

## Product Data Sheet

### Diamond Jet DJF Gas Flowmeter for HVOF Spray

**The Diamond Jet DJF Gas Flowmeter is a precision instrument used to control and monitor the flow of fuel gas, oxygen and compressed air required to operate any air-cooled or water-cooled Diamond Jet HVOF spray gun when used in combination with the DJFEW Water-Sensing Unit.**

The DJF is specifically designed to handle the high volume gas and air flows required. The unit incorporates easy to read and adjust flowmeters for pre-setting and monitoring process gas and air parameters. Panel-mounted pressure gauges permit monitoring of process gas pressures regulated upstream of the DJF unit.

When used as part of a complete manual Diamond Jet HVOF spray system, the DJF will provide precision control, while providing a simple means of maintaining the accuracy required.



DJF Gas Flowmeter

#### 1 General Description

The DJF is wall-mountable, making it convenient to place in a location that provides easy access to set parameters and monitor the spray process.

Observation of the flowmeters and pressure gauges during operation can warn the operator of possible obstructions or leaks in the gas lines. Hydrogen, propane, propylene or methane (natural gas) can be safely used as the fuel gas.

Standard cylinders of compressed gas, gas supplied through plant pipelines, or combinations of gas supply can be used with the DJF. Whatever the source of the process gas, it is important that appropriate pressure regulators be used upstream from the Diamond Jet DJF unit.

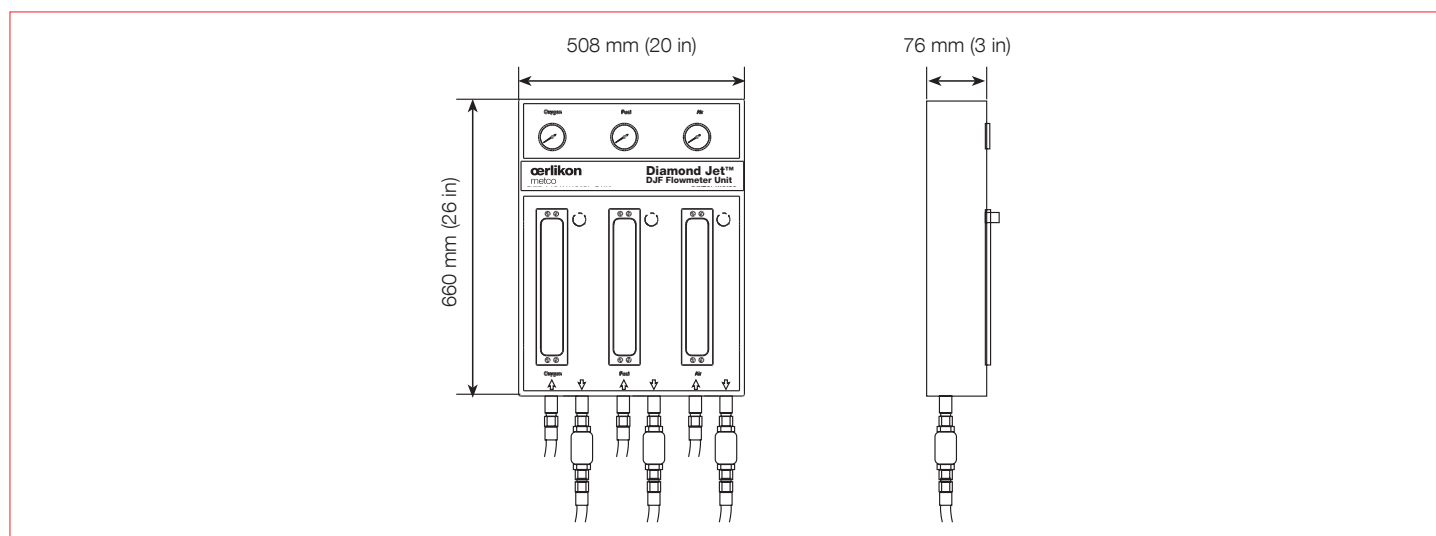
When used with a water-cooled Diamond Jet HVOF spray gun, the DJFEW Water-Sensing Unit should be used in conjunction with the DJF to monitor the water flow. Please see the DJFEW product data sheet for more information.

#### 2 Features and Benefits

- Provides a convenient central location to control and monitor oxygen, fuel gas and compressed air.
- Includes fuel, oxygen and air flashback arrestors, to protect the flowmeter from a flashback.
- Economical and simple; inexpensive to own and operate with minimal training required.
- Provides precision metering of process gas flows for consistent results.
- Versatile unit that can be used with a choice of fuel gases to accommodate different applications and production needs.
- Unbreakable glass windows for safe operation.
- Conveniently and easily mounts on a wall.
- Easy to read, clearly engraved flowmeter scales.
- Rugged design that has been built for long service life with very little maintenance.
- Detachable flow scales facilitate calibration.

### 3 Technical Data

#### 3.1 Dimensions



#### 3.2 Specifications

##### Process Gases

Hydrogen, propane, propylene, methane (natural gas)  
Oxygen, air

##### Units

Flowmeter units	NLPM	SCFH
Pressure gauge units	bar	psi

##### Maximum Operating Pressures and Flows

Oxygen	Pressure	12 bar	170 psig
	Flow	307 NLPM	700 SCFH
Hydrogen	Pressure	9.7 bar	140 psig
	Flow	730 NLPM	1670 SCFH
Propane	Pressure	6.2 bar	90 psig
	Flow	88 NLPM	200 SCFH
Propylene	Pressure	6.9 bar	100 psig
	Flow	88 NLPM	200 SCFH
Methane	Pressure	7.6 bar	110 psig
	Flow	202 NLPM	460 SCFH
Air	Pressure	7.3 bar	105 psig
	Flow	439 NLPM	1000 SCFH

##### Connections

Oxygen	CGA022 9/16-18 right-hand thread
Fuel	CGA023 9/16-18 left-hand thread
Air	5/8-18 right-hand thread

##### Weight

35 kg	77 lb
-------	-------

Information is subject to change without prior notice.