



aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



## SAE J2044 Quick Connect Fittings With Mobile Equipment Engine Hose For Fuel, Vapor and Coolant/Heater Systems



ENGINEERING YOUR SUCCESS.



# A Hose Assembly System as Easy as Cut, Pinch, Push, Click

Parker offers a system of quick connect couplings, hose and clamps for making durable, flexible and lightweight hose assemblies to handle virtually every engine-related requirement, including fuel supply, vapor emission and cooling/heating. Using components from Parker Industrial Hose Products (IHP) and Fluid System Connectors (FSC) divisions,

users can easily fabricate these assemblies in a variety of constructions and configurations.

Simply cut the hose to length, push the specified fitting into the hose and apply the specified clamp. To install the finished assembly, push the fitting onto the port and engage the lock with a distinctive “click” that secures the connection.

## Safe Lock™ Connectors

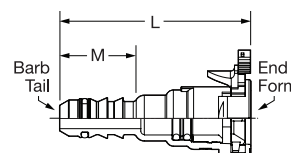
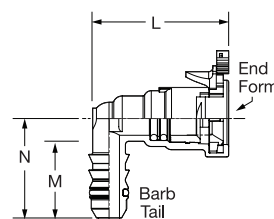
The Safe Lock push-to-connect design reduces hose assembly fabrication time and the exclusive locking mechanism minimizes leaks and installation failures.

<b>Construction:</b>	Lightweight, durable, high temperature composite body with additional retaining lock. Conductive (except 5/8" size)
<b>Seal Materials (one each):</b>	Fluorocarbon and Fluorosilicone
<b>Pressure Range:</b>	-7.2 psi to +72 psi (-0.50 bar to +5.0 bar)
<b>Temperature Range:</b>	-40°F to +239°F (-40°C to +115°C)
<b>Media:</b>	Coolant, fuel
<b>Industry Standard:</b>	SAE J2044



See Hose and Assembly Component Compatibility tables on next page

End Form	Barb Tail	Configuration	Part Number** Available from FSC*	L (mm)	M (mm)	N (mm)
5/16"	5/16"	Straight	A614A50G06 02	49.40	19.50	n/a
		90 degree	A624A50D06 02	29.50	19.50	25.70
10mm	3/8"	Straight	A613 52 08 00	55.00	19.00	n/a
		90 degree	A623A52 08 00	34.40	19.00	32.00
3/8"	3/8"	Straight	A614M53 08 02	55.00	21.50	n/a
		90 degree	A624M53 08 02	34.05	21.50	28.60
12mm	1/2"	Straight	A614A58 55 04	59.35	21.00	n/a
		90 degree	A624A58 55 04	39.00	21.00	29.70
1/2"	1/2"	Straight	A614C56 55 05	59.15	21.00	n/a
		90 degree	A624C56 55 05	39.00	21.00	29.70
5/8"	5/8"	Straight	A614D57 56 02	58.20	20.00	n/a
		90 degree	A624F57 56 02	39.10	20.00	30.10



\* FSC is the Parker Fluid System Connectors Division. See back cover for contact information.  
 \*\* Safe Lock Connector part numbers contain spaces.

# Hose and Assembly Component Compatibility

## Series 389 Super-Flex® FL-7 Barrier Fuel Line Hose

SAE J30R7 Hose				Safe Lock™ Connectors				Clamps
Part Number <i>Available from IHP*</i>	Hose ID (in)	Nom Hose ID (mm)	End Form	Barb Tail	Configuration	Part Number** <i>Available from FSC*</i>	Lock Color	Part Number <i>Available from IHP*</i>
38905	5/16	7.9	5/16"	5/16"	Straight 90 degree	A614A50G06 02 A624A50D06 02	Green	PC04-0016
38906	3/8	9.5	10mm††	3/8"	Straight 90 degree	A613 52 08 00 A623A52 08 00	White	PC06-0110
38906	3/8	9.5	3/8"	3/8"	Straight 90 degree	A614M53 08 02 A624M53 08 02	Green	PC06-0110
38908	1/2	12.7	12mm	1/2"	Straight 90 degree	A614A58 55 04 A624A58 55 04	Blue	PC08-0026
38908	1/2	12.7	1/2"	1/2"	Straight 90 degree	A614C56 55 05 A624C56 55 05	Yellow	PC08-0026
38910	5/8	15.9	5/8"	5/8"	Straight 90 degree	A614D57 56 02† A624F57 56 02†	Green	PC10-0031

† Safe Lock fittings in the 5/8" size are NOT conductive. The user must determine if the 5/8" fitting is suitable for fuel applications.

†† Not available in Safe Lock design; available only in single lock.

## Series 395 Fuel Line/Vapor Emission Hose

SAE J30R7 Hose				Safe Lock™ Connectors				Clamps
Part Number <i>Available from IHP*</i>	Hose ID (in)	Nom Hose ID (mm)	End Form	Barb Tail	Configuration	Part Number** <i>Available from FSC*</i>	Lock Color	Part Number <i>Available from IHP*</i>
39551	5/16	7.9	5/16"	5/16"	Straight 90 degree	A614A50G06 02 A624A50D06 02	Green	PC04-0016
39552	3/8	9.5	10mm††	3/8"	Straight 90 degree	A613 52 08 00 A623A52 08 00	White	PC06-0110
39552	3/8	9.5	3/8"	3/8"	Straight 90 degree	A614M53 08 02 A624M53 08 02	Green	PC06-0110
39554	1/2	12.7	12mm	1/2"	Straight 90 degree	A614A58 55 04 A624A58 55 04	Blue	PC08-0026
39554	1/2	12.7	1/2"	1/2"	Straight 90 degree	A614C56 55 05 A624C56 55 05	Yellow	PC08-0026

†† Not available in Safe Lock design; available only in single lock.

## Series 7181 Coolant/Heater Hose

SAE 20R3EC D-2 Hose				Safe Lock™ Connectors				Clamps
Part Number <i>Available from IHP*</i>	Hose ID (in)	Nom Hose ID (mm)	End Form	Barb Tail	Configuration	Part Number** <i>Available from FSC*</i>	Lock Color	Part Number <i>Available from IHP*</i>
7181-311	5/16	7.9	5/16"	5/16"	Straight 90 degree	A614A50G06 02 A624A50D06 02	Green	PC05-2495
7181-381	3/8	9.5	10mm††	3/8"	Straight 90 degree	A613 52 08 00 A623A52 08 00	White	PC06-2498
7181-381	3/8	9.5	3/8"	3/8"	Straight 90 degree	A614M53 08 02 A624M53 08 02	Green	PC06-2498
7181-501	1/2	12.7	12mm	1/2"	Straight 90 degree	A614A58 55 04 A624A58 55 04	Blue	PC08-0028
7181-501	1/2	12.7	1/2"	1/2"	Straight 90 degree	A614C56 55 05 A624C56 55 05	Yellow	PC08-0028
7181-631	5/8	15.9	5/8"	5/8"	Straight 90 degree	A614D57 56 02† A624F57 56 02†	Green	PC10-0031

† Safe Lock fittings in the 5/8" size are NOT conductive.

†† Not available in Safe Lock design; available only in single lock.

\* IHP is the Parker Industrial Hose Products Division. FSC is the Parker Fluid System Connectors Division. See back cover for contact information.

\*\* Safe Lock Connector part numbers contain spaces.



# Fuel, Vapor and Coolant/Heater Hose



## SUPER-FLEX® FL-7 Barrier Fuel Line Hose CARB/SORE; EPA; SAE J30R7/30R14T2

Series 389

<b>Tube:</b>	Black nitrile and translucent THV barrier
<b>Reinforcement:</b>	Multiple aramid plies
<b>Cover:</b>	Black CPE, smooth finish
<b>Temp. Range:</b>	-40°F to + 257 °F (-40°C to +125°C)
<b>Brand Method:</b>	White ink
<b>Brand Example:</b>	PARKER SERIES 389 SUPER-FLEX® FL-7 (ID) SAE J30R7/R14T2 FUEL LINE (x) PKHPLINE389 EPA COMPLIANT 15 g/m <sup>2</sup> /day CARB Q-08-013 MAX WP 50 PSI USA (DATE CODE)
<b>Design Factor:</b>	5:1
<b>Industry Standards:</b>	CARB 2006 SORE, EPA, SAE J30R7, SAE J30R14T2,
<b>Applications:</b>	<ul style="list-style-type: none"> <li>• Low pressure fuel lines on blowers, grinders, mowers, off-road engines, pressure washers, saws</li> <li>• Biodiesel (to B20 in dedicated and non-dedicated service), diesel, ethanol, gasoline</li> <li>• Agricultural equipment, autos, buses, construction equipment, off-road equipment</li> </ul>
<b>Vacuum:</b>	24" Hg (3/16" through 3/8" ID); 10" Hg (1/2" through 3/4" ID)
<b>Packaging:</b>	Reels

Part Number Available from IHP*	ID (in)	ID (mm)	Reinf Plies	OD (in)	OD (mm)	Approx Wt (lbs/ft)	Approx Wt (kgs/ft)	Min Bend Rad (in)	Min Bend Rad (mm)	Max Rec WP (psi)	Max Rec WP (bar)	Std Pack Qty (ft)
38903	3/16	4.8	2	0.406	10.3	0.06	0.03	1.3	33.0	50	3.4	250
38904	1/4	6.4	2	0.500	12.7	0.09	0.04	1.5	38.1	50	3.4	250
38905	5/16	7.9	2	0.562	14.3	0.11	0.05	2.0	50.8	50	3.4	250
38906	3/8	9.8	2	0.625	15.8	0.12	0.05	2.5	63.5	50	3.4	250
38908	1/2	12.7	2	0.781	19.8	0.18	0.08	4.0	101.6	50	3.4	250
38910	5/8	15.9	2	0.938	23.9	0.24	0.11	5.0	127.0	35	2.4	250
38912	3/4	19.1	2	1.125	28.6	0.35	0.16	6.0	152.4	35	2.4	250



## Fuel Line/Vapor Emission Hose SAE J30R7

Series 395

<b>Tube:</b>	Black nitrile
<b>Reinforcement:</b>	Multiple textile plies
<b>Cover:</b>	Black chloroprene; smooth finish
<b>Temp. Range:</b>	-40°F to +257 °F (-40°C to +125°C)
<b>Brand Method:</b>	White ink
<b>Brand Example:</b>	(ID) FUEL/VAPOR LINE SAE J30R7 (DATE CODE)
<b>Design Factor:</b>	5:1
<b>Industry Standards:</b>	SAE J30R7
<b>Applications:</b>	<ul style="list-style-type: none"> <li>• Low pressure fuel lines, vapor emission service</li> <li>• Biodiesel (to B20 in dedicated and non-dedicated service), diesel, ethanol, gasoline</li> <li>• Agricultural equipment, autos, buses, construction equipment, off-road equipment</li> </ul>
<b>Vacuum:</b>	24" Hg (3/16" ID through 3/8" ID); 10" Hg (1/2" ID)
<b>Packaging:</b>	Coils

Part Number Available from IHP*	ID (in)	ID (mm)	Reinf Plies	OD (in)	OD (mm)	Approx Wt (lbs/ft)	Approx Wt (kgs/ft)	Min Bend Rad (in)	Min Bend Rad (mm)	Max Rec WP (psi)	Max Rec WP (bar)	Std Pack Qty (ft)
39553	3/16	4.8	2	0.406	10.3	0.07	0.03	2.0	50.8	75	5.2	250
39550	1/4	6.4	2	0.500	12.7	0.10	0.05	2.0	50.8	50	3.4	250
39551	5/16	7.9	2	0.563	14.3	0.11	0.05	3.0	76.2	50	3.4	250
39552	3/8	9.5	2	0.625	15.9	0.14	0.06	3.5	88.9	50	3.4	250
39554	1/2	12.7	2	0.781	19.8	0.17	0.08	4.0	101.6	35	2.4	250

\* IHP is the Parker Industrial Hose Products Division. See back cover for contact information.



## Coolant/Heater Hose SAE 20R3EC Class D-2

### Series 7181

<b>Tube:</b>	Black EPDM
<b>Reinforcement:</b>	Multiple textile plies
<b>Cover:</b>	Black EPDM; smooth finish
<b>Temp. Range:</b>	-40°F to +257°F (-40°C to +125°C)
<b>Brand Method:</b>	White ink
<b>Brand Example:</b>	PARKER SERIES 7181 HEATER HOSE SAE 20R3EC D-2 (ID) XX PSI MAX WP ELECTROCHEMICALLY RESISTANT MADE IN USA (DATE CODE)
<b>Design Factor:</b>	4:1
<b>Industry Standards:</b>	SAE 20R3EC Class D2
<b>Applications:</b>	<ul style="list-style-type: none"> <li>Coolant, hot water, mild chemicals</li> <li>Industrial and vehicle coolant systems; low pressure drain lines</li> <li>Agriculture, construction, general industrial, transportation</li> </ul>
<b>Vacuum:</b>	Not recommended
<b>Packaging:</b>	Reels, cartons

Part Number Available from IHP*	ID (in)	ID (mm)	Reinf Plies	OD (in)	OD (mm)	Approx Wt (lbs/ft)	Approx Wt (kgs/ft)	Min Bend Rad (in)	Min Bend Rad (mm)	Max Rec WP (psi)	Max Rec WP (bar)	Std Pack Qty (ft)
7181-251	1/4	6.4	2	0.526	13.4	0.10	0.05	2.5	63.5	65	4.5	700
7181-311	5/16	8.0	2	0.589	15.0	0.18	0.05	3.5	88.9	65	4.5	700
7181-381	3/8	9.5	2	0.690	17.5	0.16	0.07	5.0	127.0	65	4.5	600
7181-501	1/2	12.7	2	0.815	20.7	0.19	0.09	6.0	152.4	65	4.5	500
7181-631	5/8	15.9	2	0.940	23.9	0.23	0.10	8.0	203.2	65	4.5	500
7181-631050	5/8	15.9	2	0.940	23.9	0.23	0.10	8.0	203.2	65	4.5	5 x 50
7181-751	3/4	19.1	2	1.065	27.1	0.27	0.12	9.0	228.6	50	3.4	500
7181-1001	1	25.4	2	1.339	34.0	0.37	0.17	12.0	304.8	45	3.1	300



## Stepless One-Ear Pinch Clamps

Pinch ear clamps are constructed of lightweight corrosion resistant stainless steel. The clamps provide uniform surface compression around the circumference of the hose, compensating for varying hose tolerances and thermal expansion. (For best results, install with Oetiker® Manual Closing Tool #14100082.)

Part Number Available from IHP*	Hose OD Range (in)	Hose OD Range (mm)	Band Width (mm)	Band Thickness (mm)	Ear Width Inside (mm)	Std Pack Qty (ea)
PC04-0016	0.52 - 0.62	13.2 - 15.7	7	0.6	8	100
PC05-2495	0.56 - 0.65	14.1 - 16.6	7	0.6	8	100
PC06-0110	0.63 - 0.76	16.0 - 19.2	7	0.6	10	100
PC06-2498	0.65 - 0.78	16.6 - 19.8	7	0.6	10	100
PC08-0026	0.76 - 0.89	19.4 - 22.6	7	0.6	10	100
PC08-0028	0.80 - 0.93	20.3 - 23.5	7	0.6	10	100
PC10-0031	0.88 - 1.01	22.4 - 25.6	7	0.6	10	100

## Brass Adapters

<b>Construction:</b>	Corrosion resistant high temperature brass
<b>Configuration:</b>	Rigid male pipe
<b>Industry Standard:</b>	SAE J2044



Part Number Available from FSC*	End Form	Thread Size	Part Number Available from FSC*	End Form	Thread Size
68ALS-5-4	5/16"	1/4"	68ALS-12M-8	12mm	1/2"
68ALS-6-4	3/8"	1/4"	68ALS-8-6	1/2"	3/8"
68ALS-6-6	3/8"	3/8"	68ALS-8-8	1/2"	1/2"
68ALS-12M-6	12mm	3/8"	68ALS-10-8	5/8"	1/2"

\* IHP is the Parker Industrial Hose Products Division. FSC is the Parker Fluid System Connectors Division. See back cover for contact information.

# Installation Guidelines

## Parker Hose, Safe Lock Fittings and Stepless One-Ear Pinch Clamps

1. Cut hose squarely and to length; evacuate all debris from inside the hose.
2. Slide clamp onto hose.
3. Insert SAE J2044 end fitting.
4. Position clamp over barbs onto J2044 insert as in Figure 1 below.  
Fully insert fitting into hose until end of hose bottoms out against fitting shoulder. From this position, locate clamp so that 0.25" to 0.31" of hose is exposed behind clamp (see image below).
5. Secure clamp using Oetiker manual closing tool #14100082 or equivalent (not offered by Parker).



# Complementary Products

Refer to Industrial Hose Catalog 4800 for additional products and information.

Designed to handle extreme bends while allowing full-flow, kink-free performance, E-Z Form hose effectively replaces preformed hoses and hose/bent metal tube assemblies in many applications—eliminating special design, tooling and fabrication costs and associated

long lead times. It also eliminates the need to order prototypes and excessive minimum production quantities. E-Z Form hose is available in three distinct versions, all of which incorporate a helical wire for full suction/vacuum service.

## Series 7395 E-Z FORM™ GS Coolant Hose

SAE J20R2-D1 Performance

<b>Tube:</b>	Black EPDM
<b>Reinforcement:</b>	Multiple textile braids or plies with wire helix
<b>Cover:</b>	Black EPDM; Greek corrugated finish
<b>Size Range (ID):</b>	1/2" to 4"
<b>Pressure Range:</b>	75 psi maximum working pressure
<b>Temperature Range:</b>	-50°F to +257°F (-45°C to +125°C)



## Series 7219 E-Z FORM™ MP Multipurpose Oil Resistant Suction and Return Hose

<b>Tube:</b>	Black nitrile
<b>Reinforcement:</b>	Multiple textile braids or plies with wire helix
<b>Cover:</b>	Black chloroprene; Greek corrugated finish
<b>Size Range (ID):</b>	1/2" to 4"
<b>Pressure Range:</b>	75 psi maximum working pressure
<b>Temperature Range:</b>	1/2" to 1" ID: -30°F to +250°F (-34°C to +121°C) 1-1/8" to 4" ID: -30°F to +200°F (-34°C to +93°C)



## Series 7399 E-Z FORM™ HT High Temperature Oil Resistant Suction and Return Hose

May also be used in non-SAE power steering return line applications

<b>Tube:</b>	Black CPE
<b>Reinforcement:</b>	Multiple textile braids with wire helix
<b>Cover:</b>	Black hydrogenated nitrile; Greek corrugated finish
<b>Size Range (ID):</b>	1/2" to 1"
<b>Pressure Range:</b>	150 psi maximum working pressure
<b>Temperature Range:</b>	-40°F to +302°F (-40°C to +150°C)



E-Z Form hoses are not qualified with Safe Lock SAE J2044 fittings.



Parker Hannifin Corporation  
**Fluid System Connectors Division (FSC)**  
300 Parker Dr.  
Otsego, MI 49078  
Phone: 269 692 6555  
Fax: 269 694 4614  
[www.parker.com/fsc](http://www.parker.com/fsc)

Parker Hannifin Corporation  
**Industrial Hose Products Division (IHP)**  
30242 Lakeland Boulevard  
Wickliffe, OH 44092  
Customer Service:  
Toll Free 866 810 HOSE (4673)  
email [indhose@parker.com](mailto:indhose@parker.com)  
[www.safehose.com](http://www.safehose.com)  
[www.hosefinder.com](http://www.hosefinder.com)