



Liquid Fueled HVOF Technology

# **CastoJet®** **CJK5**



- Kerosene fueled high pressure HVOF for high quality coatings
- Unlimited recording of process parameters for repeatable coatings
- Safe and Rapid start up saves fuel and time
- Produces thick, low stressed coatings that are in compression
- Easy to use, intuitive to operate for simplified maintenance

## CastoJet CJK5

The CastoJet® Kerosene 5 - CJK5 - is Castolin Eutectic's kerosene fueled high pressure HVOF (High-Velocity Oxy-Fuel) system. Using mass flow control for repeatable coating quality, the system produces the densest metallic and carbide coatings on the market. Coatings can be compressively stressed, allowing thick layers to be applied without fear of spalling.

The operator controls are simple to follow using a touch screen interface. The powder feeder has mass flow controlled carrier gas and closed loop motor control for reliability and repeatability of powder feed rates.

### Simple and Intuitive Operation with Unique Benefits

- High pressure combustion chamber is twice that of gas fueled systems
- Mass flow control of oxygen and carrier gas = repeatability
- Ergonomic PC control with touch screen operator interface
- Unlimited recipes and parameter recording
- Manual or fully sequenced start-up and shut-down
- Low running costs compared to hydrogen fuel HVOF systems
- Liquid fuel = thick, low stressed coatings
- System produces high bond strength and low porosity coatings



### CJK5 Control System:

The CJK5 control system is shown with the operator interface mounted onto the gas box for pictorial purposes only. In a typical installation, the gas box would be inside the spray booth. The powder feeder would either be inside or outside the spray booth. The operator interface would be outside the spray booth.

Description	Characteristics
Weight	44 lb (20 Kg)
Electrical Supply	220/240V 1ph
Cooling Requirements	Free air circulation
Dimensions	W-23.5"   D-7"   H-16.5" W-590mm   D-175mm   H-410mm



## Typical Applications:

- Hard Chrome Plating Alternative
- CGL Mill Rolls
- Gas Ball and Gate Valves
- Down Hole Tools - Oil and Gas Industry
- Paper Rolls
- Hydraulic Rams
- Aircraft Landing Gear
- Suspension Components
- Hydro-Electric Turbines
- Automotive Valves
- Wire Drawing Blocks

## CJK5 Torch Gun Benefits:

The CJK5 is engineered for easy set-up and maintenance. This minimizes operator errors and downtime for a smooth running system that provides repeatable, high quality coatings.

- Single point fuel injection to promote a complete, clean burn within the combustion chamber
- Two nozzle lengths (100mm and 200mm)
- Range of coatings from hard but ductile, to extremely hard but brittle
- Very simple nozzle design reduces consumable spare parts costs
- Simple gun maintenance for reduced downtime
- Steel powder feed tubes for reliable operation
- Robust chamber pressure transducer provides feedback directly from the chamber
- Propylene, Hydrogen, Kerosene or Propane pilot lighting = clean start-up and shutdown, minimizing fuel overspray
- Sturdy, robust design for long service life
- Robot mounting interface



## CJK5 Torch Gun:

Description	Characteristics
CJK-5 Gun-100	Weight: 8.8 lb. (4.0 Kg)
Dimensions	Length: 16" (400mm)   Width: 6.4" (160mm)   Height: 4.8" (120mm)
CJK-5 Gun-200	Weight: 9.7 lb (4.4 Kg)
Dimensions	Length: 20" (500mm)   Width: 6.4" (160mm)   Height: 4.8" (120mm)

Typical Material	GPM (g/min)	Deposit Efficiency (%)
TeroJet 55-575	70	50
TeroJet 55-586	70	49
TeroJet 55-583	70	45
TeroJet 55-588	70	45
TeroJet 55-125	70	47
TeroJet 55-396	70	48

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**Castolin  
Eutectic**



*Eutectic Corporation:*  
N94 W14355 Garwin Mace Dr.  
Menomonee Falls WI, 53051 USA  
+1 800. 558. 8524 • eutectic.com

*Eutectic Canada:*  
428, rue Aimé-Vincent Vaudreuil-Dorion,  
Québec J7V 5V5 Canada  
+1 800. 361. 9439 • eutectic.ca



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