



# Fuel Measurement Unit

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The Taylor Dynamometer Fuel Measurement Units are gravimetric type systems and require the DynPro Data Acquisition and Control system for operation.

Simply speaking, these systems accurately measure the weight of the fuel in a beaker and calculate the rate of fuel consumption by continuously analyzing the weight of the beaker as the engine draws and returns fuel. The beaker is self-filling and will automatically maintain the minimum and maximum amounts of fuel in the beaker. All units include a chiller to cool the return fuel and maintain a beaker temperature of 100 deg F (38 deg C). In Engine test cells the Taylor Fuel Measurement Units may eliminate the need for a Day Tank.

## Specifications

**Dimensions:**  
39" [991 mm] W  
23" [584 mm] D  
47" [1190 mm] H

**Shipping Weight:**  
350 lbs. [159 kg]



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## Available Options

1. Fuel Hose Interconnect Kit
2. Prime Pump
3. Head Pressure Isolation Kit
  - Required when the fuel storage elevation is above the Fuel Measurement system beaker.

Model	FMU-1000	FMU-4250
HP capacities	1000	4250
Burn Rate Capacity in (gpm)	1.66	7.05
Burn Rate Capacity in (lbs/h)	700	2975
Total Fuel Flow in (gpm)	5.81	24.67
Total Fuel Flow in (lbs/h)	2450	10413
Fuel Pressure Drop (psi)	0.4	0.9
Fuel Supply Temp (°F)	100	100
Supply Fuel Pipe Diameter (in)	5/8	1
Return Fuel Pipe Diameter (in)	1/2	1
Make-up Fuel Pipe Diameter (in)	1	1
Water Flow (gpm)	6.51	28.36
Water Supply Pressure (psi)	40	40
Water Supply and Return Pipe Diameters (in)	1	1
Amp requirements for 110V/230V	11/6	11/6
Fuel Flow Accuracy	+/- 1%	+/- 1%
Fuel Density Accuracy	0.1° API	0.1° API
Fuel Temperature Accuracy	+/- 2 °F	+/- 2 °F

### *Head Pressure Isolation Unit (optional):*

Depending on the installation, the fuel supply is typically the vehicle fuel tank, or a facility fuel storage tank. If a facility storage tank is used, it is recommended that a valve be placed between the fuel source and the measurement system. The Head Pressure Isolation Unit is a check valve system that aids in the filling and emptying of the drum in the Fuel Measurement Unit.

### *Prime Pump (optional):*

The Fuel Measurement Unit can be equipped with a prime pump that can prime the engine with fuel. After the drum is filled with fuel, the prime pump, which is mounted within the Fuel Measurement Unit, pumps fuel to the engine to start the engine.

- Delivers up to 50 PSI (3.5) bar working pressure.
- Built-in pressure switch automatically starts and stops pump instantaneously when discharge valve is opened and closed.
- Max Flow 1.8 GPM (6.8L/Min)

SMS0906V003