

**LIQUID FUEL FILTER / SEPARATOR, GENERAL STEEL TANK CO.****SKID MOUNTED, 6" INLET AND OUTLET CONNECTION, 150 PSI RATING****600 US GAL PER MIN ( 2,271 LITERS PER MINUTE)**

Rate:	600 GPM (2271 LPM)
Working Pressure:	150 PSI
Differential Pressure Gage:	0-35 PSI
Fluid Service:	Aviation, Gasoline & Diesel.
Temperature Rating:	-25° to 125°F (-31.70 to 51.70C)
Filter Elements:	(15) Velcon ACI-44001C / Up to 0.5Mic
Dimensions:	78" x 64" x 90" (L x W x H)
Weight:	1,150 Lbs.
Shipping Cube::	67 cu ft (1.9 cu m).

**Equipment Characteristics, Capabilities and Features**Characteristics:

The filter/separator is an upright unit made up of an aluminum shell mounted within an aluminum frame. Inlet, outlet, and drain connections are provided. A differential pressure gage, a liquid level gate (sight glass), a pressure relief valve, a float control, and an auto drain are mounted on the tank. Lifting handles are welded to the cover assembly portion of the tank.

- Highly portable.
- All weather operational.
- Automatic water drain valve.
- 600 GPM (2271 LPM) rating.

**Major Components**

**FILTER/SEPARATOR SHELL:** Consists of an aluminum shell contained within an aluminum frame.

**FILTERING SECTION:** The center portion of the filter/separator shell contains 15 filter separating devices.

**CONTROL FLOAT VALVE:** This valve contains a float ball. As the water level rises on the deck plate of the filter separator tank, the float ball rises until it reaches an initial predetermined Level. System pressure forces entrapped water out of the tank.

**AUTOMATIC WATER DRAIN VALVE:** This valve will automatically drain when it receives system fluid pressure from the control float valve.

**PRESSURE RELIEF VALVE:** This valve is preset at 165 pounds per square inch (psi) (1137.7 kpa). When the internal pressure of the tank exceeds this setting, the valve will open.

**DIFFERENTIAL PRESSURE GAGE:** Reads the pressure required to force the fuel through the filter elements.

**MANUAL DRAIN GATE VALVE:** Provides a way of manually draining the filter/separator tank.

**DRAIN PLUG:** A pipe plug connected to the bottom of the unit to allow drainage of fuel and water when necessary.

**PRESSURE VENT VALVE:** A manually operated valve used to depressurize the filter/separator.

**ISOLATION DRAIN VALVE:** Used when isolation of the automatic drain valve is required.

**Technical Principles of Operation**General:

The filter/separator is a static device which is installed in a fuel system to remove water and solid contaminants from the fuel. The filter/separator is normally installed between the fuel system pump and the fuel dispensing equipment. Thus, fuel is pushed through the filter/separator by pump action.

Simplified Principles of Operation:

Fuel enters through the inlet connection and passes through the filter center tube and passes towards the outside of the element. Upon reaching the exterior of the element the fuel passes through the layers of plated paper, cotton knit and screen. The water droplets, being heavier than fuel, fall to the bottom of the tank. As water collects in the tank the water level rises. Clean fuel floats on top of this water. The point at which the fuel and water meet is known as the interface. The liquid level gage gives a visual indication of this interface. Automatic controls or manual controls permit the discharge of the separated water and prevents the flow of fuel out of the filter/separator.