



# Jupiter Additive CNC Hybrids

## VMX650 FX & VMC4024

### WLMD Series

The JUPITER CNC SYSTEMS Premium line of CNC Hybrid machine tools are Additive - Subtractive machines designed to produce 3D metal complex parts. Using Meltio's Wire Laser Metal Deposition (WLMD) technology, combined with JMT's 3 and 5-axis additive CNC systems, print parts without voids or porosity. The JMT machine line produces very tight tolerance parts having a density of 99.9998% without incurring the cost of tooling for forgings or castings.

Using our 3 or 5 axis CNC machine tools provides a wide range of work envelopes for small to large parts at a very low cost and requires hours, not days for rapid turn-around.



### Who Owns Additive Machines?

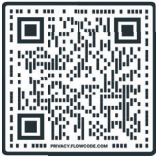
Job shops - large and small, Aerospace, Medical, DOD, Space, Automotive, Forgings, Communications, Colleges, Universities, and others.

### Why Own a Hybrid Additive CNC Machine Tool?

Expensive 3D parts, forging dies, tooling, work holding, and various other parts can be repaired by reprinting damaged or incorrectly machined areas, without removing the part from the CNC Machine. Saving \$\$\$ on machine run time, labor, and scrap. When you're not printing parts, you have a high performance machine that makes "chips and \$\$\$ every day".

Scan here for more details.

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**VMC-4024 - Powered by Meltio**  
3-Axis (FANUC 0iMF CNC Control)  
Size: 2150 x 2763 mm (84.64" x 108.78")

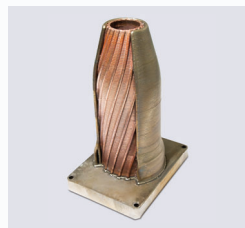
**VMX650 FX - Powered by Meltio**  
5-Axis Continuous (FANUC 31i-B5 Control)  
Size: 3178 x 4612 mm (125.12" x 181.58")

### Benefits to a Shop using 3D WLMD (Wire Laser Metal Deposition)

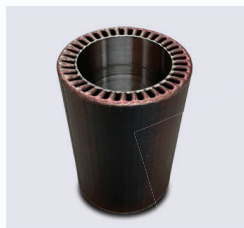
- The WLMD process **eliminates the safety hazard** of powder deposition methods.
- **Reduces material and labor costs**, as parts are printed to a "near net finish" (within .040") reducing "Cycle Time".
- A part **can be made using two different metals**, i.e. mild steel as a core metal while the outside is finished with titanium using the "Twin Wire" function.
- WLMD parts **eliminate voids and porosity** - being 99.9998% dense, better than forgings or castings.
- Enables parts to be made with **internal passageways for gas or liquid flow**.
- Allows prototype or low volume parts to be **made in hours** rather than days or weeks.
- Forging Dies, Trim, & Coin dies can be reprinted, **avoiding loss of Die Block and trim tools**.
- Other Direct Machine Shop Cost Reduction Benefits:
  - a. Parts are printed from wire spools - **eliminates storage space for bar stock, eliminates sawing, and trucking costs** of materials that are machined away.
  - b. **Eliminates costs of "Work Holding" fixtures & reduces "Set Up" time.**



**Compressor Screw**



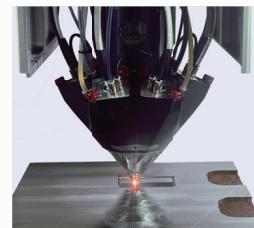
**Rocket Nozzle**



**Internal Passage**



**Turbine Blade**



**Forging Die**

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