



Technical data MULTISCAN – specification MULTISCAN VS

Laser Characteristics⁽¹⁾

Type
Wavelength
Rated output power
Peak power
Minimum shipment power
Typical shipment power
Pulse energy range
Excitation
Pulse frequency range
Duty cycle (maximum)
Pulse width range
Optical rise/fall time⁽⁵⁾
Polarization⁽⁶⁾

Performance

Line Speed (max)⁽⁷⁾
Characters/second (max)⁽⁸⁾

Software⁽⁹⁾

Operating system
Principal features
- (field types)

- (control options)

Code Characteristics

Scan area (standard)
Character height
Spot Size (1/e² diameter)^(10,11)
Beam pointing stability (half angle)

Articulated beam delivery

Reach⁽¹²⁾
Head to product distance (nominal)⁽¹³⁾
Multi axis head positioning

Display/Keypad

Integral VGA display (colour) and qwerty keypad
Remote VGA display (colour) and qwerty keypad

Fabrication

Cabinet
Beam delivery
Scan head

Dimensions and weights

System (main cabinet)
Scanning Head
Scancube 7
Scancube 10
Scancube 14

Weight (total system)

MULTISCAN VS

Sealed CO₂, RF excited slab
10.6µm⁽²⁾ 10.25µm⁽³⁾ 9.3µm⁽⁴⁾
125W 110W 95W
315W 275W 239W
150W 132W 114W
170W 145W 130W
5mJ-100mJ 5mJ-90mJ 5mJ-76mJ
81MHz
500Hz-50kHz
60%
2µs-400µs
< 60µs
Linear rotated

0-500m/min (static or 'on the fly' marking)
1200

Windows 10 embedded

Fixed text, date/time with offset, custom date, incremental counters, operator fields, logos, barcodes, bitmaps, composite fields, shift field and external fields. Serial, digital and ethernet

70mm/105mm/140mm/210mm
1mm-50mm
0.28mm
< 0.25mrad

1.2m (6 knuckle)
150mm
Standard

Standard
Optional

316 stainless steel
Silver anodised aluminium
Silver anodised aluminium

(HxWxD)900mmx400mmx600mm

(HxWxD)78.5mmx69mmx106.5mm
(HxWxD)114mmx96.5mmx111.5mm
(HxWxD)133.5mmx99.5mmx122.8mm

120kg

Electrical Ratings

Voltage

230VAC \pm 10%; 50/60Hz; single phase or line to line

Typical power consumption⁽¹⁴⁾

1.2kW

Cooling

Type

Integral (air to water)–standard

Operating temperature (air cooled)⁽¹⁵⁾

+5 to +35°C (above dew point)

Operating temperature (closed cycle)⁽¹⁵⁾

+5 to +40°C (above dew point)

Storage temperature

-10 to +70°C

Environmental

Lens protection (air curtain)

20psig 25L/min, purified

Humidity

10 to 90% non-condensing

Storage temperature

-10 °C to +70 °C

Sealing

IP56

Interface

Inputs

Product detector

Two independent inputs for NPN or PNP 24 or 12VDC

Shaft encoder

Input for control of variable speed production lines,

dual channel quadrature input, max 200kHz

Interlocks

Dual channel interlock, dual channel estop

System enable

Input for the provision of externally enabling or disabling the system

Extractor fault

Input for monitoring the status of the extractor

Remote control/file download

RS232, with ethernet options

Outputs

Product detector output

Two outputs for monitoring the two detector input signals

System on

Output for monitoring the on/off power

Ready to print

Output for monitoring the status i.e. standby or ready to print

Product reject

Output for rejecting unmarked product

Shutter status

Two independent outputs for monitoring the safety shutter status

Extractor enable

Output to enable the extractor when the system is ready to print

Good mark

Output for monitoring of the status of each individual mark

Maintenance required

Output for indication that maintenance is required

System fault

Output for monitoring when the system has a fault

Options

Water cooled version for high duty cycle applications and operation in high temperature environments⁽¹¹⁾

Remote display (5m umbilical)

7 knuckle articulated beam delivery

Spatial filter

7mm Aperture head, 14mm aperture head⁽¹²⁾

Beam delivery options: telescope, arm support, head support

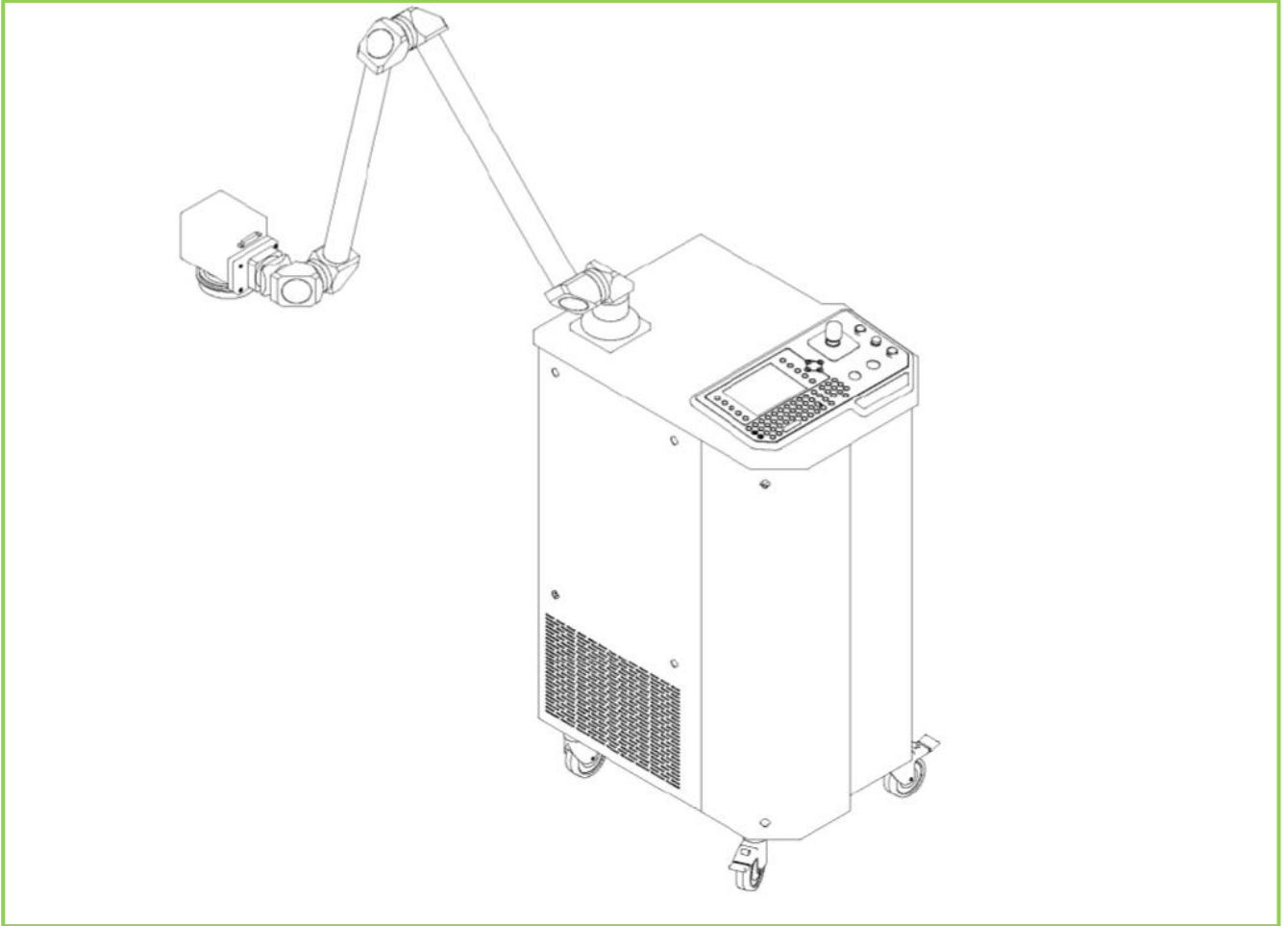
Additional beam delivery options available (customer specific) contact

Luxinar Sales Department

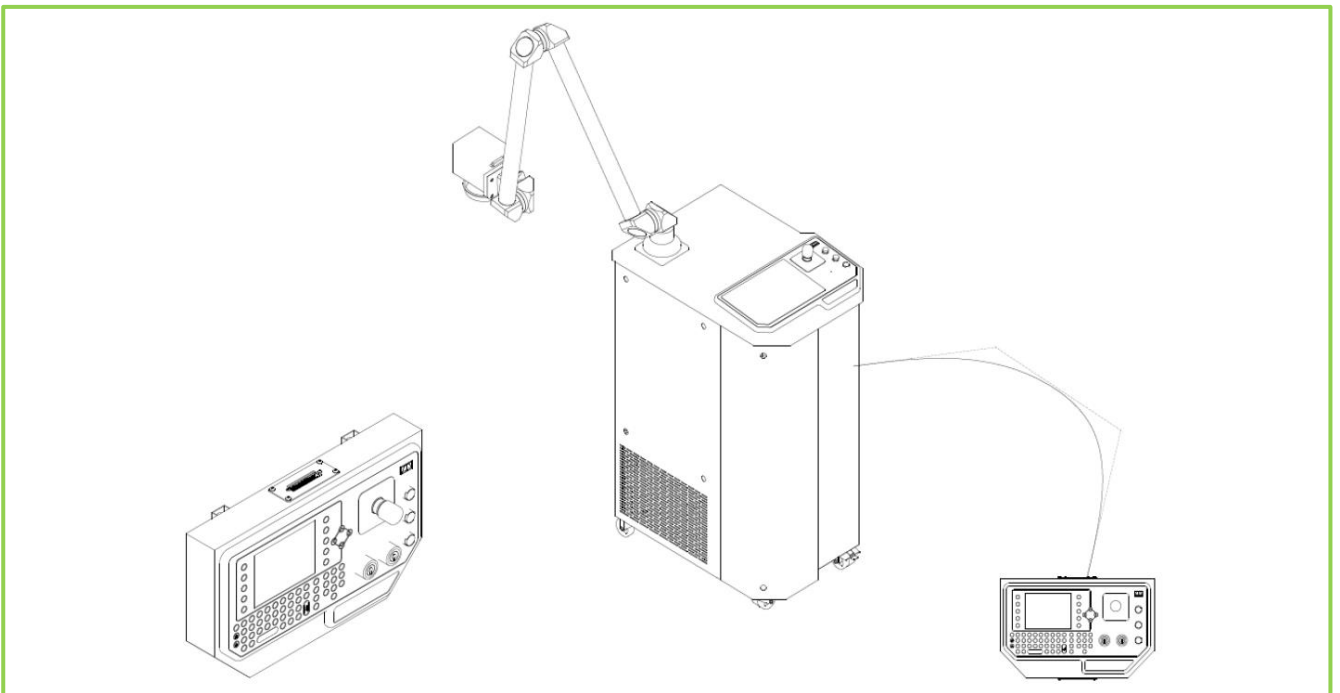
Notes:

1. Powers and energies are quoted at the point where the beam exits the cabinet. For each knuckle in the articulated beam delivery there is an expected power loss of between 0.5% and 1%. Operating with the galvanometer head gives a further expected power loss between 6% and 12%
2. 10.6 μm is the predominant wavelength. This can typically vary in the range 10.2 μm –10.7 μm .
3. 10.25 μm is the predominant wavelength. This can typically vary in the range 10.17 μm –10.33 μm
4. 9.27 μm is the predominant wavelength. This can typically vary in the range 9.2 μm –9.4 μm
5. Rise and fall times are quoted between the 10% and 90% levels
6. Polarization angle is dependent upon the orientation of the articulated arm
7. Maximum line speed is assuming a single line 8-character code on an inked paper label. Please note that maximum line speed is dependent upon the nature of the material and the size/quantity/complexity of the mark
8. Character generation speed in a single line format with a code height of 2mm. Faster generation speeds are possible at smaller code heights. Mark quality dependent upon character height, material and speed of marking
9. Also refer to technical datasheet 903-0065-00
10. Operating with 10mm aperture head, 150mm focal length lens
11. For options see document 903-0146-00
12. Approximate distance between first articulated knuckle and actual product
13. Operating with a 150mm focal length scanning lens
14. Typical average power consumption assumes a 50% coding duty cycle
15. Maximum operating temperature is dependent on the overall duty of the system. Refer to document 903-0125-00 for further information

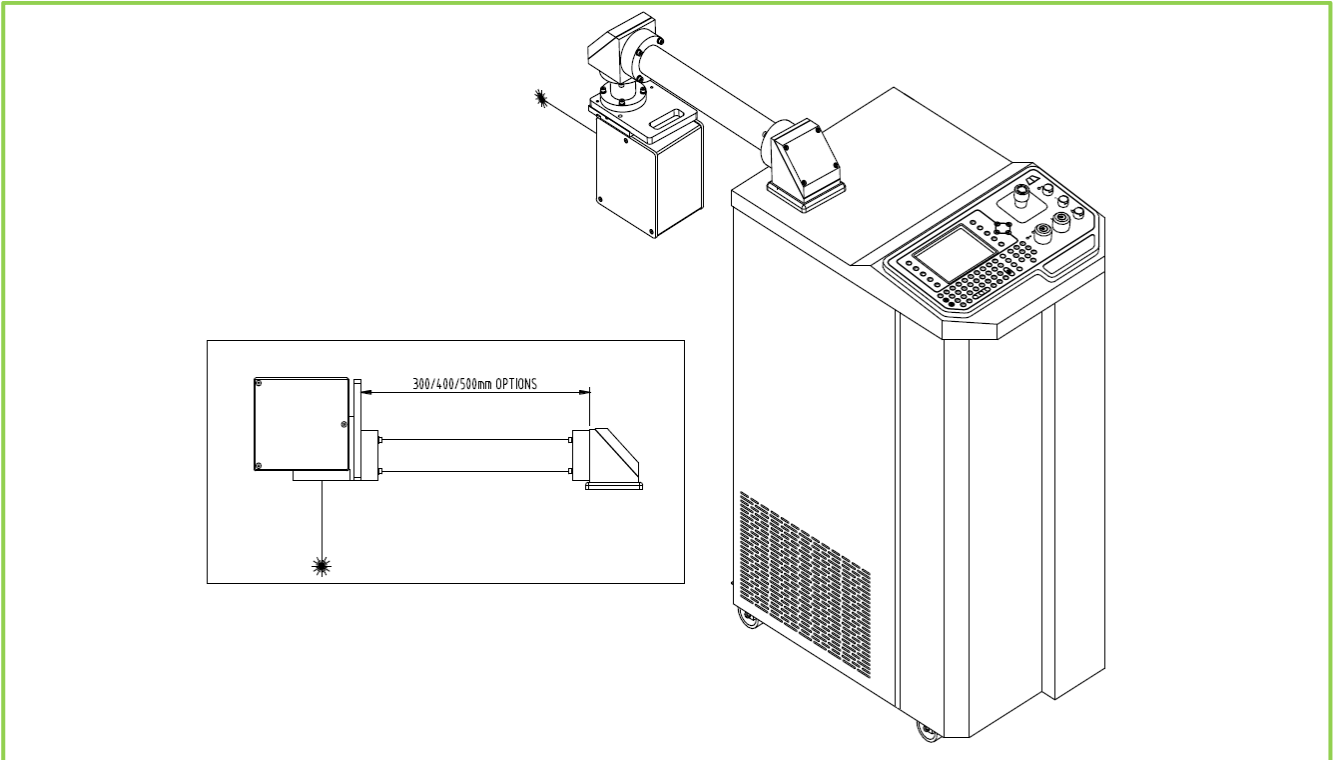
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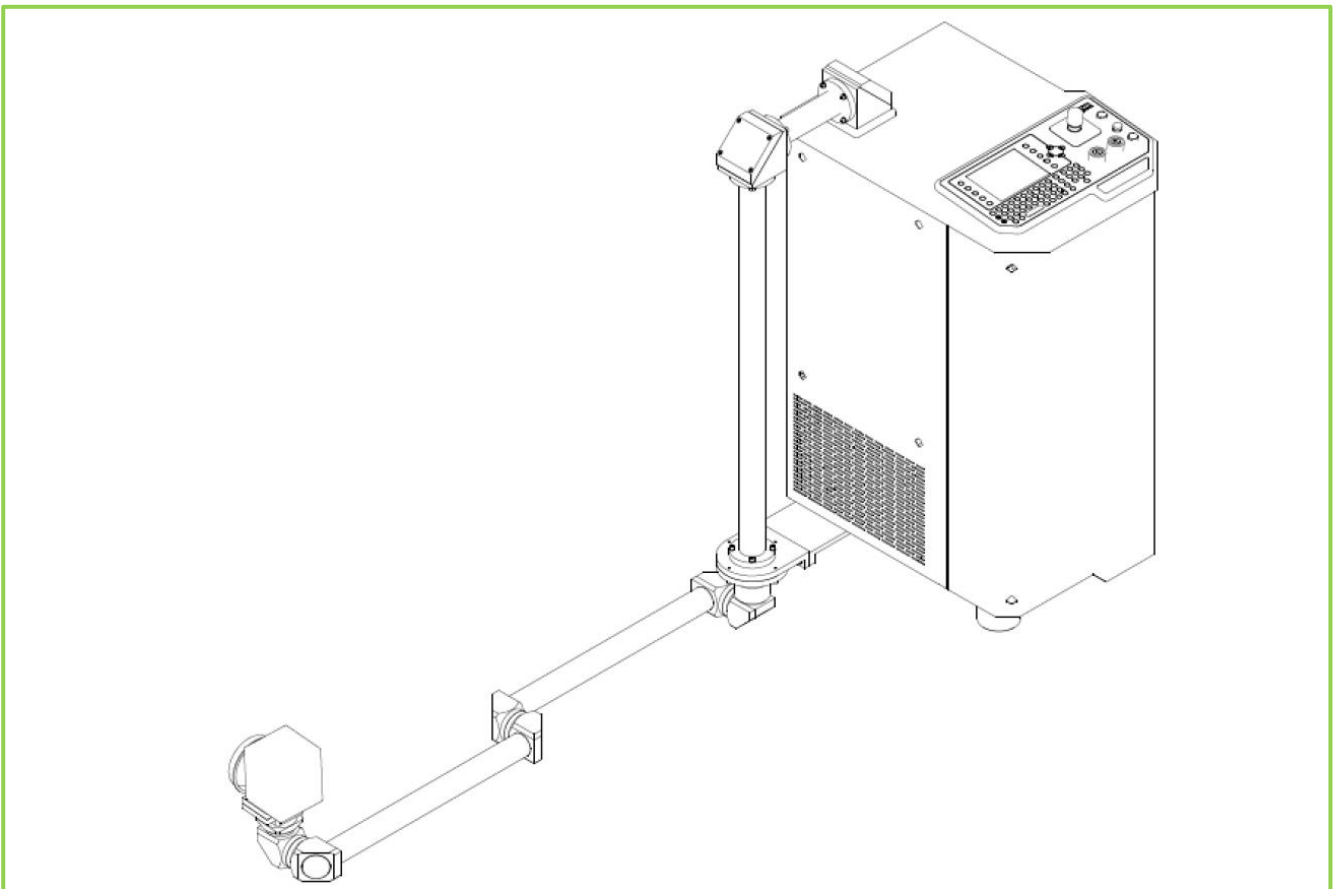
Integral display - standard



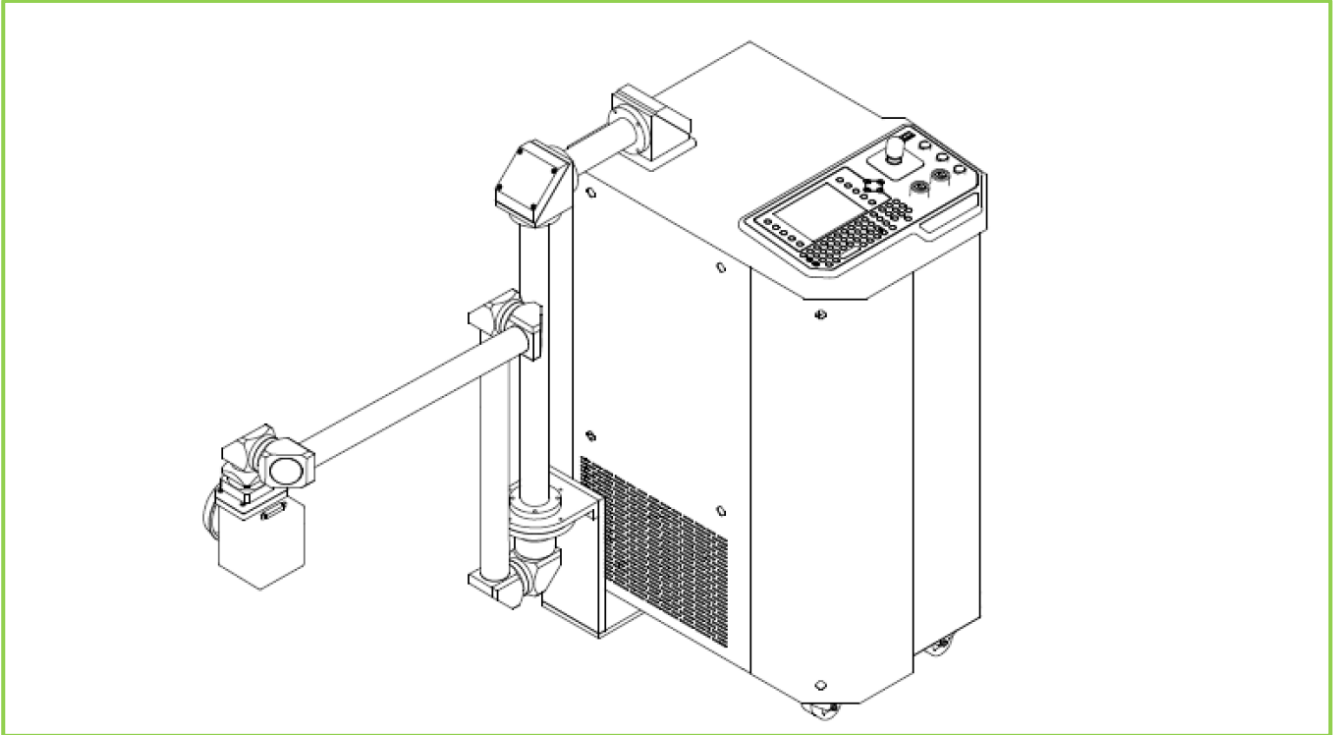
Remote display - optional



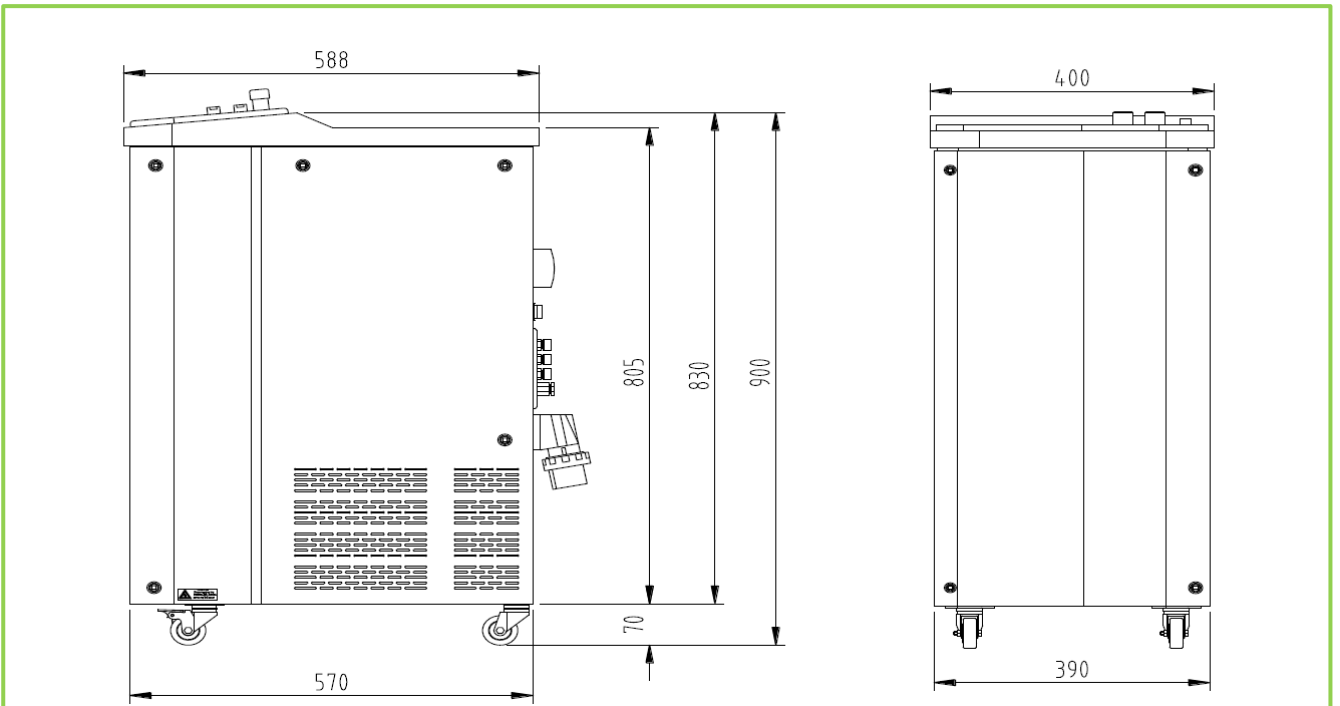
Beam delivery – option A



Beam delivery – option B



Beam delivery – option C



Dimensions