



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

Fueling Nozzles, Vehicle Receptacles, In-line Fill and Vent Line Breakaways, Check Valves
Catalog 3850-QCD | April 2018



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

NGV1 Receptacles



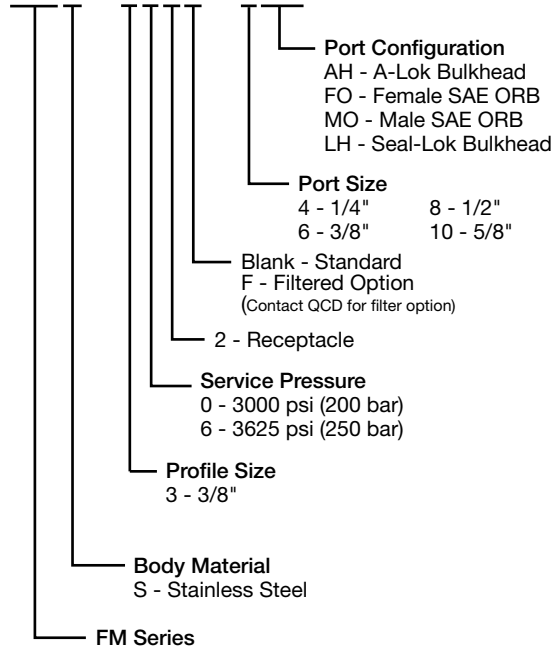
Parker FMS Series receptacles are designed for rigid mounting on a compressed natural gas vehicle. Receptacles can be employed in both fast-fill and time-fill dispensing applications. FMS Series receptacles are compatible with all CNG fueling nozzles conforming to the ANSI/NGV1 standards.

Features:

- FMS receptacles are certified to ANSI/CSA/NGV1 standards
- Internal check valve provides unidirectional flow - natural gas will only flow from dispenser to vehicle
- Seals are a special Nitrile compound formulated for compressed natural gas service
- Dust caps are available to provide protection from dirt and some environmental contamination. They are sold separately.

How To Order

FMS - 362F - 6FO



Materials of Construction

Body	Stainless Steel
Adapter	Stainless Steel
Valving	Stainless Steel
Seal	Special CNG Nitrile Compound

Specifications

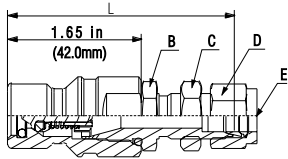
Part Number	FMS-302	FMS-362
Service Pressure	3000 psi (200 bar)	3625 psi (250 bar)
Temperature	-40°F to +250°F (-40°C to +121°C)	-40°F to +250°F (-40°C to +121°C)
Flow Rate	1750 scfm	1750 scfm

Dust Cap



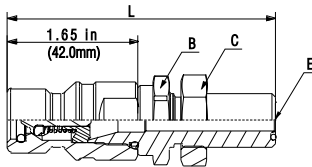
Part Number	Material	Fits Receptacle
FM-66M	Nitrile	FMS-302 & FMS-362 (3/8")

FMS Receptacles - A-Lok Bulkhead



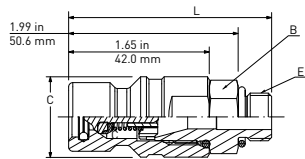
Part Number	L - Length	B - Hex	C - Hex	D - Hex	E - Port End
FMS-302-4AH FMS-362-4AH	2.71" (68.8 mm)	0.75" (19.0 mm)	0.75" (19.0 mm)	0.56" (14.3 mm)	1/4" A-Lok Bulkhead
FMS-302-6AH FMS-362-6AH	2.78" (70.6 mm)	0.75" (19.0 mm)	0.75" (19.0 mm)	0.69" (17.5 mm)	3/8" A-Lok Bulkhead
FMS-302-8AH FMS-362-8AH	3.09" (78.4 mm)	1.00" (25.4 mm)	1.06" (27.0 mm)	0.88" (22.2 mm)	1/2" A-Lok Bulkhead

FMS Receptacles - Seal-Lok Bulkhead



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 Receptacles - Male SAE Straight Thread ORB



Part Number	L - Length	B - Hex	C - Largest Diameter	E - Port End
FMS-302-6MO FMS-362-6MO	2.38" (60.6 mm)	0.75" (19.0 mm)	0.98" (25 mm) 0.94" (24 mm)	9/16 - 18 UNF

Contact the Quick Coupling Division for other port configurations.

ON VEHICLE

Heavy Duty CNG Receptacle



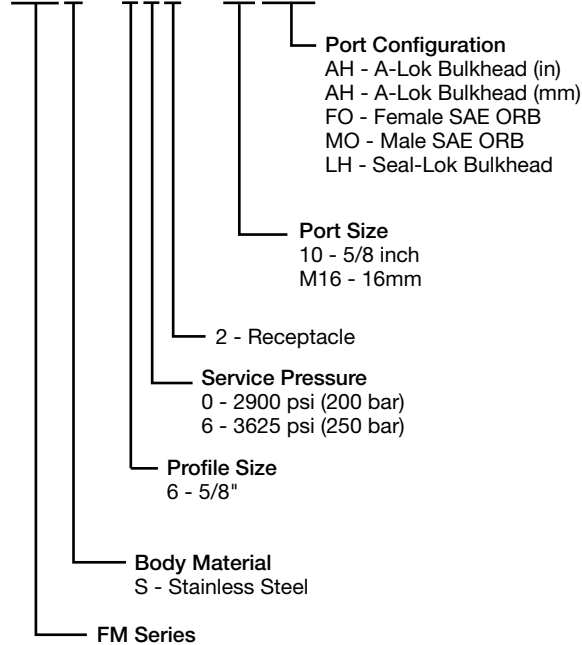
Parker's Heavy Duty Receptacles conform to ISO 14469 standard for Compressed Natural Gas (CNG) Refueling Connectors. These Receptacles are capable of flows as high as 5000 scfm. Higher flow decreases the amount of time necessary to fuel larger vehicles, buses, and trucks, getting them back into service more quickly. FMS-6*2 Heavy Duty Receptacles are compatible with all Heavy Duty CNG fueling nozzles conforming to ANSI/NGV1 and ISO 14469 standards.

Features:

- FMS receptacles are certified to the ISO 14469 standard and ECE R110
- Internal check valve provides unidirectional flow - natural gas will only flow from dispenser to vehicle
- Robust proprietary valve seal prevents leakage
- Hardened stainless steel body resists damage
- Designed to accommodate a variety of port end configurations
- Dust cap is included with each receptacle to provide protection from dirt and some environmental contamination.

How To Order

FMS - 662 - 10MO

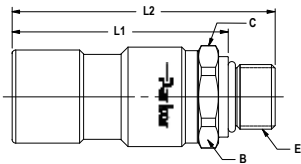


Materials of Construction	
Body	Stainless Steel
Adapter	Stainless Steel
Valving	Stainless Steel
Seal	Special CNG Nitrile Compound

Specifications		
Part Number	FMS-602-***	FMS-662-***
Service Pressure	2900 psi (200 bar)	3625 psi (250 bar)
Temperature	-40°F to +250°F (-40°C to +121°C)	-40°F to +250°F (-40°C to +121°C)
Flow Rate	Up to 5000 scfm	Up to 5000 scfm

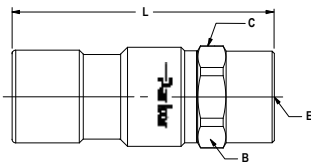
Replacement Dust Cap		
Part Number	Material	Fits Receptacle
H6-66M	Nitrile	FMS-602 & FMS-662

FMS Heavy Duty Receptacles - Male SAE Straight Thread ORB - SAE J1926-2



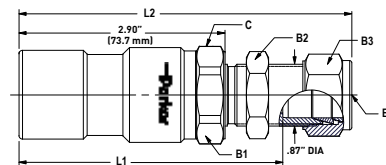
Part Number	L1 - Length	L2 - Length	B - Hex	C - Diameter Across Corners	E - Port End
FMS-602-10MO	2.90" (73.7 mm)	3.53" (89.7 mm)	1.25" (31.8 mm)	1.38" (35 mm)	7/8 - 14 UNF
FMS-662-10MO	2.90" (73.7 mm)	3.53" (89.7 mm)	1.25" (31.8 mm)	1.38" (35 mm)	7/8 - 14 UNF

FMS Heavy Duty Receptacles - Female SAE Straight Thread ORB - SAE J1926-1



Part Number	L - Length	B - Hex	C - Diameter Across Corners	E - Port End
FMS-602-10FO	3.53" (89.7 mm)	1.25" (31.8 mm)	1.38" (35 mm)	7/8 - 14 UNF
FMS-662-10FO	3.53" (89.7 mm)	1.25" (31.8 mm)	1.38" (35 mm)	7/8 - 14 UNF

FMS Heavy Duty Receptacles - A-Lok bulkhead



Part Number	L1 - Length	L2 - Length	B1 - Hex	B2 - Hex	B3 - Hex	C - Dia Across Corners	E - Port End
FMS-602-10AH	3.71" (94.2 mm)	4.68" (118.9 mm)	1.25" (31.8 mm)	1.06" (27 mm)	1.00" (25.4 mm)	1.38" (35 mm)	5/8" A-Lok Bulkhead
FMS-662-10AH	3.71" (94.2 mm)	4.68" (118.9 mm)	1.25" (31.8 mm)	1.06" (27 mm)	1.00" (25.4 mm)	1.38" (35 mm)	5/8" A-Lok Bulkhead
FMS-602-M16AH	3.71" (94.2 mm)	4.68" (118.9 mm)	1.25" (31.8 mm)	1.06" (27 mm)	1.00" (25.4 mm)	1.38" (35 mm)	16mm A-Lok Bulkhead
FMS-662-M16AH	3.71" (94.2 mm)	4.68" (118.9 mm)	1.25" (31.8 mm)	1.06" (27 mm)	1.00" (25.4 mm)	1.38" (35 mm)	16mm A-Lok Bulkhead

Contact the Quick Coupling Division for other port configurations.

ON VEHICLE

Check Valves



CVS Series check valves provide an important feature for CNG powered vehicles. When installed immediately after the fueling receptacle it functions as a redundant sealing device in the fill line, only allowing flow in one direction, from the dispenser to the vehicle.

Features:

- Three piece valve resists seal washout
- Soft seat with low crack pressure improves system efficiency
- Inline check valve provides unidirectional flow - natural gas will only flow from dispenser to vehicle
- Special Nitrile seals for CNG

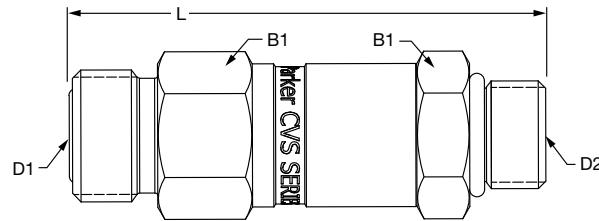
Materials of Construction

Material	Stainless with Nitrile Seals
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Specifications

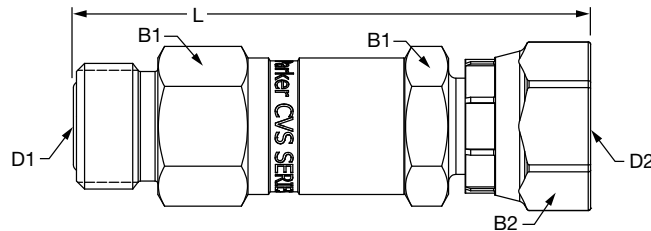
Service Pressure	3600 psi
Temperature	-40°F to +250°F (-40°C to +121°C)

CVS Check Valve with Male Face Seal and Male O-ring Boss



Part Number	L - Length	B1 - Hex	D1 - Port End (inlet)	D2 - Port End (outlet)	Crack Pressure
CVS-363-6MSMO-10	2.45" (62.2 mm)	0.75" (19.0 mm)	11/16-16 UN Male Face Seal	9/16-18 UNF Male ORB	10 psid

CVS Check Valve with Male Face Seal and Female Face Seal



Part Number	L - Length	B1 - Hex	B2 - Hex	D1 - Port End (inlet)	D2 - Port End (outlet)	Crack Pressure
CVS-363-6MSFS-10	2.79" (70.8 mm)	0.75" (19.0 mm)	0.813" (20.6 mm)	11/16-16 UN Male Face Seal	11/16-16 UN Female Face Seal	10 psid

Contact the Quick Coupling Division for other port configurations.

Defueling Receptacles



Parker's defueling receptacles allow fuel tanks to be emptied within a closed system when depressurizing in preparation for service operations. The three piece valve design provides increased durability and reliability with greater resistance to seal wash out.

Features:

- 3-piece valve design resists seal wash out
- Special Nitrile seals for CNG
- ISO 7241, series B profile has global interchangeability

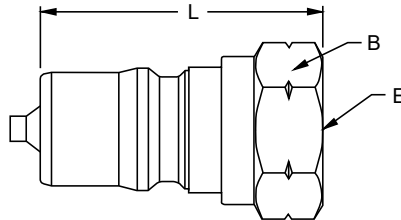
Materials of Construction

Material	Stainless with Nitrile Seals
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Specifications

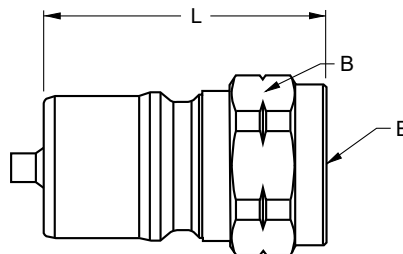
Service Pressure	3600 psi
Temperature	-40°F to +250°F [-40°C to +121°C]

1/4 inch Defueling Receptacle



Part Number	Body Size	L - Length	B - Hex	E - Port End
SH2-63-643	1/4 in	1.39" [35.3 mm]	0.75" [19 mm]	1/4 - 18NPTF

3/8 inch Defueling Receptacle



Part Number	Body Size	L - Length	B - Hex	E - Port End
SH3-63-643	3/8 in	1.50" [38.1 mm]	0.88" [22.2 mm]	3/8 - 18NPTF

Contact the Quick Coupling Division for other port configurations.

FUELING STATION

Nozzles

Push-to-Connect Fueling 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

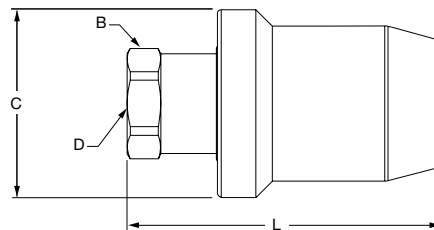
Materials of Construction

Body	Stainless Steel
Adapter	Stainless Steel
Valving	Stainless Steel
Seal	Nitrile and Urethane

Specification

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

NGVC2 Fueling Nozzle



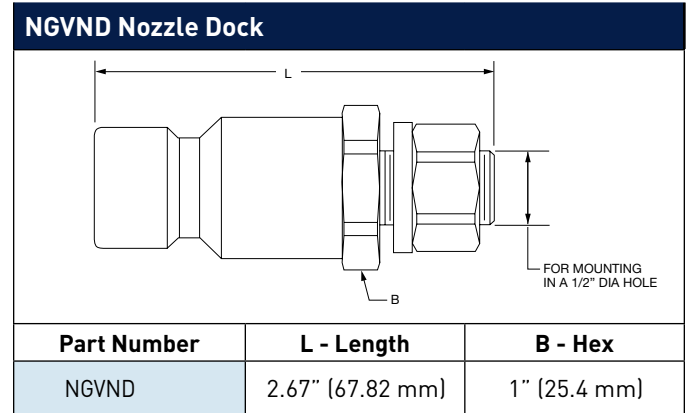
Part Number	L - Length	B - Wrench Flats	C - Largest Diameter	D - Port End
NGVC2-P30	3.51" (89.1 mm)	1.12" (28.4 mm)	2.10" (53.3 mm)	9/16 - 18 UNF
NGVC2-P36	3.51" (89.1 mm)	1.12" (28.4 mm)	2.10" (53.3 mm)	9/16 - 18 UNF

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



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)

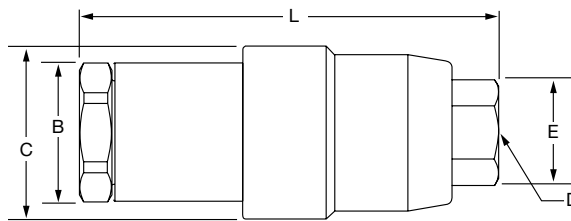
Materials of Construction

Material	Brass and Stainless with Nitrile and Urethane Seals
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Specifications

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

NGVBCN2-P50 Breakaway-Fill Line



Part Number	B - Hex	C - Largest Diameter	D - Port End (2 places)	E - Hex	L - Connected Length
NGVBCN2-P50	1.12" (28.4 mm)	1.53" (38.9 mm)	9/16 - 18 UNF	0.81" (20.6 mm)	3.73" (94.7 mm)

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.

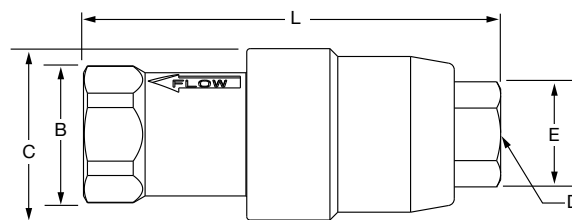
Features:

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

Specifications

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

NGVBCN2-VL Breakaway-Vent Line



Part Number	B - Hex	C - Largest Diameter	D - Port End (2 places)	L - Connected Length
NGVBCN2-VL	1.12" (28.4 mm)	1.53" (38.9 mm)	9/16 - 18 UNF 3/8" port per SAE J1926-1	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.

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 action 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. **Definitions.** As used herein, the following terms have the meanings indicated.

- Buyer:** means any customer receiving a Quote for Products from Seller.
Goods: means any tangible part, system or component to be supplied by the Seller.
Products: means the Goods, Services and/or Software as described in a Quote provided by the Seller.
Quote: means the offer or proposal made by Seller to Buyer for the supply of Products.
Seller: means Parker-Hannifin Corporation, including all divisions and businesses thereof.
Services: means any services to be supplied by the Seller.
Software: means any software related to the Products, whether embedded or separately downloaded.
Terms: means the terms and conditions of this Offer of Sale or any newer version of the same as published by Seller electronically at www.parker.com/saleterms.

2. **Terms.** All sales of Products by Seller are contingent upon, and will be governed by, these Terms and, these Terms are incorporated into any Quote provided by Seller to any Buyer. Buyer's order for any Products whether communicated to Seller verbally, in writing, by electronic data interface or other electronic commerce, shall constitute acceptance of these Terms. Seller objects to any contrary or additional terms or conditions of Buyer. Reference in Seller's order acknowledgement to Buyer's purchase order or purchase order number shall in no way constitute an acceptance of any of Buyer's terms of purchase. No modification to these Terms will be binding on Seller unless agreed to in writing and signed by an authorized representative of Seller.

3. **Price; Payment.** The Products set forth in Seller's Quote are offered for sale at the prices indicated in Seller's Quote. Unless otherwise specifically stated in Seller's Quote, prices are valid for thirty (30) days and do not include any sales, use, or other taxes or duties. Seller reserves the right to modify prices at any time to adjust for any raw material price fluctuations. Unless otherwise specified by Seller, all prices are F.C.A. Seller's facility (INCOTERMS 2010). All sales are contingent upon credit approval and payment for all purchases is due thirty (30) days from the date of invoice (or such date as may be specified in the Quote). Unpaid invoices beyond the specified payment date incur interest at the rate of 1.5% per month or the maximum allowable rate under applicable law.

4. **Shipment; Delivery; Title and Risk of Loss.** All delivery dates are approximate. Seller is not responsible for damages resulting from any delay. Regardless of the manner of shipment, delivery occurs and title and risk of loss or damage pass to Buyer, upon placement of the Products with the shipment carrier at Seller's facility. Unless otherwise agreed, Seller may exercise its judgment in choosing the carrier and means of delivery. No deferral of shipment at Buyer's request beyond the respective indicated shipping date 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.

5. **Warranty.** The warranty related to the Products is as follows: (i) Goods are warranted against defects in material or workmanship for a period of twelve (12) months from the date of delivery or 2,000 hours of use, whichever occurs first; (ii) Services shall be performed in accordance with generally accepted practices and using the degree of care and skill that is ordinarily exercised and customary in the field to which the Services pertain and are warranted for a period of six (6) months from the completion of the Services by Seller; and (iii) Software is only warranted to perform in accordance with applicable specifications provided by Seller to Buyer for ninety (90) days from the date of delivery or, when downloaded by a Buyer or end-user, from the date of the initial download. All prices are based upon the exclusive limited warranty stated above, and upon the following disclaimer:

DISCLAIMER OF WARRANTY: THIS WARRANTY IS THE SOLE AND ENTIRE WARRANTY PERTAINING TO PRODUCTS. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, INCLUDING DESIGN, NONINFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE. SELLER DOES NOT WARRANT THAT THE SOFTWARE IS ERROR-FREE OR FAULT-TOLERANT, OR THAT BUYER'S USE THEREOF WILL BE SECURE OR UNINTERRUPTED. BUYER AGREES AND ACKNOWLEDGES THAT UNLESS OTHERWISE AUTHORIZED IN WRITING BY SELLER THE SOFTWARE SHALL NOT BE USED IN CONNECTION WITH HAZARDOUS OR HIGH RISK ACTIVITIES OR ENVIRONMENTS. EXCEPT AS EXPRESSLY STATED HEREIN, ALL PRODUCTS ARE PROVIDED "AS IS".

6. **Claims; Commencement of Actions.** Buyer shall promptly inspect all Products upon receipt. No claims for shortages will be allowed unless reported to the Seller within ten (10) days of delivery. Buyer shall notify Seller of any alleged breach of warranty within thirty (30) days after the date the non-conformance is or should have been discovered by Buyer. Any claim or action against Seller based upon breach of contract or any other theory, including tort, negligence, or otherwise must be commenced within twelve (12) months from the date of the alleged breach or other alleged event, without regard to the date of discovery.

7. **LIMITATION OF LIABILITY.** IN THE EVENT OF A BREACH OF WARRANTY, SELLER WILL, AT ITS OPTION, REPAIR OR REPLACE THE NON-CONFORMING PRODUCT, RE-PERFORM THE SERVICES, OR REFUND THE PURCHASE PRICE PAID WITHIN A REASONABLE PERIOD OF TIME. IN NO EVENT IS SELLER LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR AS THE RESULT OF, THE SALE, DELIVERY, NON-DELIVERY, SERVICING, NON-COMPLETION OF SERVICES, USE, LOSS OF USE OF, OR INABILITY TO USE THE PRODUCTS OR ANY PART THEREOF, LOSS OF DATA, IDENTITY, PRIVACY, OR CONFIDENTIALITY, OR FOR ANY CHARGES OR EXPENSES OF ANY NATURE INCURRED WITHOUT SELLER'S WRITTEN CONSENT, WHETHER BASED IN CONTRACT, TORT OR OTHER LEGAL THEORY. IN NO EVENT SHALL SELLER'S LIABILITY UNDER ANY CLAIM MADE BY BUYER EXCEED THE PURCHASE PRICE PAID FOR THE PRODUCTS.

8. **Loss to Buyer's Property.** Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which are or become Buyer's property, will be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer ordering the Products 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.** Special Tooling includes but is not limited to tooling, jigs, fixtures and associated manufacturing equipment acquired or necessary to manufacture Products. A tooling charge may be imposed for any Special Tooling. 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 Special Tooling belonging to Seller that is utilized in the manufacture of the Products, even if such Special Tooling has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller has the right to alter, discard or otherwise dispose of any Special Tooling or other property in its sole discretion at any time.

10. **Security Interest.** To secure payment of all sums due, Seller retains a security interest in all Products delivered to Buyer and, Buyer's acceptance of these Terms is deemed to be 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. **User Responsibility.** The Buyer through its own analysis and testing, is solely responsible for making the final selection of the Products and assuring that all performance, endurance, maintenance, safety and warning requirements of the application of the Products are met. The Buyer must analyze all aspects of the application and follow applicable industry standards, specifications, and other technical information provided with the Product. If Seller provides Product options based upon data or specifications provided by the Buyer, the Buyer is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the Products. In the event the Buyer is not the end-user, Buyer will ensure such end-user complies with this paragraph.

12. **Use of Products, Indemnity by Buyer.** Buyer shall comply with all instructions, guides and specifications provided by Seller with the Products. **Unauthorized Uses.** If Buyer uses or resells the Products for any uses prohibited in Seller's instructions, guides or specifications, or Buyer otherwise fails to comply with Seller's instructions, guides and specifications, Buyer acknowledges that any such use, resale, or non-compliance is at Buyer's sole risk. Buyer shall indemnify, defend, and hold Seller harmless from any losses, claims, liabilities, damages, lawsuits, judgments and costs (including attorney fees and defense costs), whether for personal injury, property damage, intellectual property infringement or any other claim, brought by or incurred by Buyer, Buyer's employees, or any other person, arising out of: (a) improper selection, application, design, specification or other misuse of Products provided by Seller; (b) any act or omission, negligent or otherwise, of Buyer; (c) Seller's use of patterns, tooling, equipment, plans, drawings, designs or specifications or other information or things furnished by Buyer; (d) damage to the Products from an external cause, repair or attempted repair by anyone other than Seller, failure to follow instructions, guides and specifications provided by Seller, use with goods not provided by Seller, or opening, modifying, deconstructing or tampering with the Products for any reason; or (e) Buyer's failure to comply with these Terms. Seller shall not indemnify Buyer under any circumstance except as otherwise provided in these Terms.

13. **Cancellations and Changes.** Buyer may not cancel or modify any order 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, at any time, may change Product features, specifications, designs and availability.

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

15. **Force Majeure.** Seller does not assume the risk and is not liable for delay or failure to perform any of Seller's obligations by reason of events or circumstances beyond its reasonable control ("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.

16. Waiver and Severability. Failure to enforce any provision of these Terms will not invalidate that provision; nor will any such failure prejudice Seller's right to enforce that provision in the future. Invalidation of any provision of these Terms by legislation or other rule of law shall not invalidate any other provision herein and, the remaining provisions will remain in full force and effect.

17. Termination. Seller may terminate any agreement governed by or arising from these Terms for any reason and at any time by giving Buyer thirty (30) days prior written notice. Seller may immediately terminate, in writing, if Buyer: (a) breaches any provision of these Terms (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 one if filed by a third party (d) makes an assignment for the benefit of creditors; or (e) dissolves its business or liquidates all or a majority of its assets.

18. Ownership of Software. Seller retains ownership of all Software supplied to Buyer hereunder. In no event shall Buyer obtain any greater right in and to the Software than a right in the nature of a license limited to the use thereof and subject to compliance with any other terms provided with the Software.

19. Indemnity for Infringement of Intellectual Property Rights. Seller is not liable for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights ("Intellectual Property Rights") except as provided in this Section. 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 a third party claim that one or more of the Products sold hereunder infringes the Intellectual Property Rights of a third party in the country of delivery of the Products by the Seller to the Buyer. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of any such claim, and Seller having sole control over the defense of the claim including all negotiations for settlement or compromise. If one or more Products sold hereunder is subject to such a claim, Seller may, at its sole expense and option, procure for Buyer the right to continue using the Products, replace or modify the Products so as to render them non-infringing, or offer to accept return of the Products and refund the purchase price less a reasonable allowance for depreciation. Seller has no obligation or liability for any claim of infringement: (i) arising from information provided by Buyer; or (ii) directed to any Products provided hereunder for which the designs are specified in whole or part by Buyer; or (iii) resulting from the modification, combination or use in a system of any Products provided hereunder. The foregoing provisions of this Section constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for such claims of infringement of Intellectual Property Rights.

20. Governing Law. These Terms and the sale and delivery of all Products are 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 the sale and delivery of the Products.

21. Entire Agreement. These Terms, along with the terms set forth in the main body of any Quote, forms the entire agreement between the Buyer and Seller and constitutes the final, complete and exclusive expression of the terms of sale. In the event of a conflict between any term set forth in the main body of a Quote and these Terms, the terms set forth in the main body of the Quote shall prevail. All prior or contemporaneous written or oral agreements or negotiations with respect to the subject matter shall have no effect. These Terms may not be modified unless in writing and signed by an authorized representative of Seller.

22. Compliance with Laws. Buyer agrees to comply with all applicable laws, regulations, and industry and professional standards, including those of the United States of America, and the country or countries in which Buyer may operate, including without limitation the U.S. Foreign Corrupt Practices Act ("FCPA"), the U.S. Anti-Kickback Act ("Anti-Kickback Act"), U.S. and E.U. export control and sanctions laws ("Export Laws"), the U.S. Food Drug and Cosmetic Act ("FDCA"), and the rules and regulations promulgated by the U.S. Food and Drug Administration ("FDA"), each as currently amended. Buyer agrees to indemnify, defend, and hold harmless Seller from the consequences of any violation of such laws, regulations and standards by Buyer, its employees or agents. Buyer acknowledges that it is familiar with all applicable provisions of the FCPA, the Anti-Kickback Act, Export Laws, the FDCA and the FDA and certifies that Buyer will adhere to the requirements thereof and not take any action that would make Seller violate such requirements. Buyer represents and agrees that Buyer will not make any payment or give anything of value, directly or indirectly, to any governmental official, foreign political party or official thereof, candidate for foreign political office, or commercial entity or person, for any improper purpose, including the purpose of influencing such person to purchase Products or otherwise benefit the business of Seller. Buyer further represents and agrees that it will not receive, use, service, transfer or ship any Product from Seller in a manner or for a purpose that violates Export Laws or would cause Seller to be in violation of Export Laws.

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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
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fax 330 296 8433

SEAL-LOK™ O-RING FACE SEAL FITTINGS

Parker Hannifin Corporation
Tube Fittings Division
3885 Gateway Blvd.
Columbus, Ohio 43228
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FILTRATION

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Finite Airtek
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