

FasCal

FasTest[®]
Your Calibration Connection

CALIBRATE **5** TIMES FASTER!

- ✓ Transmitters
- ✓ Control Valves
- ✓ Transducers
- ✓ Pressure Gauges
- ✓ Compression Fittings
- ✓ Conduit / Piping



Calibration Connection Devices

No Thread Damage, Wrenches or Pipe Sealant

FasTest's complete line of calibration connection devices feature a patented pressure assisted grip and seal technology that provide leak tight connections, resulting in the highest level of accuracy in the fastest time possible. The ergonomically designed connectors improve productivity, product quality and user comfort.

Choose **FasTest** calibration connectors to eliminate sealants, thread damage and wrench tightening, and benefit from an improved calibration process and quality at reduced costs.

Connectors Designed for Calibration!

FasTest's calibration connectivity devices are specifically designed to meet the most frequent challenges or problems facing technicians that calibrate instruments such as transmitters, pressure gauges and transducers.

Calibration technician challenges:

- Calibrate a large quantity of instruments in a short period of time
- Create leak tight connections to a variety of thread profiles
- Eliminate thread damage to instruments
- Minimize contamination to process media



Calibrate Lots of Instruments - Fast!

FasTest's "plug and play" modular connectors eliminate the traditional process of using tape sealant, wrenches and a bit of muscle to create leak tight connections. Comparisons of the **FasTest** way to traditional methods have shown at least a 5X efficiency improvement.

Connectors for the industries most common:

- Calibrators
- Valve Actuators
- Pressure Gauges
- Transducers
- Compression Fittings
- Pipe Threads



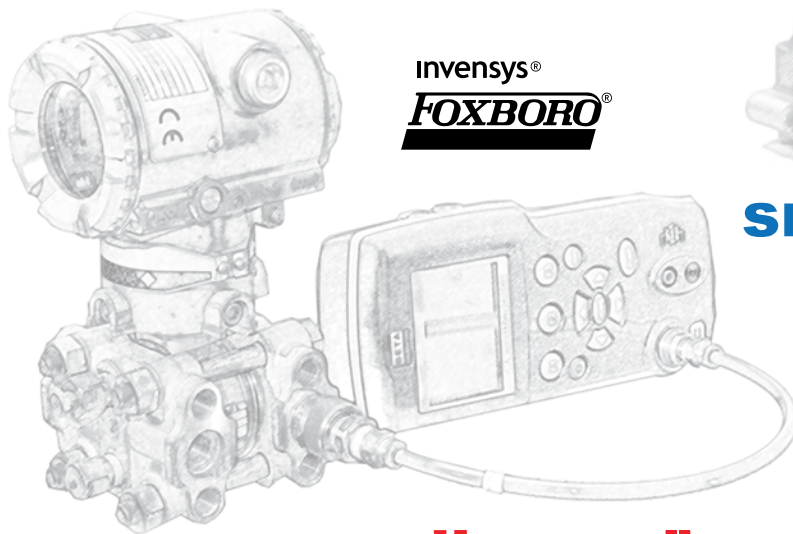
YAMATAKE

Invensys®
FOXBORO®

SIEMENS

ABB

smar



ROSEMOUNT®

Honeywell

YOKOGAWA ♦



Connect to a Variety of Profiles - Fast!

Technicians are required to connect to a variety of transmitters, pressure gauges, transducers and other instruments for calibration or maintenance operations. This variety of instruments also comes with a variety of connection sizes as well as internal and external thread profiles.

FasTest transition connectors quickly solve this problem and provide fast connections to popular thread profiles.

- Assembled styles to transition from 1/8" or 1/4" male threads to 1/8", 1/4", 3/8" and 1/2" female threads
- Build your own transitions between the modular **FasCal** connection tools with hose assemblies and fittings



Safe, High Pressure Leak Tight Seals - Fast!

FasTest's patented pressure assisted grip and seal technology delivers repeatable, high pressure and safe leak tight connections. This results in the highest level of accuracy in the fastest time possible.

- Ergonomically designed connection tools reduce operator fatigue and potential injuries
- Pressure rated to 4000, 5000 and 10,000 psi



Eliminate Thread Damage and Contamination

Traditional methods of sealing require a combination of tape sealant, mating thread profiles and torque typically applied with wrenches. Each time a connection is taped and torqued to seal, wear or damage occurs to the mating threads. **FasTest's** grip and seal technology relies on the combination of pressure, seals and patented mechanical design to create leak tight connections.

- Eliminate tape and sealants that can contaminate process media and plug ports
- Minimize thread wear and damage
- Eliminate wrenches and torquing

- Calibration Products Selection Guide -

Calibration Manifolds and Accessories



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FasCal - Lab Manifolds

One of the challenges faced in a calibration lab is making leak tight connections to a wide variety of fitting configurations quickly. In some labs the number of connections per day require productivity tools be used to meet calibration demands. To meet these challenges and demands the **FasCal** Manifold System has been developed. Utilizing Stainless Steel construction this system allows any **FasCal** connector to be mounted on the manifold quickly and without the use of tape or wrenches. Manifolds can be equipped with optional **Fastest** connectors to allow changing sizes or types of connectors efficiently without the use of sealants or wrenches. Optional accessories such as hoses and 1/8" NPT fittings are available to customize the solution for each lab.



2 Ports



4 Ports

Features

- Manifolds rated up to 10,000 PSI
- Compatible with **FasCal** connectors for male and female applications
- Utilizing **FasCal** connectors allows quick change of sizes or types without the use of tape or wrenches
- Additional manifolds can be daisy chained for high volume applications
- Unused ports can be sealed off with **FasCal TwistMate** plugs

| Part Number | Ports | Manifold Footprint | Term Thread | Rated PSI | Housing Material |
|-------------|-------|-----------------------------|-------------|-----------|------------------|
| FF020 | 2 | 6" x 6" x 6.5" (L x W x H) | 1/8" NPT | 10,000* | Stainless Steel |
| FF010 | 4 | 15.5" x 6" x 2" (L x W x H) | | | |

*Individual connectors will determine maximum overall system pressure rating.

FasCal - Manifold Fittings and Plugs



Manifold fittings are used to permanently attach **FasCal** connectors to the manifold or combine connectors together. Hex head manifold plugs are ideal for capping unused ports with mounted connectors (see cover).

| Part Number | Style | Thread Size | Rating PSI |
|-------------|---------|--------------------------------|------------|
| APN022 | Fitting | 1/8" NPT Male to 1/8" NPT Male | 10,000 |
| APP02H | Plug | 1/8" NPT Male | |
| APP06H | | 1/4" NPT Male | |
| APP06H | | 3/8" NPT Male | |
| APP08H | | 1/2" NPT Male | |

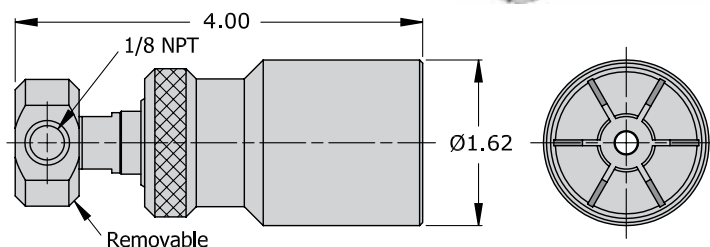


FasCal - Sleeve Actuated Connectors - HPB Series



Fastest sleeve actuated **HPB** connectors are the preferred method for fast, safe and repeatable connections to *Swagelok*®, *Ferulok*® or similar compression fittings as well as male NPT and “AN” 37° flare style male threads. Simply push on to fitting to connect; pull sleeve away from connection to release.

- Safety feature will not allow disconnect under pressure
- Instant connections from vacuum to 5000 psi
- No damage to threaded parts during calibration



For Compression Fittings

| Part Number | Connects to | Rated PSI | Housing Material | Seal Material | Main Seals Package (5) |
|--------------|--------------------------------|-----------|------------------|---------------|------------------------|
| HPB-CF04021 | 1/4" (7/16-20) <i>Swagelok</i> | 5000 | Stainless Steel | Buna N | S1008-B70 |
| HPB-CF06021 | 3/8" (9/16-20) <i>Swagelok</i> | 5000 | | | S1011-B70 |
| HPB-CF08021 | 1/2" (3/4-20) <i>Swagelok</i> | 5000 | | | S1013-B70 |
| HPB-CF04021F | 1/4" (7/16-20) <i>Ferulok</i> | 5000 | | | S1008-B70 |
| HPB-CF06021F | 3/8" (9/16-18) <i>Ferulok</i> | 5000 | | | S1011-B70 |
| HPB-CF08021F | 1/2" (3/4-16) <i>Ferulok</i> | 5000 | | | S1013-B70 |

For NPT Male Threads

| Part Number | Connects to | Rated PSI | Housing Material | Seal Material | Main Seals Package (5) |
|-------------|-------------|-----------|------------------|---------------|------------------------|
| HPB-041021 | 1/4" NPT | 5000 | Stainless Steel | Buna N | S1008-B70 |
| HPB-061021 | 3/8" NPT | 5000 | | | S1011-B70 |
| HPB-081021 | 1/2" NPT | 5000 | | | S1013-B70 |

For “AN” 37° Flare Male Threads

| Part Number | Connects to | Rated PSI | Housing Material | Seal Material | Main Seals Package (5) |
|-------------|---------------|-----------|------------------|---------------|------------------------|
| HPB-049021 | - 4 (7/16-20) | 5000 | Stainless Steel | Buna N | S2070-0270B70 |
| HPB-069021 | - 6 (9/16-18) | 5000 | | | S1012-B70 |
| HPB-089021 | - 8 (3/4-16) | 5000 | | | S1015-B70 |

Notes:

Optional seal materials available are FKM (Viton) and EPDM.

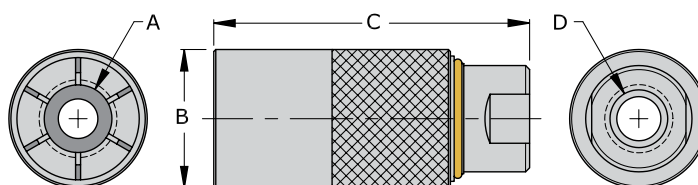
Examples: HPB-xxx021V = FKM
HPB-xxx021E = EPDM

FasCal - Sleeve Actuated Connectors - 60 Series



FasTest sleeve actuated **60 Series** connectors are ideal fast, safe and repeatable connections to a wide variety of thread used in process and manufacturing industries for filling, pressure and leak testing, and instrument calibration. Simply insert male threaded end into the connector and push the latching sleeve forward to complete the connection. Remove test pressure and pull back the latching sleeve to release the connection.

- Instant connections from vacuum to 750 psi
- Connect to 1/4" and 1/2" NPT, SAE 37° Flare "AN" and compression fittings
- No wrenches, sealants or thread damage
- Rugged stainless steel housing



For Double Ferrule Compression Style Fittings - Swagelok®

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Term. Thread Dim "D" | Rated PSI | Housing Material | Seal Material | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|----------------------|-----------|------------------|---------------|------------------------|
| 60G-CF04 | -4 (7/16-20) | 0.99" | 2.95" | 1/8" NPT | 750 | Stainless Steel | Buna N | S1008-B70 |

For NPT Pipe Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Term. Thread Dim "D" | Rated PSI | Housing Material | Seal Material | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|----------------------|-----------|------------------|---------------|------------------------|
| 60G-1T02 | 1/8" NPT | 0.99" | 2.95" | 1/8" NPT | 750 | Stainless Steel | Buna N | S1105-B70 |
| 60G-1T04021 | 1/4" NPT | 1.19" | 2.95" | 1/8" NPT | | | | S1109-B70 |
| 60G-1T08021 | 1/2" NPT | 1.58" | 3.15" | 1/8" NPT | | | | S1112-B70 |

For "AN" 37° Flare Male Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Term. Thread Dim "D" | Rated PSI | Housing Material | Seal Material | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|----------------------|-----------|------------------|---------------|------------------------|
| 60G-049 | -4 (7/16-20) | 0.99" | 2.95" | 1/8" NPT | 750 | Stainless Steel | Buna N | S1010-B70 |
| 60G-069 | -6 (9/16-18) | 1.38" | 3.15" | 3/8" NPT | | | | S1012-B70 |
| 60G-089 | -8 (3/4-16) | 1.38" | 3.15" | 3/8" NPT | | | | S1014-B70 |

Notes:

Additional sizes available for 60 Series connectors. Consult factory for details.

Optional seal materials available are FKM (Viton) and EPDM.

Examples: 60G-xxxV = FKM

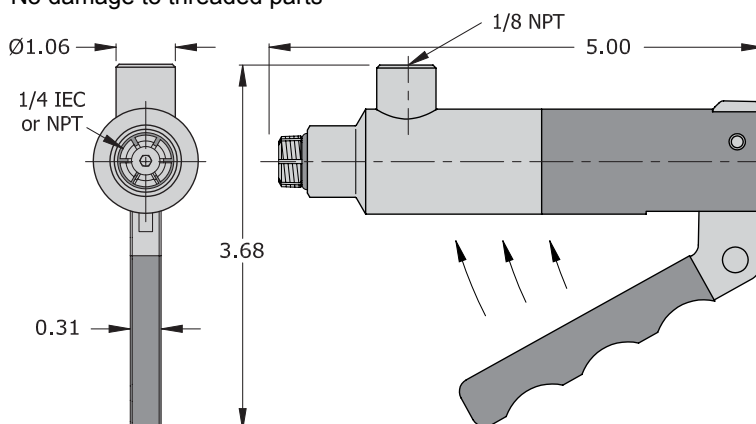
60G-xxxE = EPDM

FasCal - Lever Actuated for 1/4" IEC Transmitter Ports and 1/4" NPT



Fastest lever actuated connectors are an ideal method for fast, safe and repeatable connections to all types of transmitters. Simply squeeze the lever and insert into 1/4" threaded port; release lever for an instant leak tight and high pressure connection.

- Compatible to 1/4" NPT and 1/4" (IEC 61518) 2.126 (54) process flange ports
- Instant connections to 5000 psi eliminates tape, sealants and wrenches
- No damage to threaded parts



| Part Number | Connects to | Rated PSI | Housing Material | Seal Material | Main Seals Package (5) |
|-------------|-------------|-----------|------------------|---------------|------------------------|
| L042021TM | 1/4" NPT | 5000 | Stainless Steel | Buna N | SL042-B |

Notes:

Optional seal materials available are FKM (Viton) and EPDM.

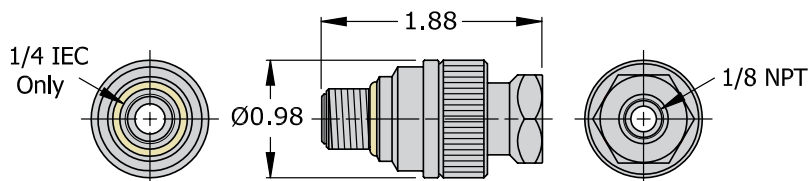
Examples: L042021TMV = FKM L042021TME = EPDM

FasCal - "Twist to Connect" Connectors for 1/4" IEC Transmitter Ports



TwistMate's unique "twist to connect" and pressure assisted grip and seal delivers fast, safe and repeatable connections. The connector's internal swivel also allows easy installation while plumbed (connected) to a supply line. Simply twist the connector to finger tight for an instant leak tight and high pressure connection.

- Compatible to 1/4" (IEC 61518) 2.126 (54) process flange ports
- Instant connections to 5000 psi eliminates tape, sealants and wrenches
- No damage to threaded parts
- Durable stainless steel



| Part Number | Connects to | Rated PSI | Housing Style | Seal Material | Repair Kit | Main Seals Package (5) |
|--------------|-------------|-----------|---------------|---------------|------------|------------------------|
| MIT-042021TM | 1/4" IEC | 5000 | Swivel | Urethane | MITR-040 | S1111-U70 |

Notes:

Optional seal materials available are FKM (Viton) and EPDM.

Examples: MIT-042021TMV = FKM MIT-042021TME = EPDM

FasCal - Vent Port Connector for Transmitter Bleed Ports



The **FasTest VP Series** connector is designed for insertion into a transmitter vent plug. The product is used by removing the vent bleed port plug and inserting and tightening the VP series calibration connector. The **VP Series** has a standard 1/8" NPT termination port that connects onto a **FasCal** hose assembly just like the other calibration connectors from **FasTest** for the ultimate plug and play flexibility.



Features

- Compatible with Rosemount, ABB, Invensys, Endress+Hauser, Yokogawa and transmitters with a 5/16" vent plug
- Produced from heat treated 416 Stainless Steel host material
- Compatible with **FasCal** hose assembly and other calibration devices



Vent Port Calibration Adapter

| Part Number | Connects to | Termination Thread | Rated PSI | Housing Material |
|-------------------|-----------------|--------------------|-----------|------------------|
| VP51624021 | 5/16" vent plug | 1/8" NPT | 5000 | Stainless Steel |

CalMate flange connectors provide quick, temporary connections for calibrating gauges or transmitters equipped with sanitary diaphragms. For applications in process or on the bench in the lab, the connector enables devices to be connected in a fraction of the time compared to cumbersome swinging tri-clamp configurations.

When used with the **FasCal** hose solution, connectors can be changed for units of different sizes without the use of tape or sealants and no wrenches.

CalMate™



Applications / Configurations



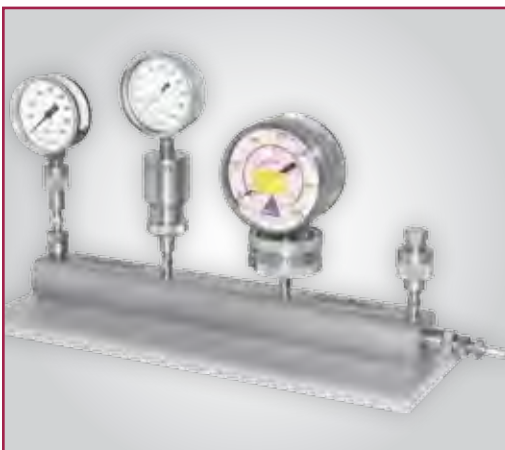
Gauges

Gauge calibration often is one of the most time consuming tasks faced by a metrology group. The time required to achieve leak tight connections can be reduced when a **CalMate** connector is used, improving metrologist's productivity. Whether the task is in process in a cramped pharmaceutical suite or on a bench in a lab, the connection will be made in seconds.



Transmitters

Calibration connections to sanitary diaphragms on transmitters in the past has been difficult. A swinging tri-clamp configuration is cumbersome to close and lock and in tight quarters difficult to apply. The **CalMate**'s click and twist motion quickly locks the connector onto transmitters diaphragm, even in cramped quarters.



Manifolds

The **CalMate** can be mounted on the **FasCal** FF010 manifold. For use in lab environments, the manifold provides a solid platform capable of supporting multiple gauges or transmitters for calibrating up to four gauges at once. Manifolds can be equipped with optional **Fastest** connectors to allow changing sizes or types of connectors efficiently without the use of sealants or wrenches.

Connectorization

Quick Change Hose Assembly

As a component of a family of products, the **CalMate** is compatible with the **FasCal** hose assembly. The hose equipped with **Fastest** connectors attaches to the **CalMate** without the use of wrenches or sealant. Eliminating the use of sealant reduces the possibility of sealant plugging an instrument port. Changing from one size or style of connector to another is completed in a few seconds. The small diameter of the hose minimizes nitrogen usage or if a hand pump is being used, operator fatigue.

CalMate pictured with:

Hose assembly: HP022X036
Quick connectors: MIT-022021



Operational Instructions



Step 1: Retract Collar

Slide collar to open position. This opens the connector locking assembly.



Step 2: Insert Diaphragm & Extend

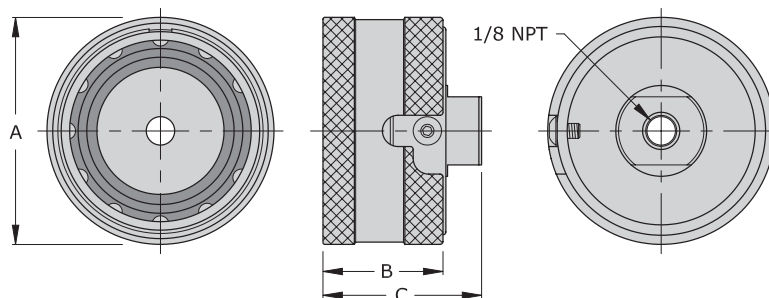
Place the diaphragm of the gauge or transmitter into the connector. Extend collar to the locked position.



Step 3: Twist to Secure

Rotate the collar to secure the connector to the diaphragm. This rotation compresses the diaphragm against the provided gasket and creates a leak tight seal. The rotation allows the connector to adjust for variations in diaphragm flange or gasket thicknesses.

Technical Drawing



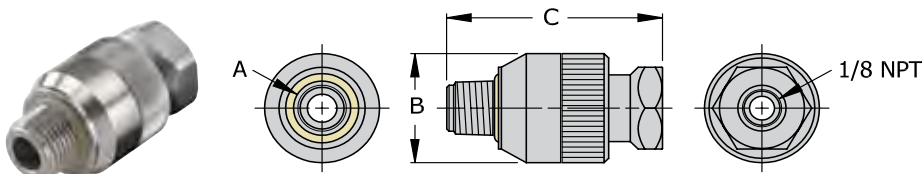
| Part Number | Connects To | Diameter Dim "A" | Sleeve Length Dim "B" | Length Dim "C" | Rated PSI | Housing Material | Seal Material | Main Seals Package (5) |
|-------------|--------------|------------------|-----------------------|----------------|-----------|------------------|---------------|------------------------|
| SA050 | 1/2" or 3/4" | 1.560" | 1.200" | 1.580" | 300 | Stainless Steel | Neoprene | SAGB075B |
| SA100 | 1" or 1-1/2" | 2.500" | 1.320" | 1.750" | | | | SAGB150B |
| SA200 | 2" | 3.100" | 1.370" | 1.800" | | | | SAGB200B |

FasCal - "Twist to Connect" Connectors for Female Threads



TwistMate's unique "twist to connect" and pressure assisted grip and seal delivers fast, safe and repeatable threaded connections. Simply twist the connector to finger tight for an instant leak tight and high pressure connection.

- Compatible to NPT, BSPP, BSPT and SAE threads
- Plug versions are also available to quickly seal a threaded port
- Instant connections to 4000 or 5000 psi eliminates tape, sealants and wrenches
- Swivel style allows easy installation while connected to a supply line
- No damage to threaded parts
- Durable stainless steel



Swivel Style for NPT Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MIT-022021 | 1/8" NPT | 0.82" | 1.68" | 5000 | Swivel | Urethane | MITR-020 | S1109-U70 |
| MIT-042021 | 1/4" NPT | 1.00" | 1.88" | 5000 | | | MITR-040 | S1111-U70 |
| MIT-062021 | 3/8" NPT | 1.18" | 2.09" | 4000 | | | MITR-060 | S1113-U70 |
| MIT-082021 | 1/2" NPT | 1.36" | 2.57" | 4000 | | | MITR-080 | S1209-U70 |

Swivel Style for BSPP Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MIT-026021 | 1/8" BSPP | 0.82" | 1.68" | 5000 | Swivel | Urethane | MITR-020 | S1109-U70 |
| MIT-046021 | 1/4" BSPP | 1.00" | 1.88" | 5000 | | | MITR-040 | S1111-U70 |
| MIT-066021 | 3/8" BSPP | 1.18" | 2.09" | 4000 | | | MITR-060 | S1113-U70 |
| MIT-086021 | 1/2" BSPP | 1.36" | 2.57" | 4000 | | | MITR-080 | S1209-U70 |

Swivel Style for BSPT Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MIT-026T021 | 1/8" BSPT | 0.82" | 1.68" | 5000 | Swivel | Urethane | MITR-020 | S1109-U70 |
| MIT-046T021 | 1/4" BSPT | 1.00" | 1.88" | 5000 | | | MITR-040 | S1111-U70 |
| MIT-066T021 | 3/8" BSPT | 1.18" | 2.09" | 4000 | | | MITR-060 | S1113-U70 |
| MIT-086T021 | 1/2" BSPT | 1.36" | 2.57" | 4000 | | | MITR-080 | S1209-U70 |

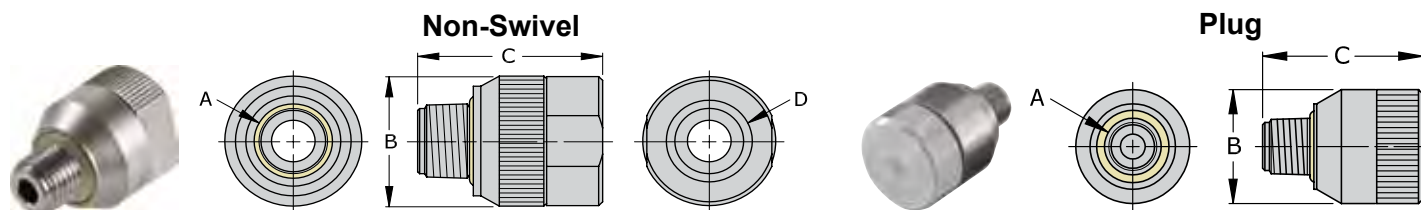
Notes:

Optional seal materials available are FKM (Viton) and EPDM.

Examples: MIT-022021**V** = FKM

MIT-022021**E** = EPDM

FasCal - "Twist to Connect" Connectors for Female Threads



Non-Swivel Style for Female NPT and SAE O-Ring Boss

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Term Thd Dim "D" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|------------------|-----------|---------------|---------------|-------------|------------------------|
| MIT-022021X | 1/8" NPT | 0.82" | 1.24" | 1/8" NPT | 5000 | Non Swivel | Urethane | MITR-02 | S1109-U70 |
| MIT-044021X | -4 (7/16-20) | 0.82" | 1.29" | 1/8" NPT | 5000 | | | MITR-04 | S1111-U70 |
| MIT-064041X | -6 (9/16-18) | 1.00" | 1.41" | 1/4" NPT | 5000 | | | MITR-08 | S1209-U70 |
| MIT-084081X | -8 (3/4-16) | 1.36" | 1.85" | 1/2" NPT | 4000 | | | | S1209-U70 |
| MIT-104081X | -10 (7/8-14) | 1.36" | 1.85" | 1/2" NPT | 4000 | | | MITR-12 | S1213-U70 |
| MIT-124121X | -12 (1 1/16-12) | 1.68" | 1.94" | 3/4" NPT | 4000 | | | | S1216-U70 |
| MIT-144161X | -14 (1 3/16-12) | 2.00" | 2.13" | 1" NPT | 4000 | | | MITR-16 | S1217-U70 |
| MIT-164161X | -16 (1 5/16-12) | 2.00" | 2.13" | 1" NPT | 4000 | | | | S1217-U70 |

Plug Style for NPT Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MIT-022P | 1/8" NPT | 0.81" | 1.24" | 5000 | Plug | Urethane | MITR-02 | S1109-U70 |
| MIT-042P | 1/4" NPT | 1.00" | 1.41" | 5000 | | | MITR-04 | S1111-U70 |
| MIT-062P | 3/8" NPT | 1.18" | 1.49" | 4000 | | | MITR-06 | S1113-U70 |
| MIT-082P | 1/2" NPT | 1.36" | 1.85" | 4000 | | | MITR-08 | S1209-U70 |

Plug Style for BSPP Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MIT-026P | 1/8" BSPP | 0.81" | 1.24" | 5000 | Plug | Urethane | MITR-02 | S1109-U70 |
| MIT-046P | 1/4" BSPP | 1.00" | 1.41" | 5000 | | | MITR-04 | S1111-U70 |
| MIT-066P | 3/8" BSPP | 1.18" | 1.49" | 4000 | | | MITR-06 | S1113-U70 |
| MIT-086P | 1/2" BSPP | 1.36" | 1.85" | 4000 | | | MITR-08 | S1209-U70 |

Plug Style for BSPT Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MIT-026TP | 1/8" BSPT | 0.81" | 1.24" | 5000 | Plug | Urethane | MITR-02 | S1109-U70 |
| MIT-046TP | 1/4" BSPT | 1.00" | 1.41" | 5000 | | | MITR-04 | S1111-U70 |
| MIT-066TP | 3/8" BSPT | 1.18" | 1.49" | 4000 | | | MITR-06 | S1113-U70 |
| MIT-086TP | 1/2" BSPT | 1.36" | 1.85" | 4000 | | | MITR-08 | S1209-U70 |

Notes:

Optional seal materials available are FKM (Viton) and EPDM.

Examples: MIT-044021X**V** = FKM

MIT-044021X**E** = EPDM

MIT-022P**V** = FKM

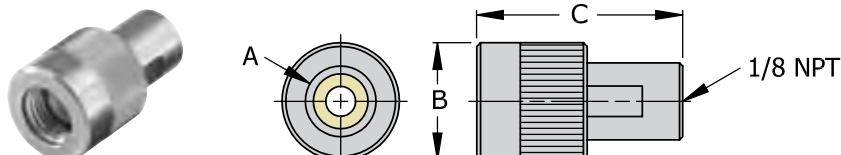
MIT-022P**E** = EPDM

FasCal - "Twist to Connect" Connectors for Male Threads



TwistMate's unique "twist to connect" and pressure assisted grip and seal delivers fast, safe and repeatable threaded connections. Simply twist the connector to finger tight for an instant leak tight and high pressure connection.

- Compatible to NPT, BSPP, BSPT and SAE threads
- Instant connections to 4000 or 5000 psi eliminates tape, sealants and wrenches
- Internal swivel allows easy installation while connected to a supply line
- No damage to threaded parts
- Durable stainless steel



Swivel Style for NPT Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MET-021021 | 1/8" NPT | 0.80" | 1.62" | 5000 | Swivel | Urethane | METR-02 | S1105-U70 |
| MET-041021 | 1/4" NPT | 0.93" | 1.63" | 5000 | | | METR-04 | S1108-U70 |
| MET-061021 | 3/8" NPT | 1.20" | 1.31" | 4000 | | | METR-06 | S1110-U70 |
| MET-081021 | 1/2" NPT | 1.36" | 1.46" | 4000 | | | METR-08 | S1112-U70 |

Swivel Style for SAE 37° Flare - "AN" Type

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MET-049021 | -4 (7/16-20) | 0.80" | 1.62" | 5000 | Swivel | Urethane | METR-049 | S2070-0270B70 |
| MET-069021 | -6 (9/16-18) | 0.93" | 1.63" | 5000 | | | METR-06 | S1012-B70 |
| MET-089021 | -8 (3/4-16) | 1.20" | 1.31" | 4000 | | | METR-08 | S1015-B70 |

Swivel Style for BSPP Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MET-025021 | 1/8" BSPP | 0.80" | 1.62" | 5000 | Swivel | Urethane | METR-02 | S1105-U70 |
| MET-045021 | 1/4" BSPP | 0.93" | 1.63" | 5000 | | | METR-04 | S1108-U70 |
| MET-065021 | 3/8" BSPP | 1.20" | 1.31" | 4000 | | | METR-06 | S1110-U70 |
| MET-085021 | 1/2" BSPP | 1.36" | 1.46" | 4000 | | | METR-08 | S1112-U70 |

Swivel Style for BSPT Threads

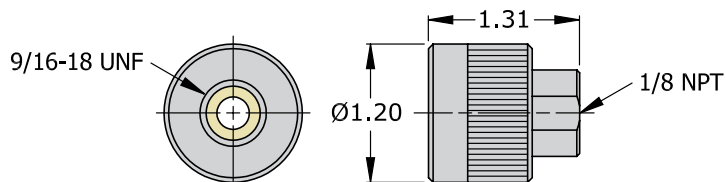
| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MET-025T021 | 1/8" BSPT | 0.80" | 1.62" | 5000 | Swivel | Urethane | METR-02 | S1105-U70 |
| MET-045T021 | 1/4" BSPT | 0.93" | 1.63" | 5000 | | | METR-04 | S1108-U70 |
| MET-065T021 | 3/8" BSPT | 1.20" | 1.31" | 4000 | | | METR-06 | S1110-U70 |
| MET-085T021 | 1/2" BSPT | 1.36" | 1.46" | 4000 | | | METR-08 | S1112-U70 |

Notes:

Optional seal materials available are FKM (Viton) and EPDM.

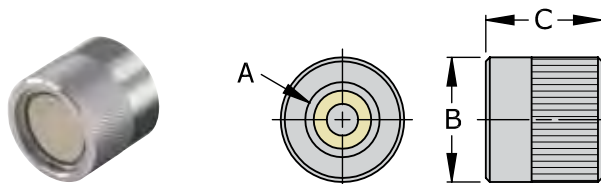
Examples: MET-041021**V** = FKM MET-041021**E** = EPDM

FasCal - "Twist to Connect" Connectors for Male Threads



Swivel Style for MIL Spec 18997 Threads

| Part Number | Connects to | Rated PSI | Housing Style | Seal Material | Repair Kit | Main Seals Package (5) |
|-------------------------|------------------------|-----------|---------------|---------------|----------------|------------------------|
| MET-06-18997-021 | 9/16-18 MIL Spec 18997 | 4000 | Swivel | Urethane | METR-06 | S1109-U70 |



Cap Style for NPT Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-----------------|---------------------|------------------|----------------|-----------|---------------|---------------|----------------|------------------------|
| MET-021C | 1/8" NPT | 0.80" | 0.83" | 5000 | Cap | Urethane | METR-02 | S1105-U70 |
| MET-041C | 1/4" NPT | 0.93" | 0.88" | 5000 | | | METR-04 | S1108-U70 |
| MET-061C | 3/8" NPT | 1.20" | 0.90" | 4000 | | | METR-06 | S1110-U70 |
| MET-081C | 1/2" NPT | 1.36" | 0.97" | 4000 | | | METR-08 | S1112-U70 |

Cap Style for BSPP Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-----------------|---------------------|------------------|----------------|-----------|---------------|---------------|----------------|------------------------|
| MET-025C | 1/8" BSPP | 0.80" | 0.83" | 5000 | Cap | Urethane | METR-02 | S1105-U70 |
| MET-045C | 1/4" BSPP | 0.93" | 0.88" | 5000 | | | METR-04 | S1108-U70 |
| MET-065C | 3/8" BSPP | 1.20" | 0.90" | 4000 | | | METR-06 | S1110-U70 |
| MET-085C | 1/2" BSPP | 1.36" | 0.97" | 4000 | | | METR-08 | S1112-U70 |

Cap Style for BSPT Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|------------------|---------------------|------------------|----------------|-----------|---------------|---------------|----------------|------------------------|
| MET-025TC | 1/8" BSPT | 0.80" | 0.83" | 5000 | Cap | Urethane | METR-02 | S1105-U70 |
| MET-045TC | 1/4" BSPT | 0.93" | 0.88" | 5000 | | | METR-04 | S1108-U70 |
| MET-065TC | 3/8" BSPT | 1.20" | 0.90" | 4000 | | | METR-06 | S1110-U70 |
| MET-085TC | 1/2" BSPT | 1.36" | 0.97" | 4000 | | | METR-08 | S1112-U70 |

Notes:

Optional seal materials available are FKM (Viton) and EPDM.

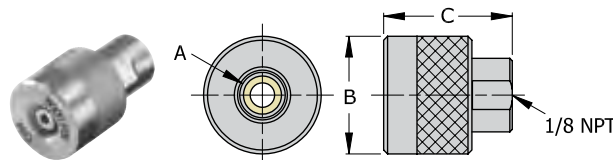
Examples: MET-021C**V** = FKM MET-021C**E** = EPDM

FasCal - "Twist to Connect" Connectors for Compression Fittings



TwistMate's unique "twist to connect" and pressure assisted grip and seal delivers fast, safe and repeatable connections to *Swagelok*®, *Ferulok*® or similar style compression fittings. The connector's internal swivel allows easy installation while plumbed (connected) to a supply line. Simply twist the connector to finger tight for an instant leak tight and high pressure connection.

- Compatible to 1/4", 3/8" and 1/2" *Swagelok* and *Ferulok* style compression fittings
- Instant connections to 4000 or 5000 psi eliminates tape, sealants and wrenches
- No damage to threaded parts
- Durable stainless steel

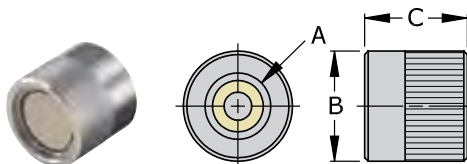


Double Ferrule Compression Fittings - Swivel Style for *Swagelok* and Similar Profiles

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|--------------------|---------------------|------------------|----------------|-----------|---------------|---------------|-----------------|------------------------|
| MET-CF04021 | 1/4" (7/16-20) | 0.95" | 1.63" | 5000 | Swivel | Urethane | METR-049 | S1008-B70 |
| MET-CF06021 | 3/8" (9/16-20) | 1.20" | 1.31" | 4000 | | | METR-06 | S1011-B70 |
| MET-CF08021 | 1/2" (3/4-20) | 1.38" | 1.46" | 4000 | | | METR-08 | S1013-B70 |

Single Ferrule Compression Fittings - Swivel Style for *Ferulok* and Similar Profiles

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|---------------------|---------------------|------------------|----------------|-----------|---------------|---------------|-----------------|------------------------|
| MET-CF04021F | 1/4" (7/16-20) | 0.95" | 1.63" | 5000 | Swivel | Urethane | METR-049 | S1008-B70 |
| MET-CF06021F | 3/8" (9/16-18) | 1.20" | 1.31" | 4000 | | | METR-06 | S1011-B70 |
| MET-CF08021F | 1/2" (3/4-16) | 1.38" | 1.46" | 4000 | | | METR-08 | S1013-B70 |



Double Ferrule Compression Fittings - Cap Style for *Swagelok* and Similar Profiles

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|------------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MET-CF04C | 1/4" (7/16-20) | 0.95" | 0.88" | 5000 | Cap | Urethane | N/A | S1008-B70 |
| MET-CF06C | 3/8" (9/16-20) | 1.20" | 0.90" | 4000 | | | | S1011-B70 |
| MET-CF08C | 1/2" (3/4-20) | 1.38" | 0.97" | 4000 | | | | S1013-B70 |

Single Ferrule Compression Swivel Style Fittings - *Ferulok* and Similar Profiles

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------------|---------------------|------------------|----------------|-----------|---------------|---------------|-------------|------------------------|
| MET-CF04CF | 1/4" (7/16-20) | 0.95" | 0.88" | 5000 | Cap | Urethane | N/A | S1008-B70 |
| MET-CF06CF | 3/8" (9/16-18) | 1.20" | 0.90" | 4000 | | | | S1011-B70 |
| MET-CF08CF | 1/2" (3/4-16) | 1.38" | 0.97" | 4000 | | | | S1013-B70 |

Notes:

Optional seal materials available are FKM (Viton) and EPDM.

Examples: MET-CF04021**Y** = FKM MET-CF04021**E** = EPDM

Higher Pressure Connection Devices

CALIBRATE **5 TIMES FASTER!**

- ✓ *Aerospace*
- ✓ *Military*
- ✓ *Naval*
- ✓ *Power Generation*
- ✓ *Industrial Applications*



FasCal - “Twist to Connect” TwistMate[®] Technology

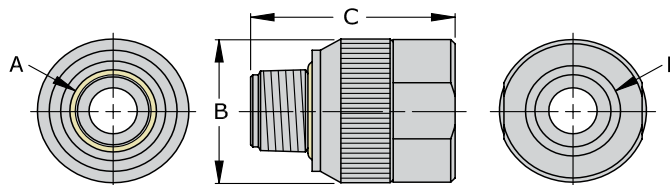


Traditional methods of sealing require a combination of tape sealant, mating thread profiles and torque typically applied with wrenches. Each time a connection is taped and torqued to seal, wear or damage occurs to the mating threads.

TwistMate's unique “twist to connect” and pressure assisted grip and seal delivers fast, safe and repeatable threaded connections. Simply twist the connector to finger tight for an instant leak tight and high pressure connection.

- Compatible to male and female NPT, 37° Flare/AN standard and SAE O-Ring threads
- Instant connections from vacuum to 10,000 psi eliminate tape, sealant and wrenches
- No damage to threaded parts
- Minimize contamination to process media
- Durable stainless steel

FasCal - "Twist to Connect" Connectors for Female Threads



Higher Pressure Connectors for NPT Female Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Term Thd Dim "D" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|--------------|---------------------|------------------|----------------|------------------|-----------|---------------|---------------|-------------|------------------------|
| MITH-022021X | 1/8" NPT | 0.82" | 1.24" | 1/8" NPT | 10,000 | Non Swivel | Urethane | MITR-02 | S1109-U70 |
| MITH-042041X | 1/4" NPT | 1.00" | 1.41" | 1/4" NPT | 10,000 | | | MITR-04 | S1111-U70 |
| MITH-062061X | 3/8" NPT | 1.18" | 1.48" | 3/8" NPT | 10,000 | | | MITR-06 | S1113-U70 |
| MITH-082081X | 1/2" NPT | 1.36" | 1.85" | 1/2" NPT | 8000 | | | MITR-08 | S1209-U70 |
| MITH-122121X | 3/4" NPT | 1.68" | 1.94" | 3/4" NPT | 7500 | | | MITR-12 | S1213-U70 |
| MITH-162161X | 1" NPT | 2.00" | 2.07" | 1" NPT | 6500 | | | MITR-16 | S1216-U70 |

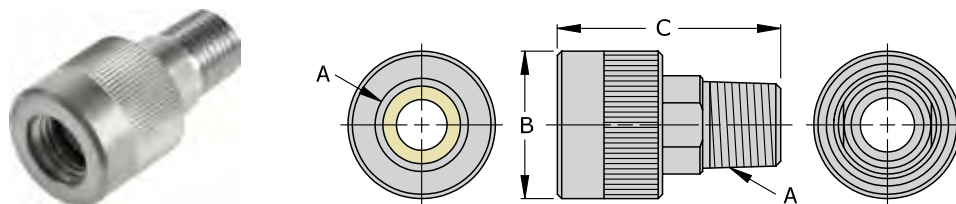
Higher Pressure Connectors for Female SAE O-Ring Boss

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Term Thd Dim "D" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|--------------|---------------------|------------------|----------------|------------------|-----------|---------------|---------------|-------------|------------------------|
| MITH-044021X | -4 (7/16-20) | 0.82" | 1.29" | 1/8" NPT | 10,000 | Non Swivel | Urethane | MITR-02 | S1109-U70 |
| MITH-064041X | -6 (9/16-18) | 1.00" | 1.41" | 1/4" NPT | 10,000 | | | MITR-04 | S1111-U70 |
| MITH-084081X | -8 (3/4-16) | 1.36" | 1.85" | 1/2" NPT | 8000 | | | MITR-08 | S1209-U70 |
| MITH-104081X | -10 (7/8-14) | 1.36" | 1.85" | 1/2" NPT | 7500 | | | | S1209-U70 |
| MITH-124121X | -12 (1 1/16-12) | 1.68" | 1.94" | 3/4" NPT | 7500 | | | MITR-12 | S1213-U70 |
| MITH-144161X | -14 (1 3/16-12) | 2.00" | 2.13" | 1" NPT | 7000 | | | MITR-16 | S1216-U70 |
| MITH-164161X | -16 (1 5/16-12) | 2.00" | 2.13" | 1" NPT | 7000 | | | | S1217-U70 |

For Skydrol hydraulic fluid use, specify EPR seal material - "E".

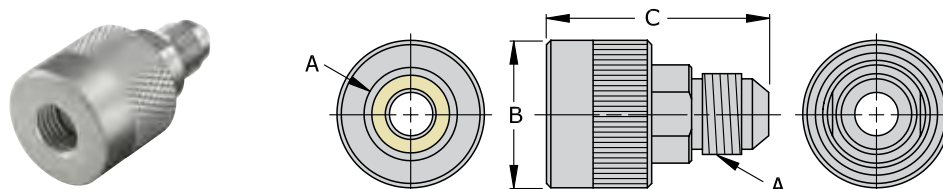
Example: Connector - MITH-042041X**E** Seal Set - S1111-**E**70

FasCal - "Twist to Connect" Connectors for Male Threads



Higher Pressure Connectors for NPT Male Threads

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|--------------------|---------------------|------------------|----------------|-----------|---------------|---------------|----------------|------------------------|
| METH-021022 | 1/8" NPT | 0.82" | 1.51" | 10,000 | Swivel | Urethane | METR-02 | S1105-U70 |
| METH-041042 | 1/4" NPT | 0.94" | 1.74" | 8000 | | | METR-04 | S1108-U70 |
| METH-061062 | 3/8" NPT | 1.18" | 1.78" | 8000 | | | METR-06 | S1110-U70 |
| METH-081082 | 1/2" NPT | 1.60" | 2.05" | 6000 | | | METR-08 | S1112-U70 |
| METH-121122 | 3/4" NPT | 1.68" | 2.34" | 5000 | | | METR-12 | S1115-U70 |
| METH-161162 | 1" NPT | 2.00" | 2.74" | 5000 | | | METR-16 | S1212-U70 |



Higher Pressure Connectors for Male 37° Flare - AN Standard

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Rated PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|--------------------|---------------------|------------------|----------------|-----------|---------------|---------------|-----------------|------------------------|
| METH-049040 | -4 (7/16-20) | 0.95" | 1.76" | 10,000 | Swivel | Buna N | METR-049 | S2070-0270B70 |
| METH-069060 | -6 (9/16-18) | 1.20" | 1.83" | 10,000 | | | METR-06 | S1012-B70 |
| METH-089080 | -8 (3/4-16) | 1.38" | 2.00" | 10,000 | | | METR-08 | S1015-B70 |
| METH-109100 | -10 (7/8-14) | 1.51" | 2.35" | 10,000 | | | | S1016-B70 |
| METH-129120 | -12 (1 1/16-12) | 1.70" | 2.52" | 10,000 | | | METR-12 | S1018-B70 |

For Skydrol hydraulic fluid use, specify EPR seal material - "E".

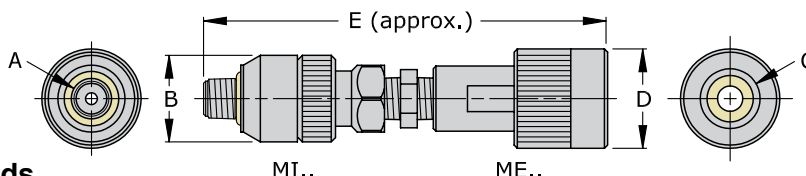
Example: Connector - METH-049040**E** Seal Set - S2070-0270**E**70

FasCal - "Twist to Connect" - Transition Connectors



TwistMate's modular stainless steel design is ideal for combining to transition from one thread profile to another to deliver the same features found with individual connectors. Save more time with assembled transition connectors from **Fastest** when instrument calibration time is critical.

- For 1/8" male to 1/8", 1/4", 3/8" and 1/2" female NPT, BSPP and BSPT threads
- Instant connections to 4000 or 5000 psi eliminates tape, sealants and wrenches
- Internal swivel allows easy installation while connected to a supply line



Transition Connectors for NPT Threads

| Part Number | Connects to Dim "A" | Dia. Dim "B" | Connects to Dim "C" | Dia. Dim "D" | Length Dim "E" | Rated PSI | Housing Style | Seal Material | MI .. Main Seals Package (5) | ME .. Main Seals Package (5) |
|-------------|---------------------|--------------|---------------------|--------------|----------------|-----------|---------------|---------------|------------------------------|------------------------------|
| MI022-ME021 | 1/8" NPT | 0.81" | 1/8" NPT | 0.80" | 3.74" | 5000 | Swivel | Urethane | S1109-U70 | S1105-U70 |
| MI022-ME041 | | | 1/4" NPT | 0.93" | 3.78" | 5000 | | | | S1108-U70 |
| MI022-ME061 | | | 3/8" NPT | 1.20" | 3.46" | 4000 | | | | S1110-U70 |
| MI022-ME081 | | | 1/2" NPT | 1.36" | 3.61" | 4000 | | | | S1112-U70 |
| MI042-ME021 | 1/4" NPT | 1.00" | 1/8" NPT | 0.80" | 3.95" | 5000 | Swivel | Urethane | S1111-U70 | S1105-U70 |
| MI042-ME041 | | | 1/4" NPT | 0.93" | 3.97" | 5000 | | | | S1108-U70 |
| MI042-ME061 | | | 3/8" NPT | 1.20" | 3.65" | 4000 | | | | S1110-U70 |
| MI042-ME081 | | | 1/2" NPT | 1.36" | 3.80" | 4000 | | | | S1112-U70 |

Transition Connectors for BSPP Threads

| Part Number | Connects to Dim "A" | Dia. Dim "B" | Connects to Dim "C" | Dia. Dim "D" | Length Dim "E" | Rated PSI | Housing Style | Seal Material | MI .. Main Seals Package (5) | ME .. Main Seals Package (5) |
|-------------|---------------------|--------------|---------------------|--------------|----------------|-----------|---------------|---------------|------------------------------|------------------------------|
| MI026-ME025 | 1/8" BSPP | 0.81" | 1/8" BSPP | 0.80" | 3.74" | 5000 | Swivel | Urethane | S1109-U70 | S1105-U70 |
| MI026-ME045 | | | 1/4" BSPP | 0.93" | 3.78" | 5000 | | | | S1108-U70 |
| MI026-ME065 | | | 3/8" BSPP | 1.20" | 3.46" | 4000 | | | | S1110-U70 |
| MI026-ME085 | | | 1/2" BSPP | 1.36" | 3.61" | 4000 | | | | S1112-U70 |
| MI046-ME025 | 1/4" BSPP | 1.00" | 1/8" BSPP | 0.80" | 3.95" | 5000 | Swivel | Urethane | S1111-U70 | S1105-U70 |
| MI046-ME045 | | | 1/4" BSPP | 0.93" | 3.97" | 5000 | | | | S1108-U70 |
| MI046-ME065 | | | 3/8" BSPP | 1.20" | 3.65" | 4000 | | | | S1110-U70 |
| MI046-ME085 | | | 1/2" BSPP | 1.36" | 3.80" | 4000 | | | | S1112-U70 |

Transition Connectors for BSPT Threads

| Part Number | Connects to Dim "A" | Dia. Dim "B" | Connects to Dim "C" | Dia. Dim "D" | Length Dim "E" | Rated PSI | Housing Style | Seal Material | MI .. Main Seals Package (5) | ME .. Main Seals Package (5) |
|---------------|---------------------|--------------|---------------------|--------------|----------------|-----------|---------------|---------------|------------------------------|------------------------------|
| MI026T-ME025T | 1/8" BSPT | 0.81" | 1/8" BSPT | 0.80" | 3.74" | 5000 | Swivel | Urethane | S1109-U70 | S1105-U70 |
| MI026T-ME045T | | | 1/4" BSPT | 0.93" | 3.78" | 5000 | | | | S1108-U70 |
| MI026T-ME065T | | | 3/8" BSPT | 1.20" | 3.46" | 4000 | | | | S1110-U70 |
| MI026T-ME085T | | | 1/2" BSPT | 1.36" | 3.61" | 4000 | | | | S1112-U70 |
| MI046T-ME025T | 1/4" BSPT | 1.00" | 1/8" BSPT | 0.80" | 3.95" | 5000 | Swivel | Urethane | S1111-U70 | S1105-U70 |
| MI046T-ME045T | | | 1/4" BSPT | 0.93" | 3.97" | 5000 | | | | S1108-U70 |
| MI046T-ME065T | | | 3/8" BSPT | 1.20" | 3.65" | 4000 | | | | S1110-U70 |
| MI046T-ME085T | | | 1/2" BSPT | 1.36" | 3.80" | 4000 | | | | S1112-U70 |

FasCal - "Twist to Connect" - Flow Bench Step Tree Connectors



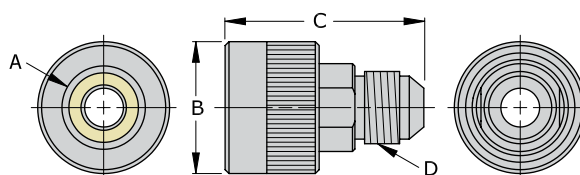
In many flow laboratories, calibrations have to be made on transmitters with different sized AN fittings. Making leak tight connections to all of these different sizes can be a challenging task. The **TwistMate** AN Step connectors are specifically designed to provide leak tight connections on Flow Calibration Benches without the use of tape or wrenches.

The AN Step connectors allow connection to a flow source with a male AN fitting of the required sizes from AN 6 up to AN 32. To step down to the appropriate AN female flow tube connector, AN reducer or step down connectors are available to match up with the application.

- Stainless steel styles provide incremental steps from AN 32 down to AN 4
- Instant connections eliminate tape, sealants and wrenches
- Reduces potential of damaging expensive tube style flow transmitters
- Field replaceable seals available in various materials



Swivel Flare Style



Bench Step Connectors for SAE 37° Flare - "AN" Standard (per SAE J514 or ISO 12151-5)

| Part Number | Connects to Dim "A" | Diameter Dim "B" | Length Dim "C" | Term Thread Dim "D" | Rating PSI | Housing Style | Seal Material | Repair Kits | Main Seals Package (5) |
|-------------------|---------------------|------------------|----------------|---------------------|------------|---------------|---------------|-----------------|------------------------|
| MET-069040 | -6 (9/16-18) | 1.20" | 1.82" | -4 (7/16-20) | 5000 | Swivel | Buna N | METR-06 | S1012-B70 |
| MET-089060 | -8 (3/4-16) | 1.38" | 1.90" | -6 (9/16-18) | 4000 | | | METR-08 | S1015-B70 |
| MET-109080 | -10 (7/8-14) | 1.51" | 2.25" | -8 (3/4-16) | 4000 | | | | S1016-B70 |
| MET-129100 | -12 (1 1/16-12) | 1.70" | 2.52" | -10 (7/8-14) | 4000 | | | METR-12 | S1018-B70 |
| MET-169120 | -16 (1 5/16-12) | 1.99" | 2.70" | -12 (1 1/16-12) | 1000 | | | METR-16 | S1120-B70 |
| MET-209160 | -20 (1 5/8-12) | 2.37" | 3.21" | -16 (1 5/16-12) | 1000 | | | METR-20 | S1124-B70 |
| MET-249200 | -24 (1 7/8-12) | 2.50" | 3.38" | -20 (1 5/8-12) | 750 | | | METR-24 | S1129-B70 |
| MET-329240 | -32 (2 1/2-12) | 3.25" | 3.49" | -24 (1 7/8-12) | 750 | | | METR-329 | S1227-B70 |

Notes:

Optional seal materials available are FKM (Viton) and EPDM.

Examples: MET-069040**V** = FKM MET-069040**E** = EPDM

FasCal Accessories - Hose Assemblies



Hose shown with optional **TwistMate** connectors

Fastest high pressure hose assemblies are ideal for fast, modular connections in small hard to reach places where instrument calibration is necessary.

- 1/8" male to 1/8" male NPT threads mate to any **FasCal** connector
- Available in convenient 18, 36 and 72" lengths
- Pressure rated to 10,000 psi

| Part Number | Hose Length | Rating PSI | Hose Material | Connector Material |
|-------------|-------------|------------|------------------|--------------------|
| HP022X18 | 18 Inches | 10,000 | Polyamide/Aramid | Stainless Steel |
| HP022X36 | 36 Inches | | | |
| HP022X72 | 72 Inches | | | |

Note: For assembled configurations with 1/8" NPT male connectors, consult factory.

FasCal - Basic Calibration Kits



The **FasCal** Basic Calibration Kit includes basic connectors needed to instantly improve your calibration throughput of transmitters, control valves and pressure sensing instruments and is ideal for every service vehicle in your fleet.

Custom kit configurations available - consult factory

Basic Calibration Kit - FSC01

| | Part Number | Description | Specifications | Main Seals Package (5) |
|--------------------|--------------|--|----------------|------------------------|
| For Female Threads | MIT-022021 | 1/8" Male NPT Swivel Connector | Page 7 | S1109-U70 |
| | MIT-042021 | 1/4" Male NPT Swivel Connector | | S1111-U70 |
| | MIT-082021 | 1/2" Male NPT Swivel Connector | | S1209-U70 |
| | MIT-042021TM | 1/4" Male NPT Swivel Connector for IEC Transmitter Ports | Page 6 | S1111-U70 |
| For Male Threads | MET-021021 | 1/8" Female NPT Swivel Connector | Page 9 | S1105-U70 |
| | MET-041021 | 1/4" Female NPT Swivel Connector | | S1108-U70 |
| | MET-081021 | 1/2" Female NPT Swivel Connector | | S1112-U70 |
| Access. | FCC01 | Plastic Tote Case | | |
| | STR012 | Seal Service Tool | | |

FasCal - Basic Calibration Kits

Basic Calibration Kit, BSPP Threads - FSC01-BSPP

| | Part Number | Description | Specifications | Main Seals Package (5) |
|--------------------|--------------|--|----------------|------------------------|
| For Female Threads | MIT-026021 | 1/8" Male BSPP Swivel Connector | Page 7 | S1109-U70 |
| | MIT-046021 | 1/4" Male BSPP Swivel Connector | | S1111-U70 |
| | MIT-086021 | 1/2" Male BSPP Swivel Connector | | S1209-U70 |
| | MIT-042021TM | 1/4" Male NPT Swivel Connector for IEC Transmitter Ports | Page 6 | S1111-U70 |
| For Male Threads | MET-025021 | 1/8" Female BSPP Swivel Connector | Page 9 | S1105-U70 |
| | MET-045021 | 1/4" Female BSPP Swivel Connector | | S1108-U70 |
| | MET-085021 | 1/2" Female BSPP Swivel Connector | | S1112-U70 |
| Access. | FCC01 | Plastic Tote Case | | |
| | STR012 | Seal Service Tool | | |

Basic Calibration Kit, BSPT Threads - FSC01-BSPT

| | Part Number | Description | Specifications | Main Seals Package (5) |
|--------------------|--------------|--|----------------|------------------------|
| For Female Threads | MIT-026T021 | 1/8" Male BSPT Swivel Connector | Page 7 | S1109-U70 |
| | MIT-046T021 | 1/4" Male BSPT Swivel Connector | | S1111-U70 |
| | MIT-086T021 | 1/2" Male BSPT Swivel Connector | | S1209-U70 |
| | MIT-042021TM | 1/4" Male NPT Swivel Connector for IEC Transmitter Ports | Page 6 | S1111-U70 |
| For Male Threads | MET-025T021 | 1/8" Female BSPT Swivel Connector | Page 9 | S1105-U70 |
| | MET-045T021 | 1/4" Female BSPT Swivel Connector | | S1108-U70 |
| | MET-085T021 | 1/2" Female BSPT Swivel Connector | | S1112-U70 |
| Access. | FCC01 | Plastic Tote Case | | |
| | STR012 | Seal Service Tool | | |

FasCal - Gauge Calibration Kit



The **FasCal** 5000 psi Gauge Calibration Kit includes all of the essential metrology lab items for higher pressure calibration needs often found in the military and aerospace industries. This collection of connectors and manifold are ideal for high volume efficient calibration of transmitters, gauges, control valves and pressure sensing instruments.

Custom kit configurations available - consult factory

5000 psi Calibration Kit - FSC-02G

| 5000 psi Calibration Kit - FSC-02G | | | | Part Number | |
|------------------------------------|---|---|----------------|-----------------------|-----------|
| | Part Number | Description | Specifications | | |
| Manifold | FF010 | Calibration Manifold 10,000 psi 4 port | Page 5 | Replacement Seal Sets | |
| For Male Threads | HPB-041021 | 1/4" NPT Sleeve Actuated Connector | Page 6 | | S1105-U70 |
| | HPB-081021 | 1/2" NPT Sleeve Actuated Connector | | | S1008-B70 |
| | MET-021021 | 1/8" Female NPT Swivel Connector | Page 14 | | S1110-U70 |
| | MET-061021 | 3/8" Female NPT Swivel Connector | | | S1109-U70 |
| | MET-049021 | -4 (7/16-20) - #4 AN Female Swivel Connector | | | S1112-B70 |
| | MET-069021 | -6 (9/16-18) - #6 AN Female Swivel Connector | | | S1012-B70 |
| MET-06-18997-021 | 9/16"-18 (Mil Spec 18997) Female Swivel Connector | Page 15 | S2070-0270B70 | | |
| For Female Threads | MIT-022021 | 1/8" Male NPT Swivel Connector (2 pieces) | Page 12 | | |
| | MIT-022021X | 1/8" Male NPT Non Swivel Connector (7 pieces) | Page 13 | | |
| | MIT-022P | 1/8" Male NPT Plug (2 pieces) | | | |
| Accessories | APN022 | 1/8" Male NPT to 1/8" Male NPT Fitting (7 pieces) | Page 5 | | |
| | APP02H | 1/8" NPT Male Hex Plug | | | |
| | APP04H | 1/4" NPT Male Hex Plug (2 pieces) | | | |
| | APP06H | 3/8" NPT Male Hex Plug | | | |
| | APP08H | 1/2" NPT Male Hex Plug | | | |
| | HP022X036 | 1/8" Male NPT to 1/8" Male NPT 36" Hose Assembly | Page 22 | | |
| | FCC02 | Plastic Cabinet Case | | | |
| | STR012 | Seal Service Tool | | | |
| FDC3 | Seal Lubrication | | | | |

FasCal - Master Lab Calibration Kits



The **FasCal** Master Lab Calibration Kit includes practically every connector needed for your calibration shop or service vehicle needs. The popular sleeve and lever actuated connectors combined with the “*twist to connect*” family of transition connectors are ideal for high volume efficient calibration of transmitters, gauges, control valves and pressure sensing instruments.

Custom kit configurations available - consult factory

Master Lab Calibration Kit, NPT Threads - FSC02

| | Part Number | Description | Specifications |
|--------------------------|--------------|--|----------------|
| For Compression | HPB-CF04021 | 1/4" (7/16-20) Sleeve Actuated Connector for <i>Swagelok</i> | Page 6 |
| | MET-CF04021 | 1/4" (7/16-20) Connector for <i>Swagelok</i> | Page 16 |
| | MET-CF06021 | 3/8" (9/16-20) Connector for <i>Swagelok</i> | |
| | MET-CF08021 | 1/2" (3/4-20) Connector for <i>Swagelok</i> | |
| | MET-CF04C | 1/4" (7/16-20) Cap for <i>Swagelok</i> | |
| | MET-CF06C | 3/8" (9/16-20) Cap for <i>Swagelok</i> | |
| | MET-CF08C | 1/2" (3/4-20) Cap for <i>Swagelok</i> | |
| IEC | L042021TM | 1/4" Male NPT Lever Actuated Connector | Page 8 |
| | MIT-042021TM | 1/4" Male NPT Swivel Connector | |
| For Male Threads | MET-021021 | 1/8" Female NPT Swivel Connector | Page 14 |
| | MET-041021 | 1/4" Female NPT Swivel Connector | |
| | MET-061021 | 3/8" Female NPT Swivel Connector | |
| | MET-081021 | 1/2" Female NPT Swivel Connector | |
| | MET-021C | 1/8" Female NPT Cap | Page 15 |
| | MET-041C | 1/4" Female NPT Cap | |
| | MET-061C | 3/8" Female NPT Cap | |
| | MET-081C | 1/2" Female NPT Cap | |
| For Female Threads | MIT-022021 | 1/8" Male NPT Swivel Connector | Page 12 |
| | MIT-042021 | 1/4" Male NPT Swivel Connector | |
| | MIT-062021 | 3/8" Male NPT Swivel Connector | |
| | MIT-082021 | 1/2" Male NPT Swivel Connector | |
| | MIT-022P | 1/8" Male NPT Plug | Page 13 |
| | MIT-042P | 1/4" Male NPT Plug | |
| | MIT-062P | 3/8" Male NPT Plug | |
| | MIT-082P | 1/2" Male NPT Plug | |
| Adapters - Male / Female | MI022-ME021 | 1/8" Male NPT to 1/8" Female NPT Swivel Connector | Page 20 |
| | MI022-ME041 | 1/8" Male NPT to 1/4" Female NPT Swivel Connector | |
| | MI022-ME061 | 1/8" Male NPT to 3/8" Female NPT Swivel Connector | |
| | MI022-ME081 | 1/8" Male NPT to 1/2" Female NPT Swivel Connector | |
| | MI042-ME021 | 1/4" Male NPT to 1/8" Female NPT Swivel Connector | |
| | MI042-ME041 | 1/4" Male NPT to 1/4" Female NPT Swivel Connector | |
| | MI042-ME061 | 1/4" Male NPT to 3/8" Female NPT Swivel Connector | |
| | MI042-ME081 | 1/4" Male NPT to 1/2" Female NPT Swivel Connector | |
| Accessories | APN022 | 1/8" Male NPT to 1/8" Male NPT Fitting | Page 5 |
| | HP022X036 | 1/8" Male NPT to 1/8" Male NPT 36" Hose Assembly | Page 22 |
| | FCC02 | Plastic Cabinet Case | |
| | STR012 | Seal Service Tool | |

| | Part Number |
|-----------------------|-------------|
| Replacement Seal Sets | S1008-B70 |
| | S1011-B70 |
| | S1013-B70 |
| | S1105-U70 |
| | S1108-U70 |
| | S1109-U70 |
| | S1110-U70 |
| | S1111-U70 |
| | S1112-U70 |
| | S1113-U70 |
| | S1209-U70 |
| | SL042B |

FasCal - Master Lab Calibration Kits

Master Lab Calibration Kit, BSPP Threads - FSC02-BSPP

| | Part Number | Description | Specifications |
|--------------------------|--------------|--|----------------|
| For Compression | HPB-CF04021 | 1/4" (7/16-20) Sleeve Actuated Connector for <i>Swagelok</i> | Page 6 |
| | MET-CF04021 | 1/4" (7/16-20) Connector for <i>Swagelok</i> | Page 16 |
| | MET-CF06021 | 3/8" (9/16-20) Connector for <i>Swagelok</i> | |
| | MET-CF08021 | 1/2" (3/4-20) Connector for <i>Swagelok</i> | |
| | MET-CF04C | 1/4" (7/16-20) Cap for <i>Swagelok</i> | |
| | MET-CF06C | 3/8" (9/16-20) Cap for <i>Swagelok</i> | |
| | MET-CF08C | 1/2" (3/4-20) Cap for <i>Swagelok</i> | |
| IEC | L042021TM | 1/4" Male NPT Lever Actuated Connector | Page 8 |
| | MIT-042021TM | 1/4" Male NPT Swivel Connector | |
| For Male Threads | MET-025021 | 1/8" Female BSPP Swivel Connector | Page 14 |
| | MET-045021 | 1/4" Female BSPP Swivel Connector | |
| | MET-065021 | 3/8" Female BSPP Swivel Connector | |
| | MET-085021 | 1/2" Female BSPP Swivel Connector | |
| | MET-025C | 1/8" Female BSPP Cap | Page 15 |
| | MET-045C | 1/4" Female BSPP Cap | |
| | MET-065C | 3/8" Female BSPP Cap | |
| | MET-085C | 1/2" Female BSPP Cap | |
| For Female Threads | MIT-026021 | 1/8" Male BSPP Swivel Connector | Page 12 |
| | MIT-046021 | 1/4" Male BSPP Swivel Connector | |
| | MIT-066021 | 3/8" Male BSPP Swivel Connector | |
| | MIT-086021 | 1/2" Male BSPP Swivel Connector | |
| | MIT-026P | 1/8" Male BSPP Plug | Page 13 |
| | MIT-046P | 1/4" Male BSPP Plug | |
| | MIT-066P | 3/8" Male BSPP Plug | |
| | MIT-086P | 1/2" Male BSPP Plug | |
| Adapters - Male \ Female | MI026-ME025 | 1/8" Male BSPP to 1/8" Female BSPP Swivel Connector | Page 20 |
| | MI026-ME045 | 1/8" Male BSPP to 1/4" Female BSPP Swivel Connector | |
| | MI026-ME065 | 1/8" Male BSPP to 3/8" Female BSPP Swivel Connector | |
| | MI026-ME085 | 1/8" Male BSPP to 1/2" Female BSPP Swivel Connector | |
| | MI046-ME025 | 1/4" Male BSPP to 1/8" Female BSPP Swivel Connector | |
| | MI046-ME045 | 1/4" Male BSPP to 1/4" Female BSPP Swivel Connector | |
| | MI046-ME065 | 1/4" Male BSPP to 3/8" Female BSPP Swivel Connector | |
| | MI046-ME085 | 1/4" Male BSPP to 1/2" Female BSPP Swivel Connector | |
| Accessories | APN022 | 1/8" Male NPT to 1/8" Male NPT Fitting | Page 5 |
| | HP022X036 | 1/8" Male NPT to 1/8" Male NPT 36" Hose Assembly | Page 22 |
| | FCC02 | Plastic Cabinet Case | |
| | STR012 | Seal Service Tool | |

| | Part Number |
|-----------------------|-------------|
| Replacement Seal Sets | S1008-B70 |
| | S1011-B70 |
| | S1013-B70 |
| | S1105-U70 |
| | S1108-U70 |
| | S1109-U70 |
| | S1110-U70 |
| | S1111-U70 |
| | S1112-U70 |
| | S1113-U70 |
| | S1209-U70 |
| | SL042B |

FasCal - Master Lab Calibration Kits

Master Lab Calibration Kit, BSPT Threads - FSC02-BSPT

| | Part Number | Description | Specifications |
|------------------------|---------------|--|----------------|
| Compression | HPB-CF04021 | 1/4" (7/16-20) Sleeve Actuated Connector for <i>Swagelok</i> | Page 6 |
| | MET-CF04021 | 1/4" (7/16-20) Connector for <i>Swagelok</i> | Page 16 |
| | MET-CF06021 | 3/8" (9/16-20) Connector for <i>Swagelok</i> | |
| | MET-CF08021 | 1/2" (3/4-20) Connector for <i>Swagelok</i> | |
| | MET-CF04C | 1/4" (7/16-20) Cap for <i>Swagelok</i> | |
| | MET-CF06C | 3/8" (9/16-20) Cap for <i>Swagelok</i> | |
| | MET-CF08C | 1/2" (3/4-20) Cap for <i>Swagelok</i> | |
| IEC | L042021TM | 1/4" Male NPT Lever Actuated Connector | Page 8 |
| | MIT-042021TM | 1/4" Male NPT Swivel Connector | |
| For Male Threads | MET-025T021 | 1/8" Female BSPT Swivel Connector | Page 14 |
| | MET-045T021 | 1/4" Female BSPT Swivel Connector | |
| | MET-065T021 | 3/8" Female BSPT Swivel Connector | |
| | MET-085T021 | 1/2" Female BSPT Swivel Connector | |
| | MET-025TC | 1/8" Female BSPT Cap | Page 15 |
| | MET-045TC | 1/4" Female BSPT Cap | |
| | MET-065TC | 3/8" Female BSPT Cap | |
| | MET-085TC | 1/2" Female BSPT Cap | |
| For Female Threads | MIT-026T021 | 1/8" Male BSPT Swivel Connector | Page 12 |
| | MIT-046T021 | 1/4" Male BSPT Swivel Connector | |
| | MIT-066T021 | 3/8" Male BSPT Swivel Connector | |
| | MIT-086T021 | 1/2" Male BSPT Swivel Connector | |
| | MIT-026TP | 1/8" Male BSPT Plug | Page 13 |
| | MIT-046TP | 1/4" Male BSPT Plug | |
| | MIT-066TP | 3/8" Male BSPT Plug | |
| | MIT-086TP | 1/2" Male BSPT Plug | |
| Male \ Female Adapters | MI026T-ME025T | 1/8" Male BSPT to 1/8" Female BSPT Swivel Connector | Page 20 |
| | MI026T-ME045T | 1/8" Male BSPT to 1/4" Female BSPT Swivel Connector | |
| | MI026T-ME065T | 1/8" Male BSPT to 3/8" Female BSPT Swivel Connector | |
| | MI026T-ME085T | 1/8" Male BSPT to 1/2" Female BSPT Swivel Connector | |
| | MI046T-ME025T | 1/4" Male BSPT to 1/8" Female BSPT Swivel Connector | |
| | MI046T-ME045T | 1/4" Male BSPT to 1/4" Female BSPT Swivel Connector | |
| | MI046T-ME065T | 1/4" Male BSPT to 3/8" Female BSPT Swivel Connector | |
| | MI046T-ME085T | 1/4" Male BSPT to 1/2" Female BSPT Swivel Connector | |
| Accessories | APN022 | 1/8" Male NPT to 1/8" Male NPT Fitting | Page 5 |
| | HP022X036 | 1/8" Male NPT to 1/8" Male NPT 36" Hose Assembly | Page 22 |
| | FCC02 | Plastic Cabinet Case | |
| | STR012 | Seal Service Tool | |

| | Part Number |
|-----------------------|-------------|
| Replacement Seal Sets | S1008-B70 |
| | S1011-B70 |
| | S1013-B70 |
| | S1105-U70 |
| | S1108-U70 |
| | S1109-U70 |
| | S1110-U70 |
| | S1111-U70 |
| | S1112-U70 |
| | S1113-U70 |
| | S1209-U70 |
| | SL042B |

Additional Products and Brochures from FasTest



TwistMate Connectors

Complete product line of manually threaded connectors featuring pressure assisted sealing technology for leak and pressure testing applications.



Electronic Tool System (ETS)

Electronic sealing sealing device for leak test applications requiring ultimate seal control and clean operation.



Refrigeration Connectors

The **CoreMax** system of high flow processing valves and connectors for the refrigeration manufacturing and service industry.

Additional Options and Services from FasTest

ReConnect - Our connector refurbishment and competitor replacement program ensures proper connector operation and performance and extends the service life and warranty of your investment. Connectors routinely maintained can be refurbished or replaced economically relative to the cost of a new connector replacement. Contact your local **FasTest** Distributor for details.

ReConnect

Custom Applications - Customized products are available for unusual or unique connection requirements.

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