# A DECADE OF INNOVATION IN BRUSHLESS FUEL PUMP TECHNOLOGY





# FUELAB BRUSHLESS TECHNOLOGY

We launched FUELAB over 10 years ago with the idea of introducing ground breaking technology to fuel system products. At the time, brushless fuel pumps were generally thought of as a great idea, but costs and manufacturability kept many from pursuing this type of design.

Historically, aftermarket high flow pumps run in a continuous duty mode can lead to excessive heat buildup in the system, which can vapor lock the fuel pump. The liquid fuel literally vaporizes (boils) inside the pump assembly. Symptoms can include a dramatic loss of flow rate, gauge "bouncing", grinding and excessive noise from the fuel pump, and inconsistent or loss of fuel pressure.

The damage to the pump from this condition is often permanent and results in a direct loss of capacity and efficiency. Eventually the fuel system resorts to complete failure to build or maintain pressure, possibly resulting in an engine lean out condition that can lead to serious engine damage.

A number of fixes were tried over the years to address this specific issue. Multi-pump configurations and voltage regulation into a brushed motor fuel pump were used with mixed results. Our solution to this problem was to find a way to keep heat from building up in the fuel by gaining efficiency. We set our sights back to

brushless motors and attacked the issues head on. We worked to develop custom brushless motors with neodymium rare earth magnets for a powerful motor in a lightweight package. We developed a 12 volt sensorless drive for the new motors that up until that point wasn't available in any automotive or industrial market. This new technology allowed for speed input and control devices to run the fuel pump "on demand", reducing the loads at idle conditions and keeping excessive heat out of the fuel system. We packaged it with a smart, high efficiency sling vane positive displacement pump mechanism and made it all compatible with gasoline, diesel, ethanol and methanol.

Today we call that effort our Prodigy line of fuel pumps. We're proud to offer them as our first line solution for high horsepower, continuous duty fuel systems. But we're not about to let all of this learned technology sit as a stand-alone product. Our new 2020 product offering builds on 20+ years of fuel system experience to roll out the next generation of highly efficient fuel pumps and systems. Explore our new catalog for a sneak peek at the future of high performance fuel systems.



# **FUELAB FUEL PUMPS**





### PRODIGY FUEL PUMPS



**PUMP FEATURES:** 

- · Compatible with gasoline, diesel, methanol, and ethanol
- High efficiency sling vane positive displacement pump
- Special housing shape for extremely quiet operation and steady pressure
- Carbon 9-vane construction with pressure balanced rotor for high reliability
- · Backed by a 2-year limited warranty

#### **MOTOR FEATURES:**

- Lightweight super-efficient DC brushless motor reduces current draw
- Low mass rotor for high speed reaction to changes in speed and flow
- Powerful high flux density Neodymium rare earth magnets
- No motor brushes to wear out or corrode (low-Sulfur diesel, no problem)
- · Wet motor design, no dynamic shaft seals that can wear

Our Prodigy line of fuel pumps were born of inspiration and innovation, and our DC brushless technology stands alone as the benchmark in demand based fuel delivery systems. Each Prodigy pump is hand built, tested and certified at our facility in Collinsville, IL under strict quality and rigorous testing guidelines before shipping.

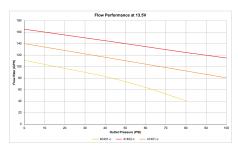
We have 11 innovative models available ranging in performance levels to give you the confidence and competitive edge you demand.

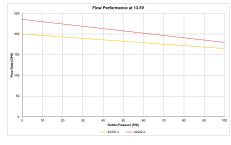
### **ELECTRONIC FEATURES:**

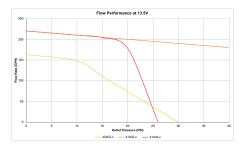
- Internal speed controller for variable flow operation
- · Accepts PWM input for speed control
- 12 to 24 volt vehicle electrical system compatibility
- No expensive voltage reduction/pulse width modulation controllers required
- Continuous duty motor speed can be adjusted to meet fuel demand

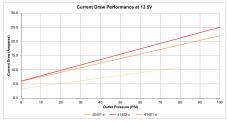
#### **CONSTRUCTION FEATURES:**

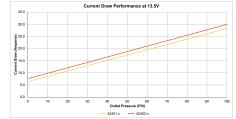
- Compact, lightweight design, less than 2.5lbs!
- Billet Aluminum Construction with anodize per MIL-A-8625, Type II
- High quality mounting brackets included
- Long-life, multi-fuel compatible Fluorosilicone static seals
- Accepts standard or port style -10AN fittings

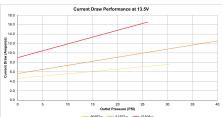












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### **COLOR OPTIONS**

Add the color number shown below after the part number when ordering - ie: 40401-2 for a red 40401 Prodigy Fuel Pump. Actual colors may vary.



RATED UP TO

40401.....75GPH @ 45PSI 700HP

### **REDUCED SIZE EFI IN-LINE FUEL PUMP**

All the great features of our original Prodigy series in a smaller package! Get the benefits of a 255lph rated fuel pump with less current draw and cross fuel compatibility all in a pure billet format.

RATED UP TO

40402 ..... 140GPH @ 10PSI 1000HP

# REDUCED SIZE CARBURETED IN-LINE FUEL PUMP

This 160GPH free flow rating fuel pump is programmed to deliver the maximum flow with the lowest current draw available. Nothing else like it!

RATED UP TO

41401 .....105 GPH @ 45 PSI 1000HP

### HIGH PRESSURE EFI IN LINE FUEL PUMP

The original digital Prodigy fuel pump, great for racing, performance, or off-road use.

RATED UP TO

41402 .....140 GPH @ 45 PSI 1300HP

### HIGH EFFICIENCY EFI IN LINE FUEL PUMP

Increase performance capabilities with extra flow for higher powered engines.

41403 .....200 GPH @ 15 PSI 1800HP

### **CARBURETED IN-LINE FUEL PUMP**

Get a high amount of flow - made for carbureted and lower pressure applications.

RATED UP TO

41404 .....200 GPH @ 15 PSI 1800HP

### **CARBURETED IN-LINE FUEL PUMP**

Developed from our successful 41403 model, we take all the benefits of a high flow in-line pump and integrate a bypass valve directly into the outlet assembly of the pump.

RATED UP TO

42401 .....170 GPH @ 45 PSI 1500HP

### **HIGH PRESSURE EFI IN-LINE FUEL PUMP**

Throw in as much boost as you want, this model will support up to 1500 horsepower at high pressures.

RATED UP TO

42402 .....190 GPH @ 45 PSI 1800HP

#### HIGH POWER EFI IN-LINE FUEL PUMP

The top of the line... supports very high horsepower!



# PRODIGY IN TANK POWER MODULES

Prodigy In-Tank **Power Modules** are the ultimate in upgraded fuel system components.

**₱FUEL**∆B

Developed for racing,

these fuel systems are designed for quick, easy installation into your factory tank or aftermarket fuel cell. Our single pump design supports up to 1800HP, increases reliability by eliminating multi

pump configurations, and saves you time and money.

> By pairing this design with our award-winning 529 series

electronic fuel pressure regulator, you get high flow capacity with on demand fuel delivery, for the most advanced fuel delivery systems available.

### 90902 ... In Tank 1000HP

Based on our popular 40402 series, but in a configuration for in tank applications. Carb only.

### **PUMP FEATURES:**

- · Based on our popular Prodigy Series, but in a configuration for in-tank applications
- Compatible with gasoline, diesel, methanol and ethanol
- · Jet pump compatibility for saddle tanks or internal pumps
- High efficiency sling vane positive displacement pump
- · Special housing shape for extremely quiet operation and steady pressure
- Carbon 9-vane construction with pressure balanced rotor for high reliability
- Backed by 2 year limited warranty



### 91901.....In Tank 1000HP

Based on our popular 41401 series, but in a configuration for in tank applications.

### **ELECTRONIC FEATURES:**

- Internal Speed controller for variable flow operation
- 12 to 24 volt vehicle electrical system compatibility
- · Accepts PWM input for speed control
- No expensive add-on voltage regulators or pump controllers required
- Continuous duty motor speed can be adjusted to meet fuel demand

#### **MOTOR FEATURES:**

- · Lightweight super efficient DC brushless motor reduces current draw
- · Low mass rotor for high speed reaction to changes in speed and flow
- Powerful high flux density neodymium rare earth magnets · No motor brushes to wear out or
- corrode (low sulfur diesel, no problem) •Wet motor design, no dynamic shaft
- seals that can wear out

### 92902..... In Tank 1800HP

Based on our popular 42402 series, but in a configuration for in tank applications.

#### **INSTALLATION FEATURES:**

- Requires the use of a bypass style regulator and return line
- Single Drop in Fuel Pump
- Installation kits available for Fabricator Series and Vehicle Specific Applications
- · No wires to pass in fuel tanks
- Eliminates the need for multi-pump wiring, Y-blocks, and extra plumbing
- Easy service access flange system
- · Installation kits sold separately
- Utilizes the factory tank, o-ring, lock ring and mounting location
- Can be used without 529 Series Electronic Fuel Pressure Regulator
- Features Noise Dampening Pump Mount Technology

### **POWER MODULE INSTALL KITS**

Designed for the custom tank builder or fabricator, the FUELAB In-Tank Power Modules work with our unique sealed flange system to give you multiple mounting options into steel or aluminum tanks and fuel cells. The Power Module system also provides a cleaner installation by hiding the straining filter and pump. Installation time is quicker and more affordable, with less fuel system components that require mounting. Previously considered problematic vehicles that are hard to sump, have saddle tanks or otherwise do not have enough room or a good location available for an external pump, now have a viable, simple and reliable solution.

### IN-TANK POWER MODULE FABRICATOR INSTALLATION KIT

Fabricator Kit

20901 ......Aluminum Assembled Flange 20902 .......Aluminum Weldable Flange 20903 .....18-8 Stainless Steel Weldable Fabricator Kit

Flange Fabricator Kit



# H/ESERIES BRUSHLESS TWIN SCREW PUMPS



Fuelab continues to lead the way in fuel pump innovation. Our H/E Series of brushless twin screw pumps represent a giant leap in efficiency and reliability. These pumps use a lightweight, DC brushless motor to reduce current draw to incredibly low levels while maintaining flow at pressures up to 125psi. Combined with a twinscrew rotor pumping mechanism, they offer superior priming capabilities, improved resistance

to cavitation, and fuel compatibility with gasoline, diesel, methanol and ethanol fuels. The 474xx series is a billet aluminum external pump with integrated controller. The new 484xx series is an in-tank version that can be run by existing vehicle outputs for brushless control or any of our 7200x models for external control. Choose from 250, 350, and 500 LPH flow options.

### **474 SERIES EXTERNAL**

13.5v RATED UP TO 47401 ... 250 LPH @ 45psi, **625HP** 

• When the focus is efficiency

#### **PUMP FEATURES**

- Compatible with gasoline, diesel, methanol and ethanol
- Twin Screw Rotor Pumping Mechanism
- 125PSI Max Operating Pressure
- Higher efficiency means less current draw and less noise
- Superior Priming Capabilities
- Greater resistance to cavitation (vapor lock)
- · Backed by a 2-year limited warranty

13.5v RATED UP TO 47402 ...350 LPH @ 45psi, **850HP** 

•Great for daily driving or the track

#### **MOTOR FEATURES**

- Lightweight super-efficient DC brushless motor to minimize current draw
- Powerful high flux density Neodymium rare earth magnets
- No motor brushes to wear out or corrode (low-Sulfur diesel, no problem)
- Wet motor design, no dynamic shaft seals that can wear out

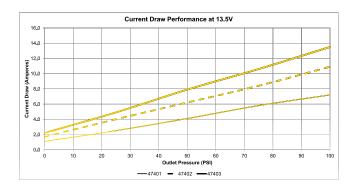
13.5v RATED UP TO

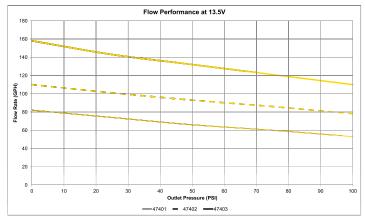
**47403**. 500 LPH @ 45psi, **1250+HP** 

•The pinnacle of power & efficiency

### **ELECTRONIC FEATURES**

- 12 volt vehicle electrical system compatibility
- No expensive voltage regulators or pump controllers required
- Continuous duty motor speed







# H/E SERIES BRUSHLESS TWIN SCREW PUMPS



13.5v RATED UP TO

13.5v RATED UP TO

13.5v RATED UP TO 48403. 500 LPH @ 45psi, 1250+HP

48401 ... 250 LPH @ 45psi, 625HP

48402 ... 350 LPH @ 45psi, 850HP

### **PUMP FEATURES**

- · Compatible with gasoline, diesel, methanol and ethanol
- Twin Screw Rotor Pumping Mechanism
- 125PSI Max Operating Pressure
- · Higher efficiency means less current draw and less noise
- Superior Priming Capabilities
- · Greater resistance to cavitation (vapor lock)
- · 2-year limited warranty

### **MOTOR FEATURES**

- Lightweight super-efficient DC brush-less motor to minimize current draw
- Powerful high flux density Neodymium rare earth magnets
- · No motor brushes to wear out or corrode (low-Sulfur diesel, no problem)
- · Wet motor design, no dynamic shaft seals that can wear out

### **ELECTRONIC FEATURES**

- 12 volt vehicle electrical system compatibility
- · Variable duty motor speed
- · Can be run by existing vehicle outputs for brushless control or our 7200x Series Controller

### **CONSTRUCTION FEATURES**

- ·Compact, lightweight design, less than 1.5lbs. Overall length 6.5", dia,eter 2"
- Billet Aluminum construction with anodize per MIL-A-8625 Type II
- •Can be mounted in-tank or externally
- ·Long life, multi-fuel compatible Fluorosilicone static seals
- · Accepts standard or portstyle -8AN fittings

### **EXTERNALLY MOUNTED ELECTRONIC** DC BRUSHLESS FUEL PUMP CONTROLLER

Enclosed in a billet aluminum case, this externally mounted Electronic Fuel Pump Controller operates DC Brushless Fuel Pumps. Available in various speed control options, this compact system can operate up to 20 Amps and 17 volts. This controller is ONLY compatible with DC Brushless based pumps and is NOT compatible with standard brush style

pumps nor DC Brushless Fuel Pumps that have integrated controllers.

| <b>72001</b> N | o Speed Control (Full Speed) |
|----------------|------------------------------|
| 72002          | PWM Input Signal             |
|                | (Variable Speed)             |
| 72003          | 0-5v Input Signal            |
|                | (Variable Speed)             |



### **NEW FOR 2020!**



### **BULKHEAD FUEL TANK** FEED THRU ..... 74101

This Bulkhead Fuel Tank Feed Thru, for -8AN female port or 3/4" thru hole, allows for a 3 wire 16ga connection.

### IN-TANK FUEL SOCK...... 83811

This In-Tank Fuel Sock features 65 micron nylon mesh with -8AN adapter fitting, for use with 484xx and 939xx Series Pumps.

### H/E SERIES IN-TANK KIT

..... 20801

Get all the components you need to install big horsepower support. The 20801 Kit comes with our 48403 500LPH Pump, 72002 Controller, 74101 Feed Thru, 83811 Straining Filter and accessories to give you 1200HP support in a drop-in single pump package.





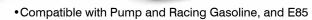




# **FUEL SURGE TANK SYSTEMS**

FUELAB offers Fuel Surge Tank Systems designed to prevent fuel starvation due to fuel surge or limited tank baffling. Particularly suitable for vehicle racing such as circuit, drift and off-road use where fast changes in G-forces can allow air to be picked up by the main fuel pump. Fuel Surge Tank Systems maintain a small amount of fuel to operate its own internal fuel pump(s) that can supply high fuel flow rates, while only needing low fuel pressure from the main fuel tank pump.

Shown is a combination of 60712 Fuel Surge Tank, 23902 Accessory Kit, 84832-1 Filter Assembly, and 45102 Billet Filter Bracket



- Return line is required, returns excess fuel back to the vehicle fuel tank
- Optional FST Upgrade Accessory Kit Sold Separately -Includes Floor Mount Bracket, Hardware, XRP PRO PLUS Hose Assembly and 90 degree high flow fitting

### **PRODUCT FEATURES:**

- Allows for high fuel flow output with little or no modifications to the OE fuel tank and module
- Prevents fuel surge by maintaining ready volume of fuel
- •Two sizes available (rated volume: 2.7 L and 2.1 L / height 290mm and 235mm)

- Single and dual 340 LPH internal fuel pump versions available
- Billet aluminum and O-ring Construction using -8AN Fuel Ports

### **FUEL SURGE TANK SYSTEM**

| 60701 | E85 Compatible, Single 340lph, 235mm Tall |
|-------|---|
| 60702 | E85 Compatible, Dual 340lph, 235mm Tall   |
| 60711 | E85 Compatible, Single 340lph, 290mm Tall |
| 60712 | E85 Compatible, Dual 340lph, 290mm Tall   |





### **FUEL SURGE TANK SYSTEMS**



### BRUSHLESS FUEL SURGE TANK SYSTEM

Our latest entry into cutting egde fuel system products is our 617 Series Fuel Surge Tank Systems. These 2.1L or 2.7L Fuel Surge Tank Systems utilize our H/E Series brushless twinscrew pumps with integrated controller electronics and PWM speed control. 6 models are available in 250lph, 350lph, and 500lph flow configurations to support up to 1250 horsepower. For maximum efficiency delivering in circuit, drift, or off-road use where fast changes in G-Forces are an issue, this system elminates fuel slosh problems even with low fuel levels. Compatible with gasoline, ethanol and methanol fuels.

### **PRODUCT FEATURES:**

- Allows for high fuel flow output with little or no modifications to the OE fuel tank and module
- Prevents fuel surge by maintaining ready volume of fuel
- •FST Rated volume: 2.1L and 2.7L
- Single Twin Screw DC Brushless fuel pump
- •Rated to flow 250, 350, or 500lph at 45psi, 125psi max
- Integrated controller and O-Ring construction using -8AN Fuel Ports
- Compatible with Pump and Racing gasoline and E85
- Return line is required, returns excess fuel back to the vehicle fuel tank
- Optional FST Upgrade Accessory Kit sold separately -Includes floor mount bracket, hardware, hose assembly and 90 degree fitting

### H/E SERIES BRUSHLESS SCREW PUMP FUEL SURGE TANK SYSTEM

| 61701 | 250LPH, 235mm Tall |
|-------|--------------------|
| 61702 | 350LPH, 235mm Tall |
| 61703 | 500LPH, 235mm Tall |
| 61711 | 250LPH, 290mm Tall |
| 61712 | 350LPH, 290mm Tall |
| 61713 | 500LPH 290mm Tall  |

### **FST UPGRADE ACCESSORY KITS**

23901......FST Upgrade Accessory Kit for 235mm Tall
(Includes Floor Mount Bracket, Hardware, XRP PRO PLUS Hose Assembly

and 90 degree high flow fitting)

23902...... FST Upgrade Accessory Kit for 290mm Tall

(Includes Floor Mount Bracket, Hardware, XRP PRO PLUS Hose Assembly and 90 degree high flow fitting)



# FLANGE MOUNT BRUSHLESS TWIN SCREW PUMPS

### **NEW FOR 2020!**

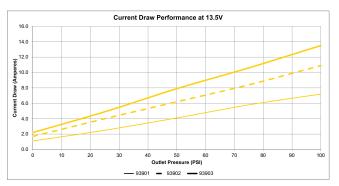
Our new speed controllable, twin screw DC brushless fuel pump is now available for SAE 10-Bolt systems, commonly used with fuel cells or fabricated reservoirs. Able to support 1200 horsepower at 60psi while consuming less than 10A of current, it's one of the most efficient single pump offerings available anywhere. Great for boosted applications as well as with 100psi pressure capability while still exceeding 400lph and only 13A of current draw. Intended for OE Fuel Tank or Reservoir Manufacturer's use, this pumping system requires an inlet straining filter system, mating surface, mount hardware and seals typically sourced by manufacturer. Consult Fuelab for greater detail. Acceptable tank depth range is between 7-3/4" and 16".

### H/E SERIES FLANGE MOUNT BRUSHLESS SCREW PUMP

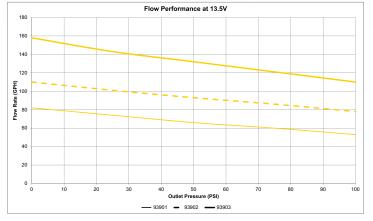
| 93901 | 250lph @ 45psi, 625HP   |
|-------|-------------------------|
| 93902 | 350lph @ 45psi, 850HP   |
| 93903 | 500lph @ 45psi, 1250+HP |

### **PRODUCT FEATURES**

- Flange Mounted SAE 10-bolt pattern for easy use with fuel cells or fabricated reserviors
- •Twin Screw Rotor Pumping mechanism
- Lightweight super-efficient DC brushless motor to minimize current draw
- 12 volt vehicle electrical system compatability
- Integrated Controller with PWM Speed Control
- Compatible with gasoline, diesel, methanol, and ethanol
- •Rated to flow 250, 350, or 500lph @ 45psi, 125psi max
- Compact, lightweight design, less than 2.5lbs. Overall length 8", pump diameter 2"







### **IN-TANK PUMPS**

flow for gas and

These FUELAB® high flow, E85 compatible in-tank electric fuel pumps are designed for most

popular EFI applications. Compact and lightweight data for each pump we ship. Pumps also come so they're easy to install in many existing hanger assemblies. This series of pumps is set apart from others on the market by offering superior

E85 applications and come serialized with specific flow and current draw

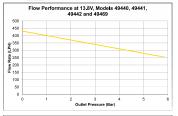
with rubber sleeve, end caps, pre-filters, hose, clamps and wire leads.

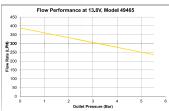


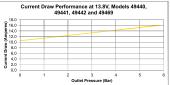
#### **PUMP FEATURES:**

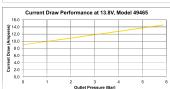
- Flows 340LPH @ 3bar, 13.5v (90GPH @ 45psi)
- Internal Check Valve
- Maximum Pressure 5.9 Bar (85psi)

- Can be used in carbureted and EFI applications
- Each pump is individually tested for performance and includes flow and current draw report
- Designed for in-tank use only
- Sending Unit not included
- Comes with rubber sleeve, end cap, pre-filter, hose, clamps and wire leads.









### **495XX SERIES AC LOW PRESSURE LIFT PUMP**

These Low Pressure, Low current Draw In-Tank Fuel Pumps are easily adaptable for fit any fuel tank or fuel cell. Gasoline and ethanol compatible, these pumps are perfectly suited for transferring fuel out of saddle tanks or can be used to feed an external Fuel Surge Tank or Collector. Install multiple pumps to scavenge fuel from various sections of the tank to feed a main Collector. Available in three different outlet styles including nipple, -6AN and SAE connections. Simple ring terminal style power connections, light weight, and includes a straining filter to make these pumps not only versatile but easy to install. Flows 160lph @ free flow.



### 495XX ..... AC STYLE IN-TANK LIFT PUMP 49501......9mm Nipple Outlet 49502.....-6AN Male Outlet 49503......3/8" SAE Male Outlet



# **FUEL PRESSURE REGULATORS**



FUELAB® fuel pressure regulators are true precision instruments. Our designs stand above others in reliability, flexibility and performance. Bypass, blocking, and electronically controlled regulators are all based on using the best quality components and proprietary materials to give

our customers what they need – precise, stable fuel presure control. All FUELAB® regulators are machined from 6061-T6 billet aluminum, hand assembled, serialized, and come with a 2 year limited warranty.





# FUEL PRESSURE REGULATORS



FUELAB® 515/525 Series Fuel Pressure Regulators are designed with performance and flexibility inmind. They accept port style and non-port style union fittingswithout interference. Several configurations are available, supporting carbureted applications as lowas 1 PSID to fuel injected applications up to 125 PSID. The 515 Series Fuel Pressure Regulator has a -6AN return port located on the bottom. The 525 Series has its return port in-line with the inlet port (not on the bottom) which allows for easy installation in extremely tight locations.

### HIGH HORSEPOWER 515XX ......Bottom Return Port REGULATOR

• Two -6AN or -10AN inlet and one -6AN return port

| Product No. | Inlet | Seat Size | <b>Pressure Range</b> |
|-------------|-------|-----------|-----------------------|
| 51501-C     | -10AN | Standard  | EFI 25-90 PSID        |
| 51502-C     | -6AN  | Standard  | EFI 25-90 PSID        |
| 51503-C     | -10AN | Large     | CARB 4-12 PSID        |
| 51504-C     | -6AN  | Large     | CARB 4-12 PSID        |
| 51505-C-S-P | -10AN | Custom    | Custom                |
| 51506-C-S-P | -6AN  | Custom    | Custom                |

# EASY FIT REGULATOR 525XX.....In-Line Return Port REGULATOR

- · Easy installation in extremely tight locations
- · -6AN inlet and -6AN return port in-line

| Product No. | Inlet | Seat Size | <b>Pressure Range</b> |
|-------------|-------|-----------|-----------------------|
| 52501-C     | -6AN  | Standard  | EFI 25-90 PSID        |
| 52502-C     | -6AN  | Large     | CARB 4-12 PSID        |
| 52503-C-S-P | -6AN  | Custom    | Custom                |

### **FEATURES:**

- Gasoline, diesel, methanol, and ethanol fuel compatible
- Billet Aluminum with anodize per military MIL-A-8625, Type II
- Fine thread pitch for precise pressure adjustment
- · Versatile mounting bracket and stainless steel hardware
- 1/8"NPT gauge port with plug for external pressure gauge
- 1/8"NPT pressure reference port with barbed fitting
- Backed by a 2-year limited warranty

### **PRESSURE OPTIONS:**

For a custom Fuel Pressure Regulator please refer to these options and select (S) Seat Size and (P) Pressure Range.

#### **SEAT SIZE**

S Standard seat (return orifice)

L Large seat (return orifice)

#### PRESSURE RANGE

L 1-3 PSID (approximate)

C 4-12 PSID (approximate)

T 10-25 PSID (approximate)

E 25-90 PSID (approximate)

G 90-125 PSID (approximate)

### **COLOR OPTIONS**

Add the color number shown below after the part number when ordering - ie: 51501-2 for a red 51501 Regulator. Actual colors may vary.





### **MINI REGULATORS**



FUELAB® 535/545 Series Fuel Pressure Regulators have all the same great features as our 515/525 series, only smaller and weigh 50% less. They accept port style and non-port style union fittings without interference. Several configurations are available, supporting carbureted applications as

low as 10 PSID to fuel injected applications up to 125 PSID. The 535 Series Fuel Pressure Regulator has a -6AN return port located on the bottom. The 545 Series has its return port in-line with the inlet port (not on the bottom) which allows for easy installation in extremely tight locations.

### 

• Two -6AN inlet ports and one -6AN return port

| Product No. | Inlet | Seat Size | <b>Pressure Range</b> |
|-------------|-------|-----------|-----------------------|
| 53501-C     | -6AN  | Standard  | EFI 25-90 PSID        |
| 53502-C-P   | -6AN  | Standard  | Custom                |

### **FEATURES:**

- Gasoline, diesel, methanol, and ethanol fuel compatible
- Billet Aluminum with anodize per military MIL-A-8625, Type II
- Fine thread pitch for precise pressure adjustment
- · Versatile mounting bracket and stainless steel hardware
- 1/8"NPT gauge port with plug for external pressure gauge
- 1/8"NPT pressure reference port with barbed fitting
- · Backed by a 2-year limited warranty

### 545XX.....EASY FIT In-Line REGULATOR

- In-Line style makes easy installation as Universal rail mount
- -6AN inlet and -6AN return port in-line

| Product No. | Inlet | Seat Size | Pressure Range |
|-------------|-------|-----------|----------------|
| 54501-C     | -6AN  | Standard  | EFI 25-90 PSID |
| 54502-C-P   | -6AN  | Standard  | Custom         |

### **PRESSURE OPTIONS:**

For a custom Fuel Pressure Regulator please refer to these options and select desired (P) Pressure Range.

#### PRESSURE RANGE

T 10-25 PSID (approximate) E 25-90 PSID (approximate) G 90-125 PSID (approximate)

Fine thread pitch on adjustment hardware Hardened precision steel ball pressed into spring for precise pressure adjustment guide maintains consistent spring positioning for → repeatable pressure settings Assortment of pressure 1/8" NPT port accommodates wide ranges Available • → range of plumbing options Lightweight fluorosilicone diaphragm Strong barbed fitting included except model 555xx assembly reduces hydraulic pressure fluctuations . AN or military o-ring style fittings provide reliable leak-free performance Port style fittings are recommended for reduced pressure drop . Accepts non-port style union fittings → without any interference -6AN return port is located on the bottom (525/545 series return port is In-line with inlet)

### FUEL PRESSURE REGULATORS



FUELAB® 555 Series Fuel
Pressure Regulators are true
precision instruments designed
to regulate fuel. These units
feature an advanced aerospace
poppet design for smooth
regulating capability. We've also
incorporated a no-creep soft
seat that's methanol and E85
compatible. Models adjustable
from 1 psi up to 65 psi. Perfect
for single and multi-stage nitrous
applications!

### **FEATURES:**

- A true precision instrument to regulate fuel
- Advanced poppet design for smooth regulating capability
- Gasoline, diesel, methanol, and ethanol fuel compatible
- Methanol compatibility with a No-creep soft seat
- Billet Aluminum with anodize per military MIL-A-8625, Type II
- Fine thread pitch for precise pressure adjustment
- Versatile mounting bracket and stainless steel hardware
- 1/8"NPT gauge port with plug for external pressure gauge
- 1/8"NPT breather vent

### 555XX BLOCKING STYLE REGULATOR

### · -8AN Inlet and dual -8AN Outlet

| Product No. | Inlet | Seat Size | Pressure Range |
|-------------|-------|-----------|----------------|
| 55501-C     | -8AN  | Large     | 4-12 PSI       |
| 55502-C     | -8AN  | Large     | 1-3 PSI        |
| 55503-C     | -8AN  | Large     | 10-25 PSI      |
| 55504-C     | -8AN  | Large     | 25-65 PSI      |
|             |       |           |                |

### 575XX.....MINI BLOCKING STYLE REGULATOR

• -6AN Inlet and dual -6AN Outlet

| Product No. | Inlet | Seat Size | Pressure Range |
|-------------|-------|-----------|----------------|
| 57501-C     | -6AN  | Large     | 4-12 PSI       |
| 57502-C     | -6AN  | Large     | 1-3 PSI        |
| 57503-C     | -6AN  | Large     | 10-25 PSI      |
| 57504-C     | -6AN  | Large     | 25-65 PSI      |

FUELAB 565 Series Fuel Pressure Regulators have all of the same great features as our 515/525 Series except for extreme capacity. With the bypass capability over 5 GPM at 5 PSI, this regulator can handle blow through carbureted applications well over 1800 H.P., and for EFI applications using belt driven fuel pumps; even further (with a flattened regulation slope). Regulator comes in four different pressure ranges covering applications between 4 and 80 PSI.

### FEATURES:

- · Gasoline, diesel, methanol and ethanol fuel compatible
- Billet Aluminum with anodize per military MIL-A-8625, Type II
- · Fine Thread pitch for precise pressure adjustment
- · Versatile mounting bracket and stainless steel hardware
- 1/8"NPT gauge port with plug for external pressure gauge
- 1/8"NPT pressure reference port with barbed fitting
- 1.75" sized diaphragm
- Two -10AN inlets, one -10AN return port
- Backed by a 2-year limited warranty
- Available in black only

The 585xx Series Fuel Pressure Regulator expands the line of Blocking Style (non-bypass) Regulators like our 555xx and

575xx Series, in a Traditional 4-Port

Package. The main seat assembly can be quickly exchanged in case of seat damage, such as debris. The seat assembly can be taken apart further to enable o-ring replacement of the Soft-Seat design. With Dual -10AN Inlet Ports and Four -6AN Outlet Ports (port spread allows

for -8AN line size) gives the regulator ability for extremely high flowrateswith a flattened curve for pressure stability through

Carve for pressure

its use of a 1.5 inch diaphragm assembly.

# 4 PORT HIGH FLOW 585XX BLOCKING STYLE REGULATOR

· Dual -10AN Inlet and four -6AN Outlet

| Proa. No. | iniet    | Outlet  | Seat Size | Pressure Range |
|-----------|----------|---------|-----------|----------------|
| 58501     | 2x -10AN | 4x -6AN | Large     | 4-12 PSI       |
| 58502     | 2x -10AN | 4x -6AN | Large     | 2-4 PSI        |

### 565XX ..... EXTREME CAPACITY REGULATOR

| Product No. | Description             | Pressure Rang |
|-------------|-------------------------|---------------|
| 56501-1     | EFI Applications        | 25-65 PSID    |
| 56502-1     | Carbureted Applications | 4-12 PSID     |
| 56503-1     | Throttle Body / Other   | 10-25 PSID    |
| 56504-1     | EFI High Pressure Apps  | 40-80 PSID    |
|             |                         |               |



# ELECTRONIC FPR



Our electronic fuel pressure regulator works directly with our Prodigy line of fuel pumps to reduce heat build up and vapor lock conditions. Set the pressure mechanically like a traditional bypass regulator, then let the electronic regulator's demand based speed control take care of the rest! The Fuelab electronic fuel pressure regulator generates a signal to the Prodigy pump, to control the

return line flow rate. This feature reduces current draw while at low engine output, to prevent fuel overheating that leads to fuel system failure. With the FUELAB demand based system, true pump control is finally achievable and easy to install!

### **FEATURES:**

- Works with Fuelab Prodigy Fuel Pumps, Power Modules and 72002 Controller.
- Patented method for demand based flow control, able to detect changes in demand before change in rail pressure is realized. U.S. Patent 7,810,470
- Automatically reduces current draw at low flow demand.
- · Monitoring capability to track actual fuel system capacity.
- Get the quick response of a mechanically regulated system, with the advantage of electronic flow control.

· Independent system, no other connections, control boxes or calibration required.

### 529XX .....IN-LINE REGULATOR

- · On demand fuel delivery made easy!
- Fittings Included
- Wiring Harness Included

| Inlet | Seat Size            | Pressure Range                                  |
|-------|----------------------|---|
| -6AN  | Standard             | EFI 25-90 PSID                                  |
| -8AN  | Standard             | EFI 25-90 PSID                                  |
| -6AN  | Standard             | Custom  |
| -8AN  | Standard             | Custom  |
|       | -6AN<br>-8AN<br>-6AN | -6AN Standard<br>-8AN Standard<br>-6AN Standard |

### **Pressure Range**

T 15-25 PSID (approximate) E 25-90 PSID (approximate) G 90-125 PSID (approximate)





### **COLOR OPTIONS**

Add the color number shown below after the part number when ordering - ie: 52901-2 for a red 52901 Regulator.

Actual colors may vary.

| COVER  | BODY                             |
|--------|----------------------------------|
| COLOR  | COLOR                            |
| Black  | Black                            |
| Red    | Clear                            |
| Blue   | Clear                            |
| Purple | Clear                            |
| Gold   | Black                            |
| Green  | Clear                            |
|        | COLOR Black Red Blue Purple Gold |







# IN-LINE FUEL FILTERS

FUELAB® In-Line
Fuel Filters keep
your engine running
clean. They feature
male AN / 37° Flared
fitting end caps, so
you can attach them
directly to other fuel
system components\*.

Also featured are machined internal radii for minimal pressure drop.

The compact 818 Series Fuel Filter includes a 3 inch element. For greater flow capacity and increased filtration the larger 828 Series Fuel Filter is equipped with a 5 inch element. (10 Micron / Paper elements are NOT compatible with Methanol or E85 usage). \*With AN female ports. O-ring required. Consult component manufacturer's port specifications.

### FEATURES:

- Gasoline, diesel,
- methanol, and ethanol fuel compatible
- Billet Aluminum with anodize per military MIL-A-8625, Type II
- -6AN, -8AN, -10AN or -12AN male inlets and outlets
- Includes low profile saddle clamp mounting bracket(s)
- Replaceable or cleanable filter element
- 200 PSIG maximum pressure rating
- Backed by a 2-year limited warranty

#### **INLET/OUTLET OPTIONS:**

For a custom Fuel Filter please refer to these options and select (I) Inlet and (O) Outlet flare fitting ends.

6 -6AN male 37° flare fitting end

8 -8AN male 37° flare fitting end

10 -10AN male 37° flare fitting end

12 -12AN male 37° flare fitting end

### 818XX .....WITH 3" ELEMENT FILTER

| _ |         |        |          |     |     |
|---|---------|--------|----------|-----|-----|
|   | Compact | design | supports | 200 | CDH |

|             | 5 11                         |             |
|-------------|------------------------------|-------------|
| Product No. | Filter Element               | Inlet/Outle |
| 81800-C-I-O | 10 micron / Paper            | Custom      |
| 81801-C     | 10 micron / Paper            | -6AN        |
| 81802-C     | 10 micron / Paper            | -8AN        |
| 81803-C     | 10 micron / Paper            | -10AN       |
| 81804-C     | 10 micron / Paper            | -12AN       |
| 81810-C-I-O | 40 micron / Stainless Steel  | Custom      |
| 81811-C     | 40 micron / Stainless Steel  | -6AN        |
| 81812-C     | 40 micron / Stainless Steel  | -8AN        |
| 81813-C     | 40 micron / Stainless Steel  | -10AN       |
| 81814-C     | 40 micron / Stainless Steel  | -12AN       |
| 81820-C-I-O | 100 micron / Stainless Steel | Custom      |
| 81821-C     | 100 micron / Stainless Steel | -6AN        |
| 81822-C     | 100 micron / Stainless Steel | -8AN        |
| 81823-C     | 100 micron / Stainless Steel | -10AN       |
| 81824-C     | 100 micron / Stainless Steel | -12AN       |
| 81830-C-I-O | 6 micron / Fiberglass        | Custom      |
| 81831-C     | 6 micron / Fiberglass        | -6AN        |
| 81832-C     | 6 micron / Fiberglass        | -8AN        |
| 81833-C     | 6 micron / Fiberglass        | -10AN       |
| 81834-C     | 6 micron / Fiberglass        | -12AN       |
|             |                              |             |

### 828XX WITH 5" ELEMENT FILTER

- Less pressure drop (works great as a pre-filter)
- · Greater flow capacity
- · Increased filtration capacity
- Reduced maintenance frequency

| Product No. | Filter Element               | Inlet/Outlet |
|-------------|------------------------------|--------------|
| 82800-C-I-O | 10 micron / Paper            | Custom       |
| 82801-C     | 10 micron / Paper            | -6AN         |
| 82802-C     | 10 micron / Paper            | -8AN         |
| 82803-C     | 10 micron / Paper            | -10AN        |
| 82804-C     | 10 micron / Paper            | -12AN        |
| 82810-C-I-O | 40 micron / Stainless Steel  | Custom       |
| 82811-C     | 40 micron / Stainless Steel  | -6AN         |
| 82812-C     | 40 micron / Stainless Steel  | -8AN         |
| 82813-C     | 40 micron / Stainless Steel  | -10AN        |
| 82814-C     | 40 micron / Stainless Steel  | -12AN        |
| 82820-C-I-O | 100 micron / Stainless Steel | Custom       |
| 82821-C     | 100 micron / Stainless Steel | -6AN         |
| 82822-C     | 100 micron / Stainless Steel | -8AN         |
| 82823-C     | 100 micron / Stainless Steel | -10AN        |
| 82824-C     | 100 micron / Stainless Steel | -12AN        |
| 82830-C-I-O | 6 micron / Fiberglass        | Custom       |
| 82831-C     | 6 micron / Fiberglass        | -6AN         |
| 82832-C     | 6 micron / Fiberglass        | -8AN         |
| 82833-C     | 6 micron / Fiberglass        | -10AN        |
| 82834-C     | 6 micron / Fiberglass        | -12AN        |
|             |                              |              |

# COLOR OPTIONS

Add the color number shown below after the part number when ordering - ie: 81801-2 for a red 81801 Regulator. Actual colors may vary.





### in-line fuel filters



Models 848xx and 858xx integrated check valve and filter assemblies allow your fuel system to maintain fuel pressure after engine and pump shut down. Using a check valve in your fuel system helps prevent vapors building up in your fuel rails during engine cooling. Having a check valve will also help maintain fuel pressure during engine start-up.

Our Check Valves are also Methanol, Ethanol, gasoline, and diesel fuel compatible (10 Micron / Paper elements are NOT compatible with Methanol or E85 usage). Since we integrate these two components, the check valve assembly is protected by the filter. No more scrambling to add a separate component and adapting it for your fuel system with extra fittings. Fuelab has both, all in one.

### **FEATURES**

### 848XX

- Integrated Check Valve Assembly with filter
- Helps maintain fuel pressure after shut-down
- Methanol and ethanol compatible
- 3 inch element

#### 858XX

- Integrated Check Valve Assembly with filter
- Helpsmaintain fuel pressure after shut-down
- · Methanol and ethanol compatible
- Greater flow capacity
- Increased filtration capacity
- 5 inch element

### 848XX RATED UP TO 1000HP

#### STANDARD FLOW INTEGRATED FILTER/CHECK VALVE Inlet/Outlet Product No. Filter Element 84800-C-I-O 10 Micron / Paper Custom \* 84801-C 10 Micron / Paper -6 AN 84802-C 10 Micron / Paper -8 AN 84810-C-I-O 40 Micron / Stainless Steel Custom \* 84811-C 40 Micron / Stainless Steel -6 AN 84812-C 40 Micron / Stainless Steel -8 AN 84820-C-I-O 100 Micron / Stainless Steel Custom \* 84821-C 100 Micron / Stainless Steel -6 AN 84822-C 100 Micron / Stainless Steel -8 AN 84830-C-I-O 6 Micron / Fiberglass Custom \* 84831-C 6 Micron / Fiberglass -6 AN 6 Micron / Fiberglass -8 AN 84832-C

\*The custom size 848x0 models allows for -6AN or -8AN outlet fitting size only. Inlet size can be -6AN, -8AN, -10AN or -12AN inlet sizes.

# 858XX RATED UP TO 2000HP HIGH FLOWINTEGRATED FILTER/CHECK VALVE

| Product No. | Filter Element              | Inlet/Outlet |  |
|-------------|-----------------------------|--------------|--|
| 85800-C-I-O | 10 Micron / Paper Custom    | **           |  |
| 85801-C     | 10 Micron / Paper -8 AN     |              |  |
| 85802-C     | 10 Micron / Paper -10 AN    |              |  |
| 85810-C-I-O | 40 Micron / Stainless Steel | Custom **    |  |
| 85811-C     | 40 Micron / Stainless Steel | l -8 AN      |  |
| 85812-C     | 40 Micron / Stainless Steel | l -10 AN     |  |
| 85820-C-I-O | 100 Micron / Stainless Stee | el Custom ** |  |
| 85821-C     | 100 Micron / Stainless Stee | el -8 AN     |  |
| 85822-C     | 100 Micron / Stainless Stee | el -10 AN    |  |
| 85830-C-I-O | 6 Micron / Fiberglass Cust  | om **        |  |
| 85831-C     | 6 Micron / Fiberglass -8 AN | ١            |  |
| 85832-C     | 6 Micron / Fiberglass -10 A | AN           |  |
|             |                             |              |  |

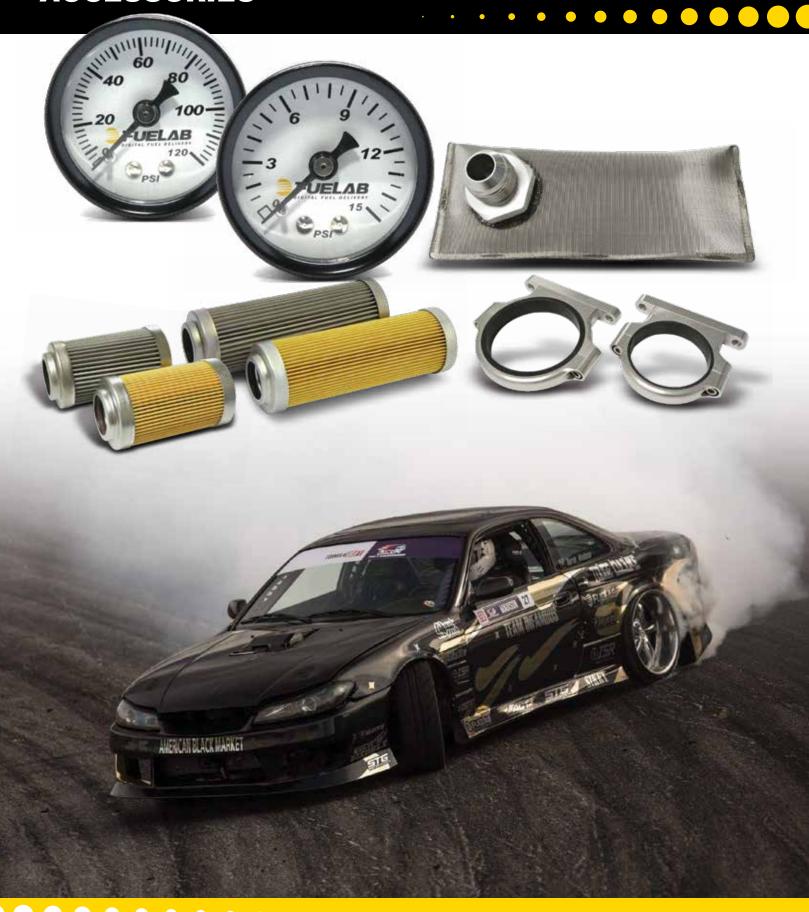
\*\*The customsize 858x0 models allows for -8AN or -10AN outlet fitting size only. Inletsize can be -6AN, -8AN, -10AN or -12AN inlet sizes.



Aerospace inspired poppet

Fluorosilicone soft seat for methanol/ethanol compatibility

# **ACCESSORIES**



### **ACCESSORIES**



### 718XX .....REPLACEMENT ELEMENTS

### 10micron / Paper Element (Cellulose)

The most economical and commonly used element. It is disposable yet provides excellent filtration. Compatible with Gasoline and Diesel only.

#### 40micron / Stainless Steel Element

Made for harsh racing conditions and ultimate fuel compatibility. It is cleanable and does not necessarily require replacement for maintenance.

#### 100micron / Stainless Steel Element

This filter element should only be used as a pre-filter for fuel pumps\*. It helps prevent pump cavitation with an extremely low pressure drop.

### 6micron / Micro-Fiberglass Element

Our most advanced filter element provides extra particle protection and reduces maintenance requirements with improvements in filter efficiency. This element is disposable and not to be cleaned.

\*A finer micron rated element is recommended to protect injectors and carburetors downstream of fuel pump.

### 718XX ......REPLACEMENT FILTER ELEMENT

| Product No. | Filter Size    | Replacement Type       |  |
|-------------|----------------|------------------------|--|
| 71801       | 3 Inch Element | 10 micron / Paper      |  |
| 71802       | 3 Inch Element | 40 micron / Stainless  |  |
| 71803       | 3 Inch Element | 100 micron / Stainless |  |
| 71804       | 3 Inch Element | 6 micron / Fiberglass  |  |
| 71805       | 5 Inch Element | 10 micron / Paper      |  |
| 71806       | 5 Inch Element | 40 micron / Stainless  |  |
| 71807       | 5 Inch Element | 100 micron / Stainless |  |
| 71808       | 5 Inch Element | 6 micron / Fiberglass  |  |
|             |                |                        |  |



### IN-TANK STRAINING FILTER

This 100Micron Stainless Steel Filter can be used for straining in-tank installations. The "Sock" design allows for -10AN Pick-Up designs as well. Kit includes cleanable element and -10AN fitting adapter.



### **GAUGES**

### **EFI FUEL PRESSURE**

Fuelab 1.5 Inch Fuel Pressure Gauge EFI, Range: 0-120 PSI

### **FEATURES:**

- Black Casing
- 1.5 Inch DiameterWhite Face, with Black Text
- 1/8-NPT Direct Mount
- For reference use on Regulators or Fuel Rails with Gauge Ports
- Not for use in Passenger or Driver's Compartments

# CARBURETED FUEL PRESSURE

Fuelab 1.5 Inch Fuel Pressure Gauges Carbureted, Range: 0-15 PSI

### **FEATURES:**

- Black Casing
- 1.5 Inch DiameterWhite Face, with Black Text
- 1/8-NPT Direct Mount
- For reference use on Regulatorsor Fuel Rails with Gauge Ports
- Not for use in Passenger or Driver's Compartments

### 715XX ..... EFI AND CARBURETED GAUGES

| Product No. | Туре                                       |
|-------------|--|
| 71501       | EFI Fuel Pressure Gauge                    |
| 71502       | Carbureted Fuel Pressure Gauge             |
| 71511       | EFI Fuel Pressure Gauge Dual BAR/PSI Scale |
| 71512       | Carbureted Fuel Pressure Gauge             |
|             | Dual BAR/PSI Scale                         |

### **BILLET BRACKETS**

Extremely lightweight and strong racing billet brackets with steel inserts. Get the extra strength with a truly custom look.



| 451XX |          | BILLET BRACKETS            |              |  |
|-------|----------|----------------------------|--------------|--|
| Model | Mounting | Application                | No. Brackets |  |
| 45101 | Plate    | Prodigy Fuel Pump          | 2            |  |
| 45102 | Plate    | Fuelab Filter              | 1            |  |
| 45103 | Cage     | Prodigy Fuel Pump          | 2            |  |
| 45104 | Cage     | Fuelab Filter              | 1            |  |
| 45105 | Plate    | Prodigy Fuel Pump / Fuelal | Filter 2     |  |
| 45106 | Cage     | Prodigy Fuel Pump / Fuelal | o Filter 2   |  |



### **ORDERING:**

Operating hours are Monday through Friday, 8:00 AM to 5:00 PM Central Time. We can be phoned Worldwide at 618.344.3300, orders can be faxed to 844.272.1189 or email us at info@fuelab.com.

#### **TERMS:**

All orders will be shipped COD or prepaid via credit card unless approved for open terms prior to ordering. We accept Visa, Master Card, American Express and Discover Card.

#### SHIPPING:

FOB Collinsville, IL. We ship Federal Express unless otherwise specified. Customers may authorize expedited shipments for an additional charge. Open or concealed freight damage claims must be made to the freight carrier. Damaged merchandise should not be returned to FUELAB® unless prior authorization has been obtained.

### **RETURNS:**

Any returned merchandise must have prior approval from FUELAB® before shipping. A return material authorization number will be assigned to any return and must be clearly marked on shipment packaging. Shipping charges on returned items must be prepaid.

### **WARRANTY CLAIMS:**

FUELAB® warrants that products sold under terms of our limited warranty will be free from defects in material and workmanship for a period of (2) years from the date of purchase to the original purchaser. Merchandise returned for inspection or repair must be sent prepaid and insured. Warranty claims must include senders name and address, an explanation of the problem, a return material authorization number, and a telephone number where the sender can be reached.

### LIMITATION OF REMEDIES:

If any FUELAB® product is found to be defective under terms of our limited warranty, buyer's exclusive remedy is reimbursement of the sale price of the product. Under no circumstances, whether based on our limited warranty or otherwise, shall FUELAB® be liable for incidental, special, or consequential damages.

#### **PRICES**

Prices are subject to change without notice.

FUELAB® fuel system components are capable of altering engine tuning and therefore may not be legal for sale or use on emission controlled motor vehicles.



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