FPC PUMP – **PULSE TYPE**

- Typical applications: to 25 hp
- 2 or 4 stroke
- Gasoline standard, alcohol option
- Body material: engineered composite
- Excellent corrosion resistance
- Serviceable
- Operating temperature: -30°~+105° F
- Mounting: 2 x 1/4" (6 mm) diameter on 2.75" (70 mm) centers
- Pressure: dependent on application
- Flow: dependent on application
- Lift: dependent on application
- Pulse fitting orientation: 90°degree increment
- Fittings: straight for 1/4" (6.3 mm) hose
  - (1) inlet
  - (1) outlet
  - (1) pulse

TWO-STROKE VERSUS FOUR-STROKE APPLICATIONS

A pulse fuel pump uses the pressure differential produced by the engine to move a diaphragm inside the pump body. This pressure differential is generally transferred via a pulse tube to one side of a flexible diaphragm in the fuel pump. On the opposite side of the diaphragm, check valves are positioned in the fuel channels to only allow the fuel to be drawn from the fuel tank and delivered to the carburetor.

In a two-stroke engine the pulse tube of the fuel pump is connected to the engine crankcase. As the piston ascends and descends the pressure in the engine crankcase transitions between positive and negative. The pressure differential can be greater than 8 PSI. As this pressure differential is transferred directly to the diaphragm, fuel pressures are nearly the same as the pressure differential of the crankcase. Fuel flow is also directly related to this pressure differential.

In a four-stroke engine, the engine crankcase contains lubricating oil. Therefore, the pulse tube of the fuel pump is connected to the intake manifold instead. As the piston ascends and descends, the pressure in the intake manifold transitions between approximately atmospheric pressure and negative. This pressure differential is usually less than 2 PSI. Because of this low pressure differential, a spring is added to move the diaphragm back when the negative pressure returns to approximately atmospheric pressure. A combination of the pressure differential and the spring force is transferred through the diaphragm, and fuel pressures are nearly the same as the pressure differential of the intake manifold. Fuel flow is also directly related to this pressure differential.

So, for a given pulse fuel pump, a two-stroke engine will provide a greater pressure differential and correspondingly greater fuel flow and pressure than a four-stroke engine.

Please contact Walbro for application assistance.

Walbro, LLC
Worldwide Headquarters

2015 W. River Road, Ste 202
Tucson, Arizona 85704 USA
Telephone (520) 877-3000

Website: www.walbro.com

Email: info@walbro.com

Walbro US Sales Office
Email: sales@walbro.com

Walbro Japan Sales Office
Email: asiasales@walbro.com

Walbro China Sales Office
Email: chinasales@walbro.com