High Velocity Oxygen Fuel (HVOF)





The High Velocity Oxygen Fuel (HVOF) process produces durable metal, carbide, and a multitude of specialty coatings. A complete line of powders is available, which are specifically engineered for application with the HVOF system. This technology can be utilized in a range of applications leveraging the ultra-dense HVOF coating properties and the resulting wear-resistance.

Easy online quote requests at www.thermach.com. Call (920) 779-4299. Email sales@thermach.com.





- 3 | Fuel Gas
- 4 | Powder supply and carrier gas
- 5 | Water outlet
- 6 | Water inlet
- 7 | UV scanner/flame detector

START WITH THE THERMACH AT-8000 SERIES **HVOF THERMAL SPRAY SYSTEM**

- Built-in user-operated Safety Purge System (Class 1 Division 2 Type Z Purging, per NFPA 496)
- Booth and Emergency Stop Interconnections
- Rotameter Gas Flow Control
- Oxygen Gas Control
- Hydrogen/Propylene Fuel Gas Control
- Argon/Nitrogen Carrier Gas Control
- Touchscreen/PLC Control of System Functions
- Automatic Process Start and Stop
- Alarms and Warnings with Automatic Safety Shutdown Sequences
- Powder Feeder Control with Closed Loop RPM Control (when using 0-15 RPM AT-1200 Powder Feeders)
- Process hour meter with settable maintenance alarm
- 10 Ton Heat Exchanger with alarm feedback to console

AT-8000 HVOF Control Console

The AT-8000 HVOF Control Console is a semi-automatic HVOF process controller. Coating operation users appreciate the intuitive touchscreen controls, oversized analog gauges and large flow meters.

Features include NFPA Type "Z" purging, a purging malfunction visual alarm, and a NEMA 12 enclosure with separate gas and electrical compartments.

Easily start your HVOF torch with automatic sequences for gas and power as you bring the torch to operating parameters. The AT-8000 runs the Thermach HV-2000 torch but also operates other HVOF torches.

Requirements

Electrical: 110 VAC, Single Phase, 50/60Hz, 15A

Oxygen:

300 PSI Supply Maximum

Hydrogen:

250 PSI Supply Maximum

Propylene:

250 PSI Supply Maximum

Argon/Nitrogen:

250 PSI Supply Maximum

Purge Air:

65 PSI, 10 SCFM Minimum

AT-4100 HEAT EXCH



The AT-4100 Heat Exchanger, a 10-ton refrigerated chiller, is activated by and feeds its alarms directly to the AT-8000 console.

AT-8510 FLAME DETECTOR



The Thermach HV-2000 torch features automatic flame ignition and sensor for safe operation.

HV-2000 TORCH



The HV-2000 HVOF spray torch is a durable and versatile thermal spray tool, capable of

operating with a variety of gaseous fuels. The HV-2000's reliability and efficiency can be adapted to many automated coating applications.

AT-1200 POWDER FEEDER



Thermach Powder Feeders are made to deliver accuracy and repeatability. They are highly customizable. Precision machining, digital controls, rugged construction, and an internal tamper assembly keep this system

feeding consistently, with little maintenance. Thermach Powder Feeders are designed to your specs.

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