

Powder Feeders



Thermach Powder Feeders are made to deliver accuracy and repeatability. They are highly customizable with options for high pressures, increased capacities, remote controllers, and quick-change canisters. Precision machined, digital controls, rugged construction, and an internal tamper assembly keep this system feeding consistently, with little maintenance, for many years. Thermach Powder Feeders can be designed to meet and exceed your specifications.

In operation, powder is metered to the spray process when slots in a powder wheel fill and move past an exit port. The powder then enters a gas stream which carries the material to your torch. In this feeding process, wheel speed and powder wheel configuration determine the rate of powder flow to the spray torch.



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

**MADE
IN THE USA**

Manufacturer of Equipment & Parts
for the Thermal Spray Industry.

AT-1200 Series Rotary Powder Feeders

Thermach Powder Feeders are known for unmatched quality and dependability. Using a digital closed loop controller, Thermach Powder Feeders provide metric feed rates that are both **highly accurate** (± 2 grams per/min tolerance) and **repeatable**. Operators can **easily monitor and control process parameters** as wheel speed is displayed in revolutions per minute and can be **controlled either locally or remotely** by PLC or computer.

To add an additional measure of accuracy, Thermach Powder Feeders are equipped with a tamper assembly to assist difficult feed powders to fill the slots entirely. **Thermach supplies a variety of powder wheels, motors, and encoders**, so you're sure to meet your desired feed rates.



AT-1200

- Plasma & HVOF capable
- 25 RPM std. motor (43 RPM available)
- Closed-loop wheel speed control
- 90 PSI max. pressure
- 115/230VAC & 50/60Hz capable
- 205 cu. in. capacity (3359 ml)
- Remote control capable
- (+/-) 2% feed accuracy



AT-1200HP

- Designed for HVOF applications
- 43 RPM std. motor
- Closed-loop wheel speed control
- 150 PSI max. pressure
- 115/230VAC & 50/60Hz capable
- 205 cu. In. capacity (3359 ml)
- Remote control capable
- (+/-) 2% feed accuracy



AT-1200HP Ext Cap

- Designed for HVOF applications where extra powder capacity is required
- 43 RPM std. motor
- Closed-loop wheel speed control
- 150 PSI max. pressure
- 115/230VAC & 50/60Hz capable
- 312 Cu. In. capacity (5112 ml)
- Remote control capable
- (+/-) 2% feed accuracy



AT-1210

- Designed for laser cladding
- Advanced closed loop controller
- 100 PPR encoder for increased resolution
- 25 RPM std. motor (1.3 RPM available)



AT-1200HPHV

- Designed for thermal spray applications where extra powder capacity and up to 500 PSI of back pressure is encountered
- 25 RPM std. motor (43 RPM avail.)
- Closed-loop wheel speed control
- 500 PSI max. pressure
- 115/230VAC & 50/60Hz capable
- 464 cu. in. capacity (7603 ml)
- Remote control capable
- (+/-) 2% feed accuracy



AT-1200VFHP

- Designed for cold spray applications where up to 1000 PSI of back pressure is encountered
- 43 RPM std. motor
- Closed-loop wheel speed control
- 1000 PSI max. pressure
- 115/230VAC & 50/60Hz capable
- 205 cu. In. capacity (3359 ml)
- Remote control capable
- (+/-) 2% feed accuracy

Your **coating partner**,
not your competitor.

AT-1230 Gas Flow Controller



The Thermach AT-1230 is a gas flow controller. It meters gas flow using a pressure control regulator, a pressure gauge, and a critical orifice.

Features of the AT-1230 Gas Flow Controller include:

- Designed for Thermach Powder Feeders
- 0-250 PSI using an inert gas supply only
- Critical orifice control 0-60 SCFH (ARGON)
- Control Gas Hose and Feed On/Off Control Cable included

AT-1231 Wheel Speed Controller



The AT-1231 is a closed-loop remote wheel speed controller for use with rotary powder feeders.

The AT-1231 controls both Feed On/Off functions and wheel speed.

Features of the AT-1231 Wheel Speed Controller include:

- Designed for Thermach Powder Feeders
- No external power required
- Feed On/Off and Wheel Speed Control Cable included

AT-1242 Powder Splitter Box



The AT-1242 Y-Splitter Box is designed for processes that require powder capacities greater than that

of a single powder feeder. This interface box enables users to seamlessly switch between two powder feeders without powder flow interruption.

- Designed for Thermach Powder Feeders
- Pneumatically controlled pinch valves
- Control options for remote and manual operation
- Powder exhaust connections are capable of being connected to catch cans for reuse.

AT-1245 Carrier Gas Flow Controller



The AT-1245 is a HVOF carrier gas flow control designed to interface an AT-1200HP rotary powder feeder with the Diamond Jet® HVOF gun.

Features of the AT-1245 Flow Controller include:

- Designed for Thermach Powder Feeders
- 0-250 PSI using an inert gas supply only
- Rotometer controlled 0-45 SCFH at 150 PSI gauge pressure
- Has ignition and run settings. Ignition mode is used to pre-charge the canister so that the powder injector does not burn up at start. Run mode sets the carrier gas flow rate.

AT-6000 Weight Loss System



- PLC based system
- Easy to use touch window interface
- Accurate feed rate calculated on weight loss
- Vibration tolerant
- Standalone operation capable

- Compatible with AT-3000, AT-8000 console series
- Compatible with AT-1200, AT1200HP and AT-1210 rotary powder feeders

AT-1200QC Feeder

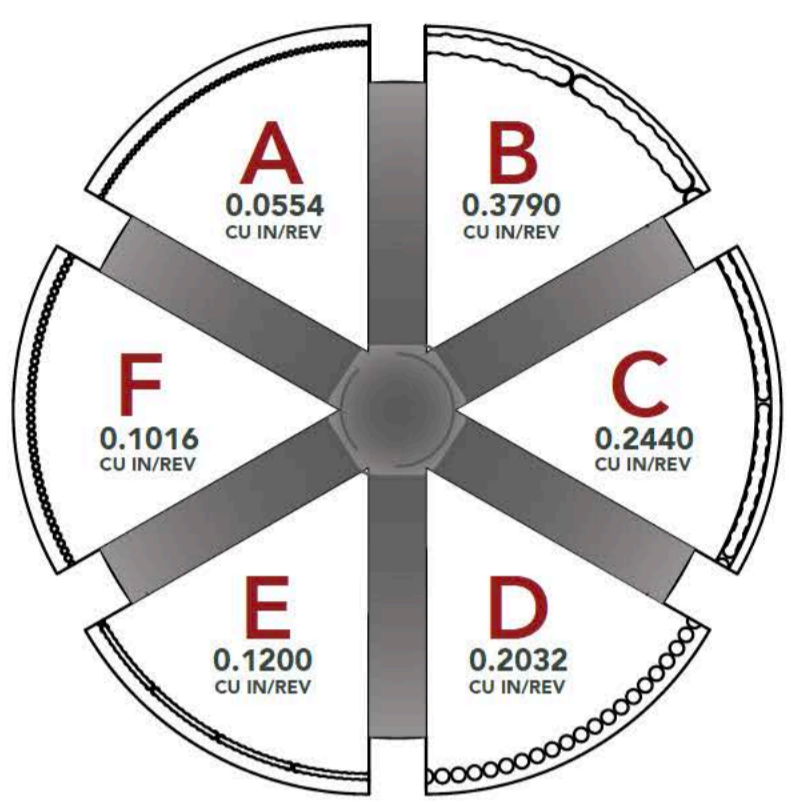


Utilizing interchangeable powder canisters the AT-1200QC powder feeder reduces time needed for powder change over.

- 43 RPM std. motor
- Closed-loop wheel speed control
- 90 or 150 PSI canister options
- 115/230VAC & 50/60Hz capable
- 205 cu. In. capacity (3359 ml)
- Remote control capable
- (+/-) 2% feed accuracy

WHAT SIZE POWDER WHEEL SHOULD WE USE?

Thermach provides all of the powder wheel sizing options your thermal coating operation will need. Following is our sizing options nomenclature guide.



Segment	Volume (CU IN/REV)
A	0.0554
B	0.3790
C	0.2440
D	0.2032
E	0.1200
F	0.1016

THERMACH
THERMAL SPRAY COATING SYSTEMS

POWDER WHEEL SIZING OPTIONS

- A** | 320 HOLE WHEEL, PART NO. 881250320
- B** | HIGH VOLUME SLOTTED, PART NO. 881253109
- C** | STANDARD SLOTTED, PART NO. 881250109
- D** | 120 HOLE WHEEL, PART NO. 881250120
- E** | ULTRA FINE SLOTTED, PART NO. 881250141
- F** | 240 HOLE WHEEL, PART NO. 881250240

BENEFITS OF THERMAL SPRAYING

Comprehensive choice of coating materials: metals, alloys, ceramics, cermets, carbides, polymers and plastics.

Thick coatings can be applied at high deposition rates.

Thermal spray coatings are mechanically bonded to the substrate - can often spray coating materials which are metallurgically incompatible with the substrate.

Can spray coating materials with a higher melting point than the substrate.

Most parts can be sprayed with little or no preheat or postheat treatment, and component distortion is minimal.

Parts can be rebuilt quickly and at low cost, and usually at a fraction of the price of a replacement.

By using a premium material for the thermal spray coating, the lifetime of new components can be extended.

Thermal spray coatings may be applied both manually and mechanised.

Equipment that lasts.
Precision parts
that work.

Made in the USA for
extreme conditions
everywhere.

Solutions that
allow your
coatings to excel.

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