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## CNG Vehicle and Fueling Products from Parker's Quick Coupling Division

Fueling Nozzles, Vehicle Receptacles, In-line Vent and Fill Breakaways

Catalog 3850-QCD | October 2013



ENGINEERING YOUR SUCCESS.

A leader in the design and manufacture of products and systems that convey and utilize compressed natural gas (CNG), Parker is a natural for natural gas. Our proven products for CNG dispensing and vehicle fueling provide improved service, reduced risk and global interchangeability.

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# ON VEHICLE

## Receptacles NGV1 Receptacles



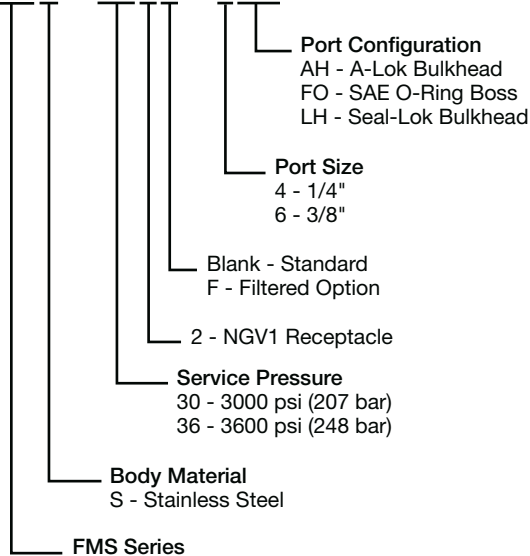
Parker FMS Series receptacles are designed for rigid mounting on a compressed natural gas vehicle. Receptacles can be employed in both fast-fill and time-fill dispensing applications. The ANSI/NGV1 standard used by FMS Series receptacles allows vehicle fueling to be accomplished with all CNG nozzles conforming to the ANSI/NGV1 standard.

### Features:

- FMS Series receptacles are certified to ANSI/CSA/NGV1 standards
- Receptacle employs a differential pressure-actuated valve
- Internal check valve provides unidirectional flow-natural gas will only flow from dispenser to vehicle
- Seal is a special Nitrile compound formulated for compressed natural gas service

### How To Order

#### FMS - 362F - 6FO



### Materials of Construction

<b>Body</b>	Stainless Steel
<b>Adapter</b>	Stainless Steel
<b>Valving</b>	Stainless Steel
<b>Seal</b>	Special CNG Nitrile Compound

### Specification

<b>Pressure</b>	3000 or 3600 psi (207 or 248 bar)
<b>Temperature</b>	-40°F to +250°F (-40°C to +121°C)
<b>Flow Rate</b>	1750 scfm

### Dust Cap



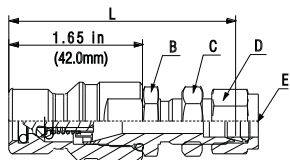
Part Number	Material
FM-66M	Nitrile

# ON VEHICLE

## Receptacles NGV1 Receptacles

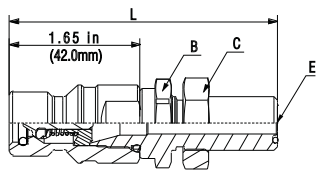


### FMS-3\*2-\*AH



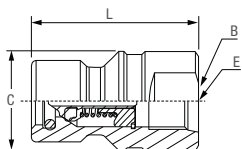
Part Number	L - Length	B - Hex	C - Hex	D - Hex	E - Port End
FMS-302-4AH FMS-362-4AH	2.71" 68.8 mm	0.75" 19.0 mm	0.75" 19.0 mm	0.56" 14.3 mm	1/4" A-Lok Bulkhead
FMS-302-6AH FMS-362-6AH	2.78" 70.6 mm	0.75" 19.0 mm	0.75" 19.0 mm	0.69" 17.5 mm	3/8" A-Lok Bulkhead
FMS-302-8AH FMS-362-8AH	3.09" 78.4 mm	1.00" 25.4 mm	1.06" 27.0 mm	0.88" 22.2 mm	1/2" A-Lok Bulkhead
FMS-302-M6AH FMS-362-M6AH	2.98" 75.6 mm	0.81" 20.6 mm	0.75" 19.0 mm	0.55" 14.0 mm	6mm A-Lok Bulkhead
FMS-302-M8AH FMS-362-M8AH	2.76" 70.1 mm	0.75" 19.0 mm	0.75" 19.0 mm	0.63" 16.0 mm	8mm A-Lok Bulkhead
FMS-302-M10AH FMS-362-M10AH	3.09" 78.4 mm	1.00" 25.4 mm	1.06" 27.0 mm	0.75" 19.0 mm	10mm A-Lok Bulkhead
FMS-302-M12AH FMS-362-M12AH	3.09" 78.4 mm	1.00" 25.4 mm	1.06" 27.0 mm	0.87" 22.1 mm	12mm A-Lok Bulkhead

### FMS-3\*2-\*LH



Part Number	L - Length	B - Hex	C - Hex	E - Port End
FMS-302-4LH FMS-362-4LH	3.03" 77.0 mm	0.81" 20.6 mm	0.81" 20.6 mm	1/4" Seal-Lok Bulkhead
FMS-302-6LH FMS-362-6LH	3.38" 85.9 mm	1.00" 25.4 mm	1.00" 25.4 mm	3/8" Seal-Lok Bulkhead

### FMS-3\*2-6FO



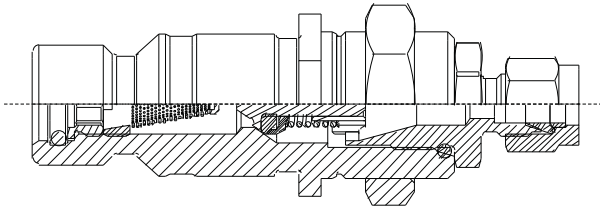
Part Number	L - Length	B - Wrench Flats	C - Largest Diameter	E - Port End
FMS-302-6FO FMS-362-6FO	1.6" 42 mm	0.81" 20.6 mm	0.98" 25 mm 0.94" 24 mm	3/8" O-Ring Boss

Contact the Quick Coupling Division for other port configurations.

# ON VEHICLE

## Receptacles

### NGV1 Receptacles - Filtered



Parker FMS Series receptacles are designed for rigid mounting on a compressed natural gas vehicle. Receptacles can be employed in both fast-fill and time-fill dispensing applications. The filter element eliminates contaminants from the environment and unclean compressed natural gas sources. It serves both as a prefilter to on-board vehicle components and protection for the FMS receptacle valving and seals.

#### Features:

- FMS receptacles are certified to ANSI/CSA/NGV1 standards
- Filter element protects valving and seals from external contaminants that can be introduced during fueling
- Filter element is field replaceable and can be easily cleaned by flushing with a reverse flow
- Filter can prevent expensive repairs, prolong useful life of down stream CNG components and reduce downtime for end users
- Seal is a special Nitrile compound formulated for compressed natural gas service

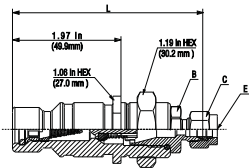
#### Materials of Construction

<b>Body</b>	Stainless Steel
<b>Adapter</b>	Stainless Steel
<b>Valving</b>	Stainless Steel
<b>Seal</b>	Special CNG Nitrile Compound

#### Specification

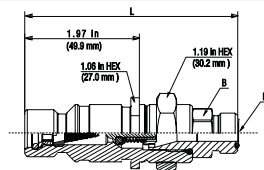
<b>Service Pressure</b>	3000 or 3600 psi [207 or 248 bar]
<b>Temperature</b>	-40°F to +250°F [-40°C to +121°C]
<b>Flow Rate</b>	1750 scfm

#### FMS-3\*2F-\*AH



Part Number	L - Length	B - Hex	C - Hex	E - Port End
FMS-302F-4AH FMS-362F-4AH	3.47" 88.1 mm	0.75" 19.0 mm	0.56" 14.3 mm	1/4" A-Lok Bulkhead
FMS-302F-6AH FMS-362F-6AH	3.53" 89.7 mm	0.75" 19.0 mm	0.69" 17.5 mm	3/8" A-Lok Bulkhead
FMS-302F-8AH FMS-362F-8AH	3.73" 94.5 mm	1.00" 25.4 mm	0.88" 22.0 mm	1/2" A-Lok Bulkhead
FMS-302F-M8AH FMS-362F-M8AH	3.50" 88.8 mm	0.75" 19.0 mm	0.63" 16.0 mm	8mm A-Lok Bulkhead

#### FMS-3\*2F-\*LH



Part Number	L - Length	B - Hex	E - Port End
FMS-302F-4LH FMS-362F-4LH	3.56" 90.4 mm	0.75" 19.0 mm	1/4" Seal-Lok Bulkhead
FMS-302F-6LH FMS-362F-6LH	3.67" 93.2 mm	0.75" 19.0 mm	3/8" Seal-Lok Bulkhead

Contact the Quick Coupling Division for other port configurations.

# ON VEHICLE

## Receptacles High Flow



Parker FMS Series high flow receptacles are designed to meet or exceed the requirements of ANSI/NGV1 standards for compressed natural gas vehicle fueling devices. The high flow receptacles allow transfer of CNG fuel to the vehicle at a significantly higher flow rate than standard receptacles.

### Features:

- Compact size
- High flow rates
- Superior poppet check valve design
- Connects with any NGV1 compliant nozzle
- Allows for decreased fill times while using conventional NGV1 fueling nozzles

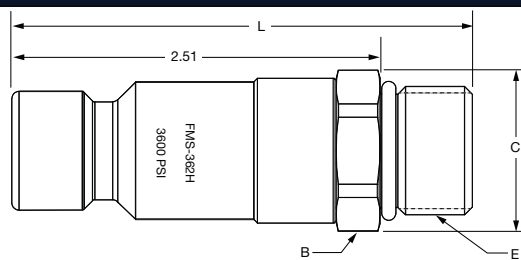
### Materials of Construction

<b>Body</b>	Stainless Steel
<b>Adapter</b>	Stainless Steel
<b>Valving</b>	Stainless Steel
<b>Seal</b>	Nitrile and Urethane

### Specification

<b>Service Pressure</b>	3600 psi (248 bar)
<b>Temperature</b>	-40°F to +250°F (-40°C to +121°C)
<b>Flow Rate</b>	3200 scfm

### FMS-362H-\*M0



Part Number	L - Length	B - Hex	C - Largest Diameter	E - Port End
FMS-362H-8M0	3.06" 77.7 mm	1" 25.4 mm	1.10" 27.9 mm	1/2" SAE Heavy Duty Stud End
FMS-362H-10M0	3.14" 79.8 mm	1" 25.4 mm	1.10" 27.9 mm	5/8" SAE Heavy Duty Stud End

# FUELING STATION

## Nozzles

### Push-to-Connect Refueling Nozzles

Located on CNG fueling dispensers, Parker's NGVC2 Nozzle easily connects with FMS Series receptacles and others certified to ANSI/CSA/NGV1 standards.



#### Features:

- Certified to ANSI/CSA/NGV1 standards
- This nozzle can be classified as type 2 or 3 and can be used for both fast-fill and time-fill service
- Left-hand thread configurations are available for use on home refueling dispensers
- Push-to-connect, manually retract sleeve to disconnect
- Non-marring polyurethane sleeve protects vehicle body from surface damage
- Durable ball locking design for longer life

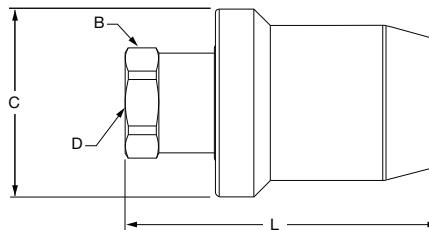
#### Materials of Construction

<b>Body</b>	Stainless Steel
<b>Adapter</b>	Stainless Steel
<b>Valving</b>	Stainless Steel
<b>Seal</b>	Nitrile and Urethane

#### Specification

<b>Service Pressure</b>	3000 or 3600 psi (207 or 248 bar)
<b>Temperature</b>	-40°F to +185°F (-40°C to +85°C)
<b>Flow Rate</b>	2100 scfm

#### NGVC2



Part Number	L - Length	B - Wrench Flats	C - Largest Diameter	D - Port End
NGVC2-P30	3.51" 89.1 mm	1.12" 28.4 mm	2.10" 53.3 mm	3/8" SAE Port
NGVC2-P36	3.51" 89.1 mm	1.12" 28.4 mm	2.10" 53.3 mm	3/8" SAE Port

# FUELING STATION

## Nozzle Dock

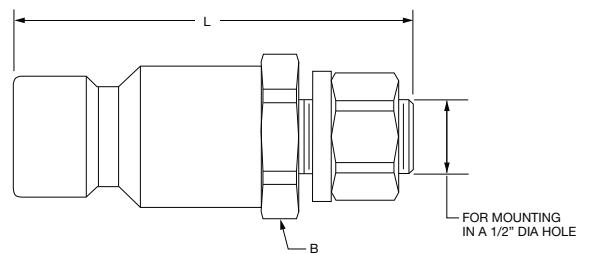


Parker's NGVND Nozzle Dock provides a secure location on the fueling dispenser for the nozzle to reside when not in use. The Nozzle Dock keeps the nozzle clean, contained and readily accessible.

### Features:

- Material is corrosion resistant aluminum
- Lock washer keeps the dock secure for repeated use
- Compatible with all ANSI/CSA/NGV1 fueling nozzles

### NGVND



Part Number	L - Length	B - Hex
NGVND	2.67" 67.82 mm	1" 25.4 mm





# FUELING STATION

## Breakaway - Fill Line



Parker's NGVBCN2-P50 fill line breakaway provides an important safety feature for CNG dispensing systems. It is certified to ANSI/NGV4.4/CSA12.54 standards for breakaway devices used on natural gas dispensing hoses and systems. It allows the hose to safely disconnect, preventing damage to the dispenser in the event of a "drive off" and sealing the CNG in the fill line to effectively prevent leakage or hose whip.

### Features:

- Exclusive design
- Pressure balanced
- Reliable consistent performance
- Compact size
- Reusable following breakaway (with minimal inspection)

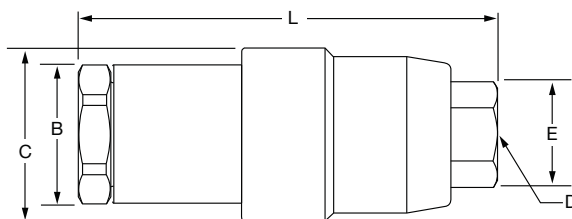
### Materials of Construction

<b>Material</b>	Brass and Stainless with Nitrile and Urethane Seals
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### Specifications

<b>Service Pressure</b>	3600 psi
<b>Forces to Actuate</b>	60/140 lbs. to disconnect at any pressure up to operating
<b>Temperature</b>	-40°F to +150°F (-40°C to +65°C)

### NGVBCN2-P50



Part Number	B - Hex	C - Largest Diameter	D - Port End	E - Hex	L - Connected Length
NGVBCN2-P50	1.12" 28.4 mm	1.53" 38.9 mm	3/8" SAE O-Ring Boss	0.81" 20.6 mm	3.73" 94.7 mm

# FUELING STATION

## Breakaway - Vent Line



Parker's vent line breakaway provides an important safety feature for CNG dispensing systems. It allows the vent line hose to safely disconnect, preventing damage to the dispenser in the event of a "drive off" and allows any CNG remaining in the vent line to bleed off safely.

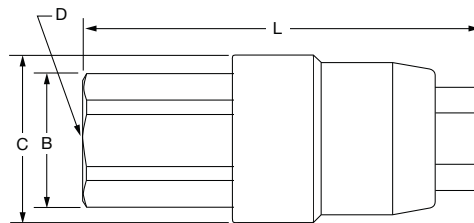
### Features:

- Reliable consistent performance
- Compact size
- Reusable following breakaway (with minimal inspection)

### Specifications

<b>Material</b>	Brass and Stainless Steel with Urethane Seals
<b>Forces to Actuate</b>	60/140 lbs. to disconnect

### NGVBCN2-VL



Part Number	B - Hex	C - Largest Diameter	D - Port End	L - Connected Length
NGVBCN2-VL	1.12" 28.4 mm	1.53" 38.9 mm	3/8" SAE O-Ring Boss	3.72" 94.5 mm

# SAFETY GUIDE



WARNING

## SAFETY GUIDE FOR SELECTING AND USING QUICK ACTION COUPLINGS AND RELATED ACCESSORIES



WARNING

**DANGER:** Failure or improper selection or improper use of quick action couplings or related accessories can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of quick action couplings or related accessories include but are not limited to:

- Couplings or parts thrown off at high speed.
- High velocity fluid discharge.
- Explosion or burning of the conveyed fluid.
- Contact with suddenly moving or falling objects that are to be held in position or moved by the conveyed fluid.
- Dangerously whipping hose.
- Contact with conveyed fluids that may be hot, cold, toxic, or otherwise injurious.
- Sparking or explosion while paint or flammable liquid spraying.

Before selecting or using any Parker quick action couplings or related accessories, it is important that you read and follow the following instructions.

**1.1 Scope:** This safety guide provides instructions for selecting and using (including installing connecting, disconnecting, and maintaining) quick action couplings and related accessories (including caps, plugs, blow guns, and two way valves). This safety guide is a supplement to and is to be used with, the specific Parker publications for the specific quick action couplings and related accessories that are being considered for use.

**1.2 Fail-Safe:** Quick action couplings or the hose they are attached to can fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of the quick action coupling or hose will not endanger persons or property.

**1.3 Distribution:** Provide a copy of this safety guide to each person that is responsible for selecting or using quick action coupling products. Do not select or use quick action couplings without thoroughly reading and understanding this safety guide as well as the specific Parker publications for the products considered or selected.

**1.4 User Responsibility:** Due to the wide variety of operating conditions and uses for quick action couplings, Parker and its distributors do not represent or warrant that any particular quick action coupling is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:

- Making the final selection of the quick action couplings.
- Assuring that the user's requirements are met and that the use presents no health or safety hazards.
- Providing all appropriate health and safety warnings on the equipment on which the quick action couplings are used.

**1.5 Additional Questions:** Call the appropriate Parker customer service department if you have any questions or require any additional information. For the telephone numbers of the appropriate customer service department, see the Parker publication for the product being considered or used.

### 2.0 QUICK ACTION COUPLING SELECTION INSTRUCTIONS

**2.1 Pressure:** Quick action couplings selection must be made so that the published rated pressure of the coupling is equal to or greater than the maximum system pressure. Surge pressures in the system higher than the rated pressure of the coupling will shorten the quick action coupling's life. Do not confuse burst pressure or other pressure values with rated pressure and do not use burst pressure or other pressure values for this purpose.

**2.2 Fluid Compatibility:** Quick action couplings selection must assure compatibility of the body and seal materials with the fluid media used. See the fluid compatibility chart in the Parker publication for the product being considered or used.

**2.3 Temperature:** Be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the quick action couplings. Use caution and hand protection when connecting or disconnecting quick action couplings that are heated or cooled by the media they are conducting or by their environment.

**2.4 Size:** Transmission of power by means of pressurized liquid varies with pressure and rate of flow. The size of the quick action couplings and other components of the system must be adequate to keep pressure losses to a minimum and avoid damage due to heat generation or excessive fluid velocity.

**2.5 Pressurized Connect or Disconnect:** If connecting or disconnecting under pressure is a requirement, use only quick action couplings designed for that purpose. The rated operating pressure of a quick action coupling may not be the pressure at which it may be safely connected or disconnected.

**2.6 Environment:** Care must be taken to ensure that quick action couplings are either compatible with or protected from the environment (that is, surrounding conditions) to which they are exposed. Environmental conditions including but not limited to ultraviolet radiation, ozone, moisture, water, salt water, chemicals, and air pollutants can cause degradation and premature failure.

**2.7 Locking Means:** Ball locking quick action couplings can unintentionally disconnect if they are dragged over obstructions on the end of a hose or if the sleeve is bumped or moved enough to cause disconnect. Sleeves designed with flanges to provide better gripping for oily or gloved hands are especially susceptible to accidental disconnect and should not be used where these conditions exist. Sleeve lock or union (threaded) sleeve designs should be considered where there is a potential for accidental uncoupling.

**2.8 Mechanical Loads:** External forces can significantly reduce quick action couplings' life or cause failure. Mechanical loads which must be considered include excessive tensile or side loads, and vibration. Unusual applications may require special testing prior to quick action couplings selection.

**2.9 Specifications and Standards:** When selecting quick action couplings, government, industry, and Parker specifications must be reviewed and followed as applicable.

# SAFETY GUIDE

**2.10 Vacuum:** Not all quick action couplings are suitable or recommended for vacuum service. Quick action couplings used for vacuum applications must be selected to ensure that the quick actions couplings will withstand the vacuum and pressure of the system.

**2.11 Fire Resistant Fluids:** Some fire resistant fluids require seals other than the standard nitrile used in many quick action couplings.

**2.12 Radiant Heat:** Quick action couplings can be heated to destruction or loss of sealability without contact by such nearby items as hot manifolds or molten metal. The same heat source may then initiate a fire. This can occur despite the presence of cool air around the quick action couplings.

**2.13 Welding and Brazing:** Heating of plated parts, including quick action couplings and port adapters, above 450°F (232°C) such as during welding, brazing, or soldering may emit deadly gases and may cause coupling seal damage.

## 3.0 QUICK ACTION COUPLING INSTALLATION INSTRUCTIONS

**3.1 Pre-Installation Inspection:** Before installing a quick action coupling, visually inspect it and check for correct style, body material, seal material, and catalog number. Before final installation, coupling halves should be connected and disconnected with a sample of the mating half with which they will be used.

**3.2 Quick Action Coupling Halves From Other Manufacturers**  
If a quick action coupling assembly is made up of one Parker half and one half from another manufacturer, the lowest pressure rating of the two halves should not be exceeded.

**3.3 Fitting Installation:** Use a thread sealant, lubricant, or a combination of both when assembling pipe thread joints in quick action couplings. Be sure the sealant is compatible with the system fluid or gas. To avoid system contamination, use a liquid or paste type sealant rather than a tape style. Use the flats provided to hold the quick action coupling when installing fittings. Do not use pipe wrenches or a vice on other parts of the coupling to hold it when installing or removing fittings as damage or loosening of threaded joints in the coupling assembly could result. Do not apply excessive torque to taper pipe threads because cracking or splitting of the female component can result.

**3.4 Caps and Plugs:** Use dust caps and plugs when quick action couplings are not coupled to exclude dirt and contamination and to protect critical surfaces from damage.

**3.5 Coupling Location:** Locate quick action couplings where they can be reached for connect or disconnect without exposing the operator to slipping, falling, getting sprayed, or coming in contact with hot or moving parts.

**3.6 Hose Whips:** Use a hose whip (a short length of hose between the tool and the coupling half) instead of rigidly mounting a coupling half on hand tools or other devices. This reduces the potential for coupling damage if the tool is dropped and provides some isolation from mechanical vibration which could cause uncoupling.

## 4.0 QUICK ACTION COUPLING MAINTENANCE INSTRUCTIONS

**4.1** Even with proper selection and installation, quick action coupling life may be significantly reduced without a continuing maintenance program. Frequency should be determined by the severity of the application and risk potential. A maintenance program must be established and followed by the user and must include the following as a minimum:

**4.2 Visual Inspection of Quick Action Couplings:** Any of the following conditions require immediate shut down and replacement of the quick action coupling:

- Cracked, damaged, or corroded quick action coupling parts.
- Leaks at the fitting, valve or mating seal.
- Broken coupling mounting hardware, especially breakaway clamps.

**4.3 Visual Inspection All Other:** The following items must be tightened, repaired or replaced as required:

- Leaking seals or port connections.
- Remove excess dirt buildup on the coupling locking means or on the interface area of either coupling half.
- Clamps, guards, and shields.
- System fluid level, fluid type and any air entrapment.

**4.4 Functional Test:** Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks. Personnel must avoid potential hazardous areas while testing and using the system.

**4.5 Replacement Intervals:** Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in unacceptable downtime, damage or injury risk. See instruction 1.2 above.

Additional copies of the preceding safety information can be ordered by requesting "Safety Guide For Selecting and Using Quick Action Couplings and Related Accessories," Parker Publication No. 3800-B1.0

Contact The Quick Coupling Division, Minneapolis, MN.

# OFFER OF SALE

**1. Terms and Conditions.** Seller's willingness to offer Products, or accept an order for Products, to or from Buyer is subject to these Terms and Conditions or any newer version of the terms and conditions found on-line at [www.parker.com/saleterms/](http://www.parker.com/saleterms/). Seller objects to any contrary or additional terms or conditions of Buyer's order or any other document issued by Buyer.

**2. Price Adjustments; Payments.** Prices stated on Seller's quote or other documentation offered by Seller are valid for 30 days, and do not include any sales, use, or other taxes unless specifically stated. Unless otherwise specified by Seller, all prices are F.C.A. Seller's facility (INCO TERMS 2010). Payment is subject to credit approval and is due 30 days from the date of invoice or such other term as required by Seller's Credit Department, after which Buyer shall pay interest on any unpaid invoices at the rate of 1.5% per month or the maximum allowable rate under applicable law.

**3. Delivery Dates; Title and Risk; Shipment.** All delivery dates are approximate and Seller shall not be responsible for any damages resulting from any delay. Regardless of the manner of shipment, title to any products and risk of loss or damage shall pass to Buyer upon placement of the products with the shipment carrier at Seller's facility. Unless otherwise stated, Seller may exercise its judgment in choosing the carrier and means of delivery. No deferral of shipment at Buyer's request beyond the respective dates indicated will be made except on terms that will indemnify, defend and hold Seller harmless against all loss and additional expense. Buyer shall be responsible for any additional shipping charges incurred by Seller due to Buyer's acts or omissions.

**4. Warranty.** Seller warrants that the Products sold hereunder shall be free from defects in material or workmanship for a period of twelve months from the date of delivery to Buyer or 2,000 hours of normal use, whichever occurs first. The prices charged for Seller's products are based upon the exclusive limited warranty stated above, and upon the following disclaimer: **DISCLAIMER OF WARRANTY: THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO PRODUCTS PROVIDED HEREUNDER. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, INCLUDING DESIGN, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

**5. Claims; Commencement of Actions.** Buyer shall promptly inspect all Products upon delivery. No claims for shortages will be allowed unless reported to the Seller within 10 days of delivery. No other claims against Seller will be allowed unless asserted in writing within 30 days after delivery. Buyer shall notify Seller of any alleged breach of warranty within 30 days after the date the defect is or should have been discovered by Buyer. Any action based upon breach of this agreement or upon any other claim arising out of this sale (other than an action by Seller for an amount due on any invoice) must be commenced within 12 months from the date of the breach without regard to the date breach is discovered.

**6. LIMITATION OF LIABILITY. UPON NOTIFICATION, SELLER WILL, AT ITS OPTION, REPAIR OR REPLACE A DEFECTIVE PRODUCT, OR REFUND THE PURCHASE PRICE. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR AS THE RESULT OF, THE SALE, DELIVERY, NON-DELIVERY, SERVICING, USE OR LOSS OF USE OF THE PRODUCTS OR ANY PART THEREOF, OR FOR ANY CHARGES OR EXPENSES OF ANY NATURE INCURRED WITHOUT SELLER'S WRITTEN CONSENT, EVEN IF SELLER HAS BEEN NEGLIGENT, WHETHER IN CONTRACT, TORT OR OTHER LEGAL THEORY. IN NO EVENT SHALL SELLER'S LIABILITY UNDER ANY CLAIM MADE BY BUYER EXCEED THE PURCHASE PRICE OF THE PRODUCTS.**

**7. User Responsibility.** The user, through its own analysis and testing, is solely responsible for making the final selection of the system and Product and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application and follow applicable industry standards and Product information. If Seller provides Product or system options, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the Products or systems.

**8. Loss to Buyer's Property.** Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, will be considered obsolete and may be destroyed by Seller after two consecutive years have elapsed without Buyer ordering the items manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

**9. Special Tooling.** A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture Products. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the Products, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

**10. Buyer's Obligation; Rights of Seller.** To secure payment of all sums due or otherwise, Seller shall retain a security interest in the goods delivered and this agreement shall be deemed a Security Agreement under the Uniform Commercial Code. Buyer authorizes Seller as its attorney to execute and file on Buyer's behalf all documents Seller deems necessary to perfect its security interest.

**11. Improper use and Indemnity.** Buyer shall indemnify, defend, and hold Seller harmless from any claim, liability, damages, lawsuits, and costs (including attorney fees), whether for personal injury, property damage, patent, trademark or copyright infringement or any other claim, brought by or incurred by Buyer, Buyer's employees, or any other person, arising out of: (a) improper selection, improper application or other misuse of Products purchased by Buyer from Seller; (b) any act or omission, negligent or otherwise, of Buyer; (c) Seller's use of patterns, plans, drawings, or specifications furnished by Buyer to manufacture Product; or (d) Buyer's failure to comply with these terms and conditions. Seller shall not indemnify Buyer under any circumstance except as otherwise provided.

**12. Cancellations and Changes.** Orders shall not be subject to cancellation or change by Buyer for any reason, except with Seller's written consent and upon terms that will indemnify, defend and hold Seller harmless against all direct, incidental and consequential loss or damage. Seller may change product features, specifications, designs and availability with or without notice to Buyer.

**13. Limitation on Assignment.** Buyer may not assign its rights or obligations under this agreement without the prior written consent of Seller.

**14. Force Majeure.** Seller does not assume the risk and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter "Events of Force Majeure"). Events of Force Majeure shall include without limitation: accidents, strikes or labor disputes, acts of any government or government agency, acts of nature, delays or failures in delivery from carriers or suppliers, shortages of materials, or any other cause beyond Seller's reasonable control.

**15. Waiver and Severability.** Failure to enforce any provision of this agreement will not waive that provision nor will any such failure prejudice Seller's right to enforce that provision in the future. Invalidation of any provision of this agreement by legislation or other rule of law shall not invalidate any other provision herein. The remaining provisions of this agreement will remain in full force and effect.

**16. Termination.** Seller may terminate this agreement for any reason and at any time by giving Buyer thirty (30) days written notice of termination. Seller may immediately terminate this agreement, in writing, if Buyer: (a) commits a breach of any provision of this agreement (b) appoints a trustee, receiver or custodian for all or any part of Buyer's property (c) files a petition for relief in bankruptcy on its own behalf, or by a third party (d) makes an assignment for the benefit of creditors, or (e) dissolves or liquidates all or a majority of its assets.

**17. Governing Law.** This agreement and the sale and delivery of all Products hereunder shall be deemed to have taken place in and shall be governed and construed in accordance with the laws of the State of Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of Cuyahoga County, Ohio with respect to any dispute, controversy or claim arising out of or relating to this agreement.

**18. Indemnity for Infringement of Intellectual Property Rights.** Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Section. Seller will defend and indemnify Buyer against allegations of infringement of U.S. patents, U.S. trademarks, copyrights, trade dress and trade secrets ("Intellectual Property Rights"). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that a Product sold pursuant to this Agreement infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If a Product is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using the Product, replace or modify the Product so as to make it noninfringing, or offer to accept return of the Product and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to Products delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any Product sold hereunder. The foregoing provisions of this Section shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

**19. Entire Agreement.** This agreement contains the entire agreement between the Buyer and Seller and constitutes the final, complete and exclusive expression of the terms of sale. All prior or contemporaneous written or oral agreements or negotiations with respect to the subject matter are herein merged.

**20. Compliance with Law, U. K. Bribery Act and U.S. Foreign Corrupt Practices Act.** Buyer agrees to comply with all applicable laws and regulations, including both those of the United Kingdom and the United States of America, and of the country or countries of the Territory in which Buyer may operate, including without limitation the U. K. Bribery Act, the U.S. Foreign Corrupt Practices Act ("FCPA") and the U.S. Anti-Kickback Act (the "Anti-Kickback Act"), and agrees to indemnify and hold harmless Seller from the consequences of any violation of such provisions by Buyer, its employees or agents. Buyer acknowledges that they are familiar with the provisions of the U. K. Bribery Act, the FCPA and the Anti-Kickback Act, and certifies that Buyer will adhere to the requirements thereof. In particular, Buyer represents and agrees that Buyer shall not make any payment or give anything of value, directly or indirectly to any governmental official, any foreign political party or official thereof, any candidate for foreign political office, or any commercial entity or person, for the purpose of influencing such person to purchase products or otherwise benefit the business of Seller.

## Contact these Parker Divisions for CNG products

### **CNG RECEPTACLES, NOZZLES AND IN-LINE BREAKAWAYS**

Parker Hannifin Corporation  
**Quick Coupling Division**  
8145 Lewis Road  
Minneapolis, Minnesota 55427  
phone 763 544 7781  
fax 763 544 3418

### **CNG VALVES**

Parker Hannifin Corporation  
**Fluid Control Division**  
95 Edgewood Avenue  
New Britain, Connecticut 06051  
phone 860 827 2300  
fax 860 827 2384

### **CNG SUPPLY AND RETURN LINE HOSE**

Parker Hannifin Corporation  
**Hose Products Division**  
30240 Lakeland Blvd.  
Wickliffe, Ohio 44092  
phone 440 943 5700  
fax 440 943 3129

### **CNG HOSE**

Parker Hannifin Corporation  
**Parflex Division**  
1300 N. Freedom Street  
Ravenna, Ohio 44266  
phone 330 296 2871  
fax 330 296 8433

### **SEAL-LOK™ O-RING FACE SEAL FITTINGS**

Parker Hannifin Corporation  
**Tube Fittings Division**  
3885 Gateway Blvd.  
Columbus, Ohio 43228  
phone 614 279 7070  
fax 614 279 7685

### **FILTRATION**

Parker Hannifin Corporation  
**Filtration Division**  
Finite Airtek  
500 Glaspie Street  
Oxford, Michigan 48371  
phone 248 628 6400  
fax 248 628 1850



Parker Hannifin Corporation  
**Quick Coupling Division**  
8145 Lewis Road  
Minneapolis, MN 55427  
phone 763 544 7781  
fax 763 544 3418  
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