

1907

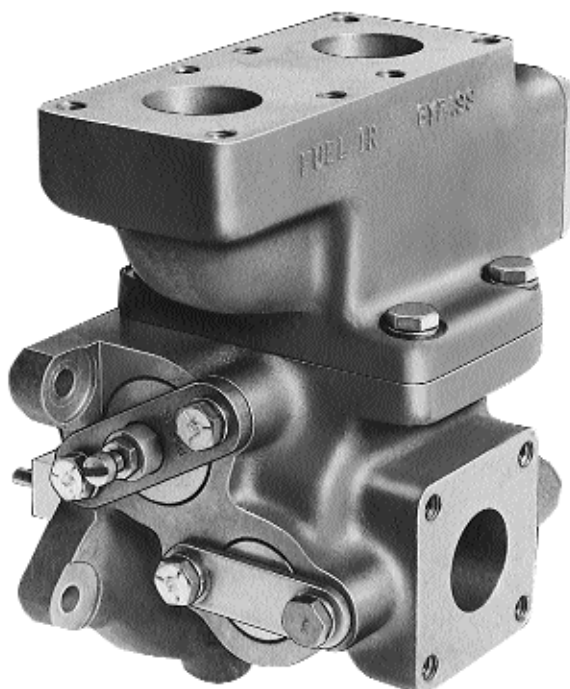
Large Liquid Fuel Valve

Applications

Accurately meters liquid fuel to a gas turbine during acceleration, steady-state operation, and deceleration. May be used for almost any liquid-fueled industrial gas turbine application within its range of fuel flow.

Standard Features

Available in different ranges of flow from a low of 68 kg/hr (150 lb/h) to a high of 11 340 kg/h (25 000 lb/h), and has a 30 to 1 range of flow. The fuel bypass valve maintains constant pressure-drop across the metering port. This provides accurate fuel metering regardless of variations in discharge or inlet pressure. An orifice and relief valve eliminates bypass damping when a sudden increase in bypass flow is needed.



- Accurately meters flow from 68 to 11 340 kg/h (150 to 25 000 lb/h)
- Handles most liquid fuels
- Accommodates different fuel and schedule requirements
- Requires no on-site adjustments

Specifications

Supply Characteristics

Fuel Type	The valve is compatible with most types of diesels, kerosenes, gasolines, heavy and light distillates including naphtha, gas turbine fuels and fuel oils, and other liquid fuels such as biodiesel that are compatible with fluorocarbon (FKM) type elastomers and conform to international standards for utility, marine, and aviation gas turbine service. Ultra low sulfur diesels are also acceptable with proper lubricity additives. Other fuels such as ethanol or methanol may be acceptable with internal seal compound substitutions. Contact Woodward for these and other special fuel applications.
Fuel Viscosity	Fuel viscosity must be between 0.5 and 12.0 centistokes.
Fuel Cleanliness	Liquid fuel must be filtered to limit particulate size to 20 µm or smaller. Water content must be limited to 0.1% by volume. Solids, sediment, and particulates must be limited to 1.0 mg per liter of fuel.
Fuel Specific Gravity	0.77 to 0.91

Fuel Schedule (Nominal)

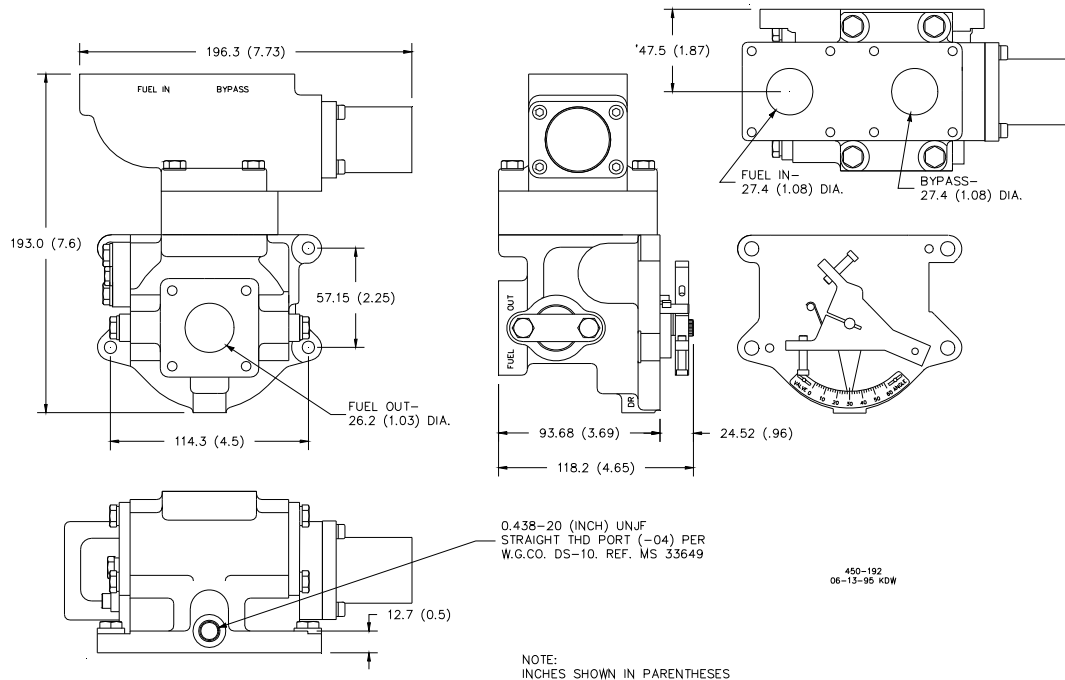
Minimum Flow	68 kg/h (150 lb/h)
Maximum Flow	11 340 kg/h (25 000 lb/h)

Fuel Pressure

Inlet Maximum Operating Pressure	9377 kPa (1360 psig) with aluminum body 17 238 kPa (2500 psig) with stainless steel body and class 10.9 (grade 8) bolts
Outlet Maximum Operating Pressure	9032 kPa (1310 psig) with aluminum body 16 893 kPa (2450 psig) with stainless steel body and class 10.9 (grade 8) bolts
Differential Pressure	345 to 827 kPa (50 to 120 psig)

Porting

Overboard Drain	MS33649-4
Inlet and Bypass	MS33786
Outlet	MS33786
Flow Range	30 to 1
Valve Travel	60 degrees

Technical Manual 45002

Outline Drawing of 1907 Large Liquid Fuel Valve
(Do not use for construction)



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Distributors & Service

Woodward has an international network of distributors and service facilities. For your nearest representative, call the Fort Collins plant or see the Worldwide Directory on our website.

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