241161 | METB24 | METR24 | 1000 (67) | 3.27 (83.1) | 2.50 (63.5) | 1 FNPT |
| 2 NPT | MET321161 | METB32 | METR32 | 750 (52) | 2.53 (64.3) | 3.00 (76.2) | |
| 2-1/2 NPT | MET401161 | METB40 | METR40 | 500 (34) | 2.54 (64.5) | 3.40 (86.4) | |
| 3 NPT | MET481161 | METB48 | METR48 | | 2.61 (66.3) | 4.25 (108.0) | |

NPT | Swivel Style for High Pressure

| | | | | | | | |
|---------|------------|----------|--------|--------------|-------------|-------------|----------|
| 1/8 NPT | METH021022 | S1105U70 | METR02 | 10,000 (689) | 1.51 (38.4) | 0.80 (20.3) | 1/8 MNPT |
| 1/4 NPT | METH041042 | S1108U70 | METR04 | 8000 (522) | 1.74 (44.2) | 0.93 (23.6) | 1/4 MNPT |
| 3/8 NPT | METH061062 | S1110U70 | METR06 | | 1.78 (45.2) | 1.20 (30.5) | 3/8 MNPT |
| 1/2 NPT | METH081082 | S1112U70 | METR08 | 6000 (414) | 2.05 (52.1) | 1.36 (34.5) | 1/2 MNPT |
| 3/4 NPT | METH121122 | S1115U70 | METR12 | 5500 (379) | 2.34 (59.4) | 1.68 (42.7) | 3/4 MNPT |
| 1 NPT | METH161162 | S1212U70 | METR16 | 5000 (345) | 2.74 (69.6) | 1.99 (50.5) | 1 MNPT |

Dimensions: inch (mm)

Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MET021022V = FKM

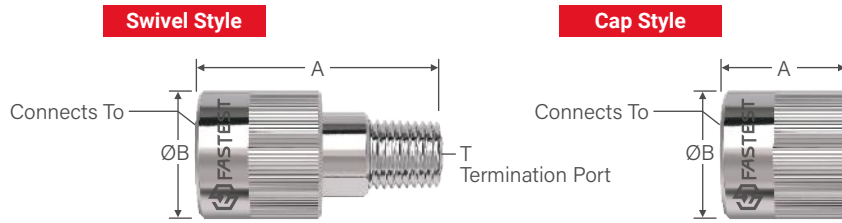
**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: NPT per ISO J476 or ANSI B1.20



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

MET / EXTERNAL CONNECTIONS / NPT THREADS (continued)



| Ordering Information | | | | | Dimensions | | |
|----------------------|-------------|----------------------|-------------|-----------------|------------|---|-----|
| Connects To | Part Number | Main Seal Package(5) | Rebuild Kit | Pressure Rating | A | B | T** |

NPT | Swivel Style for Thin Walled Threaded Pipe

| | | | | | | | |
|-----------|-------------|----------|--------|----------|-------------|--------------|------------|
| 1/4 NPT | MET041042PT | METB04PT | METR04 | 750 (52) | 1.74 (44.2) | 0.93 (23.6) | 1/4 NPTM |
| 3/8 NPT | MET061062PT | METB06PT | METR06 | | 1.78 (45.2) | 1.20 (30.5) | 3/8 NPTM |
| 1/2 NPT | MET081082PT | METB08PT | METR08 | | 2.05 (52.1) | 1.36 (34.5) | 1/2 NPTM |
| 3/4 NPT | MET121122PT | METB12PT | METR12 | | 2.34 (59.4) | 1.68 (42.7) | 3/4 NPTM |
| 1 NPT | MET161162PT | METB16PT | METR16 | | 2.74 (69.6) | 1.99 (50.5) | 1 NPTM |
| 1-1/4 NPT | MET201202PT | METB20PT | METR20 | | 3.27 (80.1) | 2.37 (60.2) | 1 1/4 NPTM |
| 1-1/2 NPT | MET241161* | METB24PT | METR24 | | 3.27 (80.1) | 2.50 (63.5) | 1 NPTM |
| 2 NPT | MET321161* | METB32PT | METR32 | 500 (35) | 2.53 (64.3) | 3.00 (76.2) | |
| 2-1/2 NPT | MET401161* | METB40PT | METR40 | | 2.54 (64.5) | 3.40 (86.4) | |
| 3 NPT | MET481161* | METB48PT | METR48 | | 2.61 (66.3) | 4.25 (108.0) | |

NPT | Cap Style

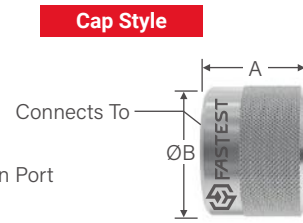
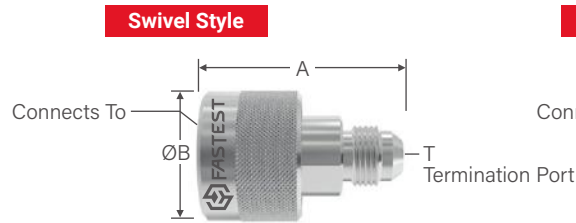
| | | | | | | | |
|---------|---------|----------|--------|------------|-------------|-------------|--|
| 1/8 NPT | MET021C | S1105U70 | METR02 | 5000 (345) | 0.83 (21.1) | 0.80 (20.3) | N/A (Cap Style No Termination Port) |
| 1/4 NPT | MET041C | S1108U70 | METR04 | | 0.88 (22.4) | 0.93 (23.6) | |
| 3/8 NPT | MET061C | S1110U70 | METR06 | 4000 (276) | 0.90 (22.9) | 1.20 (30.5) | |
| 1/2 NPT | MET081C | S1112U70 | METR08 | | 0.97 (24.6) | 1.36 (34.5) | |
| 3/4 NPT | MET121C | S1115U70 | METR12 | | 1.08 (27.4) | 1.68 (42.7) | |
| 1 NPT | MET161C | S1112U70 | METR16 | | 1.26 (32.0) | 1.99 (50.5) | |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MET041042PTV = FKM

**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: NPT per ISO J476 or ANSI B1.20

MET / EXTERNAL CONNECTIONS / SAE 37° & 45° FLARE THREADS

| Ordering Information | | | | | Dimensions | | |
|----------------------|--------------|-----------------------|-------------|-----------------|------------|---|-----|
| Connects To | Part Number* | Main Seal Package (5) | Rebuild Kit | Pressure Rating | A | B | T** |

SAE 37° FLARE | Swivel Style

| | | | | | | | |
|-----------------|-----------|----------|----------|------------|-------------|-------------|------------------------|
| -6 [9/16-18] | MET069040 | S1012B70 | METR06 | 5000 (345) | 1.82 (46.2) | 1.20 (30.5) | -4 [7/16-20] (male) |
| -8 [3/4-16] | MET089060 | S1015B70 | METR08 | 4000 (276) | 1.90 (48.3) | 1.38 (35.1) | -6 [9/16-18] (male) |
| -10 [7/8-14] | MET109080 | S1016B70 | METR08 | | 2.25 (57.2) | 1.51 (38.4) | -8 [3/4-16] (male) |
| -12 [1-1/16-12] | MET129100 | S1018B70 | METR12 | | 2.52 (64.0) | 1.70 (43.2) | -10 [7/8-14] (male) |
| -16 [1-5/16-12] | MET169120 | S1020B70 | METR16 | 1000 (69) | 2.70 (68.6) | 1.99 (50.6) | -12 [1-1/16-12] (male) |
| -20 [1-5/8-12] | MET209160 | S1024U70 | METR20 | | 3.21 (81.5) | 2.37 (60.2) | -16 [15/16-12] (male) |
| -24 [1-7/8-12] | MET249200 | S1029B70 | METR24 | | 3.38 (85.9) | 2.50 (63.5) | -20 [1-5/8-12] (male) |
| -32 [2-1/2-12] | MET329240 | S1227B70 | METR32AN | 750 (52) | 3.49 (88.6) | 3.25 (82.6) | -24 [1-7/8-12] (male) |

SAE 37° FLARE | Swivel Style for High Pressure

| | | | | | | | |
|-----------------|------------|--------------|---------|--------------|-------------|-------------|------------------------|
| -4 [7/16-20] | METH049040 | S20700270B70 | METR049 | 10,000 (689) | 1.76 (44.7) | 0.95 (24.1) | -4 [7/16-20] (male) |
| -6 [9/16-18] | METH069060 | S1012B70 | METR06 | | 1.82 (46.2) | 1.20 (30.5) | -6 [9/16-18] (male) |
| -8 [3/4-16] | METH089080 | S1015B70 | METR08 | | 2.00 (50.8) | 1.38 (35.1) | -8 [3/4-16] (male) |
| -10 [7/8-14] | METH109100 | S1016B70 | METR08 | | 2.35 (59.7) | 1.51 (38.4) | -10 [7/8-14] (male) |
| -12 [1-1/16-12] | METH129120 | S1018B70 | METR12 | | 2.52 (64.0) | 1.70 (43.2) | -12 [1-1/16-12] (male) |
| -16 [1-5/16-12] | METH169160 | S1120B70 | METR16 | 6500 (433) | 2.74 (69.6) | 1.99 (50.6) | -16 [15/16-12] (male) |

SAE 37° FLARE | Cap Style

| | | | | | | | |
|--------------|---------|---------------|---------|------------|-------------|-------------|----------------------------------|
| -4 [7/16-20] | MET049C | S120700270B70 | METR049 | 5000 (345) | 0.88 (22.4) | 0.95 (24.1) | N/A |
| -6 [9/16-18] | MET069C | S1012B70 | METR06 | 4000 (276) | 0.90 (22.9) | 1.20 (30.5) | (Plug Style No Termination Port) |
| -8 [3/4-16] | MET089C | S1015B70 | METR08 | | 0.97 (24.6) | 1.38 (35.1) | |

SAE 45° FLARE | Swivel Style (per SAE J512 or J513)

| | | | | | | | |
|-----------------|------------|--------------|---------|------------|-------------|-------------|----------|
| -4 [7/16-20] | MET04A042B | S20600246B70 | METR049 | 5000 (345) | 1.76 (44.7) | 0.95 (24.1) | 1/4 MNPT |
| -6 [5/8-18] | MET06A062N | S1012N70 | METR06A | | 1.80 (45.7) | 1.18 (30.0) | 3/8 MNPT |
| -8 [3/4-16] | MET08A082N | S1014N70 | METR08A | | 2.10 (53.3) | 1.31 (33.3) | 1/2 MNPT |
| -10 [7/8-14] | MET10A082N | S1015N70 | METR10A | 4000 (276) | 2.26 (57.4) | 1.51 (38.4) | |
| -12 [1-1/16-14] | MET12A122N | S1018N70 | METR12A | | 2.54 (64.5) | 1.70 (43.2) | |

Dimensions: inch (mm)

Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MET069040V = FKM

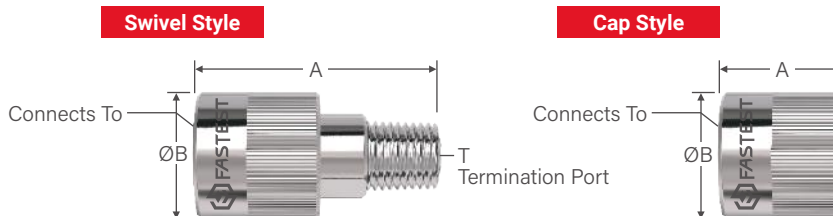
**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: SAE 37° & 45° FLARE THREADS per SAE J514 or ISO 12151-5

DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

MET / EXTERNAL CONNECTIONS / BSPP (G) THREADS

Swivel Style (per ISO 228 or BS 2779)
Cap Style (per ISO 228 or BS 2779)



| Ordering Information | | | | | Dimensions | | |
|----------------------|-------------|-----------------------|-------------|-----------------|------------|---|-----|
| Connects To | Part Number | Main Seal Package (5) | Rebuild Kit | Pressure Rating | A | B | T** |

BSPP (G) | Swivel Style

| | | | | | | | |
|--------------|-----------|----------|--------|------------|-------------|-------------|---------|
| 1/8 BSPP (G) | MET025022 | S1105U70 | METR02 | 5000 (345) | 1.62 (41.1) | 0.80 (20.3) | 1/8 NPT |
| 1/4 BSPP (G) | MET045042 | S1108U70 | METR04 | | 1.63 (41.4) | 0.93 (23.6) | 1/4 NPT |
| 3/8 BSPP (G) | MET065062 | S1110U70 | METR06 | 4000 (276) | 1.31 (33.3) | 1.20 (30.5) | 3/8 NPT |
| 1/2 BSPP (G) | MET085082 | S1112U70 | METR08 | | 1.46 (37.1) | 1.36 (34.5) | 1/2 NPT |
| 3/4 BSPP (G) | MET125122 | S1115U70 | METR12 | | 2.35 (59.7) | 1.70 (43.2) | 3/4 NPT |
| 1 BSPP (G) | MET165162 | S1212U70 | METR16 | | 2.74 (69.6) | 1.99 (50.6) | 1 NPT |

BSPP (G) | Cap Style

| | | | | | | | |
|--------------|---------|----------|--------|------------|-------------|-------------|---|
| 1/8 BSPP (G) | MET025C | S1105U70 | METR02 | 5000 (345) | 0.83 (21.1) | 0.80 (20.3) | N/A (Plug Style No Termination Port) |
| 1/4 BSPP (G) | MET045C | S1108U70 | METR04 | | 0.88 (22.4) | 0.93 (23.6) | |
| 3/8 BSPP (G) | MET065C | S1110U70 | METR06 | 4000 (276) | 0.90 (22.9) | 1.20 (30.5) | |
| 1/2 BSPP (G) | MET085C | S1112U70 | METR08 | | 0.97 (24.6) | 1.36 (34.5) | |
| 3/4 BSPP (G) | MET125C | S1116U70 | METR12 | 4000 (276) | 1.08 (27.3) | 1.68 (42.7) | |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

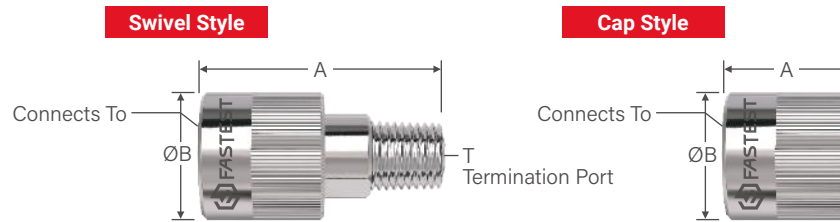
*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MET025022V = FKM

**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: BSPP (G) per ISO 228 or BS 2779

MET / EXTERNAL CONNECTIONS / BSPT THREADS

Swivel Style
Cap Style



| Ordering Information | | | | | Dimensions | | |
|----------------------|-------------|-----------------------|-------------|-----------------|-------------|-------------|----------------------------------|
| Connects To | Part Number | Main Seal Package (5) | Rebuild Kit | Pressure Rating | A | B | T** |
| BSPT Swivel Style | | | | | | | |
| 1/8 BSPT | MET025T022 | S1105U70 | METR02 | 5000 (345) | 1.62 (41.1) | 0.80 (20.3) | 1/8 NPT |
| 1/4 BSPT | MET045T042 | S1108U70 | METR04 | | 1.63 (41.4) | 0.93 (23.6) | 1/4 NPT |
| 3/8 BSPT | MET065T062 | S1110U70 | METR06 | 4000 (276) | 1.31 (33.3) | 1.20 (30.5) | 3/8 NPT |
| 1/2 BSPT | MET085T082 | S1112U70 | METR08 | | 1.46 (37.1) | 1.36 (34.5) | 1/2 NPT |
| 3/4 BSPT | MET125T122 | S1115U70 | METR12 | | 2.35 (59.7) | 1.70 (43.2) | 3/4 NPT |
| 1 BSPT | MET165T162 | S1212U70 | METR16 | | 2.74 (69.6) | 1.99 (50.6) | 1 NPT |
| BSPT Cap Style | | | | | | | |
| 1/8 BSPT | MET025TC | S1105U70 | METR02 | 5000 (345) | 0.83 (21.1) | 0.80 (20.3) | N/A |
| 1/4 BSPT | MET045TC | S1108U70 | METR04 | | 0.88 (22.4) | 0.93 (23.6) | |
| 3/8 BSPT | MET065TC | S1110U70 | METR06 | 4000 (276) | 0.90 (22.9) | 1.20 (30.5) | (Plug Style No Termination Port) |
| 1/2 BSPT | MET085TC | S1112U70 | METR08 | | 0.97 (24.6) | 1.36 (34.5) | |

Dimensions: inch (mm)
Pressure Rating: psi (bar)

*Optional seal materials include V = FKM, E = EPDM, and B = Buna-N - Example: MET025T022V = FKM

**Other terminations in metric / BSPP may be available. Contact factory.

Port Specifications: BSPT per ISO 228 or BS 2779; per ISO 7 or BS 21



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

Product Accessories

Charge Valve PN: ADM06102



- Use with Charge Coupler to pressure up and hold pilot charge when an affixed airline is not useable
- Manually actuate pneumatic sealing connection tools

Charge Coupler PN: ADF05102



- Used with Charge Valve to introduce pressure without latching
- Internally valved

Slide Valve PN: AV1021022



- Used to pressurize and exhaust pilot pressure for manual operation

ICON™
Accessories

Programming Tool

- Quickly program / calibrate ICON™ Sealing Connection Tools
- Eliminate the need for PLC programming
- LED connection status visual feedback
- Powered from wall adapter (included) or from a PLC (24VDC)

| Part Number | Input Signal | Output Signal | Current Limit |
|-------------|--------------|---------------|-----------------|
| SPCT0204 | SSR | SSR | max 100 mA load |
| SPCT0204A | SSR | N/A | N/A |



M8 Cable PN: SPCAFS0602AMS06

- Straight Female M8 threaded Connector to straight Male M8 connector (6-wire 2m cable)



M8 Cable PN: SPCAFS0602C

- Straight Female M8 to Flying Leads (6-wire 2m cable)







**SPECIALTY
CONNECTIONS**

70FR / EXTERNAL CONNECTIONS TO FUEL RAILS

Custom sleeve actuated external grip and seal connection tool for J2044 fuel rail applications.

CONNECTS TO:

Fuel Rail



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|-----------------------------|-----------------------------------|------------------------------------|
| Vacuum to 750 psi (51 bar) | -40°F to +250°F (-40°C to +121°C) | Stainless Steel, Anodized Aluminum |
| Termination Port | | Seal Material* |
| Inline NPT termination port | | Buna-N/Nitrile |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

ICON™ TECHNOLOGY

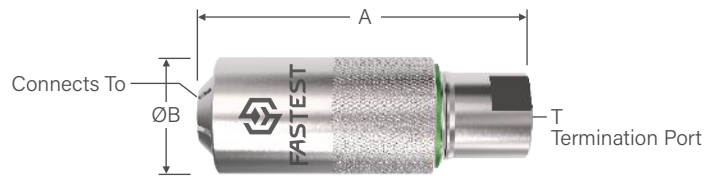
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 SurConnect™ - Green to go visible indicator to ensure complete connection and internally valved to prevent gas flow once disconnected
- 2 Instant external formed tube connection with floating piston to ensure proper OD / face / ID sealing position
- 3 Collet design locks securely over formed tube feature
- 4 Connect and seal to standard fuel rail bead /SAE J2044

70FR / EXTERNAL CONNECTIONS TO FUEL RAILS



| Ordering Information | | | | Dimensions | | |
|----------------------|-------------|------------------------------------|-------------|-------------|-------------|---------|
| Connects To | Part Number | Replacement Seals Bulk Pack (5) | Rebuild Kit | A | B | T |
| 70FR Non-Valved | | | | | | |
| 1/4 | FR7004041 | S1106B70 | RFR04 | 3.02 (76.7) | 0.99 (25.1) | 1/4 NPT |
| 5/16 | FR7005041 | S1108B70 | RFR05 | | | |
| 3/8 | FR7006061 | S1109B70 | RFR06 | 3.30 (83.8) | 1.19 (30.2) | 3/8 NPT |
| 1/2 | FR7008061 | S1111B70 | RFR08 | 3.50 (89.9) | 1.38 (35.1) | |
| 70FR Valved | | | | | | |
| 1/4 | FRV7004041 | S1106B70 | RFR04 | 3.02 (76.7) | 0.99 (25.1) | 1/4 NPT |
| 5/16 | FRV7005041 | S1108B70 | RFR05 | | | |
| 3/8 | FRV7006061 | S1109B70 | RFR06 | 3.30 (83.8) | 1.19 (30.2) | 3/8 NPT |
| 1/2 | FRV7008061 | S1111B70 | RFR08 | 3.50 (89.9) | 1.38 (35.1) | |

Dimensions: inch (mm)

Port Specifications: SAE J2044



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

GZNV / INTERNAL GAS BURNER TESTING

Internally valved manual sealing connection tool for Natural Gas or Propane Burner Testing.

CONNECTS TO:

FNPT



BSPP (G)/
BSPT



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|-----------------------------|--------------------------------|---|
| Vacuum to 5 psi (0.345 bar) | 0°F to +200°F (-17°C to +93°C) | Anodized Aluminum, Brass, Molded Nylon Handle |
| Termination Port | | Seal Material* |
| 1/4, 1/2 NPT | | Main: Urethane Internal: Buna-N |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Lever Handle: Two way actuation handle is simple and ergonomic for production applications

ICON™ TECHNOLOGY

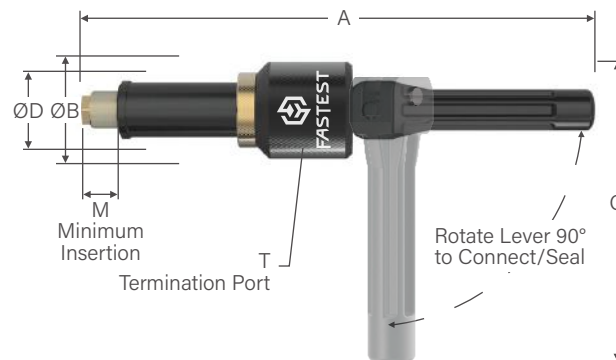
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 Lockable collar to keep sealing pressure consistent and internally valved to prevent gas flow once disconnected
- 2 Adjustable ring to accommodate the widest sealing range in the industry
- 3 Internal shut-off valve to stop the flow of gas when handle is in the disconnected position
- 4 Non-sparking aluminum and brass components

GZNV / INTERNAL GAS BURNER TESTING



| Ordering Information | | | | | Dimensions | | | | | |
|----------------------|-------------|---------------------------------|-------------|-------------------|------------|---|---|---|---|---|
| Connects To | Part Number | Replacement Seals Bulk Pack (5) | Rebuild Kit | Replacement Shaft | A | B | C | D | M | T |

GZNV | With 2 in. (51 mm) Extended Shaft

| | | | | | | | | | | |
|---------|----------------|----------|----------|---------------|-----------------|----------------|-----------------|----------------|----------------|---------|
| 3/8 NPT | GZNV0620410200 | GZNVB062 | GZNVR062 | 5ZNV27F380200 | 9.30 (236.2) | 1.88 (47.8) | 4.96 (119.1) | 1.06 (26.9) | 0.63 (16.0) | 1/4 NPT |
| 1/2 NPT | GZNV0820410200 | GZNVB082 | GZNVR082 | 5ZNV275BR0200 | | | | | | |
| 3/4 NPT | GZNV1220810200 | GZNVB122 | GZNVR122 | 5ZNV375BR0200 | 9.65 (245.1) | 2.44 (61.9) | 5.21 (132.3) | 1.38 (35.1) | | 1/2 NPT |

GZNV | Reduced Length Shaft

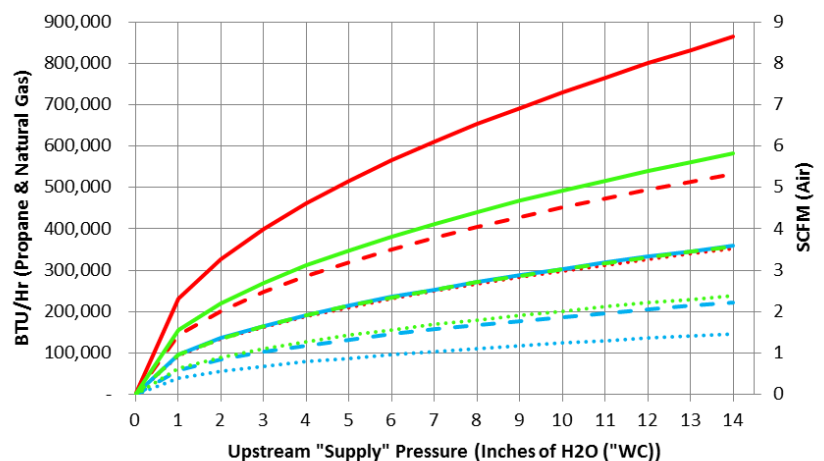
| | | | | | | | | | | |
|---------|-------------|----------|----------|-------------|-----------------|----------------|-----------------|----------------|----------------|---------|
| 3/8 NPT | GZNV062041* | GZNVB062 | GZNVR062 | 5ZNV27F38BR | 7.30 (185.4) | 1.88 (47.8) | 4.96 (119.1) | 1.06 (26.9) | 0.63 (16.0) | 1/4 NPT |
| 1/2 NPT | GZNV082041* | GZNVB082 | GZNVR082 | 5ZNV275BR | | | | | | |
| 3/4 NPT | GZNV122081* | GZNVB122 | GZNVR122 | 5ZNV275BR | 7.65 (194.3) | 2.44 (61.9) | 5.21 (132.3) | 1.38 (35.1) | | 1/2 NPT |

Dimensions: inch (mm)

*Consult Factory for availability.

GasMate™ GZNV Family Flow Capacity

— Propane (3/4) - - Propane (1/2) ... Propane (3/8)
 — Natural Gas (3/4) - - Natural Gas (1/2) ... Natural Gas (3/8)
 — AIR (3/4) - - AIR (1/2) ... AIR (3/8)



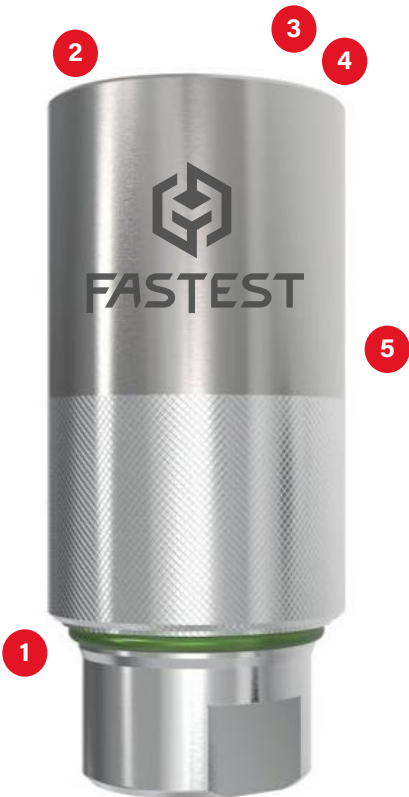
DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

G60V / EXTERNAL GAS BURNER TESTING

Internally valved sleeve actuated external grip and seal connection tool for Natural Gas or Propane Burner Testing.

CONNECTS TO:

MNPT



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|----------------------------|--------------------------------|---|
| Vacuum to 30 psi (2.1 bar) | 0°F to +200°F (-17°C to +93°C) | Stainless Steel, Brass, Anodized Aluminum |
| Termination Port | | Seal Material* |
| 3/8, 1/2, 3/4 NPT | | Main: Neoprene® Internal: Buna-N |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

INTELLIGENT CONNECTION TECHNOLOGY

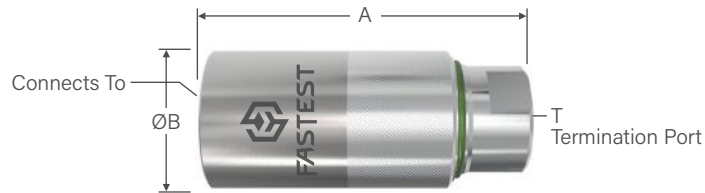
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 SurConnect™ - Green to go visible indicator to ensure complete connection and internally valved to prevent gas flow once disconnected
- 2 Instant external threaded connection with floating piston to ensure proper face / ID sealing position
- 3 Collet design locks securely into external threads or behind the threads
- 4 Connect and seal to NPT male threads
- 5 Stainless steel components for demanding production environments - brass collets for non-sparking

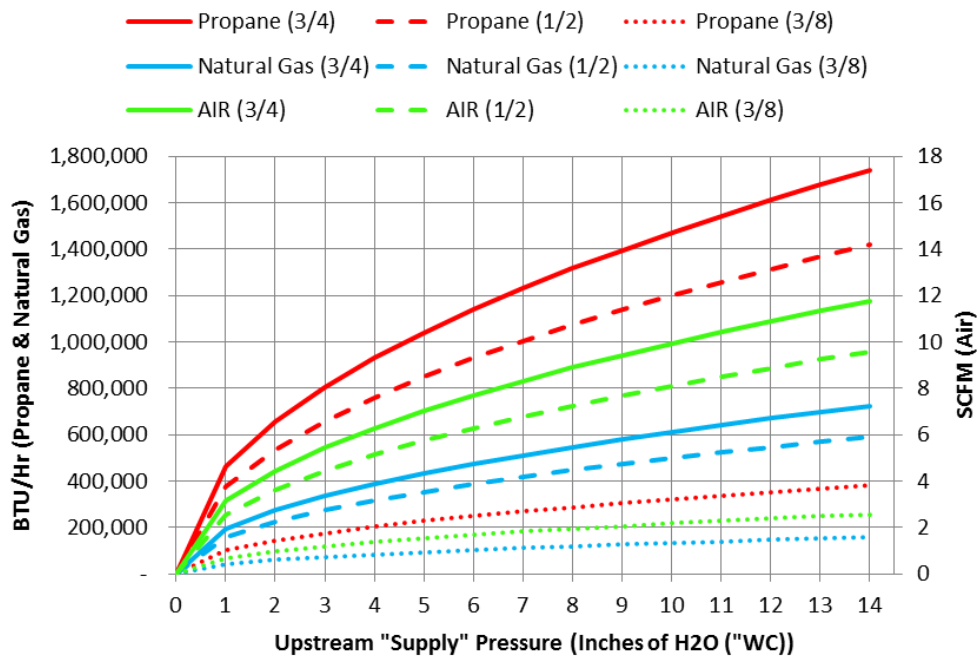
G60V / EXTERNAL GAS BURNER TESTING



| Ordering Information | | | | Dimensions | | |
|----------------------|-------------|---------------------------------|-------------|-------------|-------------|---------|
| Connects To | Part Number | Replacement Seals Bulk Pack (5) | Rebuild Kit | A | B | T |
| 3/8 NPT | G60V1T06 | SZF4 | G60VR06 | 3.11 (79.0) | 1.38 (35.0) | 3/8 NPT |
| 1/2 NPT | G60V1T08 | SZF5 | G60VR08 | 3.31 (84.1) | 1.58 (40.1) | 1/2 NPT |
| 3/4 NPT | G60V1T12 | SZF7 | G60VR12 | 3.54 (90.0) | 1.78 (45.2) | 3/4 NPT |

Dimensions: inch (mm)

GasMate GZNV Family Flow Capacity



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

XT / HVAC-R EXTERNAL SEALING CONNECTION TOOL

Sleeve actuated ball grip connection tool for expanded refrigeration tubes.

CONNECTS TO:

Expanded



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Connection Profile |
|---|-----------------------------------|--------------------|
| 10 mtorr (micron) to 625 psi (43 bar) | -40°F to +250°F (-40°C to +121°C) | Expanded Tubes |
| Housing Material | | |
| Connector - Black Oxide Steel SurConnect™ - Aluminum | | |
| Termination Profile | | Seal Material* |
| 1/4 NPT | | Neoprene® |

* More seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

ICON™ TECHNOLOGY

Consult Factory

ACCESSORIES

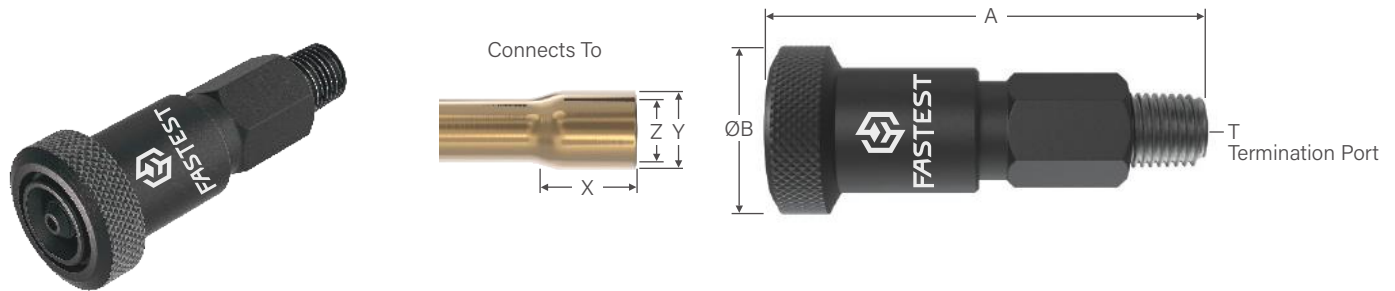


The SurConnect™ Advantage

- Green ring indicates a secure connection, improving safety by preventing accidental disconnects.
- Easily installed on existing XT Connectors or available fully assembled.
- Aluminum light weight.
- Color coded by size for easy recognition.

- 1 Sleeve locks under pressure to prevent accidental disconnection
- 2 Instant connection for copper and aluminum flared tubes commonly used in refrigeration
- 3 Connects to a broad range of flared ends including rough cut ends
- 4 Deep vacuum capabilities down to 10 millitorr (micron)
- 5 Quick and easy seal replacement to minimize down time, maintenance, and tool inventory

XT / HVAC-R EXTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | | | | | Dimensions | | | |
|----------------------|-------------------------|---------------------|---------------------|-------------|------------------------------------|-------------|------------|---|---|--------|
| Connects To | | | | Part Number | Replacement Seals Bulk Pack (5) | Rebuild Kit | A | B | T | Flow Ø |
| Tube Size | Flare Length (Dim X) | Flare OD (Dim Y) | Flare ID (Dim Z) | | | | | | | |

XT | Sleeve Actuated Connectors for Expanded Tubes

| | | | | | | | | | | |
|------|-------------------------------|-------------|-------------|---------|-------|-------|----------------|-------------|------------|------------|
| 5/16 | 0.30 to 1.00 (7.6 to 25.4) | 0.44 (11.2) | 0.31 (7.9) | XT05042 | XTB05 | XTR05 | 3.23 (82.0) | 1.19 (30.2) | 1/4 NPT | .062 (1.6) |
| 3/8 | | 0.50 (12.7) | 0.37 (9.4) | XT06042 | XTB06 | XTR06 | 3.31 (84.1) | 1.25 (31.8) | | 0.12 (3.1) |
| 1/2 | | 0.63 (15.9) | 0.49 (12.4) | XT08042 | XTB08 | XTR08 | | 1.37 (34.8) | | 0.22 (5.6) |
| 5/8 | | 0.73 (18.5) | 0.62 (15.7) | XT10042 | XTB10 | XTR10 | 3.33 (84.6) | 1.50 (38.1) | | 0.25 (6.4) |
| 3/4 | 0.37 to 1.00 (9.4 to 25.4) | 0.86 (21.8) | 0.74 (18.8) | XT12042 | XTB12 | XTR12 | | 1.62 (41.2) | | 0.27 (6.9) |
| 7/8 | | 0.99 (25.1) | 0.87 (22.1) | XT14042 | XTB14 | XTR14 | | 1.72 (43.7) | | 0.28 (7.1) |

Dimensions: inch (mm)

NOTE: Not recommended for water dunk applications.

| Ordering Information | | | | |
|----------------------|--------------------------------|---------------------|--------------------------------------|-----|
| Connects To | SurConnect™ Kit Part Number | XT with SurConnect™ | XT with SurConnect™ & Process Tip | Tip |

XT WITH SURCONNECT™ | Sleeve Actuated Connectors for Expanded Tubes with Additional Safety Feature

| | | | | |
|-----|----------|-------------|---------------|-------------|
| 3/8 | XT06SHR3 | XT06042SHR3 | XT06042SHR3H4 | 1/4 Hansen® |
| | | | XT06042SHR3P4 | 1/4 PCU® |
| | | | XT06042SHR3H6 | 3/8 Hansen® |
| | | | XT06042SHR3P6 | 3/8 PCU® |
| 3/4 | XT12SHR2 | XT12042SHR2 | XT12042SHR2H4 | 1/4 Hansen® |
| | | | XT12042SHR2P4 | 1/4 PCU® |
| | | | XT12042SHR2H6 | 3/8 Hansen® |
| | | | XT12042SHR2P6 | 3/8 PCU® |
| 7/8 | XT14SHR1 | XT14042SHR1 | XT14042SHR1H4 | 1/4 Hansen® |
| | | | XT14042SHR1P4 | 1/4 PCU® |
| | | | XT14042SHR1H6 | 3/8 Hansen® |
| | | | XT14042SHR1P6 | 3/8 PCU® |

NOTE: Not recommended for water dunk applications.



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

ST / HVAC-R EXTERNAL SEALING CONNECTION TOOL

Sleeve actuated grip and seal connection tool for straight tubes in refrigeration.

CONNECTS TO:

Straight



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|--|-----------------------------------|---------------------------|
| 10 mtorr (micron) to 1000 psi (69 bar) | -40°F to +250°F (-40°C to +121°C) | Black Oxide Steel |
| Termination Port | | Seal Material* |
| 1/4 NPT | | Neoprene® |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy sleeve action is ergonomic and eliminates repetitive twisting and turning. Pull to connect, push to release.

ICON™ TECHNOLOGY

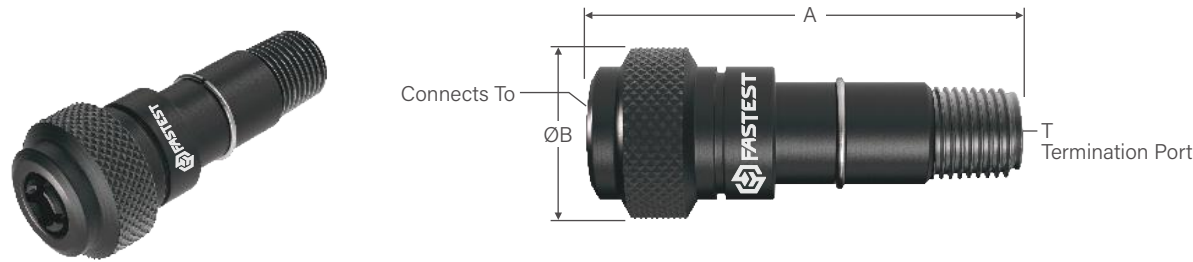
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 Pressure assisted sealing eliminates leaks and resists movement under pressure
- 2 Instant connection for copper, steel, and aluminum tubes commonly used in refrigeration
- 3 Designed specifically for the demanding requirements of the refrigeration industry
- 4 Deep vacuum capabilities down to 10millitorr (micron)
- 5 Quick and easy seal replacement to minimize down time, maintenance, and tool inventory

ST / HVAC-R EXTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | | Dimensions | | | |
|------------------------------|----------------|------------------------------------|--------------|-------------|-------------|---------|--------------------|
| Connects To +0.015/-0.010 | Part Number | Replacement Seals Bulk Pack (5) | Rebuild Kit* | A | B | T | Insertion Depth |
| 0.250 (6.4) | ST04042 | STB04 | STC04 | 2.75 (69.9) | 1.14 (29.0) | 1/4 NPT | 0.62 (15.7) |
| 0.312 (7.9) | ST05042 | STB05 | STC04 | | 1.19 (30.2) | | |
| 0.375 (9.5) | ST06042 | STB06 | STC04 | 3.23 (82.0) | 1.50 (38.1) | | 0.75 (19.1) |

Dimensions: inch (mm)

*Includes complete collet set.

Additional sizes available, contact factory.



RQD / HVAC-R EXTERNAL SEALING CONNECTION TOOL

External sealing connection tool for attachment to Hansen® and PCU® tips under pressure.

CONNECTS TO:

Hansen® Tips PCU® Tips



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|----------------------------|-----------------------------------|---------------------------|
| Vacuum to 750 psi (52 bar) | -40°F to +250°F (-40°C to +121°C) | Black Oxide Steel |
| Termination Port | | Seal Material* |
| 1/4 or 3/8 NPT | | Neoprene® |

* Additional seal material types available, consult factory.

- i** Designed for ISO 7241-1 Series B coupling "Tips"
- i** RQD can mate with, but not limited to, the following brands: Parker® 60, PCU® 250 & 410, Hansen® HK, SABE® IB Series (China), AeroQuip® FD45, Faster® HNV Series, Snap-Tite® 72 series, Stucchi® IRB, Perfecting® H Series, Safeway® S10 Series, Tomco® H Series, Cejn® X75, Foste'r HX-S, and Nitto® 250.

ACTUATION METHOD

Sleeve / Lever Handle: Easy sleeve connection is ergonomic and eliminates repetitive twisting and turning, cam over lever handle opens poppets under pressure

ICON™ TECHNOLOGY

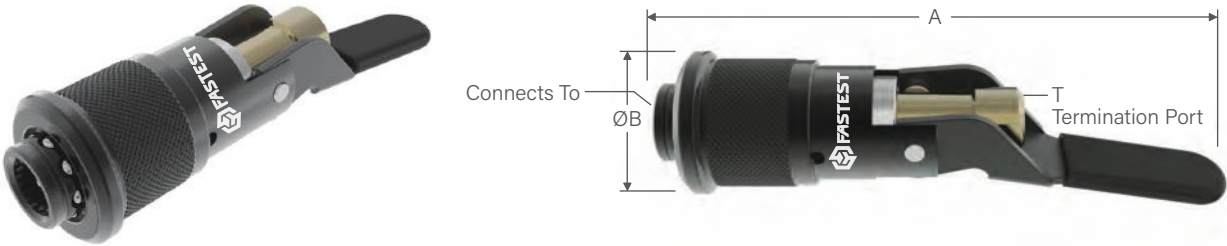
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1** Sleeve lock connection prior to pressure engagement minimizes force to connect through handle activation
- 2** Connects and vents even under pressure using lever handle to keep refrigerant away from the operator
- 3** Internal HTPE seal to keep refrigerant from exhausting back onto operator
- 4** Internal poppet style seal for dry refrigerant operation
- 5** Minimal maintenance required

RQD / HVAC-R EXTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | | Dimensions | | | |
|----------------------|-------------|---------------------------------|-------------|------------|---|---|---|
| Connects To | Part Number | Replacement Seals Bulk Pack (5) | Rebuild Kit | A | B | C | D |

RQD | Lever Action Style for PCU* Tips

| | | | | | | | |
|---------------------------|--------|---------|--------|-------------|--------------|--------------|---------|
| 1/4 PCU*— Model 64 Tip | KA04PA | KSA04 | KR04A | 1.75 (44.5) | 4.39 (111.5) | 7.00 (177.8) | 1/4 NPT |
| 1/4 PCU*— Model 61 Tip | KA04PB | KSM04 | KR04 | | | | |
| 3/8 PCU*— Model 78 Tip | KA06PA | KSM06PB | KR06PA | 1.95 (49.5) | 4.54 (115.3) | 7.00 (177.8) | 3/8 NPT |
| 3/8 PCU*— Model 66 Tip | KA06PB | KSM06PB | KR06PB | | | | |

RQD | Lever Action Style for Hansen* Tips

| | | | | | | | |
|----------------|--------|---------|--------|-------------|--------------|--------------|---------|
| 1/4 Hansen* 2K | KA04HB | KSM04 | KR04 | 1.75 (44.5) | 4.39 (111.5) | 7.00 (177.8) | 1/4 NPT |
| 3/8 Hansen* 3K | KA06HB | KSM06HB | KR06HB | 1.95 (49.5) | 4.54 (115.3) | | 3/8 NPT |

Dimensions: inch (mm)



SNAPMATE / EXTERNAL SEALING CONNECTION TOOL

Sleeve actuated external grip and seal connection tool for CoreMax® and Schrader® flare connections.

CONNECTS TO:

45° Flare



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|----------------------------|-----------------------------------|---------------------------|
| Vacuum to 625 psi (43 bar) | -40°F to +250°F (-40°C to +121°C) | Stainless Steel, Brass |
| Termination Port | | Seal Material* |
| -4 [7/16-20] 45° Flare | | Neoprene® |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

ICON™ TECHNOLOGY

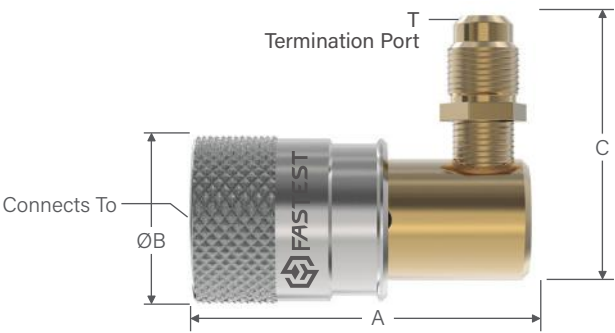
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 Internally valved for refrigerant containment upon disconnection
- 2 Collet design locks securely into CoreMax® and common Schrader® valves with 1/4 45° Flare with 7/16-20 thread
- 3 Compact size fits into tight spaces
- 4 90° termination port for best ergonomics of small connection tool
- 5 Quick and easy seal replacement to minimize down time, maintenance, and tool inventory

SNAPMATE / EXTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | | Dimensions | | | |
|--------------------------------------|-------------|---------------|------------|-------------|-------------|-------------|---------------------------|
| Connects To | Part Number | Main Seal Set | Repair Kit | A | B | C | T |
| CoreMax -4 [7/16-20] 45° Flare | SCTA07H | SCBA07H | SCRA07H | 0.93 (23.6) | 1.94 (49.3) | 1.51 (38.3) | -4 [7/16-20] 45° Flare |

Dimensions: inch (mm)



MBE/MRE / HVAC-R EXTERNAL SEALING CONNECTION TOOL

Sleeve actuated external grip and seal connection tools that latches over tube features.

CONNECTS TO:

Expanded CoreMax Seat



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|----------------------------|-----------------------------------|---------------------------|
| Vacuum to 625 psi (43 bar) | -40°F to +250°F (-40°C to +121°C) | Stainless Steel |
| Termination Port | | Seal Material* |
| 1/4 to 1-1/4 NPT | | Neoprene® |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Manual Sleeve: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

ICON™ TECHNOLOGY

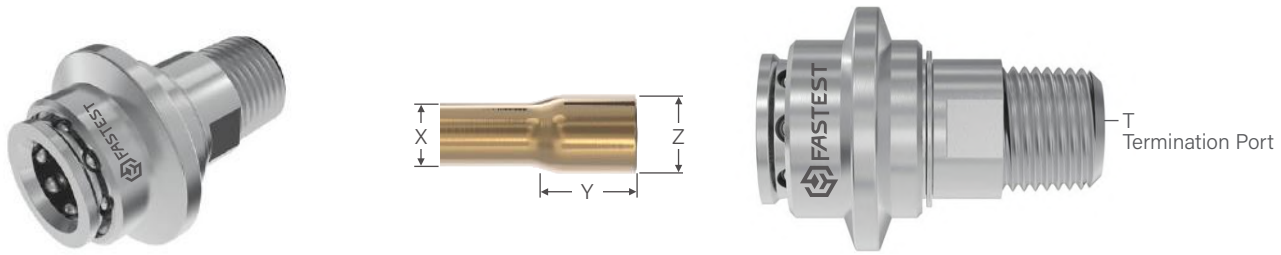
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 Sleeve locks under pressure to eliminate disconnection under pressure
- 2 MBE - ball latch and MRE - ring latch over tube features such as flare or bead
- 3 Straight through flow for full flow requirements
- 4 Quick and easy seal replacement to minimize down time, maintenance, and tool inventory

MBE/MRE / HVAC-R EXTERNAL SEALING CONNECTION TOOL



| Ordering Information | | | | | Dimensions | |
|----------------------|----------------|-------------|-------------------------------|--------------------|-------------|--------------|
| Connects To | | | Replacement Seals Pack (5) | Rebuild Kit | Termination | Flow Dia. |
| Tube ØX | Flare Length Y | Flare ØZ | | | | |
| 0.25 (6.4) | 0.20 (5.1) | 0.32 (8.0) | Consult Factory | Consult Factory | 1/4 NPT | 0.19 (4.8) |
| 0.31 (7.9) | 0.27 (6.9) | 0.38 (9.7) | | | | 0.25 (6.3) |
| 0.38 (9.7) | 0.35 (8.9) | 0.44 (11.3) | | | 3/8 NPT | 0.31 (7.9) |
| 0.50 (12.7) | 0.45 (11.4) | 0.57 (14.5) | | | | 0.44 (11.1) |
| 0.63 (16.0) | 0.53 (13.5) | 0.70 (17.8) | | | | 0.56 (14.1) |
| 0.75 (19.1) | 0.68 (17.3) | 0.84 (21.3) | | | 3/4 NPT | 0.67 (16.9) |
| 0.88 (22.4) | 0.79 (20.1) | 0.97 (24.6) | | | | 0.79 (19.9) |
| 1.00 (25.4) | 0.83 (21.1) | 1.12 (28.5) | | | 1 NPT | 0.94 (23.9) |
| 1.13 (28.7) | 1.13 (28.7) | 1.23 (31.3) | | | 1-1/4 NPT | 1.03 (26.0) |
| 1.38 (35.1) | 1.40 (35.6) | 1.49 (37.9) | | | | 1.27 (32.1) |

Dimensions: inch (mm)

How to Order

The MBE and MRE Series connectors are designed for mechanical gripping on expanded tubing. Connectors are designed, engineered and manufactured to your specific application requirements.

For part number and a price quotation:

- 1) Identify the gripping and sealing areas of your test piece.
- 2) Contact FasTest with information on test pressure, media and provide detailed drawing, including tolerances of test piece.



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

ME / MEDICAL-LIFE SCIENCES SEALING CONNECTION TOOL

Pneumatic external sealing of medical devices in automated and semi-automated processes.

CONNECTS TO:



SPECIFICATIONS

| Pressure Rating | Pilot Pressure | Operating Temperatures** |
|----------------------------|-------------------------|--|
| Vacuum to 500 psi (34 bar) | 60-90 psi (4.1-6.2 bar) | 0°F to +200°F (-17°C to +93°C) |
| Termination Port | Materials of | Seal Material* |
| 1/8 FNPT | Anodized Aluminum | ME001: FDA approved FKM ME01: FDA White Neoprene* |

* Additional seal material types available, consult factory.
** Operating Temp: 32°F-100°F (0°C-38°C) for ICON™

- i** Pilot pressure required.
- All parts are washed in an aqueous solution utilizing ultrasonic agitation at a temperature of 140°F. Components are then rinsed in a cascading rinse tank and dried using 99.999% pure nitrogen and assembled in a 100,000ppm level controlled environment.
- Krytox is the standard lubricant.
- White FDA Neoprene seal material is compliant to 21CFR177.2600. Optional material is a FDA listed fluorocarbon..

- 1 Connector and test part should be rigidly fixtured to prevent seperation when under pressure
- 2 Ideally designed for automated processes and high volume production testing
- 3 Seals against standard luers, catheter, tubes and other cylindrical components
- 4 Cleaned and lubricated for oxygen safe environment with FDA approved seals
- 5 Quick and easy seal replacement to minimize down time, maintenance and tool inventory

ACTUATION METHOD

Pneumatic: pilot pressure applied to seals with no metal contact and uniform seal movement seals inside luer

ICON™ TECHNOLOGY

- SURE SEAL™
- SEAL LIFE™

ACCESSORIES

SEE PG. 85



ICON™

INTELLIGENT CONNECTION TECHNOLOGY

FasTest's ICON™ adds sensing capabilities to our mechanical Sealing Connection Tools. ICON™ Tools include instant LED visual feedback and data output to improve sealing connection accuracy, maximize production efficiency, and optimize maintenance.



ICON™ features:



SURE SEAL™

Instant LED feedback verifies a good connection prior to starting a test.



SEAL LIFE™

Alert when the main seal is at end of life and must be replaced.

How To Add ICON™ to ME

| Signal Output | Part Number Suffix | Example |
|-------------------------------------|--------------------|-------------|
| ME without ICON™ | None | ME01 |
| ME with ICON™; Analog Output Signal | CV04ANA | ME01CV04ANA |
| ME with ICON™; Solid State Relay | CV04SSR | ME01CV04SSR |

System Overview:

CONNECTED

Green indication of a good connection.

RECONNECT

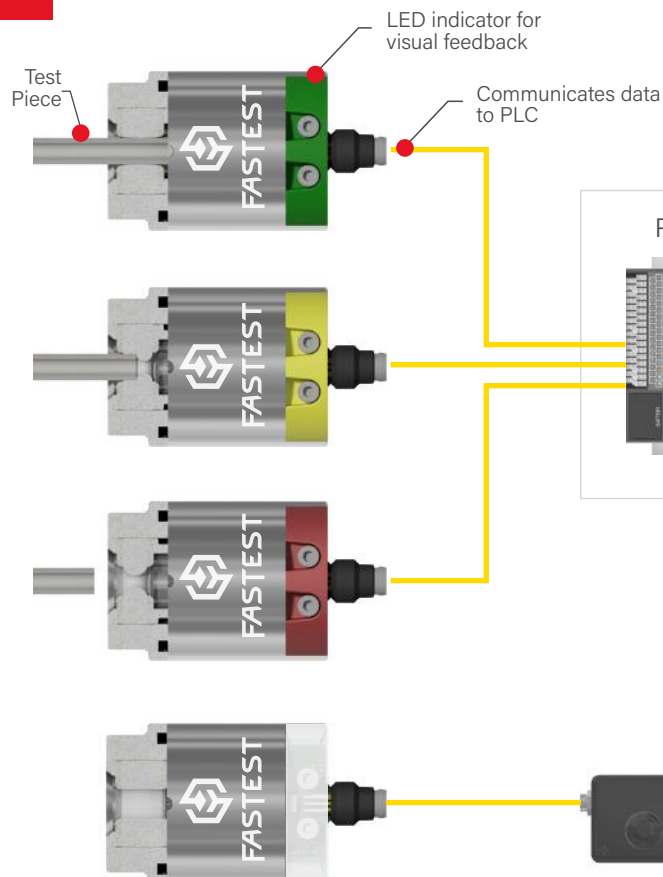
Recognize a connection issue before causing a false failure.

WORN SEAL

Alert when main seals should be replaced.

PICK TOOL

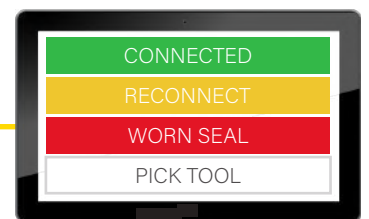
Controllable LED signals operator to use specific tool.



User's System

PLC

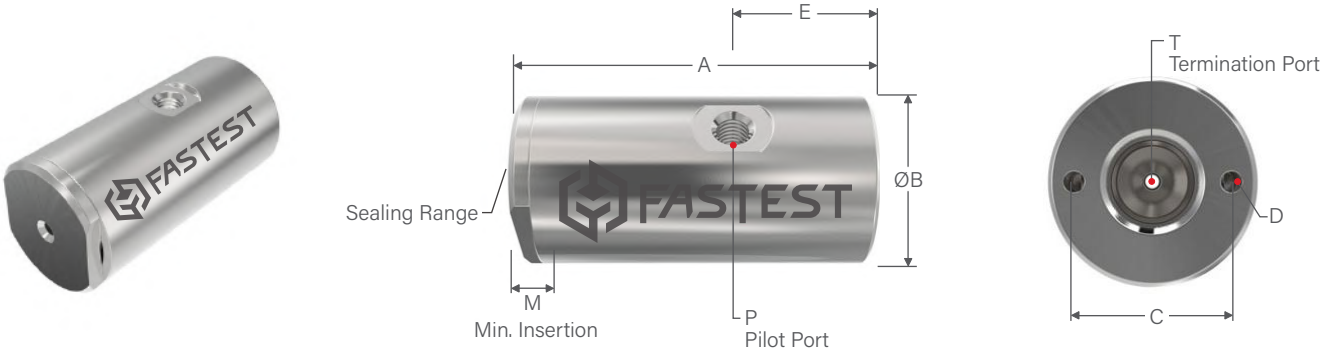
HMI



PROGRAMMING TOOL

- Quickly setup ICON™ Tools
- Eliminate the need for PLC programming
- Can be powered from wall adapter (included) or from a PLC (24VDC)

ME / MEDICAL-LIFE SCIENCES SEALING CONNECTION TOOL



| Ordering Information | | | | Dimensions | | | | | | | |
|----------------------|-------------|----------------------------|-------------|------------|---|---|---|---|---|---|---|
| Sealing Range | Part Number | Replacement Seals Pack (5) | Rebuild Kit | A | B | C | D | E | M | P | T |

ME | Imperial Mounting Holes and Pilot Ports

| | | | | | | | | | | | |
|----------------------------------|-----------|------------|--------|----------------|----------------|----------------|-------------|----------------|---------------|--------------|------------|
| 0.015 to 0.030 (0.38 to 0.80) | ME0010030 | MEB0010030 | MER001 | 1.72 (43.7) | 0.84 (21.3) | 0.63 (16.0) | 4-40 UNC | 0.72 (18.3) | 0.16 (4.1) | 10-32 UNF | 1/8 NPT |
| 0.030 to 0.050 (0.80 to 1.30) | ME0010050 | MEB0010050 | | | | | | | | | |
| 0.050 to 0.080 (1.30 to 2.00) | ME0010001 | MEB0010001 | | | | | | | | | |
| 0.080 to 0.130 (2.00 to 3.30) | ME0010002 | MEB0010002 | | | | | | | | | |

ME | Metric Mounting Holes and Pilot Ports

| | | | | | | | | | | | |
|----------------------------------|-------------|------------|--------|----------------|----------------|----------------|------|----------------|---------------|----|--------------------|
| 0.015 to 0.030 (0.38 to 0.80) | MEM0010030M | MEB0010030 | MER001 | 1.72 (43.7) | 0.84 (21.3) | 0.63 (16.0) | M2.5 | 0.72 (18.3) | 0.16 (4.1) | M5 | 1/8 BSPP (G) |
| 0.030 to 0.050 (0.80 to 1.30) | MEM0010050M | MEB0000050 | | | | | | | | | |
| 0.050 to 0.080 (1.30 to 2.00) | MEM001001M | MEB0010001 | | | | | | | | | |
| 0.080 to 0.130 (2.00 to 3.30) | MEM001002M | MEB0010002 | | | | | | | | | |

Dimensions: inch (mm)



*Dimension only applies to ME with ICON™ Technology
(Base Part Numbers that include "CV04ANA" or "CV04SSR").

| Ordering Information (Complete Connector = Main Seal Set + Base Part Number) | | | | | Dimensions | | | | | | |
|---|----------------|----------------------------|-------------------------------|-------------|------------|---|---|---|---|---|---|
| Sealing Range | Main Seal Set* | Base Connector Part Number | Replacement Seals Package (5) | Rebuild Kit | A | B | C | D | M | P | T |

ME | Imperial Mounting Holes and Pilot Ports

| | | | | | | | | | | | |
|----------------------------------|---------|--------------------------------------|---------|-------|----------------|----------------|----------------|--------------|----------------|--------------|------------|
| 0.100 to 0.180 (2.5 to 4.6) | MES0101 | ME01 MEM01CV04ANA MEM01CV04SSR | MEB0101 | MER01 | 2.05 (52.1) | 1.49 (37.9) | 1.10 (27.9) | 10-32 UNF | 0.58 (14.7) | 10-32 UNF | 1/8 NPT |
| 0.180 to 0.260 (4.6 to 6.6) | MES0102 | | MEB0102 | | | | | | | | |
| 0.260 to 0.340 (6.6 to 8.6) | MES0103 | | MEB0103 | | | | | | | | |
| 0.340 to 0.420 (8.6 to 10.7) | MES0104 | | MEB0104 | | | | | | | | |
| 0.420 to 0.510 (10.7 to 13.0) | MES0105 | | MEB0105 | | | | | | | | |

ME | Metric Mounting Holes and Pilot Ports

| | | | | | | | | | | | |
|----------------------------------|---------|---------------------------------------|---------|-------|----------------|----------------|----------------|----|----------------|----|--------------------|
| 0.100 to 0.180 (2.5 to 4.6) | MES0101 | MEM01 MEM01CV04ANA MEM01CV04SSR | MEB0101 | MER01 | 2.05 (52.1) | 1.49 (37.9) | 1.10 (27.9) | M5 | 0.58 (14.7) | M5 | 1/8 BSPP (G) |
| 0.180 to 0.260 (4.6 to 6.6) | MES0102 | | MEB0102 | | | | | | | | |
| 0.260 to 0.340 (6.6 to 8.6) | MES0103 | | MEB0103 | | | | | | | | |
| 0.340 to 0.420 (8.6 to 10.7) | MES0104 | | MEB0104 | | | | | | | | |
| 0.420 to 0.510 (10.7 to 13.0) | MES0105 | | MEB0105 | | | | | | | | |

Dimensions: inch (mm)

*Includes seals(s) and metal parts for one complete seal change.

| *How To Add ICON™ to ME | | |
|-------------------------------------|--------------------|-----------------------|
| Signal Output | Part Number Suffix | Example |
| ME without ICON™ | None | ME0101 |
| ME with ICON™: Analog Output Signal | CV04ANA | ME0101 CV04ANA |
| ME with ICON™: Solid State Relay | CV04SSR | ME0101 CV04SSR |



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

ML / MEDICAL-LIFE SCIENCES SEALING CONNECTION TOOL

Pneumatic nested sealing connection tool for full thread luers in automated and semi-automated processes.

CONNECTS TO:

Luers



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|------------------------------|--------------------------------|---------------------------|
| Vacuum to 500 psi (34.4 bar) | 0°F to +200°F (-17°C to +93°C) | Anodized Aluminum |
| Termination Port | | Seal Material* |
| 1/8 FNPT | | FDA approved FKM |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Pneumatic: pilot pressure applied to seals with no metal contact and uniform seal movement seals inside luer

ICON™ TECHNOLOGY

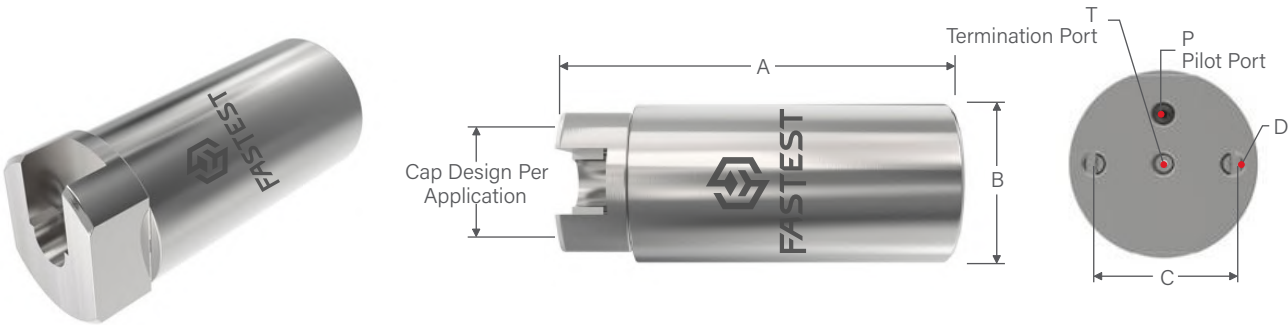
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 Specially designed leur nest to contain test part under pressure
- 2 Ideally designed for automated processes and high volume production testing
- 3 Seals against any full thread standard luers
- 4 Cleaned and lubricated for oxygen safe environment with FDA approved seals

ML / MEDICAL-LIFE SCIENCES SEALING CONNECTION TOOL



| Ordering Information | | | | Dimensions | | | | | |
|----------------------|-------------|---------------|-------------|------------|---|---|---|---|---|
| Sealing Range | Part Number | Main Seal Set | Rebuild Kit | A | B | C | D | P | T |

Medical Luer (ML) Connectors | Imperial Mounting Holes and Pilot Ports

| | | | | | | | | | |
|---------------|-------|-----------------|--------|-----------------------|-------------|-------------|----------|-----------|---------|
| Sized to Part | ML001 | Consult Factory | MER001 | Application Dependent | 0.84 (21.3) | 0.63 (16.0) | 4-40 UNC | 10-32 UNF | 1/8 NPT |
|---------------|-------|-----------------|--------|-----------------------|-------------|-------------|----------|-----------|---------|

Medical Luer (ML) Connectors | Metric Mounting Holes and Pilot Ports

| | | | | | | | | | |
|---------------|-------|-----------------|--------|-----------------------|-------------|-------------|------|----|--------------|
| Sized to Part | ML001 | Consult Factory | MER001 | Application Dependent | 0.84 (21.3) | 0.63 (16.0) | M2.5 | M5 | 1/8 BSPP (G) |
|---------------|-------|-----------------|--------|-----------------------|-------------|-------------|------|----|--------------|

Dimensions: inch (mm)

Luer Specifications: ISO 594

- NOTE:** The Medical Luer “ML Series” connectors are designed to your specific application requirements.
- All parts are washed in an aqueous solution utilizing ultrasonic agitation at a temperature of 140°F. Components are then rinsed in a cascading rinse tank and dried using 99.999% pure nitrogen and assembled in a 100,000ppm level controlled environment.
Krytox is the standard lubricant.

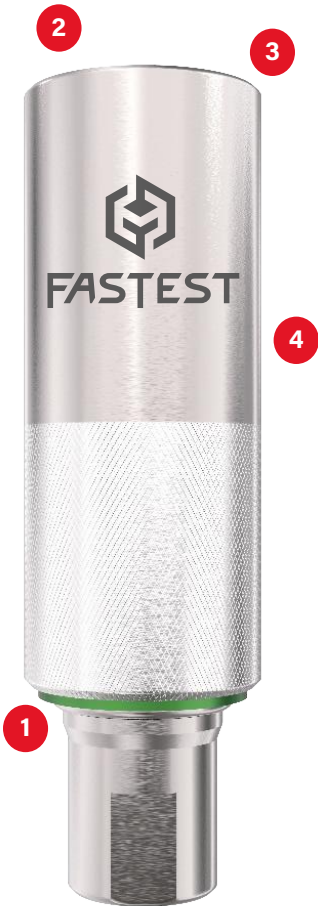


60M / MEDICAL-LIFE SCIENCES SEALING CONNECTION TOOL

Sleeve actuated external grip and seal connection tool for medical luer

CONNECTS TO:

Luer



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|------------------------------|------------------------------|------------------------------------|
| Vacuum to 750 psi (51.7 bar) | 0°F to +200°F (0°C to +93°C) | Stainless Steel, Anodized Aluminum |
| Termination Port | | Seal Material* |
| 1/8 FNPT | | FDA approved FKM seals |

* Additional seal material types available, consult factory.

ACTUATION METHOD

Sleeve Actuated: Easy, ergonomic sleeve action eliminates repetitive twisting and turning - push to connect, pull to release

ICON™ TECHNOLOGY

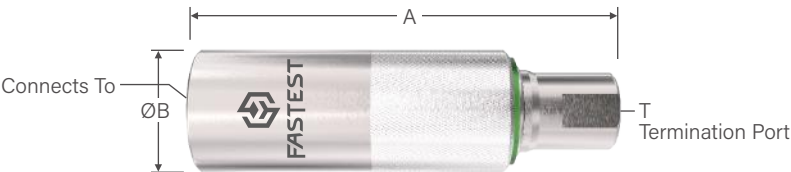
Consult Factory

ACCESSORIES

Visit fastestinc.com

- 1 SurConnect™ - Green to go visible indicator to ensure complete connection
- 2 Instant external threaded connection with floating piston to ensure proper ID sealing position
- 3 Seals against any full and partial threaded standard luers
- 4 Cleaned and lubricated for oxygen safe environment with FDA approved seals


60M / MEDICAL-LIFE SCIENCES SEALING CONNECTION TOOL



| Ordering Information | | | | Dimensions | | |
|----------------------|-------------|---------------------------------|-------------|-------------|-------------|---------|
| Connects To | Part Number | Replacement Seals Bulk Pack (5) | Rebuild Kit | A | B | T |
| 60M Luers | | | | | | |
| Luer | 60MP0340 | S60MP0340 | R60MP0340 | 2.92 (74.2) | 0.88 (22.5) | 1/8 NPT |

Dimensions: inch (mm)

Luer Specifications: ISO 594

-  All parts are washed in an aqueous solution utilizing ultrasonic agitation at a temperature of 140°F. Components are then rinsed in a cascading rinse tank and dried using 99.999% pure nitrogen and assembled in a 100,000 ppm level controlled environment.
- Krytox is the standard lubricant.
- Components are double bagged for shipping integrity.



MLL / MEDICAL-LIFE SCIENCES SEALING CONNECTION TOOL

Pneumatic sealing connection tool for external sealing of luers in automated and semi-automated processes.

CONNECTS TO:



- 1 Pilot operated low pressure expanding seal against luer OD's
- 2 Compact design with low particulate generation
- 3 Cleaned and lubricated for oxygen safe environment with FDA approved seals
- 4 Self aligning connector requires no operator adjustment

i All parts are washed in an aqueous solution utilizing ultrasonic agitation at a temperature of 140°F. Components are then rinsed in a cascading rinse tank and dried using 99.999% pure nitrogen and assembled in a 100,000ppm level controlled environment.

Krytox is the standard lubricant.

Optional material is a FDA listed fluorocarbon.

Components are double bagged for shipping integrity.



SPECIFICATIONS

| Pressure Rating | Pilot Pressure | Operating Temperatures** |
|-----------------------------|------------------------------------|--------------------------------|
| Vacuum to 100 psi (6.9 bar) | 60-90 psi (4.1-6.2 bar) | 0°F to +200°F (-17°C to +93°C) |
| Termination Port | Materials of Construction | Seal Material* |
| 1/8 FNPT | Stainless Steel, Anodized Aluminum | Masterflex C-Flex R70 |

ACTUATION METHOD

Pneumatic: seals to external surface of luer when pilot pressure is applied

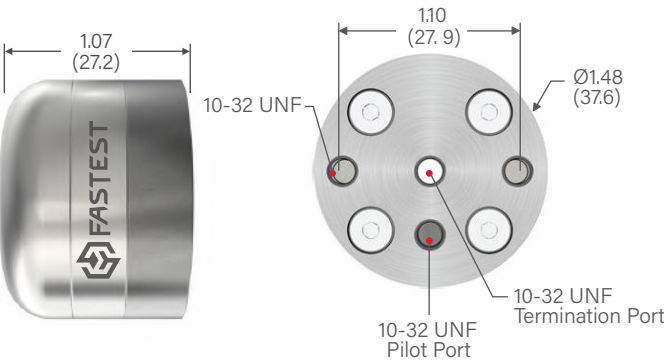
ICON™ TECHNOLOGY

Consult Factory

ACCESSORIES

Visit fastestinc.com

| Ordering Information | |
|----------------------|----------------------------|
| Part Number | Replacement Seals Pack (5) |
| MLL Luers | |
| MLL2001 | S6LT18120 |



MLH / MEDICAL-LIFE SCIENCES SEALING CONNECTION TOOL

Pneumatic sealing connection tool for sealing luers with full threads.

CONNECTS TO:



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|------------------------------|--------------------------------|------------------------------------|
| Vacuum to 500 psi (34.5 bar) | 0°F to +200°F (-17°C to +93°C) | Stainless Steel, Anodized Aluminum |
| Termination Port | | Seal Material* |
| 10-32 (M5) | | FDA approved FKM seals |

* Additional seal material types available, consult factory.

- 1 Nest designed for full thread luers
 - 2 Cleaned and lubricated for oxygen safe environment with FDA approved seals.*
 - 3 Self aligning connector requires no operator adjustment.
 - 4 Quick and easy seal replacement to minimize down time, maintenance and tool inventory
- i All parts are washed in an aqueous solution utilizing ultrasonic agitation at a temperature of 140°F. Components are then rinsed in a cascading rinse tank and dried using 99.999% pure nitrogen and assembled in a 100,000ppm level controlled environment.

Krytox is the standard lubricant.

FDA listed fluorocarbon seal material is compliant to 21CFR177.2600. Optional material is White FDA Neoprene*.

Components are double bagged for shipping integrity.

ACTUATION METHOD

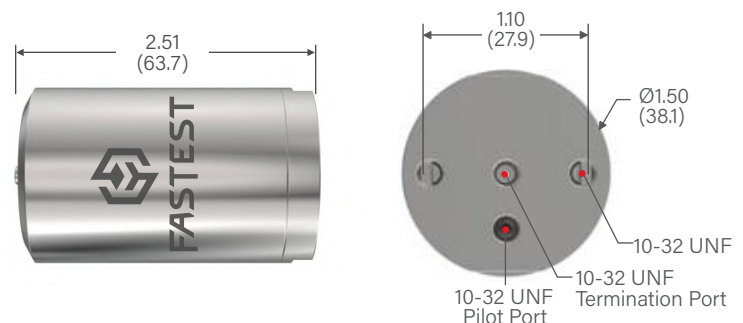
Pneumatic: seals to external surface of luer when pilot pressure is applied

ICON™ TECHNOLOGY

Consult Factory

ACCESSORIES

Visit fastestinc.com



Ordering Information

| Part Number | Replacement Seals Pack (5) | Rebuild Kit |
|-------------|----------------------------|-------------|
| MLH2001 | S1001050B70FDA | MLHR2001 |

MLH | Luers with Full Threads



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.



COMPRESSED GAS





| PRODUCT SERIES | G346 | G540 | G540S | G580 | G590 | GBS3 |
|-----------------|--|-------------|---------|---|-------------|-------------|
| Gas Standard | CGA 346 | CGA 540 | CGA 540 | CGA 580 | CGA 590 | BS NO3 |
| GAS TYPE | Air | Oxygen | Oxygen | Inert and Inert Mixes (Argon, Helium, Nitrogen) | Air | Oxygen |
| Operation | Bail Handle | Bail Handle | Sleeve | Bail Handle | Bail Handle | Bail Handle |
| PRESSURE RATING | Vacuum 50 mtorr (micron) to 3600 psi (248 bar) | | | Vacuum 50 mtorr (micron) 3600 psi (248 bar) | | |

Yoke Connections



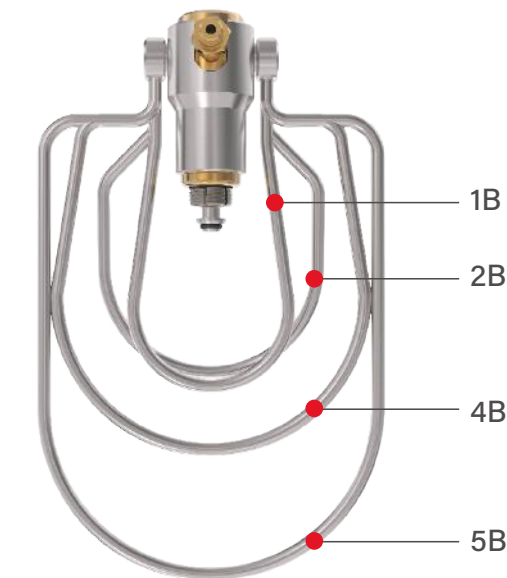
Specialty Connections



| G870 | G910 | G940 | 950 |
|--|------------------------------|-------------------------------|--------------|
| CGA 870 | CGA 910 | CGA 940 | CGA 950 |
| Oxygen | Nitrous Oxide (venting only) | Carbon Dioxide (Venting only) | Air |
| Lever Handle | Lever Handle | Lever Handle | Lever Handle |
| Vacuum 50 mtorr (micron) to 3600 psi (248 bar) | | | |

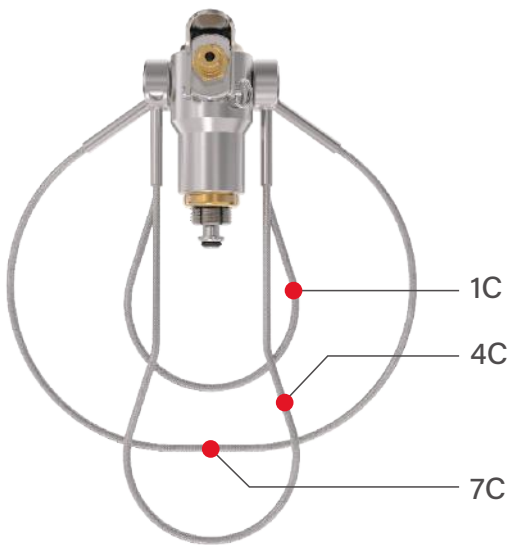
| HPG580 | G540WOB | CryoVent |
|---|---------------------------|--|
| CGA 580 | CGA 540 | RELIEF VALVES |
| High Purity Inert and Inert Mixes (Argon, Helium, Nitrogen) | Oxygen | Inert and Inert Mixes (Argon, Helium, Nitrogen) - Venting Only |
| Bail Handle | Bail Handle Pneumatic RPV | Sleeve |
| Vacuum 50 mtorr (micron) to 3600 psi (248 bar) | | Vacuum 30 mtorr (micron) 800 psi (55 bar) |

HANDLE OPTIONS



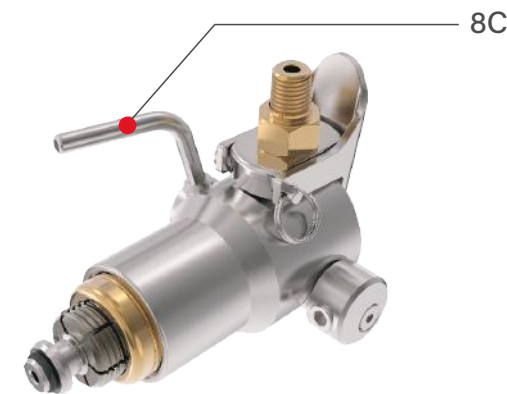
RIGID BAIL HANDLE

| | |
|----|--|
| 1B | Standard Valves |
| 2B | RPV Valves |
| 4B | Valve guards (not for use in palletized fill racks) |
| 5B | Large valve guard (not for use in palletized fill racks) |



CABLE HANDLE

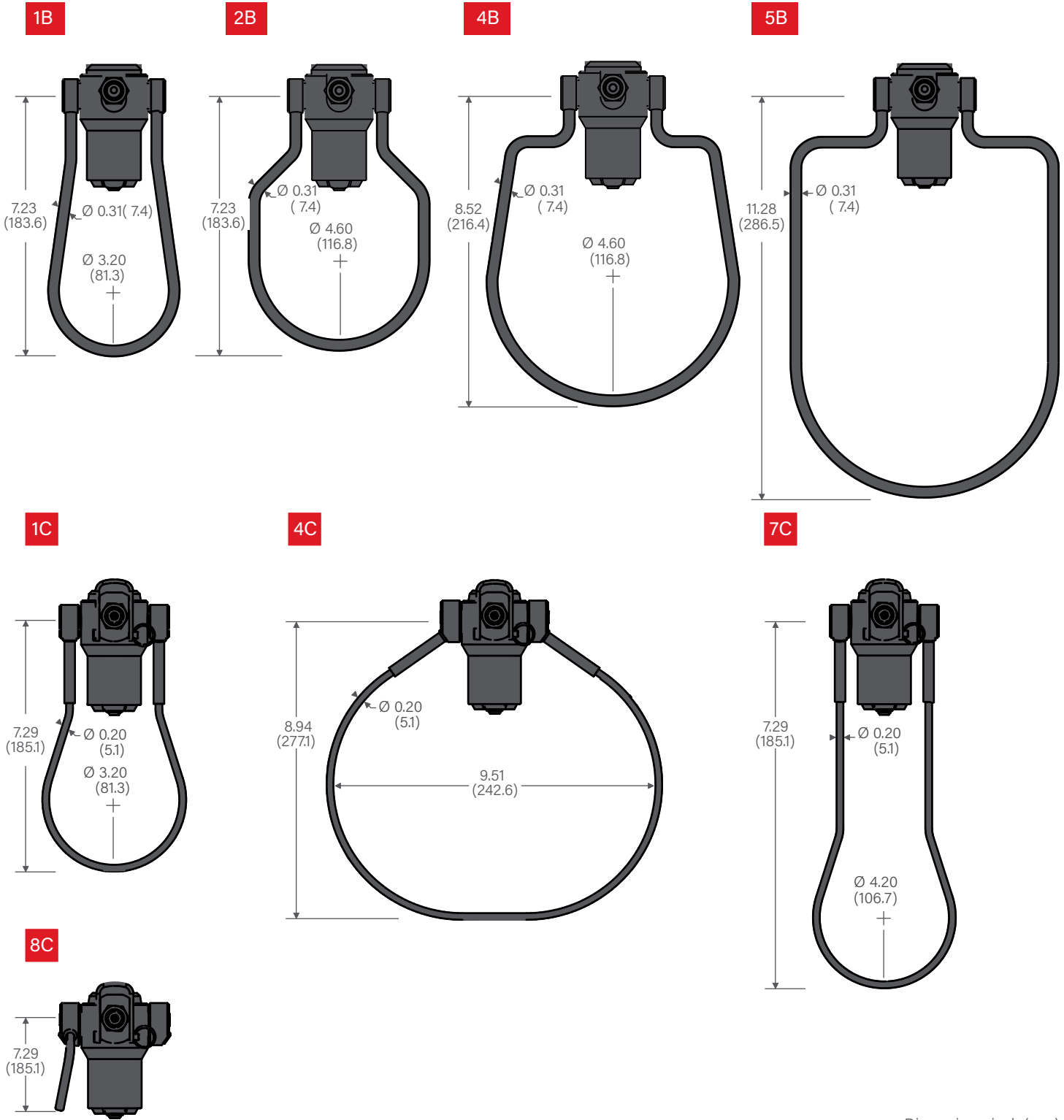
| | |
|----|------------------------------|
| 1C | Valve guards, 6 and 12 packs |
| 4C | Valve guards, 6 and 12 packs |
| 7C | Extra large valve guards |



LEVER HANDLE

| | |
|----|------------------------------|
| 8C | Valve guards, 6 and 12 packs |
|----|------------------------------|

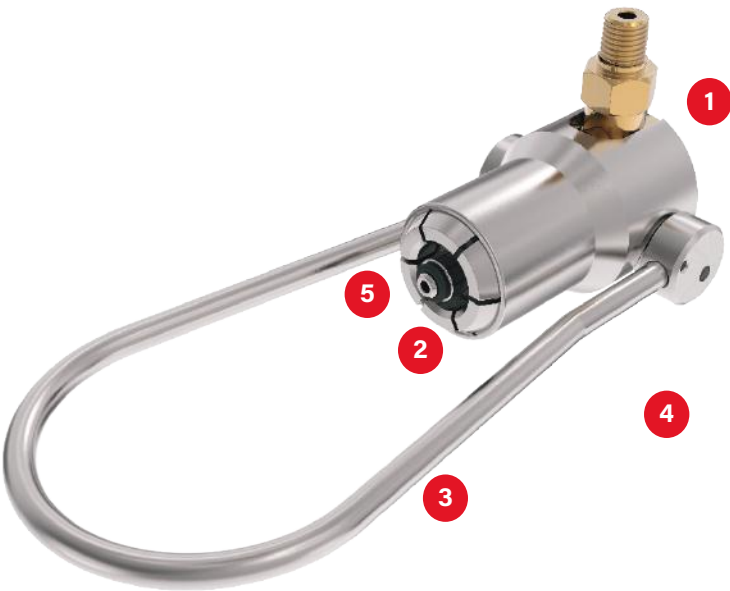
HANDLE DIMENSIONS



Dimensions: inch (mm)

EXTERNAL G-SERIES / COMPRESSED GAS CONNECTOR

Bail handle actuated external grip and seal connection tool for compressed gas processing applications.



- 1 Positive pressure safety latch to prevent removal under pressure
- 2 Instant connection to external thread with self-aligning internal floating piston for robust sealing
- 3 Ergonomic bail handle surrounds valve for added safety
- 4 G540S version specifically designed for self contained medical cylinders
- 5 Optional retractable RPV pin (G540 and G540S)



SPECIFICATIONS

| Pressure Rating* | Wetted Materials |
|--|---------------------------------------|
| Vacuum 50 mtorr (micron) to 3600 psi (248 bar) | Brass, 300 series SST, Monel, Inconel |
| Operating Temperatures | Seal Materials |
| 0°F to 140°F (-17°C to +60°C) | Teflon |
| Termination | Other Materials |
| 1/4 Male NPT | Brass, 300 series SST, FKM |

NOTE: BAM Tested. Cleaned for oxygen service
*Pressure rating per criteria of ASME B31.3.

HANDLE OPTIONS

Bail Handle, Cable Handle, Lever Handle

ACTUATION METHOD

Bail/Cable/Lever: Rotate handle with roller actuation.
Sleeve: Push to connect, pull to release.

G346



CONNECTS TO
CGA 346 Valves

GAS TYPE

Air

G540



CONNECTS TO
CGA 540 Valves

GAS TYPE

Oxygen

G540S

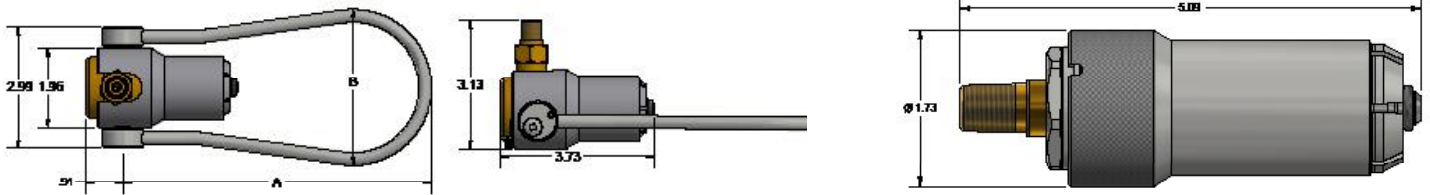


CONNECTS TO
CGA 540 Valves

GAS TYPE

Oxygen

G346 / G540 / G540S / EXTERNAL COMPRESSED GAS CONNECTOR



| Ordering Information | | | | | | | Dimensions | |
|----------------------|----------|-------------|-------------|---------------|--------------------|-----------------------|------------|---|
| Connects To | Gas Type | Part Number | Handle Type | RPV Pin (Y/N) | Main Seal Material | Main Seal Packs (QTY) | A | B |

CGA 346 | G-Series 346

| | | | | | | | | |
|---------|-----|------------|----|---|-----|---|---------------|--------------|
| CGA 346 | Air | G3460411BH | 1B | N | FKM | SG346 (5) SG346100 (100) SG346250 (250) SG346500 (500) | 7.41 (188.2) | 3.83 (97.3) |
| | | G3460411CH | 1C | N | | | 7.50 (190.5) | 3.75 (95.3) |
| | | G3460412BH | 2B | N | | | 7.21 (183.1) | 5.23 (132.8) |
| | | G3460414BH | 4B | N | | | 8.81 (223.8) | 7.23 (183.6) |
| | | G3460414CH | 4C | N | | | 10.75 (273.0) | 5.00 (127) |
| | | G3460418CH | 8C | N | | | -- | -- |

CGA 540 | G-Series 540

| | | | | | | | | |
|---------|--------|---------------|----|---|------|---|---------------|--------------|
| CGA 540 | Oxygen | G5400411BH | 1B | N | FKM | SG540 (5) SG540100 (100) SG540250 (250) SG540500 (500) | 7.41 (188.2) | 3.83 (97.3) |
| | | G5400411CH | 1C | N | | | 7.50 (190.5) | 3.75 (95.3) |
| | | G5400411CRP1 | 1C | Y | | | 7.50 (190.5) | 3.75 (95.3) |
| | | G5400412BH | 2B | N | | | 7.21 (183.1) | 5.23 (132.8) |
| | | G5400412BRP1 | 2B | Y | | | 7.21 (183.1) | 5.23 (132.8) |
| | | G5400414BH | 4B | N | | | 8.81 (223.8) | 7.23 (183.6) |
| | | G5400414BRP1 | 4B | N | | | 8.81 (223.8) | 7.23 (183.6) |
| | | G5400414CH | 4C | N | | | 10.75 (273.0) | 5.00 (127) |
| | | G5400414CRP1 | 4C | Y | | | 10.75 (273.0) | 5.00 (127) |
| | | G5400415BH | 5B | N | | | 11.60 (294.6) | 7.81 (198.4) |
| | | G5400418CH | 8C | N | | | -- | -- |
| | | G5400416BRPE1 | 6B | Y | EPDM | SG540E (5) SG540E100 (100) | 10.90 (276.9) | 9.81 (249.2) |
| | | G5400418CRPE1 | 8C | Y | | | -- | -- |

G540S | G-Series G540S

| | | | | | | | | |
|---------|--------|--------------|--------|---|-----|------------------------------|----|----|
| CGA 540 | Oxygen | G540041SH | Sleeve | N | FKM | SG540 (5) SG540S100 (100) | -- | -- |
| | | G540042SH | | N | | | -- | -- |
| | | G540041SRPR1 | | Y | | | -- | -- |

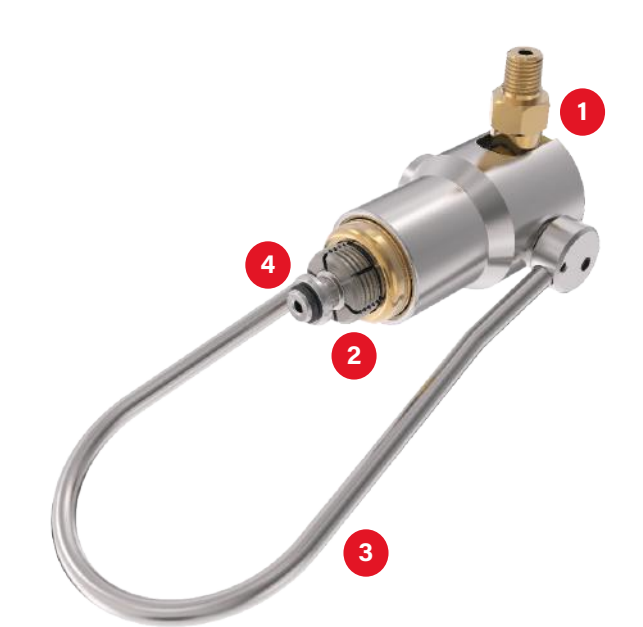
Dimensions: inch (mm)



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INTERNAL G-SERIES / COMPRESSED GAS CONNECTOR

Bail handle actuated internal grip and seal connection tool for compressed gas processing applications.



- 1 Positive pressure safety latch to prevent removal under pressure
- 2 Instant connection to external thread with self-aligning internal floating piston for robust sealing
- 3 Ergonomic bail handle surrounds valve for added safety
- 4 Optional retractable RPV pin



SPECIFICATIONS

| Pressure Rating* | Wetted Materials |
|--|-----------------------|
| Vacuum 50 mtorr (micron) to 3600 psi (248 bar) | Brass, 300 series SST |
| Operating Temperatures | Seal Materials |
| 0°F to 140°F (-17°C to +60°C) | EPDM |
| Termination | Other Materials |
| 1/4 Male NPT | Brass, 300 series SST |

NOTE: BAM Tested. Cleaned for oxygen service
*Pressure rating per criteria of ASME B31.3.

HANDLE OPTIONS

Bail Handle, Cable Handle, Lever Handle

ACTUATION METHOD

Bail/Cable/Lever: Rotate handle with roller actuation.

G580



CONNECTS TO
CGA 580 Valves

GAS TYPE

Argon, Helium, Nitrogen,
Inert Mixes

G590



CONNECTS TO
CGA 590 Valves

GAS TYPE

Air

GBS3

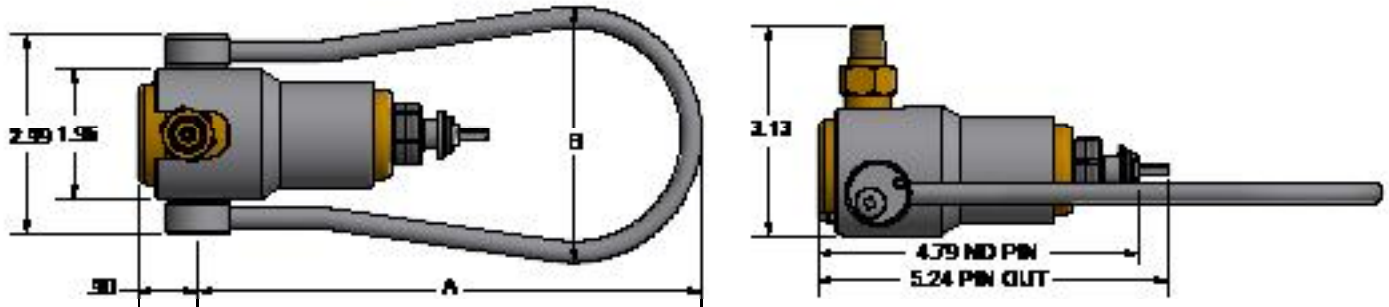


CONNECTS TO
BS3 Valves

GAS TYPE

Oxygen, Argon, Helium, Nitrogen,
Inert Mixes

G580 / G590 / GBS3 / INTERNAL COMPRESSED GAS CONNECTOR



| Ordering Information | | | | | | | Dimensions | |
|----------------------|----------|-------------|-------------|---------------|--------------------|-----------------------|------------|---|
| Connects To | Gas Type | Part Number | Handle Type | RPV Pin (Y/N) | Main Seal Material | Main Seal Packs (QTY) | A | B |

CGA 580 | G-Series 580

| | | | | | | | | |
|---------|------------------------|-------------|----|---|------|---|-------|-------|
| CGA 580 | Inerts and Inert Mixes | G5800411BH | 1B | N | EPDM | SG580 (5) SG580100 (100) SG580250 (250) SG580500 (500) | 7.41 | 3.83 |
| | | G5800411CH | 1C | N | | | 7.50 | 3.75 |
| | | G5800412BH | 2B | N | | | 7.21 | 5.23 |
| | | G5800414BH | 4B | N | | | 8.81 | 7.23 |
| | | G5800414CH | 4C | N | | | 10.75 | 5.00 |
| | | G5800415BH | 5B | N | | | 11.60 | 7.81 |
| | | G5800417CH | 7C | N | | | 9.00 | 10.00 |
| | | G5800418CH | 8C | N | | | -- | -- |
| | | G580041CRP | 1C | Y | | SG580RPV (5) SG580RPV100 (100) SG580RPV250 (250) SG580RPV500 (500) | 7.50 | 3.75 |
| | | G5800412BRP | 2B | Y | | | 7.21 | 5.23 |
| | | G5800414BRP | 4B | Y | | | 8.81 | 7.23 |
| | | G5800414CRP | 4C | Y | | | 10.75 | 5.00 |
| | | G5800415BRP | 5B | Y | | | 11.60 | 7.81 |
| | | G5800416BRP | 6B | Y | | | 10.90 | 9.81 |
| | | G5800418CRP | 8C | Y | | | -- | -- |

CGA 590 | G-Series 590

| | | | | | | | | |
|---------|-----|-------------|----|---|------|--------------|------|------|
| CGA 590 | Air | G5900411BH | 1B | N | EPDM | SG580 (5) | 7.41 | 3.83 |
| | | G5900412BRP | 2B | Y | | SG580RPV (5) | 7.21 | 5.23 |

BS3 | G-Series BS3

| | | | | | | | | |
|-------------|------------------------|---------------|----|---|------|-----------|-------|------|
| BS341 No. 3 | Inerts and Inert Mixes | GBS30411BH | 1B | N | EPDM | SG580 (5) | 7.41 | 3.83 |
| | | GBS30414CRP | 4C | Y | EPDM | SG580 (5) | 10.75 | 5.00 |
| | Oxygen | GBS30414CRPMV | 4C | Y | FKM | SG580 (5) | 10.75 | 5.00 |

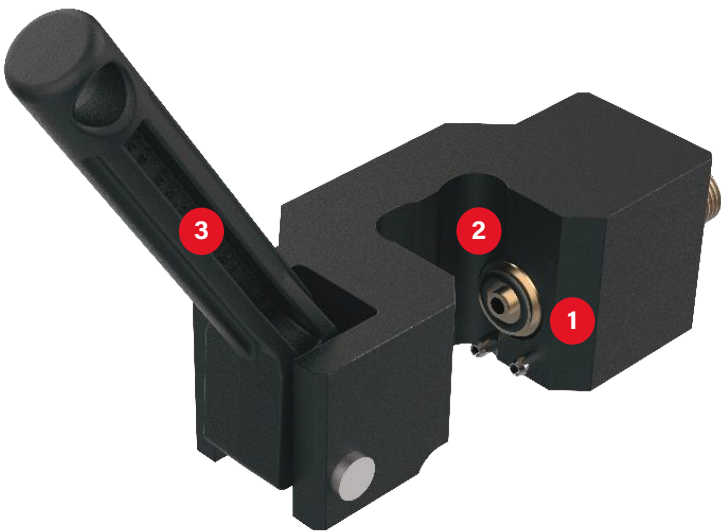
Dimensions: inch (mm)



DON'T SEE A SOLUTION FOR YOUR APPLICATION? Submit a custom application form and drawing to fastsales@fastestinc.com or to your local distributor.

MEDIMATE SERIES / COMPRESSED GAS CONNECTOR

Lever handle actuated yoke grip and seal connection tool for compressed gas processing applications.



- 1 Positive pressure internal safety mechanism to prevent removal under pressure
- 2 Instant connection to yoke style valves with self-aligning floating piston for robust sealing
- 3 Reduce repetitive motion injuries to improve operator retainment and performance capabilities



SPECIFICATIONS

| Pressure Rating* | Wetted Materials |
|--|-----------------------|
| Vacuum 50 mtorr (micron) to 3600 psi (248 bar) | Brass, 300 series SST |
| Operating Temperatures | Seal Materials |
| 0°F to 140°F (-17°C to +60°C) | Teflon, See Chart |
| Termination | Other Materials |
| 1/4 Male NPT | Brass, 300 series SST |

NOTE: BAM Tested. Cleaned for oxygen service
*Pressure rating per criteria of ASME B31.3.

ACTUATION METHOD

Lever: Simply flip the ergonomic handle for ease of use.

G870



CONNECTS TO
CGA 870 Valves

GAS TYPE
Oxygen

G910



CONNECTS TO
CGA 910 Valves

GAS TYPE
Nitrous Oxide

G940



CONNECTS TO
CGA 940 Valves

GAS TYPE
Carbon Dioxide

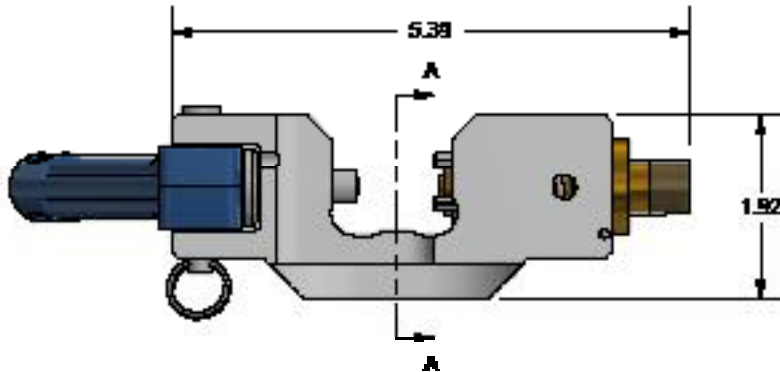
G950



CONNECTS TO
CGA 950 Valves

GAS TYPE
Air

MEDIMATE / INERT GAS QUICK CONNECTOR



Ordering Information

| Connects To | Gas Type | Part Number | Main Seal Material | Main Seal Bulk Packs (QTY) |
|------------------------|----------------|-------------|--------------------|---|
| CGA 870 G-Series 870 | | | | |
| CGA 870 | Oxygen | G870041 | FKM | SG870/950 (5) SG870/950100 (100) SG870/950250 (250) SG870/950500 (500) |
| | | G870041A | | |
| | | G870041E | EPDM | SG870/950E (5) SG870/950E100 (100) SG870/950E250 (250) SG870/950E500 (500) |
| | | G870041AE | | |
| CGA 910 G-Series 910 | | | | |
| CGA 910 | Nitrous Oxide | G910041 | FKM | SG870/950 (5) SG870/950100 (100) SG870/950250 (250) SG870/950500 (500) |
| | | G910041A | | |
| | | G910041E | EPDM | SG870/950E (5) SG870/950E100 (100) SG870/950E250 (250) SG870/950E500 (500) |
| | | G910041AE | | |
| CGA 940 G-Series 940 | | | | |
| CGA 940 | Carbon Dioxide | G940041 | FKM | SG870/950 (5) SG870/950100 (100) SG870/950250 (250) SG870/950500 (500) |
| | | G940041A | | |
| | | G940041E | EPDM | SG870/950E (5) SG870/950E100 (100) SG870/950E250 (250) SG870/950E500 (500) |
| | | G940041AE | | |
| CGA 950 G-Series 950 | | | | |
| CGA 950 | Air | G950041 | FKM | SG870/950 (5) SG870/950100 (100) SG870/950250 (250) SG870/950500 (500) |
| | | G950041A | | |
| | | G950041E | EPDM | SG870/950E (5) SG870/950E100 (100) SG870/950E250 (250) SG870/950E500 (500) |
| | | G950041AE | | |



HPG580 / HIGH PURITY CONNECTOR FOR INERT SPECIALTY GASES

High Purity bail handle actuated internal grip and seal connection tool for compressed gas processing applications.

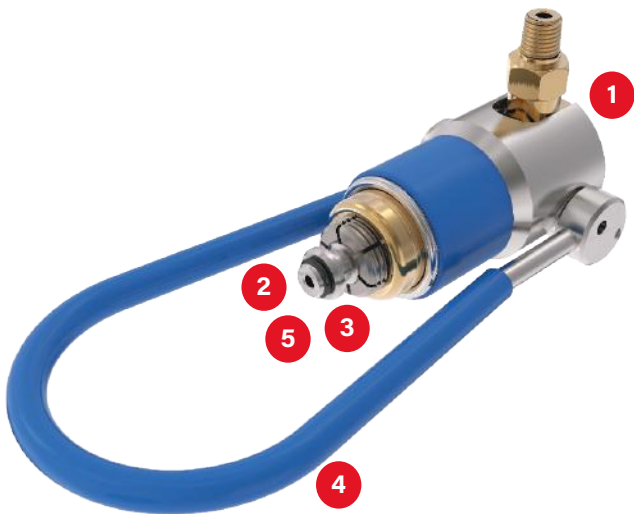
CONNECTS TO:

CGA 580 Valves

GAS TYPE

High Purity Inert Gases and Mixes

99.9999% Pures and Mixes



- 1 Positive pressure safety latch to prevent removal under pressure
- 2 Designed specifically for high purity applications with vacuum levels down to 30micron and 1x10-9 sccm helium leak rate
- 3 Instant connection to external thread with self-aligning internal floating piston for robust sealing
- 4 Ergonomic bail handle surrounds valve for added safety
- 5 Optional retractable RPV pin

SPECIFICATIONS

| Pressure Rating* | Wetted Materials |
|--|-----------------------|
| Vacuum 30 mtorr (micron) to 3600 psi (248 bar) | SST, Brass |
| Operating Temperatures | Seal Materials |
| 0°F to 140°F (-17°C to +60°C) | FDA grade FKM, Teflon |
| Termination | Other Materials |
| 1/4 Male NPT | See Chart |

NOTE: BAM Tested. Cleaned for oxygen service
*Pressure rating per criteria of ASME B31.3.

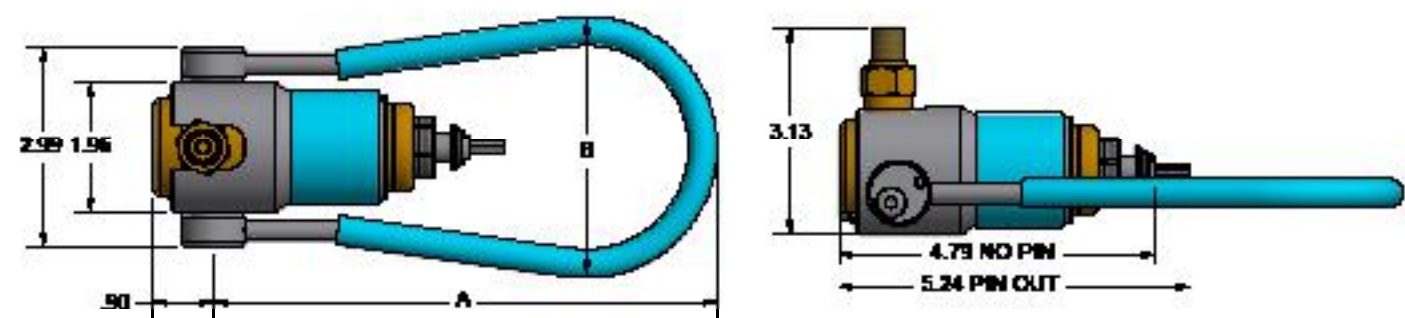
HANDLE OPTIONS

Bail Handle, Cable Handle, Lever Handle

ACTUATION METHOD

Bail/Cable/Lever: Rotate handle with roller actuation.

HPG580 / HIGH PURITY CONNECTOR FOR INERT SPECIALTY GASES



| Ordering Information | | | | | | | Dimensions | |
|------------------------------------|------------------------------------|---------------|-------------|---------------|--------------------|-----------------------|---------------|--------------|
| Connects To | Gas Type | Part Number | Handle Type | RPV Pin (Y/N) | Main Seal Material | Main Seal Packs (QTY) | A | B |
| HPG 580 High Purity G-Series 580 | | | | | | | | |
| CGA 580 | High Purity Inerts and Inert Mixes | HPG5800411BH | 1B | N | FKM | SHPG580 (5) | 7.41 (188.2) | 3.83 (97.3) |
| | | HPG5800411CH | 1C | N | | SHPG580100 (100) | 7.50 (190.5) | 3.75 (95.3) |
| | | HPG5800412BH | 2B | N | | SHPG580250 (250) | 7.21 (183.1) | 5.23 (132.8) |
| | | HPG5800414CH | 4C | N | | SHPG580500 (500) | 10.75 (273.0) | 5.00 (127) |
| | | HPG5800412BRP | 2B | Y | | SHPG580RPV (5) | 7.21 (183.1) | 5.23 (132.8) |
| | | HPG5800414CRP | 4C | Y | | SHPG580RPV100 (100) | 7.21 (183.1) | 5.23 (132.8) |
| | | HPG5800415BRP | 5B | Y | | SHPG580RPV250 (250) | 11.60 (294.6) | 7.81 (198.4) |
| | | | | | | SHPG580RPV500 (500) | | |

Dimensions: inch (mm)



G540 WOB / COMPRESSED GAS CONNECTOR

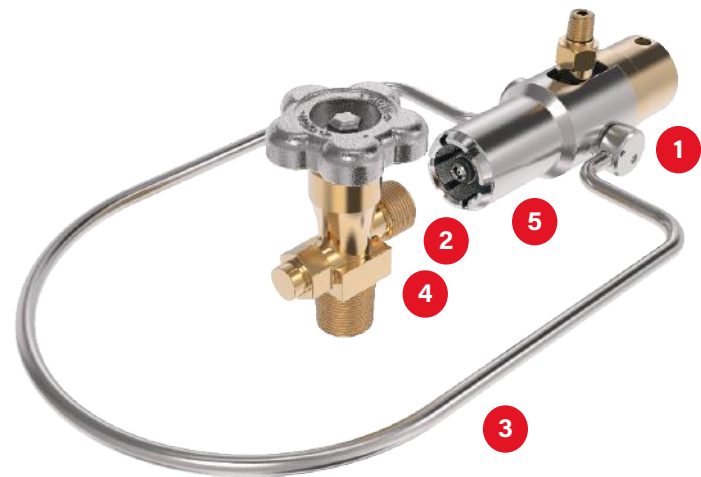
Bail handle actuated external grip and seal connection tool for compressed gas processing applications.

CONNECTS TO:

CGA 540 Valves

GAS TYPE

Oxygen



SPECIFICATIONS

| Pressure Rating* | Wetted Materials |
|--|-----------------------|
| Vacuum 50 mtorr (micron) to 3600 psi (248 bar) | Brass, Monel |
| Operating Temperatures | Seal Materials |
| 0°F to 140°F (-17°C to +60°C) | Teflon, See Chart |
| Termination | Other Materials |
| 1/4 Male NPT | Brass, 300 series SST |

NOTE: BAM Tested. Cleaned for oxygen service
* Pressure rating per criteria of ASME B31.3.

- 1 Positive pressure safety latch to prevent removal under pressure
- 2 Instant connection to external thread with self-aligning internal floating piston for robust sealing
- 3 Ergonomic bail handle surrounds valve for added safety
- 4 Cannot overtighten and ruin valves
- 5 RPV pin fully retracts to prevent damage

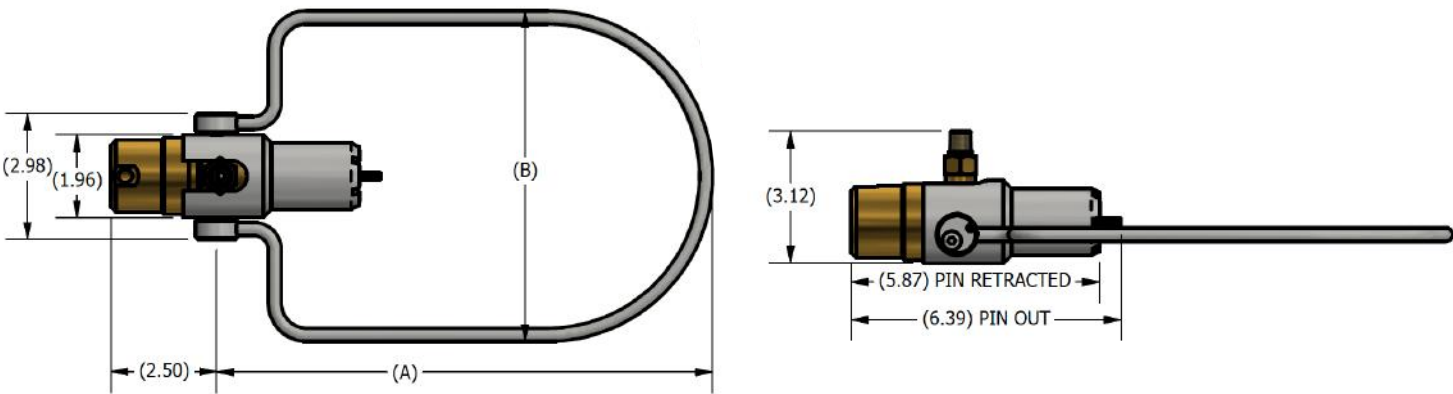
HANDLE OPTIONS

Bail Handle

ACTUATION METHOD

Bail: Rotate handle with roller actuation.
Pneumatically activated RPV pin depression

G540 WOB / COMPRESSED GAS CONNECTOR



| Ordering Information | | | | | | | Dimensions | |
|----------------------|----------|-------------|-------------|---------------|--------------------|---|---------------|--------------|
| Connects To | Gas Type | Part Number | Handle Type | RPV Pin (Y/N) | Main Seal Material | Main Seal Packs (QTY) | A | B |
| CGA 540 | Oxygen | G5400415WOB | 5B | Y | FKM | SG540 (5) SG540100 (100) SG540250 (250) SG540500 (500) | 11.60 (294.6) | 7.81 (198.4) |
| | | G5400418WOB | 8C | Y | | | -- | -- |

Dimensions: inch (mm)



CRYOVENT / PRESSURE RELIEF VALVE QUICK CONNECTOR

Sleeve actuated grip and seal connection tool for venting liquid cylinders.

CONNECTS TO:

Generant and Rego Pressure Relief Valves

GAS TYPE

Argon, Helium, Nitrogen, Inert Mixes



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Connection Profile |
|------------------|---|--|
| 800 psi (55 bar) | -60°F to 200°F (based on seal material) | Over hex of Generant and Rego pressure relief valves |
| Housing Material | | |
| Brass | | |
| Seal Material* | | |
| Fluorosilicone | | |

NOTE: Cleaned for oxygen service

* More seal material types available, consult factory.

HANDLE OPTIONS

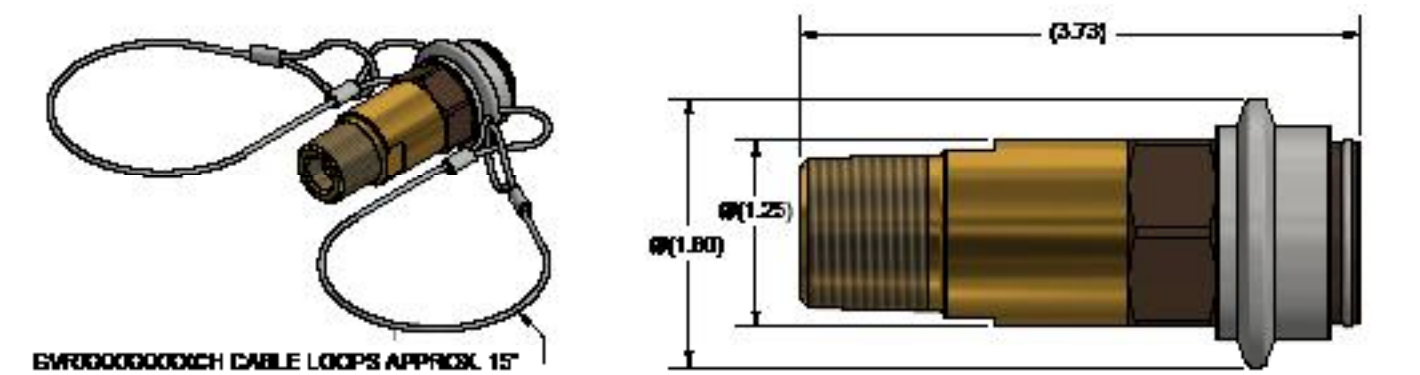
Cable Handle

ACTUATION METHOD

Sleeve: Push to connect, pull to release.

- 1 Sleeve latch to prevent disconnection under pressure.
- 2 Instant connection to pressure relief valves to safely direct vented gas to external locations
- 3 Accoustic noise reduction directs sound away from operator when attached to common stack
- 4 Cable option assists with sleeve release for high condensation filling

CRYOVENT / PRESSURE RELIEF VALVE CONNECTOR



| Ordering Information | | | | | |
|---|--------------------------------------|---------------|----------------------|--------------------|-----------------------|
| Connects To | Gas Type | Part Number | Handle | Main Seal Material | Main Seal Packs (QTY) |
| CryoVent G-Series 870 Generant and Rego Pressure Relief Valves | Argon, Helium, Nitrogen, Inert Mixes | GVR097121FS | Sleeve | Fluorosilicone | SGVR097 (5) |
| | | GVR097121FSCH | Sleeve + Cable Loops | | |

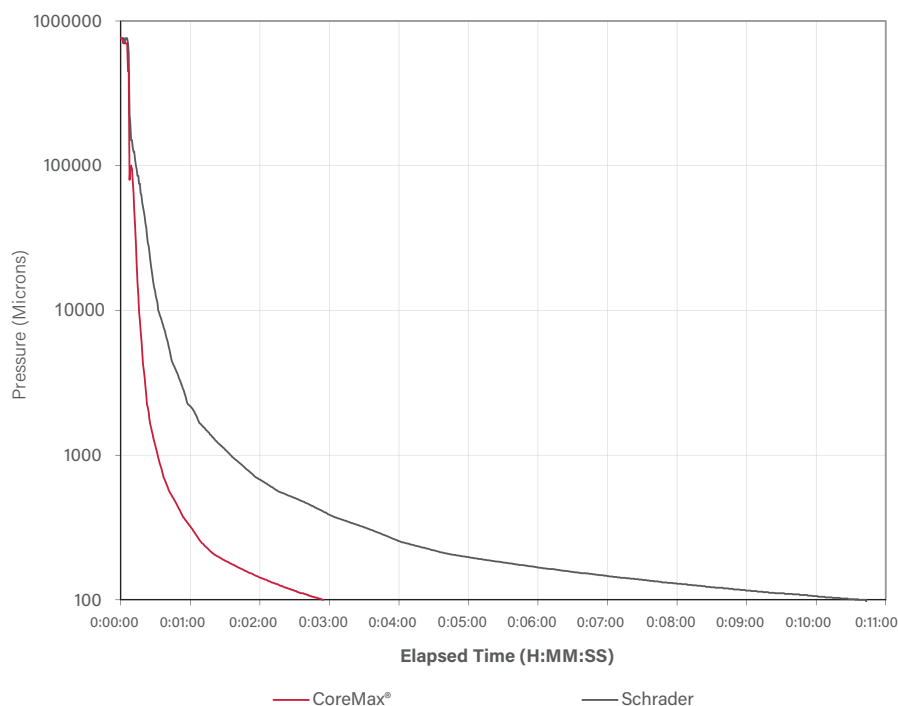


COREMAX® SYSTEM

A Complete Solution for Efficient Refrigerant Processing & Leak Testing of HVAC Systems

The **CoreMax®** System eliminates process tubes and Schrader® valves for faster evacuation times, improved quality, greater throughput, and less maintenance costs.

Evacuation Time of known Volume



COREMAX BENEFITS

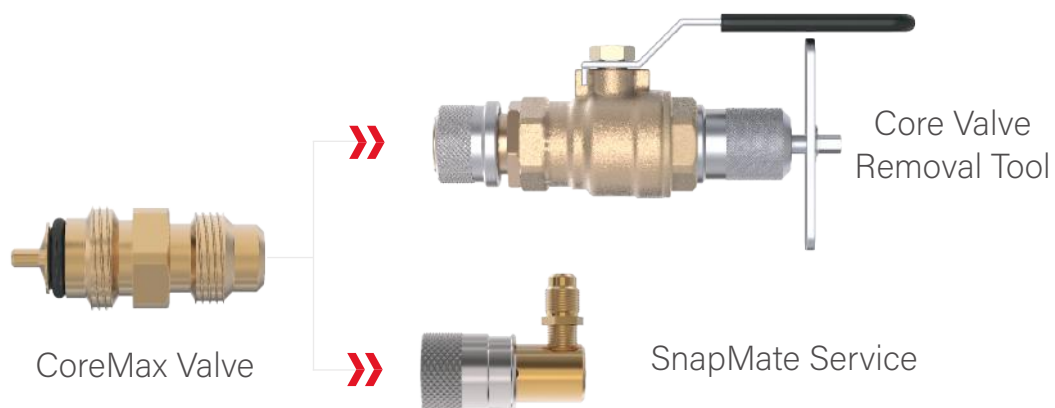
- 1 An entire processing solution for HVAC including tools that has over 20 million units installed in 8 countries and 3 continents
- 2 Eliminates process tubes and Schrader® fittings
- 3 Provides increased efficiencies and throughput due to increased flow, resulting in reduced costs
- 4 Provides the largest vacuum conductance in the industry
- 5 Proven family of tools specifically designed for manufacturing and service that reduce plant tooling costs by up to 15%
- 7 Ergonomic tools reduce operator fatigue and overall manufacturing costs
- 8 Robust sealing solution designed specifically for the HVAC industry for sealing longevity and reduced warranty costs
- 9 Reduce rework from leaking Schrader valves by up to 99%
- 10 Conforms to the 7/16-20 45° flare interchangeable standard commonly used for access valves making it field service friendly. Completely compatible with standard refrigeration tooling and connections



MANUFACTURING PROCESSING TOOLS



FIELD / MANUFACTURING SERVICE TOOLS



CoreMax® / Valve & Seat Styles

CoreMax® Valve mates with the CoreMax® Seat to form the complete access valve.

MATES WITH COREMAX® SEAT FOR COMPLETE ACCESS VALVE:



SPECIFICATIONS

| Pressure Rating | Operating Temperatures | Materials of Construction |
|------------------------------|-----------------------------------|----------------------------|
| Vacuum to 700 psi (48.2 bar) | -40°F to +250°F (-40°C to +121°C) | Stainless Steel, Neoprene® |



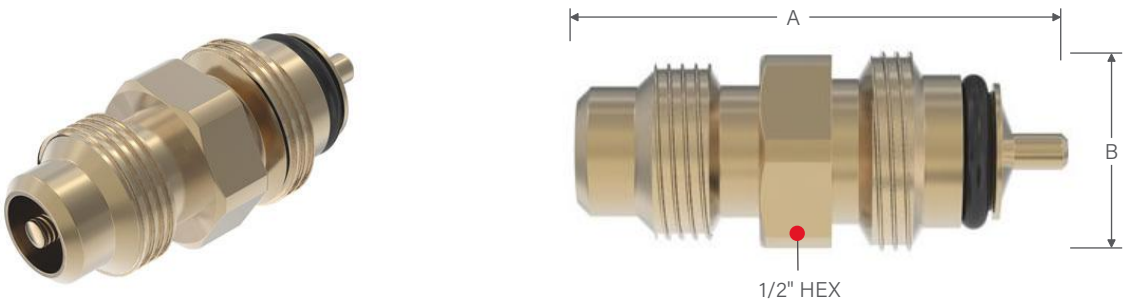
COREMAX® SEATS

For complete access valve.



- 1 Specifically designed for refrigeration applications maximizing flow and robust sealing technology.
- 2 The CoreMax® core utilizes one elastomeric seal to seal both the valve as well as the joint between the core and the seat. There is a metal to metal seal between the core and seat to ensure a complete seal.
- 3 The valve core pin position is manufactured to exact tolerances for constant sealing and maximum valve opening for the highest flow available. The Valve conforms to ARI standard 720 for pin height
- 4 The CoreMax® valve has a 7/16-20 45° flare which is the industry standard for access valves, so all standard service tools can be used.

- Manufactured to exacting tolerances, the seat is designed to mate with the CoreMax® valve core and form the sealing capability
- Designed with gripping and sealing surfaces to work with the CoreMax® system toolsInternally valved
- Many options are available to fit any user system



| Ordering Information | | Dimensions | |
|---|--|-------------|-------------|
| Part Number | | A | B |
| CoreMax® Valve Mates with CoreMax® Seat for Complete Access Valve | | | |
| SCCA07H | | 1.00 (25.4) | 1.00 (25.4) |

Dimensions: inch (mm)



| Ordering Information | | | Dimensions | | | | |
|---|-----------------|-------------|-------------|-------------|------------|-------------|-------------------|
| Style | Size | Part Number | A | B | C | D | Installed Length* |
| CoreMax® Seats Multiple Styles for User's Application | | | | | | | |
| Stub Tube | 1/4 | SCH0730A01 | 1.00 (25.4) | 0.21 (5.3) | 0.22 (5.6) | 0.31 (7.9) | 1.26 (32.0) |
| | 3/8 | SCH0730A03 | | | 0.32 (8.1) | 0.43 (10.9) | |
| Saddle Mount | 3/8 - 0.38 Hole | SCH0730B02 | 0.92 (23.4) | 0.13 (3.3) | 0.28 (.71) | 0.37 (9.4) | |
| | 1/4 - 0.22 Hole | SCH0730B03 | | | 0.07 (1.8) | 0.22 (5.6) | |
| | 1/4 - 0.25 Hole | SCH0730B04 | | | 0.13 (3.3) | 0.25 (6.4) | |
| Panel Mount | 1/4 | SCH0730C03 | 1.29 (32.8) | 0.67 (17.0) | 0.22 (5.6) | 0.35 (8.9) | 1.33 (33.8) |
| | 3/8 | SCH0730C04 | | | 0.35 (8.9) | 0.44 (11.2) | |
| NPT | 1/4 | SCH0730E01 | 1.15 (29.2) | 0.54 (13.7) | 0.31 (7.9) | ----- | |

Dimensions: inch (mm)

* Installed length is CoreMax® Valve and CoreMax® Seat torqued together.

MANUFACTURING PROCESSING TOOLS

SnapMate OEM

PN: SCP062H



| Pressure Rating | Termination | Materials of Construction |
|--|-------------|----------------------------------|
| 10 millitorr (micron) vacuum to 700 psi (48.2) | 3/8 MNPT | Stainless Steel, Brass, Neoprene |

- Internal valve opens automatically upon connection and closes upon disconnection.
- Can be actuated under full pressure due to its mechanical advantage design and used in both vacuum and pressure applications
- Grips behind threads to eliminate potential thread damage with matched flow through the CoreMax® valve for efficient processing.
- Easy sleeve action is ergonomic and eliminates repetitive twisting and turning - Push to connect, pull to release

APPLICATION

Use at burst, evacuation, charge and rework stations for generalized processing. Use at every station to connect to CoreMax® Valve.

MBE

PN: SCM062W



| Pressure Rating | Termination | Materials of Construction |
|--|-------------|-----------------------------------|
| 10 millitorr (micron) vacuum to 700 psi (48.2) | 3/8 MNPT | Stainless Steel, Brass, Neoprene® |

- Pressure interlocks prevent sleeve actuation under pressure
- High flow connection tool with no flow restriction. Used to maximize flow through the seat
- Grips over the seat so it can be used with or without the CoreMax® valve
- Easy sleeve action is ergonomic and eliminates repetitive twisting and turning

APPLICATION

Use at burst, leak test stations with or without CoreMax® valve. Use at evacuation station with CoreMax® Valve installed.

Core Valve Insertion Tool

PN: SCFT10



| Pressure Rating | Termination | Materials of Construction |
|--|-------------|----------------------------|
| 10 millitorr (micron) vacuum to 700 psi (48.2) | 3/8 FNPT | Stainless Steel, Neoprene® |

- Pressure interlocks prevent sleeve actuation under pressure
- Grips over valve seat to allow for maximum evacuation through the seat prior to inserting CoreMax core valve
- Available load tool for easy core insertion into the tool. Fastest PN: SCFTL1010
- Easy sleeve action is ergonomic and eliminates repetitive twisting and turning

APPLICATION

Use at evacuation stations to maximize flow for extreme volumes to achieve maximum throughput. Insertion of valve core prior to further processing.

Installation Oiler

PN: SCL321



| Materials of Construction |
|---------------------------|
| HDPE, Brass |

- Custom nest to oil CoreMax core with overflow containment
- Reservoir has check valve to keep small amount of oil available for lubrication
- Oil containment keeps contaminants away and minimizes oil exposure to atmosphere
- Pump to fill reservoir

APPLICATION

Use to oil the CoreMax® Valve core prior to insertion and torque into valve seat.

FIELD / MANUFACTURING SERVICE TOOLS

Core Valve Removal Tool

PN: SCFT20A



| Pressure Rating | Termination | Materials of Construction |
|--|-------------|-----------------------------------|
| 10 millitorr (micron) vacuum to 750 psi (51.7) | N/A | Stainless Steel, Brass, Neoprene® |

- Pressure interlocks prevent sleeve actuation under pressure
- Grips over the valve seat to allow for CoreMax® Valve core removal and replacement without reclaiming the system
- Ball valve design to shut off system pressure
- Easy sleeve action is ergonomic and eliminates repetitive twisting and turning. Thread out/in core, rotate ball valve and replace.

APPLICATION

Use to remove and replace CoreMax® Valve core in charged units.

SnapMate Service

PN: SCTA07H



| Pressure Rating | Termination | Materials of Construction |
|--------------------------|----------------|-----------------------------------|
| Vacuum to 625 psi (43.1) | 7/16 45° Flare | Stainless Steel, Brass, Neoprene® |

- Internal valve opens automatically upon connection and closes upon disconnection and has internal actuation pin to open CoreMax® Valve
- Threaded collets grip in the threads of any 7/16-20 45° flare access valve (CoreMax and Schrader)
- Can be actuated and removed under standard system pressure
- Easy sleeve action is ergonomic and eliminates repetitive twisting and turning - Push to connect, pull to release

APPLICATION

Use by HVAC service technicians for field service.

Electric Torque Wrench

PN: SCFTP0502



| Materials of Construction |
|---------------------------|
| IR Electronic Tool |

- Pre-programmed to CoreMax® specifications of <200RPM and 8ft-lbs torque
- Hold and drive feature supports the seat so no stress is incurred on the system or operator
- 20 volt battery powered tool. Can be programmed to tailor specific needs
- Pull trigger to run tool to proper torque

APPLICATION

Use to proper torque the CoreMax® Valve core into the core seat.

Manual Torque Wrench

PN: SCFTM01



| Materials of Construction |
|---------------------------|
| Stainless Steel |

- Break away torque wrench pre-set to proper torque of 8ft-lbs.
- Manually twist wrench to pre-set torque

APPLICATION

Use to proper torque the CoreMax valve core into the core seat.



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Headquarters | USA

1646 Terrace Drive, Roseville, MN, 55113-1317

Phone: +1.651.645.6266 • Fax: +1.651.645.7390 • www.fastestinc.com

Shenzhen | China

Room#1013,1015, A9 Building, Tianrui Industrial Park

No.35 Fuyuan 1st Road, FuHai residential district,

Baoan Shenzhen, China 518103

+189.0246.2530 • fastsales@fastestinc.com