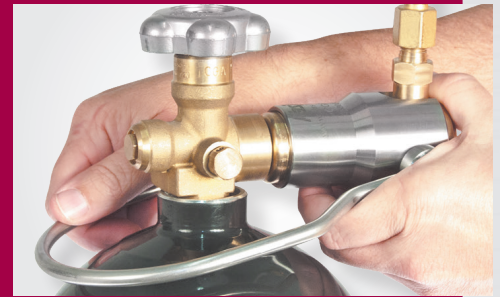


**COST, PROCESS & QUALITY IMPROVEMENT**

## COMPRESSED GAS FILLING CONNECTORS

- *Improve productivity*
- *Eliminate hand tightening*
- *Safely connect in seconds*

**FastTest®**  
Compressed Gas Products



[www.fastestinc.com](http://www.fastestinc.com)





Your Productivity Connection

## Cost, Process and Quality Improvement

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

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

### **FasTest** connector benefits:

- Quick temporary, leak tight connections, which are consistent and repeatable and standardize operational processes
- Reliable and secure connections under dynamic high pressure conditions
- Increase production throughput and quality while dramatically reducing operating costs
- Eliminate testing bottlenecks, ideal for automation to accommodate high volume production testing
- Ready-to-use tools, so no more jury-rigged or homemade devices that are often leaky, inadequate and cumbersome
- Wide range of standard and custom products for different connection profiles

### Widely used in:

- Manufacturing leak test, including pressure decay, tracer gas, mass spectrometer
- Pressure or vacuum tests of gauges, metrological transmitters
- Rapid filling or discharge of coolant in refrigeration systems

## The Ultimate in Filling Technology

**FasTest's** high-pressure, gas filling connectors have a proven track record with over a decade of service in the field.

**FasTest** gas connectors offer a "No Twist, No Turn" approach to cylinder filling. Under pressure, a secure, leak-tight seal is established with our patented safety locking mechanism. The advantages of the designs give our customers the edge through ergonomic efficiency and increased productivity, resulting in greater profitability. Our connectors will improve your cylinder filling performance, whether it is one cylinder at a time, inverted rack filling, or palletized cylinder filling.

Gas is a commodity! Studies, performed by several compressed gas companies, show increases of 25-30% in productivity in less than a year. It's a proven fact that **FasTest** gas connectors can cut 20 to 30 seconds off the hook-up and disconnect time cycles of each cylinder. No more "twisting or turning," common with conventional wheelnut connections. No more repetitive stress syndrome.

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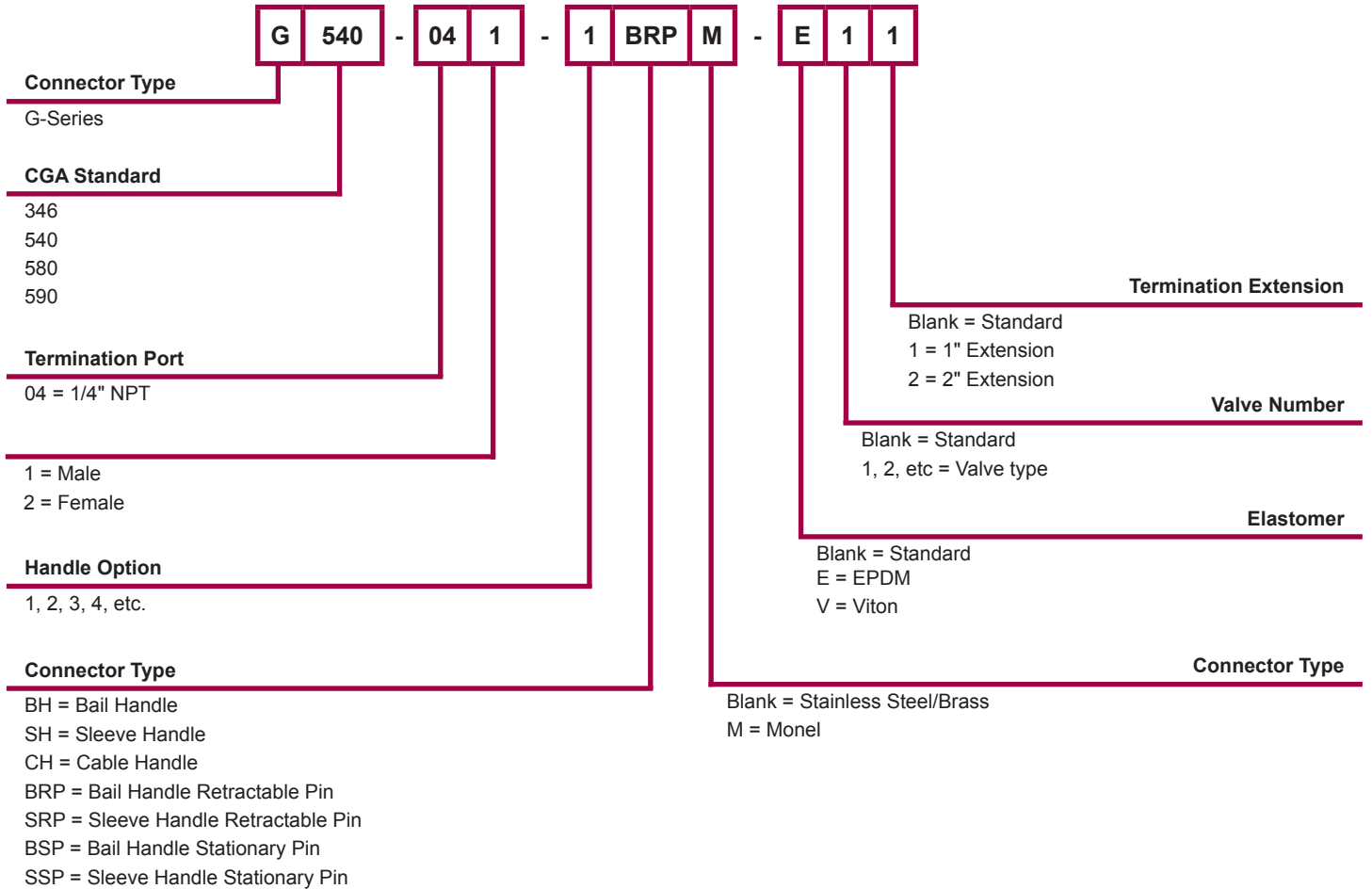
## SELECTION GUIDE

Connector Housing	CGA Standard	Part Number	Application	Features	Page
	346 Female	<b>G346-041...</b>	Compressed Air	<ul style="list-style-type: none"> <li>Stainless Steel or Monel and Brass</li> <li>Bail handle actuator</li> <li>Viton or EPDM seals</li> <li>Brass &amp; Stainless Steel or Monel wetted components</li> <li>Cleaned for oxygen service</li> <li>Safety lock</li> </ul>	Page 10
	540 Female	<b>G540-041...</b>	Oxygen		Page 6
	540 RPV Female	<b>G540-041...</b>	Oxygen	<ul style="list-style-type: none"> <li>Designed for residual pressure valve filling</li> <li>Stainless Steel or Monel and Brass</li> <li>Bail handle actuator</li> <li>Viton or EPDM seals</li> <li>Brass &amp; Stainless Steel or Monel wetted components</li> <li>Cleaned for oxygen Service</li> <li>Safety lock</li> </ul>	Page 7
	580 Male	<b>G580-041...</b>	Inert Gases	<ul style="list-style-type: none"> <li>Stainless Steel and Brass</li> <li>Bail handle actuator</li> <li>Viton or EPDM seals</li> <li>Brass &amp; stainless steel wetted components</li> <li>Safety lock</li> </ul>	Page 8
	590 Male	<b>G590-041...</b>	Synthetic Air		Page 11
	580 RPV Male	<b>G580-041...</b>	Inert Gases	<ul style="list-style-type: none"> <li>Designed for residual pressure valve filling</li> <li>Stainless steel and brass</li> <li>Bail handle actuator</li> <li>Brass &amp; stainless steel wetted components</li> <li>Safety lock</li> </ul>	Page 9
	540 Sleeve Oxygen Male	<b>G540-041</b>	Oxygen	<ul style="list-style-type: none"> <li>Stainless Steel or Monel and Brass</li> <li>Sleeve Activation</li> <li>Safety Locking Mechanism</li> <li>Viton or EPDM Seals</li> <li><b>Female:</b> 90° Right Angle 1/4" NPT Termination Port</li> <li><b>Male:</b> Straight 1/4" NPT termination port</li> <li>Specifically designed for self contained 540 medical cylinder and inverted rack filling</li> <li>Cleaned for oxygen service</li> </ul>	Page 12,13
	540 Sleeve Oxygen Female	<b>G540-042</b>			
	870 Yoke	<b>G870-041...</b>	Medical Oxygen	<ul style="list-style-type: none"> <li>Black anodized aluminum or brass body</li> <li>Delrin actuator lever</li> <li>Stainless steel actuator piston</li> <li>Viton or EPDM seals</li> <li>Brass grade 360 wetted components</li> <li>Cleaned for oxygen service</li> </ul>	Page 14, 15
	950 Yoke	<b>G950-041...</b>	Medical Air		Page 16

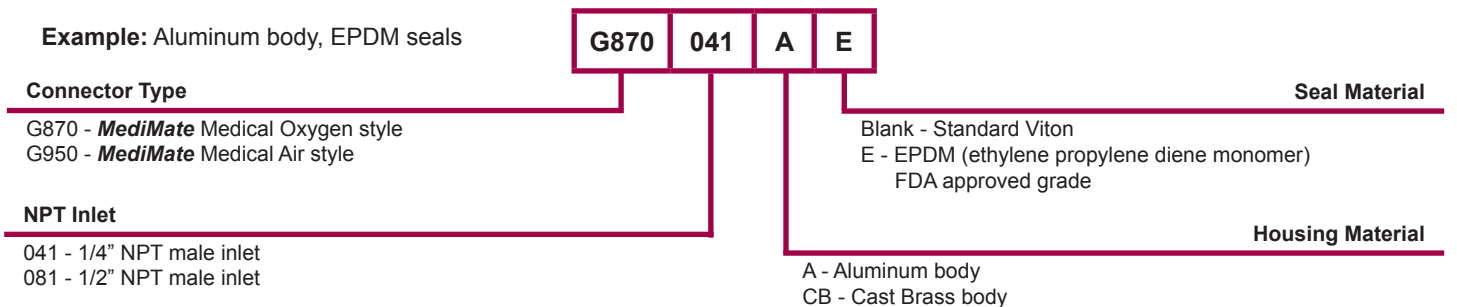


## PART NUMBER KEYS

### Compressed Gas Series



### MediMate Series



#### Notes:

Part Number Keys are to assist in IDENTIFICATION ONLY.  
Verify new part numbers with factory; some configurations are not possible.



## REFERENCE

### Termination Ports

**FasTest** gas connectors are supplied with either a straight-flow or right-angle termination port, depending on the specific CGA standard.

CGA Standard	Gases	Standard Termination Port
346	Compressed Air	Right Angle
540 - 540RPV	Oxygen	Straight/Right Angle
580 - 580RPV	Inert Gases (Argon, Nitrogen, Helium, Inert Mixes)	Right Angle
590	Synthetic Air	Right Angle
870	Medical Oxygen	Straight
950	Medical Air	Straight

### Elastomer Material Selection

Internal seals and sealing O-ring materials are specific to each CGA standard connector.

The elastomer compound used for a given connector is based upon industry approval or upon performance characteristics (i.e., which compound is best suited for a specific application).

**FasTest** offers other elastomer compounds upon request. However, all changes are subject to **FasTest** approval. Please refer to the CGA Standard Product Line Selection Guide for clarification of which elastomer compound is provided with each CGA standard.

### Bail Actuator Handles

A variety of handles are available for all gas connector products with bail handle actuation: **rigid, flexible cable, and lever.**

- Rigid style handles (1, 2, 4, 5 and 6) are made of stainless steel, 5/16" in diameter.
- Flexible cable style handles (1 and 4) allows access in limited clearance applications.
- Lever style handle (8) offers simple actuation.

Please refer to [www.fastestinc.com](http://www.fastestinc.com) for overall connector and handle dimensions.

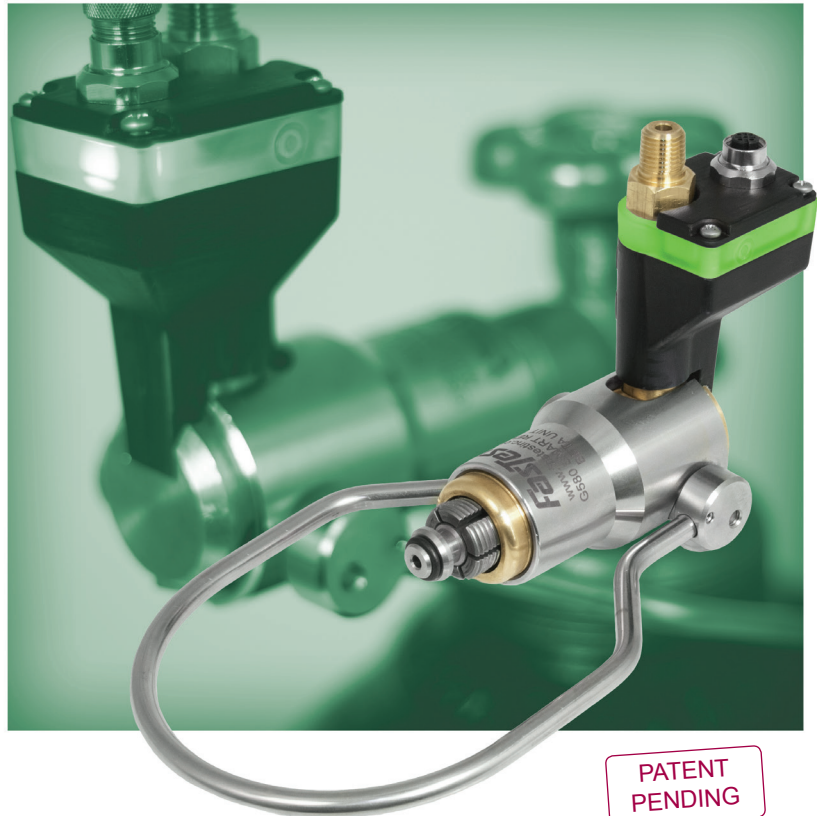


## Instant **Safe to Fill** Connection Feedback

### *Linear & Palletized Fill Systems*

### *Automated & Manual Filling Systems*

- Connection verification minimizes connection failure and maximizes fill throughput
- LED lighting provides real time connection status
- Easily integrated into automated or manual filling processes
- Simple, ergonomic one-hand operation
- Bail handle actuation minimizes connection time
- Heavy duty handle eliminates common failures



**FasTest's GT580 SMART System** provides instant visual confirmation that the connector has made a positive connection. Each connector uses an electrical output signal to relay connection status to a hub device that compiles the status of each individual connector. The hub analyzes each input and only allows the operator to begin the filling process once all connections have been properly made.

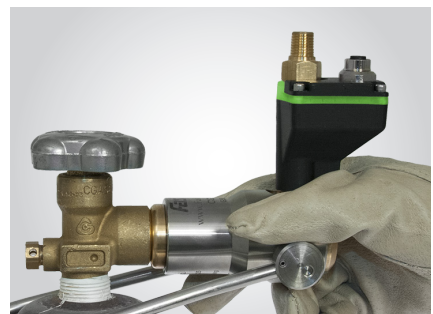
#### **FULLY DISCONNECTED**



#### **PARTIALLY CONNECTED**



#### **FULLY CONNECTED**





## Application:



## Specifications:

Product Family	Connection Type	Connection Method	Application
G-Series	Internal Threads	Bail Handle	Inert Gas*
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 580	3600	1/4" NPT (Male)	50.4 ounces

\*Argon, Nitrogen, Helium or mixed gases.

**NOTE: Integrates with any PLC brand**

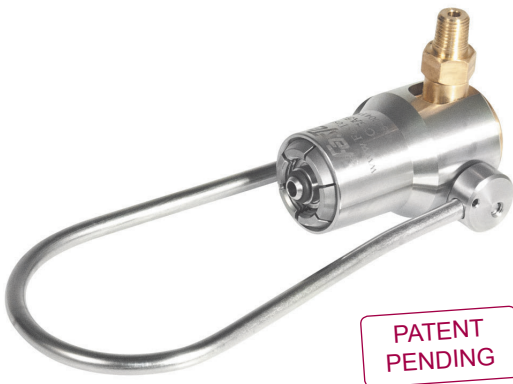
Part Number	Handle	Housing	Seals	Replacement Seals
GT580-0411-BH	1	Stainless Steel/ Brass	Viton	SG580
GT580-0412-BH	2			
GT580-0414-BH	4			
GT580-0415-BH	5			

For EPDM seals add "E" to the part number. Example: G580-0411-BH**E**

Additional configurations available, consult part number key or contact **FasTest**.\*

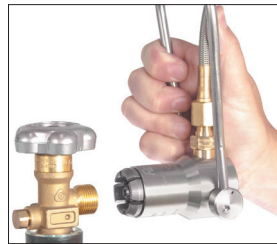


## G540 OXYGEN SERIES



FasTest's G540 gas connector is simple to use with a no twist, no turn approach to filling. Simply connect onto your CGA 540 valve and lock into place with a forward movement of the bail handle roller actuator and you are ready to fill the oxygen cylinder in a matter of seconds.

- Bail handle actuation connects to CGA 540 valve
- Available in Stainless Steel or Monel and brass. All wetted components are brass, monel, and inconel
- Cleaned for oxygen service
- Heavy duty handle eliminates common failures
- Simplified design has fewer seals to maintain
- One piece exterior body construction
- Available in ridged, flexible cable, and lever style handles



Product Family	Connection Type	Connection Method	Application
G-Series	External Threads	Bail Handle	Oxygen
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 540	3600	1/4" NPT (Male)	40 ounces

Part Number	Handle	Housing	Seals	Replacement Seals
G540-0411-BH	1	Stainless Steel and Brass	Viton	SG540
G540-0412-BH	2			
G540-0414-BH	4			
G540-0415-BH	5			

For EPDM seals add "E" to the part number. Example: G540-0411-BHE

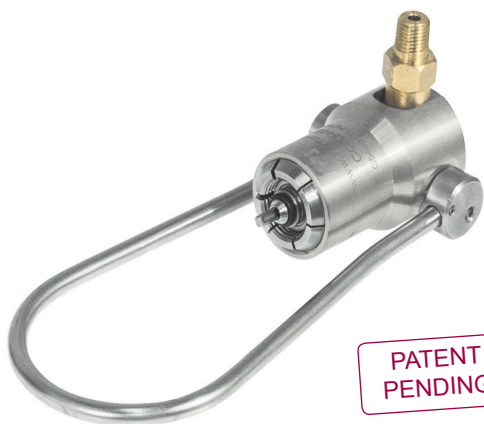
G540-0411-BHM	1	Monel / Inconel and Brass	Viton	SG540
G540-0412-BHM	2			
G540-0414-BHM	4			
G540-0415-BHM	5			

For EPDM seals add "E" to the part number. Example: G540-0411-BHME

Additional configurations available, consult part number key or contact **FasTest**.



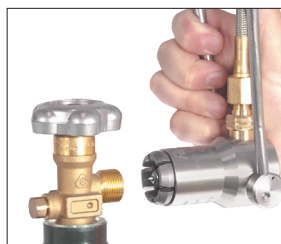
## G540 RPV OXYGEN SERIES



PATENT  
PENDING

FasTest's G540 RPV gas connector is simple to use with a no twist, no turn approach to filling. Simply connect onto your CGA 540 RPV valve and lock into place with a forward movement of the bail handle roller actuator and you are ready to fill the oxygen cylinder in a matter of seconds.

- Bail handle actuation connects to CGA 540 RPV valve
- Available in Stainless Steel or Monel and brass. All wetted components are brass, monel, and inconel
- Cleaned for oxygen service
- Heavy duty handle eliminates common failures
- Simplified design has fewer seals to maintain
- One piece exterior body construction
- Available in ridged, flexible cable, and lever style handles



Product Family	Connection Type	Connection Method	Application
G-Series	External Threads	Bail Handle	Oxygen
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 540 RPV	3600	1/4" NPT (Male)	42 ounces

Part Number	Handle	Housing	Seals	Replacement Seals
G540-0411-BRP	1	Stainless Steel/ Brass	Viton	SG540RPV
G540-0412-BRP	2			
G540-0414-BRP	4			
G540-0415-BRP	5			
G540-0416-BRP	6			

For EPDM seals add "E" to the part number. Example: G540-0411-BRPE

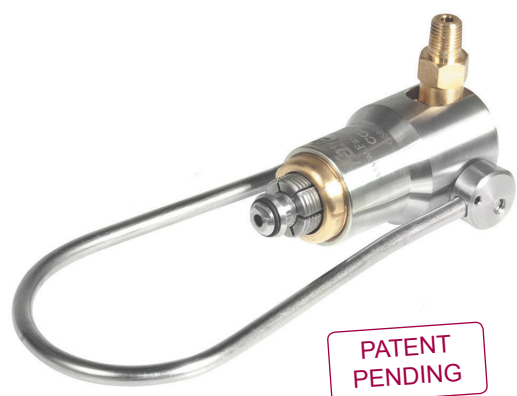
G540-0411-BRPM	1	Monel / Inconel and Brass	Viton	SG540RPV
G540-0412-BRPM	2			
G540-0414-BRPM	4			
G540-0415-BRPM	5			
G540-0416-BRPM	6			

For EPDM seals add "E" to the part number. Example: G540-0411-BRPM E

Additional configurations available, consult part number key or contact **FasTest**.



## G580 INERT GAS SERIES



FasTest's G580 gas connector is simple to use with a no twist, no turn approach to filling. Simply connect onto your CGA 580 valve and lock into place with a forward movement of the bail handle roller actuator and you are ready to fill the cylinder in a matter of seconds.

- Bail handle actuation connects to CGA 580 valve
- Heavy duty handle eliminates common failures
- Cleaned for oxygen service
- Simplified design has fewer seals to maintain
- One piece exterior body construction
- Available in ridged, flexible cable, and lever style handles



Product Family	Connection Type	Connection Method	Application
G-Series	Internal Threads	Bail Handle	Inert Gas*
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 580	3600	1/4" NPT (Male)	46 ounces

\*Argon, Nitrogen, Helium or mixed gases.

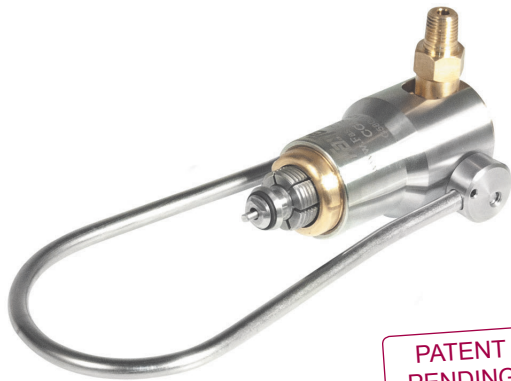
Part Number	Handle	Housing	Seals	Replacement Seals
G580-0411-BH	1	Stainless Steel/ Brass	Viton	SG580
G580-0412-BH	2			
G580-0414-BH	4			
G580-0415-BH	5			

For EPDM seals add "E" to the part number. Example: G580-0411-BH**E**

Additional configurations available, consult part number key or contact **FasTest**.\*



## G580 RPV INERT GAS SERIES



PATENT  
PENDING

FasTest's G580 RPV gas connector is simple to use with a no twist, no turn approach to filling. Simply connect onto your CGA 580 RPV valve and lock into place with a forward movement of the bail handle roller actuator and you are ready to fill the inert gas cylinder in a matter of seconds.

- Bail handle actuation connects to CGA 580 RPV valve
- Heavy duty handle eliminates common failures
- Cleaned for oxygen service
- Simplified design has fewer seals to maintain
- One piece exterior body construction
- Available in ridged, flexible cable, and lever style handles



Product Family	Connection Type	Connection Method	Application
G-Series	Internal Threads	Bail Handle	Inert Gas*
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 580 RPV	3600	1/4" NPT (Male)	46 ounces

\*Argon, Nitrogen, Helium or mixed gases.

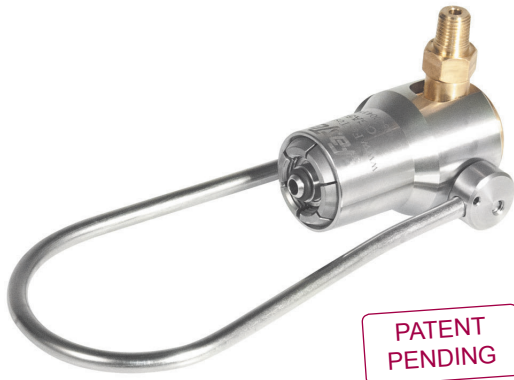
Part Number	Handle	Housing	Seals	Replacement Seals
G580-0411-BRP	1	Stainless Steel/ Brass	Viton	SG580RPV
G580-0412-BRP	2			
G580-0414-BRP	4			
G580-0415-BRP	5			
G580-0416-BRP	6			

For EPDM seals add "E" to the part number. Example: G580-0411-BRPE

Additional configurations available, consult part number key or contact **FasTest**.



## G346 COMPRESSED AIR SERIES



FasTest's G346 gas connector is simple to use with a no twist, no turn approach to filling. Simply connect onto your CGA 346 valve and lock into place with a forward movement of the bail handle roller actuator and you are filling the compressed air cylinder in a matter of seconds.

- Bail handle actuation connects to CGA 346 valve
- Available in Stainless Steel or Monel and brass
- Cleaned for oxygen service
- Heavy duty handle eliminates common failures
- Simplified design has fewer seals to maintain
- One piece exterior body construction
- Available in ridged, flexible cable, and lever style handles



Product Family	Connection Type	Connection Method	Application
G-Series	External Threads	Bail Handle	Compressed Air
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 346	3600	1/4" NPT (Male)	40 ounces

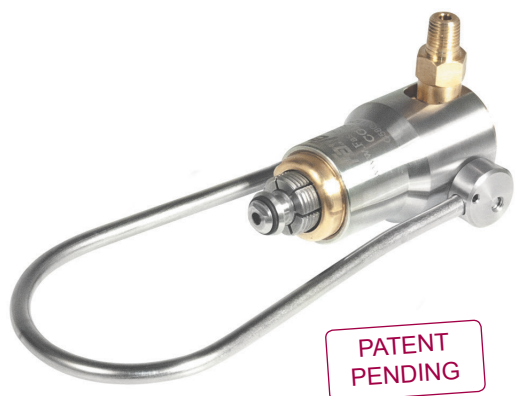
Part Number	Handle	Housing	Seals	Replacement Seals
G346-0411-BH	1	Stainless Steel and Brass	Viton	SG346
G346-0412-BH	2			

For EPDM seals add "E" to the part number. Example: G346-0411-BH**E**

Additional configurations available, consult part number key or contact **FasTest**.



## G590 SYNTHETIC AIR SERIES



FasTest's G590 gas connector is simple to use with a no twist, no turn approach to filling. Simply connect onto your CGA 590 valve and lock into place with a forward movement of the bail handle roller actuator and you are ready to fill the cylinder in a matter of seconds.

- Bail handle actuation connects to CGA 590 valve
- Heavy duty handle eliminates common failures
- Cleaned for oxygen service
- Simplified design has fewer seals to maintain
- One piece exterior body construction
- Available in ridged, flexible cable, and lever style handles



Product Family	Connection Type	Connection Method	Application
G-Series	Internal Threads	Bail Handle	Inert Gas
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 590	3600	1/4" NPT (Male)	46 ounces

Part Number	Handle	Housing	Seals	Replacement Seals
G590-0411-BH	1	Stainless Steel/ Brass	Viton	SG580

For EPDM seals add "E" to the part number. Example: G590-0411-BH**E**

Additional configurations available, consult part number key or contact **FasTest**.



## G540 OXYGEN SERIES



PATENTED

FasTest's G540 sleeve actuated oxygen connector is simple to use with a no twist, no turn approach to filling. Simply connect onto your CGA 540 valve and lock into place with a forward movement of the sleeve and you are ready to fill the medical or industrial oxygen cylinder in a matter of seconds.

- Connects to CGA 540 valve
- Available in stainless steel and brass or monel
- Specifically designed for self contained 540 medical cylinder and inverted rack filling
- Simple, one hand operation sleeve actuated
- Simplified design has fewer seals to maintain
- One piece exterior body construction
- Cleaned for oxygen service



Product Family	Connection Type	Connection Method	Application
G-Series	External Threads	Sleeve Actuated	Oxygen
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 540	3600	see table below	27 ounces

Part Number	Termination	Housing	Seals	Replacement Seals
G540-041-SH	Straight Male	Stainless Steel/ Brass	Viton	SG540
G540-042-SH	Right Angle Female			

For EPDM seals add "E" to the part number. Example: G540-041-SHE

G540-041-SHM	Straight Male	Monel / Inconel and Brass	Viton	SG540
G540-042-SHM	Right Angle Female			

For EPDM seals add "E" to the part number. Example: G540-041-SHME

Additional configurations available, consult part number key or contact **FasTest**.



## G540 RPV SERIES



PATENTED

FasTest's G540 sleeve actuated Residual Pressure Valve (RPV) oxygen connector is simple to use with a no twist, no turn approach to filling. Simply connect onto your CGA 540 RPV valve and lock into place with a forward movement of the sleeve and you are ready to fill the medical or industrial oxygen cylinder in a matter of seconds.

- Connects to CGA 540 valve
- Specifically designed for self contained 540 medical cylinder and inverted rack filling
- Simple, one hand operation sleeve actuated
- Simplified design has fewer seals to maintain



Product Family	Connection Type	Connection Method	Application
G-Series	External Threads	Sleeve Actuated	Oxygen
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 540	3600	see table below	27 ounces

Part Number	Termination	Housing	Seals	Replacement Seals
G540-041-SH	Straight Male	Stainless Steel/ Brass	Viton	SG540
G540-042-SH	Right Angle Female			

For EPDM seals add "E" to the part number. Example: G540-041-SHE

Additional configurations available, consult part number key or contact **FasTest**.



## G870 MEDICAL OXYGEN GAS SERIES



PATENTED

FasTest's **MediMate** 870 is a yoke style connector used for medical oxygen applications. **MediMate** is simple to use with a no twist, no turn approach to filling. Simply connect our product onto your valve and lock into place with a forward movement of the actuator lever and you are ready to fill the cylinder in seconds. The aluminum body and stainless seal actuator piston maximize product performance and service life. Each **MediMate** is supplied with a straight-flow 180 degree termination port and FDA grade Viton elastomer seals. The elastomer compound used is based upon industry approval and performance characteristics for the application.

- Aluminum body. Delrin actuator lever & Stainless Steel actuator piston
- Brass wetted components
- FDA grade Viton elastomer seals
- Cleaned for oxygen service



Product Family	Connection Type	Connection Method	Application
G-Series	Pin-Index	Bail Handle	Medical Oxygen
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 870	3600	1/4" NPT (Male)	18.4 ounces

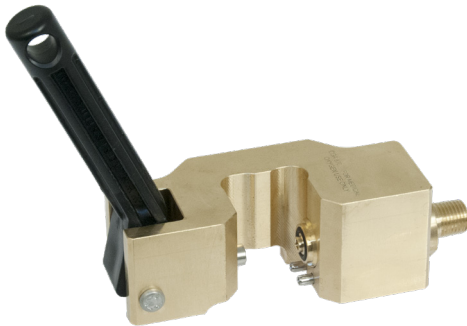
Part Number	Handle	Housing	Seals	Replacement Seals
G870-041A	Lever	Aluminum	Viton	SG870

For EPDM seals add "E" to the part number. Example: G870-041A-**E**

Additional configurations available, consult part number key or contact **FasTest**.



## G870 MEDICAL OXYGEN GAS SERIES



PATENTED

FasTest's **MediMate** 870 is a yoke style connector used for medical oxygen applications. **MediMate** is simple to use with a no twist, no turn approach to filling. Simply connect onto your CGA 870 valve and lock into place with a forward movement of the actuator lever and you are ready to fill the cylinder in seconds. The machined brass body and stainless seal actuator piston maximize product performance and service life. Each **MediMate** is supplied with a straight-flow 180 degree termination port and FDA grade Viton elastomer seals. The elastomer compound used is based upon industry approval and performance characteristics for the application.

- Machined brass body. Delrin actuator lever & Stainless Steel actuator piston
- Brass wetted components
- FDA grade Viton elastomer seals
- Cleaned for oxygen service
- Auto ignition tested



Product Family	Connection Type	Connection Method	Application
G-Series	Pin-Index	Lever	Medical Oxygen
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 870	3600	1/4" NPT (Male)	41.6 ounces

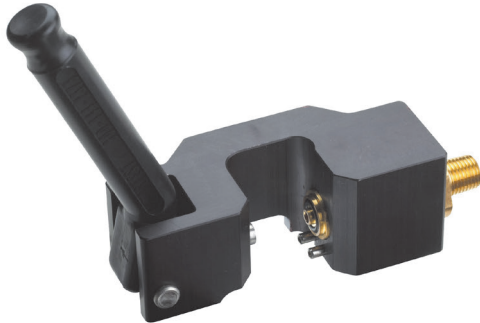
Part Number	Handle	Housing	Seals	Replacement Seals
G870-041CB	Lever	Brass	Viton	SG870

For EPDM seals add "E" to the part number. Example: G870-041CB-**E**

Additional configurations available, consult part number key or contact **FasTest**.



## G950 MEDICAL AIR GAS SERIES



PATENTED

FasTest's **MediMate** 950 is a yoke style connector used for medical air applications. **MediMate** is simple to use with a no twist, no turn approach to filling. Simply connect our product onto your CGA 950 valve and lock into place with a forward movement of the actuator lever and you are ready to fill the cylinder in seconds.

The aluminum body and stainless seal actuator piston maximize product performance and service life. Each **MediMate** is supplied with a straight-flow 180 degree termination port and FDA grade Viton elastomer seals. The elastomer compound used is based upon industry approval and performance characteristics for the application.

- Aluminum body, Delrin actuator lever & Stainless Steel actuator piston
- Brass wetted components
- FDA grade Viton elastomer seals
- Cleaned for oxygen service



Product Family	Connection Type	Connection Method	Application
G-Series	Pin-Index	Lever	Medical Air
Connects To	Pressure Rating (psi)	Termination	Weight
CGA 950	3600	1/4" NPT (Male)	18.4 ounces

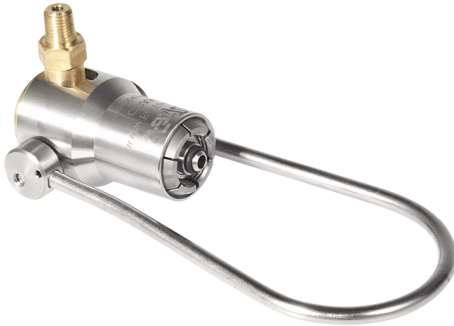
Part Number	Handle	Housing	Seals	Replacement Seals
G950-041A	Lever	Aluminum	Viton	SG950

For EPDM seals add "E" to the part number. Example: G950-041A-**E**

Additional configurations available, consult part number key or contact **FasTest**.



### HANDLE OPTIONS AVAILABLE FOR G-SERIES CONNECTORS



#### **Rigid Bail Handle**

Standard, linear and pallet filling application

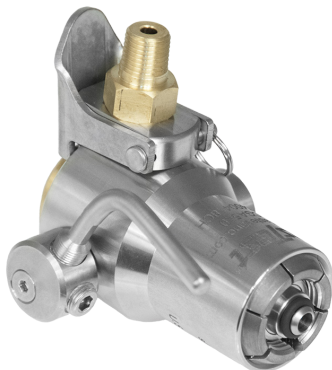
- Available for CGA 346, CGA 540, CGA 580, and CGA 590 connectors
- Heavy duty handle eliminates common failures
- Available in stainless steel, brass or monel
- Variety of configurations available



#### **Cable Bail Handle**

Limited clearance 6 and 12 pack filling

- Available for CGA 346, CGA 540, CGA 580, and CGA 590 connectors
- Cable handle offers flexibility for limited clearance
- Single (gloved) hand operation
- Two stage mechanical safety



#### **Lever Bail Handle**

Small diameter cylinder (20-80 cf)

- Available for CGA 346, CGA 540, CGA 580, and CGA 590 connectors
- Lever handle offers simple actuation
- Single (gloved) hand operation
- Two stage mechanical safety



## TROUBLESHOOTING

Problem	Recognized By	Probable Cause	Recommended Action
Gas leakage at connection of connector to valve	Continual sound of escaping gas	Damaged or worn connector sealing O-ring or damaged cylinder valve	Visual inspection of connector O-ring. Replace as required. Recommended O-ring replacement every 1000 filling cycles
Gas leakage at initiation of filling cycle, leakage decreasing as pressure increases	Sound of escaping gas	(a) Improper connection (b) Side load to filling connector due to rigid supply line	(a) Terminate filling cycle and repeat connection (b) Replace supply line with swivel and/or flexible pigtail
Gas leakage increases as pressure increases	Sound of escaping gas Blow off	Valve threads damaged Seat area of valve scored or damaged	Terminate filling cycle and replace damaged or worn valve
Safety pin does not activate during filling cycle	Safety pin at rear of connector not extended outward from connector body	(a) Damaged or bent pin (b) Lack of lubrication and/or dirt contamination	(a) Field replacement of actuator pin assembly (b) Remove safety pin assembly, clean and lubricate with approved lubricant
Safety pin does not retract upon completion of filling cycle	Unable to remove connector	(a) Damaged or bent pin (b) Lack of lubrication and/or dirt contamination (c) System under pressure	(a) Field replacement of actuator pin assembly (b) Remove safety pin assembly, clean and lubricate with approved lubricant (c) Vent or exhaust system of gas before attempting disconnection
Actuator handle loose	Excessive handle movement from side-to-side when connected to valve	Loose or missing actuator handle screws	Replace missing screw or remove existing screw. Apply thread lock to screw threads. Reinsert and tighten to 8-10 ft-lbs.  Do not over tighten screw
Inability to fully engage actuator handle	Visually inspect connection with valve to determine if connector threads are exposed	Short connection to cylinder valve	Disconnect and reconnect to valve with connector fully seated into valve

Gas Connector CGA standards 346, 540, 580, 540 RPV, 580 RPV and 590 series. Gas connector products should be visibly inspected on a routine basis to ensure efficient product performance. Refer to the Maintenance Checklist on page 15.



## TROUBLESHOOTING

Problem	Recognized By	Probable Cause	Recommended Action
Connector's thread collets not expanding properly during initial hook-up to cylinder valve	Visual inspection of connection joint	Short connection of connector to valve	Visual inspection of valve. Replace if damaged or worn. Disconnect and reconnect connector to valve. Be sure actuator handle sleeve is fully engaged. If problem is unresolved, contact <b>FasTest</b>
Loose connection	Connector is loose despite proper connection	Worn or damaged threads of cylinder valve	Replace cylinder valve
Damage, deformation or distortion to connector body, sleeve, and collet threads. Possible internal leakage	Visual inspection of connector  Difficult operation of connector	Improper operation	Remove connector from filling operation immediately! Return to <b>FasTest</b> to determine probable cause
Cylinder connection with MediMate 870 connector loose. Ability to move connector side to side once connection is made	Disconnect and inspect connector. Check index pins	Index pins removed	Replace and/or reinsert index pins properly  DO NOT remove index pins!
MediMate 870 leakage	Hissing or popping off under pressure. Main seal blows out	Internal connector components are contaminated, which does not allow internal piston to move freely	Disassemble connector, clean component parts, apply approved lubricant and reassemble
Inability to connect to, or a leakage with, CGA 540 and 580 RPV style connectors and Residual Pressure Valves	Inability to fully actuate connector actuator handle and/or outer sleeve	(a) Bent actuator pin  (b) Damaged actuator piston  (c) Wrong connection for RPV valve	(a) Replace actuator pin  (b) Return to <b>FasTest</b> for repair  (c) Order proper connector from FasTest
Inability to connect or leakage of RPV version connector to non RPV cylinder valves	Inability to fully actuate and/or gas leakage at initial filling	(c) Actuator pin not retracted	(c) Retract/remove actuator pin according to specific connector operation instructions



## STANDARD FIELD REPLACEMENT PARTS

Gas connector standard replacement components listed in this section are immediately available for field replacement. Additional field replacement components such as bail handles are also available by consulting **FastTest**. Remaining components are not offered for field replacement as they typically require special tools and handling precautions during assembly.

Due to the high pressure of compressed gas filling, as well as the Oxygen cleaning requirements of specific CGA standards, **FastTest** requires you to return gas connector products for maintenance and repair. Specific CGA standards require O<sup>2</sup> cleaning before being returned to field service. Please contact **FastTest**, Inc. for additional information.

Connectors	Part Numbers	Material	Description
G346 .. BH	SG346-* SG346E-*	Viton EPDM	Replacement main seals Replacement main seals
G540 .. BRP	SG540-* SG540E-*	Viton EPDM	Replacement main seals Replacement main seals
G540 .. BRP - Stainless	G540-BRPP1 G540-BRPN1	Stainless steel Stainless steel	Replacement pins (5/pkg) Replacement pin and nut pin
G540 .. BRP - Monel	G540-BRPPM1 G540-BRPNM1	Monel Monel	Replacement pins (5/pkg) Replacement pin and nut pin
G580 .. BH	SG580-* SG580E-*	Viton EPDM	Replacement main seals Replacement main seals
G580 .. RPV	SG580RPV-* SG580ERPV-*	Viton EPDM	Replacement main seals Replacement main seals
G540 .. BRP G580 .. BRP	G540-BRPPT1 G580-BRPPT1	Stainless steel	Retraction tool / pin nut tool Retraction tool / pin nut tool
G590 .. BH	SG580-* SG580E-*	Viton EPDM	Replacement main seals Replacement main seals
All bail handles styles	GBHB2530	Stainless steel	Replacement bolts (5/pkg)

\*Replacement seals available in quantities of 100, 250 and 500. Example: SG540-**100** = 100 seals

## MAINTENANCE CHECKLIST

### Daily

- Inspect for leak-tight seal
- The main seal must be replaced more frequently depending on wear. Dismantling of the connector for this purpose is not required. It is recommended that an O-ring pick be used for removal to avoid damage to the groove
- Clean groove if required and insert new O-ring
- Inspect for correct function
- Does the safety pin properly protrude and lock the connector under pressure?
- Does the safety pin move backwards when the system is depressurized?

### Weekly

- Inspect for correct function
- Inspect the correct engagement of the collets
- Check the connector's collet thread with gauge
- Check for any bent or missing components

### Periodic

- Inspect that all threaded components are tight and properly torqued
- Check for any bent or missing components
- Check for proper actuation of handle, collets and all moving components
- Check for leaks









## Connecting with FastTest

**FasTest's patented connectors are design and manufactured in the United States of America** - Our simplified connector designs are easy to maintain and are intuitively operable. For more information, please visit FasTest's website at [www.fastestinc.com](http://www.fastestinc.com).

**For ordering information contact:**

**Matthew Nolting | (651) 251-9733 | [Matthew.Nolting@fastestinc.com](mailto:Matthew.Nolting@fastestinc.com)**

## Warranty

FasTest, Inc. warrants its products against defects in workmanship and materials for 12 months from the date of sale by FasTest, Inc. or its authorized distributor. This warranty is void if the product is misused, tampered with or used in a manner that is contrary to FasTest, Inc.'s written recommendations and/or instructions. FasTest, Inc. does not warrant the suitability of the product for any particular application. Determining product application suitability is solely the customer's responsibility. FasTest, Inc. is not liable for consequential or other damages including, but not limited to, loss, damage, personal injury, or any other expense directly or indirectly arising from the use of or inability to use its products either separately or in combination with other products. ALL OTHER WARRANTIES EXPRESS OR IMPLIED, WHETHER ORAL, WRITTEN OR IN ANY OTHER FORM, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED.

The sole and exclusive remedy under this warranty is limited to replacement of the product or an account credit in the amount of the original selling price, at the option of FasTest, Inc. All allegedly defective products must be returned prepaid transportation to FasTest, Inc., together with information describing the product's performance, unless disposition in the field is authorized in writing by FasTest, Inc.

**WARNING:** High pressure is potentially dangerous. Do not use Gas Filling connectors without first reading and following the operating instructions included with the product. Additional copies of all gas product instructions may be obtained from FasTest, Inc.

**INTENDED USE/ MODIFICATION WARNING:** FasTest gas connector products are ONLY intended for use with a specific CGA standard. FasTest assumes no product liability if modifications are made to the product. If modifications are made, the product warranty becomes null and void.

**Non-Warranty Claims:** FasTest gas connector products which are no longer covered by the original warranty period are subject to a flat rate charge for required product repairs. Flat rate charges will vary depending on CGA standard. Non-warranty connectors, returned to FasTest for repairs, are subject to inspection to determine feasibility of repair.

Contact FasTest, Inc. directly for non-warranty repair and maintenance requests.

## Notifications and Copyright

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**Certifications:** FasTest Inc. is ISO 9001: 2008 certified.