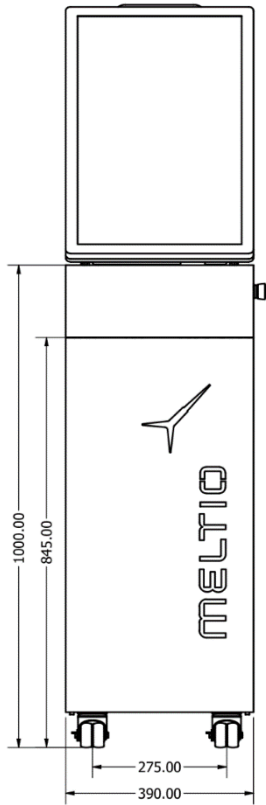# Meltio Engine CNC Integration

**MELTIO**

**Dimensions (W*D*H):**
390*700*1025mm

**Weight:**
142kg

**Print Envelope (X*Y*Z):**
Inherent to motion system

**Laser Type:**
Multiple 200W direct diode lasers

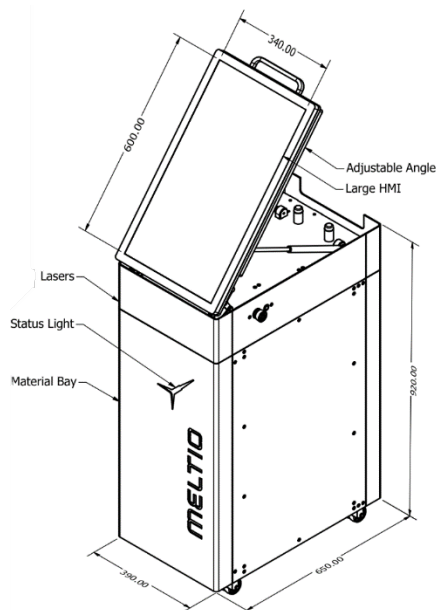**Laser Power:**
1200W

**Laser Wavelength:**
976nm

**Power Input:**
208/230V single phase or 400V three phase

**Power Consumption:**
2-5kW peak depending on selected options

**Process Control:**
Closed-loop laser and wire modulation

**Cooling:**
Active water-cooled chiller included

**Interface:**
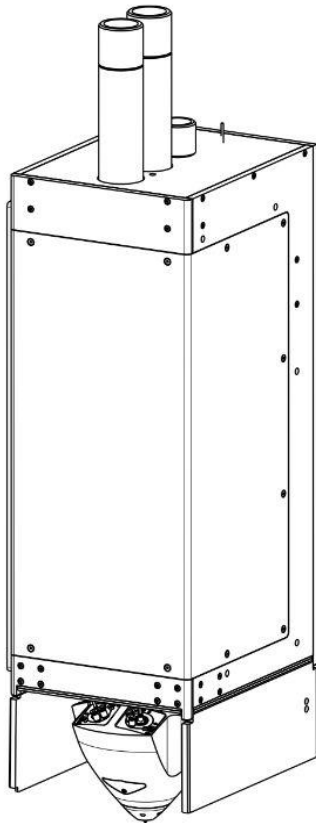USB, ethernet, wireless datalink

## Materials

**Wire Materials:**
Stainless steel, carbon steel, titanium alloys, inconel

In development: copper

**Wire Feedstock:**
0.8-1.2mm diameter

**Wire Feeds:**
From one K300 spool up to two external wire drums

# Meltio Engine CNC Integration

## CNC Integration Hardware

Actuated mounting hardware where the deposition head is stored in a sealed enclosure when not in use and automatically deployed when needed.

| Dimensions (W*D*H) | Weight* |
|---|---|
| Retracted 255*320*872 mm | 46.5kg |
| Unretracted 255*320*1045mm | |

## CNC Requirements

Minimum requirements for a successful integration of the Meltio Engine with a CNC machine are:

- Spindle motors can handle the additional weight
- Deployment mechanism can be mounted without collitions
- Eight unused M-code controlled relays
- Ability to add a NO relays to the feed hold
- Ability to add feed resume/start buttons
- Laser safety windows can be mounted
- System can lock all doors and windows

## Upgrades and Accessories

**Dual Wire:**
This option allows to 3D print two wire materials sequentially with very quick wire switches.

**External Wire Drum:**
Allows to draw material external to it. The wire feedstock in form of 100kg drums may be used for convenience.