







# Double-Barrel Fuel Rail

RAIL-DBL-BRL



Advancements made in common rail diesel injector technology have pushed factory fuel rails well past the intended capacity they were designed for. As the injected quantity increases, so does the drop in rail pressure during the injection event. Increasing the fuel rail volume will offset this by having more pressurized fuel on demand. That is the main benefit of the **S&S Diesel Motorsport®** Double-Barrel Fuel Rail, along with many others:

-  2.5x (154% more) volume than a stock 6.7L Cummins fuel rail
-  Maintains pressure better throughout the injection event
-  More injected quantity for the same injection duration
-  Improved rail pressure control due to more consistent sensor feedback
-  Modular design for maximum flexibility of feed port, sensor, and PRV placement
-  Made in the USA

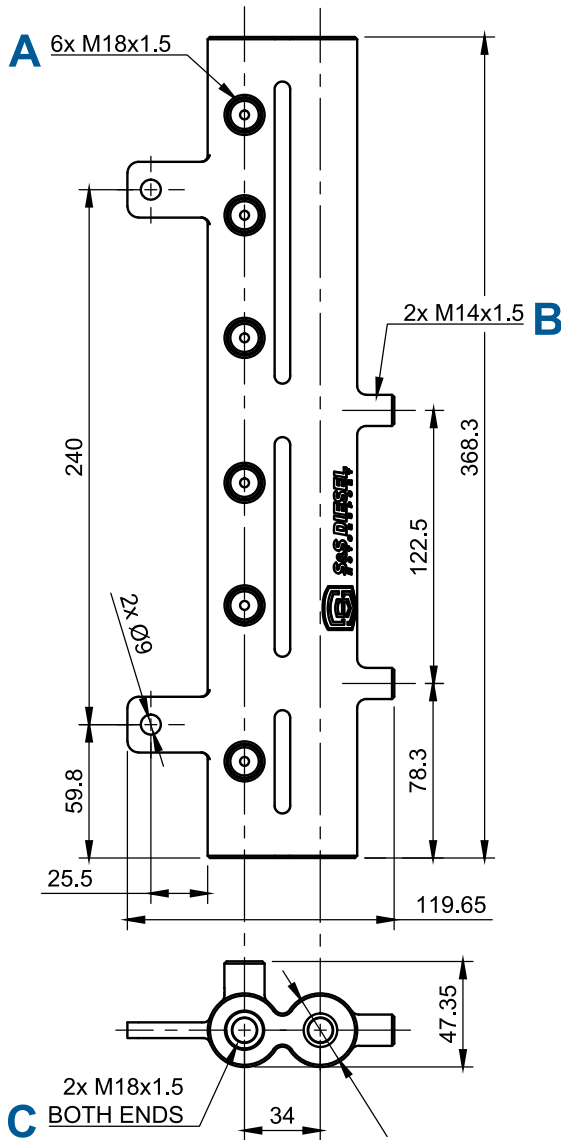
## Application

6.7L Cummins Max Effort Competition (07.5 – 18)

## Technical Specifications

Fuel Compatibility	Diesel
Weight	4.35 kg (9.6 lbs)
Maximum Dimensions	369 mm x 120 mm x 48 mm
Volume	66.1 cc (4.03 cu in)
Tested Pressure	3,000 bar (43,511 psi)
Inlet Ports	2x M14 x 1.5 Male
Injector Ports	6x M18 x 1.5 Male
Auxiliary Ports	4x M18 x 1.5 Female

# Dimensional Drawing



## A) Injector Ports

M18x1.5 Torque: 40 Nm (30 lb-ft)

**Optional Parts:** M18x1.5 Rail Cap CAP-M18

## B) Feed Ports

M14x1.5 Torque: 40 Nm (30 lb-ft)

**Optional Parts:** M14x1.5 Rail Cap CAP-M14

## C) Auxiliary Ports

M18 x 1.5 (Female) Torque: 95 Nm (70 lb-ft)

### Optional Parts for Auxiliary Ports

M18x1.5 Rail Plug CAP-M18x1.5

M18x1.5 to M14x1.5 Feed Fitting 8000040

1850 Bar Single Stage PRV (external) PRV-E-1850-1S

2200 Bar Single Stage PRV (external) PRV-E-2200-1S

2400 Bar Single Stage PRV (external) PRV-E-2400-1S

2700 Bar Single Stage PRV (external) PRV-E-2700-1S

0-2000 Bar Rail Pressure Sensor RDS-2000

0-2200 Bar Rail Pressure Sensor RDS-2200

0-2400 Bar Rail Pressure Sensor RDS-2400

0-2700 Bar Rail Pressure Sensor RDS-2700

0-3400 Bar Rail Pressure Sensor SENS-RDS-3400

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# Quick Start

## Keys to Success

- Ⓢ For frame of reference, the 2007.5-2018 6.7L Cummins fuel system was designed to operate at 1,800 bar. Even though the Double-Barrel Fuel Rail has been tested to 3,000 bar, it is not recommended to run the injectors at that pressure. As pressure increase linearly above 1,800 bar, return through the injectors increases exponentially. This will prematurely wear the injectors and over-work the high-pressure fuel pumps.
- Ⓢ The Double-Barrel Fuel Rail comes as a bare rail without any plugs, fittings, sensors, or pressure relief valves. This allows the fuel rail to be custom-configured for each application. Refer to the chart on Page 2 for help selecting additional parts needed.
- Ⓢ It's recommended to use NVH isolators (HPL-ISOLATOR-CU) on injector lines for all competition applications, even with a factory fuel rail.