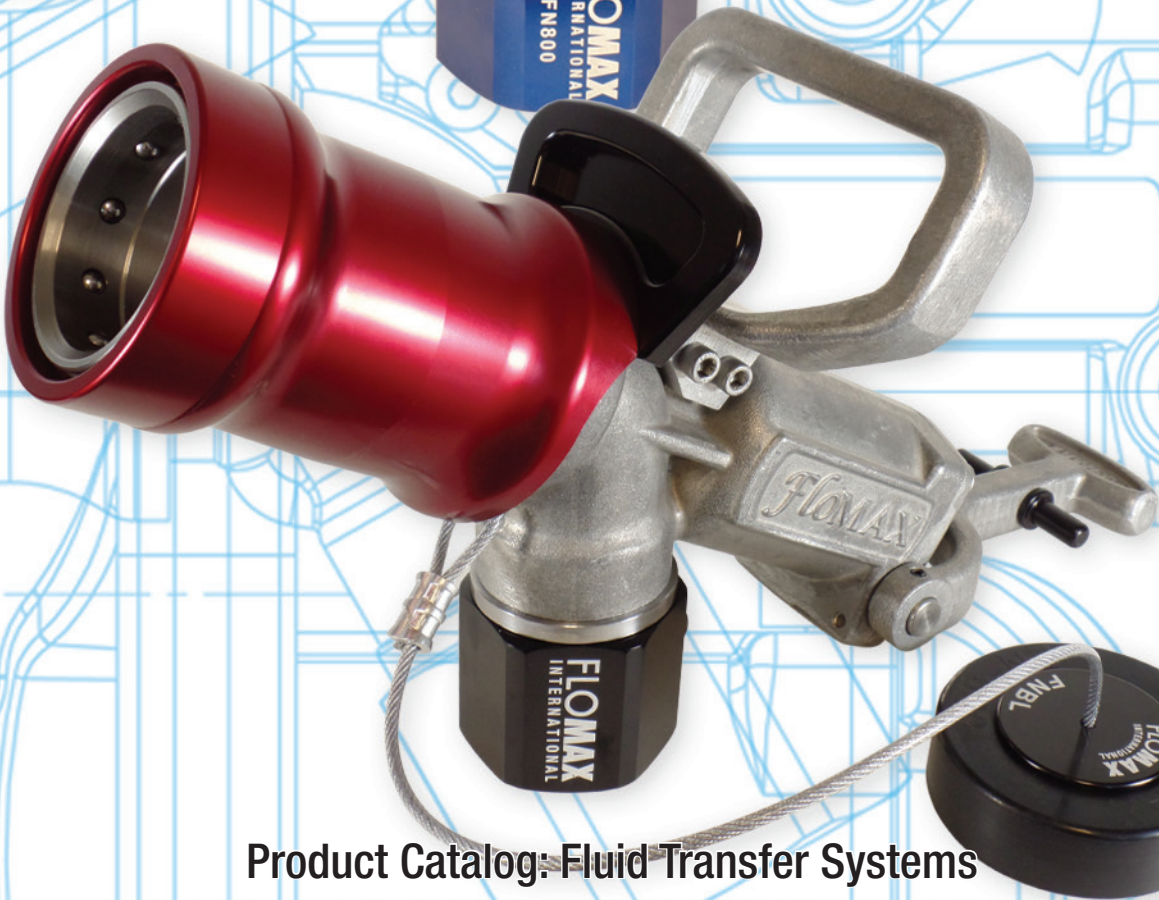
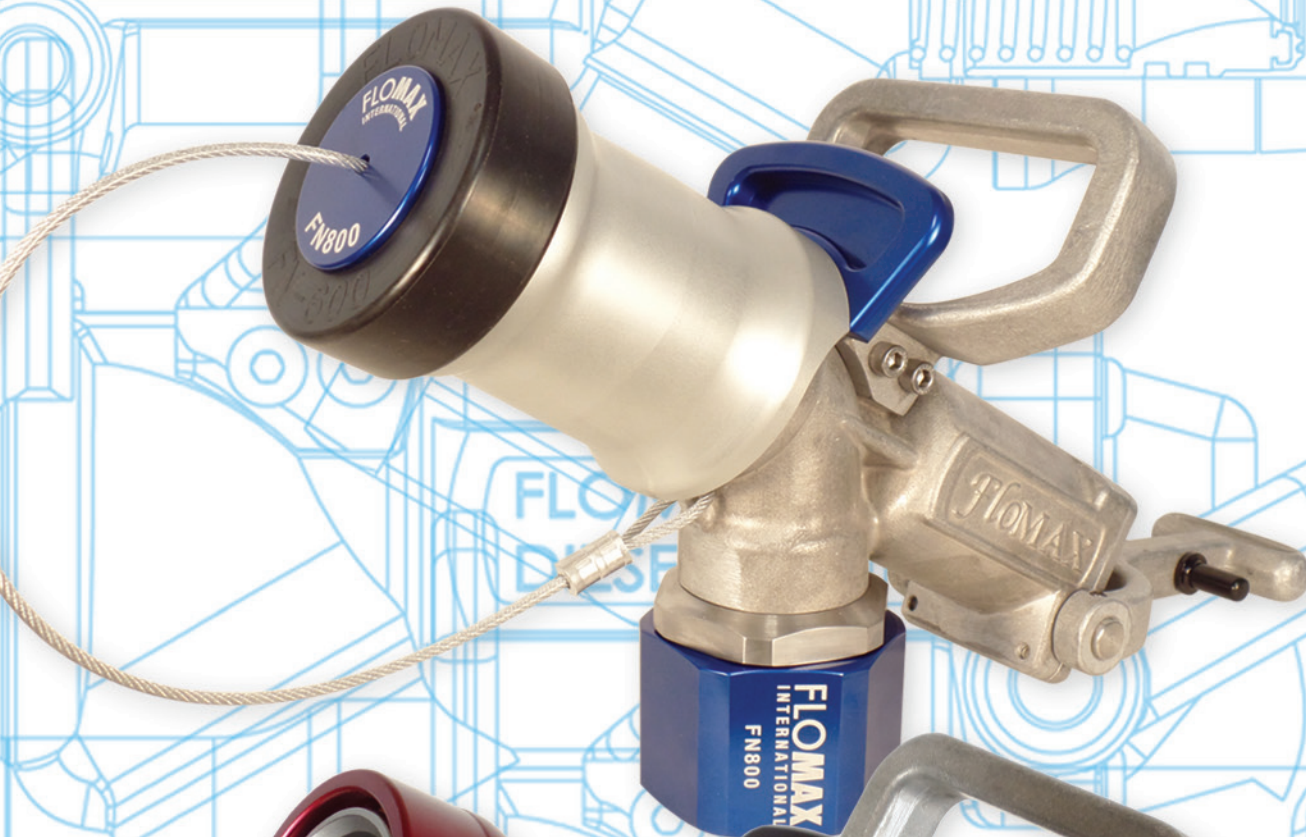


# FLOMAX INTERNATIONAL



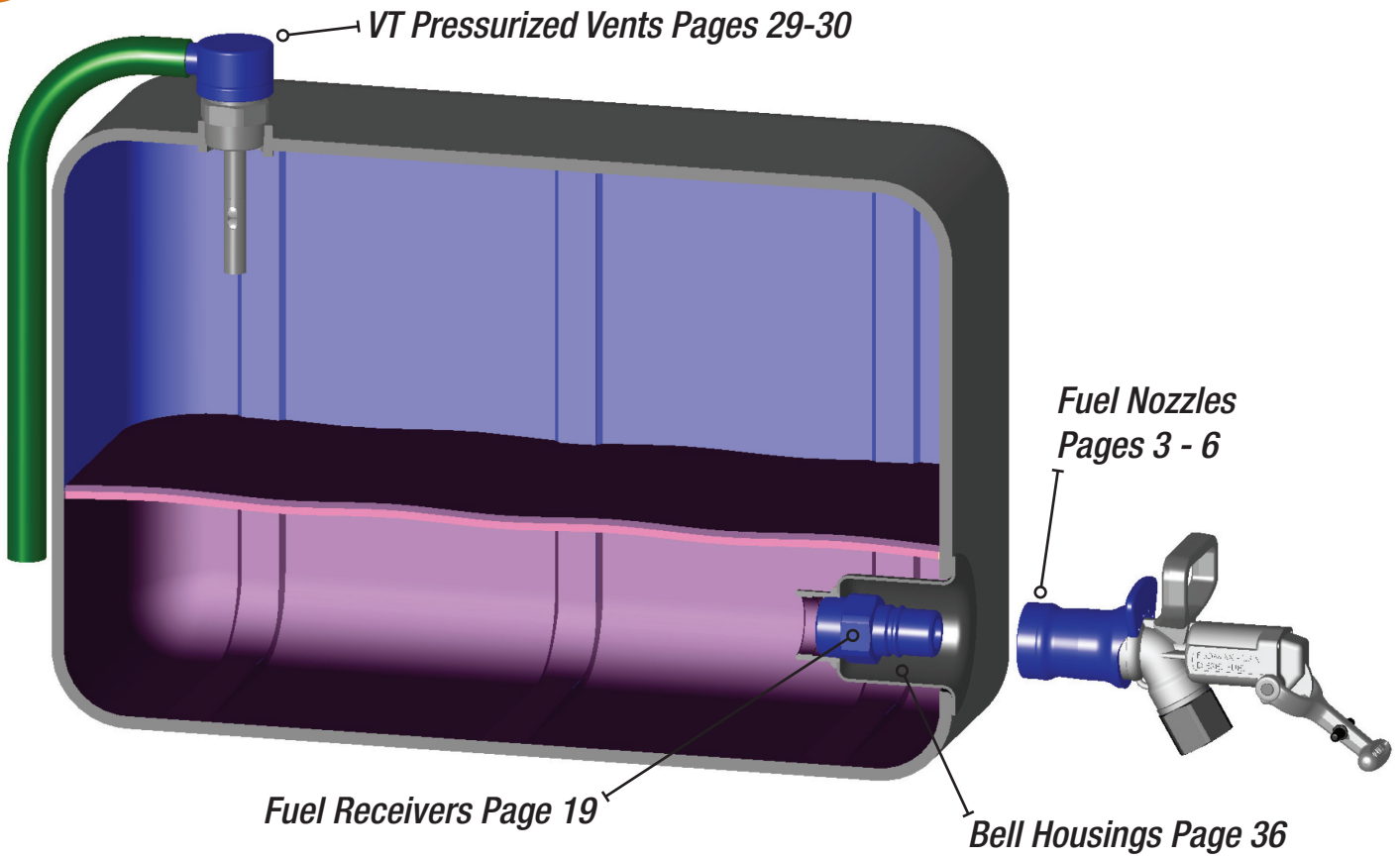
Product Catalog: Fluid Transfer Systems

## QUALITY, INNOVATION & VALUE

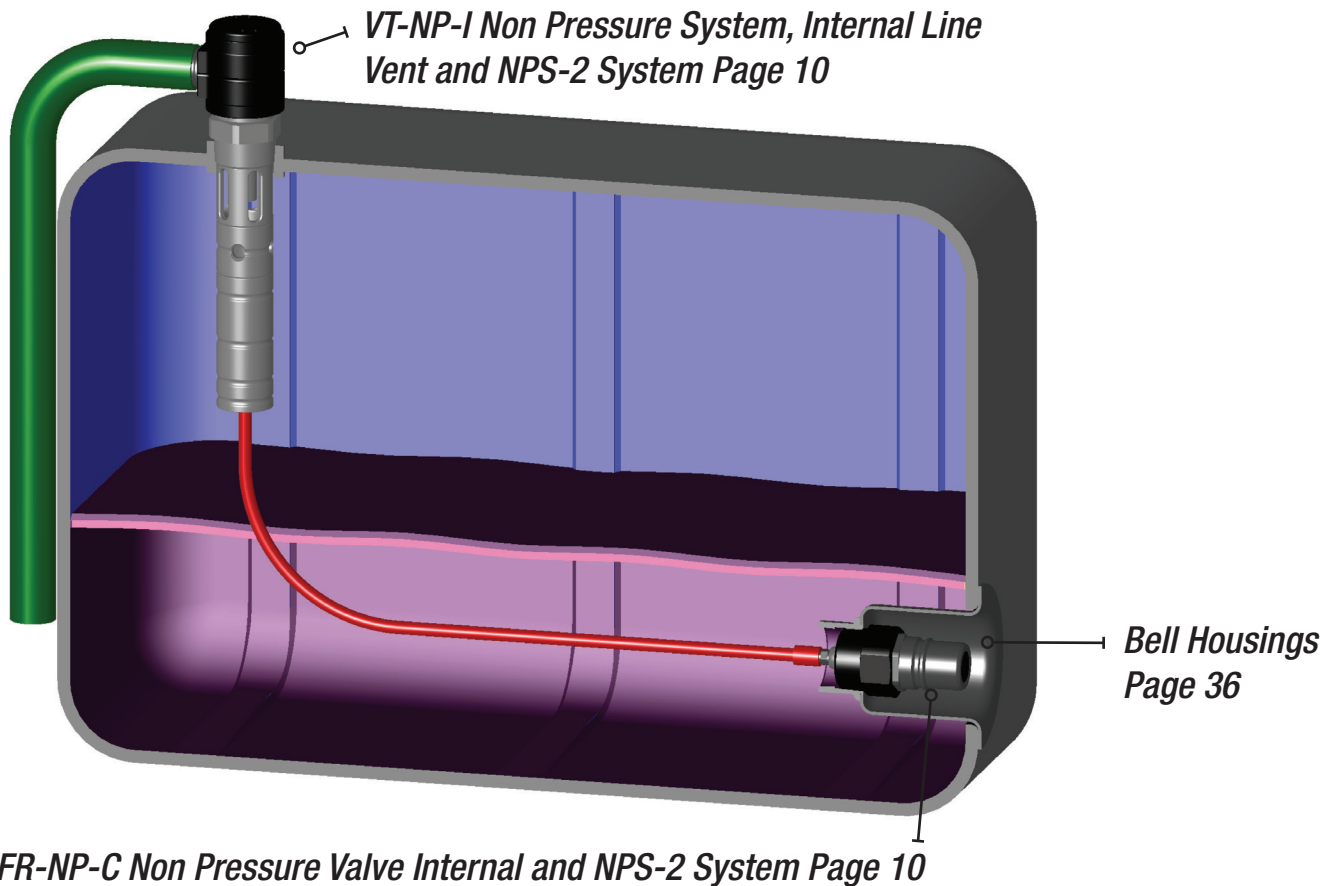
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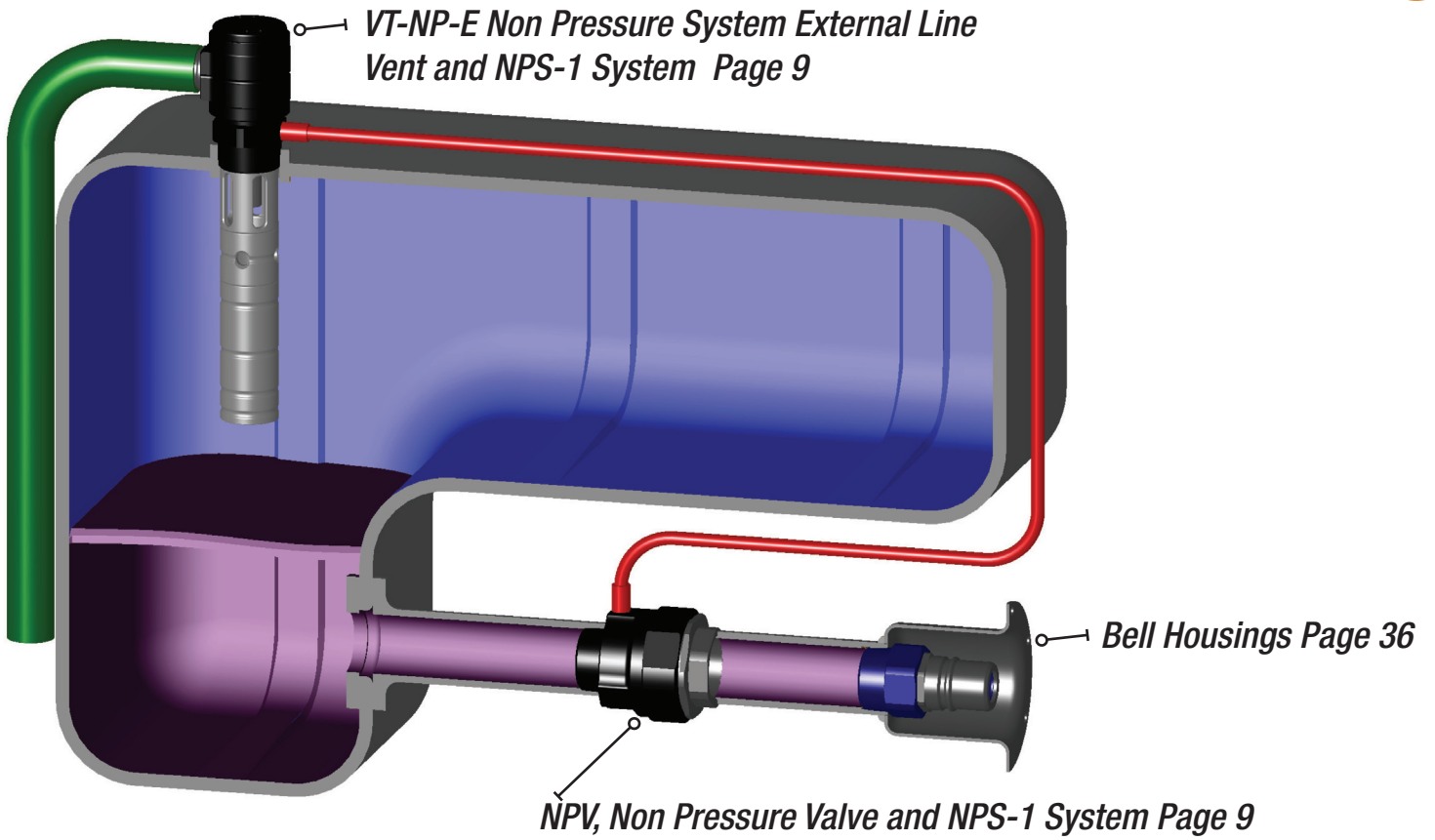
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# 1 Pressurized System



# Internal-Line Non Pressure System

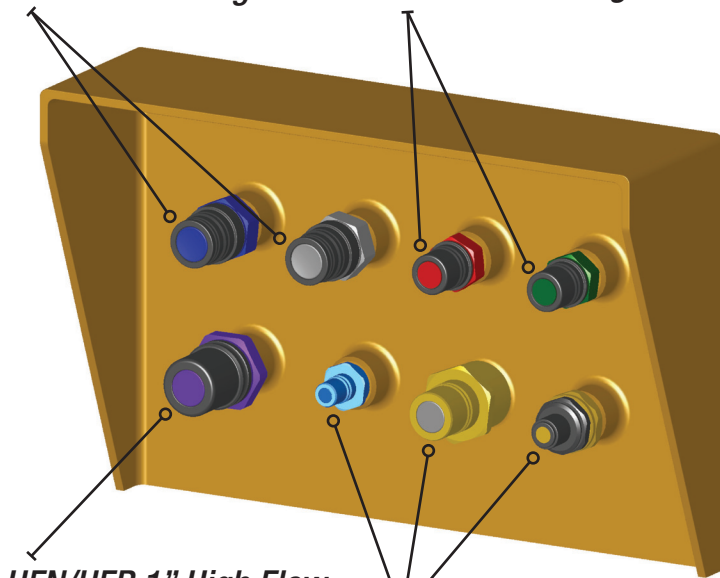




## Quick Disconnect Lineup

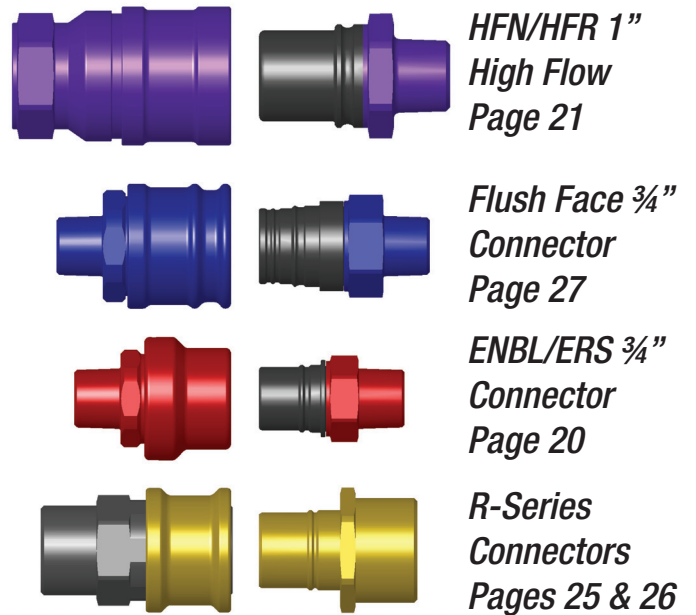
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## 3 Fuel Nozzles 1 1/2"

FloMAX Fuel nozzles have our patented modular back pressure sensor for reliable and repeatable shut off results every time. Our all metal construction ensures a long and durable life for the nozzle. Our FNBL nozzle can flow over 180 GPM (682 LPM) with an 1 1/2" hose and over 211 GPM with a 2" feed hose and a high pressure nozzle shut off. That is the highest flowing 1 1/2" fuel nozzle in the industry. It is easily cleaned and serviced in the field with our easy to remove pullback assembly.

- **Highest flow rate of any 1 1/2" diesel nozzle with a 1 1/2" hose.**
- **All metal construction with stainless steel nose.**
- **Lightest diesel nozzle in industry 5 lbs 14 oz.**
- **Factory adjustable shut off pressures.**
- **Will not flow when not connected to receiver.**

### FNBL



The FNBL has a "Ball Lock" system that attaches nozzle to receiver.

### FNBL

| Part No.    | Description                                     |
|-------------|---|
| FNBL-P      | Fuel Nozzle with Ball Lock with Swivel and Plug |
| FNBL        | Fuel Nozzle with Ball Lock with Swivel No Plug  |
| FNBL-P-NS   | Fuel Nozzle with Ball Lock with Plug No Swivel  |
| FNBL-NS     | Fuel Nozzle with Ball Lock No Swivel No Plug    |
| FNBL Repair | Fuel Nozzle Repair                              |

### FN600

| Part No.     | Description                      |
|--------------|----------------------------------|
| FN600        | Fuel Nozzle with Swivel and Plug |
| FN600-NS     | Fuel Nozzle with Plug No Swivel  |
| FN600 Plug   | Fuel Nozzle Sealing Plug         |
| FN600 Repair | Fuel Nozzle Repair               |

### FNBL-NI-P\*

This non-interchangeable nozzle is used to help prevent theft or use with different bio diesel blends. Will not connect to standard fuel receivers.

| Part No.     | Description  |
|--------------|--|
| *FNBL-NI-P   | Fuel Nozzle Non-Interchangeable w/ Swivel and Plug   |
| FNBL-NI      | Fuel Nozzle Non-Interchangeable w/ Swivel No Plug    |
| FNBL-NI-P-NS | Fuel Nozzle Non-Interchangeable w/ Plug No Swivel    |
| FNBL-NI-NS   | Fuel Nozzle Non-Interchangeable w/ No Swivel No Plug |
| FNBL-EX-P    | Fuel Nozzle Extended Hose w/ Swivel Plug             |
| FNBL-EX      | Fuel Nozzle Extended Hose w/ Swivel No Plug          |

\* **Must be used w/ the FRA-NI-C fuel receiver.**

FloMAX Fuel nozzles have our patented modular back pressure sensor for reliable and repeatable shut off results every time. Our all metal construction ensures a long and durable life for the nozzle. FN600 nozzle can flow up to 180 GPM (682 LPM) with an 1 1/2" hose and over 211 GPM with a 2" feed hose and a high pressure nozzle shut off. That is the highest flowing 1 1/2" fuel nozzle in the industry. It is easily cleaned and serviced in the field with our easy to remove pullback assembly.

- Highest flow rate of any 1 1/2" diesel nozzle.
- All metal construction with stainless steel nose.
- Lightest diesel nozzle in industry 5 lbs 14 oz.
- Factory adjustable shut off pressures.

## FN600



The FN600 has a "Dog Lock" system to attach nozzle to receiver.

## FNBL-EX Extended Nose Fuel nozzle.



## FNBL-NI-P

*Non-Interchangeable fuel nozzle.  
Only fits the FRA-NI-C fuel receiver.*



Allows extra space between the pullback handle and the equipment.

An industry first. Very popular in cold climates where the operator is wearing thick gloves.



## FRA-NI-C

## 5 Fuel Nozzles FN800

FloMAX FN800 fuel nozzles have our patented modular back pressure sensor for reliable and repeatable shut off results at all flows, every time. It is the highest flowing 1 1/2" fuel nozzle in the industry with a 211+ GPM (800 LPM+) rating with a 2" inlet hose. It is easily cleaned and serviced in the field with our easy to remove pullback assembly. Factory adjustable shut off pressure. Will not flow when not connected to a receiver.

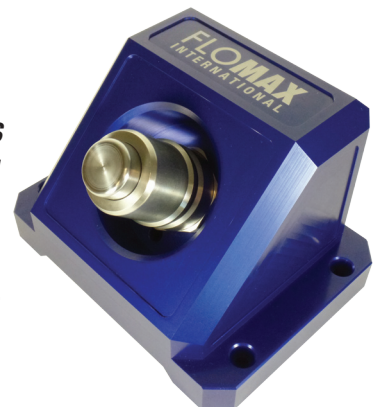
- Highest flowing 1 1/2" nozzle in the industry, 211+ GPM.
- All metal construction with stainless steel nose.
- Simple upgrade from the standard FNBL or FN600 nozzle.
- Used with standard fuel receivers.

### FN800



| Part No.   | Description   |
|------------|---|
| FN800-P    | Fuel nozzle with ball lock, 2" inlet swivel and plug  |
| FN800      | Fuel nozzle with ball lock, 2" inlet swivel, No Plug  |
| FN800-P-NS | Fuel nozzle with ball lock, with Plug, No swivel      |
| FN800      | FN800-NS Fuel nozzle w/ ball lock, No swivel, No Plug |
| FN-EMOUNT  | Fuel nozzle electronic mount                          |

*Electronic lock out fuel nozzle mount interfaces with all standard 1 1/2" fuel nozzles. Helps prevent fuel nozzle and equipment damage due to non-stowage.*



FloMAX FX1500 2" fuel nozzle uses the same all metal construction as our industry leading FNBL nozzle and also has the patented back pressure sensor. It is the highest flowing fuel nozzle in the industry with flows over 400 GPM (1500+LPM).

- Highest flowing 2" nozzle in the industry, 400 GPM.
- All metal construction with stainless steel nose.
- Simple upgrade from the 1 1/2" system.
- Connects to our 2" FRX Fuel Receiver.
- Receiver mounts in 2" NPT Bung.

*FX1500*



*FRX-C 2"*



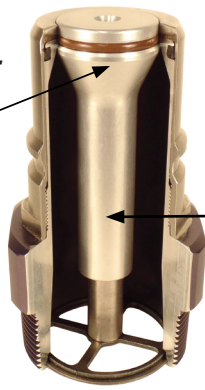
| Part No.         | Description                                   |
|------------------|---|
| FX1500           | 2" High Flow Fuel Nozzle No Swivel No Plug    |
| FX1500-S         | 2" High Flow Fuel Nozzle Swivel No Plug       |
| FX1500-P         | 2" High Flow Fuel Nozzle Plug No Swivel       |
| FX1500-S-P       | 2" High Flow Fuel Nozzle with Swivel and Plug |
| FX1500 Plug      | 2" High Flow Fuel Nozzle Sealing Plug         |
| FX1500 Repair 2" | High Flow Fuel Nozzle Repair                  |



# 7 Cross Section

## Flomax Fuel Receiver

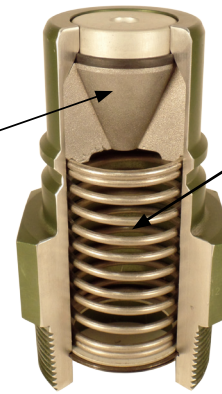
Venturi design increases and smooths the flow of fuel.



Patented internal spring creates a smooth flow path and less vibration.

## Competition Fuel Receiver

Highly restrictive poppet increases back pressure and decreases flow.



Spring in flow path creates turbulence, restriction and vibration. This causes pre-mature failure of the fuel nozzle poppet.

## FX1500

Flows up to 400 GPM (1500 CPM)

Vulcanized viton double rib seal for ultimate sealing to the receiver.

Double fluoro silicone O-rings for long life in all temperatures.

Aircraft grade aluminum pullback.

Nickle plated wear sleeve for long lasting reliable performance.

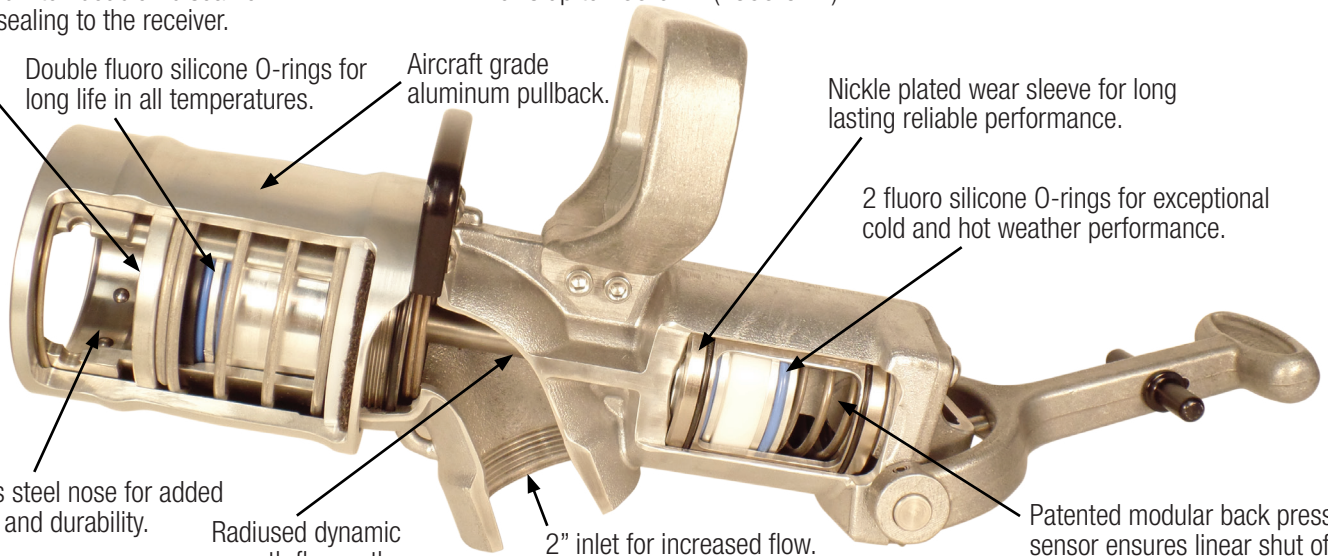
2 fluoro silicone O-rings for exceptional cold and hot weather performance.

Stainless steel nose for added strength and durability.

Radiused dynamic smooth flow path.

2" inlet for increased flow.

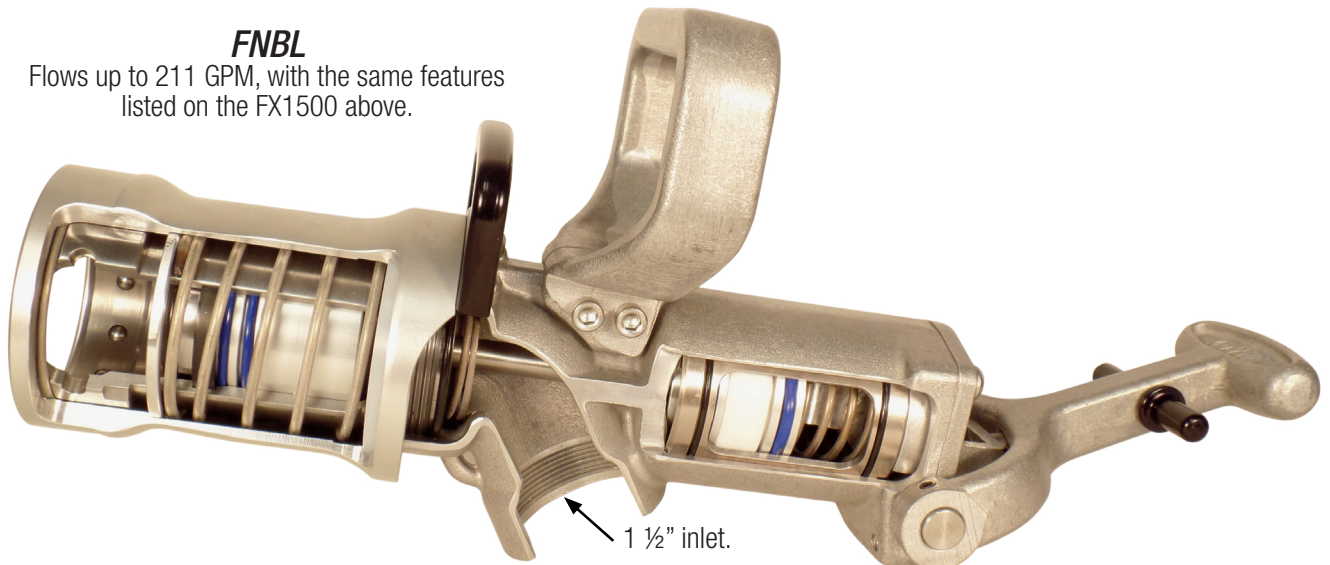
Patented modular back pressure sensor ensures linear shut off at all flow rates.



- Highest flowing 2" nozzle in the industry, 400 GPM.
- All metal construction with stainless steel nose.
- Simple upgrade from the 1 1/2" system.
- Connects to our 2" FRX Fuel Receiver.
- Receiver mounts in 2" NPT Bung.

## FNBL

Flows up to 211 GPM, with the same features listed on the FX1500 above.



1 1/2" inlet.

- Highest flowing 1 1/2" nozzle in the industry, 211 GPM.
- All metal construction with stainless steel nose.
- Simple upgrade from the 1 1/2" system.
- Connects to our 1 1/2" Fuel Receiver.
- Receiver mounts in 2" NPT Bung.

## Time to Fill a Fuel Tank in Seconds per Inch

|   |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>180 GPM:</b>   | 1.9 sec/in            | 3.3 sec/in            | 5.2 sec/in            | 7.5 sec/in            |
| <b>150 GPM:</b>   | 2.2 sec/in            | 4.0 sec/in            | 6.2 sec/in            | 9.0 sec/in            |
| <b>120 GPM:</b>   | 2.8 sec/in            | 5.0 sec/in            | 7.8 sec/in            | 11.2 sec/in           |
| <b>TANK FOOTPRINT IN FEET</b>   | 3'X3' footprint       | 4'X4' footprint       | 5'X5' footprint       | 6'X6' footprint       |
| <b>TANK SIZE CU. IN</b>   | 1,296 in <sup>2</sup> | 2,300 in <sup>2</sup> | 3,600 in <sup>2</sup> | 5,184 in <sup>2</sup> |
| <ul style="list-style-type: none"> <li>Fuel rises faster in a tall, narrow tank than shorter and wider tanks.</li> </ul>                                      |                       |                       |                       |                       |
| <ul style="list-style-type: none"> <li>Enough ullage needs to be left at the top of the tank to accommodate for fill rate and tank size and shape.</li> </ul> |                       |                       |                       |                       |
| <ul style="list-style-type: none"> <li>Improper and inadequate venting is a common cause of filling problems when using high fill rate nozzles.</li> </ul>    |                       |                       |                       |                       |
| <ul style="list-style-type: none"> <li>Make sure there is a free and unrestricted air path out of the tank.</li> </ul>  |                       |                       |                       |                       |

### Factors that affect fuel nozzle shut off

- Tall, narrow tank which can increase head pressure on the receiver.
- Long or circuitous flow path of feed hose after receiver.
- Inadequate venting of tank causing pressurization while filling.
- Restriction in flow path after the receiver.
- Low pressure nozzle not correct for tank configuration

### Factors that can cause fuel to spill out of vent

- Too short of an internal stem vent. Does not allow proper pressurization prior to overfilling tank.
- Non pressure system sensing line is broken or not hooked up.
- Too slow of a fill rate to properly operate the nozzle. Needs to be 40 GPM minimum.
- High pressure nozzle not correct for tank configuration and ullage.

### Factors that can affect non pressure fueling systems

- Most systems need a higher pressure shut off nozzle to function correctly.
- Filling at too low of a fill rate. Needs to be 40 GPM minimum.
- Sensing line between vent and receiver is blocked or disconnected.
- Inadequate venting of tank.
- Restricted vent holes during installation.

## 9 External Line Non-Pressure Fueling System

External system is rated at 400 GPM with our standard fuel nozzles. Our external line system fits into all standard 2" NPT openings.

- **Patented design Patent #US10597284B2 reduces fuel foaming and increases flow due to an unrestricted "straight through" flow path.**
- **Factory tested prior to shipping.**
- **Integrated roll over spill protection.**
- **Optional rotatable vent top.**
- **The FloMAX external line system can flow over 400 GPM, higher flow rates than all other competitors.**
- **All stainless steel and aircraft grade aluminum construction means they are built to last.**
- **Compatible with all tank types (plastic & steel).**



| Part No.       | Description                                   |
|----------------|---|
| NPS-1          | External Kit with Rec., hose and fitting      |
| NPS-1-NH       | External Kit with Rec. no hose, fitting       |
| NPS-1-F        | External Kit with vent top, hose, fittings    |
| NPS-1-F-NH     | External Kit with vent top, no hose, fittings |
| NPS-Filter Kit | NPS Filter Kit, bracket and filter            |

| Part No.   | Description   |
|------------|---|
| NPS-FB     | NPS Filter Bracket Black anodized                                       |
| NPS-Filter | NPS Filter  |
| VT-NP-E    | Non-Pressure 2" Vent external hose applications                         |
| NPV        | Non Pressure Valve External   |
| VT-NP-F-E  | Non-Pressure 2" Vent external hose applications With Rotatable Vent Top |

# Internal Line Non-Pressure Fueling System 10

All stainless steel and aircraft grade aluminum construction means they are built to last. Our internal line system fits into all standard 2" NPT openings and the receiver is the same size as a STANDARD FUEL RECEIVER! All of your current safety enclosures and panel boxes will still work as designed with our internal non-pressure system. This demonstrates FloMAX innovation.

- Patented design Patent #US9772043B2 reduces fuel foaming and increases flow due to an unrestricted “straight through” flow path.
- Compatible with all tank types (plastic and steel).
- Integrated roll over spill protection.
- Factory tested prior to shipping.
- Optional rotating vent top.
- Internal system is rated at 200 GPM with our standard fuel nozzles.



| Part No.     | Description                                   |
|--------------|---|
| NPS-2        | Internal Kit with hose and fittings           |
| NPS-2-NH     | Internal Kit no hose, fittings                |
| NPS-2-F-I    | Internal Kit with vent top, hose, fittings    |
| NPS-2-F-1-NH | Internal kit with vent top, no hose, fittings |

| Part No.       | Description   |
|----------------|---|
| NPS-Filter Kit | NPS Filter Kit, bracket and filter                                      |
| NPS-FB         | NPS Filter Bracket Black anodized                                       |
| NPS-Filter     | NPS Filter  |
| VT-NP-I        | Non-Pressure 2" Vent Internal hose applications                         |
| VT-NP-F-I      | Non-Pressure 2" Vent Internal hose applications With Rotatable Vent Top |
| FR-NP-C        | Non Pressure Valve Internal   |

# 11 Non Pressure System

All in one flanged Non-Pressure valve. Saves space and is more compact than any of our competitors. We have them in our massive 2" FRX receiver size as well as our standard 1 1/2 FR-RS configuration. Can be configured to an internal or external line configuration. NPS-1 Kit has all of the components necessary for a trouble free installation.

- **Optional rotatable vent top has one-way fluoro silicone check valves to only allow filtered ingress air into the tank when in use. Available on both the internal and external line systems.**

## NPV-FRX

- **Flange-All-In-One non pressure valve 2" FRX Receiver.**



## NPS-1 Kit

- **Everything that you need for a trouble free installation.**



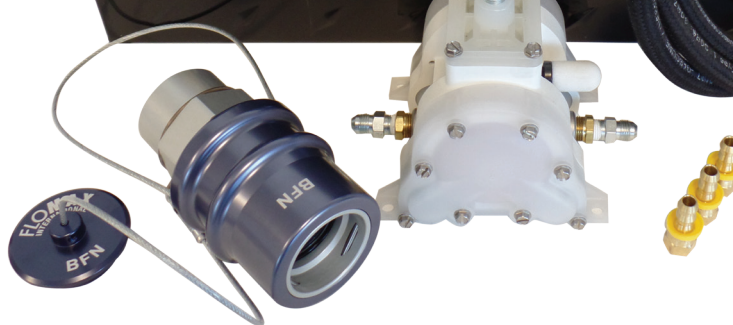
## NPS Drain Kit

- **Allows draining of the tank while the Non Pressure Valve is in place. Contains the following, Metal Case, Diaphragm pump, BFN-P and hose.**



## NPV-F

- **Flange-All-In-One Non Pressure Valve Standard Receiver.**



# Internal Line Non-Pressure Fueling System 12

All stainless steel and aircraft grade aluminum construction means they are built to last. Our internal line system fits into all standard 2" NPT openings and the receiver is the same size as a STANDARD FUEL RECEIVER! All of your current safety enclosures and panel boxes will still work as designed with our internal non-pressure system. This demonstrates FloMAX innovation.

- Patented design Patent # US9772043B2 reduces fuel foaming and increases flow due to an unrestricted "straight through" flow path. • Flows up to 211 GPM.

## *NPS-2-F Kit Rotatable Vent Top*

- All in one kit for internal line applications with vent top.



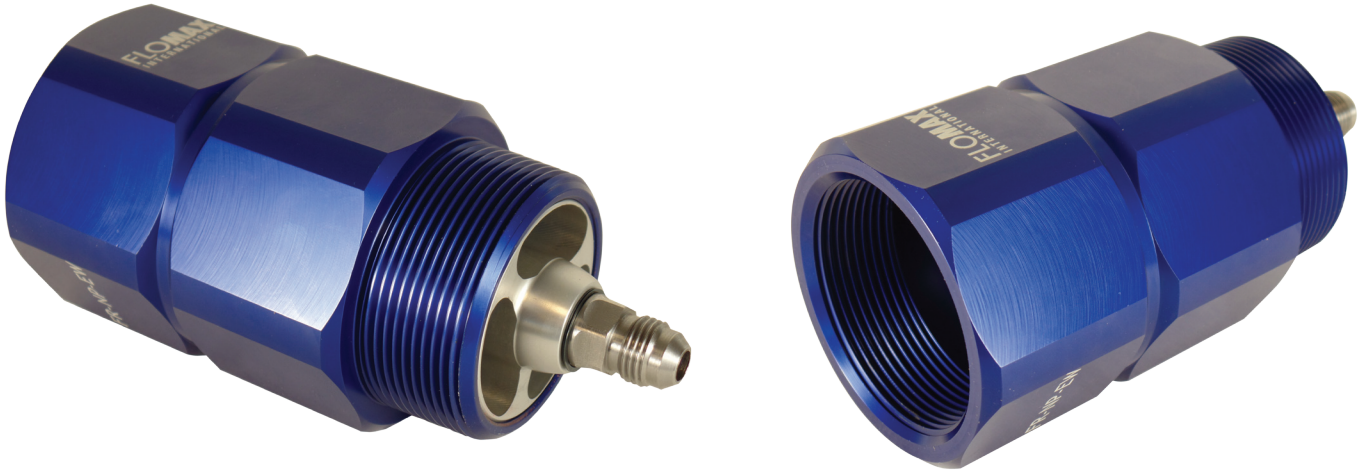
## *NPS-2 Kit*

- All in one kit for internal line applications.

# 13 NPV-I, FR-NP-EW

- NPV-I, One piece in-line non pressure valve allows installing a non pressure valve in any 2” NPT system.
- Built with the same robust parts and quality as our standard non pressure systems.
- The FR-NP-EW fits the EMCO WHEATON® nozzle allowing a non pressure shut off system while using the EW nozzle.
- Made from aircraft grade aluminum and factory tested prior to shipping.

## NPV-I



## FR-NP-EW®

- The FR-NP-EW fits the EMCO-Wheaton® nozzle allowing a non-pressure shut off system while using the EMCO-Wheaton® Nozzle.



| Part No. | Description                                 |
|----------|---|
| FR-NP-EW | In-Line Non Pressure Valve for EW Receivers |
| NPV-I    | In-Line Non Pressure Valve                  |

- Top Fill Units allow filling and venting from the same single tank opening.
- Non Pressure application prevents overfilling of tanks.
- Greatly increases safety and lessens hazardous spilling of fuel on top fill applications.
- Available in both straight and 90 degree configuration.
- Fits a 2" NPT opening.
- Flow rate is 70+ GPM.
- Designed to accommodate remote receiver mounting.
- Patent # US10597284B2.

TF-RT w/ HFR-C #1-G



TF-RT w/ HFR-C #1-G



TF-RT Top fill, rotatable top 1" inlet.

| Part No.   | Description                       |
|------------|-----------------------------------|
| TF-RT      | 1" Top Fill Unit w/ Rotatable Top |
| HFR-C #1-G | High Flow Receiver w/Cap          |



# 15 Top Fill

- Top Fill Units allow filling and venting from the same single tank opening.
- Non Pressure application prevents overfilling of tanks.
- Greatly increases safety and lessens hazardous spilling of fuel on top fill applications.
- Available in both straight and 90 degree configuration.
- Fits a 2" NPT opening.
- Flow rate is 70+ GPM.
- Designed to accommodate remote receiver mounting.
- Patent # VS10597284BZ.

TF-FR w/ TFR-C



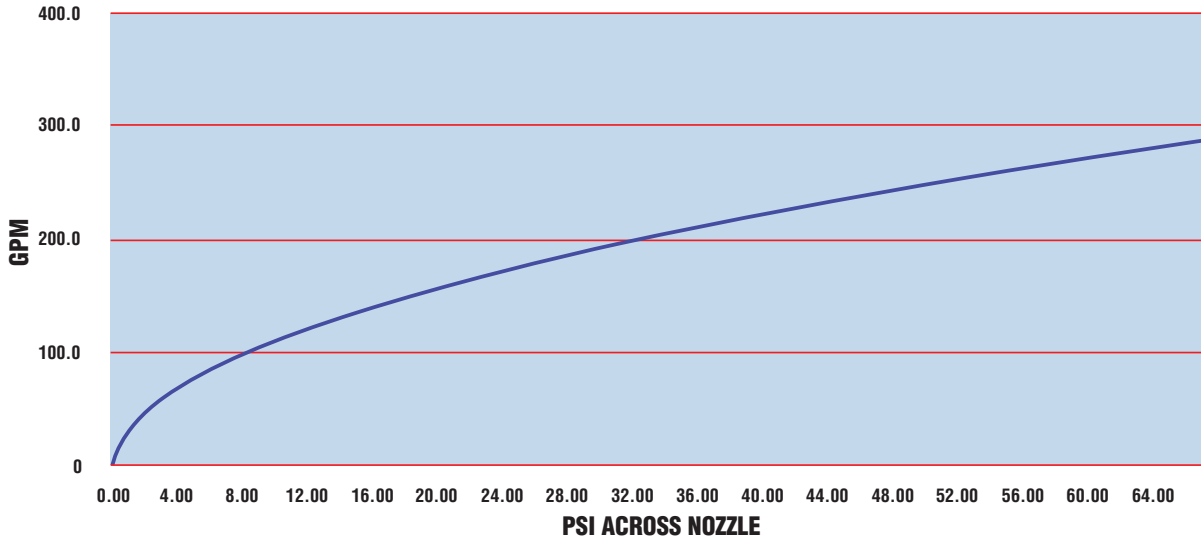
TF-FR w/ TFR-C



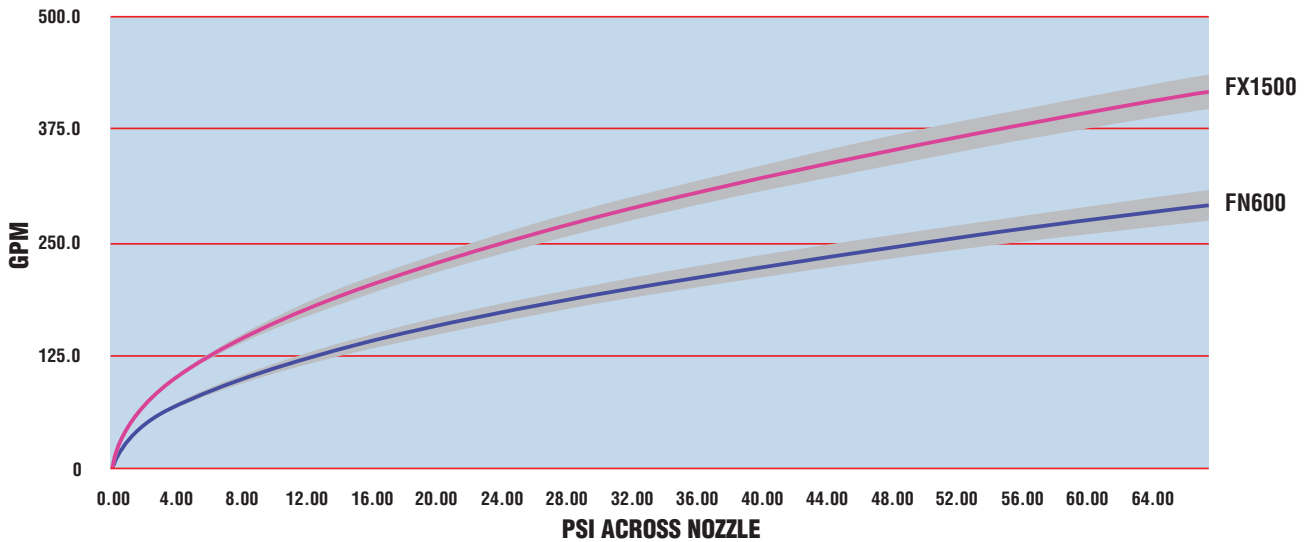
*TF-FR Top fill adapter with a TFR-C, HFR receiver nose.*

| Part No. | Description                                |
|----------|--|
| TF-FR    | Top Fill Adapter                           |
| TFR-C    | Top Fill Receiver, 1.25" Inlet w/ HFR Nose |

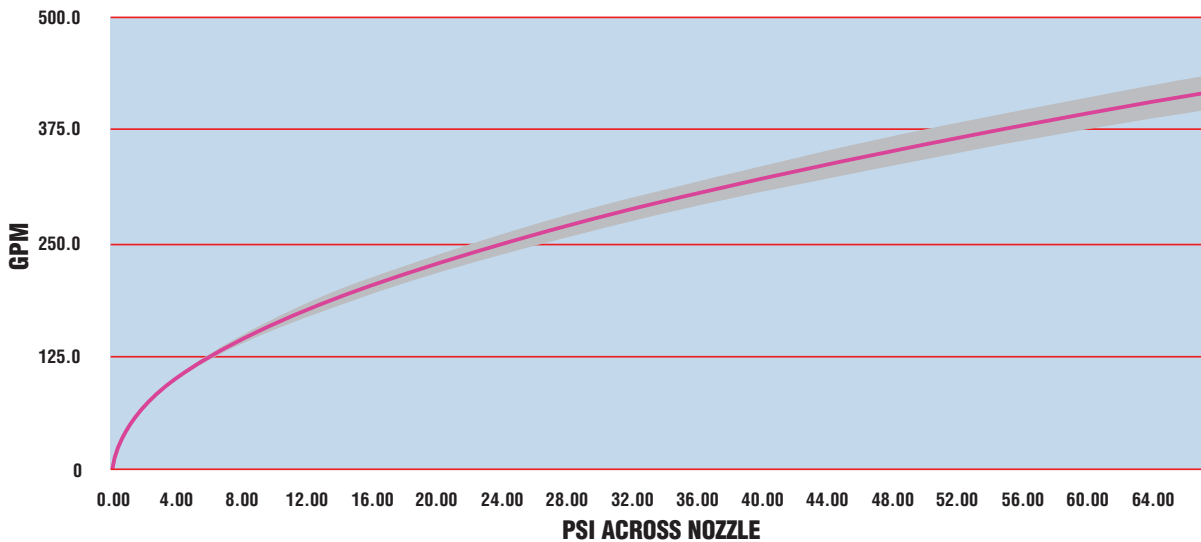
**FNBL/FN600 Supply PSI: Cv 35.1**



**FX1500/FNBL/FN600**



**FX1500 GPM / Supply PSI: Cv 50.5**



# 17 Non Pressure System Tank Configuration

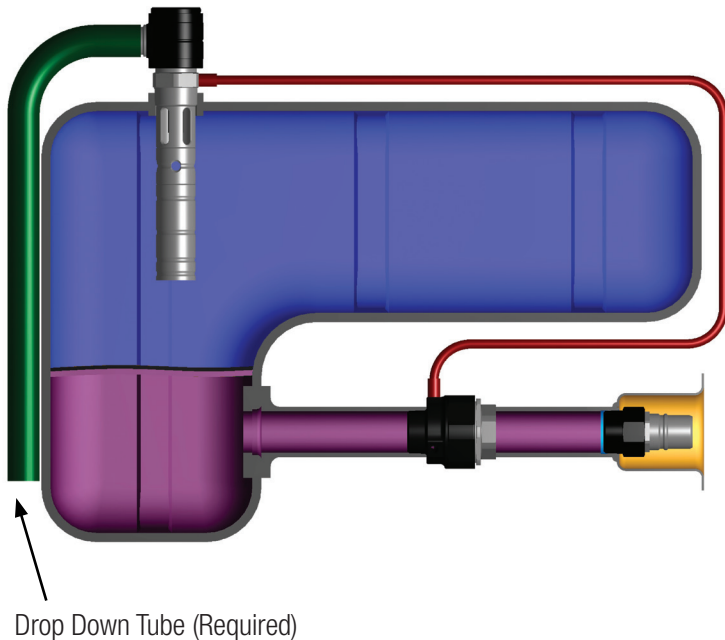
**External System: 400 GPM Capable**  
Drop Down tube is required installation on both vent types.

Remove rubber cover and screen before installing drop hose.

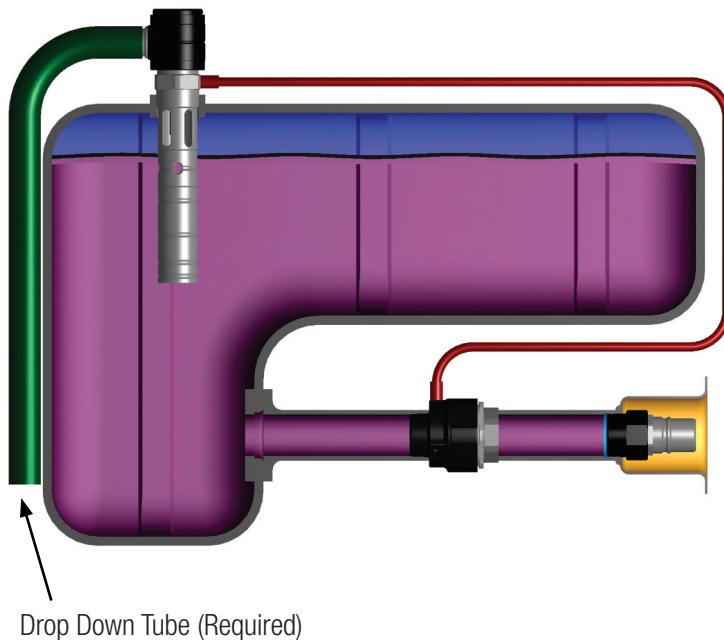
NPV can be directly mounted to the tank.

**Internal System: Fits in standard enclosures, 200 GPM Capable, Excellent slosh resistance**

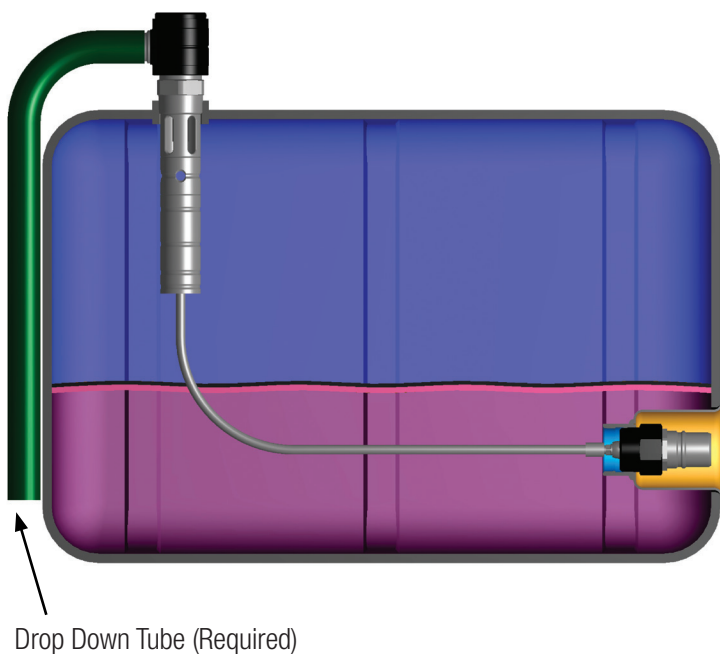
**External Tank Empty**



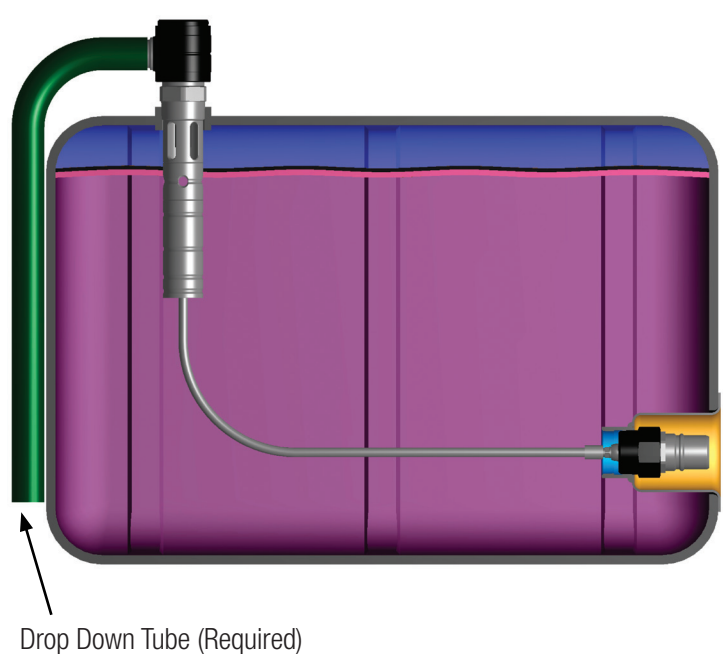
**External Tank Full**



**Internal Tank Empty**

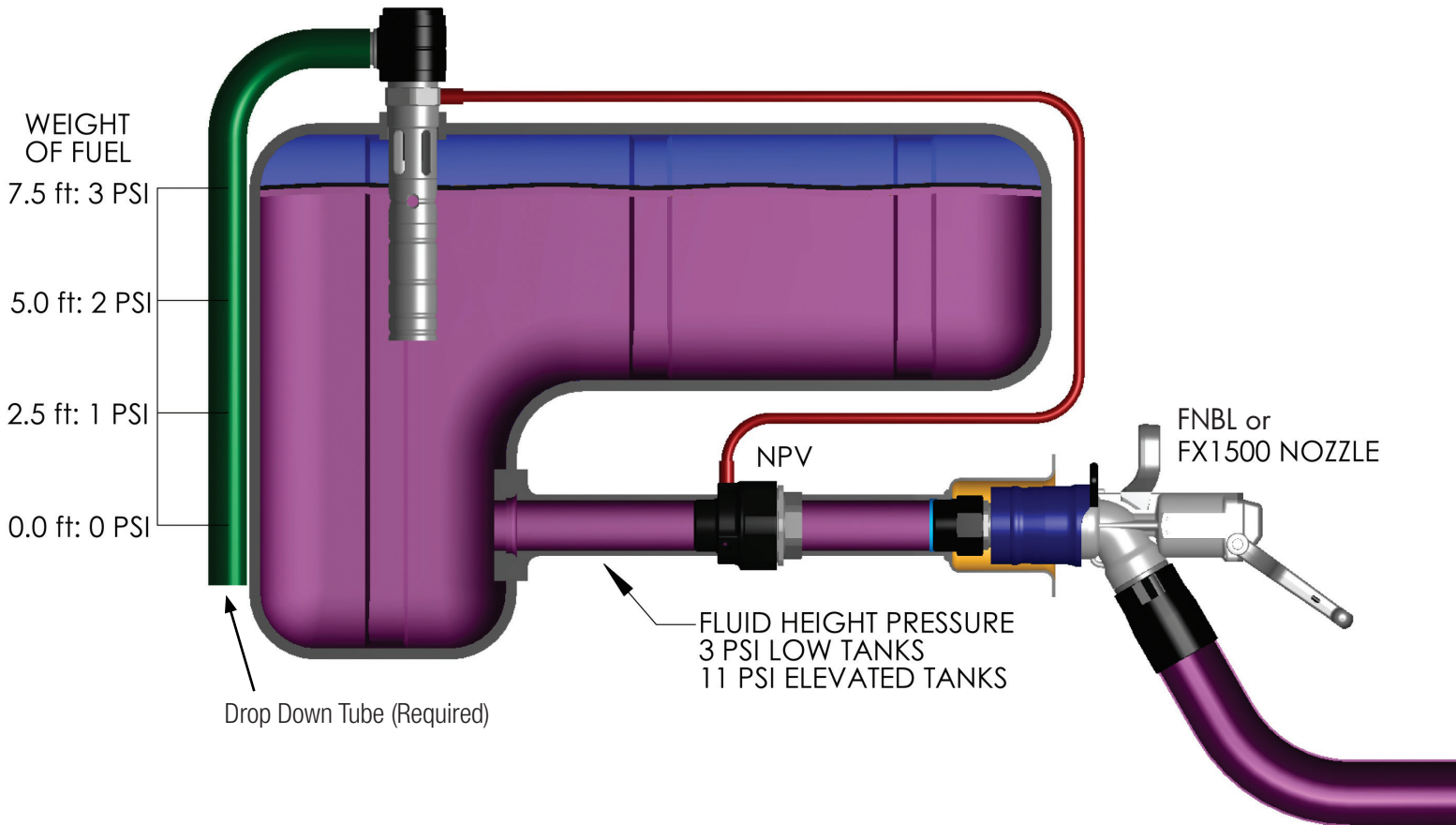


**Internal Tank Full**



Note: All tanks shown with green drop down tubes.

*Always use a high pressure shut off fuel nozzle for all non pressure system installations.*



***Installation tips:***

- *Keep the sensing line hose free of excessive bends; less than three 90° bends preferred. The external hose may need to be cut to length.*
- *The internal NPS hose connections are located on the bottom of the VT-NP and the rear of the FR-NP.*
- *The external NPS hose connections are located above the threads where the VT-NP mounts to the tank and one of the three ports on the exterior of the NPV.*
- *For the external system, the NPV mounts between the tank and a low pressure fuel receiver. The NPV has a specified flow direction that is indicated on the part.*
- *For the internal system, the FR-NP retains the same dimensions as a standard fuel receiver and mounts directly to the tank.*

# 19 Fuel Receivers

All FloMAX Fuel receivers have our patented enclosed poppet stem spring for a smooth and higher flowing fuel path. This greatly enhances the life of both the receiver and fuel nozzle due to the decrease in fuel restriction and vibration.

Our FR-RS series of fuel receivers have a patented removable stainless steel wear sleeve. This revolutionary patented concept allows the fuel receiver wear surface to be replaced very quickly and easily without removing the fuel receiver from the tank or the loss of any fuel. It uses the same internal spring concept that has been so successful in our other receivers.

- Patented internal spring reduces vibration and increases flow.
- Patented removable wear sleeve allows easy replacement without draining tank (FR-RS Only).
- Available in both standard and low pressure models.



| Part No.   | Description                                      |
|------------|--|
| FRS        | Fuel Receiver - Steel                            |
| FRS-C      | Fuel Receiver - Steel with Cap                   |
| FRA        | Fuel Receiver - Aluminum                         |
| FRA-C      | Fuel Receiver - Aluminum With Cap                |
| FRA-AT     | Fuel Receiver Aluminum - Anti Theft              |
| FRA-AT-C   | Fuel Receiver Aluminum - Anti Theft with Cap     |
| FR-RS      | Fuel Receiver w/Removable Sleeve                 |
| FR-RS-AT   | Fuel Receiver w/Removable Sleeve - Anti Theft    |
| FR-RS-AT-C | Fuel Receiver w/REM Sleeve - Anti Theft with Cap |
| FR-RS-R    | Fuel Receiver w/REM Sleeve - Replacement Sleeve  |

| Part No.  | Description                                       |
|-----------|---|
| FRS-NI*   | Fuel Receiver Non-Interchangeable                 |
| FRA-NI-C* | Fuel Receiver Non-Interchangeable, with Cap       |
| FRX       | Fuel Receiver 2"                                  |
| FRX-C     | Fuel Receiver 2" with Cap                         |
| FRX Cap   | Fuel Receiver 2" Cap                              |
| FRX P Cap | Fuel Receiver Cap - Push -On Mechanically Locking |
| FR Cap    | Fuel Receiver Cap                                 |
| FR P Cap  | Fuel Receiver Cap - Push -On Mechanically Locking |
| FRS-61    | Stainless Fuel Receiver Code 61 Flange            |
| FRS-61-C  | Stainless Fuel Receiver Code 61 Flange w/Cap      |

\* USE WITH FNBL-NI ONLY See Page 4

## FR-P Cap



**FR-P Cap and FRX-P Cap Available. Spring Clip Option Available For All Fuel Receivers.**

FR P Cap and FRX P Cap are a Flomax innovation for an easily installed and removed fuel receiver cap. The push to connect design allows easy installation in all weather conditions. The FR P cap fits all standard fuel receivers. The FRX P Cap fits our high flowing 2" FRX Fuel receivers.

FloMAX has a unique series of connectors designed for great fluid flow and to help prevent cross contamination. Our Patented non-interchangeable feature means each color will only mate with its corresponding colored receiver or nozzle. All wear components are made from Stainless steel and non-wear components are aircraft grade anodized aluminum. The stainless steel latching mechanism ensures a long lasting and robust connection every time.

**• FloMAX invented the non-interchangeable series of connectors. • Eliminates cross contamination. • All metal construction ensures longevity. • 50 GPM. • NPTM 3/4" Thread Size. • 500 PSI Working Press.**

## ENBL



## ERS

JIC Ends Available



## ERJ



| Colors Available: |  |
|-------------------|--|
| Red               |  |
| Gold              |  |
| Teal              |  |
| Violet            |  |
| Navy              |  |
| Brown             |  |

| Part No.     | Description   |
|--------------|---|
| ENBL #1      | Engine Nozzle Ball Lock #1 - Red                      |
| ENBL-P #1    | Engine Nozzle Ball Lock w/ Plug #1 - Red              |
| ENBL #1 Plug | Engine Nozzle Ball Lock Plug #1 - Red                 |
| ERS #1       | Engine Receiver #1 - Red                              |
| ERS-C #1     | Engine Receiver w/ Cap #1 - Red                       |
| ERS #1 Cap   | Engine Receiver Cap #1 - Red                          |
| ERJ #1       | Engine Receiver with JIC Bulkhead Base #1 - Red       |
| ERJ-C #1     | Engine Receiver w/JIC Bulkhead Base w/ Cap #1 - Red   |
| ENBL #2      | Engine Nozzle Ball Lock #2 - Gold                     |
| ENBL-P #2    | Engine Nozzle Ball Lock w/ Plug #2 - Gold             |
| ENBL #2 Plug | Engine Nozzle Ball Lock Plug #2 - Gold                |
| ERS #2       | Engine Receiver #2 - Gold                             |
| ERS-C #2     | Engine Receiver w/ Cap #2 - Gold                      |
| ERS #2 Cap   | Engine Receiver Cap #2 - Gold                         |
| ERJ #2       | Engine Receiver with JIC Bulkhead Base #2 - Gold      |
| ERJ-C #2     | Engine Receiver w/ JIC Bulkhead Base w/ Cap #2 - Gold |
| ENBL #3      | Engine Nozzle Ball Lock #3 - Teal                     |
| ENBL-P #3    | Engine Nozzle Ball Lock w/ Plug #3 - Teal             |
| ENBL #3 Plug | Engine Nozzle Ball Lock Plug #3 - Teal                |
| ERS #3       | Engine Receiver #3 - Teal                             |
| ERS-C #3     | Engine Receiver w/ Cap #3 - Teal                      |
| ERS #3 Cap   | Engine Receiver Cap #3 - Teal                         |
| ERJ #3       | Engine Receiver with JIC Bulkhead Base #3 - Teal      |
| ERJ-C #3     | Engine Receiver w/ JIC Bulkhead Base w/ Cap #3 - Teal |

| Part No.     | Description   |
|--------------|---|
| ENBL #4      | Engine Nozzle Ball Lock #4 - Violet                     |
| ENBL-P #4    | Engine Nozzle Ball Lock w/ Plug #4 - Violet             |
| ENBL #4 Plug | Engine Nozzle Ball Lock Plug #4 - Violet                |
| ERS #4       | Engine Receiver #4 - Violet                             |
| ERS-C #4     | Engine Receiver w/ Cap #4 - Violet                      |
| ERS #4 Cap   | Engine Receiver Cap #4 - Violet                         |
| ERJ #4       | Engine Receiver with JIC Bulkhead Base #4 - Violet      |
| ERJ-C #4     | Engine Receiver w/ JIC Bulkhead Base w/ Cap #4 - Violet |
| ENBL #5      | Engine Nozzle Ball Lock #5 - Navy                       |
| ENBL-P #5    | Engine Nozzle Ball Lock w/ Plug #5 - Navy               |
| ENBL #5 Plug | Engine Nozzle Ball Lock Plug #5 - Navy                  |
| ERS #5       | Engine Receiver #5 - Navy                               |
| ERS-C #5     | Engine Receiver w/ Cap #5 - Navy                        |
| ERS #5 Cap   | Engine Receiver Cap #5 - Navy                           |
| ERJ #5       | Engine Receiver with JIC Bulkhead Base #5 - Navy        |
| ERJ-C #5     | Engine Receiver w/ JIC Bulkhead Base w/ Cap #5 - Navy   |
| ENBL #6      | Engine Nozzle Ball Lock #6 - Brown                      |
| ENBL-P #6    | Engine Nozzle Ball Lock w/ Plug #6 - Brown              |
| ENBL #6 Plug | Engine Nozzle Ball Lock Plug #6 - Brown                 |
| ERS #6       | Engine Receiver #6 - Brown                              |
| ERS-C #6     | Engine Receiver w/ Cap #6 - Brown                       |
| ERS #6 Cap   | Engine Receiver Cap #6 - Brown                          |
| ERJ #6       | Engine Receiver with JIC Bulkhead Base #6 - Brown       |
| ERJ-C #6     | Engine Receiver w/ JIC Bulkhead Base w/ Cap #6 - Brown  |

# 21 High Flow 1" Connectors

The High Flow series of connectors have the same non interchangeable feature as the 3/4" series but are in a higher flowing 1" NPT size.

- **Flow rate of 113 GPM.**
- **Seven Non interchangeable colors.**
- **1" NPT base.**
- **500 PSI Operating Pressure.**

## HFN



| Part No.    | Description                          |
|-------------|--------------------------------------|
| HFN #1      | High Flow Nozzle #1 - Red            |
| HFN-P #1    | High Flow Nozzle w/ Plug #1 - Red    |
| HFN #1 Plug | High Flow Nozzle Plug #1 - Red       |
| HFR #1      | High Flow Receiver #1 - Red          |
| HFR-C #1    | High Flow Receiver w/ Cap #1 - Red   |
| HFR #1 Cap  | High Flow Receiver Cap #1 - Red      |
| HFN #2      | High Flow Nozzle #2 - Gold           |
| HFN-P #2    | High Flow Nozzle w/ Plug #2 - Gold   |
| HFN #2 Plug | High Flow Nozzle Plug #2 - Gold      |
| HFR #2      | High Flow Receiver #2 - Gold         |
| HFR-C #2    | High Flow Receiver w/ Cap #2 - Gold  |
| HFR #2 Cap  | High Flow Receiver Cap #2 - Gold     |
| HFN #3      | High Flow Nozzle #3 - Teal           |
| HFN-P #3    | High Flow Nozzle w/ Plug #3 - Teal   |
| HFN #3 Plug | High Flow Nozzle Plug #3 - Teal      |
| HFR #3      | High Flow Receiver #3 - Teal         |
| HFR-C #3    | High Flow Receiver w/ Cap #3 - Teal  |
| HFR #3 Cap  | High Flow Receiver Cap #3 - Teal     |
| HFN #4      | High Flow Nozzle #4 - Violet         |
| HFN-P #4    | High Flow Nozzle w/ Plug #4 - Violet |
| HFN #4 Plug | High Flow Nozzle Plug #4 - Violet    |

## HFR



| Colors Available: |  |
|-------------------|--|
| Red               |  |
| Gold              |  |
| Teal              |  |
| Violet            |  |
| Navy              |  |
| Brown             |  |
| Blue/Grey         |  |

| Part No.    | Description                              |
|-------------|--|
| HFR #4      | High Flow Receiver #4 - Violet           |
| HFR-C #4    | High Flow Receiver w/ Cap #4 - Violet    |
| HFR #4 Cap  | High Flow Receiver Cap #4 - Violet       |
| HFN #5      | High Flow Nozzle #5 - Navy               |
| HFN-P #5    | High Flow Nozzle w/ Plug #5 - Navy       |
| HFN #5 Plug | High Flow Nozzle Plug #5 - Navy          |
| HFR #5      | High Flow Receiver #5 - Navy             |
| HFR-C #5    | High Flow Receiver w/ Cap #5 - Navy      |
| HFR #5 Cap  | High Flow Receiver Cap #5 - Navy         |
| HFN #6      | High Flow Nozzle #6 - Brown              |
| HFN-P #6    | High Flow Nozzle w/ Plug #6 - Brown      |
| HFN #6 Plug | High Flow Nozzle Plug #6 - Brown         |
| HFR #6      | High Flow Receiver #6 - Brown            |
| HFR-C #6    | High Flow Receiver w/ Cap #6 - Brown     |
| HFR #6 Cap  | High Flow Receiver Cap #6 - Brown        |
| HFN #7      | High Flow Nozzle #7 - Blue/Grey          |
| HFN-P #7    | High Flow Nozzle w/ Plug #7 - Blue/Grey  |
| HFN #7 Plug | High Flow Nozzle Plug #7 - Blue/Grey     |
| HFR #7      | High Flow Receiver #7 - Blue/Grey        |
| HFR-C #7    | High Flow Receiver w/ Cap #7 - Blue/Grey |
| HFR #7 Cap  | High Flow Receiver Cap #7 - Blue/Grey    |

The High Flow Nozzle (HFN) and High Flow Receiver (HFR) line of dry break fittings consist of seven sets of fittings with each pair offering a minimum flow area equivalent to 1” schedule 80 pipe. The fittings incorporate the following design features:

- 1) The receiver and nozzle of each set will only couple with each other offering complete protection against cross contamination of fluids.
- 2) Receiver and nozzle sets are color coded to simplify identification of matching component sets.
- 3) All wear parts are constructed of 416 stainless steel for long life and corrosion resistance.
- 4) All non-wear components are constructed of anodized 6061 alloy aluminum for high strength, light weight, and corrosion resistance.
- 5) All fittings have a 500 psi working pressure rating with 1500 psi minimum burst pressure rating.
- 6) The standard mounting is 1” male NPT for all receivers and 1” female NPT for all nozzles with optional mounting configurations available.
- 7) All fittings incorporate a “ball lock” mechanism with 7/32” 440-C grade stainless steel balls to insure smooth and reliable operation.
- 8) Maximum flow rate using ISO 46 hydraulic oil (third party tested) is 113 gpm (428 lpm).

## Physical Description:

|                    | <b>Length</b> | <b>Diameter</b> | <b>Hex Size</b> | <b>Weight</b> |
|--------------------|---------------|-----------------|-----------------|---------------|
| <i>Nozzle</i>      | 3.92” 100mm   | 2.50” 64mm      | 2” 51mm         | 1.3 lbs. 640g |
| <i>Receiver</i>    | 3.40” 86mm    | 1.85” 47mm      | 2” 51mm         | 0.6 lbs. 320g |
| <i>Coupled Set</i> | 5.35” 136mm   |                 |                 |               |

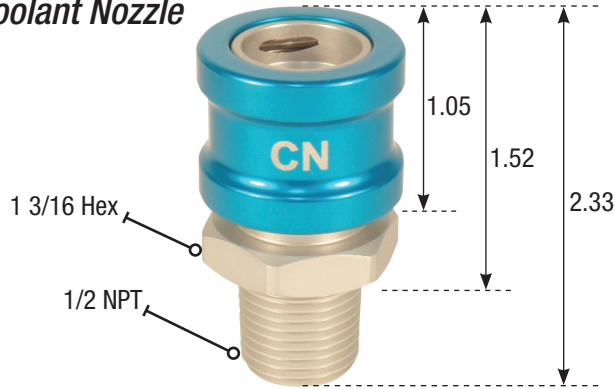


# 23 Coolant and Engine Connectors-Standard Series

FloMAX standard series connectors are fully compatible and interchangeable with industry standard connectors. They are 100% metal construction using stainless steel and anodized aircraft grade aluminum. The color coded and labeled mating components provide for quick and positive identification.

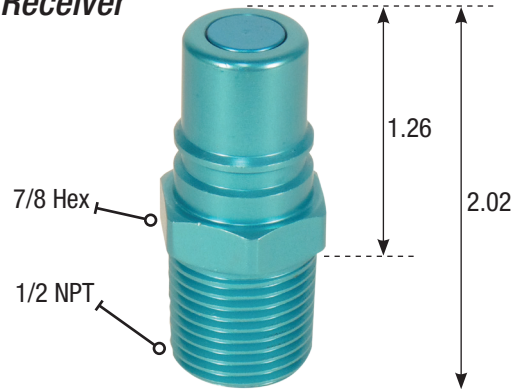
- All metal construction ensures reliable performance.
- Fits all industry standard connectors.
- Color coded for quick and easy identification.

## Coolant Nozzle



| Part No. | Description            |
|----------|------------------------|
| CN       | Coolant Nozzle         |
| CN-P     | Coolant Nozzle w/ Plug |
| CN Plug  | Coolant Nozzle Plug    |

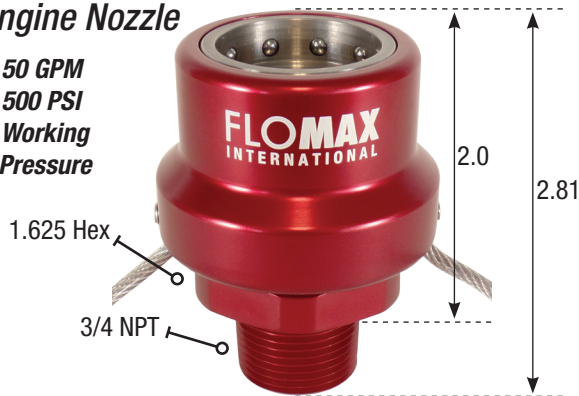
## Coolant Receiver



| Part No. | Description             |
|----------|-------------------------|
| CR       | Coolant Receiver        |
| CR-C     | Coolant Receiver w/ Cap |
| CR Cap   | Coolant Receiver Cap    |

## Engine Nozzle

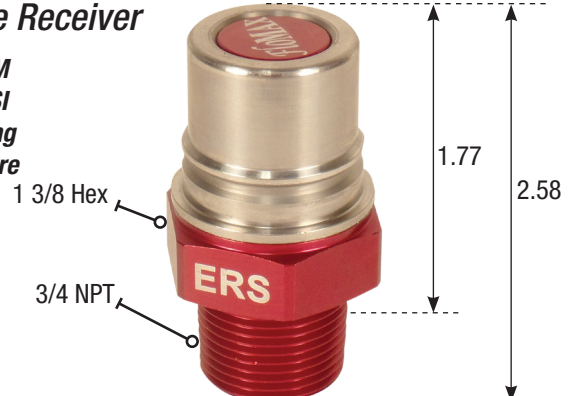
- 50 GPM
- 500 PSI Working Pressure



| Part No.  | Description                     |
|-----------|---------------------------------|
| ENBL      | Engine Nozzle Ball Lock         |
| ENBL-P    | Engine Nozzle Ball Lock w/ Plug |
| ENBL Plug | Engine Nozzle Ball Lock Plug    |

## Engine Receiver

- 50 GPM
- 500 PSI Working Pressure



| Part No. | Description                                   |
|----------|---|
| ERS      | Engine Receiver                               |
| ERS-C    | Engine Receiver w/ Cap                        |
| ERS Cap  | Engine Receiver Cap                           |
| ERJ      | Engine Receiver with JIC Bulkhead Base        |
| ERJ-C    | Engine Receiver with JIC Bulkhead Base w/ Cap |
| UN34     | Universal 3/4" Series Draining Nozzle         |
| UN34-P   | Universal 3/4" Series Draining Nozzle w/Plug  |

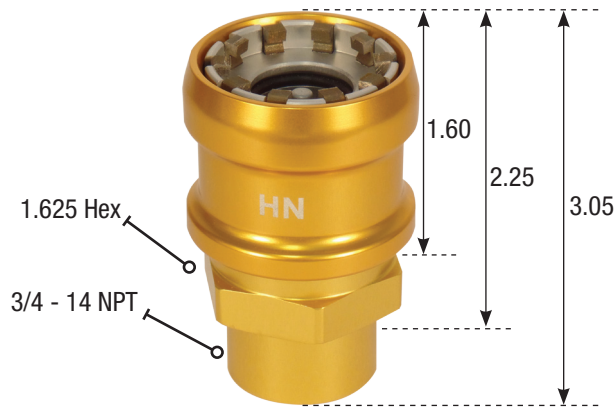


**UN34 and 34P Universal extraction nozzles fits all ERS 3/4 series receivers for easy evacuation and draining of tanks.**

FloMAX standard series connectors are fully compatible and interchangeable with industry standard connectors. They are 100% metal construction using stainless steel and anodized aircraft grade aluminum. The color coded and labeled mating components provide for quick and positive identification.

- All metal construction ensures reliable performance.
- Fits all industry standard connectors.
- Color coded for quick and easy identification.

## Hydraulic Nozzle



| Part No. | Description              |
|----------|--------------------------|
| HN       | Hydraulic Nozzle         |
| HN-P     | Hydraulic Nozzle w/ Plug |
| HN Plug  | Hydraulic Nozzle Plug    |

## Hydraulic Receiver



| Part No. | Description               |
|----------|---------------------------|
| HR       | Hydraulic Receiver        |
| HR-C     | Hydraulic Receiver w/ Cap |
| HR Cap   | Hydraulic Receiver Cap    |

## Transmission Nozzle



| Part No. | Description                 |
|----------|-----------------------------|
| TN       | Transmission Nozzle         |
| TN-P     | Transmission Nozzle w/ Plug |
| TN Plug  | Transmission Nozzle Plug    |

## Transmission Receiver



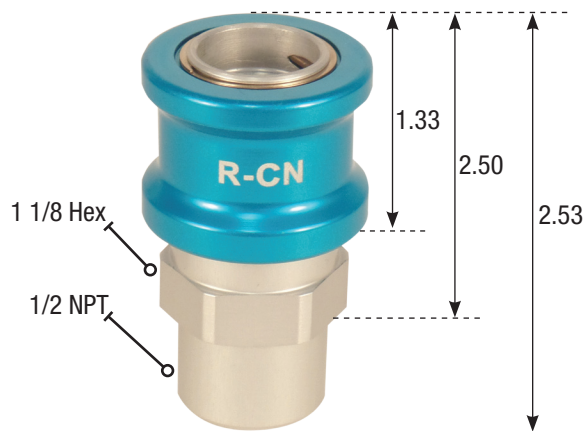
| Part No. | Description            |
|----------|------------------------|
| TR       | Transmission Receiver  |
| TR-C     | Trans. Receiver w/ Cap |
| TR Cap   | Trans. Receiver Cap    |

# 25 R-Series Coolant and Engine Connectors

FLOMAX R-Series connectors are fully compatible and interchangeable with industry standard R-Series connectors. They are 100% metal construction using stainless steel and anodized aircraft grade aluminum. The color coded and labeled mating components provide for quick and positive identification.

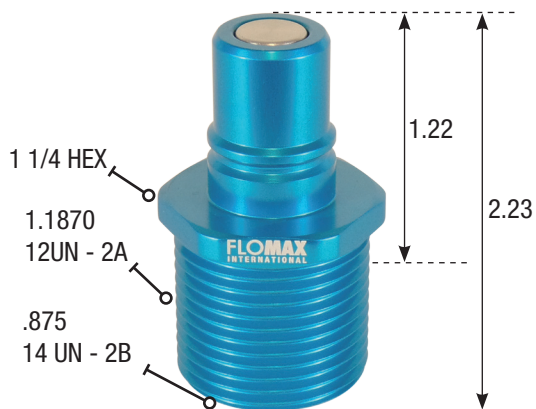
- All metal construction ensures long and reliable performance.
- Fits all industry R-Series connectors.
- Color coded for quick and easy identification.

## Coolant Nozzle



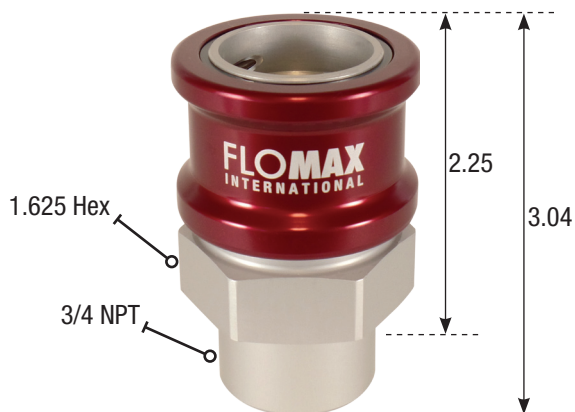
| Part No.  | Description                     |
|-----------|---------------------------------|
| R-CN      | R-Series Coolant Nozzle         |
| R-CN-P    | R-Series Coolant Nozzle w/ Plug |
| R-CN Plug | R-Series Coolant Nozzle Plug    |

## Coolant Receiver



| Part No. | Description                      |
|----------|----------------------------------|
| R-CR     | R-Series Coolant Receiver        |
| R-CR-C   | R-Series Coolant Receiver w/ Cap |
| R-CR Cap | R-Series Coolant Receiver Cap    |

## Engine Nozzle



| Part No.  | Description                    |
|-----------|--------------------------------|
| R-EN      | R-Series Engine Nozzle         |
| R-EN-P    | R-Series Engine Nozzle w/ Plug |
| R-EN Plug | R-Series Engine Nozzle Plug    |

## Engine Receiver

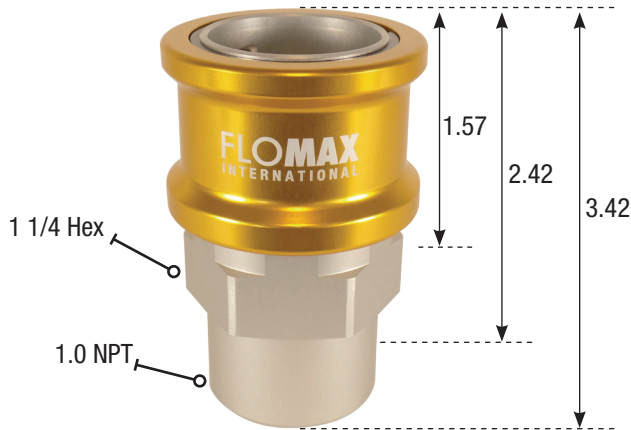


| Part No. | Description                     |
|----------|---------------------------------|
| R-ER     | R-Series Engine Receiver        |
| R-ER-C   | R-Series Engine Receiver w/ Cap |
| R-ER Cap | R-Series Engine Receiver Cap    |

FloMax R-Series Coolant and Engine connectors are fully compatible and interchangeable w/ industry standard R-Series connectors. The caps, plugs, and connectors are manufactured using aircraft grade anodized aluminum and color coded for quick and easy identification.

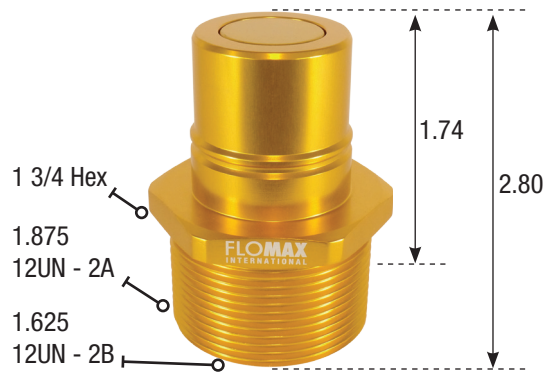
- All metal construction ensures long and reliable performance.
- Fits all industry R-Series connectors.
- Color coded for quick and easy identification.

## Hydraulic Nozzle



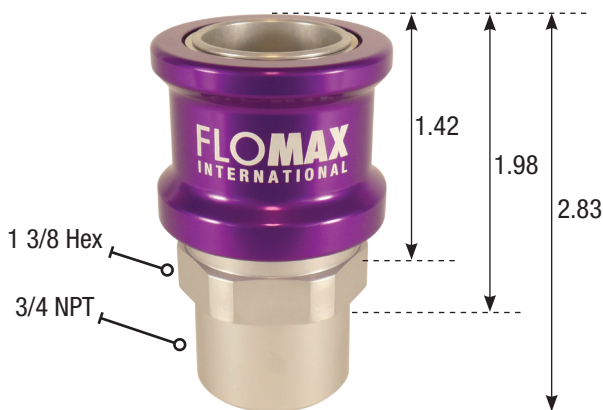
| Part No.  | Description                       |
|-----------|-----------------------------------|
| R-HN      | R-Series Hydraulic Nozzle         |
| R-HN-P    | R-Series Hydraulic Nozzle w/ Plug |
| R-HN Plug | R-Series Hydraulic Nozzle Plug    |

## Hydraulic Receiver



| Part No. | Description                        |
|----------|------------------------------------|
| R-HR     | R-Series Hydraulic Receiver        |
| R-HR-C   | R-Series Hydraulic Receiver w/ Cap |
| R-HR Cap | R-Series Hydraulic Receiver Cap    |

## Transmission Nozzle



| Part No.  | Description                       |
|-----------|-----------------------------------|
| R-TN      | R-Series Transmission Nozzle      |
| R-TN-P    | R-Series Trans. Nozzle w/ Plug    |
| R-TN Plug | R-Series Transmission Nozzle Plug |

## Transmission Receiver



| Part No. | Description                     |
|----------|---------------------------------|
| R-TR     | R-Series Transmission Receiver  |
| R-TR-C   | R-Series Trans. Receiver w/ Cap |
| R-TR Cap | R-Series Trans. Receiver Cap    |

# 27 Flush Face Connectors \*Push-To-Connect\*

Our Patented non-interchangeable feature means each color will only mate with its corresponding colored receiver or nozzle.

- **New patented design uses an internally sealed ball lock mechanism to ensure trouble free performance even in the most harsh of conditions.**
- **12 color choices and sizes are available along with a universal evacuation nozzle.**
- **Additional special order sizes and colors are also available.**
- **Hardened stainless steel receiver nose ensures that FloMAX Flush Face connectors can be operated at a higher pressure than many other dry break connectors.**
- **All of the Flush Face connectors have the exact same outside dimensions.**
- **Can be connected or disconnected under pressure.**
- **Can be connected without pulling back on the nozzle pullback.**
- **Flush Face Nozzle and Receiver available in JIC base configuration.**
- **500 PSI Working Pressure.**
- **50 GPM Flow Rate.**

## Flush Face Nozzle *\*Also Available in 3/4 Female NPT*



## Flush Face Receiver



Colors Available:

|           |  |
|-----------|--|
| Red       |  |
| Gold      |  |
| Teal      |  |
| Violet    |  |
| Navy      |  |
| Brown     |  |
| Blue/Grey |  |
| Clear     |  |
| Green     |  |
| Grey      |  |
| Bronze    |  |
| Orange    |  |

| Part No. | Description                    |
|----------|--------------------------------|
| FLN #1   | Flush Face Nozzle - Red        |
| FLN #2   | Flush Face Nozzle - Gold       |
| FLN #3   | Flush Face Nozzle - Teal       |
| FLN #4   | Flush Face Nozzle - Violet     |
| FLN #5   | Flush Face Nozzle - Dark Blue  |
| FLN #6   | Flush Face Nozzle - Brown      |
| FLN #7   | Flush Face Nozzle - Blue/Gray  |
| FLN #8   | Flush Face Nozzle - Clear      |
| FLN #9   | Flush Face Nozzle - Dark Green |
| FLN #10  | Flush Face Nozzle - Gray NI    |
| FLN #11  | Flush Face Nozzle - Bronze     |
| FLN #12  | Flush Face Nozzle - Orange     |
| FLN #16  | Flush Face EVAC Nozzle - Black |

| Part No. | Description                      |
|----------|----------------------------------|
| FLR #1   | Flush Face Receiver - Red        |
| FLR #2   | Flush Face Receiver - Gold       |
| FLR #3   | Flush Face Receiver - Teal       |
| FLR #4   | Flush Face Receiver - Violet     |
| FLR #5   | Flush Face Receiver - Dark Blue  |
| FLR #6   | Flush Face Receiver - Brown      |
| FLR #7   | Flush Face Receiver - Blue/Gray  |
| FLR #8   | Flush Face Receiver - Clear      |
| FLR #9   | Flush Face Receiver - Dark Green |
| FLR #10  | Flush Face Receiver - Gray NI    |
| FLR #11  | Flush Face Receiver - Bronze     |
| FLR #12  | Flush Face Receiver - Orange     |



**FLN #16 Universal Drain Nozzle Fits All FLR Receivers.**

**FloMAX Flush Face Grease Connectors**

**US PATENT #9708173**

- Can be connected and disconnected under pressure. This is an industry first, demonstrating Flomax innovation.
- 5000 PSI rated.
- New patented design uses an internally sealed ball lock mechanism to ensure trouble free performance even in the most harsh of conditions.
- All Stainless Steel construction ensures long life and repeatable performance.
- Receiver has a built in check valve.
- 1" FNPT on both receiver and nozzle for maximum flow and adaptability.
- World Class performance and flow.
- Fail Safe shut off for safety.
- Flush face design helps ensure vehicle and part cleanliness.
- Two sizes available.
- Also available in 3/4" BSPP thread.

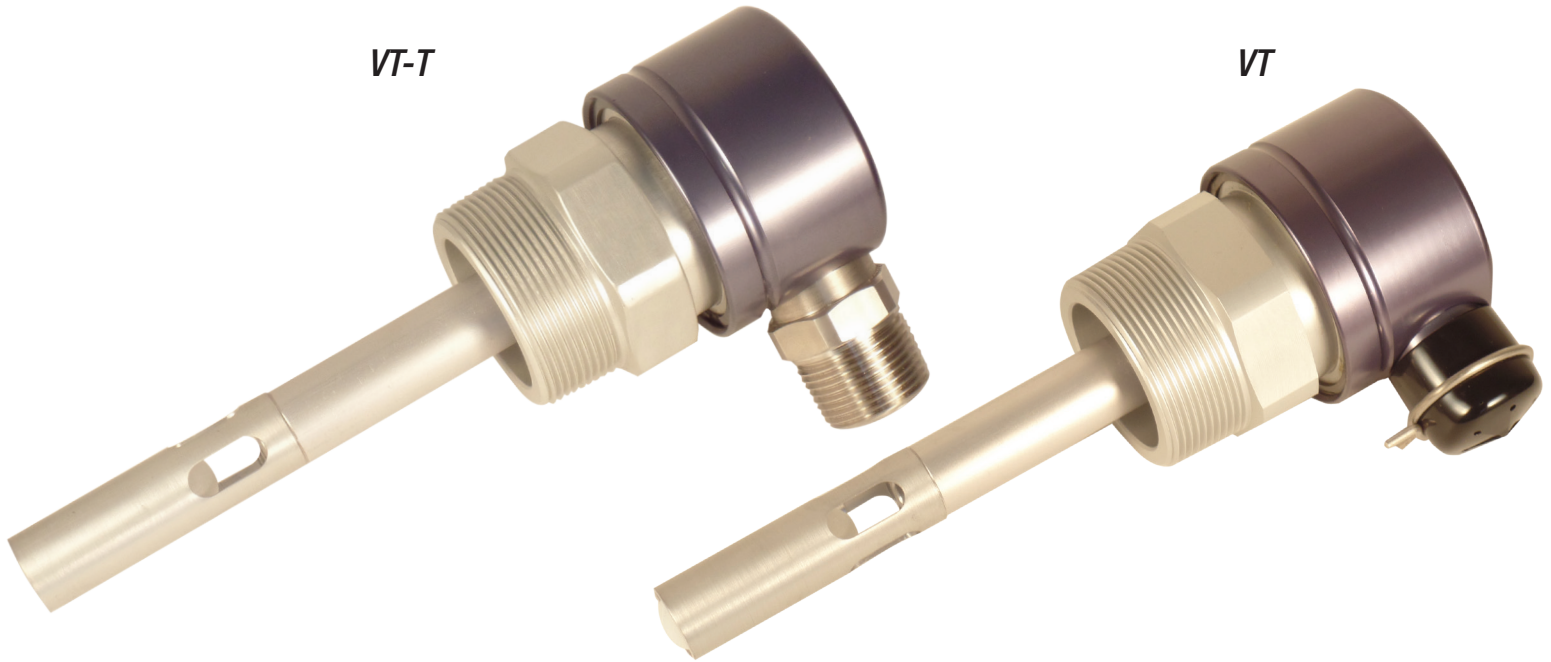


| Part No. | Description       |
|----------|-------------------|
| FLN G#1  | Nozzle - Blue     |
| FLN G#2  | Nozzle - Orange   |
| FLR G#1  | Receiver - Blue   |
| FLR G#2  | Receiver - Orange |

## 29 Fuel Vents

FloMAX fuel vents are made from all metal components. Our billet aircraft grade aluminum cap provides superior strength and impact resistance as compared to the inferior and weaker plastic and cast aluminum caps on other vents. The float and sealing balls are housed in a rigid aluminum ball tube. This ensures a positive seal and repeatable performance. The stem tubes are available in standard 5", 7", 9", 11" and custom customer specified lengths. Several configurations are available including threaded outlets, rotatable vent top, anti-vandalism and half couplings for welding into a tank.

- **Captured ball design ensures repeatable performance.**
- **Robust all billet aluminum construction.**
- **Available in different lengths and outlet/inlet configurations.**



### Standard Fuel Vents

| Part No.    | Description                                 |
|-------------|---|
| VT          | Fuel Vent - Standard (5" stem)              |
| VT-7        | Fuel Vent - Ext Stem (7" stem)              |
| VT-9        | Fuel Vent - Ext Stem (9" stem)              |
| VT-11       | Fuel Vent - Ext Stem (11" stem)             |
| VT-C        | Fuel Vent - w/Half Coupling (5" stem)       |
| VT-C-7      | Fuel Vent - w/Half Coupling (7" stem)       |
| VT-C-9      | Fuel Vent - w/Half Coupling (9" stem)       |
| VT-C-11     | Fuel Vent - w/Half Coupling (11" stem)      |
| VT-A Sleeve | Fuel Vent - Anti Vandalism Sleeve           |
| VT-A-7      | Fuel Vent - Anti Vandalism (7" stem)        |
| VT-A-9      | Fuel Vent - Anti Vandalism (9" stem)        |
| VT-A-11     | Fuel Vent - Anti Vandalism (11" stem)       |
| VT-T        | Fuel Vent - Male Threaded Outlet (5" stem)  |
| VT-T-7      | Fuel Vent - Male Threaded Outlet (7" stem)  |
| VT-T-9      | Fuel Vent - Male Threaded Outlet (9" stem)  |
| VT-T-11     | Fuel Vent - Male Threaded Outlet (11" stem) |

| Part No.  | Description  |
|-----------|--|
| VT-TF     | Fuel Vent - Female Threaded Outlet (5" stem)             |
| VT-TF-7   | Fuel Vent - Female Threaded Outlet (7" stem)             |
| VT-TF-9   | Fuel Vent - Female Threaded Outlet (9" stem)             |
| VT-TF-11  | Fuel Vent - Female Threaded Outlet (11" stem)            |
| VTF       | Fuel Vent with Filter - Standard (5" stem)               |
| VTF-7     | Fuel Vent with Filter - Standard (7" stem)               |
| VTF-9     | Fuel Vent with Filter - Standard (9" stem)               |
| VTF-11    | Fuel Vent with Filter - Standard (11" stem)              |
| VTF-T     | Fuel Vent with Filter - Male Threaded Outlet (5" stem)   |
| VTF-T-7   | Fuel Vent with Filter - Male Threaded Outlet (7" stem)   |
| VTF-T-9   | Fuel Vent with Filter - Male Threaded Outlet (9" stem)   |
| VTF-T-11  | Fuel Vent with Filter - Male Threaded Outlet (11" stem)  |
| VTF-TF    | Fuel Vent with Filter - Female Threaded Outlet (5" stem) |
| VTF-TF-7  | Fuel Vent with Filter - Female Threaded Outlet (7" stem) |
| VTF-TF-9  | Fuel Vent with Filter - Female Threaded Outlet (9" stem) |
| VTF-TF-11 | Fuel Vent w/ Filter-Female Threaded Outlet (11" stem)    |

FLOMAX fuel vents are made from all metal components. Our billet aircraft grade aluminum cap provides superior strength and impact resistance as compared to the inferior and weaker plastic and cast aluminum caps on other vents. The float and sealing balls are housed in a rigid aluminum ball tube. This ensures a positive seal and repeatable performance. The stem tubes are available in standard 5", 7", 9", 11" and custom customer specified lengths. Several configurations are available including threaded outlets, rotatable vent top, anti-vandalism and half couplings for welding into a tank.

- **Robust all billet aluminum construction.**
- **Available in different lengths and flow rates.**
- **Highest flowing vent in the industry.**
- **Capable of handling 400 GPM fluid flows.**
- **Fits standard 2" NPT openings.**

## VTX-F-RT



**VTX vent is the highest flowing vent for pressure fill applications in the industry. It can flow over 400 GPM of fluid inflows. Enough to use with our industry leading FX1500 Fuel nozzle. Machined ball cage is robust in all harsh environments and will not break like spring ball cages do.**

### High Flow Vents

| Part No. | Description                                 |
|----------|---|
| VTX      | High Flow Vent - Standard (5" stem)         |
| VTX-7    | High Flow Vent - Ext Stem (7" stem)         |
| VTX-9    | High Flow Vent - Ext Stem (9" stem)         |
| VTX-11   | High Flow Vent - Ext Stem (11" stem)        |
| VTX-C    | High Flow Vent - w/Half Coupling (5" stem)  |
| VTX-C-7  | High Flow Vent - w/Half Coupling (7" stem)  |
| VTX-C-9  | High Flow Vent - w/Half Coupling (9" stem)  |
| VTX-C-11 | High Flow Vent - w/Half Coupling (11" stem) |

| Part No.     | Description   |
|--------------|---|
| VTX-A Sleeve | High Flow Vent - Anti Vandalism Sleeve                |
| VTX-A-7      | High Flow Vent - Anti Vandalism (7" stem)             |
| VTX-A-9      | High Flow Vent - Anti Vandalism (9" stem)             |
| VTX-A-11     | High Flow Vent - Anti Vandalism (11" stem)            |
| VTX-F-RT-5   | High Flow Vent-Filter capable rotatable top (5" stem) |
| VTX-F-RT-7   | High Flow Vent Filter capable rotatable top (7" stem) |
| VTX-F-RT-9   | High Flow Vent Filter capable rotatable top (9" stem) |



# 31 Swivels

FloMAX swivels feature an all stainless steel and aircraft grade aluminum construction and have a 37% greater flow than other industry swivels. The swivels are sealed with fluoro silicone O-rings to ensure the best performance in a variety of weather conditions. They come in a variety of size and configurations to match up with any standard nozzle and hose sizes.

- **Thirty two stainless steel ball bearings.**
- **Durable Stainless steel and Aluminum construction.**
- **Many sizes and configurations are available.**



| Part No.      | Description                         |
|---------------|-------------------------------------|
| FNBS          | FloMAX 1 1/2" Nozzle Swivel         |
| FNBS2         | FNBL nozzle thread to 2" NPT female |
| FNS-SP        | 1 1/2" NPT x 2" NPT female          |
| FX1500 Swivel | FloMAX 2" High Flow Nozzle Swivel   |

| Part No. | Description                                       |
|----------|---|
| FNS      | Standard Fuel Swivel 1 1/2" NPT by 1 1/2" NPT     |
| FNS2     | Standard Fuel Swivel 2" NPT by 1 1/2" NPT         |
| SW2      | Swivel 2" NPT by 2" NPT                           |
| FNSID    | Inline Double Nut Swivel 1 1/2" NPT by 1 1/2" NPT |
| FX25     | FX1500 Nozzle Thread 2.5" FNPT                    |

The FloMAX 2 inch and 3 inch break away valves are constructed of zinc plated steel and anodized aircraft grade aluminum. The valves are designed with three shear studs that will break at a designated force when mounted correctly using our factory approved mount. This will help protect expensive refueling equipment and help prevent catastrophic fuel spillage.

- Eliminates expensive equipment damage.
- Eliminates catastrophic spills.
- 250 PSI pressure rating.
- BAV 1 made from aircraft grade aluminum and stainless steel.
- Our 1" inline break away valve can be reassembled after separation without tools or additional parts.

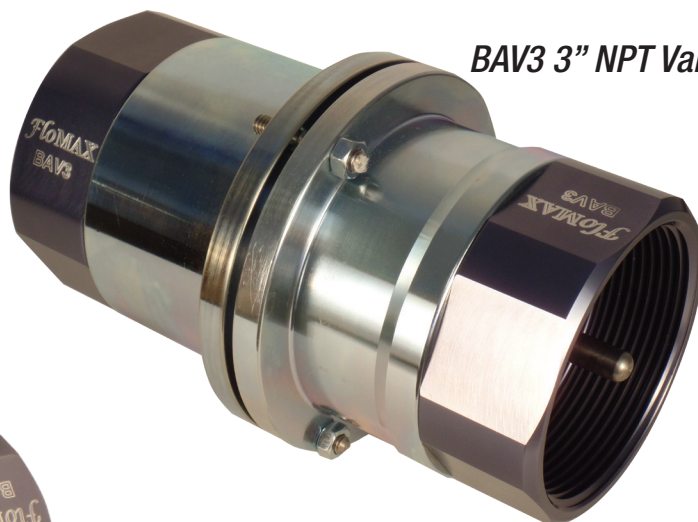
*BAV's 2" and 3" must be used with Flomax mounting brackets*

*See BAV2M below*

*BAV 1" inline breakaway valve*



*BAV3 3" NPT Valve*



*BAV2 2" NPT Valve*



*BAV2M*

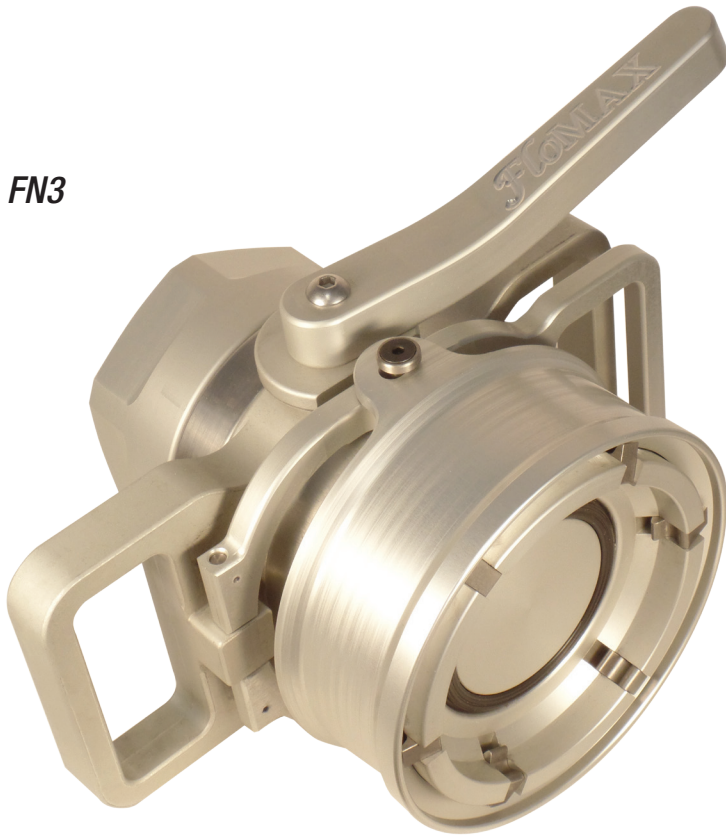


| Part No. | Description                      |
|----------|----------------------------------|
| BAV      | Break Away Valve 2 Inch          |
| BAV2M    | Break Away Valve Mount 2 Inch    |
| BAV3     | Break Away Valve 3 Inch          |
| BAV3M    | Break Away Valve Mount 3 Inch    |
| BAV-K1   | Break Away Valve Replacement Kit |
| BAV1     | Inline Break Away Valve          |

# 33 3" Inch Fuel Nozzle and Receivers

FloMAX 3" fuel nozzles and receivers are designed for high flow volume and ease of use. They are scaled down versions of the standard API 5" specification parts. Poppets have a vulcanized viton seal surface. Both the nozzle and receiver are made from aircraft aluminum and stainless steel. The connectors have a flow rating of up to 1200 GPM at 100 PSI.

- **Ultra High Flow for demanding fueling requirements.**
- **Robust Billet Aluminum Construction.**
- **1200 GPM at 100 PSI.**



**FN3**

**FR3**



| Part No. | Description                            |
|----------|--|
| FN3      | Fuel Nozzle 3 Inch                     |
| FR3      | Fuel Receiver 3 Inch with 3 " NPT Base |
| FR3-F    | Fuel Receiver 3 Inch with Flange Base  |

| Part No.    | Description  |
|-------------|--|
| FR3-4NPT    | Fuel Receiver 3 Inch with 4 " NPT Base                   |
| FR3-NP      | Fuel Recvr 3 Inch w/ Non-Pressure Valve - 4" NPT threads |
| FR3-NP-4NPT | 3 Inch Non-Pressure Valve with 4" NPT Front End          |

**FR3-F**



**FR3-NP-4NPT**



FloMAX Gravity fill receivers are made from aircraft grade aluminum. They have a welded on cast aluminum handle for strength and convenience. They come in a standard 1 ½” diameter as well as a smaller 1” diameter size for filling smaller fuel tanks. They are available in straight, 45 degree bend and a 90 degree bend configuration.

- 1 ½” and 1” sizes available.
- Straight, 45 degrees and 90 degree bend.
- Fits standard 1 ½” fuel receivers.
- Allows transfer of fluid without using a standard fuel receiver.



| Part No. | Description                                     |
|----------|---|
| GFR-0    | Gravity Fill Fuel Receiver, 1 ½” Tube, Straight |
| GFR-45   | Gravity Fill Fuel Receiver, 1 ½” Tube, 45 deg.  |
| GFR-90   | Gravity Fill Fuel Receiver, 1 ½” Tube, 90 deg.  |
| GFR1-0   | Gravity Fill Fuel Receiver 1”, Straight         |
| GFR1-45  | Gravity Fill Fuel Receiver 1”, 45 deg.          |
| GFR1-90  | Gravity Fill Fuel Receiver 1”, 90 deg.          |

**FNBL-100**



**FNBL-102**



**FNBL-104**



**FNM**



**FR EX SOCKET**



**FR SOCKET**



**FN600-101**



**Bell Housings**

**BH-W**  
Weld On



**BH-F**  
Bolt On



**FX1500-KO KIT**

**FX1500-100**

**FX1500-104**



**FX1500-102**

| Part No.      | Description                              |
|---------------|--|
| FNBL-KO Kit   | FNBL-100, FNBL-102, FNBL-104             |
| FX1500-KO Kit | FX1500-100, FX1500-102, FX1500-104       |
| FNBL-100      | Poppet Spanner wrench                    |
| FNBL-102      | Poppet insertion tool                    |
| FNBL-104      | Swivel wrench                            |
| FR-EX Socket  | Fuel Receiver Socket Extended Length     |
| FR-Socket     | Fuel Receiver Socket                     |
| FN600-101     | FN600 Nose Spanner Wrench                |
| FNM           | Fuel Nozzle Mount                        |
| FX1500-100    | FX1500 Fuel Nozzle Poppet Spanner Wrench |
| FX1500-102    | FX1500 Fuel Nozzle Poppet Insertion Tool |
| FX1500-104    | FX1500 Fuel Nozzle Swivel Spanner Wrench |
| BH-W          | Bell Housing Weld On Attachment          |
| BH-F          | Bell Housing Bolt On Attachment          |

**FNBL-KO KIT**

**FNBL-102**

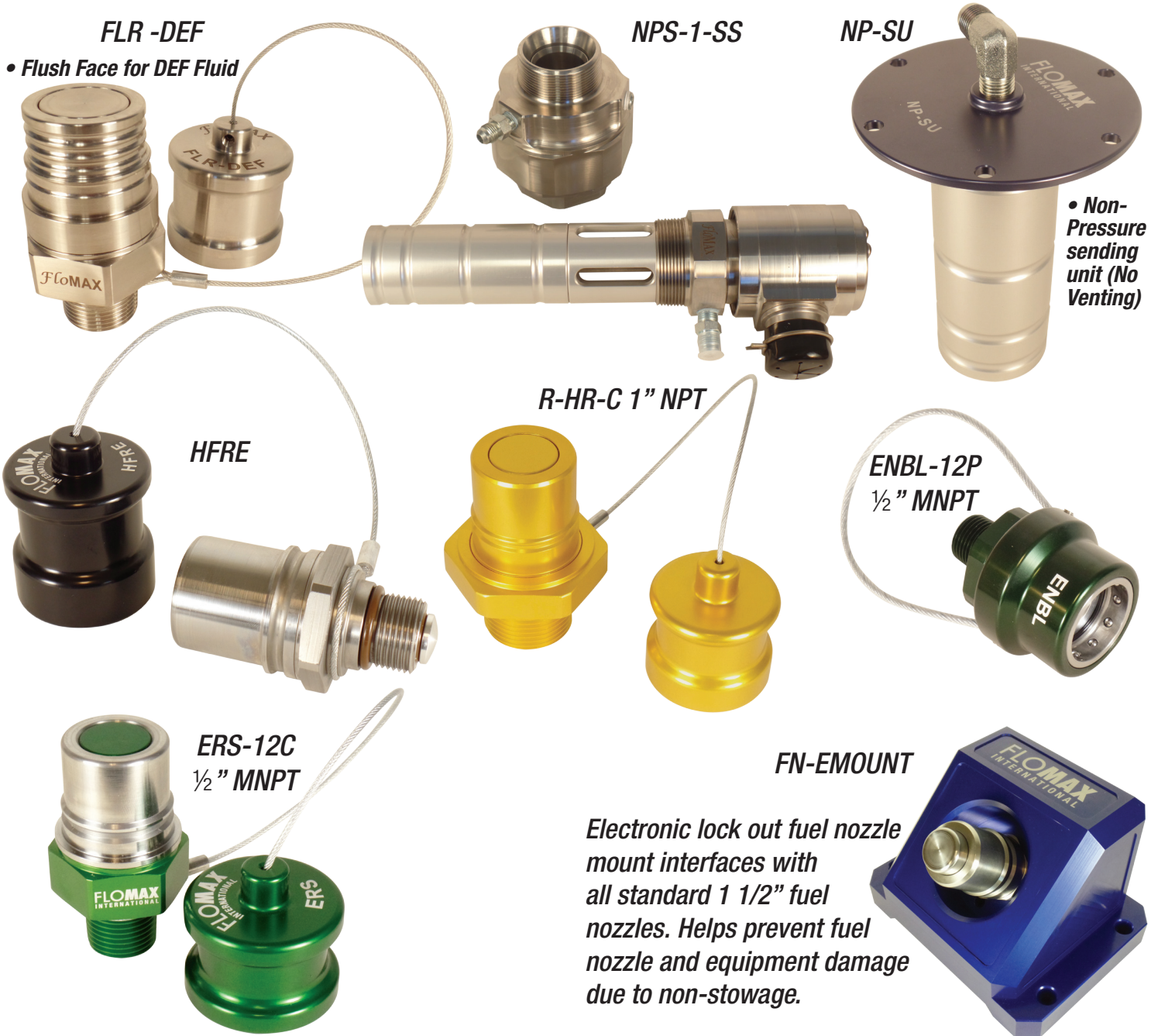
**FNBL-104**

**FNBL-100**



**NPS-1-SS Stainless Steel External Non Pressure System.** All external components are made of 300 series Stainless Steel for long life in more harsh and corrosive environments.

**HFRE Evacuation Receiver.** A special EVAC fitting to fit in the oil pans of Komatsu equipment and others. The HFRE has a special one way check valve that only allows the fluid to be withdrawn or drained from the fitting. It helps fix the problem with some oil pans having easily stripped out threads during repeated oil drain cycles.



| Part No.    | Description                                  |
|-------------|--|
| HFRE-C #9   | Fits Komatsu Oil Pans For a Quick Drain      |
| NP-SU       | Non Pressure System Low Profile Sending Unit |
| ERS-12C     | Engine Receiver Green 1/2" NPT               |
| ENBL-P#12   | Engine Nozzle Green 1/2" NPT                 |
| R-HR-C1 NPT | R-HR-C with 1" NPT                           |

| Part No.   | Description                                     |
|------------|---|
| R-HR-C     | With 1" NPTM                                    |
| NPS-1-SS   | All External Components are 300 Stainless Steel |
| FN-E Mount | Fuel Nozzle Mount 24V                           |
| FLN DEF    | Flush Face Receiver for DEF                     |
| FLN DEF    | Flush Face Nozzle for DEF                       |

# 37 Adapters

Flomax has a large variety of adapters to fit many tank configurations.

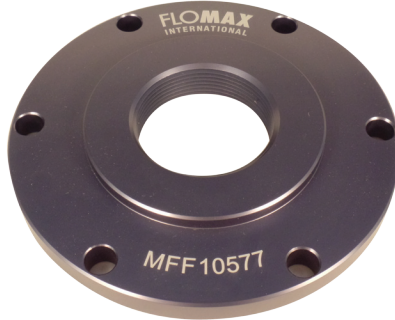
### **MFF10335**

Small Diameter 2" NPT to 6 Bolt.



### **MFF10577**

Large Diameter 2" NPT to 6 Bolt.



### **MVA32-MF2**

2" NPT Male to 2" Adaptor 2" Long.



### **MVA32-MF3**

2" NPT Male to Female 3" Long.



### **MVA32-MF4.5**

2" NPT Male to Female 4.5" Long.



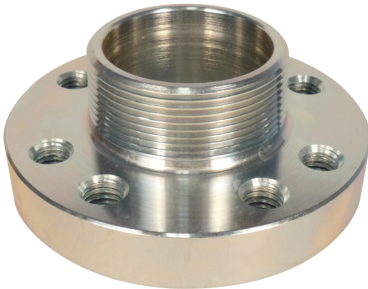
### **MVA32-MF2.5**

Face Seal to 2" NPT. 2" Long.



### **MVA32FL 8 bolt**

2" NPT 8 Bolt Adapter.



### **FR-VR**

VR300 to 2" NPT



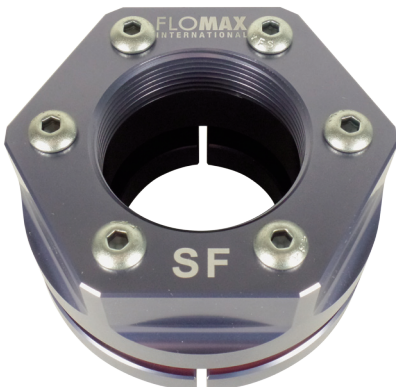
### **MVA-32-OFS**

Face Seal to 2" NPT. 4.5" Long.



### **SFA**

Add a 2" NPTF to plastic or metal tanks.



## *FR-P Cap and FRX-P Cap. Spring Clip Option Available For All Fuel Receivers.*

FR P Cap and FRX P Cap are a Flomax innovation for an easily installed and removed fuel receiver cap. The push to connect design allows easy installation in all weather conditions. The FR P cap fits all standard fuel receivers. The FRX P Cap fits our high flowing 2" FRX Fuel receivers.

**FRX-BFN-P**



**FR-P Cap**



**FRX-P-Cap**



**BFN**



**FRX Fuel Receiver**



**2" NPT**

## **BFN-Bulk Transfer Nozzle**

- Push to connect design
- Fits standard 1 ½" and 2" FRX fuel receivers
- Allows transfer of fluid without using a fuel nozzle

| Part No.  | Description                                      |
|-----------|--|
| BFN       | Bulk Fuel Nozzle                                 |
| BFN-P     | Bulk Fuel Nozzle with Plug                       |
| BFN Plug  | Bulk Fuel Nozzle Plug                            |
| FRX-P Cap | Push to Connect Cap for FRX Receivers            |
| FR-P Cap  | Push to Connect Cap for 1½" Receivers            |
| FRX BFN   | Bulk Fuel Nozzle for FRX fuel receivers          |
| FRX-BFN-P | Bulk Fuel Nozzle for FRX fuel receivers with Cap |



## Advantages for using Flomax Products

- Higher Quality raw materials, Aluminum and Stainless Steel.
- Higher Quality Anodizing.
- Higher Quality Laser Marking.
- Higher Quality, better rated seals and O-rings.
- Flomax uses actual factory approved O-ring lubricants during assembly.
- Every product is tested before leaving our facility.
- Large inventory to enable same day shipping in most cases.
- Patented designs yield more robust and longer lasting products.
- Factory certified to meet or exceed all rated pressure and performance specifications for all our products.
- Quick response for emergency or custom requirements.
- Flomax holds tighter tolerances on our precision machined components.
- Fully staffed CNC machine shop with over 28 CNC machines.
- Long term, career-oriented staff.
- Six Sigma / LEAN Master Black Belt on full time staff.
- Certified Standard Work Procedures using GMP.
- Superior, Long term Engineering Staff with “in the field” medical, mining and aircraft Engineering backgrounds. Broadly diverse Engineering experience.
- Quality and customer satisfaction are what drives us.
- Customer service you can rely on.
- Industry Leading Innovation and Quality.

## Comparative Analysis between Flomax Flush Face and Competitors Flush Face Connectors

### Flomax Flush Face Connectors

- Flush Face Connector US PATENT #9708173.
- Can be connected and disconnected under pressure and still retain the “push to connect” feature.
- Uses stainless steel on all critical components for a longer life and more reliable long term performance.
- Uses heat treated Stainless Steel receiver nose that ensures they can be operated at a higher pressure with a longer life.
- All connectors are the same physical size. Our patented ball lock key technology allows for this highly desirable feature.
- Uniform size allows ease of service box layout and planning.
- Flomax invented the colored non– interchangeability feature in 2004 that is now used industry wide in a variety of applications. Flomax are the innovators of our industry.
- EVAC Fitting is also a compact Flush Face design to help eliminate the possibility of contamination and maximize ease of use and portability.
- All of our connectors are rated at the same pressure rating and extreme temperature range. All are made to the same exacting, high standards. All Flomax brand fittings are 100% factory tested to ensure reliable performance.
- Can be connected and disconnected while holding onto any component of the nozzle, including pullback, base or hose while under pressure.
- Grease fittings are rated at 5000 psi and can be connected and disconnected under full line pressure without any ball valves or other apparatus to reduce pressure. Greatly reduces complexity and increases safety with fewer operations required. Couplings are easily disconnected even in extreme dirt and grease contaminated environments.
- Grease fittings available in two non interchangeable sizes.

### Competitors Flush Face Connectors.

- Cannot be connected and disconnected under pressure. Some competitors fittings require manual ball valve lock out.
- Uses Zinc Plated Steel. Under robust use the zinc can chip or peel off causing rust and seal damage from rough surfaces.
- Uses the same Zinc plated steel as the rest of the connector.
- No heat treating on critical wear components.
- Uses a variety of sizes to accomplish the non interchangeability feature. This means some connectors are very large and cumbersome while others are much smaller.
- Imitators not innovators. Competitors have attempted to duplicate Flomax non interchangeable fittings but have never reached our standard of quality and ergonomics.
- EVAC fitting is large and cumbersome and is not a Flush Face design. It has a large pocket where debris can accumulate and possibly contaminate equipment.
- Have different pressure ratings depending upon the size of the connectors. Have had to create special “cold weather” fittings.
- Cannot be connected while holding onto the pullback. Not having this feature makes the process more difficult and cumbersome while posing a safety risk to the operator.
- Grease fitting is rated at 2900 psi and can only be connected and disconnected under low residual line pressure. Needs other valves to disconnect and bleed full line pressure before connecting and disconnecting. This exposes operators to safety risks that are not present in the Flomax series of fittings.
- **Of serious note, testing of competitors fittings have resulted in complete failure far below the rated pressures.**

The background of the entire page is a detailed technical line drawing of a diesel engine, rendered in a light blue color. The drawing shows various components like the cylinder block, pistons, and fuel system. A prominent label on the engine reads "FLOMAX - USA DIESEL FUEL".

# FLOMAX

## INTERNATIONAL

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