

Leading the Way in Fueling Innovation Worldwide

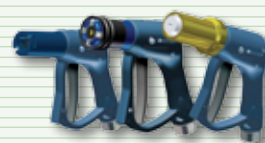
ONE COMPANY. ONE WORLD. ONE SOURCE.™



CNG Fueling Products



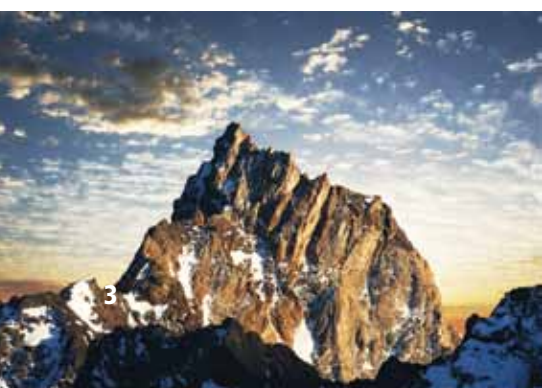
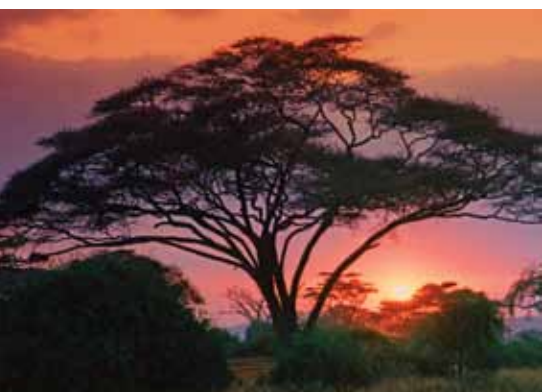
Hydrogen Fueling Products



LPG Fueling Products



THE WORLD IS MADE UP OF PRISTINE ENVIRONMENTS...



CLEANENERGY™ FUELING PRODUCTS



LPG Fueling Products

...TO HELP KEEP OUR WORLD THAT WAY, THERE'S OPW.

At OPW, we believe that blue skies, clean air and being *green* are good business. Through environmentally safe, clean energy fueling systems, we can have a world of cleaner air, cleaner water and safer fueling environments.

OPW CleanEnergy™ Fueling Products

is ***Leading the Way*** in fueling the future, offering the world's most complete line of CNG, Hydrogen, and LPG fueling products, including Autogas Nozzles, Breakaways, Shear Valves, Adaptors and Hose Assemblies.



CNG Fueling Products



Hydrogen Fueling Products



1-800-422-2525 | www.opwglobal.com

*Leading The Way In Fueling
Innovation Worldwide*

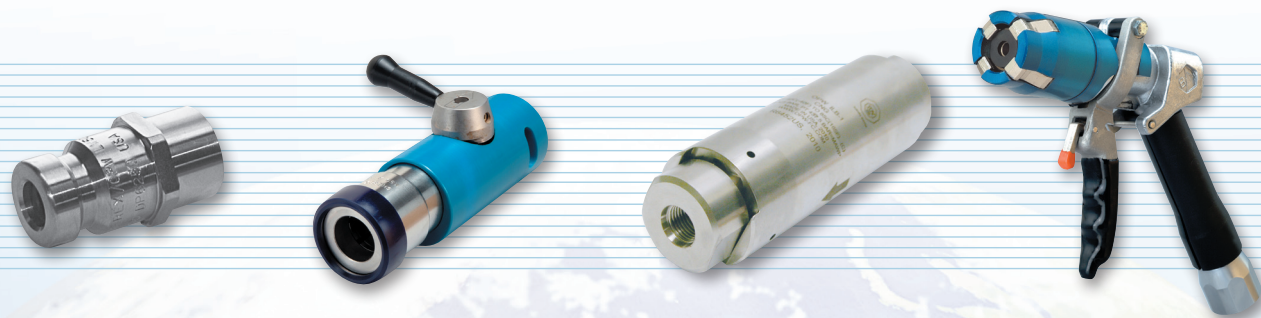
OPW CleanEnergy™ Fueling Products – Leading The Way In Clean Energy Fueling Innovation Worldwide

OPW CleanEnergy™ Fueling Products is dedicated to continuous innovation in the design, engineering and manufacture of high-quality components used for clean energy fueling applications, such as CNG (compressed natural gas) and hydrogen on vehicles and dispensing systems.

A division of OPW, the global leader in fueling solutions since 1892, OPW CleanEnergy™ Fueling Products is a name synonymous with innovation, quality, reliability and customer service. OPW CleanEnergy™ Fueling Products offers the most complete selection of clean energy fueling products in the industry, with each product designed and built to exacting engineering specifications for fueling safety and efficiency.



CleanEnergy™ Fueling Products



◆ CNG Fueling Products

Nozzles	7 - 13
Receptacles	14 - 18
Accessories	19 - 24

◆ Hydrogen Fueling Products

In-Line Breakaway	26
Nozzles	27 - 28
Receptacles	29
Defueling Nozzles	30

◆ LPG Fueling Products

Autogas Nozzles	32 - 44
Accessories	45 - 47

OPW CleanEnergy™ Fueling Products



OPW CleanEnergy™ Fueling Products – Committed To Providing Innovative and Effective Clean Energy Fueling Solutions Worldwide

OPW CleanEnergy™ Fueling Products is dedicated to continuous innovation in the design, and engineering and manufacture of high-quality components used for clean energy fueling applications, such as CNG (compressed natural gas), hydrogen and LPG (liquefied petroleum gas) on vehicles and dispensing systems. A division of OPW, the global leader in fueling solutions since 1892, OPW CleanEnergy™ Fueling Products is a name synonymous with innovation, quality, reliability and customer service. OPW CleanEnergy™ Fueling Products offers the most complete selection of clean energy fueling products in the industry, with each product designed and built to exacting engineering specifications for fueling safety and efficiency.

Dedicated To Product Innovation And Quality



CNG Fueling Products

OPW CleanEnergy™ Fueling Products offers a complete line of NGV1 profile nozzles (Type 1, 2 and 3) for self-service, fast-fill, and high-flow applications and NGV1 profile receptacles, hose assemblies, in-line breakaways, fittings, valves and filters.



Hydrogen Fueling Products

OPW CleanEnergy™ Fueling Products offers a complete line of fueling products for high-pressure, hydrogen fueling systems. The line includes a series of nozzles for time-fill, quick-fill, self-service applications, receptacles, in-line breakaways and fittings.



LPG Fueling Products

OPW CleanEnergy™ Fueling Products offers an extensive line of patented LPG fueling products. Formerly the B/N Italy, Brevetti Nettuno brand, OPW CleanEnergy™ Fueling Products' LPG line of nozzles and accessories are manufactured in Czech Republic, Europe, and deliver design and manufacturing excellence on more than 50 years of reliable gas supply equipment experience.



CNG Fueling Nozzles

OPW CleanEnergy™ Fueling Products offers an extensive line of CNG Fueling Nozzles to meet a wide variety of fueling applications. OPW CNG nozzles are used throughout the world.



OPW 200 Series

OPW 200 Series time-fill nozzles are designed for low-flow CNG fueling systems. Applications include home fueling devices and fleets that use overnight or time-fill fueling. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.



OPW 300 Series

The OPW Fil-Mate™ 300 is a versatile nozzle designed for both medium and low-flow CNG fueling systems. Applications include home fueling devices, overnight or time-fill fueling and fleet filling. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.



OPW 600 Series

OPW Fil-Master™ 600 Series fast-fill/fleet-fill nozzles are designed for high-flow CNG fueling systems. Applications include quick-fill fueling of automobiles, light trucks, shuttle buses, vans and time-fill or overnight fleet fueling. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.



OPW 1000 Series

OPW 1000 Series self-service nozzles are designed for high-flow public and private CNG fueling systems. Applications include quick-fill, self-service fueling of automobiles, light trucks, shuttle buses and vans. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.



OPW 5000 Series

OPW 5000 Series nozzles are designed for extremely high-flow public and private CNG fueling systems. Applications include quick-fill, self-service fueling of transit buses and large trucks. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.



OPW 6000 Series

OPW 6000 Series nozzles are designed for extremely high-flow public and private CNG fueling systems when connected to OPW CR50 and CL50 series receptacles. Applications include quick-fill, self-service fueling of transit buses and large trucks. This Type 2 nozzle must be used with some type of secondary flow control valve that either vents down only the nozzle or the nozzle and hose. This nozzle can also be used for defueling buses in conjunction with an open receptacle arrangement.

OPW 200 Series Time-Fill Nozzles (NGV1 Type 3)

OPW 200 Series Time-Fill nozzles are designed for low-flow CNG fueling systems. Applications include home fueling devices and fleets that use overnight or time-fill fueling. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.

Ordering Specifications

Product #	Inlet Thread Size	Maximum Allowable Service Pressure
CC250	SAE - 6, 9/16 - 18 UNF	P30 - 3000 psi (200 bar)
CC270	SAE - 6, 9/16 - 18 UNF-LH For use with Fuelmaker™ home fueling device.	P30 - 3000 psi (200 bar)

• Connects to any L-Series-NGV-1 CNG Receptacle

Materials

Body: Stainless steel
Jaws: Stainless steel
Seals: Specially formulated elastomers specific to high-pressure NGV applications.

CC270
Coupling End

CC270 Hose
Connection End

*Meets all known automobile MFGs' requirements for maintaining fuel purity.



Features

- ◆ **Easy Slide-Back Collar Operation** - for smooth, simple engaging/disengaging of nozzle and receptacle. The 200 Series nozzle is designed to remain securely connected to the receptacle until the nozzle is depressurized after fueling is complete.
- ◆ **Jaw-Lock Technology** - designed specifically for the frequent coupling and uncoupling of the high-pressure gas connections of NGV fueling. Forces at the contact point are distributed over the entire surface area of the receptacle.
- ◆ **Compact Design** - lightweight, compact design allows for easy one-handed operation.
- ◆ **Durable Construction** - stainless steel construction provides excellent corrosion resistance in the harsh refueling environment.
- ◆ **Meets NGV1 Fueling Standard** - can be used to fuel any vehicle with an NGV1 profile receptacle.
- ◆ **Agency Listings** - AGA 1-90, CGA Application Approval, Railroad Commission of Texas.

Specifications:

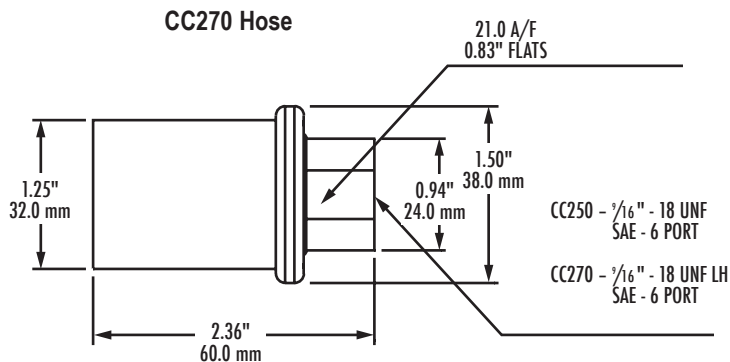
Min. Flow Rate: 800 SCFM @ 3000 psid

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Weight: 0.53 lb. (0.24 kg)

Cv: 0.55

Design Pressure: 4000 psi (276 Bar)



Listings and Certifications



CE 0036

Materials

Body: brass

Jaws: stainless steel

Seals: specially formulated polymers and elastomers specific to high pressure NGV applications.

CC300S
Coupling End

CC300S
Hose Connection End



Features

◆ **User-Friendly Push-On/Pull-Off Operation** - For smooth, simple engaging and disengaging of nozzle and receptacle without the added step of pulling back a collar. The 300 is designed to remain securely connected to the receptacle until the nozzle is depressurized after fueling is complete.

◆ **Type** - Designed as a Type 2 or 3 nozzle for use with P30 or P36 NGV1 receptacles.

◆ **Jaw-Lock Technology** - Designed specifically for the frequent coupling and uncoupling of the high pressure gas connections of NGV fueling. Forces at the contact point are distributed over the entire surface area of the receptacle.

◆ **Ergonomic Design** - Has a comfortable "tool-grip" specially formulated urethane coated sleeve which locks in place upon connection. Also incorporates "easy-guide" front alignment ring to smooth connection on hard to reach receptacles.

◆ **Durable Construction** - Brass & Stainless Steel construction provides excellent corrosion resistance in the harsh refueling environment.

◆ **Safe Disconnect** - Accidental disconnection under pressure is very difficult due to our unique force multiplier design.

◆ **Meets NGV1 Fueling Standard** - Can be used to fuel any vehicle with an NGV1 profile receptacle.

Specifications:

Min. Flow Rate: 1000 SCFM @ 3000 psid
Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Weight: 1.30 lb.(0.59 kg.)

Cv: 1.05

Design Pressure: 4000 psi (276 Bar)

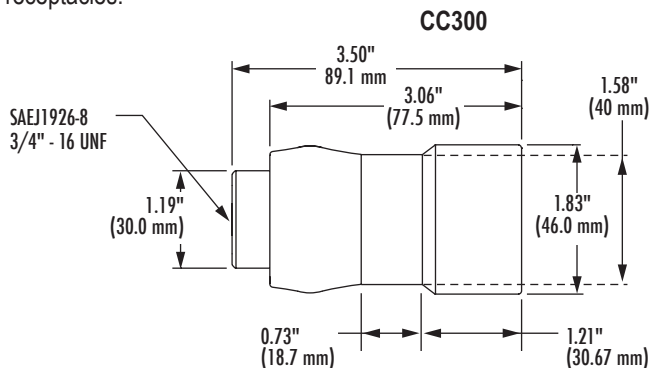
OPW Fil-Mate 300 Series General Purpose Nozzles (NGV1 Type 2 or 3)

The OPW Fil-Mate 300 is a versatile nozzle designed for both medium and low flow CNG fueling systems. Applications include home fueling devices, overnight or time-fill fueling and fleet filling. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.

Ordering Specifications

Product #	Inlet Thread Size	Color	Maximum Allowable Service Pressure
CC300P30S	SAE - 8, 3/4 - 16 UNF	Blue	P30 - 3000 psi (200 bar)
CC300P36S	SAE - 8, 3/4 - 16 UNF	Yellow	P36 - 3600 psi (248 bar)

• Connects to any L-Series-NGV-1 CNG Receptacle



Listings and Certifications



CE 0036



OPW FIL-MASTER™ 600 Series Fast-Fill/ Fleet-Fill Nozzles (NGV1 Type 2 or 3)

OPW Fil-Master™ 600 Series Fast-Fill/Fleet-Fill Nozzles are designed for high-flow CNG fueling systems. Applications include quick-fill fueling of automobiles, light trucks, shuttle buses, vans and time-fill or overnight fleet fueling. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.

Ordering Specifications

Product #	Inlet Thread Size	Color	Maximum Allowable Service Pressure
CC600P30NFS	SAE - 6, 9/16 - 18 UNF	Blue	P30 - 3000 psi (200 bar)
CC600S	SAE - 6, 9/16 - 18 UNF	Blue	P30 - 3000 psi (200 bar)
CC600P36NFS	SAE - 6, 9/16 - 18 UNF	Yellow	P36 - 3600 psi (248 bar)
CC600P36S	SAE - 6, 9/16 - 18 UNF	Yellow	P36 - 3600 psi (248 bar)

NOTE: NF nozzles do not include 200 micron filter.

Materials

Body: Brass
Jaws: Stainless steel
Filter: Stainless steel, 200 micron
Seals: Specially formulated polymers and elastomers specific to high-pressure NGV applications

CC600S
Coupling End

CC600S
Hose
Connection
End



Features

- ◆ **User-Friendly Push-On/Pull-Off Operation** - for smooth, simple engaging and disengaging of nozzle and receptacle without the added step of pulling back a collar. The CC600 is designed to remain securely connected to the receptacle until the nozzle is depressurized after fueling is complete.
- ◆ **High-Flow/Fast-Fill Capability** - to provide quick fueling of medium storage vehicles. Internal seals are specially designed to meet the demands of fast-fill NGV fueling.
- ◆ **Internal Filter Option** - to capture gas-borne debris commonly found in CNG systems. Filter offers protection against impurities in the high velocity gas stream that can damage the nozzle and receptacle seals and the vehicle fuel system.
- ◆ **Jaw-Lock Technology** - designed specifically for the frequent coupling and uncoupling of the high pressure gas connections of NGV fueling. Forces at the contact point are distributed over the entire surface area of the receptacle.
- ◆ **Ergonomic Design** - fits the operator's hand for easy one-hand connecting and disconnecting. Insulated jacket provides thermal protection for operator's hand.
- ◆ **Durable Construction** - brass and stainless steel construction provides excellent corrosion resistance in the harsh refueling environment.
- ◆ **Meets NGV1 Fueling Standard** - can be used to fuel any vehicle with an NGV1 profile receptacle.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Number.**
- ◆ **Agency Listings** - ANSI/CGA NGV1 Type 2 Class B Certified, German Pressure Vessel Ordinance (Druckbeh V) ASME Approved (P30 model only). Bauart number 02CDN2.

Specifications:

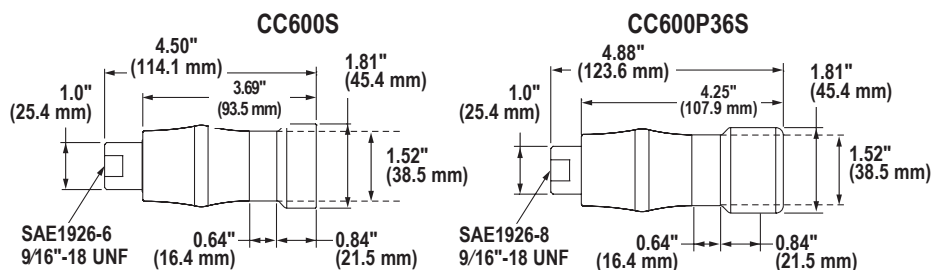
Min. Flow Rate: 1500 SCFM @ 3000 psid

Temperature Range: -40° F to 185° F (-40° C to 85° C)

Weight: 1.34 lb. (0.61 kg)

Cv: 1.05

Design Pressure: 4500 psi (310 Bar)



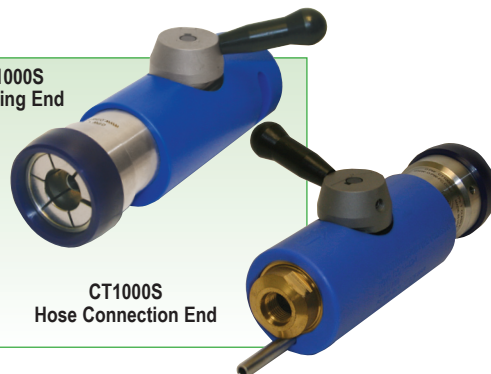
Listings and Certifications



Materials

Body: Brass
Jaws: Stainless steel
Spring: Steel
Internal Components: Stainless steel, jaws-stainless steel
Seals: Specialty polymers and elastomers for NGV applications

CT1000S
Coupling End



CT1000S
Hose Connection End

Features

- ◆ **User-Friendly Single-Action Operation** - engage nozzle and receptacle with a 180° rotation of the handle. This secures nozzle jaws onto receptacle, activating a system of three internal valves that regulate fueling. The nozzle will not dispense gas until securely engaged onto an appropriate receptacle. When fueling is complete, rotate the handle to the disconnect position to automatically stop the flow of gas into the vehicle, vent the trapped gas and release the nozzle from the receptacle. The 1000 Series nozzles connect directly to the hose, with no need for a three-way valve. Designed for public or private self-service applications, no attendant is needed.
- ◆ **High-Flow/Fast-Fill Capability** - provides quick fueling of medium storage vehicles. Internal seals are designed for fast-fill NGV fueling.
- ◆ **Internal Filter** - captures gas-borne debris commonly found in CNG systems. Filter protects against impurities in the high velocity gas stream that can damage the nozzle and receptacle seals and the vehicle fuel system.
- ◆ **Directed Vent (CT1000)** - captures the gas vented at disconnect and directs it out of the nozzle via a 1/4" stainless steel vent tube, which can be piped to a remote venting location or back to the upstream side of the compressor. Capturing vent gas is environmentally desirable by agencies such as the EPA and provides an added measure of safety by minimizing the amount of gas present at the filling site. It also reduces vent noise and eliminates escaped gas smell.
- ◆ **Jaw-Lock Technology** - designed specifically for the frequent coupling and uncoupling of the high-pressure gas connections of NGV fueling. Forces at the contact point are distributed over the entire surface area of the receptacle.
- ◆ **Ergonomic Design** - one simple and convenient motion ensures connection and dispensing by all users. Insulated jacket protects operator's hand.
- ◆ **Durable Construction** - heavy-duty brass and stainless steel construction provides corrosion resistance in the harsh refueling environment.
- ◆ **Meets NGV1 Fueling Standard** - can be used to fuel any vehicle with an NGV1 profile receptacle.
- ◆ **Tamper Resistant** - specially designed cam system actuates the front and rear module. Tampering with the valve results in immediate dispensing shut-off.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Number**
- ◆ **Agency Listings** - ASME Pressure Vessel Registered, Railroad Commission of Texas, ANSI/AGA/CGA NGV1 Type 1 (CT1000). Class A Certified, German Pressure Vessel Ordinance (Druckbeh V) Approved (P30 models only). Bauart number 02CDN1.

Specifications:

Min. Flow Rate: 1200 SCFM @ 3000 psid

Temperature Range: -40° F to 185° F
 (-40° C to 85° C)

Weight: 3.35 lb. (1.52 kg)

Cv: 0.48

Design Pressure: 4500 psi (310 Bar)



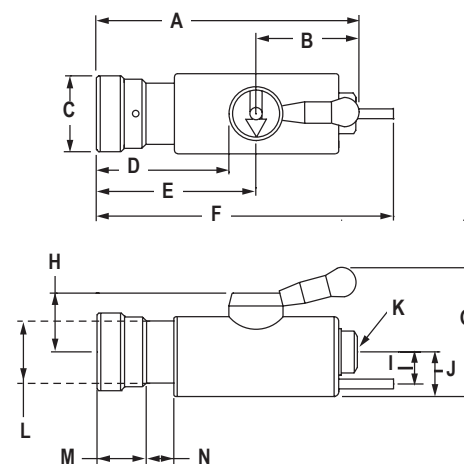
CE 0036

Ordering Specifications

Product #	Inlet Thread Size	Maximum Allowable Service Pressure	Weight
CT1000SS	SAE - 6, 9/16" - 18 UNF	(207 bar)	3000 psi 3.61 lbs. 1.63 kg
*CT1000LS	SAE - 6, 9/16" - 18 UNF	(207 bar)	3000 psi 3.66 lbs. 1.66 kg
Same as CT1000SS. Adds a Guide Ring			
CT1000-P36S	SAE - 6, 9/16" - 18 UNF	(248 Bar)	3600 psi 3.65 lbs. 1.65 kg

OPW 1000 Series Self-Service Nozzles (NGV1 Type 1)

OPW 1000 Series Self-Service Nozzles are designed for high-flow public and private CNG fueling systems. Applications include quick-fill, self-service fueling of automobiles, light trucks, shuttle buses and vans. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.



Dimensions

	CT1000S		CT1000P36 / CT1000L	
	in	mm	in	mm
A	6.69	167.8	7.32	185.8
B	2.63	65.4	2.63	66.4
C	1.94	48.9	1.94	48.9
D	3.37	85.1	4.0	102.1
E	4.06	102.4	4.69	119.4
F	7.5	191.0	8.19	208.0
G	3.25	83.1	3.25	83.1
H	1.5	37.9	1.5	37.9
I	1.37	20.7	0.81	20.7
J	1.13	28.8	1.13	28.8
K	Straight Thread O-Ring Boss Port SAE J1926-6 (9/16 - 18UNF-2B)			
L	1.58	40	1.58	40
M	1.24	31.4	2.01	51.2
N	0.75	19	0.72	18.4

Available Accessory:

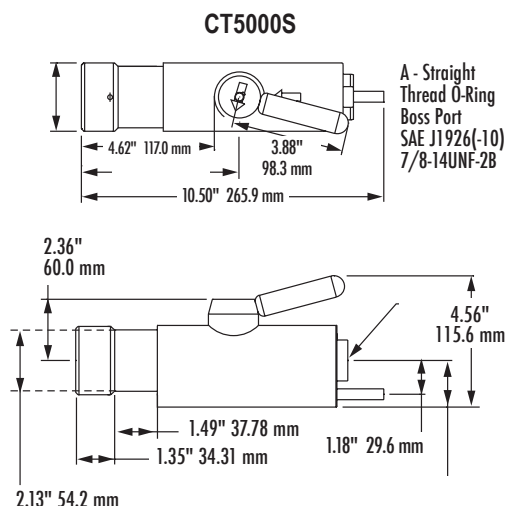
Hose connection cover CTG-0001. Designed to cover fittings connecting to the nozzle.

OPW 5000 Series Bus/Heavy-Duty Truck Nozzles

OPW 5000 Series nozzles are designed for extremely high-flow public and private CNG fueling systems. Applications include quick-fill, self-service fueling of transit buses and large trucks. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.

Ordering Specifications

Product #	Inlet Thread Size	Maximum Allowable Service Pressure
CT5000S (directed vent)	SAE - 10, 7/8 - 14 UNF	3600 psi (248 bar)
Connects to CL50 Series heavy-duty receptacles		



Materials

Body: Brass

Jaws: Stainless steel

Internal Components: Stainless steel

Seals: Specially formulated polymers and elastomers specific to high-pressure NGV applications.

CT5000S
Hose Connection
End

CT5000S
Coupling End

Features

◆ User-Friendly Single-Action

Operation - entire fueling operation is initiated by simply engaging nozzle and receptacle with a single 180° rotation of the handle. This automatically secures the nozzle jaws onto the receptacle and activates a system of three internal valves that regulate fueling. The nozzle will not dispense gas until securely engaged onto an appropriate receptacle. When fueling is completed, rotation of the handle to the disconnect position automatically stops the flow of gas into the nozzle, vents the trapped gas and releases the nozzle from the receptacle. The 5000 Series nozzles connect directly to the hose, eliminating the need for a three-way valve. They are designed for public or private self-service applications, eliminating the need for a trained attendant.

◆ High-Flow/Fast-Fill Capability

- to provide quick fueling of large storage vehicles. Internal seals are specially designed to meet the demands of fast-fill NGV fueling.

◆ Directed Vent

- directs the gas vented at disconnect and directs it out of the nozzle via a 3/8" stainless steel tubing connection, which can be piped to a remote venting location or back to the upstream side of the compressor. Directing the vent gas is environmentally desirable and will provide an added measure of safety by minimizing the

amount of gas present at the filling site. It also reduces vent noise and escaped gas smell.

◆ Jaw-Lock Technology

- designed specifically for the frequent coupling and uncoupling of the high-pressure gas connections of NGV fueling. Forces at the contact point are distributed over the entire surface area of the receptacle.

◆ Ergonomic Design

- one simple and convenient motion ensures connection and dispensing by all users. Insulated jacket provides thermal protection for operator's hand.

◆ Durable Construction

- brass and stainless steel construction provides excellent corrosion resistance in the harsh refueling environment.

◆ Tamper Resistant

- specially designed cam system actuates the front and rear valve module. Any tampering with the valve will result in an immediate shut-off of the dispensing process.

◆ Individually Leak Tested and Inspected with Traceable Serial Numbers

Specifications:

Min. Flow Rate: 5000 SCFM @ 3000 psid

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Weight: 8.77 lbs. (3.98 kg)

Cv: 2.75

Design Pressure: 4500 psi (310 Bar)

Listings and Certifications



CE 0036

Industry Service

Agency Listings - ASME Pressure Vessel Registered, Railroad Commission of Texas, Special Application of German Pressure Vessel Available at Additional TUV cost.

Materials

Body: Stainless steel; acetal
Jaws: Stainless steel
Seals: Specially formulated polymers and elastomers specific to high pressure NGV applications.

CC6000
Coupling End

CC6000
Hose Connection End



Features

- ◆ **High-Flow/Super Fast Fill Capability** - OPW's fastest flowing nozzle. This nozzle will provide quick fueling of large storage vehicles. Internal seals are specially designed to meet the demands of fast-fill NGV fueling.
- ◆ **Type** - designed as a High Flow Type 2 nozzle used in conjunction with CR50, CL50 and CM50 type receptacles.
- ◆ **Jaw-Lock Technology** - designed specifically for the frequent coupling and uncoupling of the high-pressure gas connections of NGV fueling. Forces at the contact point are distributed over the entire surface area of the receptacle, significantly reducing nozzle wear.
- ◆ **Ergonomic Design** - has a comfortable "tool-grip" like all other OPW Type 2 nozzles.
- ◆ **Durable Construction** - heavy-duty stainless steel construction provides excellent corrosion resistance in the harsh refueling environment.
- ◆ **Individually Leak Tested And Inspected With Traceable Serial Numbers**

Specifications:

Min. Flow Rate: 5000 SCFM @ 3000 psid
 Temperature Range: -40° F to 185° F
 (-40° C to 85° C)
 Weight: 2.94 lbs. (1.33 kg)
 Cv: 4.00
 Design Pressure: 5000 psi (345 Bar)

OPW 6000 Series Bus/Heavy-Duty Truck Nozzles

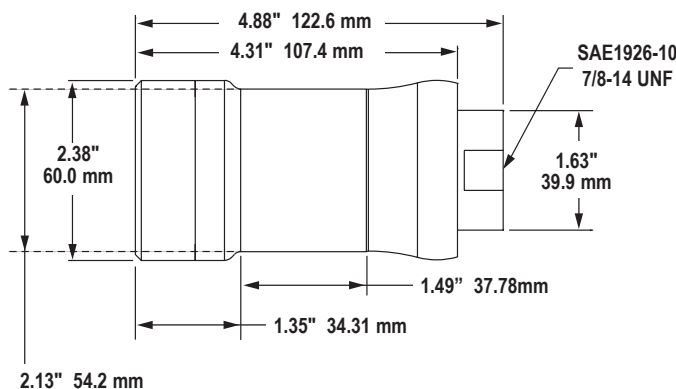
OPW 6000 Series nozzles are designed for extremely high-flow public and private CNG fueling systems when connected to OPW CR50, CL50 and CM50 series receptacles. Applications include quick-fill, self-service fueling of transit buses and large trucks. This Type 2 nozzle must be used with some type of secondary flow control valve that either vents down only the nozzle or the nozzle and hose. This nozzle can also be used for defueling buses in conjunction with an open receptacle arrangement. All OPW NGV fueling nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency.

Ordering Specifications

Product #	Inlet Thread Size	Maximum Allowable Service Pressure
CC6000	SAE - 10, 7/8 - 14 UNF	3600 psi (248 bar)

• Connects to CL50 Series Heavy-Duty Receptacles

CC6000



Listings and Certifications



CE 0036



CNG Receptacles

OPW offers a complete line of fueling receptacles for any natural gas vehicle (NGV) application. Our receptacles form part of a dedicated system designed specifically for fueling NGV. OPW product designs and features are the result of many years of field experience in the demanding NGV environment and built to exacting engineering specifications for safety and efficiency.

Features

◆ Durable, Corrosion-Resistant Construction

All OPW receptacles are made from stainless steel. Also available is specially formulated brass. Both materials are proven in the harsh refueling environment.

◆ Non-Contact Check Valve

Each OPW NGV receptacle contains a highly reliable non-contact check valve that opens only when differential pressure is present during fueling.

◆ Unique Sealing System

The sealing system in all OPW receptacles consists of a stainless steel poppet that aligns with a rearward facing, captured seal located in the receptacle body. This arrangement prevents: seal “wash-out” during high-flow conditions and “cratering” due to debris. The new seal material has exceptionally long service life, resists creep and deformation and has exceptional wear resistance under all operating pressure and temperature conditions. The poppet is treated, impact-resistant stainless steel with a polished surface to provide reliable sealing at low back pressures.

Materials

OPW L Series

OPW L Series NGV1-certified refueling receptacles are designed for use on medium storage natural gas vehicles, including automobiles, light trucks, shuttle buses and vans. All OPW NGV receptacles are designed and built to exacting engineering specifications for fueling safety and efficiency.

OPW CL50 Series

OPW now adds stainless steel receptacles to their line of heavy-duty refueling receptacles, namely the CL Series. These new designs are the result of many years of experience in the demanding NGV environment.



◆ High-Flow Capacity

The new L Series receptacles have much larger flow capacity than conventional receptacles. The flow path allows very high flows, combined with low pressure drop and enhanced resistance to hydrate formation.

◆ Bulkhead or Straight Thread

The L Series allows the user to order a complete receptacle or buy and assemble their own adaptor shaft. They come with and without bulkhead fitting and with or without filter. The external bulkhead nut costs less than conventional stainless steel fittings. L Series receptacles can be used with parallel thread or compression tube fittings. The standard body is steel, but brass is also available. L Series bodies come with either wrench flats or hex to ease vehicular mounting.

◆ Filtered Receptacle (LE)

Filters capture dirt and gas-borne debris commonly found in CNG systems. Filtered receptacles protect the receptacle seals and the vehicle fuel system. A 400-micron filter is incorporated ahead of the receptacle check valve.

◆ Design Your Own Sub-System

The OPW L Series receptacles come with the following standard features: rubber dust cap, mounting hex or wrench flats. LD and LE receptacles come with a standard external bulkhead nut.

The Bulkhead fittings allow the use of inexpensive compression tube fittings. A 400-micron filter upstream of the poppet seal is available as an option. All adaptor shafts can be purchased from OPW or from your supplier of choice.

OPW L Series NGV1 Receptacles are designed for medium storage NGV at 200 Bar (3000 psi) or 248 Bar (3600 psi) operating pressure. All OPW NGV Receptacles are designed and built to exacting engineering specifications for safety and efficiency.

◆ Rubber Dust Cap

Standard protective dust caps are supplied with all receptacles.

◆ Serviceable O-Ring

Designed to prevent leakage at the connection point.

Materials

- Body:** Stainless steel
- Internal Parts:** Stainless steel and brass
- Seals:** Specially formulated polymers and elastomers specific to high-pressure NGV applications.



LB30 or LB36
(Shown without shaft)

Features

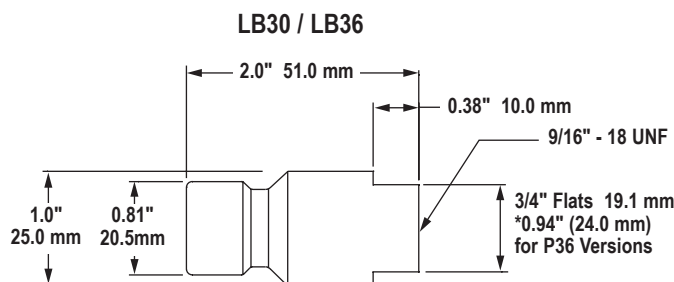
- ◆ **Protective Rubber Dust Caps** - included with all OPW "L" series receptacles.
- ◆ **Connects with CC250, CC600, CT1000 Series NGV-1 CNG Nozzles**

Specifications:

Min. Flow Rate: 1500 SCFM @ 3000 psid
 Temperature Range: -40° F to 250° F
 (-40° C to 120° C)
 Weight: 2.94 lbs. (1.33 kg.)
 Cv: LB = 0.91
 LD = 0.85
 LE = 0.83
 Design Pressure: 5000 psi (345 Bar)

OPW L Series NGV1 Fueling Receptacles LB30 & LB36

OPW L Series NGV1-certified Refueling Receptacles are designed for use on medium storage natural gas vehicles, including automobiles, light trucks, shuttle buses and vans. All OPW NGV receptacles are designed and built to exacting engineering specifications for fueling safety and efficiency.



Ordering Specifications

Product Number	Type/Size	Max. Allowable Service Pressure		Weight	
LB30	NGV1 Receptacle w/ 3/4" Flats, P30	207 bar	3000 psi.	.31 lb.	.14 kg
LB36	NGV1 Receptacle w/ 3/4" Flats, P36	248 bar	3600 psi.	.31 lb.	.14 kg
LD30	NGV1 Receptacle w/ Bulkhead, P30	207 bar	3000 psi.	.44 lb.	.2 kg
LD36	NGV1 Receptacle w/ Bulkhead, P36	248 bar	3600 psi.	.44 lb.	.2 kg
LE30	NGV1 Receptacle w/ Bulkhead and Filter, P30	207 bar	3000 psi.	.44 lb.	.2 kg
LE36	NGV1 Receptacle w/ Bulkhead and Filter, P36	248 bar	3600 psi.	.44 lb.	.2 kg
1141	Replacement "Interface" O-Ring for L Series Receptacles				

Listings and Certifications



CE 0036

Industry Service

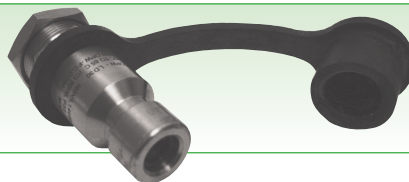


OPW L Series-NGV1 Fueling Receptacles

OPW L Series NGV1-certified refueling receptacles are designed for use on medium storage natural gas vehicles, including automobiles, light trucks, shuttle buses and vans. All OPW NGV receptacles are designed and built to exacting engineering specifications for fueling safety and efficiency.

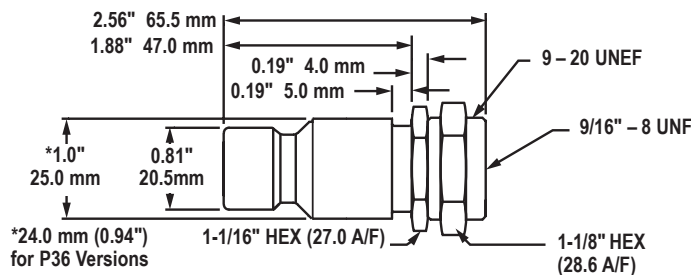
LD30 & LD36

LD30 or LD36
(Shown with -40 shaft)



LE30 & LE36

LE30 or LE36
(Shown with -20 shaft)



LD30 / LD36 / LE30 / LE36

Ordering Specifications

Preassembled Receptacles and Shafts

Product Number	Type/Size	Max. Allowable Service Pressure		Weight	
LB3078	LB30 + 50061	207 bar	3000 psi	.68 lb.	.31 kg
LB3678	LB36 + 50061	248 bar	3600 psi	.74 lb.	.34 kg
LB3616	LB36 + 50030	248 bar	3600 psi	.42 lb.	.19 kg
1141	Replacement "Interface" O-Ring for L Series receptacles				

Adaptor Shafts: Can be threaded into LB/LD/LE receptacles above. Materials: Stainless steel

Adaptor Shafts P/N	Description	Weight	
50029	ISO G 1/4" Male Shaft to SAE-6, 9/16" -18 Male		
50030	SAE-6, Male 9/16" -18 Male to 9/16" -18 Male	0.07 lb.	0.03 kg
50061	SAE-10, 9/16" -18 Male to 7/8" -14 Male	0.12 lb.	0.05 kg
50064	ISO G 1/4" Female Shaft to SAE-6, 9/16" -18 Male		
50066	3/8" Tube Fitting, no Bulkhead		
50070	8mm Tube Adaptor Shaft		

Materials

Body and Adaptor Shaft: stainless steel
Internal Components: stainless steel
Seals: specially formulated polymers and elastomers specific to high pressure NGV applications.

CL4078



Features

- ◆ **Durable, Corrosion-Resistant Construction** - Stainless-steel construction provides improved durability and corrosion resistance in the harsh on-highway, heavy-duty environment. This material is harder than the original brass for even greater wear resistance and longer life.
- ◆ **Non-Contact Check Valve** - Each OPW CL series receptacle contains a highly reliable non-contact check valve that opens when differential pressure is present during refueling.
- ◆ **Improved Sealing System** - The sealing system in all CL series receptacles consists of a stainless steel poppet that aligns with a rearward facing captured seal located in the receptacle body. This arrangement prevents seal

“wash out” during high flow deformation and has exceptional wear resistance under all operating pressure and temperature conditions.

- ◆ **Rubber Dust Cap** - A standard protective dust cap is supplied with CL40 series receptacles.
- ◆ **Serviceable O-Ring** - Designed to prevent leakage at the connection point.
- ◆ **Individually Leak Tested and Inspected.**

Specifications:

Min. Flow Rate: 1500 SCFM @ 3000 psid
(42.4753 CMM @ 207 bar)

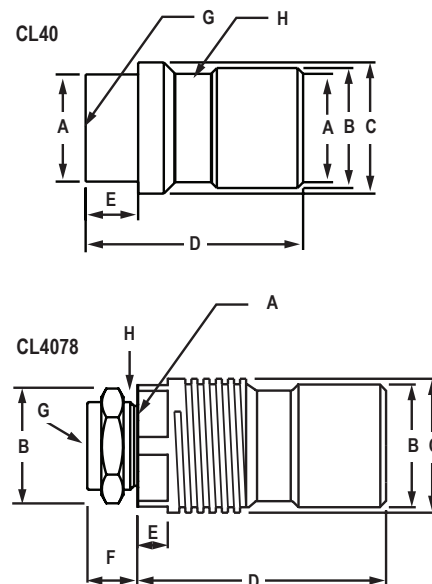
Temperature Range: -40° F to 250° F
(-40° C to 120° C)

Cv: .91

Design Pressure: 5000 psi (345 Bar)

OPW CL40 SERIES BUS/HEAVY-DUTY TRUCK RECEPTACLES

OPW now adds stainless steel receptacles to their line of heavy-duty refueling receptacles. The new CL40 Series design is the result of many years of experience in the demanding NGV environment.



Ordering Specifications

Product No.	Type/Size	Max. Allowable Service Pressure	Weight	
CL40	9/16" (1.43 cm) - 18 SAE-6 Female Port	3600 psi (248 Bar)	0.91 lb.	0.413 kg.
CL4078	9/16" (1.43 cm) - 16 SAE-6 Female Port, with 1" (2.54 cm) - 20 Bulkhead Fitting	3600 psi (248 Bar)	1.141 lbs.	0.518 kg
1121	Replacement "Interface" O-Ring for CL40 and CL50 Series Receptacles			

Adaptor Shafts P/N	Description	Weight	
50029	ISO G 1/4" (0.63 cm) Male Shaft to SAE-6, 9/16" (1.43 cm) -18 Male		
50030	SAE-6, Male 9/16" (1.43 cm) -18 Male to 9/16" (1.43 cm) -18 Male	0.07 lb.	0.03 kg
50061	SAE-10, 9/16" (1.43 cm) -18 Male to 7/8" (2.22 cm) -14 Male	0.12 lb.	0.05 kg
50064	ISO G 1/4" (0.63 cm) Female Shaft to SAE-6, 9/16" (1.43 cm) -18 Male		
50066	3/8" (0.95 cm) Tube Fitting no Bulkhead		
50070	8mm Tube Adaptor Shaft		

Dimensions

	CL40		CL4078	
	in	mm	in	mm
A	1.125	28.6	1.25	31.8
B	1.26	32	1.26	32
C	1.38	35	1.38	35
D	2.28	58	2.38	60.5
E	0.551	14	0.314	8
F	N/A	N/A	0.571	14.5
G	SAE J1926 - 6 9/16" (1.43 cm) 18 UNF		SAE J1926 - 6 9/16" (1.43 cm) 18 UNF	
H	N/A		1 - 20 UNEF - 2A	

Listings and Certifications



ISO-14449 certified



ECE-R110 certified

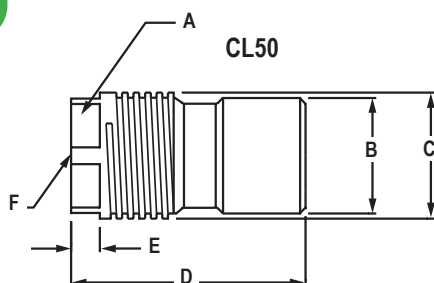


Industry Service



OPW CL50 Series Bus/Heavy-Duty Truck Receptacles

OPW now adds stainless steel receptacles to their line of heavy-duty refueling receptacles. The new CL50 Series design is the result of many years of experience in the demanding NGV environment.



Dimensions

CL50		
	in	mm
A	1.25	38.1
B	1.25	32
C	1.39	35
D	2.67*	68*
E	0.31	8
F	SAEJ1926-10 7/8-14 UNF	

*D-Dimensions for:

	in	mm
CL5000	4.80	122.1
CL5016	4.96	126.1
CL5078	3.76	95.6

Materials

Body and Adaptor Shaft: Stainless steel
Internal Components: Stainless steel
Seals: Specially formulated polymers and elastomers specific to high pressure NGV applications.

CL50



Features

- ◆ **Durable, Corrosion-Resistant Construction** - stainless steel construction provides improved durability and corrosion resistance in the harsh on-highway, heavy-duty environment. This material is harder than the original brass for even greater wear resistance and longer life.
- ◆ **Non-Contact Check Valve** - each OPW CL series receptacle contains a highly reliable non-contact check valve that opens when differential pressure is present during refueling.
- ◆ **Improved Sealing System** - the sealing system in all CL series receptacles consists of a stainless steel poppet that aligns with a rearward facing captured seal located in the receptacle body. This arrangement prevents seal "wash out" during high flow deformation and has exceptional wear resistance under all operating pressure and temperature conditions.
- ◆ **High Flow** - the flow path has been redesigned to increase the amount of flow and decrease the pressure drop resulting in a reduction of noise/vibration from the check valve during the "end of fill."
- ◆ **Rubber Dust Cap** - a standard protective dust cap is supplied with CL50 series receptacles.
- ◆ **Serviceable O-Ring** - designed to prevent leakage at the connection point.
- ◆ **Individually Leak Tested and Inspected**

Specifications:

Min. Flow Rate: 5000 SCFM @ 3000 psid
 Temperature Range: -40° F to 250° F
 (-40° C to 120° C)

Cv: 3.30

Design Pressure: 5000 psi (345 Bar)

Ordering Specifications

Product No.	Type/Size	Max. Allowable Service Pressure	Weight	
CL50	7/8" - 14 SAE-10 Female Port	3600 psi (248 Bar)	0.91 lb.	0.410 kg
CL5000	5/8" Double Ferrule Fitting	3600 psi (248 Bar)	1.29 lbs.	0.587 kg
CL5078	7/8" - 14 SAE-10 Male O-Ring Fitting	3600 psi (248 Bar)	1.141 lbs.	0.520 kg
CL5016	16mm Double Ferrule Fitting	3600 psi (248 Bar)	1.29 lbs.	0.587 kg
• Connects to the CT5000S and CC6000 Series Heavy-Duty CNG Nozzles				
1121	Replacement "Interface" O-Ring for CL50 Series Receptacles			



CNG Fueling Products And Accessories

OPW in-line breakaways are installed on fuel dispensing hoses between the nozzle and dispenser and will separate when subjected to a designated pull force, such as in the event of a drive-away. The dual valves seat automatically upon separation to stop the flow of gas while protecting the dispensing equipment from catastrophic damage. Defueling nozzles are designed to safely depressurize vehicles and can be used to transfer fuel from one vehicle to another. The fueling hoses are specially designed for dispensing compressed natural gas.

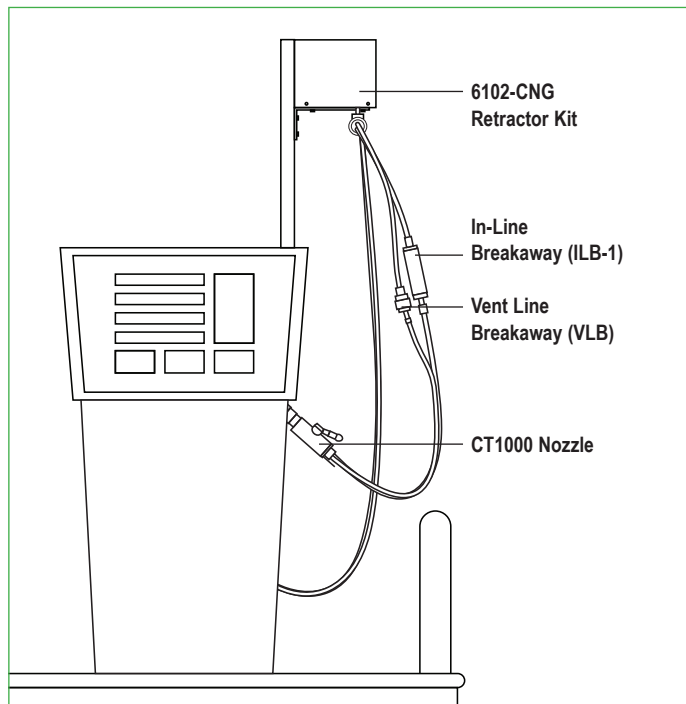


OPW In-Line Breakaway (ILB-1)

OPW has developed an in-line breakaway that can be used in automotive NGV refueling applications. This unit will function consistently, independent of the inlet pressure.

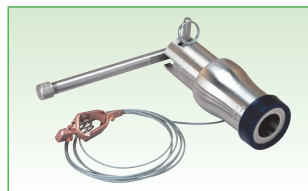


OPW has developed an in-line breakaway that can be used in heavy-duty truck and bus NGV refueling applications. This unit will function consistently, independent of the inlet pressure.



OPW Vent Line Breakaway (VLB)

The VLB is a simple, in-line breakaway that fits into the nozzle vent line. This unit will function consistently when used in conjunction with OPW high pressure In-Line Breakaway. It allows for 360° swivel. It contains no internal check valves and therefore cannot contain hose pressure in the event of a drive-away.



OPW BDN Vehicle Defueling Nozzle

OPW has developed a new tool to safely depressurize vehicles. This valve can also be used to transfer fuel from one vehicle to another in the event of a breakdown on the side of the road, or in areas where no refueling station is available. This nozzle should be hooked up to a check valve, three-way valve, hose and appropriate storage tank or fueling device.



OPW Hose And Hose Assemblies

OPW CNG hose assemblies are designed of electrically conductive polymer core tubing for working pressures of 3600 to 5000 psi. All hose assemblies conform to NFPA 52 and AGA/CGA, ANSI NGV 4.2.

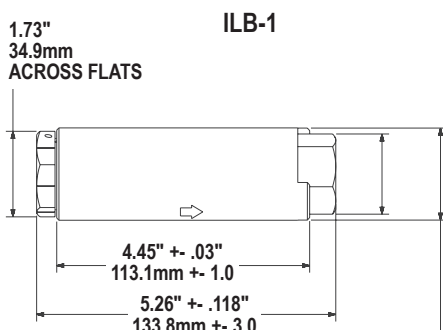


OPW CNG Hose Retractor Kit

Retractor Kit for CNG hoses.

OPW In-Line Breakaway (ILB-1)

OPW has developed an in-line breakaway that can be used in automotive NGV refueling applications. This unit will function consistently, independent of the inlet pressure.



Materials

Body: Stainless steel

Internal Components: Stainless steel

Seals: Specially formulated polymers and elastomers specific to high-pressure NGV applications.

ILB-1



Features

- ◆ **Durable, Corrosion-Resistant Construction** - stainless steel and specially plated steel construction provide improved durability and corrosion resistance in harsh environments.
- ◆ **Reconnectable Design** - allows the component to be reused, reducing maintenance costs.
- ◆ **Innovative Valve System** - the sealing system in this breakaway minimizes the amount of vent gas released during a drive-away incident.
- ◆ **High Flow** - the flow path has been matched to provide ample flow for all NGV-1 Type 1 and Type 2 nozzles.
- ◆ **Reduced Size and Weight** - to allow for more applications where size may be a concern.
- ◆ **Easy Installation** - the in-line breakaway has SAE-6 O-ring fittings for easy installation in line between the dispenser and nozzle.
- ◆ **Individually Inspected, Leak and Breakaway Tested, with Traceable Serial Numbers**
- ◆ **Disconnection Force** - 150 lbs. (668 N).

Specifications:

Min. Flow Rate: 2000 SCFM @ 3000 psid

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Weight: 2.3 lbs. (1.04 kg)

Cv: 1.17

Design Pressure: 7815 psi (538 Bar)

Ordering Specifications

Product No.	Inlet Thread Size	Outlet Thread Size	Max. Allowable Service Pressure	
ILB-1	SAE - 6, 9/16 - 18 UNF (female)	SAE - 6, 9/16 - 18 UNF (female)	6250 psi (P36)	430 bar

• Recommended to be used with the CC250, CC300, CC600, CT1000 and Hydrogen Series NGV-1 CNG Nozzles

Materials

Body: Stainless steel

Internal Components: Stainless steel

Seals: Specially formulated polymers and elastomers specific to high-pressure NGV applications.



Features

- ◆ **Durable, Corrosion-Resistant Construction** - stainless steel and specially plated steel construction provide improved durability and corrosion resistance in harsh environments.
- ◆ **Reconnectable Design** - allows the component to be reused, reducing maintenance costs.
- ◆ **Innovative Valve System** - the sealing system in this breakaway minimizes the amount of vent gas released during a drive-away incident.
- ◆ **High-Flow/Super Fast Fill Capacity** - this is OPW's fastest flowing breakaway. This breakaway will provide quick fueling of large storage vehicles. Internal seals are specifically designed to meet the demands of fast-fill NGV fueling.
- ◆ **Easy Installation** - the in-line breakaway has SAE-10 O-ring fittings for easy installation in line between the dispenser and nozzle.
- ◆ **Individually Inspected, Leak and Breakaway Tested, with Traceable Serial Numbers**
- ◆ **Disconnection Force** - 150 lbs. (668 N).

Specifications:

Min. Flow Rate: 5500 SCFM @ 3000 psid

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

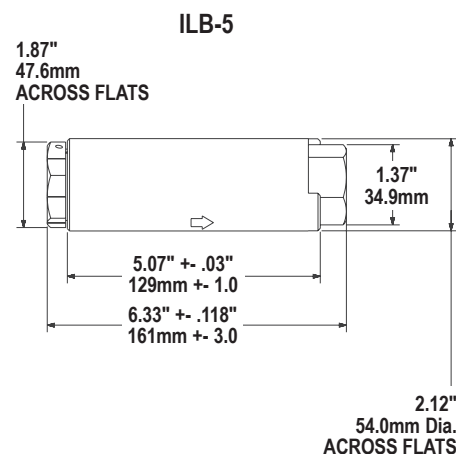
Weight: 5 lbs. (2.26 kg)

Cv: 3.6

Design Pressure: 5000 psi (345 Bar)

OPW In-Line Breakaway (ILB-5) - Heavy-Duty Truck/Bus

OPW has developed an in-line breakaway that can be used in heavy-duty truck and bus NGV refueling applications. This unit will function consistently, independent of the inlet pressure.



Ordering Specifications

• Recommended to be used with the CC250, CC300, CC600 and CT1000 Series NGV-1 CNG Nozzles

Product No.	Inlet Thread Size	Outlet Thread Size	Max. Allowable Service Pressure
ILB-5	SAE - 10, 7/8 - 14 UNF (female)	SAE - 10, 7/8 - 14 UNF (female)	4500 psi (P36) 310 bar

Listings and Certifications

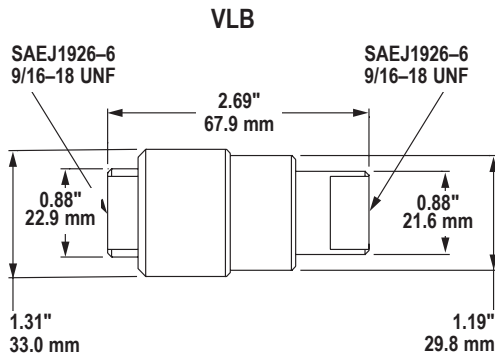


CE 0036



OPW Vent Line Breakaway (VLB)

The VLB is a simple, in-line breakaway that fits into the nozzle vent line. This unit will function consistently when used in conjunction with OPW high pressure In-Line Breakaways. It allows for 360° swivel. It contains no internal check valves and therefore does not contain hose pressure in the event of a drive-away.



Materials

Body: Brass

Internal Components: Stainless steel

Seals: Specially formulated polymers and elastomers specific to high-pressure NGV applications.



VLB

Features

- ◆ **Durable, Corrosion-Resistant Construction** - hardened brass construction provides excellent durability and corrosion resistance in harsh refueling environments.
- ◆ **Reconnectable Design** - allows the component to be reused, reducing maintenance costs.
- ◆ **For Vent Hose Only** - design not pressure balanced. Must be at least 8 feet from nozzle vent outlet.
- ◆ **Prevents Excessive Back Pressure on Nozzle Vent Line** - maximum pressure of 350 ± 50 psi (24 ± 3.5 Bar).
- ◆ **Easy Installation** - the vent line breakaway has SAE-6 female ports for easy installation.
- ◆ **Disconnection Force** - 70 lbs. (312 N).

Specifications:

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Weight: 0.72 lb. (0.330 kg)

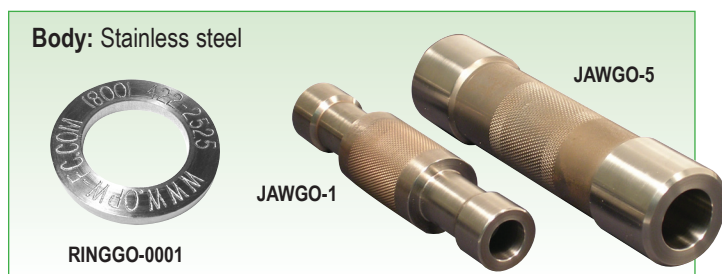
Cv: 3.25

Design Pressure: 350 psi (24 Bar)

Ordering Specifications

Product No.	Inlet Thread Size	Outlet Thread Size	Max. Allowable Service Pressure	
VLB	SAE - 6, 9/16 - 18 UNF	SAE - 6, 9/16 - 18 UNF	350 psi	24 bar

Materials



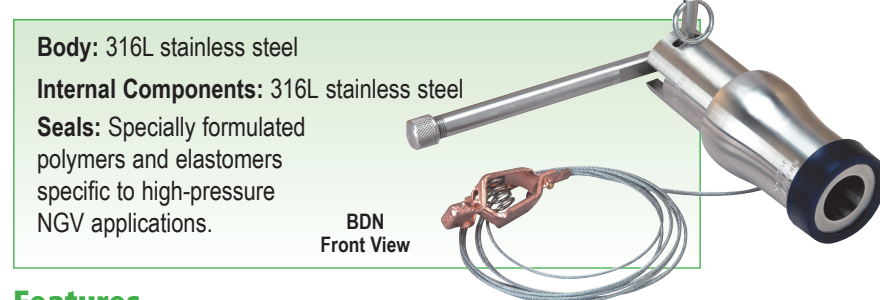
Features

- ◆ **Durable Construction** - stainless steel construction for long service life.
- ◆ **JAWGO-1** - NGV1 compatible jaws for Go and No-Go.
- ◆ **RINGGO-0001** - compatible with NGV1 for testing receptacles.
- ◆ **JAWGO-5** - NGV1 compatible.

Ordering Specifications

Product No.	Description	Works with	Weight
RINGGO-0001	NGV1 Receptacle Go-No/Go Gage	NGV1 Receptacles	.01 kg .03 lb.
JAWGO-1	NGV1 Nozzle Go-No/Go Gage	NGV1 Type 1, 2, 3 Nozzles	.28 kg .62 lb.
JAWGO-5	NGV1 Receptacle Go-No/Go Gage	CT5000 Series Nozzles	.59 kg 1.3 lb.

Materials



Features

- ◆ **Durable Corrosion-Resistant Construction** - stainless steel and brass provide improved durability and corrosion resistance.
- ◆ **Jaw-Lock Connection** - to ensure against damage to the receptacle during the defueling process.
- ◆ **User Friendly Operation** - low force actuation lever provides enough mechanical advantage to open receptacle check valves with up to 4500-psi pressure differentials.
- ◆ **Good for Both Filtered and Non-Filtered Receptacles** - shaft extenders are included inside the handle to open receptacle check valves.
- ◆ **SAE-4 O-Ring Outlet Port** - allows for standard fittings to be used when connecting nozzle to hose.
- ◆ **Connects to NGV-1 style receptacles (BDN)**
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**

Specifications:

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Weight: 3 lbs. (1.35 kg)

Cv: 0.5

Design Pressure: 5000 psi (345 Bar)

NOTE: For Sherex/OPW Filtered Receptacle, order the TA031 Filter Removal and Installation Tool.

Ordering Specifications

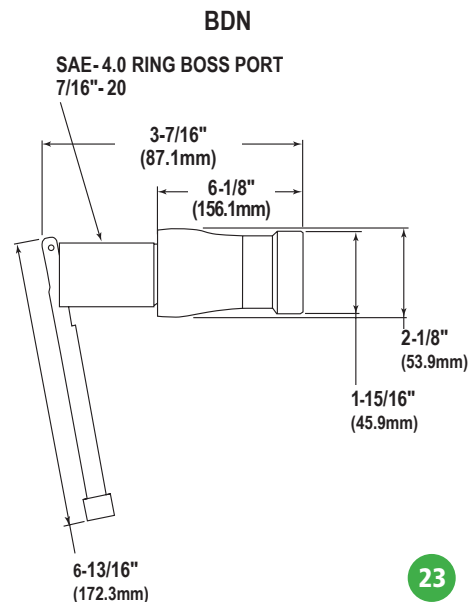
Product No.	Outlet Thread Size	Receptacle/Connection	Max. Allowable Service Pressure
BDN for CNG Service	SAE - 4, 7/16 - 20 UNF	NGV1 Profile (P30/P36)	5000 psi 345 bar

OPW Gages

NGV1 Receptacle Gage available for easily measuring worn receptacles, which may lead to connection/disconnection issues resulting from brinelling. The gage is based on NGV1 "Tight Fit" tolerances, the maximum acceptable diameter. Nozzle Gages are used for easily inspecting and identifying worn nozzle jaws.

OPW BDN Vehicle Defueling Nozzle

OPW has developed a new tool to safely depressurize vehicles. This valve can also be used to transfer fuel from one vehicle to another in the event of a breakdown on the side of the road, or be used in areas where no refueling station is available. This nozzle should be hooked up to a check valve, three-way valve, hose and appropriate storage tank or fueling device.



OPW Hose And Hose Assemblies

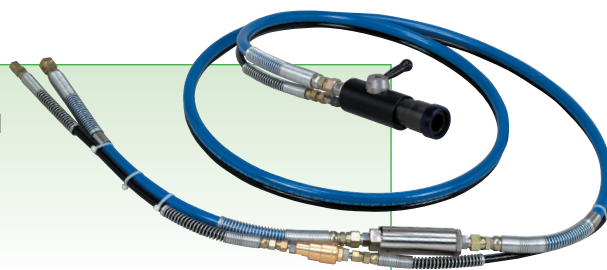
OPW CNG (compressed natural gas) Hose Assemblies are designed for dispensing compressed natural gas at working pressures to 5000 psi. Constructed of high-strength conductive polymer core tubing to dissipate static charge, all OPW hose assemblies conform to NFPA 52 and AGA/CGA, ANSI NGV 4.2.

FOR ADDITIONAL HOSE REQUESTS CONTACT OPW:

In the U.S. at (800) 422-2525
Outside the U.S.: (513) 870-3315 or (513) 870-3261

Materials

Fittings: Plated steel/
316 stainless steel



Features

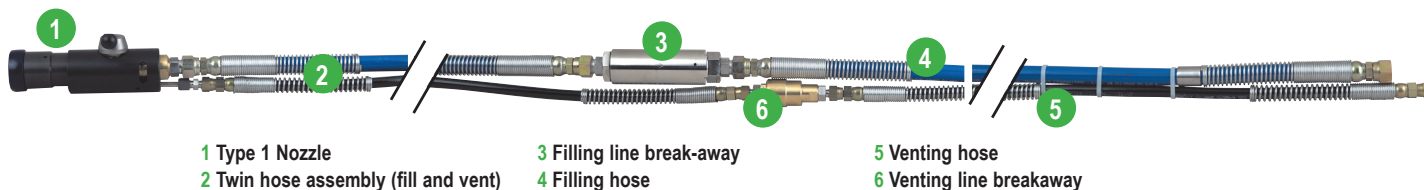
- ◆ **Quality Construction** - high-strength, reinforced synthetic fiber braid, electrically conductive polymer core tubing dissipates static electrical buildup while protecting the hose from wear and tear with an abrasion-resistant polymer cover.
- ◆ **Multiple Fitting Configurations**
Available - 316 stainless and carbon steel, JIC 37° Flare and Universal Tube Stub.
- ◆ **Quality Tested** - all hose assemblies are proof tested and electrically tested. Each CNG kit includes a warning tag and spring stress reliefs. All hose assemblies confirm to NFPA 52 and AGA/CGA, ANSI NGV 4.2.
- ◆ **Twin Hose Assemblies Complete With Filling Line and Vent Line Breakaways** - complete hose assemblies available.
- ◆ **Custom Lengths, Fittings and Sizes Available** - please forward design needs to OPW Fueling Components.
- ◆ **Optional Stainless Steel Fittings** - available for custom orders.
- ◆ **Available In Light-Duty and Heavy-Duty Dual Hose Sizes**
 - 6 (Inlet) NGV-1 Nozzle Application
 - 4 (Outlet)
 - 10 (Inlet) Heavy-Duty Application
 - 6 (Outlet)
- ◆ **Hydrogen Hose Applications also Available** - please call OPW Customer Service for more information.

Specifications:

Service Pressures: 5000 psi (345 bar)
Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Ordering Specifications

Product No.	Description	Max. Allowable Service Pressure	
CNGHOSE122	12 Ft. 2-Piece Dual Hose	5000 psi	345 bar



OPW CNG Hose Retractor Kit

Retractor Kit for CNG hoses.
Call your OPW Representative for availability

Ordering Specifications

Product No.	Mounting Method
6102-CNG	Overhead Crossbar/Vertical Post



Hydrogen Fueling Products

OPW CleanEnergy™ Fueling Products offers a complete line of fueling products for high-pressure, high-flow hydrogen fueling systems. This line includes a series of nozzles for quick-fill, self-service applications, receptacles, in-line breakaways, fittings, valves and filters.



OPW In-Line Hydrogen Breakaway

OPW has developed an in-line break-away that can be used in automotive H₂ refueling applications. This unit will function consistently, independent of the inlet pressure.



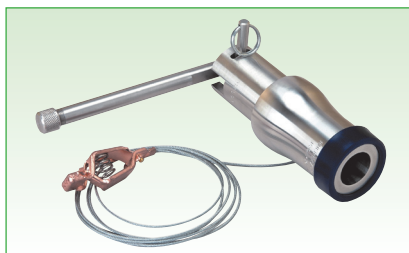
OPW CH1000/CH2000 and CW3600/CW5000 Series Self-Service Hydrogen Nozzle

OPW Series self-service nozzles are designed for high-pressure, high-flow Hydrogen fueling systems. Applications include quick-fill, self-service fueling nozzles of automobiles, light trucks, vans and buses. All OPW Hydrogen Fueling Nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency. Must be used only in conjunction with OPW L Series Hydrogen receptacles.



OPW L Series Hydrogen Fueling Receptacle

OPW L Series Hydrogen Refueling Receptacles are designed for use on automobiles, light trucks, vans and buses. All OPW Hydrogen Fueling Receptacles are designed and built to exacting engineering specifications for fueling safety and efficiency. Must be used in conjunction with OPW Hydrogen Nozzles.

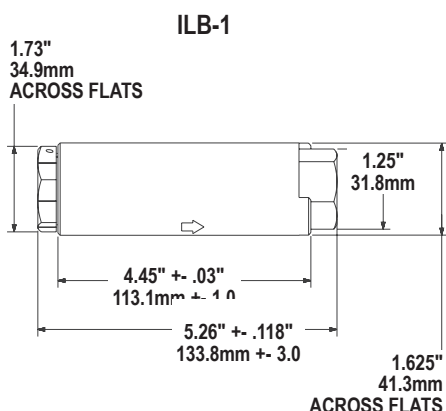


OPW BDN-H Vehicle Defueling Nozzle

OPW has developed a new tool to safely depressurize vehicles. This valve can also be used to transfer fuel from one vehicle to another in the event of a breakdown on the side of the road, or be used in areas where no refueling station is available. This nozzle should be hooked up to a check valve, three-way valve, hose and appropriate storage tank or fueling device.

OPW In-Line Breakaway (ILB-1)

OPW has developed an in-line breakaway that can be used in hydrogen applications. This unit will function consistently, independent of the inlet pressure.



Materials

Body: Stainless steel

Internal Components: Stainless steel

Seals: Specially formulated polymers and elastomers specific to high-pressure NGV applications.



Features

- ◆ **Durable, Corrosion-Resistant Construction** - stainless steel and specially plated steel construction provide improved durability and corrosion resistance in harsh environments.
- ◆ **Reconnectable Design** - allows the component to be reused, reducing maintenance costs.
- ◆ **Innovative Valve System** - the sealing system in this breakaway minimizes the amount of vent gas released during a drive-away incident.
- ◆ **High-Flow** - the flow path has been matched to provide ample flow for all NGV-1 Type 1 and Type 2 nozzles.
- ◆ **Reduced Size and Weight** - to allow for more applications where size may be a concern.
- ◆ **Easy Installation** - the in-line breakaway has SAE-6 O-ring fittings for easy installation in line between the dispenser and nozzle.
- ◆ **Individually Inspected, Leak and Breakaway Tested, with Traceable Serial Numbers**
- ◆ **Disconnection Force** - 150 lbs. (668 N).

Specifications:

Min. Flow Rate: 2000 SCFM @ 3000 psid
 Temperature Range: -40° F to 185° F
 (-40° C to 85° C)
 Weight: 2.3 lbs. (1.04 kg)
 Cv: 1.17
 Design Pressure: 7815 psi (538 Bar)

Ordering Specifications

Product No.	Inlet Thread Size	Outlet Thread Size	Max. Allowable Service Pressure	
ILB-1	SAE - 6, 9/16 - 18 UNF (female)	SAE - 6, 9/16 - 18 UNF (female)	6250 psi	430 bar

• Recommended to be used with the CC250, CC300, CC600, CT1000 and Hydrogen Series NGV-1 CNG Nozzles

Materials

Body: 316L stainless steel with stainless steel jaws

Internal Components: 316L stainless steel

Seals: Specially formulated polymers and elastomers specific to high-pressure hydrogen applications.

CH1000/CH2000



Features

- ◆ **User-Friendly Single Action Operation** - engage nozzle and receptacle with a 180° rotation of the handle. This secures nozzle jaws onto receptacle, activating a system of three internal valves that regulate fuel flow. The nozzle will not dispense gas until securely engaged onto matching receptacle. When fueling is complete, rotate the handle back through 180° to the disconnect position to automatically stop the flow of gas and release the nozzle from the receptacle.
- ◆ **Ergonomic Design** - one simple and convenient motion ensures connection and dispensing by all users. Insulated jacket protects operator's hands.
- ◆ **High-Flow/Fast-Fill Capability** - provides quick fueling for all types of vehicles. Internal seat designs and materials have been specially selected for high-flow hydrogen fueling.
- ◆ **Internal 0.2 mm Filter** - filter protects from impurities in the high velocity gas stream that can damage the nozzle and receptacle seals as well as components in the vehicle fuel system.
- ◆ **Directed Vent** - captures the gas vented at disconnect and directs it out of the nozzle via a 1/4" stainless steel vent tube which can be piped to a remote venting location or back to a compressor. Capturing vent gas is environmentally desirable by agencies such as the EPA and provides an added measure of safety by minimizing the amount of gas present at the filling site.
- ◆ **Jaw-Lock Technology** - designed specifically for the frequent coupling and uncoupling of high-pressure gas connections of hydrogen fueling. Contact pressures are distributed over the entire beveled edge of the receptacle, thus reducing long-term wear.
- ◆ **Dedicated Coupling Profile** - the jaw and receptacle profiles are designed to eliminate the chance of misconnection to any other form of fuel such as CNG. This nozzle will only couple securely to an OPW L Series Hydrogen receptacle.
- ◆ **Durable Construction** - heavy-duty, 316 stainless steel construction provides unmatched corrosion resistance in this harsh and difficult refueling environment.
- ◆ **Stuart Energy, a Leader in Hydrogen Fuel Systems, Provided Support in Developing These Nozzles**
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**

Specifications:

Min. Flow Rate: 2000 SCFM @ 3600 psid

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

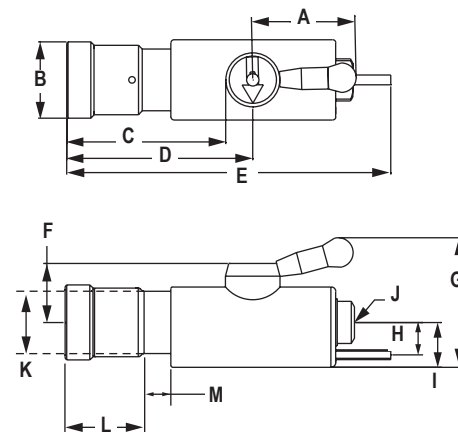
Weight: 3.35 lbs. (1.52 kg)

Cv: 0.48

Design Pressure: 6250 psi (430 Bar)

OPW CH1000/CH2000 Series Self-Service Hydrogen Nozzle

OPW CH Series self-service nozzles are designed for high-pressure, high-flow hydrogen fueling systems. Applications include quick-fill, self-service fueling nozzles of automobiles, light trucks, vans and buses. All OPW Hydrogen Fueling Nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency. Must be used only in conjunction with OPW LH5000, LJ5000, LK5000 or LK3600 ISO Profile Hydrogen receptacles.



Dimensions

	in.	mm
A	2.625	66
B	1.9375	49
C	4	102
D	4.6875	119
E	8.1875	208
F	1.5	38
G	3.25	83
H	0.8125	21
I	1.125	29
J	Straight Thread O-Ring Boss Port SAE J1926-6 (9/16 - 18UNF-2B)	
K	1.625	40
L	2.01	51.2
M	0.72	18.4

Available Accessory:

Hose connection cover CTG-0001. Designed to cover fittings connecting to the nozzle.

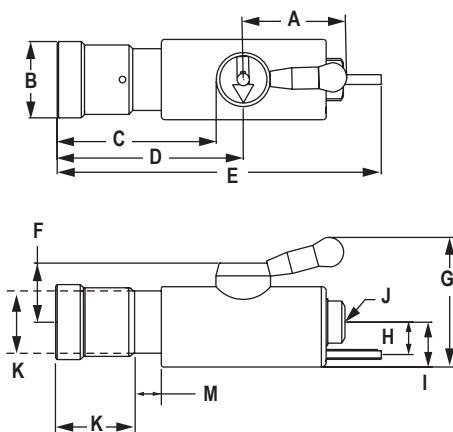
Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
CH1000	SAE- 6, 9/16 - 18 UNF	5000 psi	345 bar
CH2000	SAE- 6, 9/16 - 18 UNF	3600 psi	248 bar

Connects to LK5000, LK3600 ISO profiles

OPW CW3600/CW5000 Series Self-Service Hydrogen Nozzle

OPW CW Series Self-Service Nozzles are designed for high-pressure, high-flow hydrogen fueling systems. Applications include quick-fill, self-service fueling nozzles of automobiles, light trucks, vans and buses. All OPW Hydrogen Fueling Nozzles are designed and built to exacting engineering specifications for fueling safety and efficiency. Must be used only in conjunction with OPW LW5000 or LW3600 SAE Profile Hydrogen receptacles.



Dimensions

	in.	mm
A	2.625	66
B	1.9375	49
C	4	102
D	4.6875	119
E	8.1875	208
F	1.5	38
G	3.25	83
H	0.8125	21
I	1.125	29
J	Straight Thread O-Ring Boss Port SAE J1926-6 (9/16 - 18UNF-2B)	
K	1.625	40
L	2.01	51.2
M	0.72	18.4

Materials

Body: 316L stainless steel with stainless steel jaws

Internal Components: 316L stainless steel

Seals: Specially formulated polymers and elastomers specific to high-pressure Hydrogen applications.

CW3600/CW5000



Features

- ◆ **User-Friendly Single Action Operation** - engage nozzle and receptacle with a 180° rotation of the handle. This secures nozzle jaws onto receptacle, activating a system of three internal valves that regulate fuel flow. The nozzle will not dispense gas until securely engaged onto matching receptacle. When fueling is complete, rotate the handle back through 180° to the disconnect position to automatically stop the flow of gas and release the nozzle from the receptacle.
- ◆ **Ergonomic Design** - one simple and convenient motion ensures connection and dispensing by all users. Insulated jacket protects operator's hands.
- ◆ **High-Flow/Fast-Fill Capability** - provides quick fueling for all types of vehicles. Internal seat designs and materials have been specially selected for high-flow hydrogen fueling.
- ◆ **Internal 0.2 mm Filter** - filter protects from impurities in the high velocity gas stream that can damage the nozzle and receptacle seals as well as components in the vehicle fuel system.
- ◆ **Directed Vent** - captures the gas vented at disconnect and directs it out of the nozzle via a 1/4" stainless steel vent tube which can be piped to a remote venting location or back to a compressor. Capturing vent gas is environmentally desirable by agencies such as the EPA and provides an added measure of safety by minimizing the amount of gas present at the filling site.
- ◆ **Jaw-Lock Technology** - designed specifically for the frequent coupling and uncoupling of high-pressure gas connections of hydrogen fueling. Contact pressures are distributed over the entire beveled edge of the receptacle, thus reducing long-term wear.
- ◆ **Dedicated Coupling Profile** - the jaw and receptacle profiles are designed to eliminate the chance of misconnection to any other form of fuel such as CNG. This nozzle will only couple securely to an OPW LW Series Hydrogen Receptacle.
- ◆ **Durable Construction** - heavy-duty 316 stainless steel construction provides unmatched corrosion resistance in this harsh and difficult refueling environment.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**
- ◆ **Agency Listings Pending**

Specifications:

Min. Flow Rate: 2000 SCFM @ 3600 psid

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Weight: 3.35 lbs. (1.52 kg)

Cv: 0.48

Design Pressure: 6250 psi (430 Bar)

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	Weight
CW3600	SAE-6, 9/16-18 Female	3600 psi 248 bar	3.44 lbs. 1.52 kg
CW5000	SAE-6, 9/16-18 Female	5000 psi 345 bar	.44 lbs. 1.52 kg

Connects to LW3600, LW500, J2600 SAE profiles

Materials

Body: 316L stainless steel

Seals: Specially formulated polymers and elastomers specific to high-pressure Hydrogen applications.

L Series Hydrogen Fueling Receptacle



Features

- ◆ **Durable, Corrosion-Resistant Construction** - all OPW receptacles are made from 316 stainless steel. This material is proven to stand up in the harsh hydrogen refueling environment.
- ◆ **Non-Contact Check Valve** - each OPW receptacle contains a highly reliable non-contact check valve that opens when differential pressure is present during refueling.
- ◆ **Unique Sealing System** - all OPW receptacles consist of a stainless steel poppet that aligns with a rearward facing captured seal located in the receptacle body. This arrangement prevents seal "wash-out" during high flow conditions and "cratering" due to debris. The seal material has exceptionally long service life, resists creep and deformation and has exceptional wear resistance under all operating pressure and temperature conditions. The poppet is also 316 stainless steel with a polished surface to provide reliable sealing at low back pressures.
- ◆ **High-Flow/Fast-Fill Capability** - the LW Series receptacles have a large flow capacity. The flow path allows very high flows combined with low pressure drop and enhanced resistance to hydrate formation.

- ◆ **Optional 0.4 mm Filter** - the LK5000/LK3600 receptacle has a filter located in front of the receptacle check valve. This captures most of the dirt and road grime that collects in and around the vehicle receptacle. The filter protects from impurities in the high velocity gas stream that can damage the receptacle seals as well as components in the vehicle fuel system. This is a serviceable item and can be removed and reinstalled with special tools supplied by OPW.
- ◆ **Dedicated Coupling Profile** - the receptacle profiles are designed to eliminate the chance of misconnection to any other form of fuel such as CNG.
- ◆ **Individually Leak Tested and Inspected with Traceable Batch Numbers**
- ◆ **Agency Listings Pending**

Specifications:

Min. Flow Rate: 2000 SCFM @ 3600 psid

Temperature Range: -40° F to 250° F
(-40° C to 120° C)

Weight: 0.50 lb. (.23 kg) Receptacles

Receptacle Cv: 0.91 Non-filtered
0.83 Filtered

Design Pressure: 6250 psi (430 Bar)

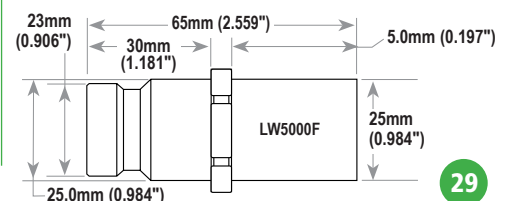
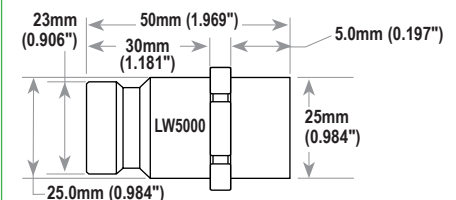
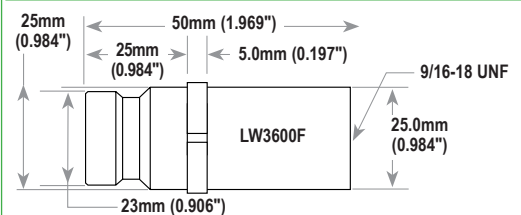
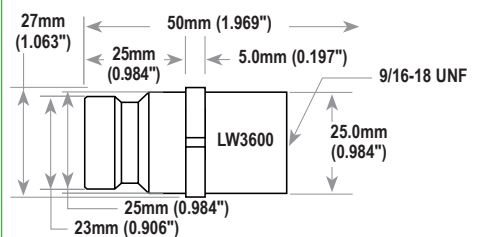
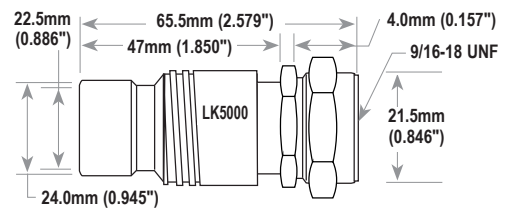
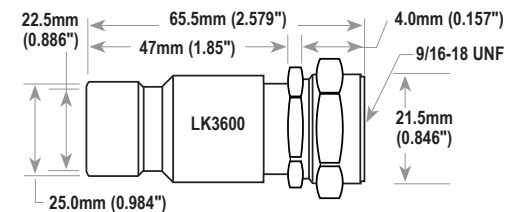
Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure		Description
LK3600	SAE- 6, 9/16-18 UNF	5000 psi	345 bar	1½" Hex with bulkhead mounting ISO Profile
LK5000	SAE- 6, 9/16-18 UNF	3600 psi	345 bar	1½" Hex with bulkhead mounting ISO Profile
LW3600	SAE- 6, 9/16-18 UNF	3600 psi	345 bar	1½" Hex SAE Profile
LW3600-F	SAE- 6, 9/16-18 Filtered	5000 psi	345 bar	1½" Hex SAE Profile
LW5000	SAE- 6, 9/16-18 UNF	5000 psi	345 bar	1½" Hex SAE Profile
LW5000-F	SAE- 6, 9/16- 18 Filtered	5000 psi	345 bar	1½" Hex SAE Profile

LW series hydrogen SAE J2600 profile receptacle
NOTE: -F are Filtered Receptacles

OPW L Series Hydrogen Fueling Receptacle

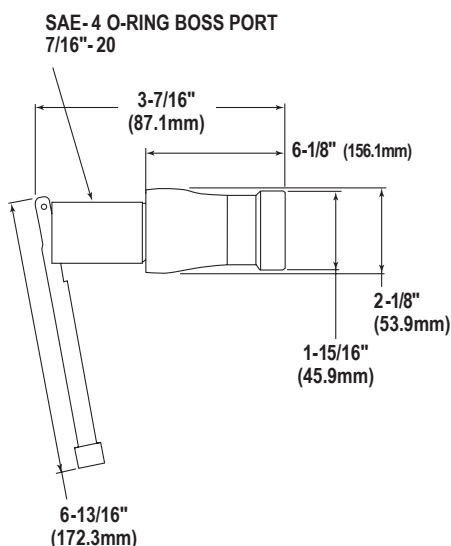
OPW L Series Hydrogen Refueling Receptacles are designed for use on of automobiles, light trucks, vans and buses. All OPW Hydrogen Fueling Receptacles are designed and built to exacting engineering specifications for fueling safety and efficiency. Must be used only in conjunction with OPW CH1000 Hydrogen Nozzles.



OPW BDN-H Vehicle Defueling Nozzle

OPW has developed a new tool to safely depressurize vehicles. This valve can also be used to transfer fuel from one vehicle to another in the event of a breakdown on the side of the road, or in areas where no refueling station is available. This nozzle should be hooked up to a check valve, three-way valve, hose and appropriate storage tank or fueling device.

BDN-H



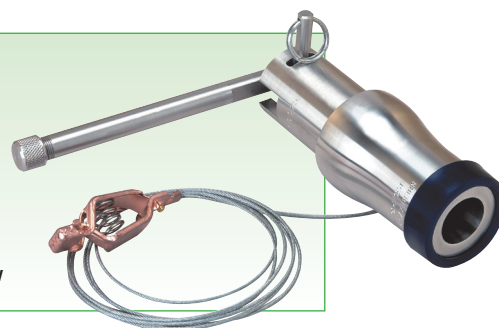
Materials

Body and Internal Components:

316L stainless steel

Seals: Specially formulated polymers and elastomers specific to high-pressure hydrogen applications.

BDN-H - Front View



Features

- ◆ **Durable Corrosion-Resistant Construction** - stainless steel and brass provide improved durability and corrosion resistance in the harsh environments. All wetted components are hydrogen fuel compatible (BDN-H).
- ◆ **Jaw-Lock Connection** - to ensure against damage to the receptacle during the defueling process.
- ◆ **User-Friendly Operation** - low force actuation lever provides enough mechanical advantage to open receptacle check valves with up to 4500 psi pressure differentials.
- ◆ **Good for Both Filtered and Non-Filtered Receptacles** - shaft extenders are included inside the handle to open receptacle check valves.
- ◆ **SAE-4 O-Ring Outlet Port** - allows for standard fittings to be used when connecting nozzle to hose.
- ◆ **Connects to NGV-1 Style Receptacles (BDN) and the Proposed ISO Hydrogen Receptacle Standard (BDN-H)**
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**
- ◆ **Agency Listings Pending**

Specifications:

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Weight: 3 lbs. (1.35 kg)

Cv: 0.5

Design Pressure: 7815 psi (538 bar)

NOTE: For Sherex/OPW Filtered Receptacles
- order the TA031 Filter Removal and Installation Tool.

Ordering Specifications

Product No.	Outlet Thread Size	Receptacle/Connection	Max. Allowable Service Pressure	
BDN-H for Hydrogen Service	SAE - 4, 7/16 - 20 UNF	SAE J2600 Profile (P36 / P50)	6250 psi	430 bar
• Connects to LH5000, LJ5000, LK5000 and LK3600 Series Hydrogen Receptacles				

Leading The Way in Fueling Innovation Worldwide



At OPW, we believe that green is good business, which is why we are committed to providing innovative and effective solutions that help promote safer, more efficient and environmentally responsible fueling operations worldwide. Through environmentally safe, clean energy fueling systems, we can have a world of cleaner air, cleaner water and safer fueling environments.

We are not alone in our mission. OPW is part of Dover Corporation, a multi-billion-dollar industrial conglomerate committed to global environmental sustainability. Around the world, Dover companies, such as OPW, are helping to protect the long-term well-being of the environment, from greenhouse gas and water reductions to increased environmental protection and energy efficiency.

OPW is leading the way in environmentally responsible product innovation – another reason why OPW products are found in more fueling operations worldwide than any other brand.

- **CLEAN WATER & FRESH AIR**
- **A BETTER QUALITY OF LIFE**
- **SAFE FUELING ENVIRONMENT**



LPG Autogas Nozzles

OPW CleanEnergy™ Fueling Products offers an extensive line of patented LPG fueling products. Formerly the B/N Italy, Brevetti Nettuno brand, OPW CleanEnergy™ Fueling Products' LPG line of nozzles and accessories are manufactured in Czech Republic, Europe, and deliver design and manufacturing excellence on more than 50 years of reliable gas supply equipment experience.



OPW Autogas OT300 Series LPG Nozzle

The B/N OPW Autogas OT300 is designed for the Italian-Type coupling. Nozzle inlet has 1" NPT threads. All B/N OPW LPG fueling nozzles are built to exacting engineering specifications for fueling safety and efficiency. Brass models available.



OPW Autogas NOT300 Series LPG Nozzle

The B/N OPW Autogas NOT300 with Trigger Release is designed for the Italian-Type coupling. Nozzle inlet has 1" NPT threads. All B/N OPW LPG fueling nozzles are built to exacting engineering specifications for fueling safety and efficiency. Brass models available.



OPW Autogas BN300 Series LPG Nozzle

The BN300 with Thumb Release is designed for the Italian-Type coupling. This style is the easiest to use of the locking LPG nozzles. Nozzle inlet has 1" GAS threads. Also available in brass models.



OPW Autogas BN300 HG Series LPG Nozzle

The BN300-HG with Thumb Release is designed for the Italian-Type coupling. This style is the easiest to use of the locking LPG nozzles. Nozzle inlet has 1" GAS threads. Also available in brass models.



LPG Autogas Nozzles

OPW CleanEnergy™ Fueling Products offers an extensive line of patented LPG fueling products. Formerly the B/N Italy, Brevetti Nettuno brand, OPW CleanEnergy™ Fueling Products' LPG line of nozzles and accessories are manufactured in Czech Republic, Europe, and deliver design and manufacturing excellence on more than 50 years of reliable gas supply equipment experience.



OPW Autogas BN310 Series LPG Nozzle

The BN310 with Thumb Release design for the 1-3/4" Stub ACME-Type coupling. Nozzle inlet has 1" GAS threads.



OPW Autogas BN310-HG Series LPG Nozzle

The BN310-HG with Thumb Release design for the 1-3/4" Stub ACME-Type coupling. Nozzle inlet has 1" GAS threads.



OPW Autogas BN320 Series LPG Nozzle

BN320 with Thumb Release is designed for the Bayonet-Type coupling. Nozzle inlet has 1" GAS threads.



OPW Autogas BN320-HG Series LPG Nozzle

The BN320-HG with Thumb Release is designed for the Bayonet-Type coupling. Nozzle inlet has 1" GAS threads.



OPW Autogas BN330 Series LPG Nozzle

The BN330 with Thumb Release is designed for the EUROPE-Type coupling. This style is the easiest to use of the locking LPG nozzles. Nozzle inlet has 1" GAS threads.



OPW Autogas BN330-HG Series LPG Nozzle

The BN330-HG with Thumb Release is designed for the EUROPE-Type coupling. This style is the easiest to use of the locking LPG nozzles. Nozzle inlet has 1" GAS threads.

All LPG Autogas nozzles are available in BSP and NPT threads.

OPW Autogas OT300 Series LPG Nozzle

The B/N OPW Autogas OT300 is designed for the Italian-Type coupling. Nozzle inlet has 1" NPT threads. All B/N OPW LPG fueling nozzles are built to exacting engineering specifications for fueling safety and efficiency.

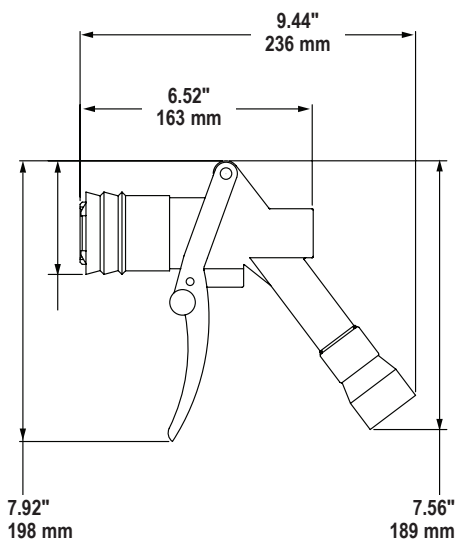


OT420
Rubber Cover

OT300 connects to
Italian Dish Coupler
(Shown Below)



OT300



Materials

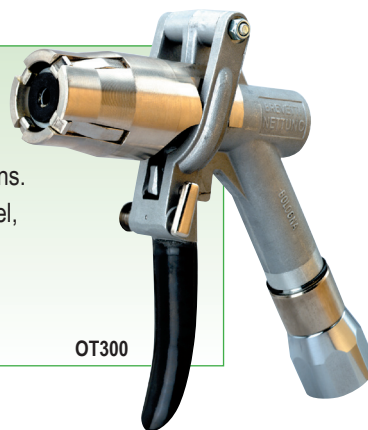
Body: Aluminum

Internal Components: Brass and steel

Seals: Specially formulated polymers and elastomers specific to LPG applications.

External Components: Brass, stainless steel, anodized aluminum

OT321



OT300

Features

- ◆ **User-Friendly Single-Action Operation** – entire fueling operation is initiated by simply engaging nozzle to the receptacle with a single squeeze of the hand.
- ◆ **Hammer-Lock Technology** – maximum durability. Designed specifically for frequent coupling and uncoupling.
- ◆ **Ergonomic Design** – insulated handle protects operator from temperature effects created by high-flowing LP gas. Minimal force required to engage nozzle.
- ◆ **Durable Construction** – heavy-duty brass, aluminum and stainless steel construction provides excellent corrosion resistance in the harsh fueling environment.
- ◆ **Ease of Use** – Incorporates a single plane 360° inlet swivel.
- ◆ **Safety** – will not dispense gas until securely engaged onto an appropriate receptacle. Once engaged, will not disengage until released by operator.

- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**

- ◆ **Replaceable Rubber Cover** – Deflects venting LP gas away from operator's hand.

Specifications:

Maximum Operating Pressure: 350 psi (24 bar)

LPG Discharge on Disconnect: 4.3cc

Weight: 3.08 lbs. (1.40 kg)

Locking Release: Trigger or Lever

Coupling Style: Italian Style

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Also available in brass models.

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
OT300	1" NPT	350 psi	24 bar
OT321	3/4" NPT Adaptor		

All LPG Autogas nozzles are available in BSP and NPT threads.

Materials

Body: Aluminum

Internal Components: Brass and steel

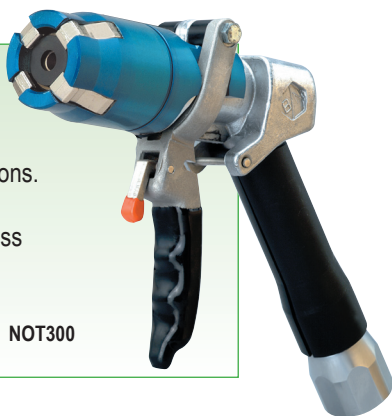
Seals: Specially formulated polymers and elastomers specific to LPG applications.

External Components: Aluminum, stainless steel, brass

OT321



NOT300



Features

- ◆ **User-Friendly Single-Action Operation** – entire fueling operation is initiated by simply engaging nozzle and receptacle with a single squeeze of the hand.
- ◆ **Nozzle Lock** – nozzle is safely locked into the fueling position until trigger on the lever is pushed to release nozzle.
- ◆ **Hammer-Lock Technology** – maximum durability. Designed specifically for frequent coupling and uncoupling.
- ◆ **Durable Construction** – heavy-duty brass, aluminum and stainless steel construction provides excellent corrosion resistance in the harsh fueling environment.
- ◆ **Ease of Use** – incorporates a single plane 360° inlet swivel.
- ◆ **Safety** – will not dispense gas until securely engaged onto an appropriate receptacle.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**
- ◆ **Replaceable Rubber Cover** – deflects venting LP gas away from operator's hand.
- ◆ **Ergonomic Design** – insulated handle protects operator from temperature effects created by high-flowing LP gas. Minimal force required to engage nozzle.

Specifications:

Maximum Operating Pressure: 350 psi (24 bar)

LPG Discharge on Disconnect: 4.3cc

Weight: 3.43 lbs. (1.56 kg)

Locking Release: Trigger on Lever

Coupling Style: Italian Style

Temperature Range: -40° F to 185° F C
(-40° C to 85°)

Also available in brass models.

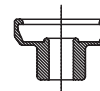
OPW Autogas NOT300 Series LPG Nozzle

The B/N OPW Autogas NOT300 with Trigger Release is the NEW B/N design for the Italian-Type coupling. Nozzle inlet has 1" NPT threads. All B/N OPW LPG fueling nozzles are built to exacting engineering specifications for fueling safety and efficiency.

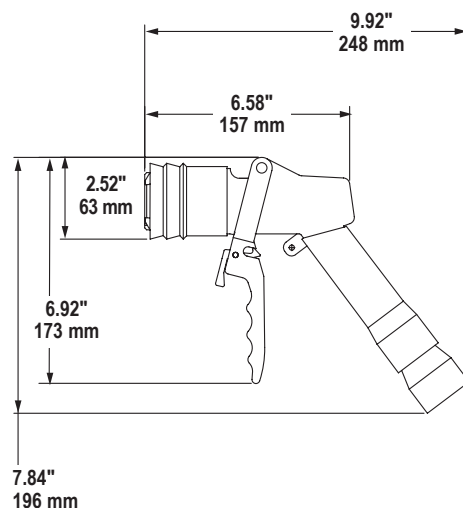


OT420
Rubber Cover

NOT300 connects to
Italian Dish Coupler
(Shown Below)



NOT300



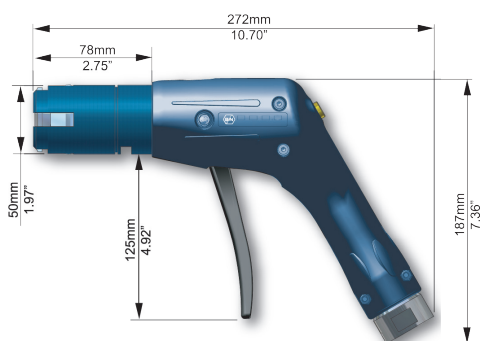
Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
NOT300	1" NPT	350 psi	24 bar
OT321	3/4" NPT Adaptor		

All LPG Autogas nozzles are available in BSP and NPT threads.

OPW Autogas BN300 Series LPG Nozzle

The BN300 with Thumb Release is designed for the Italian-Type coupling. This style is the easiest to use of the locking LPG nozzles. Nozzle inlet has 1" GAS threads. Also available in brass models.



BN300

Materials

Body: Aluminum

Internal Components: Brass and steel

Seals: Specially formulated polymers and elastomers specific to LPG applications.

External Components: Aluminum and stainless steel

OT321



BN300

Features

- ◆ **User-Friendly Single-Action Operation** – entire fueling operation is initiated by simply engaging nozzle to the receptacle with small twist and a single squeeze of the hand.
- ◆ **New Ergonomic Design** – 2 resin shells insulate and protect the internal parts from falls and the operator from the effects of the low temperature generated by the high-flow LPG. Minimum effort is required to couple the nozzle and the ergonomic release button makes release easier.
- ◆ **Ease of Use** – Incorporates a single plane 360° inlet swivel.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**
- ◆ **Low Vent Volume upon disconnect:** 1.6cc
- ◆ **Replaceable Rubber Cover (optional)** – deflects venting LP gas away from operator's hand.
- ◆ **Nylon/Fiberglass Hand Insulator** – protects operator from low temperature effects created by high-flow LPG gas.

Specifications:

Maximum Operating Pressure: 362 psi (25 bar)

LPG Discharge on Disconnect: 1.6cc

Weight: 3.41 lbs. (1.55 kg)

Locking Release: Push Button on Body

Coupling Style: Italian Style

Temperature Range: -40° F to 212° F
(-40° C to 100° C)

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
BN300	1" GAS	362 psi	25 bar
OT321	3/4" GAS Adaptor		

Materials

Body: Aluminum

Internal Components: Brass and steel

Seals: Specially formulated polymers and elastomers specific to LPG applications.

External Components: Aluminum, stainless steel, brass



OT321



BN300-HG

Features

- ◆ **User-Friendly Single-Action Operation** – entire fueling operation is initiated by simply engaging nozzle to the receptacle with a single squeeze of the hand.
- ◆ **Operation** – entire fueling operation is initiated by simply engaging nozzle to the receptacle with a single squeeze of the hand.
- ◆ **New Ergonomic Design** – 2 resin shells insulate and protect the internal parts from falls and the operator from the effects of the low temperature generated by the high-flow LPG. Minimum effort is required to couple the nozzle and the ergonomic release button makes release easier. With lever guard.
- ◆ **Ease of Use** – Incorporates a single plane 360° inlet swivel.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**
- ◆ **Low Vent Volume upon disconnect:** 1.6cc
- ◆ **Replaceable Rubber Cover (optional)** – deflects venting LP gas away from operator's hand.
- ◆ **Nylon/Fiberglass Hand Insulator** – protects operator from low temperature effects created by high-flow LPG gas.

Specifications:

Maximum Operating Pressure: 350 psi (24 bar)

LPG Discharge on Disconnect: 1.6cc

Weight: 3.52 lbs (1.60 kg)

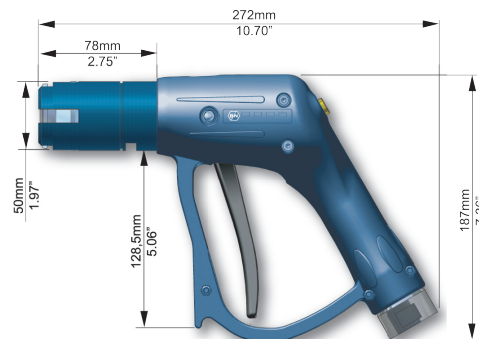
Locking Release: Push Button on Body

Coupling Style: Italian Style

Temperature Range: -40° F to 212° F
(-40° C to 100° C)

OPW Autogas BN300 HG Series LPG Nozzle

The BN300-HG with Thumb Release is designed for the Italian-Type coupling. This style is the easiest to use of the locking LPG nozzles. Nozzle inlet has 1" GAS threads. Also available in brass models.



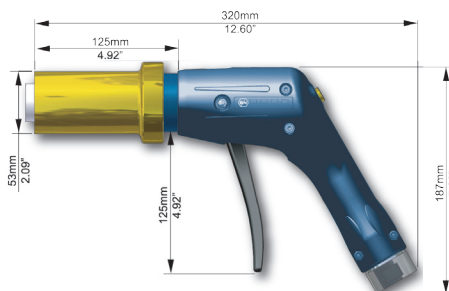
BN300-HG

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
OT400	1" GAS	362 psi	25 bar
OT321	3/4" GAS Adaptor		

OPW Autogas BN310 Series LPG Nozzle

BN310 with Thumb Release design for the 1-3/4" Stub ACME-Type coupling. Nozzle inlet has 1" GAS threads.



BN310

Materials

Body: Aluminum

Internal Components: Brass and steel

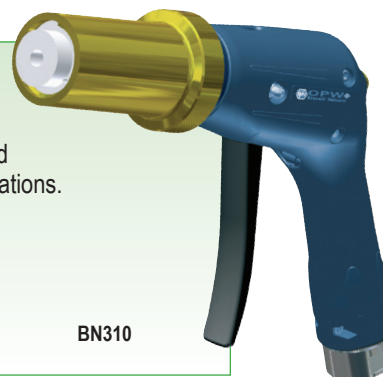
Seals: Specially formulated polymers and elastomers specific to LPG applications.

External Components: Aluminum and stainless steel

OT321



BN310



Features

◆ **User-Friendly Single-Action Operation** – entire fueling operation is initiated by simply engaging nozzle to the receptacle with a single squeeze of the hand.

◆ **Nozzle Lock** – the nozzle is secure in the filling position until the delivery end button is pressed and the hose unscrewed.

◆ **New Ergonomic Design** – 2 resin shells insulate and protect the internal parts from falls and the operator from the effects of the low temperature generated by the high-flow LPG.

◆ **Ease of Use** – Incorporates a single plane 360 degree inlet swivel.

◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**

◆ **Nylon/Fiberglass Hand Insulator** – Protects operator from low temperature effects created by high-flow LPG gas.

Specifications:

Maximum Operating Pressure: 362 psi (25 bar)

LPG Discharge on Disconnect: 3.0cc

Weight: 5.07 lbs. (2.30 kg)

Locking Release: Push Button on Body

Coupling Style: 1-3/4" ACME

Temperature Range: -40° F to 212° F
(-40° C to 100° C)

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
BN310	1" GAS	362 psi	25 bar
OT321	3/4" GAS Adaptor		

Materials

- Body:** Aluminum
- Internal Components:** Brass and steel
- Seals:** Specially formulated polymers and elastomers specific to LPG applications.
- External Components:** Aluminum, stainless steel, brass

OT321



BN310-HG



Features

- ◆ **Nozzle Lock** – the nozzle is secure in the filling position until the delivery end button is pressed and the hose unscrewed.
- ◆ **New Ergonomic Design** – 2 resin shells insulate and protect the internal parts from falls and the operator from the effects of the low temperature generated by the high-flow LPG. With lever guard.
- ◆ **Ease of Use** – incorporates a single plane 360° inlet swivel.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**

- ◆ **Nylon/Fiberglass Hand Insulator** – protects operator from low temperature effects created by high-flow LPG gas.

Specifications:

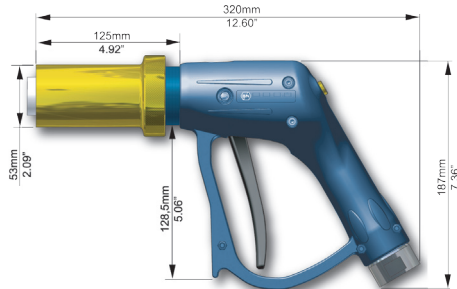
- Maximum Operating Pressure:** 350 psi (24 bar)
- LPG Discharge on Disconnect:** 3.0cc
- Weight:** 5.18 lbs. (2.35 kg)
- Locking Release:** Push Button on Body
- Coupling Style:** 1-3/4" ACME
- Temperature Range:** -40° F to 212° F (-40° C to 100° C)

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
BN310-HG	1" GAS	362 psi	25 bar
OT321	3/4" GAS Adaptor		

OPW Autogas BN310-HG Series LPG Nozzle

BN310-HG with Thumb Release design for the 1-3/4" Stub ACME-Type coupling. Nozzle inlet has 1" GAS threads.



BN310-HG

OPW Autogas BN320 Series LPG Nozzle

The BN320 with Thumb Release is designed for the Bayonet-Type coupling. Nozzle inlet has 1" GAS threads.



BN320

Materials

Body: Aluminum

Internal Components: Brass and steel

Seals: Specially formulated polymers and elastomers specific to LPG applications.

External Components: Aluminum and stainless steel

OT321



BN320



Features

- ◆ **User Friendly Single-Action Operation** – entire fueling operation is initiated by simply engaging nozzle to the receptacle with a single squeeze of the hand.
- ◆ **New Ergonomic Design** – 2 resin shells insulate and protect the internal parts from falls and the operator from the effects of the low temperature generated by the high-flow LPG.
- ◆ **Nozzle Lock** – nozzle is safely locked into the fueling position until trigger on the lever is pushed to release nozzle.
- ◆ **Ease of Use** – incorporates a single plane 360° inlet swivel.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**
- ◆ **Locks onto the Vehicle Connector** – simply by rotating nozzle 30°.
- ◆ **Nylon/Fiberglass Hand Insulator** – protects operator from low temperature effects created by high-flow LPG gas.

Specifications:

Maximum Operating Pressure: 362 psi (25 bar)

LPG Discharge on Disconnect: 3cc

Weight: 3.41 lbs. (1.55 kg)

Locking Release: Push Button on Body

Coupling Style: Dutch Bayonet-type Coupling

Temperature Range: -40° F to 212° F
(-40° C to 100° C)

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
BN320	1" GAS	362 psi	25 bar
OT321	3/4" GAS Adaptor		

Materials

Body: Aluminum

Internal Components: Brass and steel

Seals: Specially formulated polymers and elastomers specific to LPG applications.

External Components: Aluminum, stainless steel, brass

OT321



BN320-HG



Features

- ◆ **User-Friendly Single-Action Operation** – entire fueling operation is initiated by simply engaging nozzle to the receptacle with a single squeeze of the hand.
- ◆ **New Ergonomic Design** – 2 resin shells insulate and protect the internal parts from falls and the operator from the effects of the low temperature generated by the high-flow LPG. Minimum effort is required to couple the nozzle and the ergonomic release button makes release easier. With lever guard.
- ◆ **Ease of Use** – incorporates a single plane 360 degree inlet swivel.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**

- ◆ **Low Vent Volume upon disconnect:** 1.6cc
- ◆ **Nylon/Fiberglass Hand Insulator** – protects operator from low temperature effects created by high-flow LPG gas.

Specifications:

Maximum Operating Pressure: 362 psi (25 bar)

LPG Discharge on Disconnect: 3cc

Weight: 3.52 lbs. (1.60 kg)

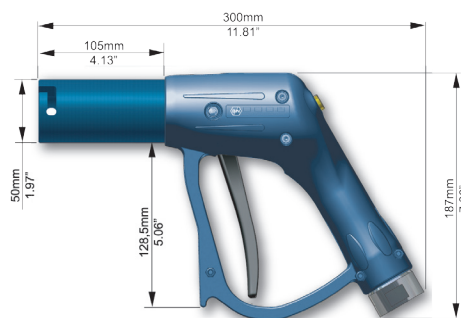
Locking Release: Push Button on Body

Coupling Style: Dutch Bayonet-type Coupling

Temperature Range: -40° F to 212° F
(-40° C to 100° C)

OPW Autogas BN320-HG Series LPG Nozzle

The BN320-HG with Thumb Release is designed for the EUROPE-Type coupling. This style is the easiest to use of the locking LPG nozzles. Nozzle inlet has 1" GAS threads.



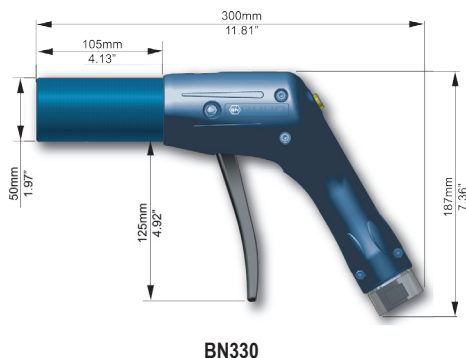
BN320-HG

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
BN330-HG	1" GAS	362 psi	25 bar
OT321	3/4" GAS Adaptor		

OPW Autogas BN330 Series LPG Nozzle

The BN330 with Thumb Release is designed for the EUROPE-Type coupling. This style is the easiest to use of the locking LPG nozzles. Nozzle inlet has 1" GAS threads.



Materials

Body: Aluminum

Internal Components: Brass and steel

Seals: Specially formulated polymers and elastomers specific to LPG applications.

External Components: Aluminum and stainless steel



Features

- ◆ **User-Friendly Single-Action Operation** – entire fueling operation is initiated by simply engaging nozzle to the receptacle with a single squeeze of the hand.
- ◆ **New Ergonomic Design** – 2 resin shells insulate and protect the internal parts from falls and the operator from the effects of the low temperature generated by the high-flow LPG. Minimum effort is required to couple the nozzle and the ergonomic release button makes release easier.
- ◆ **Ease of Use** – incorporates a single plane 360° inlet swivel.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**
- ◆ **Low Vent Volume upon disconnect:** 1.6cc.
- ◆ **Nylon/Fiberglass Hand Insulator** – protects operator from low temperature effects created by high-flow LPG gas.

Specifications:

Maximum Operating Pressure: 362 psi (25 bar)

LPG Discharge on Disconnect: 1.6cc

Weight: 3.41 lbs. (1.55 kg)

Locking Release: Push Button on Body

Coupling Style: Europe Style

Temperature Range: -40° F to 212° F
(-40° C to 100° C)

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
BN330	1" GAS	362 psi	25 bar
OT321	3/4" GAS Adaptor		

Materials

- Body:** Aluminum
- Internal Components:** Brass and steel
- Seals:** Specially formulated polymers and elastomers specific to LPG applications.
- External Components:** Aluminum, stainless steel, brass



Features

- ◆ **User-Friendly Single-Action Operation** – entire fueling operation is initiated by simply engaging nozzle to the receptacle with a single squeeze of the hand.
- ◆ **New Ergonomic Design** – 2 resin shells insulate and protect the internal parts from falls and the operator from the effects of the low temperature generated by the high-flow LPG. Minimum effort is required to couple the nozzle and the ergonomic release button makes release easier. With lever guard.
- ◆ **Ease of Use** – incorporates a single plane 360° inlet swivel.
- ◆ **Individually Leak Tested and Inspected with Traceable Serial Numbers**

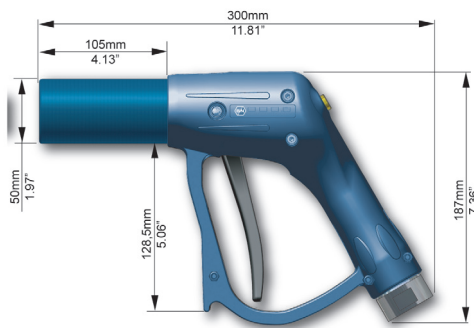
- ◆ **Low Vent Volume upon disconnect:** 1.6cc
- ◆ **Nylon/Fiberglass Hand Insulator** – protects operator from low temperature effects created by high-flow LPG gas.

Specifications:

Maximum Operating Pressure: 362 psi (25 bar)
LPG Discharge on Disconnect: 3cc
Weight: 3.52 lbs. (1.60 kg)
Locking Release: Push Button on Body
Coupling Style: Dutch Bayonet-type Coupling
Temperature Range: -40° F to 212° F
 (-40° C to 100° C)

OPW Autogas BN330-HG Series LPG Nozzle

The BN330 with Thumb Release is designed for the EUROPE-Type coupling. This style is the easiest to use of the locking LPG nozzles. Nozzle inlet has 1" GAS threads.



Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
BN330-HG	1" GAS	362 psi	25 bar
OT321	3/4" GAS Adaptor		



LPG Fueling Products Accessories

OPW CleanEnergy™ Fueling Products offers an extensive line of patented LPG fueling products. Formerly B/N Italy, the Brevetti Nettuno brand, OPW CleanEnergy™ Fueling Products' LPG line of nozzles and accessories are manufactured in Czech Republic, Europe, and deliver design and manufacturing excellence on more than 50 years of reliable gas supply equipment experience.



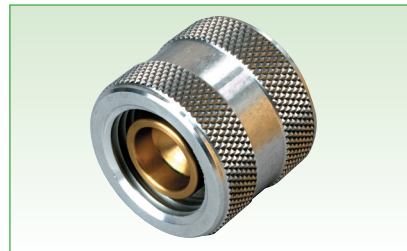
OPW LPG Accessories OAS400 3/4" Nozzle Breakaway

The B/N OPW OAS400 3/4" Breakaway with Anchor Strap is designed for in line use with any LPG System. Valve inlet has 3/4" NPT threads. All B/N OPW valves are built to exacting engineering specifications for fueling safety and efficiency.



OPW LPG Accessories OC123 3/4" Dispenser Shear Valve

The B/N OPW OC123 3/4" Dispenser Shear Valve is designed to shut off LPG flow in the event of an impact to the dispenser. The shear valve minimizes the damage to both the dispenser and supply piping. All B/N OPW shear valves are built to exacting engineering specifications for fueling safety and efficiency.



OPW LPG Accessories Adaptors - OT318 1-3/4" Acme To Italian

The B/N OPW Adaptors are designed to allow for the best nozzle solution no matter what receptacle you have. All B/N OPW accessories are built to exacting engineering specifications for fueling safety and efficiency.

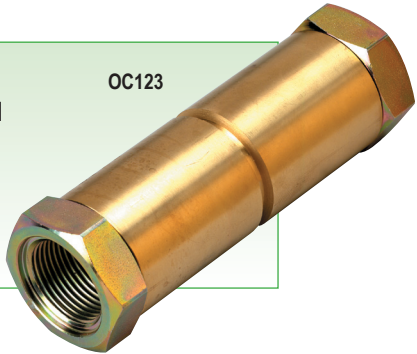


OPW LPG Accessories Adaptors - OT322 Italian To 1-3/4" Acme

The B/N OPW Adaptors are designed to allow for the best nozzle solution no matter what receptacle you have. All B/N OPW accessories are built to exacting engineering specifications for fueling safety and efficiency.

Materials

Body: Plated steel and brass
Internal Components: Brass and steel
Seals: Specially formulated polymers and elastomers specific to LPG applications.



Features

- ◆ **Durable Construction** – heavy-duty steel and brass construction provides excellent performance in the harsh fueling environment.
- ◆ **Reduced Maintenance** – helps to prevent damage to fueling facilities and equipment.
- ◆ **Ease of Use** – connect directly to dispenser outlet hose assembly, then threads into end of breakaway.
- ◆ **Poppet Configuration** – utilizes a double poppet design where both sides close when breakaway separates.

Specifications:

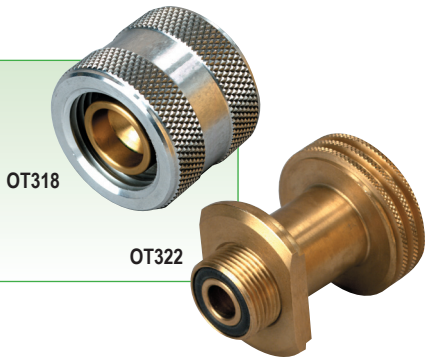
Maximum Operating Pressure: 350 psi (24 bar)
 Temperature Range: -40° F to 185° F
 (-40° C to 85° C)

Ordering Specifications

Product No.	Inlet Thread Size	Max. Allowable Service Pressure	
OC123	3/4" NPT Female	350 psi	24 bar

Materials

Body: Steel, aluminum and brass
Internal Components: Brass and steel
Seals: Specially formulated polymers and elastomers specific to LPG applications.



Features

- ◆ **Durable Construction** – heavy-duty steel and brass construction provides excellent performance in the harsh fueling environment.
- ◆ **Reduced Maintenance** – helps to prevent damage to fueling facilities and equipment.
- ◆ **Ease of Use** – connect directly to dispenser outlet hose assembly, then threads into end of breakaway.
- ◆ **Poppet Configuration** – utilizes a double poppet design where both sides close when breakaway separates.

Specifications:

Maximum Operating Pressure: 350 psi (24 bar)
 Temperature Range: -40° F to 185° F
 (-40° C to 85° C)

Ordering Specifications

Product No.	Description	Max. Allowable Service Pressure	
OT318	1-3/4" Acme to Italian	350 psi	24 bar
OT322	Italian to 1-3/4" Acme	350 psi	24 bar

OPW LPG Accessories OC123 3/4" Dispenser Shear Type Breakaway

The OPW OC123 3/4" Dispenser Shear Valve is designed to shut off LPG flow in the event of a vehicle driveway. The breakaway minimizes the damage to both the dispenser and refueling nozzle. All OPW Shear Type Breakaway are built to exacting engineering specifications for fueling safety and efficiency.

OPW LPG Accessories OAS400 3/4" Nozzle Reconnectable Breakaway

The B/N OPW OAS400 3/4" Breakaway with Anchor Strap is designed for in-line use with any LPG fueling system. Valve inlet has 3/4" NPT threads. All B/N OPW valves are built to exacting engineering specifications for fueling safety and efficiency.

Specifications:

Maximum Operating Pressure: 350 psi (24 bar)

Separation Force: 150-200 lbs. (68-91 kg)

Weight: 2.314 lb (1.05 kg)

Temperature Range: -40° F to 185° F
(-40° C to 85° C)

OPW LPG Accessories OVG100 1" Nozzle Shut-Off Service Valve

The B/N OPW OVG100 Nozzle Shut-Off Service Valve allows you to service the LPG nozzle without having to drain the entire system. All B/N OPW accessories are built to exacting engineering specifications for fueling safety and efficiency.

Specifications:

Maximum Operating Pressure: 350 psi
(24 bar)

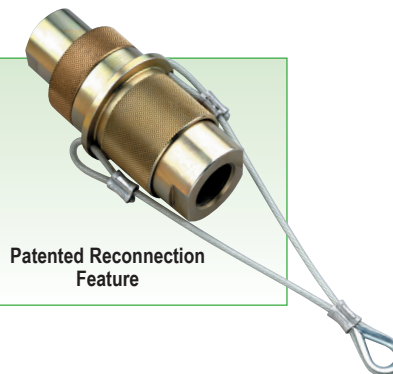
Temperature Range: -40° F to 185° F
(-40° C to 85° C)

Materials

Body: Steel (brass optional)

Internal Components: Brass and steel

Seals: Specially formulated polymers and elastomers specific to LPG applications.



Patented Reconnection Feature

Features

- ◆ **Durable Construction** – heavy-duty brass, aluminum and steel construction provides excellent corrosion resistance in the harsh fueling environment.
- ◆ **Added Safety** – anchor strap allows for installation anywhere and added assurance.
- ◆ **Patented Front Compression Collar Provides Ease of Use** – Breakaway can

be reconnected without tools by simply turning the front ring to compress the locking sleeve. Reinsert the breakaway half of the safety valve and then unscrew front ring to allow locking sleeve to return to its original position.

- ◆ **Individually Leak Tested and Inspected**

Ordering Specifications

Product No.	Inlet Thread Size	Material	Max. Allowable Service Pressure	
OAS400	3/4" NPT Female	Steel	350 psi	24 bar
OAS400B	3/4" NPT Female	Brass	350 psi	24 bar

Materials

Body: Steel

Internal Components: Steel

Seals: Specially formulated polymers and elastomers specific to LPG applications.



OVG100

Features

- ◆ **Durable Construction** – heavy-duty steel construction provides excellent corrosion resistance in the harsh fueling environment.
- ◆ **Reduced Maintenance Time** – allows for faster and easier nozzle service.

- ◆ **Individually Leak Tested and Inspected**

- ◆ **Reduced Spillage** – connects between hose outlet and nozzle inlet to reduce spillage when removing nozzle during field service and maintenance.

Ordering Specifications

Product No.	Inlet Thread Size	Outlet Thread Size	Max. Allowable Service Pressure	
OVG100	1" NPT Female	1" NPT Male	350 psi	24 bar



OPW STANDARD PRODUCT WARRANTIES

NOTICE: FlexWorks by OPW, Inc., VAPORSAVER™ and all other OPW products must be used in compliance with all applicable federal, state, provincial and local laws, rules and regulations. Product selection must be based on physical specifications and limitations, compatibility with the environment and material to be handled. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials and specifications are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

OPW warrants solely to its customer that the following products sold by OPW will be free from defects in materials and workmanship under normal use and conditions for the periods indicated:

Product	Warranty Period
FlexWorks Primary Pipe	10 years from date of manufacture
All Products Certified to California 2001 Standards*	1 year from date of manufacture or from date of installation registration (not to exceed 15 months from date of manufacture)
All other Products	1 year from date of manufacture
* Products certified to California 2001 Standards will have an OPW registration card enclosed/attached to the product.	

OPW's exclusive obligation under this limited warranty is, at its option, to repair, replace or issue credit (in an amount not to exceed the list price for any defective product) for future orders for any product that may prove defective within the applicable warranty period (repairs or replacements are subject to prorated warranty coverage for remainder of the original warranty period). Complete and proper warranty claim documentation and proof of purchase required. All warranty claims must be made in writing and delivered during the applicable warranty period to OPW at P.O. Box 405003, Cincinnati, Ohio 45240. Attention: Customer Service Manager. No products may be returned to OPW without its prior written authority.

This limited warranty shall not apply to any FlexWorks or VAPORSAVER™ product unless it is installed by an OPW attested installer. This limited warranty also shall not apply to any FlexWorks, VAPORSAVER™ or other OPW product: unless all required site and warranty registration forms are completed and received by OPW within 60 days of installation; unless all piping connections are installed with a nationally-recognized or state-approved leak detection device in each tank and dispenser sump (which are not for storage and from which all discharge hydrocarbons must be removed, and the systems completely cleaned, within 24 hours); unless testable sumps utilize FlexWorks pipe and access fittings; unless a sump inspection log or an EPA recommended/required checklist is maintained and the results are furnished to OPW upon request; and unless OPW is notified within 24 hours of any known or suspected product failure and is provided with unrestricted access to the product and the site. This limited warranty also shall not apply to any product which has been altered in any way, which has been repaired by anyone other than a service representative authorized by OPW, or when failure or defect is due to: improper installation or maintenance (including, without limitation, failure to follow FlexWorks Quick Reference Manual Installation Guide and all product warning labels); abuse or misuse; violation of health or safety requirements; use of another manufacturer's, or otherwise unauthorized, substances or components; soil or other surface or subsurface conditions; or fire, flood, storm, lightning, earthquake, accident or any other conditions, events or circumstances beyond OPW's control.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED. OPW shall have no other liability whatsoever, whether based on breach of contract, negligence, gross negligence, strict liability or any other claim, including, without limitation, for special, incidental, consequential or exemplary damages or for the cost of labor, freight, excavation, clean-up, downtime, removal, reinstallation, loss of profit, or any other cost or charges. No person or entity is authorized to assume on behalf of OPW any liability beyond this limited warranty. This limited warranty is not assignable.

Global Operations



Above Ground Products

- Standard Dispensing Equipment
- Above Ground Storage Tank Equipment
- Stage II Vapor Recovery Equipment
- CleanEnergy™ Fueling Products



Below Ground Products

- Piping and Containment Systems
- Underground Storage Tank Equipment



Electronic Fuel Management Systems

- Tank Gauges
- Fuel Control Systems

www.opwglobal.com

Corporate Headquarters

9393 Princeton-Glendale Road
Hamilton, Ohio, USA 45011
Tel: (800)-422-2525
Fax: (800)-421-3297
Int'l Tel: (513) 870-3315
Int'l Fax: (513) 870-3157
domesticsales@opw-fc.com
www.opwglobal.com

Brazil

Rod. Romildo Prado, Km. 13,5
Bairro de Itapema
Caixa Postal 170
CEP 13255-750 Itatiba - SP- Brasil
Tel: 55 11 4894-7700
Fax: 55 11 4894-7701
www.opwbrasil.com.br

Czech Republic

DOVER CR spol. s r.o.(OPW)
Prumyslova 4
431 51 Klasterec nad Ohri
Czech Republic
Tel: +420 474 624 025
Fax: +420 474 628 271
info@opw-fce.com

OPW Fuel Management Systems

6900 Santa Fe Dr.
Hodgkins, Illinois, USA 60525
Tel: 708 485-4200
Fax: 708 485-7137
info@opwfms.com
www.opwglobal.com

OPW Mexico Centro de Servicio OPW-México

Homero 136 Int. 403
Col. Chapultepec Morales
México DF CP 11570
Delegación Miguel Hidalgo
Tel: 52 55 5254-5672
Fax: 52 55 5254-1913
aanguiano@opw-fc.com

Dover India Pvt Ltd.

OPW Fueling Components Div.
A-93 , Wagle Industrial Estate
Thane 400 604
Maharashtra, India
Tel: 91 22 6710 0812,13,14
Fax: 91 22 6710 0815
info@opwfc-in.com

OPW Fueling Containment Systems

3250 US Highway 70 Business West
Smithfield, NC 27577-6954
Telephone: (919) 934-2786
Fax: (919) 359-3687
Customer Service: 1(800) 422-2525
Customer Service Fax: 1(800) 421-3297
www.opwglobal.com

Poland/Petro Vend of Poland, Inc.

32-086 Węgrzce 101 (Kraków)
Poland
Tel: ++ 48 12 4106600
Fax: ++ 48 12 4106690
pvpoland@petrovend.krakow.pl

OPW Fueling Components (Suzhou) Co. Ltd.

No.668, Fengting Road
Loujiang Industrial Zone E2
Suzhou Industrial Park
Suzhou, P.R.C. 215122
Tel: 86-(0)512-6274-5328
Fax: 86-(0)512-6274-5338
info@opw-fc.com.cn
www.opw-fc.com.cn



© 2011, OPW Fueling Components

© 2011 Delaware Capital Formation, Inc. All Rights Reserved. DOVER and the DOVER logo are registered trademarks of Delaware Capital Formation, Inc., a wholly-owned subsidiary of Dover Corporation.