

SpeedMarker 1350



Laser

Laser	Ytterbium pulsed fiber lasers, maintenance free				
Wavelength	1064 nm				
Beam quality	$M^2 < 2$				
Power stability	better $\pm 5\%$				
Cooling	air cooled				
Laser type	FL 20	FL 30	FL 50	FL 20 MOPA	FL 100 MOPA
Max. average output power	20 W	30 W	50 W	20 W	100 W
Max. pulse energy	1 mJ	1 mJ	1 mJ	1 mJ	1 mJ
Pulse repetition rate [kHz]	2 - 200	2 - 200	2 - 200	1,6 - 1000	10-1000
Adjustable pulse duration	x	x	x	✓	✓
Pulse duration [ns]	100 \pm 20	100 \pm 20	100 \pm 20	1,5;2,5;4;8;16;30; 50;120;200;350	20, 30, 60, 120
Integrated pilot laser & focus laser	✓	✓	✓	✓	✓

Galvo System

Lens / Focal length	F-100	<i>Standard:</i> F-160	F-254	F-330	F-420
Marking area [mm x mm]	70 x 70	120 x 120	190 x 190	240 x 240	310 x 310
Focus Diameter	~ 27 μ m	~ 45 μ m	~ 68 μ m	~ 88 μ m	~ 112 μ m
Max. marking speed	800 cps – 1 mm single line with F = 160 mm				
Max. positioning speed	12.000 mm/s with F = 160 mm				

Workstation Standard

Maximum part size (W x D)	Depends on shape				
Maximum part height	764 mm <i>F-100</i>	687 mm <i>F-160</i>	537 mm <i>F-254</i>	442 mm <i>F-330</i>	336 mm <i>F-420</i>
Laser marking field [W x D in mm]	70 x 70	120 x 120	190 x 190	240 x 240	310 x 310
Maximum working area [W x D in mm]	880 x 320	930 x 370	1000 x 375	1000 x 375	1000 x 375
Maximum load	50 kg				
Working table	T-slot plate (Isel PT 25): 1100 x 375 mm				
Travel distance X- / Z-axis	810 / 760* / 765 mm * Y-Axis: 250 mm inside of Workstation				

Workstation with extended change-over table (2 independent segments)

Maximum part size (W x D)	Depends on shape				
Maximum part height	530 mm <i>F-100</i>	453 mm <i>F-160</i>	303 mm <i>F-254</i>	208 mm <i>F-330</i>	102 mm <i>F-420</i>
Laser marking field [W x D in mm]	70 x 70	120 x 120	190 x 190	240 x 240	310 x 310
Maximum working area [W x D in mm]	880 x 395	930 x 445	1000 x 450	1000 x 450	1000 x 450
Maximum load	50 kg				
Working table	T-slot plate (Isel PT 25): 2 x 500 x 375 mm				
Travel distance X- / Y- / Z-axis	810 / 760* / 765 mm * Y-Axis: 250 mm inside of Workstation				

Control

Computer	Integrated industrial PC as 19" Rack Unit, 2RU high, Windows® 10
Interfaces	USB, Ethernet, RS232,
Interfaces Laser	Laser-Interlock, Marking-Start (24 VDC), Marking-Stop (24 VDC), E-Stop, Error-Reset, Laser-Busy, optional digital I/O's (24 VDC),
Software	SpeedMark

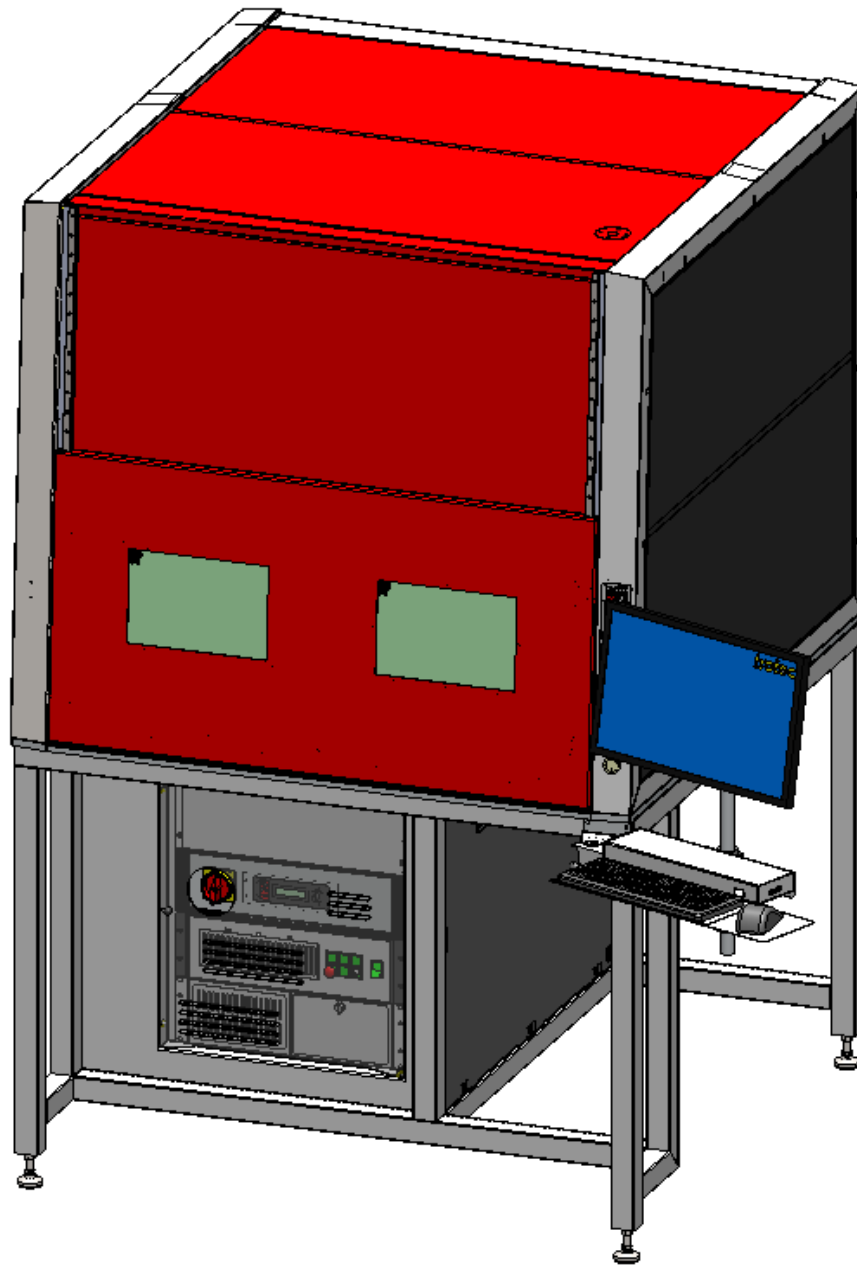
Options / Accessories

Optional lenses and galvo scanners	F-100, F-160, F-254, F-330, F-420
Axis system	<ul style="list-style-type: none"> • Rotary units with different chucks (4. Axis))
SpeedMark Vision – Smart Adjust	Integrated camera system for positioning support: Camera image is shown in the operator GUI and permits a user friendly and very precise positioning of the marking directly onto the work piece. Different camera lenses with different image sizes and resolutions are available --> please refer to the datasheet "SpeedMark Vision - Smart Adjust".
Software	DirectMark printer driver: Laser marking as easy as printing. Independent from software
Extended I/O interface	Additional in- and outputs, 24 VDC
Additional optional accessories	<ul style="list-style-type: none"> • Counter bearings for rotary unit • Foot switch for efficient and user friendly control of the system • Exhaust systems
Industrial PC – high performance	Optional and more performant version of industrial PC (CPU, HDD, RAM, graphics card) for graphical applications.

Dimensions / Installation / Laser Safety

Dimensions (W x H x D in mm)	1300 x 2040 x 1327 mm	Extended table (D) 1750 mm
Interior Dimensions (W x D in mm)	1250 x 1235 mm	
Door opening (W x H in mm)	1080 x 504 mm	
Loadable height of part in mm (with base plate / with Y-axis)	457	
Door	Manual and/or automatic	
Weight with laser	580 kg	
Ambient conditions	Operating temperature range +5 to +35° C. Relative humidity max. 90 %; Non-Condensing	
Electrical Requirements	115 - 230 VAC, 16 A, 50/60 Hz, 1/N/PE	
Power Consumption	230 VAC, 16 A, 50/60 Hz, 1/N/PE	
System Protection	Marking Head: sealed against spray water (IP 54) Laser Rack Unit: dust protected (IP20)	
Laser class	CDRH Laser Safety Laser Class 2 CE certified	
Color	RAL 3002, RAL 7016, RAL 7035	

SpeedMarker 1350



Exterior dimensions

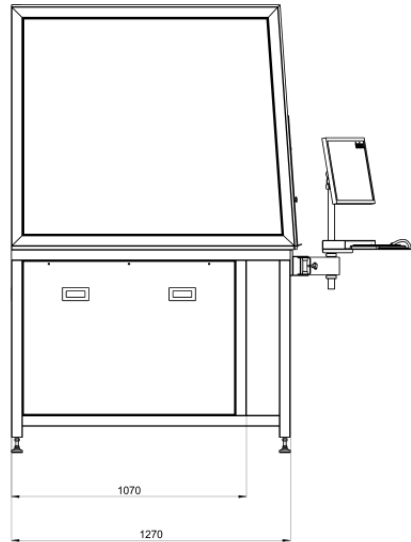


Figure 1: Side view

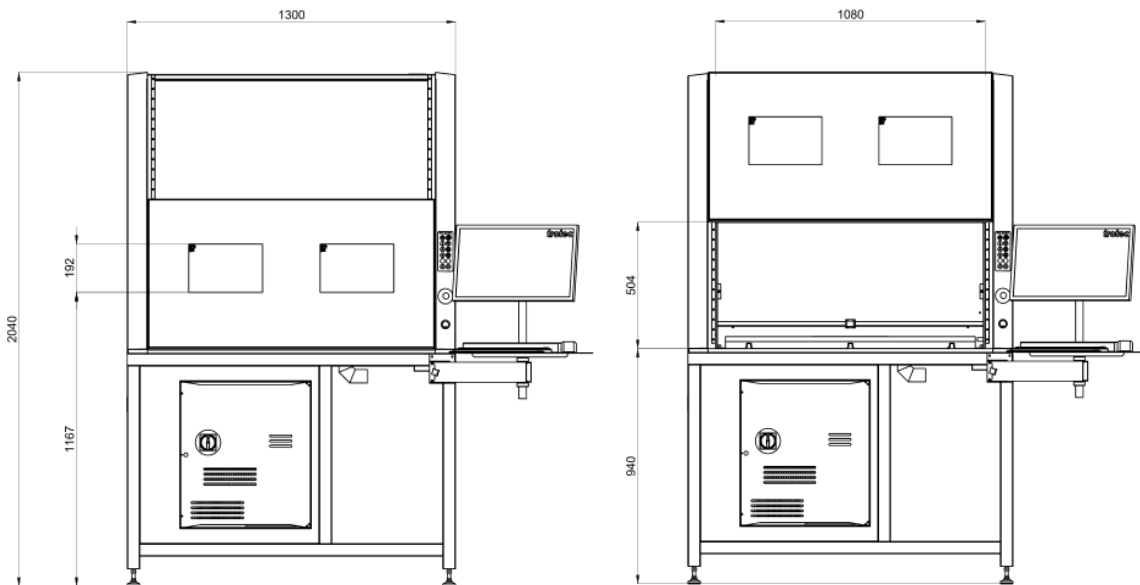


Figure 2: Front view

Interior

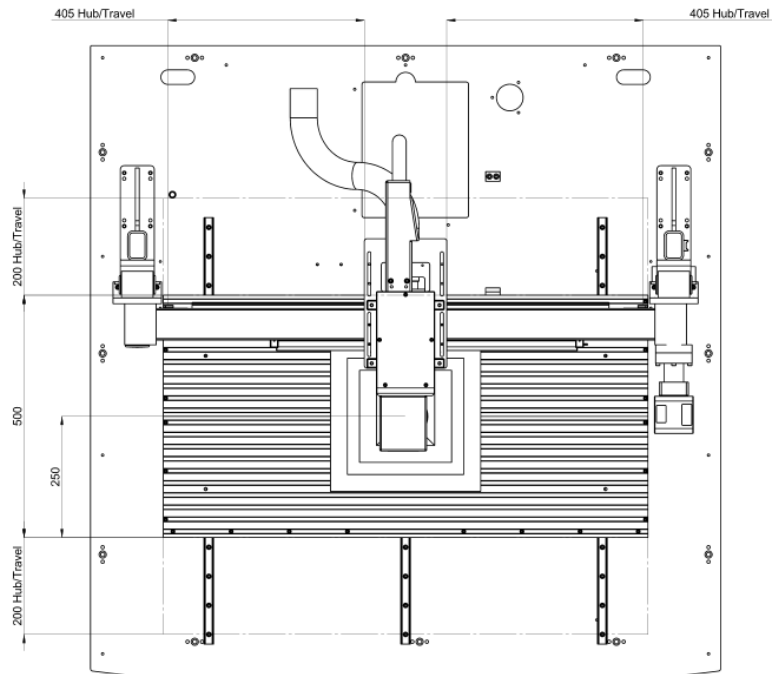


Figure 3: Top view

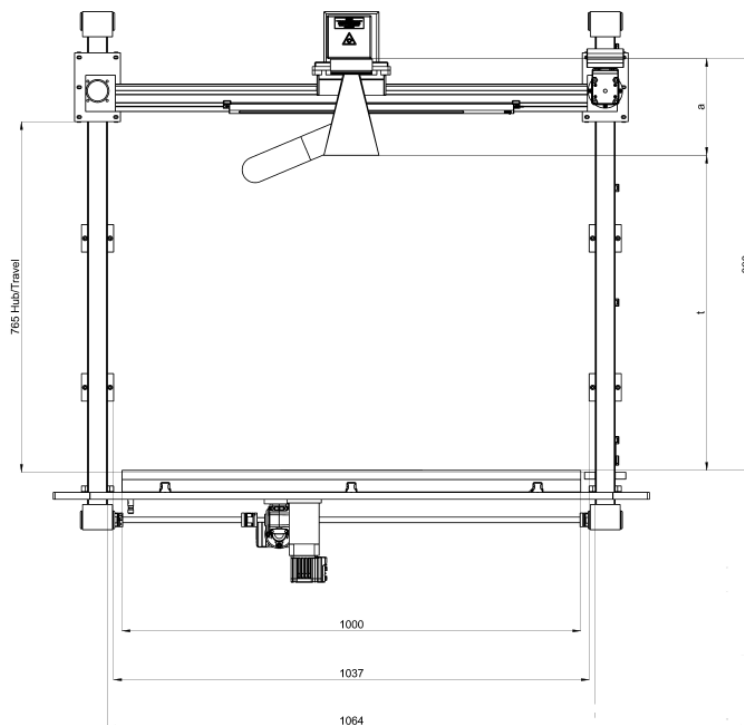
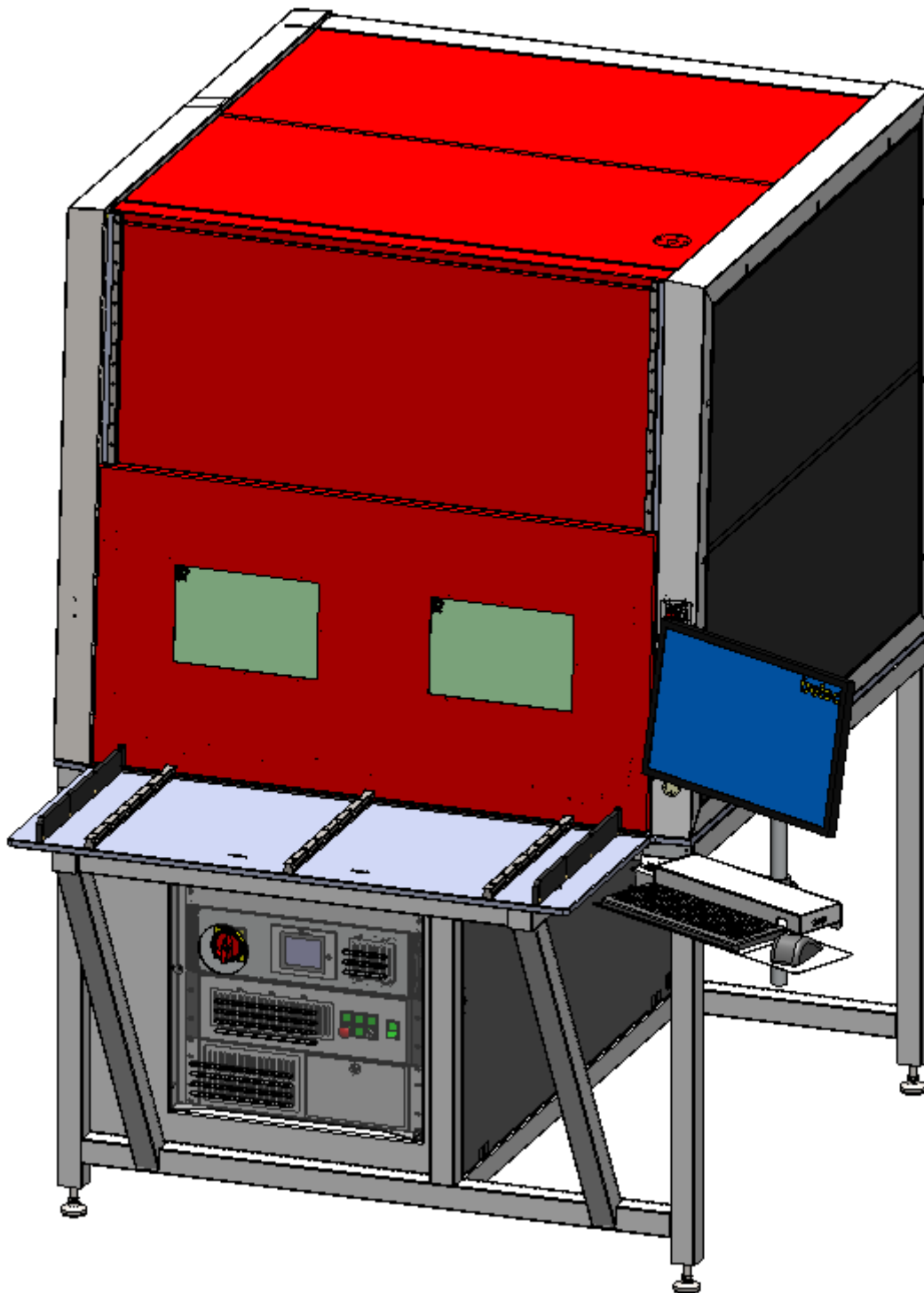
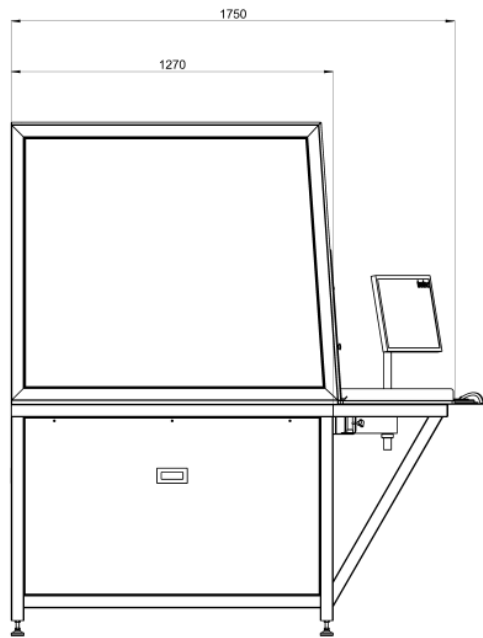


Figure 4: Front view

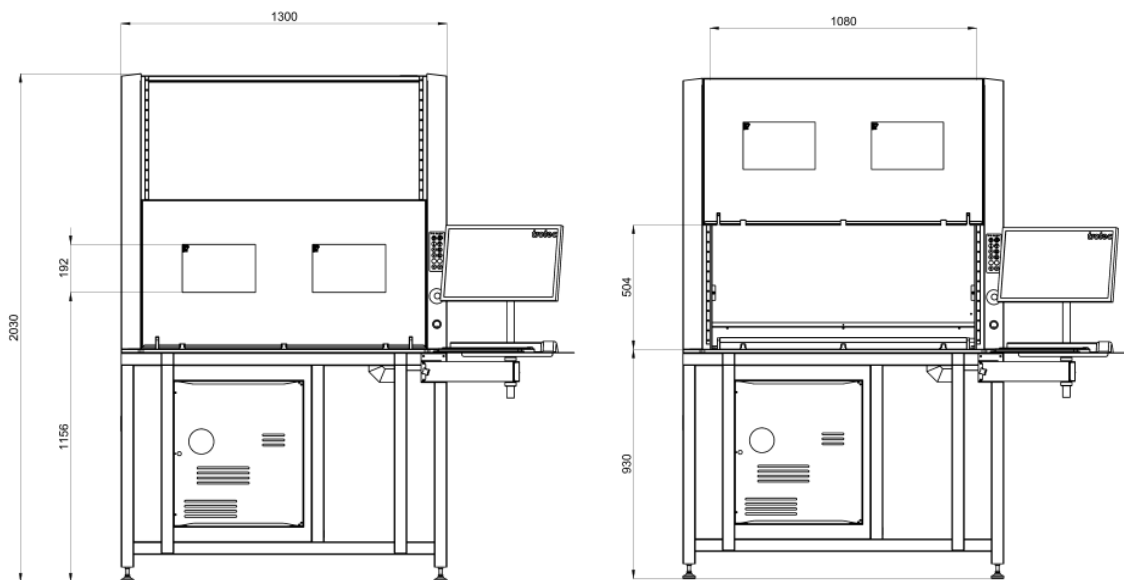
SpeedMarker 1350 with extended working table



Exterior dimensions



Side view



Front view

Interior

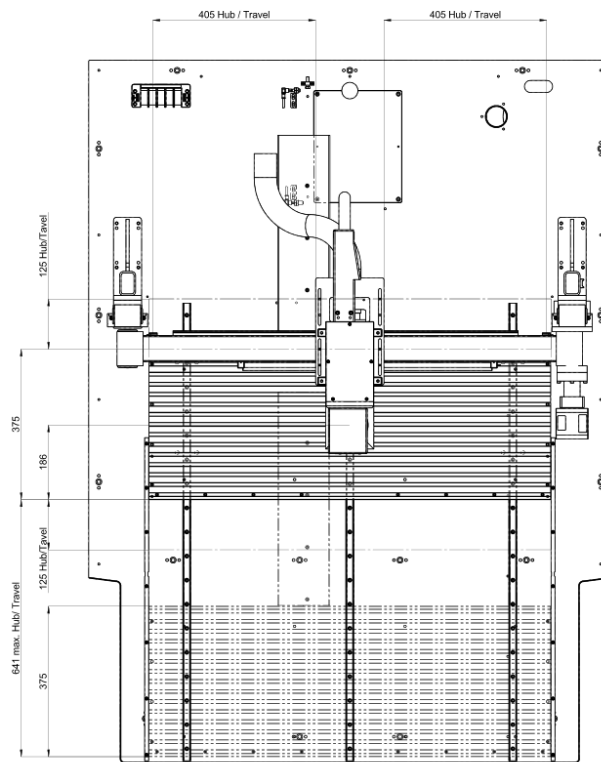
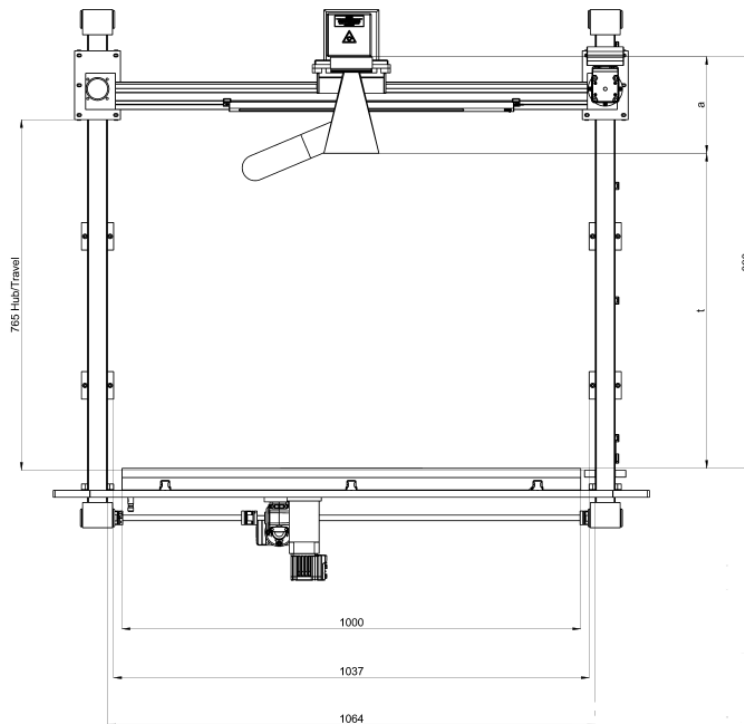
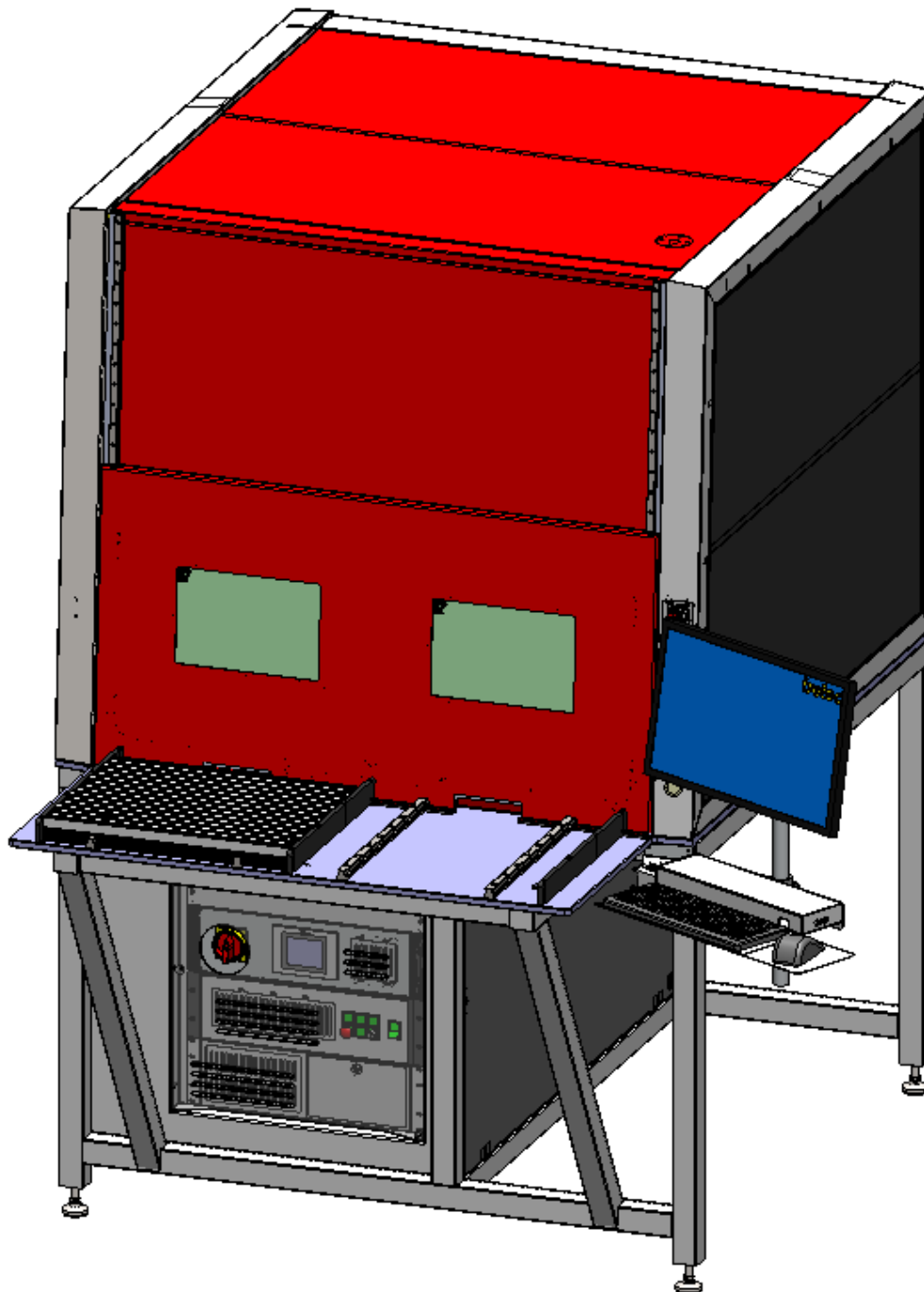


Figure 7: Top view

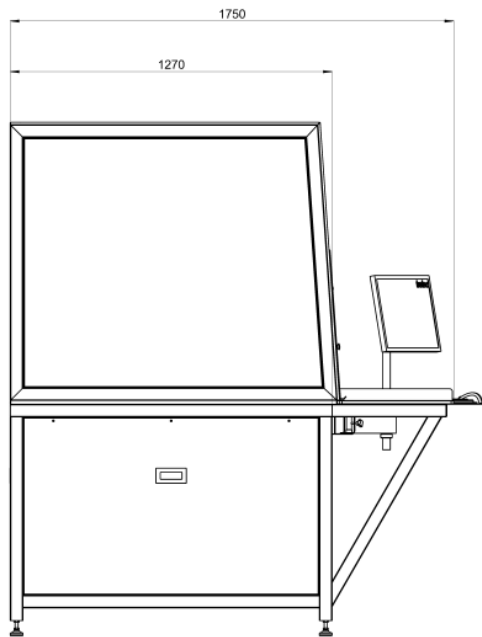


Front view

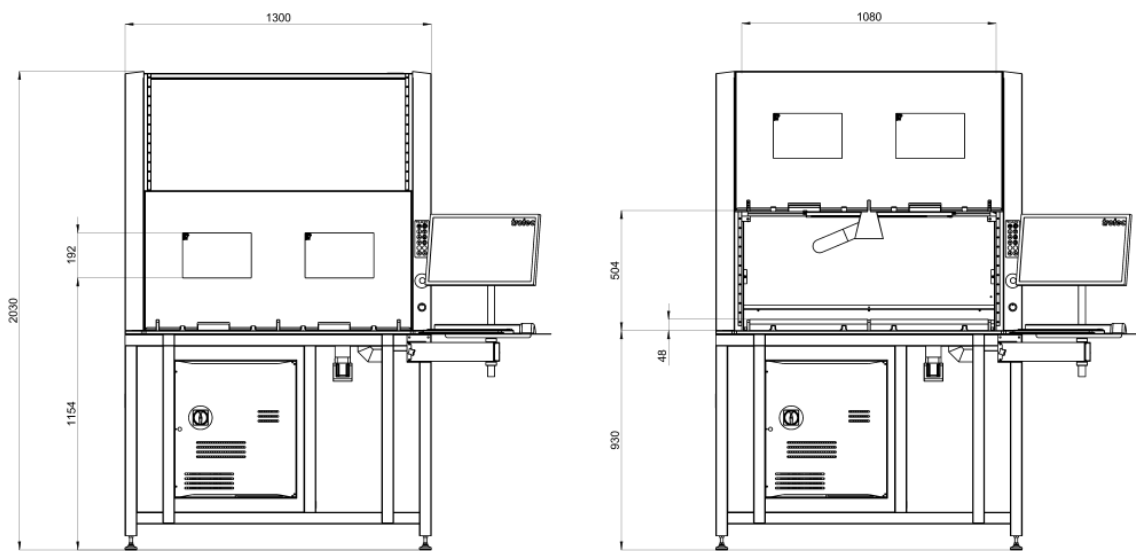
SpeedMarker 1350 with extended change-over table
(2 independent segments)



Exterior dimensions

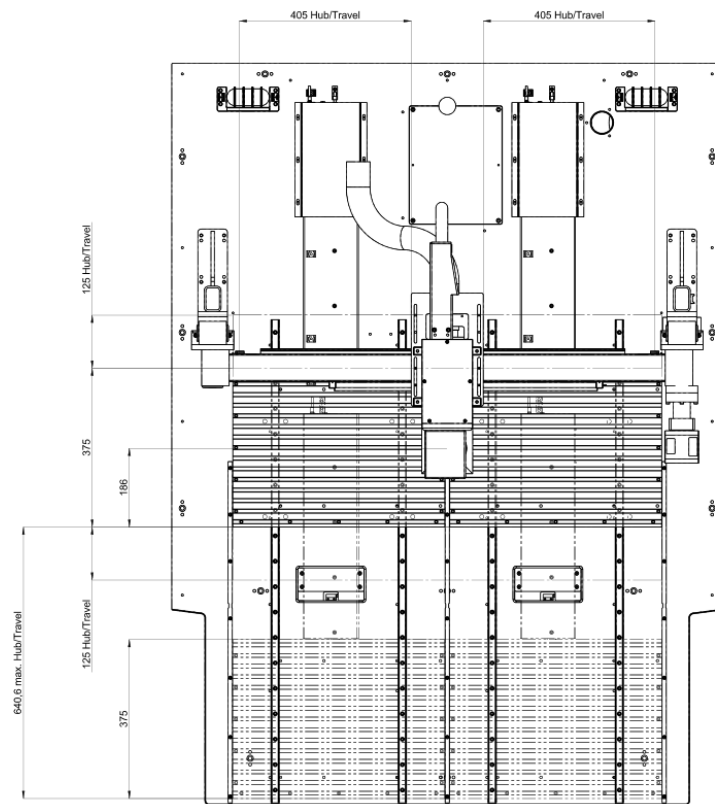


Side view

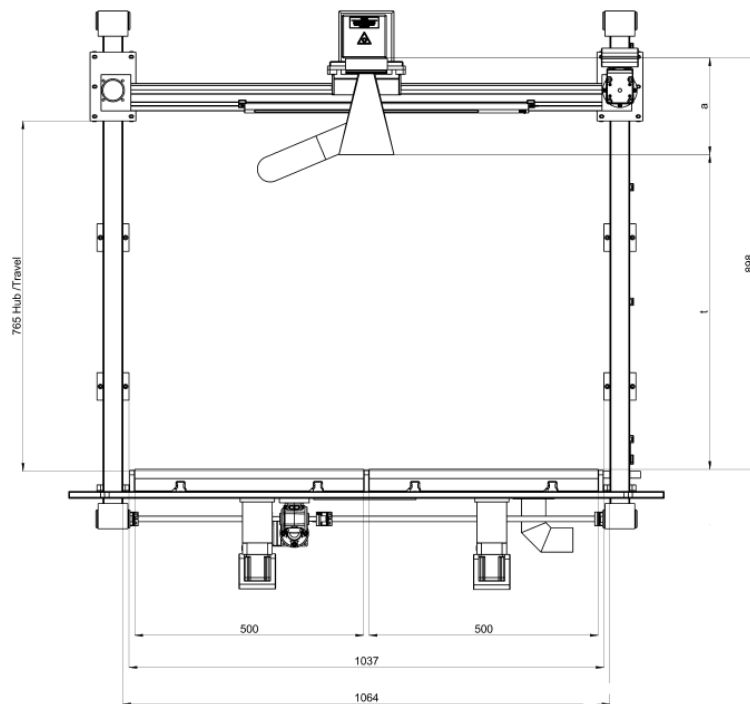


Front view

Interior

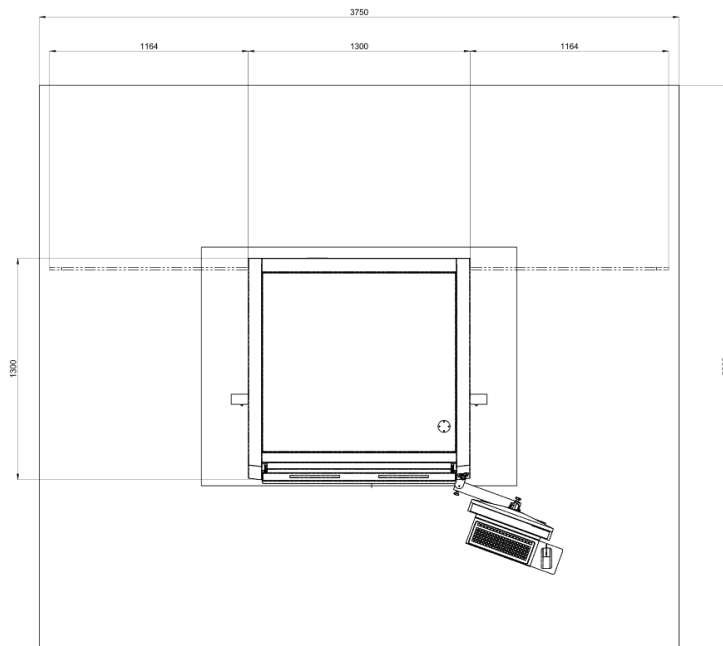


Top view

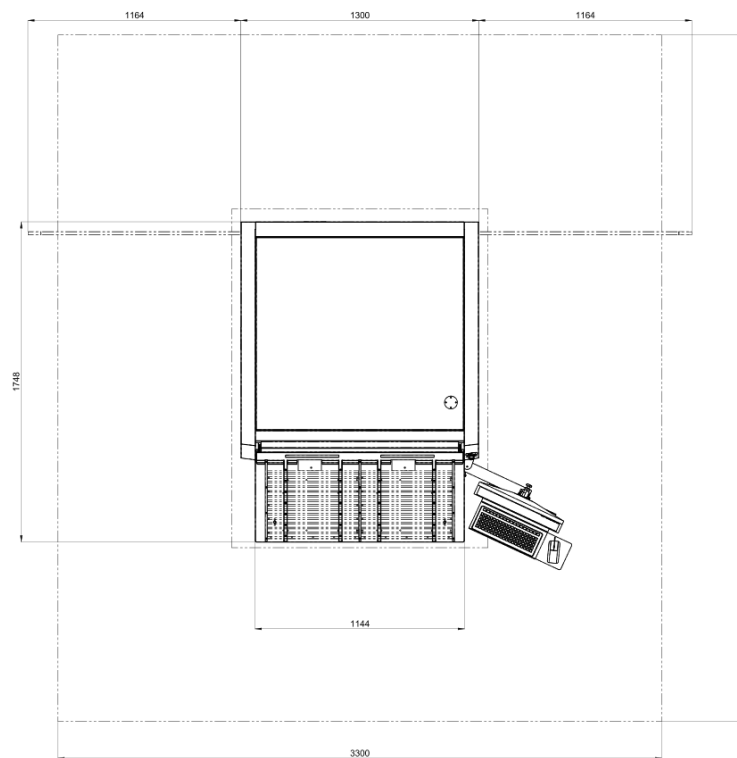


Front view

Layout



Layout SM1350



Layout SM1350 extended table

Tolerances on Dimensions: 1%
Content subject to change without prior notice.
Updated: December 2019