



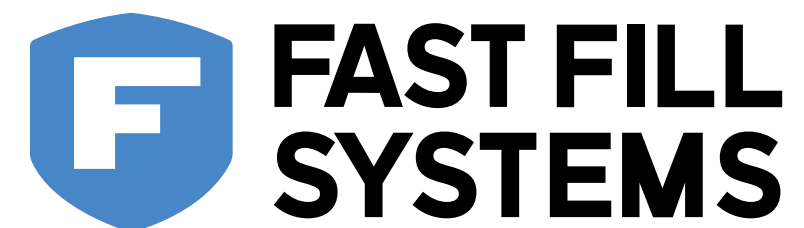
**FAST FILL
SYSTEMS**

PRODUCT
CATALOGUE
2027

**FUEL FASTER.
WORK LONGER.**



QUALITY. SERVICE. INNOVATION.



Before Fast Fill Systems reached customers around the world, its story began with Dean Mackey in a small home garage, repairing and rebuilding diesel fuel nozzles.

Those early days were hands-on: taking worn equipment apart, understanding what had failed and putting it back to work. That attention to the details became part of the company's foundation—a commitment to craftsmanship and to the people who depend on the equipment every day.

What began as Nozzle Tech, USA grew into Fast Fill Systems, carrying that commitment into fueling and fluid transfer solutions for demanding operations worldwide.

This photograph captures a moment in those beginnings. Today, it reminds us that every product we build and every customer we support is part of a story that started small—and continues through the work we do together.

Quality. Service. Innovation.

2055 S. Tracy Hall Parkway, Provo, UT 84606

801.491.3600

orders@fastfillsystems.com

www.fastfillsystems.com

ENGINEERED WITH PURPOSE. BUILT FOR THE FIELD.

Every component has a job to do—and people who depend on it. At Fast Fill Systems, we bring design, engineering and testing together to develop fueling and fluid transfer solutions for demanding operations.

We evaluate products before they reach the field and continue refining our range as customer needs evolve. Our focus is practical: helping crews fuel efficiently, service equipment and keep operations moving.



FIND WHAT YOU NEED

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To offer you a more engaging visual experience, some images in this catalog have been created using Artificial Intelligence (AI). For this reason, the visual appearance may vary slightly from the actual product; however, Fast Fill Systems guarantees that all technical information and data provided are 100% real and accurate.

ABOUT US



It started with a fuel nozzle.

Our story began in a small home garage, where Nozzle Tech, USA LLC repaired and rebuilt diesel fuel nozzles. Working with equipment that had already spent time in the field gave the business a practical starting point: understanding the products people relied on and the demands they faced every day.

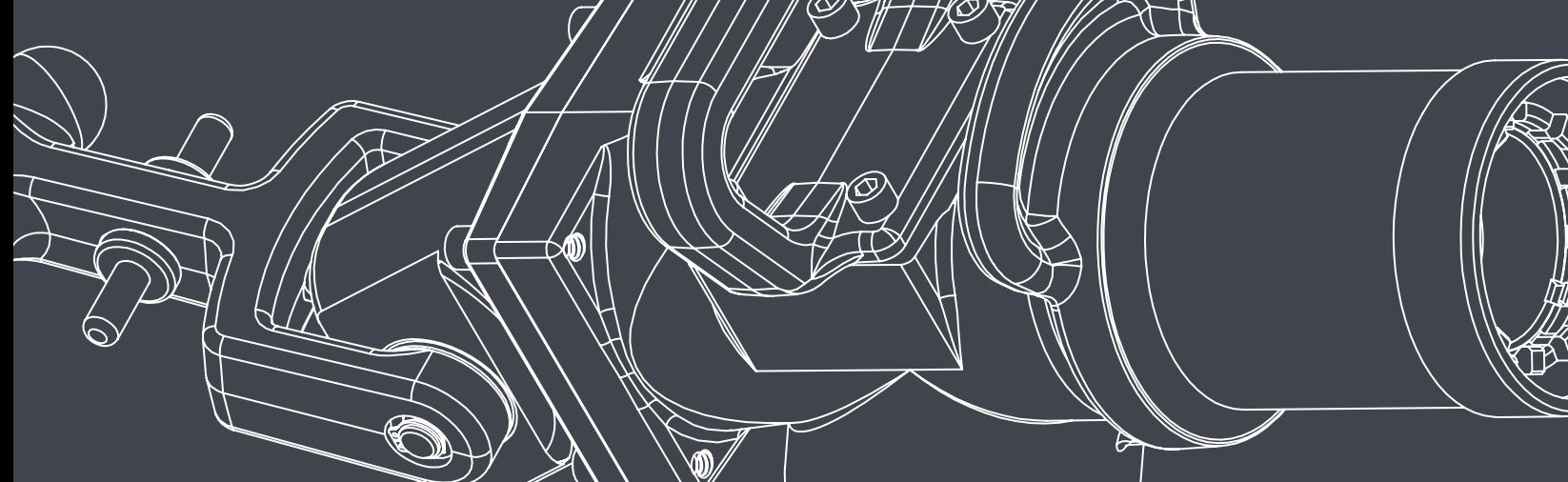
Today, Fast Fill Systems brings that focus to fueling and fluid-transfer equipment for heavy-duty operations. From the nozzle in your operator's hands to the components on your tank, our products serve the people who keep equipment working.

Quality. Service. Innovation. These values connect our beginnings with the work we do today.





FUEL NOZZLES



Make every fueling connection count.

Your operators handle a fuel nozzle every time a machine comes in to refuel. Its weight, grip and connection all become part of their working day. Fast Fill fuel nozzles bring together rugged construction and fast-fill functionality for demanding equipment and environments. Explore the range to find the handling characteristics, flow capacity and configuration that fit the way your operation works.

FUEL NOZZLES



ATLAS

N150ATp



 **Front End Plug
P150T**

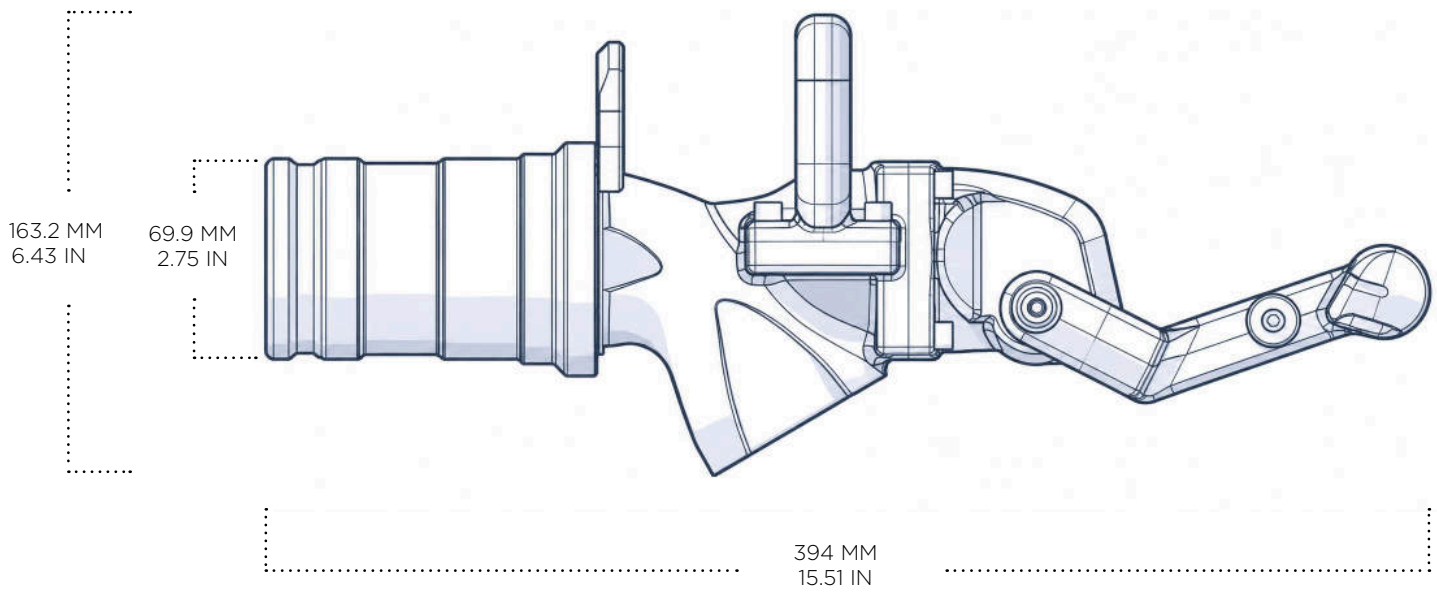
- Keeps the latching mechanism of the nozzle clean from dirt and grime for fast, clean coupling



150 GPM
FAST REFUELING (567 LPM)

BUILT FOR

- Mining equipment
- Construction equipment
- Fuel trucks
- Agriculture
- Rail
- Industrial fleets



KEY SPECIFICATIONS

Parameter	Value
Model	N150ATp
Minimum Flow	95 LPM / 25 GPM
Maximum Flow	567 LPM / 150 GPM
Maximum Operating Pressure	8.6 bar / 125 PSI
Fuel Port	1-1/2 in NPT
Latching Mechanism	12 stainless-steel ball bearings



View in room

Scan the QR code below to view this product in room virtually.



SURELOC

N150SLp



 **Front End Plug
P150 - SureLoc**

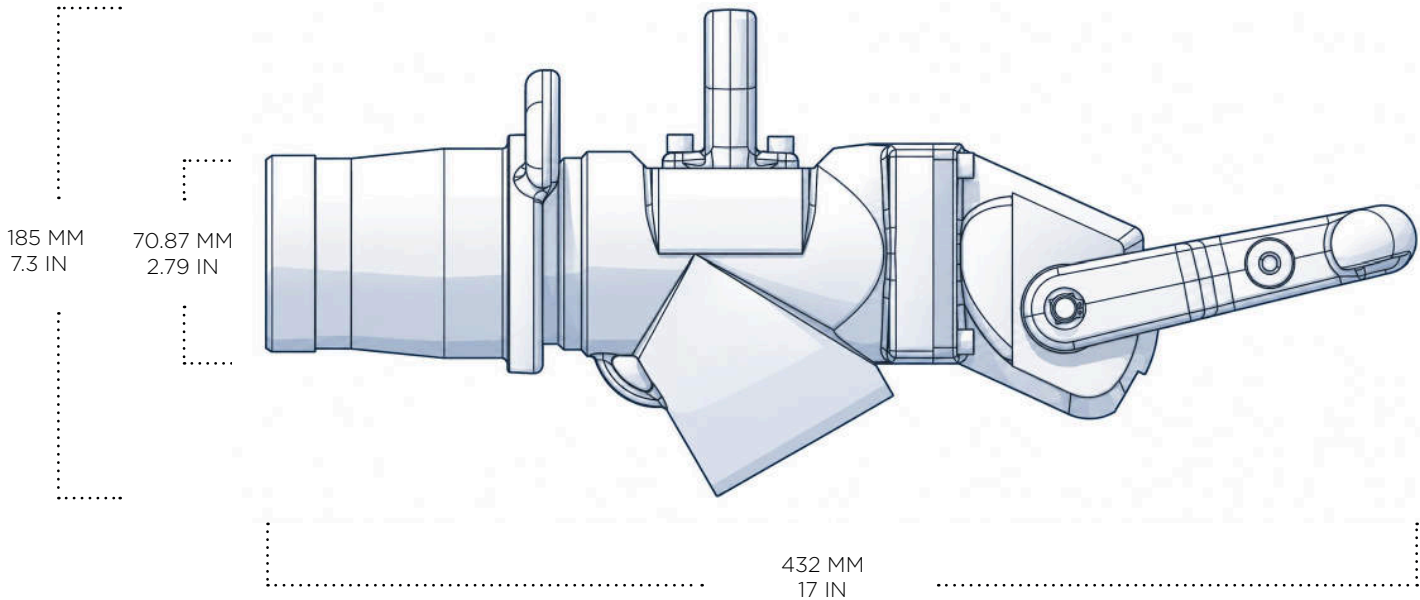
- Keeps the latching mechanism of the nozzle clean from dirt and grime for fast, clean coupling



150 GPM
FAST REFUELING (567 LPM)

BUILT FOR

- Mining equipment
- Construction equipment
- Fuel trucks
- Agriculture
- Rail
- Industrial fleets



KEY SPECIFICATIONS

Parameter	Value
Model	N150SLp
Minimum Flow	95 LPM / 25 GPM
Maximum Flow	567 LPM / 150 GPM
Maximum Operating Pressure	8.6 bar / 125 PSI
Fuel Port	1-1/2 in NPT
Latching Mechanism	12 stainless-steel ball bearings



View in room

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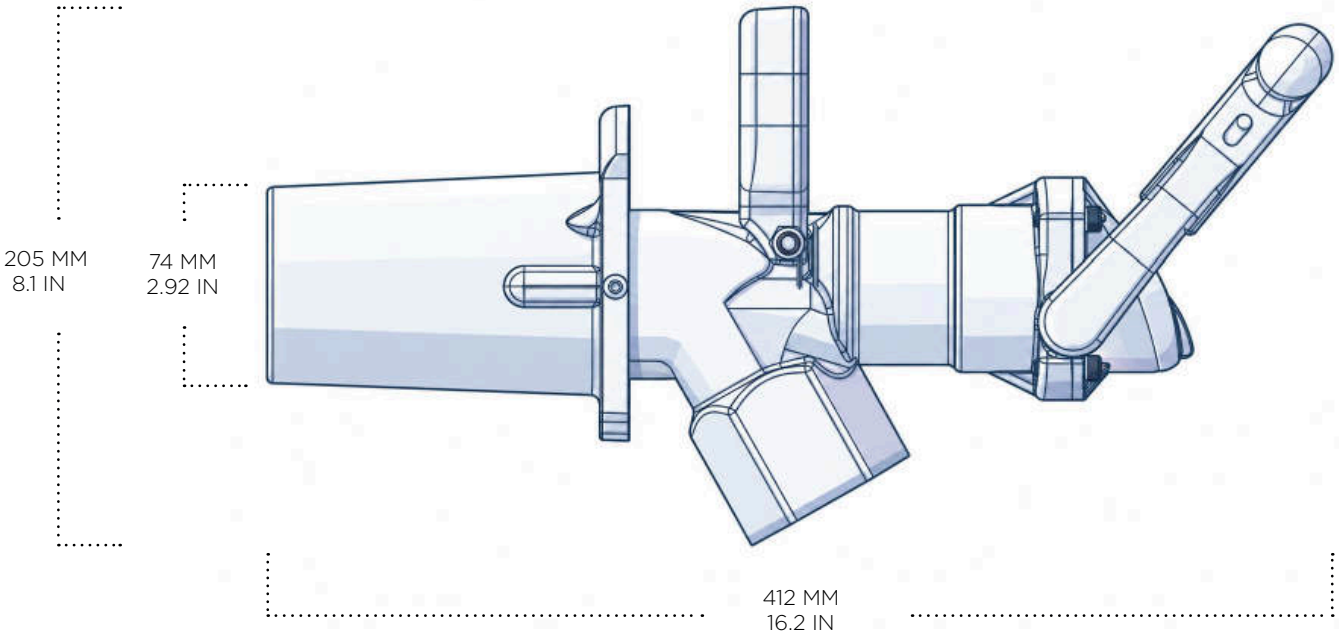
PITBOSS

N150PBp

150 GPM
FAST REFUELING (567 LPM)

BUILT FOR

- Mining equipment ·
- Construction equipment ·
- Fuel trucks ·
- Agriculture ·
- Rail ·
- Industrial fleets ·



KEY SPECIFICATIONS

Parameter	Value
Model	N150PBp
Minimum Flow	95 LPM / 25 GPM
Maximum Flow	567 LPM / 150 GPM
Maximum Operating Pressure	8.6 bar / 125 PSI
Fuel Port	1-1/2 in NPT
Latching Mechanism	Elastodog clips



View in room

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**Front End Plug
P150 - PitBoss**

- Keeps the latching mechanism of the nozzle clean from dirt and grime for fast, clean coupling





ATTICUS

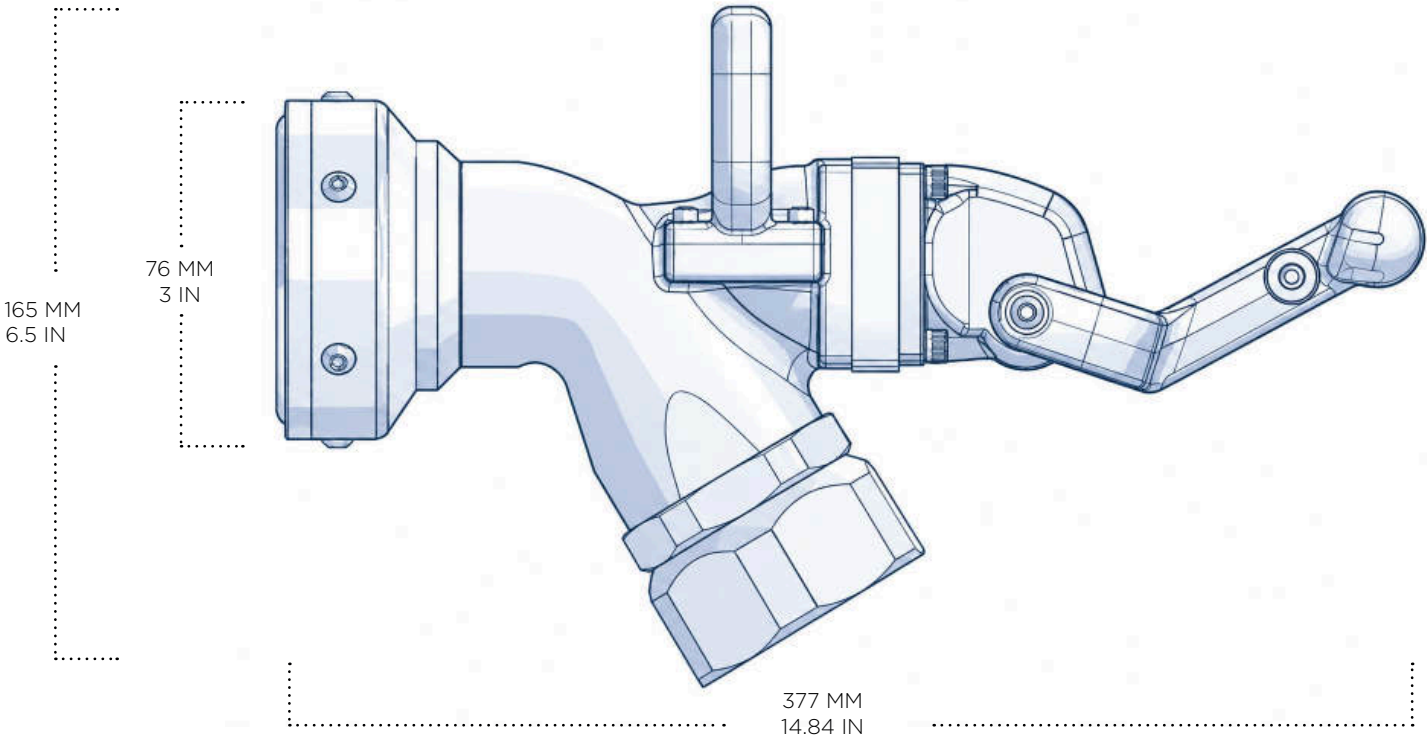
N1200ATT



317 GPM
FAST REFUELING (1.200 LPM)

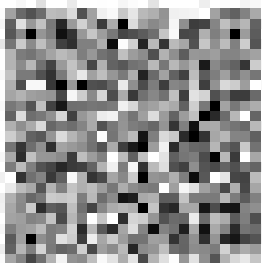
BUILT FOR

- Large mining equipment ·
- Heavy construction equipment ·
- Fuel trucks and service fleets ·



KEY SPECIFICATIONS

Parameter	Value
Model	Atticus N1200ATT / VR300
Minimum Flow	567 LPM / 150 GPM
Maximum Flow	1,200 LPM / 317 GPM
Maximum Operating Pressure	8.6 bar / 125 PSI
Fuel Port	2-1/2" NPT
Latching Mechanism	Dry Break / Quick Disconnect



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Scan the QR code below to view this product in room virtually.



SURELOC 1000

N1000PSLp



 **Front End Plug**
P150 - SureLoc 1000

- Keeps the latching mechanism of the nozzle clean from dirt and grime for fast, clean coupling

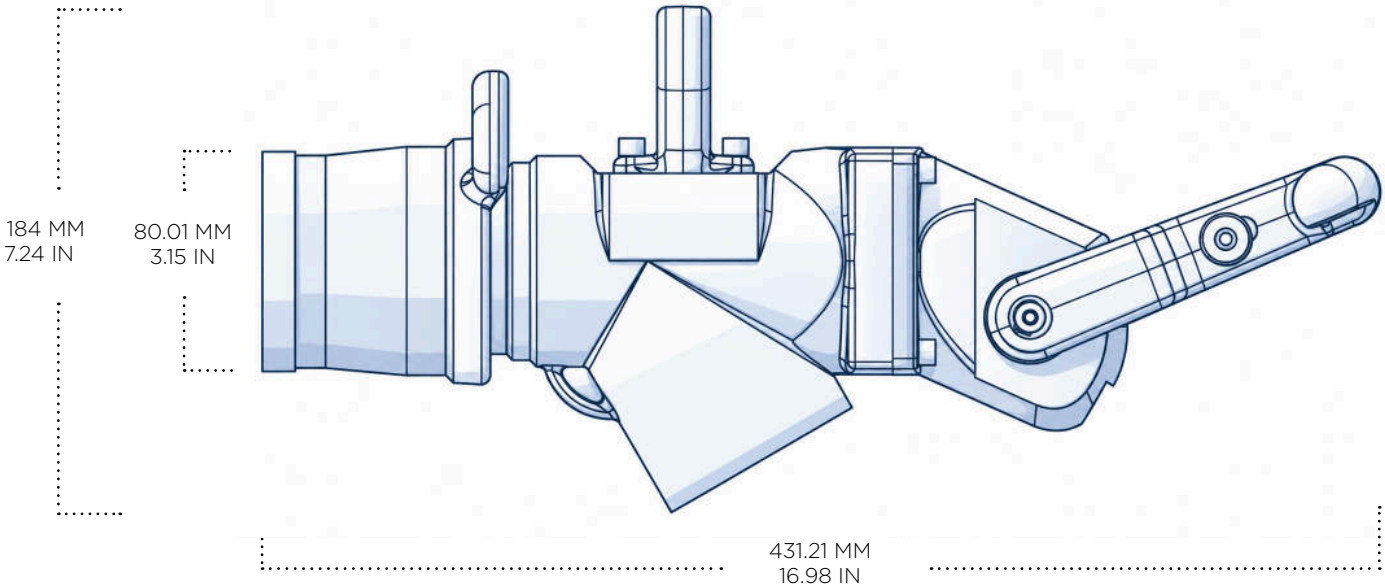


The SureLoc 1000 diesel fuel nozzle is designed for high-capacity equipment, delivering flow rates up to 1,000 LPM (264 GPM) when paired with the specified pressureless system. Its 2” NPT inlet supports high-flow fueling, while twelve stainless-steel ball bearings provide secure receiver engagement. A thick-wall, all-metal exterior and powder-coated, non-slip finish combine durability with confident handling in demanding mining and heavy-equipment applications.

264 GPM
FAST REFUELING (1,000 LPM)

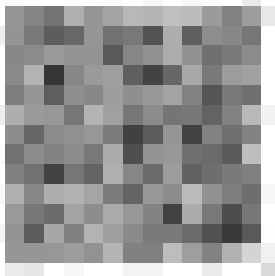
BUILT FOR

- Mining equipment
- Construction equipment
- Fuel trucks
- Agriculture
- Rail
- Industrial fleets



KEY SPECIFICATIONS

Parameter	Value
Model	N1000PSLp
Minimum Flow	567 LPM / 150 GPM
Maximum Flow	1,000 LPM / 264 GPM
Maximum Operating Pressure	8.6 bar / 125 PSI
Fuel Port	2 in NPT
Latching Mechanism	12 stainless-steel ball bearings



View in room

Scan the QR code below to view this product in room virtually.



ATLAS

N800ATp



 **Front End Plug
P150T**

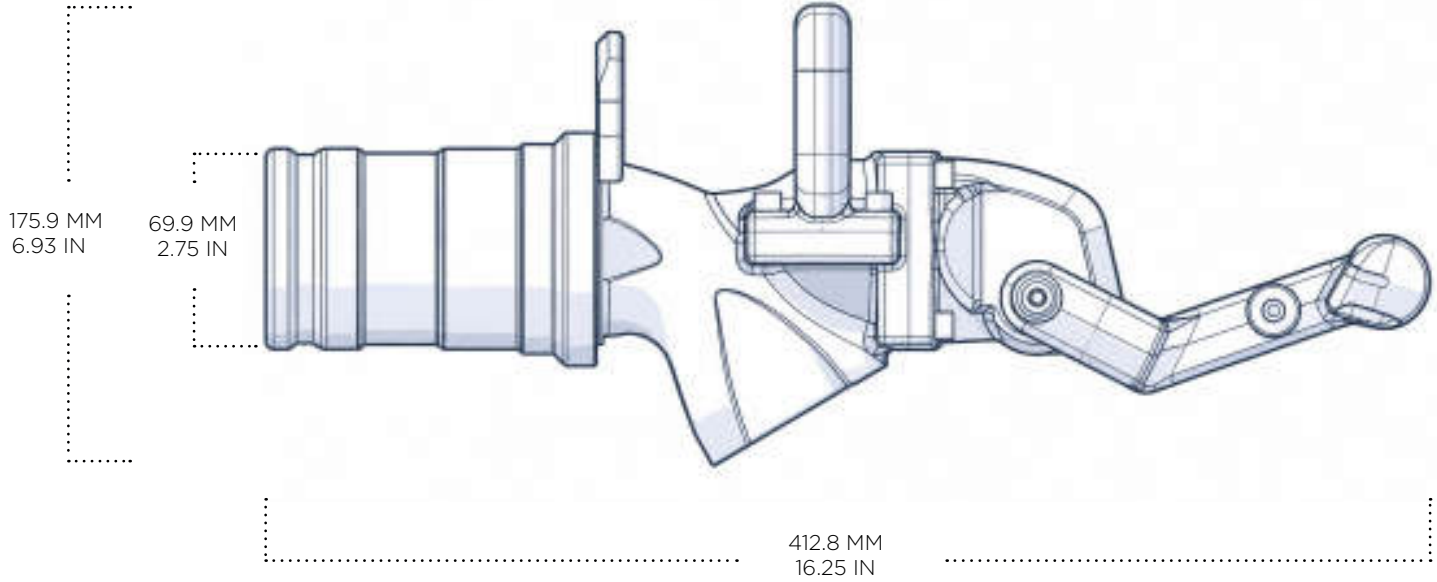
- Keeps the latching mechanism of the nozzle clean from dirt and grime for fast, clean coupling



211 GPM
FAST REFUELING (800 LPM)

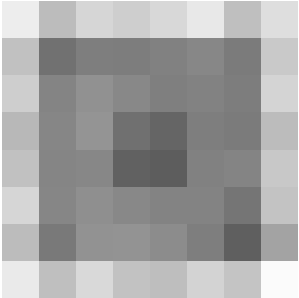
BUILT FOR

- Mining equipment
- Construction equipment
- Fuel trucks
- Agriculture
- Rail
- Industrial fleets



KEY SPECIFICATIONS

Parameter	Value
Model	N800ATp
Minimum Flow	95 LPM / 25 GPM
Maximum Flow	800 LPM / 211 GPM
Maximum Operating Pressure	8.6 bar / 125 PSI
Fuel Port	2 in FNPT
Latching Mechanism	12 stainless-steel ball bearings



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Fuel Adapter

Part No. A150A

Straight splash-fill adapter for directing fuel from a compatible Fast Fill nozzle into an open tank.

Configuration	Application
Straight	Open-tank filling



Fuel Adapter

Part No. A150B

Angled splash-fill adapter for directing fuel into an open tank where a 90-degree configuration suits access.

Configuration	Application
90°	Open-tank filling



Fuel Adapter

Part No. A150C

Angled splash-fill adapter for directing fuel into an open tank where a 45-degree configuration suits access.

Configuration	Application
45°	Open-tank filling



Breakaway Coupler

Part No. AB2

Hose breakaway coupler designed to separate under excessive pulling force, helping limit damage to the fueling connection.

Connection	Available Sizes
Female NPT	1 / 1-1/4 / 2 / 3 in



Straight Hose Swivel

Part No. S150 / S200 / S215 / S512

Aluminum swivels connect the fueling hose to the nozzle, allowing rotation to reduce hose twisting during handling.

Part No.	Female Connection	Male Connection
S150	1-1/2 in NPT	1-1/2 in NPT
S200	2 in NPT	2 in NPT
S215	1-1/2 in NPT	2 in NPT
S512	2 in NPT	1-1/2 in NPT

Replacement Fuel Nozzle Plug

Part No. P150

Protects the nozzle's front-end latching area from dirt and debris between fueling operations.

Material	Attachment
Aluminum	Aircraft cable



REBUILDS REBUILT FOR MORE.



Give your nozzle a new working life.

Daily use takes its toll on fueling equipment. Wear, leaks and damaged components can make a dependable nozzle ready for service. Fast Fill Systems' rebuild service restores worn nozzles through a thorough process of disassembly, cleaning, refinishing and testing—helping you get more from the equipment you already own.

The process

Each nozzle is logged by company and serial number before being fully disassembled. Components are separated for inspection, and metal parts are cleaned and prepared for rebuilding. Applicable exterior parts are powder coated for a durable finish and a secure, non-slip grip.

Tested before return

Every completed rebuild goes through a 16-point testing process. Technicians check for leaks and other failures, verifying flow rate and shutoff pressure against the applicable requirements before the nozzle returns to service.

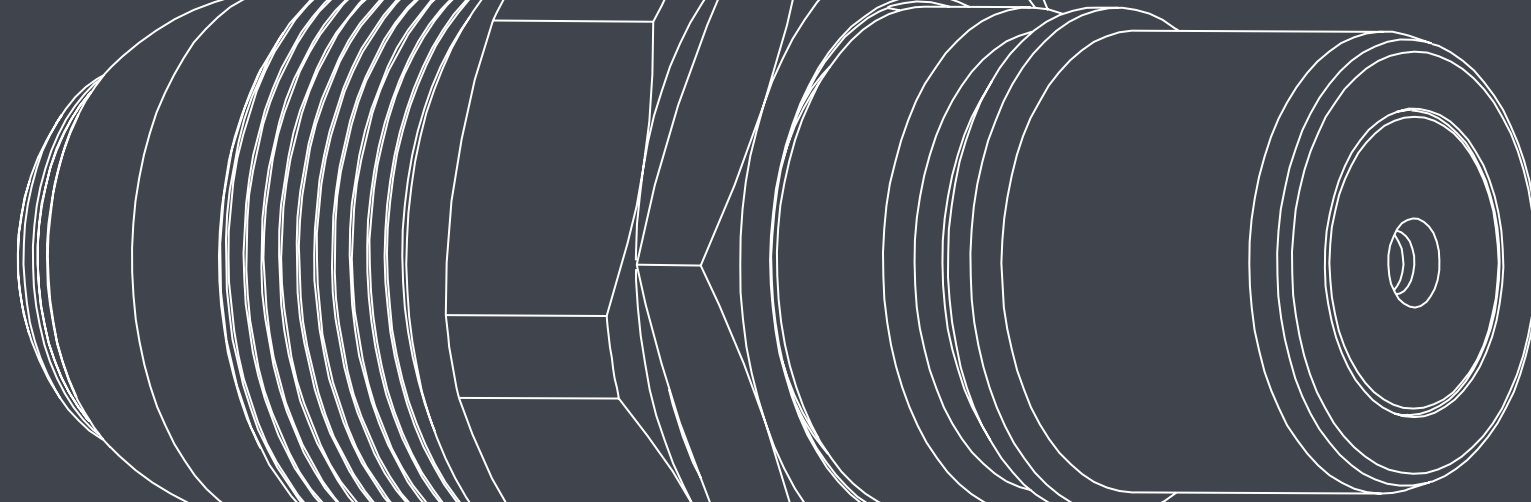
READY FOR A REBUILD?

Tell us the nozzle model, serial number and the issue you're experiencing. Our team will help you confirm service eligibility and the next steps.

contact@fastfillsystems.com



FUEL RECEIVERS



A dependable connection starts at the tank.

The receiver is where your fueling equipment meets the machine. It needs to stand up to repeated connections while matching the requirements of the nozzle and tank-side system. Fast Fill offers receiver options for different mounting, material and service needs, including check-valve configurations designed to allow receiver replacement without draining the tank. Find the connection that fits your installation and maintenance approach.



CHECK VALVE

R800CVc

FUEL RECEIVERS



Receiver Cap
C150

- Protects the receiver connection from dirt and debris between fueling operations for clean, reliable coupling.

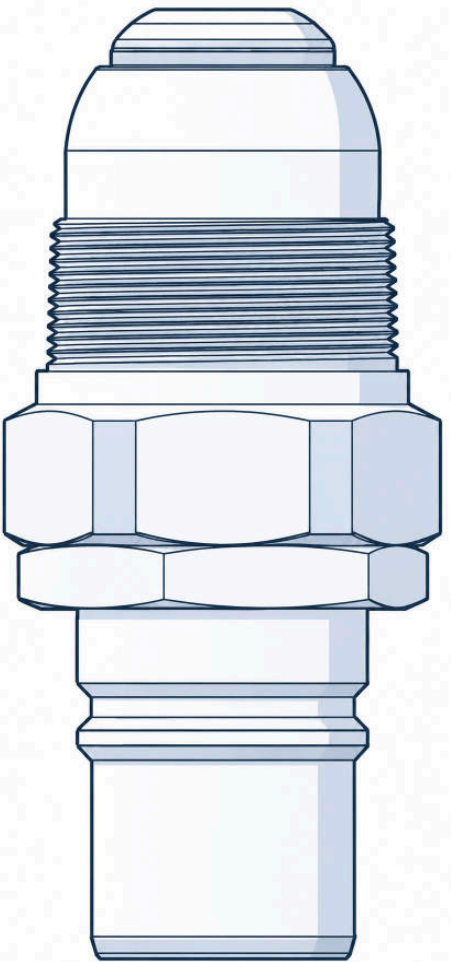


BUILT FOR

- Diesel equipment tanks
- Service-intensive fleets
- Mining and construction equipment

**NO TANK
DRAINING**
FOR MATCHED RECEIVER REPLACEMENT

182 MM
7.166 IN



76.2 MM
3 IN

KEY SPECIFICATIONS

Parameter	Value
Model	R800CVc
Maximum Flow	800 LPM / 211 GPM
Application	Diesel fueling
Valve Function	One-way check valve
Service Function	Receiver replacement without tank draining
Installation Tool	R150CVSW — Check Valve Wrench; R150SW — Deep Socket Tool



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Standard Aluminum Receiver

Part No. R150Ac

All-aluminum receiver offered as an alternative to the steel version for applications specified for the standard receiver.

Material	Reference Application
Aluminum	R150S-A



Replacement Receivers

For Check Valves & Shutoff Valves

Replacement receivers for check valve and shutoff valve assemblies. Allow receiver replacement without draining the fuel tank when installed with the corresponding valve assembly.

Part No.	Application
R150CVRc	Check valve
R150CVRc-J	Shutoff valve



Weld-On Flange

Part No. FFF4C

Creates a recessed fill point to help protect compatible receivers and tank inlet components from external contact.

Connection	Mounting
2 in FNPT	Weld-on



Bolt-On Flange

Part No. FFF5C

Provides a recessed, protected fill point with bolt-on mounting for compatible receivers, check valves and pressureless shutoff valves.

Connection	Mounting
2 in FNPT	Bolt-on



CAT Adapter Flange

Part No. FFF6C-CAT

Bolt-on flange for flush-mount bell housing installations, with 3/8"-16 TPI female mounting threads.

Mounting Thread	Mounting
3/8"-16 TPI female	Bolt-on



Check Valve Evacuation Tool

Part No. R150CVEP

Provides an evacuation connection for draining fuel from compatible shutoff valve and check valve assemblies.

Function	Application
Tank draining	Matched valve assembly

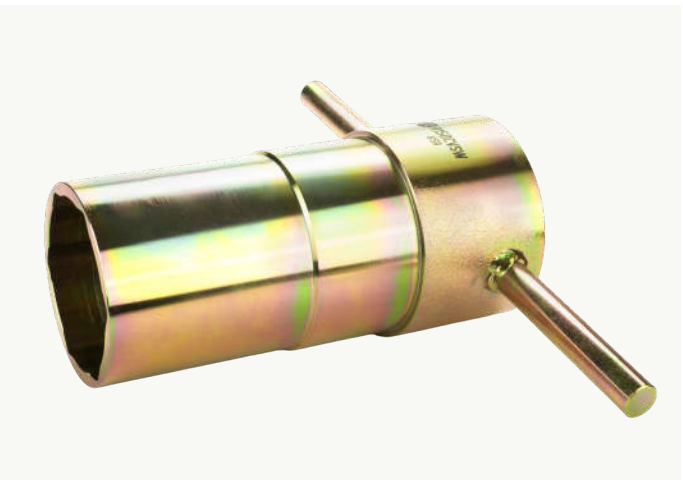


Deep Socket Tool

Part No. R150SW

Deep socket tool for installing new receivers and removing worn or damaged receivers from the tank connection.

Socket Size	Function
2-1/2 in	Installation and removal



Check Valve Wrench

Part No. R150CVSW

Service wrench for check valve installation and removal, with an open-back design for use with the R150SW socket.

Companion Tool	Design
R150SW	Open back



Receiver Caps

Part No. C150 / C150A / C150BP

Protective caps help keep dirt and debris away from the fuel receiver connection between fueling operations. Available in plastic and aluminum, with a plastic option for flange-mounted receivers.

Part No.	Material	Application
C150	Plastic	Fuel receiver
C150A	Aluminum	Fuel receiver
C150BP	Plastic	Flange-mounted receiver



STANDARD RECEIVER

R150Sc-A



Receiver Cap
C150

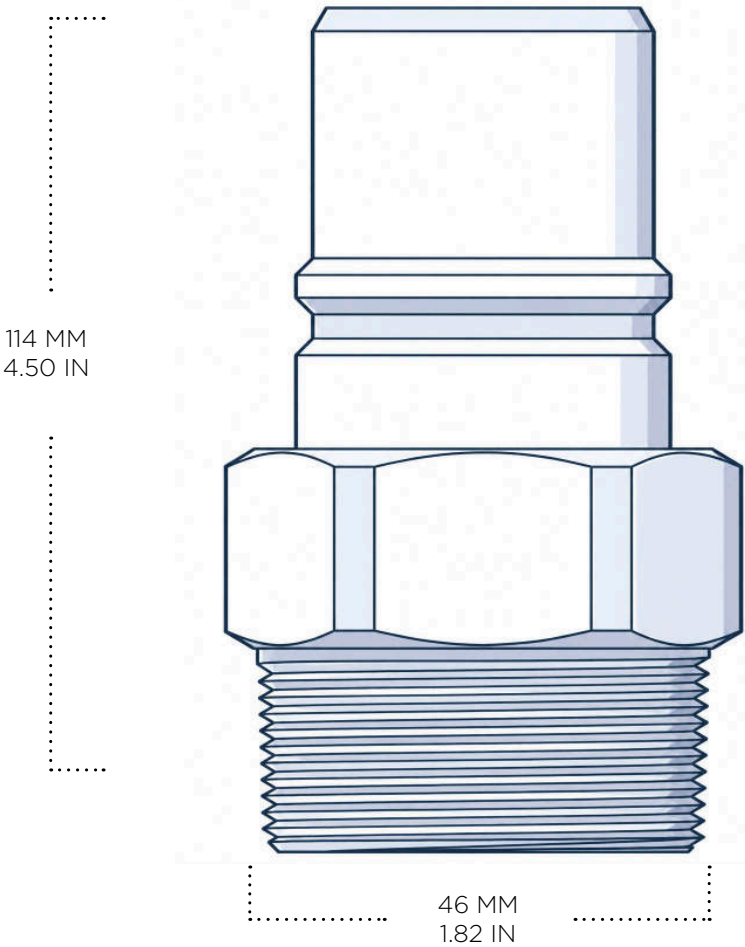
- Protects the receiver connection from dirt and debris between fueling operations for clean, reliable coupling.



BUILT FOR

- Mining equipment ·
- Construction equipment ·
- Agricultural equipment ·
- Diesel fleets ·

**SOLID
STEEL**
NICKEL-PLATED FOR REPEATED COUPLING



KEY SPECIFICATIONS

Parameter	Value
Model	R150Sc-A
Maximum Flow	800 LPM / 211 GPM
Maximum Operating Pressure	8.6 bar / 125 PSI
Tank Installation Thread	2 in NPT
Construction	Nickel-plated steel
Standard Shutoff Option	9 PSI configuration
Protective Cap	Plastic cap included
Installation Tool	R150SW — 2-1/2 in Deep Socket Tool



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Scan the QR code below to view this product in room virtually.



Standard Fuel Receiver

Part No. R150Sc-B

For applications requiring a lower tank shutoff pressure.

Spring Rating	Poppet Color
7 PSI / 0.48 bar	Red



Standard Fuel Receiver

Part No. R150Sc-D

For installations with high static head or back pressure.

Spring Rating	Poppet Color
11 PSI / 0.76 bar	Blue



Standard Fuel Receiver

Part No. R150Sc-E

For installations with particularly high static head or back pressure.

Spring Rating	Poppet Color
13.5 PSI / 0.93 bar	Purple



Standard Fuel Receiver

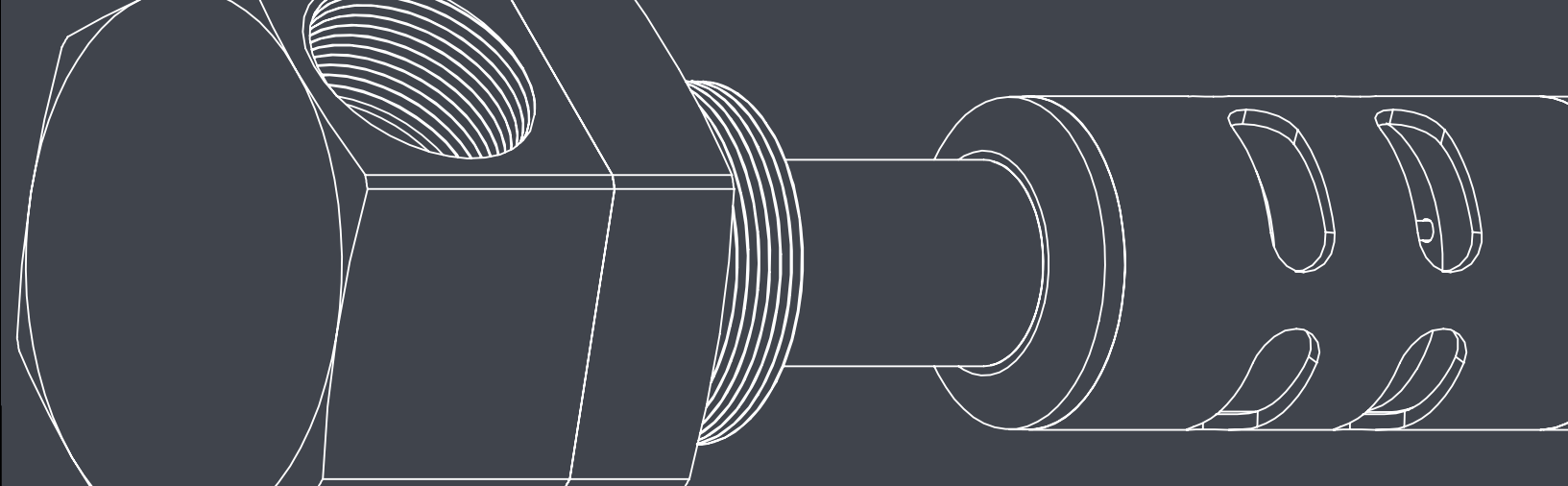
Part No. R150Sc-J

Designed exclusively for use with pressureless fueling systems.

Spring Rating	Poppet Color
13.5 PSI / 0.93 bar	Green



PRESSURELESS



Lose the pressure. Not the performance.

Pressureless fill systems bring unique advantages to fast delivery of fuel and other fluids. The benefit is that your tank is protected from the internal pressures that are typically required to shut off a pressure-sensitive nozzle. In these Fast Fill systems, the pressure is isolated within the level control and signal lines to alleviate unnecessary strain on the tank walls. The level controllers are adjustable for higher or lower shutoff levels, according to your specific needs. Finally, in the two-part level control/shutoff valve, the fuel receiver can be replaced without the need to drain your tank, as it serves as a check valve to hold back the tank's fluid.



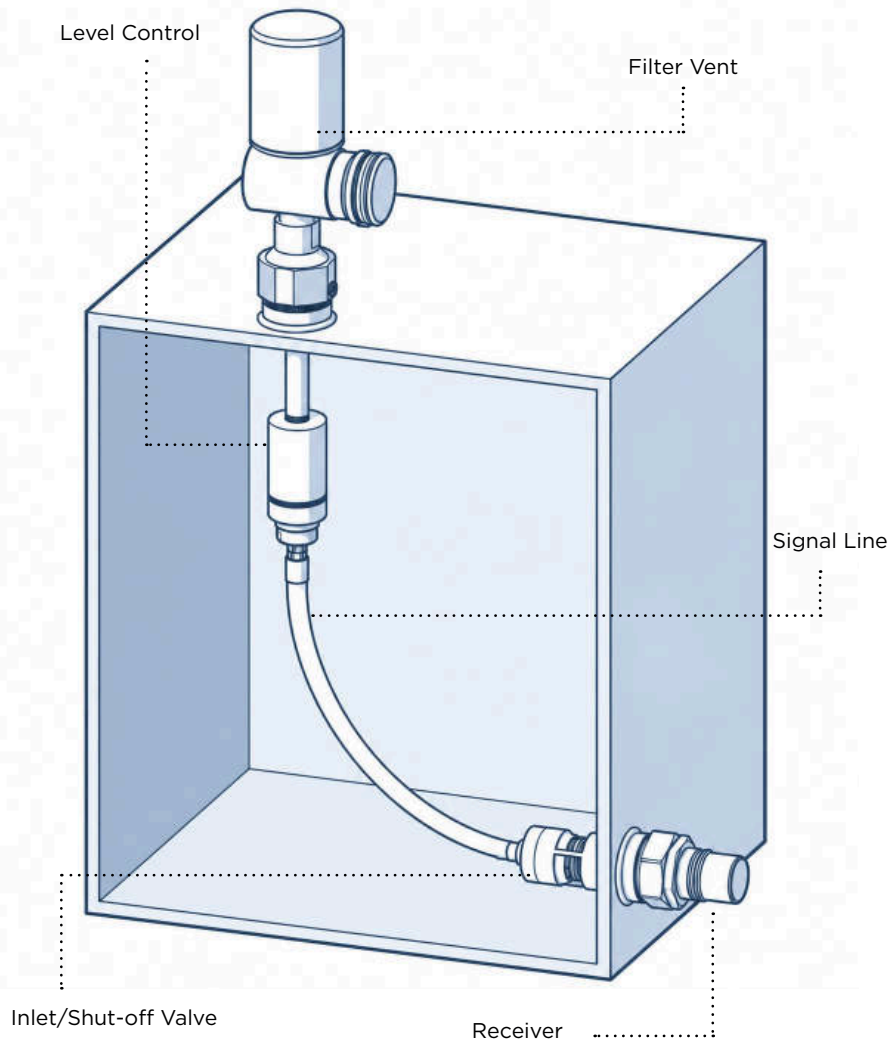
HIGH FLOW PRESSURELESS

PLA-M SV



Fill large tanks at high flow without using tank pressurization as the shutoff signal. Paired with the SureLoc 1000 nozzle, a system equipped with the PLA-M SV shutoff valve supports flow rates up to 1,000 LPM. The level control sets the target fill level and transmits a hydraulic signal to close the inlet shutoff valve, while internal or external signal-line connections provide installation flexibility. The shutoff valve also allows the receiver to be serviced without draining the tank.

BUILT FOR
Large diesel tanks ·
Mining equipment ·
High-volume equipment fueling ·



1000 LPM
PRESSURELESS FILLING
WITH SURELOC 1000

KEY SPECIFICATIONS

Parameter	Value
System	PLA-M SV
Maximum System Flow	1,000 LPM / 264 GPM*
Maximum Operating Pressure	8.6 bar / 125 PSI**
Tank Installation Thread	2 in NPT
Level Control	Adjustable automatic shutoff
Signal-Line Routing	Internal or external
Required Nozzle	SureLoc 1000 — N1000PSLp

* With the N1000PSLp nozzle and a correctly sized installation.
** Component operating limit; not an allowable tank pressure.



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Bellhousing Replacement Shutoff Valve

Part No. PLA150-M SVEBH

Flange-mounted inlet shutoff valve designed to replace the FFF5C bolt-on bellhousing in the specified pressureless installation.

Mounting	Signal Connection
6-bolt flange	External #6 JIC



Code 61 Inlet Shutoff Valve

Part No. PLA150-M SV61-E

Flange-mounted shutoff valve with a Code 61 hose connection for installations using a remotely mounted receiver.

Hose Connection	Signal Connection	Mounting
2 in Code 61	External #6 JIC	6-bolt flange



Remote Mount Can

Part No. PLA150-M RRM2

Allows the shutoff valve and receiver assembly to be mounted remotely to suit the equipment's fueling layout.

Included Receiver	Signal Connection
R150CVRc-J	External #6 JIC



Direct-Mount Inlet Shutoff Valve

Part No. PLA150-M SVFE

Flange-mounted shutoff valve supplied with a two-piece direct-mount receiver and an external hydraulic signal-line connection.

Mounting	Signal Connection	Includes
6-bolt flange	External #6 JIC	Two-piece receiver



Plastic Tank Adapter

Part No. PLA150-M PTF

Provides a 2" NPT connection on plastic fuel tanks for the installation of compatible pressureless system components.

Connection	Tank Application
2 in NPT	Plastic fuel tanks



Vent & Receiver Flanges

Part No. PLA150-M VF / PLA150-M RF

Six-bolt flanges for compatible pressureless systems. PLA150-M VF mounts the vent; PLA150-M RF mounts the receiver. Select according to mounting and connection requirements.

Part No.	Type	Mounting / Connection
PLA150-M VF	Vent Flange	120 mm reference size
PLA150-M RF	Receiver Flange	2 in NPT · CAT 221-5303



Evacuation Port

Part No. PLA150-M EP

Provides an evacuation connection for draining fuel from compatible shutoff valve and check valve assemblies.

Function
Tank draining



Hydraulic Signal Line

Part No. PL-P-6 / PL-P-6-C /PL-P-6-B

Stainless-steel braided signal line with a PTFE liner for transmitting the hydraulic shutoff signal in internal or external installations.

Part No.	Length	Construction
PL-P-6	10 ft / 3.05 m	PTFE liner / stainless braid
PL-P-6-C	6 ft / 1.83 m	PTFE liner / stainless braid
PL-P-6-B	3 ft / 0.91 m	PTFE liner / stainless braid

PRESSURELESS



SMALL TANK PRESSURELESS

PLA 80-HVSC

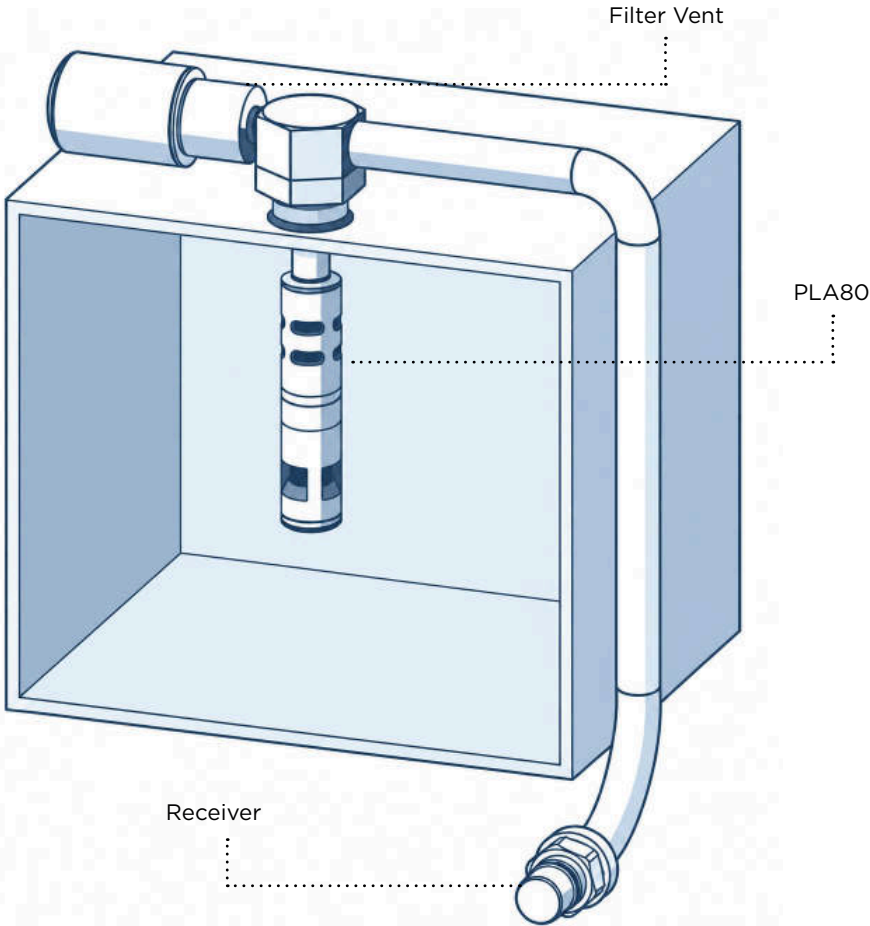


ONE TANK PORT

FILL AND VENT THROUGH ONE OPENING

BUILT FOR

- Agricultural equipment ·
- Compact construction equipment ·
- Transit fleets ·
- Multi-tank installations ·



KEY SPECIFICATIONS

Parameter	Value
System	PLA80/PLA80-HVSC
Tank Installation Thread	2 in NPT
Fluid Inlet Thread	1-1/4 in FNPT
Vent Port Thread	1 in FNPT
Level Control	Adjustable automatic shutoff
Tank Configuration	Single tank or configured multi-tank system
Venting Options	Low-profile or remote filter vent

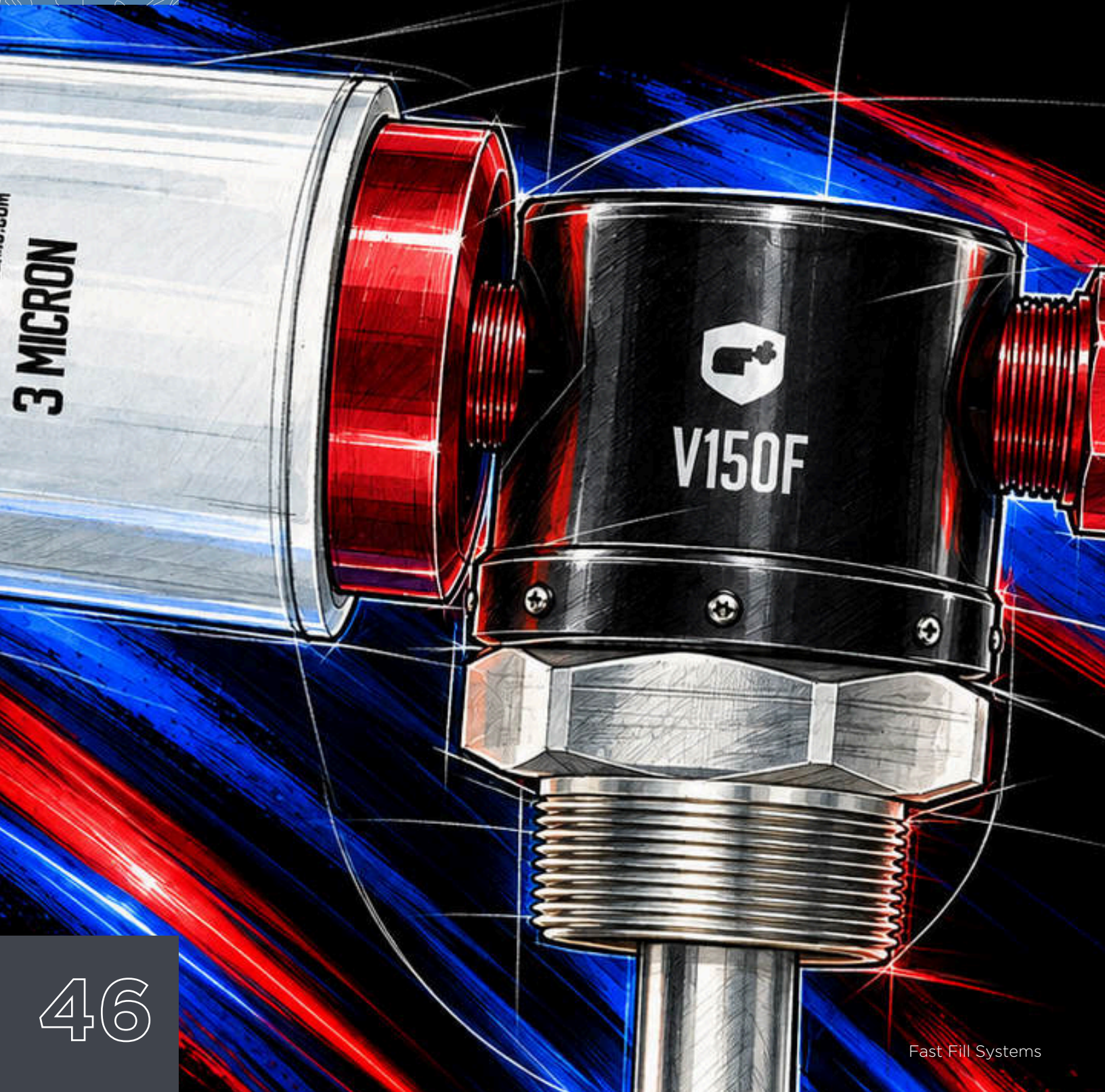


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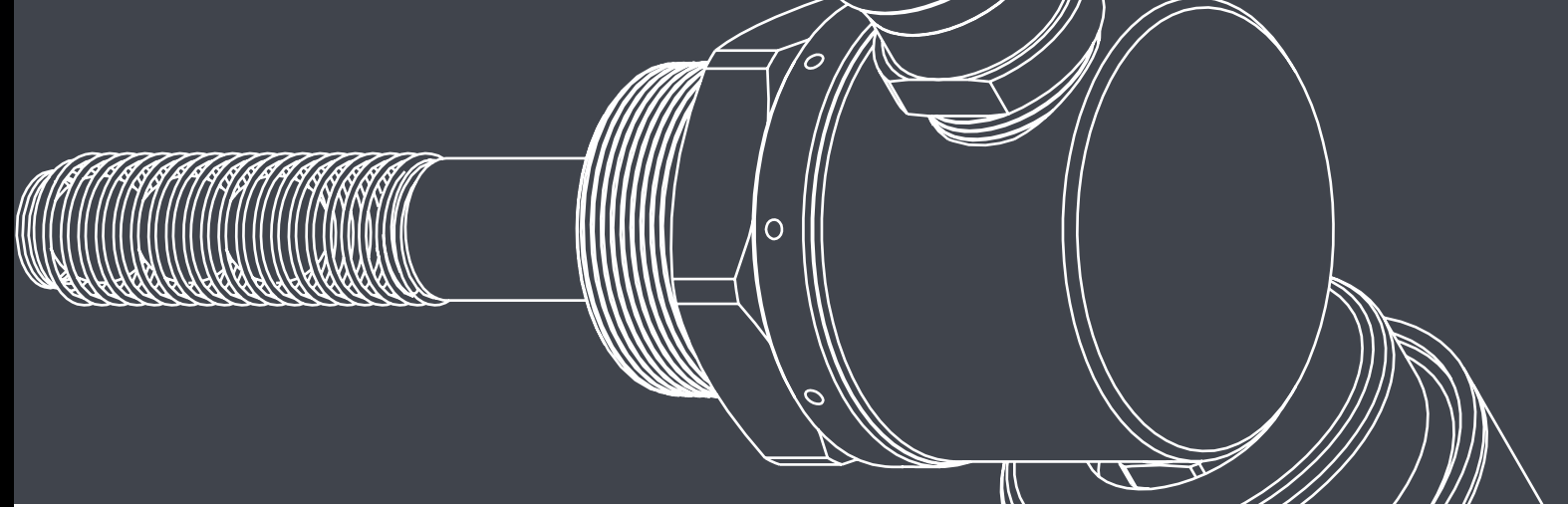


FUEL VENTS



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Fast Fill Systems



Control what you can't see.

Vents, or breathers as they are commonly known, are another important component in a smoothly functioning fuel system. Vents play a vital role in the fill level and shutoff of your tank; however, they provide the easiest access point for dust and contaminants to enter your fuel system. Our filtered vents make use of check valves to ensure that outgoing air bypasses the filter, and incoming air is channeled through it. Fast Fill Systems pressurized vents also serve a dual purpose as a fail-safe pressure relief valve. Correct venting is pivotal in high-volume fueling.

Keep Fueling

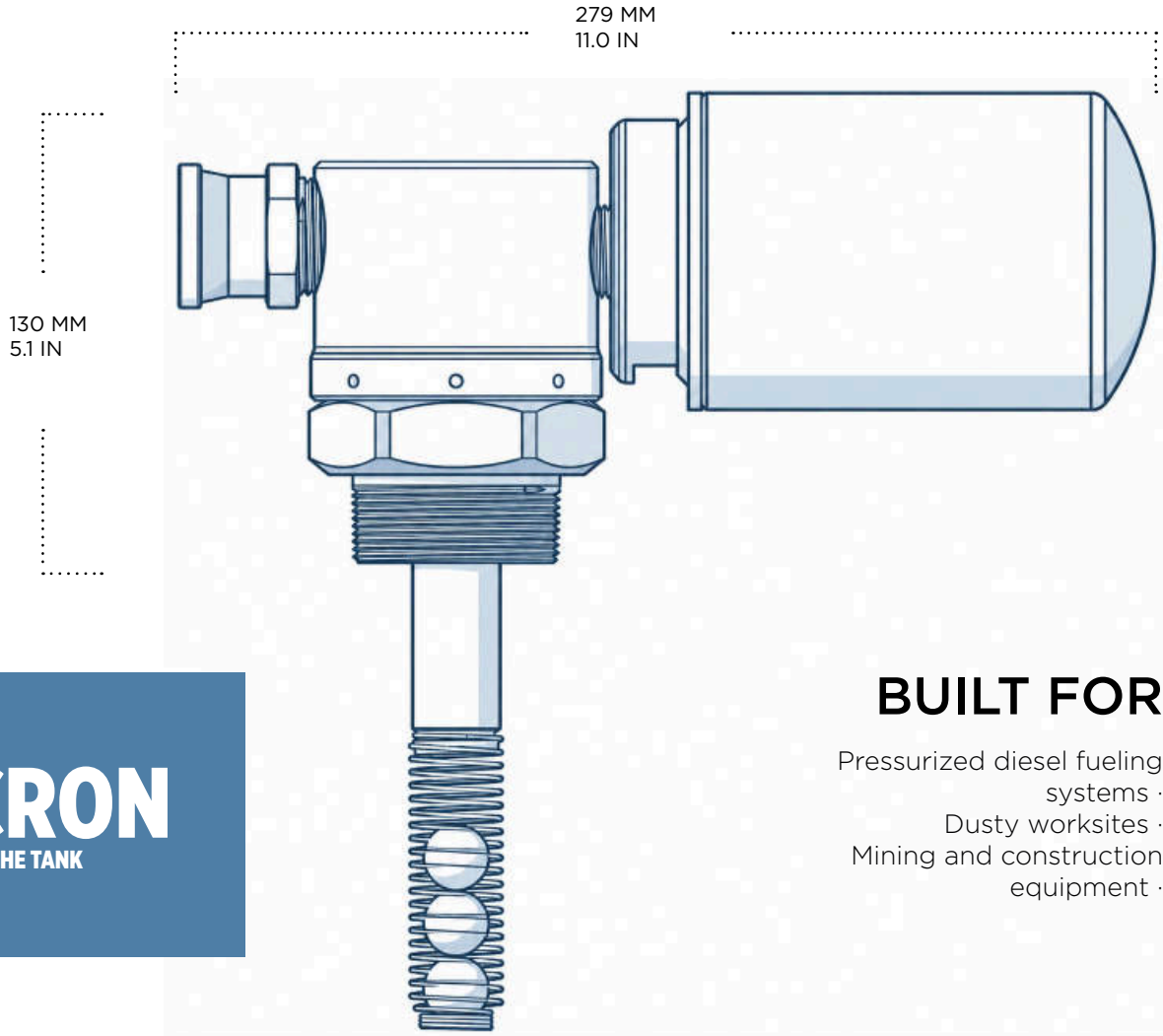
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FILTERED FUEL VENT

FILTERED FUEL VENT
V150F



Help keep airborne dirt out of the fuel tank with filtered breathing for pressurized fueling systems. The V150F directs incoming air through a 3-micron filter, while outgoing air and fuel vapor leave through a one-way valve. Available stem lengths support different fill-level requirements, combining tank venting, filtration and level control in a single assembly.



KEY SPECIFICATIONS

Parameter	Value
Model	V150F
System Type	Pressurized fueling
Tank Installation Thread	2 in NPT
Air Filter Rating	3 micron
Published Relief Pressure	13 PSI / approximately 0.90 bar
Level-Control Stem	5 in standard; 7 in or 12 in optional
Replacement Filter	FFV-MF



View in room

Scan the QR code below to view this product in room virtually.



Remote-Mount Filter Vent

Part No. FFV150

Provides filtered tank breathing from a remote mounting location, with a universal bracket for installation flexibility.

Mounting	Connection	Includes
Remote	Hose barb	Mounting bracket



High-Volume Vacuum Break

Part No. FFV150-HV IR1

Filtered vent with a high-volume check valve designed to provide increased airflow area for the specified installation.

Inlet Connection	Valve Type
1 in NPT	High-volume check valve



Direct-Mount Filter Vent

Part No. FFV150-PL

Provides filtered tank breathing through a direct connection to the compatible pressureless level-control assembly.

Connection	Mounting
1 in NPT	Direct



Low-Profile Filter Vent

Part No. FFV150-LP

Provides filtered tank breathing in a low-profile arrangement for installations with limited space above the tank.

Mounting	System Type
Low profile	Pressureless



Replacement Inlet Air Filter

Part No. FFV-MF

Replacement filter element for compatible filtered vents, helping limit airborne contamination entering the tank.

Filter Rating	Filtered Medium
3 µm	Air

STANDARD FUEL VENT

V150

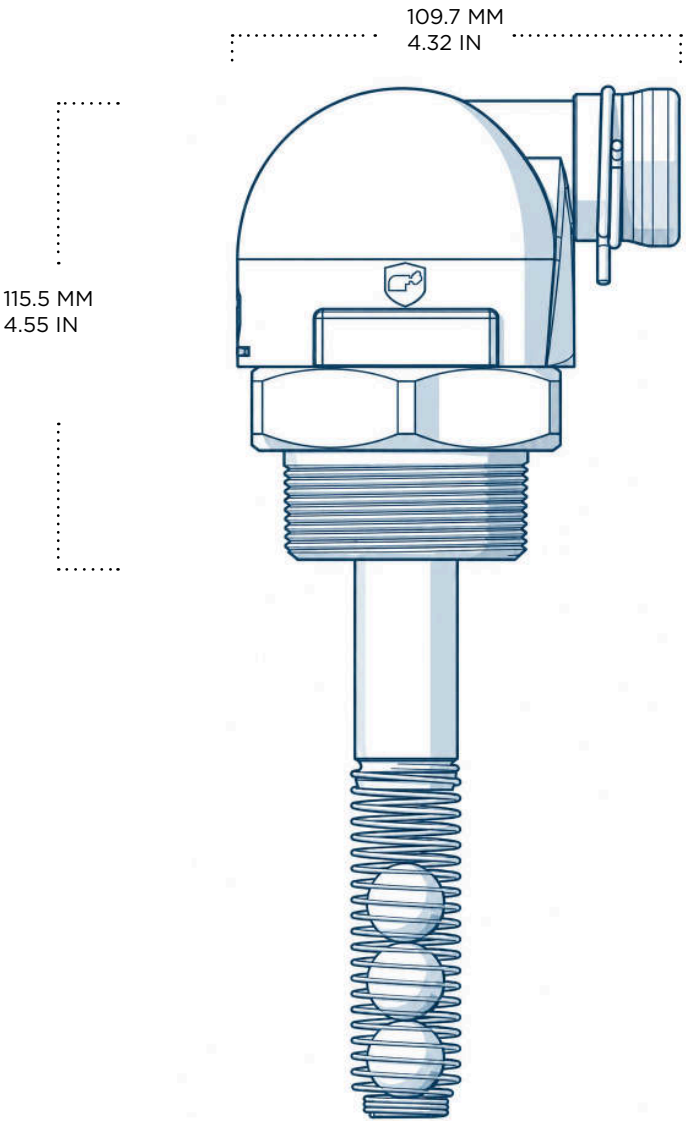


BUILT FOR

- Pressurized diesel fueling systems ·
- Tank retrofits ·
- Heavy equipment ·

**SET THE
FILL LEVEL**
STEM OPTIONS FOR YOUR INSTALLATION

The V150 provides the venting and level-control function used in a traditional pressurized fast-fill system. Air escapes as fuel enters the tank. When fuel reaches the configured level, the vent closes so tank pressure can activate the matched nozzle's shutoff. Different stem lengths allow the installation to be configured for the required fill level.



KEY SPECIFICATIONS

Parameter	Value
Model	V150
System Type	Pressurized fast-fill fueling
Primary Function	Tank venting and fill-level control
Standard Stem Length	5 in / 127 mm
Optional Stem Lengths	7 in / 178 mm; 12 in / 305 mm
Shutoff Method	Vent closure enables pressure-based nozzle shutoff



View in room

Scan the QR code below to view this product in room virtually.



Fuel Vent with Bolt-On Flange

Part No. V150B

Fuel vent configuration for tanks without an existing NPT port, using a bolt-on flange for mounting.

Flange Connection	Includes	Bolts
2 in NPT	Flange / nitrile gasket	Not included



Fuel Vent with Half Coupling

Part No. V150A

Fuel vent configuration for retrofit installations requiring a welded threaded connection on the tank.

Coupling Connection	Coupling Material	Mounting
2 in FNPT	Steel	Weld-on coupling



Fuel Vent with Whistle Adapter

Part No. V150W

Provides an audible signal as tank pressure rises during fueling, alerting the operator to the expected nozzle shutoff.

Whistle Range
5-7 PSI / 0.34-0.48 bar



High-Flow Fuel Vent

Part No. V150H

Vent option for installations with higher fuel delivery rates, subject to matching the complete tank and fueling system.

Published Fueling Range
Above 150 to 300 GPM



Safety Relief Fuel Vent

Part No. V150SR

Provides an additional relief function alongside the V150 in installations specified for supplementary tank pressure relief.

Cracking Pressure	Companion Vent
13 PSI / 0.90 bar	V150



Fuel Vent with NPT Adapter

Part No. V150C

Vent configuration with a threaded swivel adapter for connecting a hose at the vent-cap opening.



Fuel Vent with Anti-Vandalism Flange

Part No. V150D

Protected mounting arrangement designed to help deter unauthorized removal of the vent from the tank.

Mounting	Bolts
Locking flange arrangement	Not included

COMPLETE SYSTEM

PRESSURELESS SYSTEMS



INSTALLED CONFIGURATION

Controlled filling. Less tank stress.

Bring the fill connection, level control and tank venting together in one coordinated fueling system. Fast Fill Systems pressureless technology uses a hydraulic signal to close the inlet shutoff valve at the selected fuel level, without relying on tank pressurization to trigger shutoff. An adjustable level control sets the fill point, while a matched filter vent lets the tank breathe. In the two-part level-control and shutoff-valve arrangement, the receiver can be replaced without draining the tank.

ADJUSTABLE FILL LEVEL

Set the shutoff point to suit the tank installation.

FLEXIBLE INSTALLATION

Position the fill connection and level control to suit the equipment.

SIMPLER RECEIVER SERVICE

Replace the matched receiver without draining the tank.

CONFIGURED AROUND YOUR TANK

Part No. PLA150-IO KI

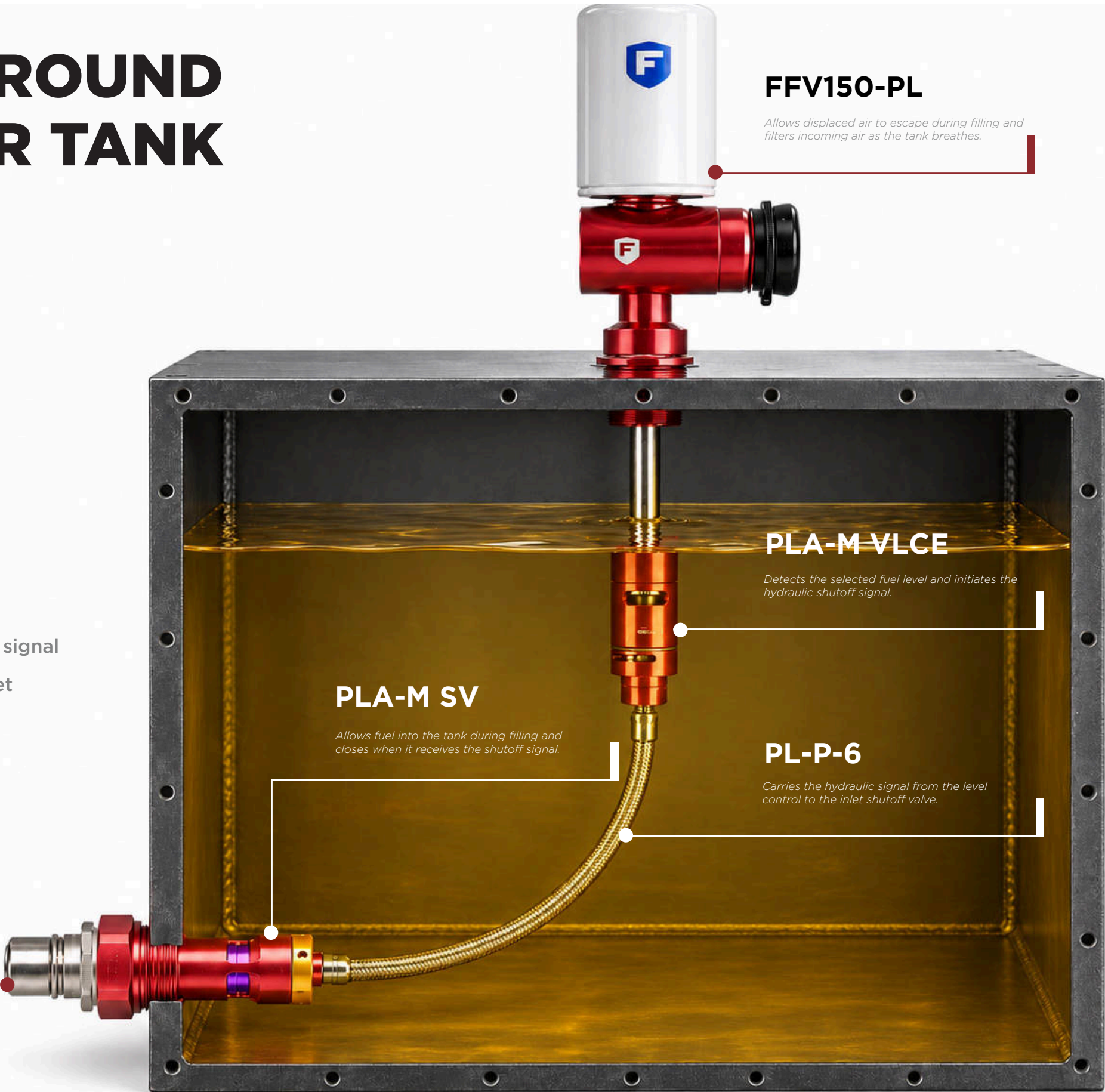
Each component has a clear role. Fuel enters through the receiver and shutoff valve while displaced air exits through the vent. When fuel reaches the selected level, the level control sends a hydraulic signal that closes the inlet valve and stops filling.

The shutoff signal stays within the control circuit, so the tank does not need to be pressurized to stop fuel delivery.

FILL	DETECT	STOP
Fuel enters. Displaced air leaves.	The level control responds at the selected fill level.	The hydraulic signal closes the inlet shutoff valve.

R150CVRc-J

Provides the nozzle connection at the inlet shutoff-valve assembly.



FFV150-PL

Allows displaced air to escape during filling and filters incoming air as the tank breathes.

PLA-M VLCE

Detects the selected fuel level and initiates the hydraulic shutoff signal.

PLA-M SV

Allows fuel into the tank during filling and closes when it receives the shutoff signal.

PL-P-6

Carries the hydraulic signal from the level control to the inlet shutoff valve.

FFV150-LP

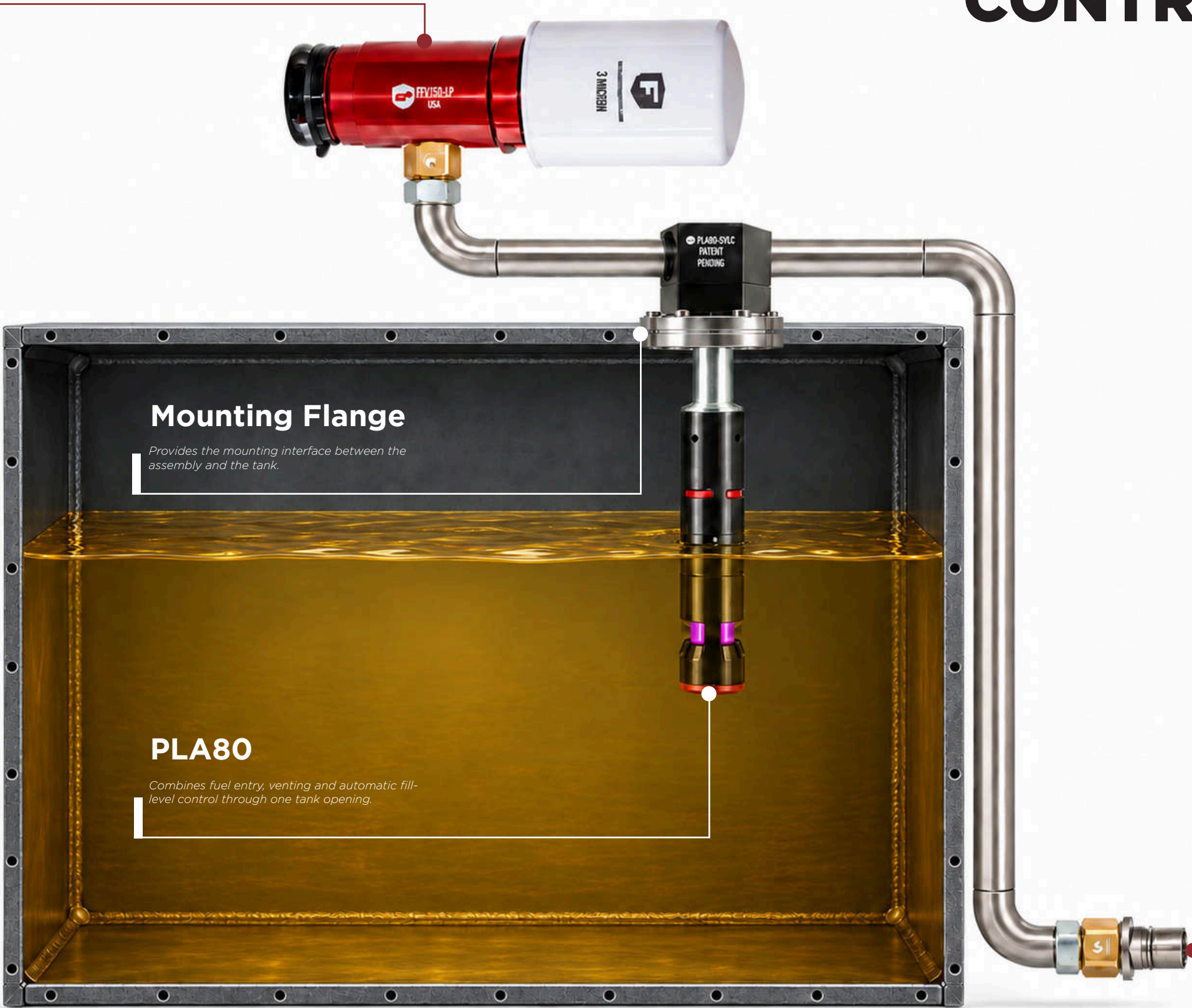
Allows displaced air to escape during filling and filters incoming air as the tank breathes.

COMPACT SYSTEM.
CONTROLLED FILLING.

Fuel travels from the receiver through the fill pipe to the PLA80 assembly. As the tank fills, displaced air leaves through the vent connection and FFV150-LP filter vent.

When fuel reaches the selected level, the integrated control stops incoming flow. Filling and venting share the same tank opening, simplifying the tank layout.

Typical installation shown. Receiver, piping and mounting hardware must be matched to the application.



Mounting Flange

Provides the mounting interface between the assembly and the tank.

PLA80

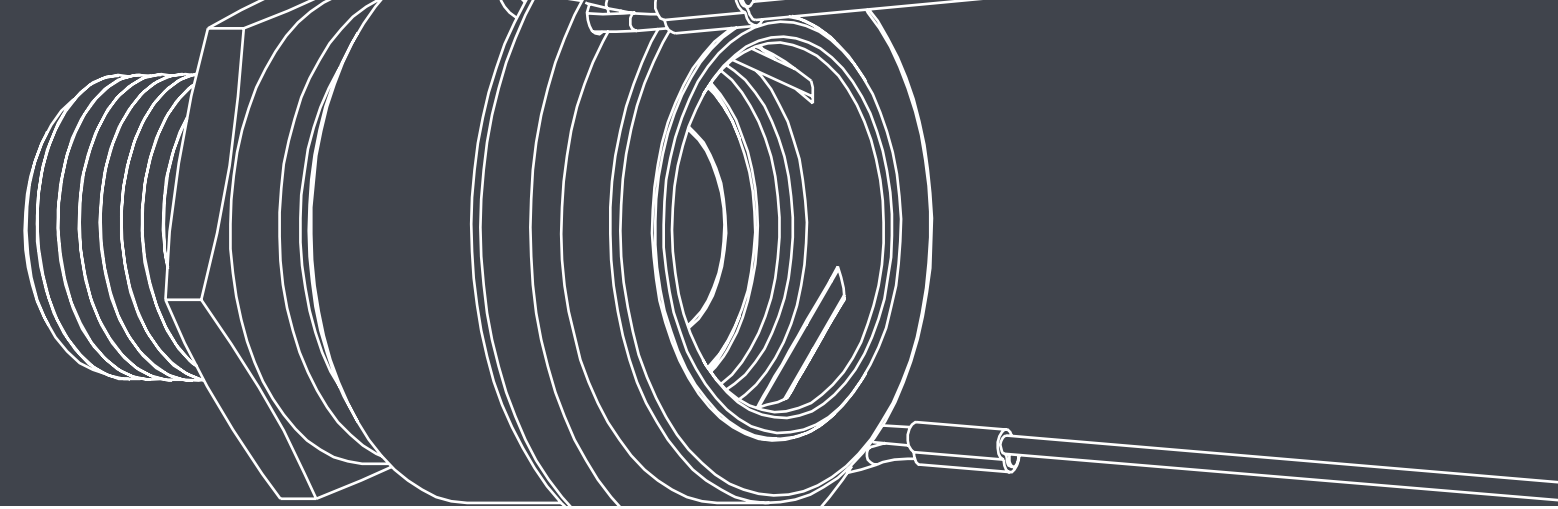
Combines fuel entry, venting and automatic fill-level control through one tank opening.

Fuel Receiver

Provides the connection point for the matched fueling nozzle.



COUPLERS



The right fluid. The right connection.

Four widely used couplers have been the primary means for fluid transfer of crankcase oils, coolant, hydraulic oils, and transmission oils. These couplers continue to provide a sturdy option and have been refined to be more reliable than ever. Options exist for remote bulkhead mounting, multiple thread options, and various latching mechanisms.

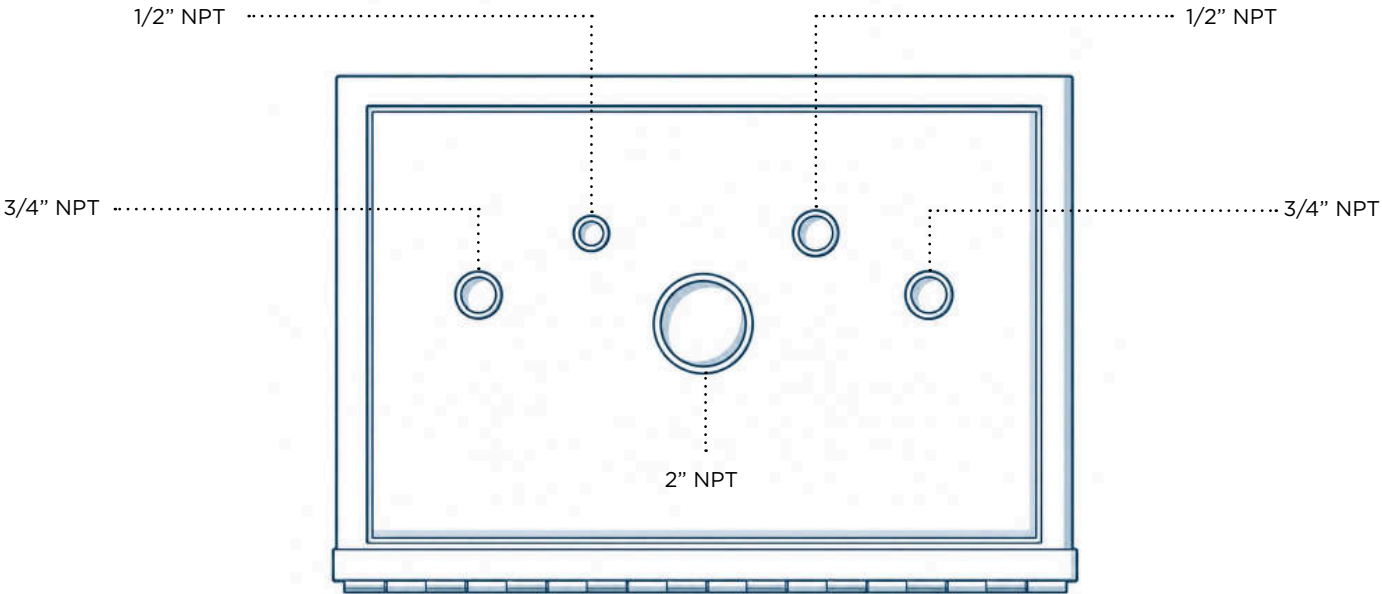


SB100

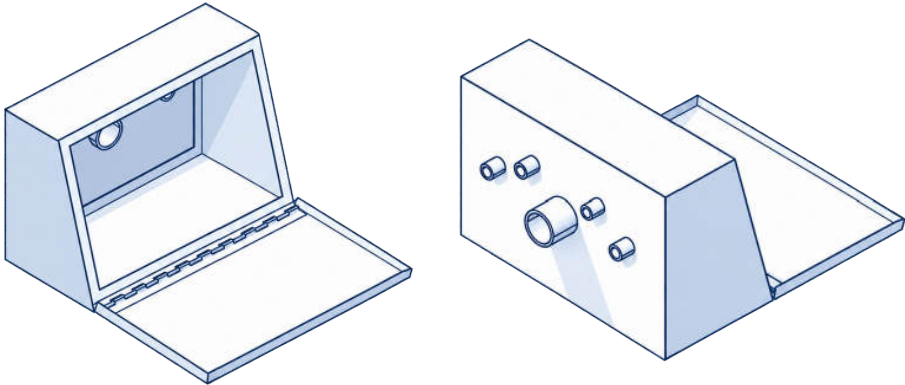
SERVICE BOX



The SB100 Service Box brings multiple fluid service connections together in one organized location. By grouping receivers in a single panel, it helps technicians access service points more easily during routine maintenance. The receiver layout can be configured around the machine’s service requirements, keeping essential connections together and clearly identified.



ONE LOCATION
CENTRALIZED ACCESS FOR ROUTINE SERVICE



Configuration Overview

Model	Product Type	Configuration Shown	Service Points Shown	Receiver Layout
SB100	Service Box	5 service connections	Fuel, coolant, hydraulic, hydraulic tank drain and crankcase	Configurable to application requirements

CRANKCASE COUPLERS



Crankcase Nozzle

Part No. N100p

Service nozzle for crankcase fluid transfer, compatible with the corresponding Standard and R-series receivers.

Connection

3/4 in MNPT



Crankcase Receiver

Part No. R100c / R100Rc

Tank-side receiver providing the connection point for the N100p service nozzle.

Type	R100c	R100Rc
Connection	3/4 in MNPT	External: 1-5/8 in · 12 TPI Internal: -16 ORB



Crankcase JIC Receiver

Part No. R100Jc

Extended receiver for bulkhead mounting, allowing a female JIC hose connection on the opposite side of the panel.

Connection Type	Mounting
JIC	Bulkhead



Receiver Jam Nut

Part No. JN100

Jam nut for securing the corresponding R Series receiver in the specified mounting arrangement.

Associated Receiver

R100Rc

COOLANT COUPLERS



Coolant Nozzle

Part No. N200p

Service nozzle for coolant fluid transfer, compatible with the corresponding Standard and R-series receivers.

Connection

1/2 in MNPT



Coolant Receiver

Part No. R200c / R200Rc

Tank-side receiver providing the connection point for the N200p service nozzle.

Type	R200c	R200Rc
Connection	1/2 in MNPT	External: 1-3/16 in · 12 TPI Internal: -10 ORB



Coolant JIC Receiver

Part No. R200Jc

Extended receiver for bulkhead mounting, allowing a female JIC hose connection on the opposite side of the panel.

Connection Type	Mounting
JIC	Bulkhead



Receiver Jam Nut

Part No. JN200

Jam nut for securing the corresponding R Series receiver in the specified mounting arrangement.

Associated Receiver

R200Rc

HYDRAULIC COUPLERS



Hydraulic Nozzle

Part No. N300p

Service nozzle for hydraulic fluid transfer, designed for use with the corresponding compatible receiver.

Connection

3/4 in FNPT



Hydraulic Receiver

Part No. R300c / R300Rc

Tank-side receiver providing the connection point for a compatible hydraulic service nozzle.

Type	R300c	R300Rc
Connection	3/4 in MNPT	External: 1-7/8 in · 12 TPI Internal: -20 ORB



Hydraulic JIC Receiver

Part No. R300Jc

Extended receiver for bulkhead mounting, allowing a female JIC hose connection on the opposite side of the panel.

Connection Type	Mounting
JIC	Bulkhead



Receiver Jam Nut

Part No. JN300

Jam nut for securing the corresponding R Series receiver in the specified mounting arrangement.

Associated Receiver

R300Rc

TRANSMISSION COUPLERS



Transmission Nozzle

Part No. N400p

Service nozzle for transmission fluid transfer, designed for use with the corresponding compatible receiver.

Connection

1/2 in MNPT



Transmission Receiver

Part No. R400c / R400Rc

Tank-side receiver providing the connection point for a compatible transmission service nozzle.

Type	R400c	R400Rc
Connection	1/2 in MNPT	External: 1-5/16 in · 12 TPI Internal: -12 ORB



Transmission JIC Receiver

Part No. R400Jc

Extended receiver for bulkhead mounting, allowing a female JIC hose connection on the opposite side of the panel.

Connection Type	Mounting
JIC	Bulkhead



Receiver Jam Nut

Part No. JN400

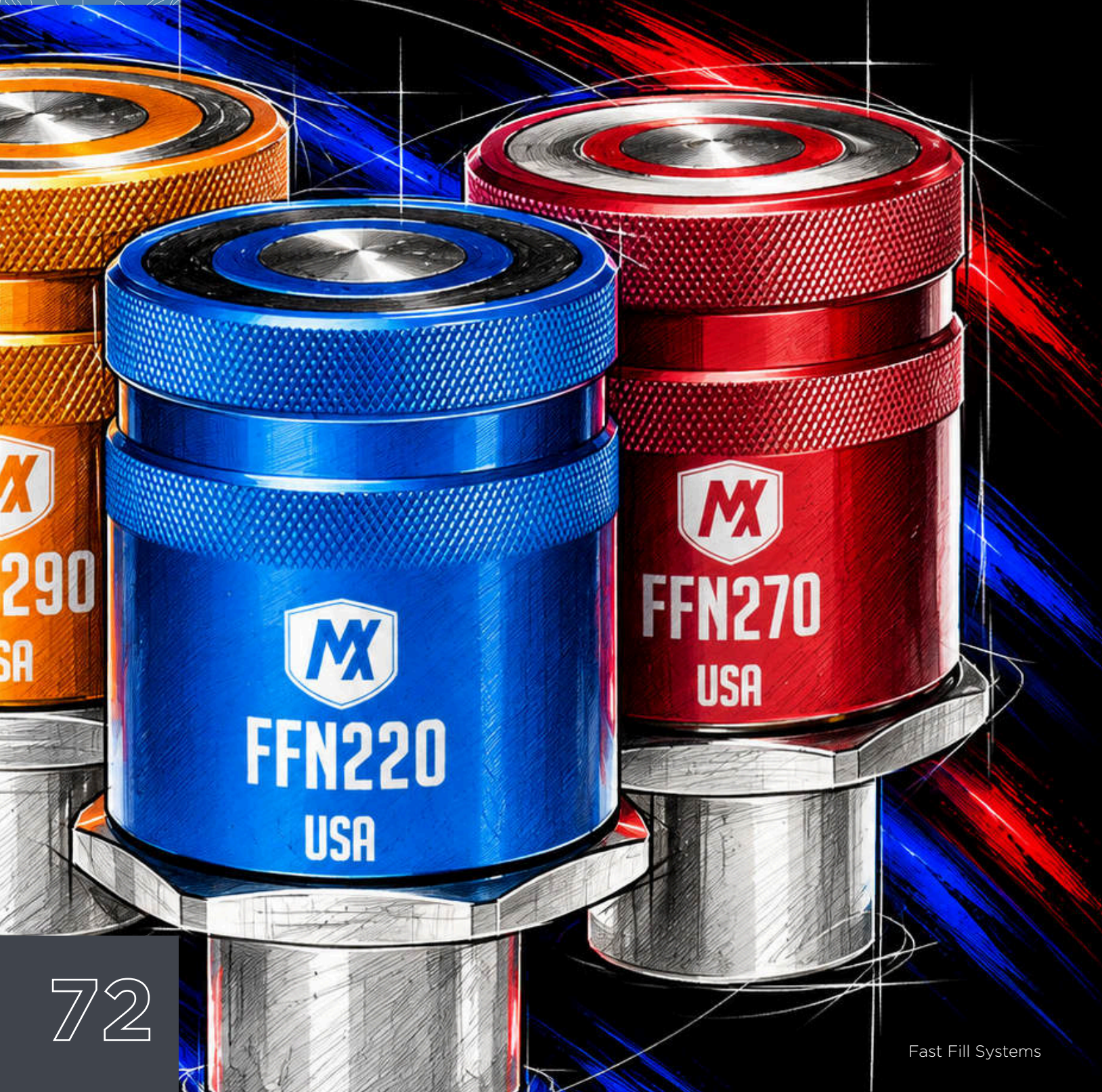
Jam nut for securing the corresponding R Series receiver in the specified mounting arrangement.

Associated Receiver

R400Rc

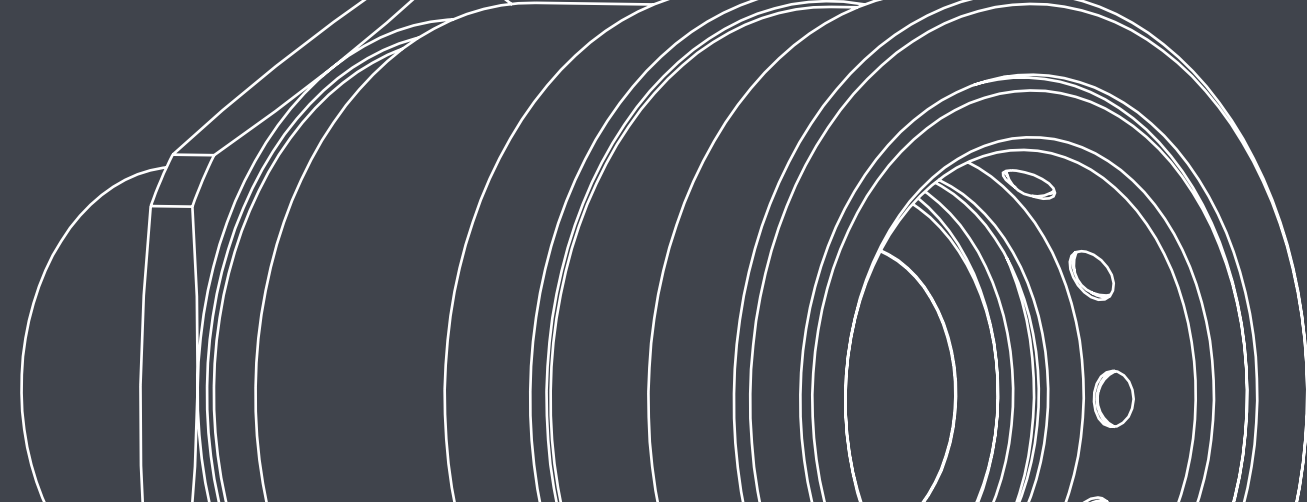


MATRIX



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Fast Fill Systems



No guesswork. No mix-ups.

Managing multiple fluids starts with making the right connection. Matrix couplers help organize fluid service points through color identification and matched nozzle-and-receiver configurations, helping reduce connection errors and the risk of cross-contamination.

The range includes Flat Face Matrix, Matrix 300 Series, MX High Flow, High Flow 3/4" Matrix, and Grease Matrix, with features tailored to different fluid-transfer requirements.

Available pairs, connection options, and operating specifications vary by family. Dedicated evacuation tools are available for selected families to support tank draining. Refer to each family's product page for matching components and compatible accessories.

Keep Fueling

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FLAT FACE MATRIX



 Protective Plugs & Caps

- Help keep nozzle and receiver connections free from dirt and debris between uses for clean, reliable coupling.



RECEIVER CAP

Flat Face Matrix couplers make cleaning before connection straightforward. The flat coupling surface wipes clean easily, while 12 color-coded, mechanically matched nozzle–receiver pairs help prevent incorrect connections and reduce cross-contamination during fluid transfer.

Nozzle & Receiver Selection

Nozzle Part No.	Matching Receiver Part No.	Color Code
FFN210	FFR210c	
FFN220	FFR220c	
FFN230	FFR230c	
FFN240	FFR240c	
FFN250	FFR250c	
FFN255	FFR255c	
FFN260	FFR260c	
FFN265	FFR265c	
FFN270	FFR270c	
FFN275	FFR275c	
FFN280	FFR280c	
FFN285	FFR285c	

Accessories

Accessory	Part No.	Color Code
Flat Face Matrix Evacuation Tool	FFET290	

Key Specifications

Operating Pressure	Standard Nozzle Thread	Standard Receiver Thread	Latching Mechanism	Construction
103 bar / 1,500 PSI	3/4 in FNPT	3/4 in MNPT	Ball latching	Anodized aluminum and nickel-plated steel



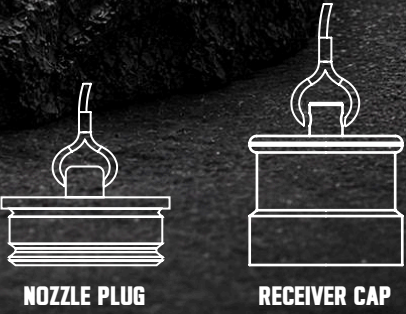
MATRIX

300 SERIES



 **Protective Plugs & Caps**

- Help keep nozzle and receiver connections free from dirt and debris between uses for clean, reliable coupling.



Matrix 300 Series couplers help keep fluid connections correctly matched across multi-fluid service operations. Ten color-coded nozzle-receiver pairs use mechanically matched interfaces to help prevent incorrect connections, with additional thread options available for different installations.

Nozzle & Receiver Selection

Nozzle Part No.	Matching Receiver Part No.	Color Code
N305p	R305c	
N307p	R307c	
N310p	R310c	
N320p	R320c	
N330p	R330c	
N340p	R340c	
N350p	R350c	
N360p	R360c	
N370p	R370c	
N380p	R380c	

Accessories

Accessory	Part No.	Color Code
Matrix 300 Evacuation Tool	ET290	

Key Specifications

Operating Pressure	Standard Nozzle Thread	Standard Receiver Thread	Construction
103 bar / 1,500 PSI	3/4 in FNPT	3/4 in MNPT	Anodized aluminum and nickel-plated steel



MATRIX

HIGH FLOW



 Protective Plugs & Caps

- Help keep nozzle and receiver connections free from dirt and debris between uses for clean, reliable coupling.



MX High Flow dry-break couplers combine durable construction with easy-to-identify fluid connections. Seven color-coded, mechanically keyed nozzle-receiver pairs help prevent incorrect pairing, while grip-enhancing actuating rings and solid aluminum caps and plugs support everyday handling.

Nozzle & Receiver Selection

Nozzle Part No.	Matching Receiver Part No.	Color Code
MXN1-1p	MXR1-1c	
MXN2-1p	MXR2-1c	
MXN3-1p	MXR3-1c	
MXN4-1p	MXR4-1c	
MXN5-1p	MXR5-1c	
MXN6-1p	MXR6-1c	
MXN7-1p	MXR7-1c	

Part numbers shown are for 1 in connections. Also available with 1¼ in NPT connections; contact Fast Fill Systems for part numbers.

Accessories

Accessory	Part No.	Color Code
MX High Flow Evacuation Tool	MXET	

Key Specifications

Operating Pressure	Standard Nozzle Thread	Standard Receiver Thread	Construction
34.5 bar / 500 PSI	1 in FNPT	1 in MNPT	Anodized aluminum and nickel-plated steel



MATRIX

HIGH FLOW 3/4"

High Flow 3/4" Matrix couplers combine color-coded pairing with a single-body receiver designed to reduce potential leak points. Retained caps and plugs help protect connections between uses, while pull cords support easier handling during routine fluid service.

Nozzle & Receiver Selection

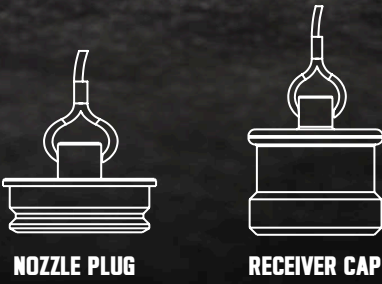
Nozzle Part No.	Matching Receiver Part No.	Color Code
N100U	R100-C	
N102-P	R102-C	
N103-P	R103-C	
N104-P	R104-C	
N105-P	R105-C	
N106-P	R106-C	





Protective Plugs & Caps

- Help keep nozzle and receiver connections free from dirt and debris between uses for clean, reliable coupling.



Key Specifications

Operating Pressure	Flow Area	Nozzle Thread	Receiver Thread	Latching Mechanism
34.5 bar / 500 PSI	0.421 in ²	3/4 in NPT	1-3/8-18 UNEF	Ball latching



GREASE MATRIX



 Protective Plugs & Caps

- Help keep nozzle and receiver connections free from dirt and debris between uses for clean, reliable coupling.



RECEIVER CAP

Grease Matrix flat-face dry-break couplers simplify bulk grease filling with a connection designed to couple and uncouple while maintaining supply pressure. An integrated valve prevents grease transfer until the nozzle and receiver are properly connected.

Nozzle & Receiver Selection

Nozzle Part No.	Matching Receiver Part No.	Color Code
GN210	GR210	
GN220	GR220	

Key Specifications

Maximum Deadhead Pressure	Nozzle Thread	Receiver Thread	Construction	Connection Guide
345 bar / 5,000 PSI* *At the integrated ball valve.	3/4 in FNPT	3/4 in MNPT	Nickel-plated steel and anodized aluminum	Dimple-and-groove system

FAQ

FUEL NOZZLES & RECEIVERS

How do I choose the right fuel nozzle?

Start with your required flow range, available pump pressure and receiver configuration. Consider handling, operating conditions and service needs as well. The right nozzle must work with the complete fueling system—not just meet a maximum flow rating.

Will a higher-flow nozzle make fueling faster?

Only if the rest of the system supports it. Pump capacity, hose size, fittings, receivers and tank venting all affect actual flow. A restriction elsewhere can limit the benefit of a higher-flow nozzle.

Does the nozzle detect when the tank is full?

Not on its own. The nozzle responds to the system's shutoff signal. In pressurized systems, this comes from tank pressure; in pressureless systems, level-control and shutoff components work together to stop filling.

Are Fast Fill products compatible with other brands?

Certain products are designed to work with other manufacturers' equipment. Compatibility must be checked for the specific models, connection interfaces and operating requirements. Similar appearance alone does not confirm a match.

Why should the nozzle and receiver be inspected together?

They work as a pair. A worn or damaged receiver can affect sealing, cause leaks and damage nozzle seals. Inspecting both helps identify the cause rather than repeatedly replacing the same parts.

PRESSURELESS SYSTEMS & VENTING

What does “pressureless” fueling mean?

It means the system stops filling without relying on pressure buildup throughout the tank. A level control signals a shutoff valve when fuel reaches the intended level. The supply line still operates under pressure.

Can existing equipment be converted to pressureless fueling?

Retrofit options are available for many installations. The configuration depends on tank geometry, available ports, flow requirements and component placement. FFS can help review your equipment and identify a suitable arrangement.

Can pressurized and pressureless components be mixed?

Only where compatibility is specifically confirmed. These systems use different shutoff principles, so the nozzle, receiver, vent and control components must be selected as a compatible assembly.

Why is tank venting important?

Air must leave the tank during filling and enter as fuel is consumed. Restricted or incorrectly sized venting can slow fueling, cause premature shutoff and expose the tank to excessive pressure or vacuum.

Does a filtered vent keep all contamination out?

A filtered vent helps reduce airborne contamination entering the tank. Clean connections, protective caps and plugs, and proper maintenance remain essential because contamination can enter through other points in the system.

Practical answers. Better decisions.

FLUID COUPLERS & MATRIX

How is a fluid coupler different from a fuel nozzle?

Fluid couplers serve applications such as crankcase oil, coolant, hydraulic fluid, transmission fluid and grease transfer. Their pressure ratings, seals and connection designs vary. Select each coupler for its intended fluid and application.

How does Matrix help prevent fluid mix-ups?

Matrix combines visual color identification with mechanically keyed connections. Matching nozzle and receiver pairs help prevent incorrect connections and reduce cross-contamination risk when used with a documented fluid-assignment system.

Is matching the color enough to select a coupling?

No. Confirm the product family, matching codes, assigned fluid and operating limits. Color supports identification, but it does not establish compatibility between different coupling families.

What does “universal” mean for a coupler?

It describes compatibility with a defined set of interfaces. It does not mean the coupler fits every receiver or can be used with every fluid. Check the specific model's documented compatibility before selection.

Why use protective caps and plugs?

They help keep dirt and moisture away from connection surfaces and latching mechanisms between uses. Keeping these areas clean supports reliable coupling and helps reduce contamination and premature wear.

SERVICE & SUPPORT

Can a worn nozzle be rebuilt?

A rebuild may be suitable when the housing and other critical components remain serviceable. Inspection determines whether rebuilding or replacement is the better option. Contact FFS with the model, serial number and symptoms.

How often should components be inspected?

Inspection frequency depends on operating conditions, usage and the component's maintenance instructions. Dust, abrasive contamination and heavy use may require more frequent checks. Include the complete fueling system in your maintenance plan.

What should I do if a nozzle leaks or shuts off abnormally?

Stop fueling and have the system inspected before returning it to normal service. The cause may involve the nozzle, receiver, vent or shutoff components. Follow the applicable service instructions rather than modifying parts or bypassing controls.

What information helps FFS recommend a configuration?

Share the equipment make and model, fluid type, required flow, pump capacity, tank details and existing part numbers. Photos of the installation and a description of the problem help our team understand your application.

STILL HAVE A QUESTION?

Tell us about your equipment and what you need to achieve. Our team can help you review product options, compatibility and service requirements.

contact@fastfillsystems.com
fastfillsystems.com

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For over 30 years, Fast Fill Systems has developed fueling and fluid transfer solutions for demanding operations. Our distributors help bring that experience closer to the people who keep equipment running—connecting customers with FFS products and a purchasing contact who understands their market.

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fastfillsystems.com





HOW TO REQUEST A QUOTE

**Tell us what
you need.
Let's get
started.**

Every operation has its own requirements. Whether you need help selecting a product, reviewing a configuration, or requesting a quote, the Fast Fill Systems team is here to help. Share your application and the equipment you're working with so we can better understand your needs and guide the next step.

Start your inquiry.

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CALL US

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VISIT OUR WEBSITE

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