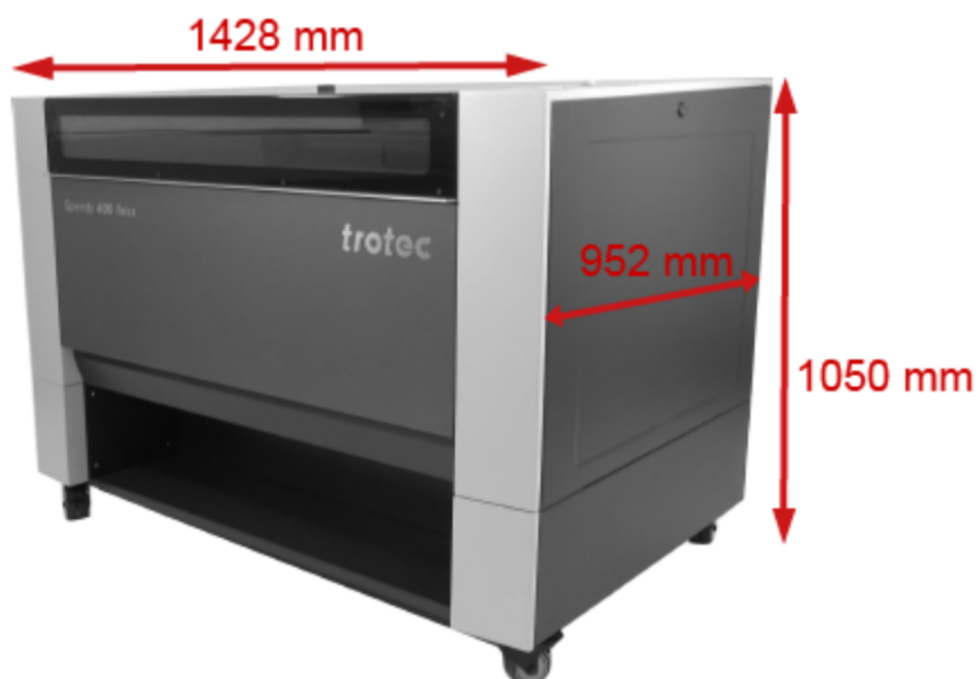


3 Technical Data

→ The technical data sheet can be found in the appendix of this manual.

3.1 Dimensions and weight



Description	Dimension
Length	1428mm (56.22 inch)
Width	952* mm (38.5 inch)*
Height	1050 mm (41.5 inch)

* Without exhaust hose connection, gas-kit light and the signal light on the back of the machine.

Weight (depends on the machine type): 335 bis 350 kg (739 to 772 lbs.)

3.2 Electrical requirements of the machine

Laser power AC and WC	35–50 W (CO ₂) 10-50 W (fiber)		55–80 W (CO ₂) 10-50 W (fiber)		85–100 W (CO ₂) 10-50 W (fiber)	105–120 W (CO ₂) 10-50 W (fiber)
Voltage*	230 V	115 V	230 V	115 V	230 V	230 V
Fuse	14 A (T)**	14 A (T)**	16 A (T)**	16 A (T)**	12 A (T)**	12 A (T)**
Power consumption AC (air cooled)	1270 W	1270 W	1590 W	1590 W	2100 W	2100 W
Power consumption WC (water cooled)	1250 W	1250 W	1570 W	1570 W	2080 W	2080 W

* AC = alternating voltage (AC voltage)

** T = time lag (slow triggering)



Caution

Inadequate or inappropriate power sources can lead to machine damage and are not covered by any liability.

Verify that the electrical outlet is capable of providing the proper voltage, frequency and amperage required by the laser machine described in this manual.



Caution

Electrical noise, unstable power supply as well as voltage spikes in power supply can cause interference and possible damage to the electronics of the laser machine.



Notice

Use an individual circuit for the laser machine and the PC and an individual circuit for the exhaust system. Install your computer to the same circuit as the laser machine to prevent electromagnetic interactions.

Furthermore it is highly recommended that you use a overvoltage protection switch to protect your computer equipment.

If electrical power fluctuations, brownouts or power outages are a problem in your area, an electrical line stabilizer, UPS (Uninterruptible Power Supply) or backup generator are required. When installing any of these devices, ensure that they meet the electrical requirements of the laser machine.

3.3 Exhaust system requirements



Danger

Danger of emission of toxic gases, vapors or dust.

During laser operation, toxic aerosols may be produced.

- The laser system may be operated only with properly installed and operating exhaust system.
- Check with the material manufacturer for its toxic effect.



Caution

The laser may only be operated with properly installed and operating exhaust system. Damage to the system, caused by the use of not any exhaust system or improper extraction equipment, will not be covered by any liability.

The requirements for the exhaust system and recommended Trotec exhaust systems for standard applications depend on the working table installed in the machine.

Recommended exhaust systems for Speedy serie:

Exhaust system	Speedy 100	Speedy 300	Speedy 360	Speedy 400
Atmos Nano	✓ (only Speedy 100 fiber)	✓ (only Speedy 300 fiber)		
Atmos Cube (Atmos Compact)	✓ (without Speedy 100 flexx)			
Atmos Mono	✓	✓ (without vacuum table)	✓ (without table exhaust)	
Atmos Mono Plus	✓	✓ (without vacuum table)	✓ (without table exhaust)	
Atmos Duo Plus		✓	✓	✓
Vent Set 300	✓	✓ (without vacuum table)		
Vent Set 400	✓	✓	✓ (without vacuum table)	✓ (without vacuum table)
Vent Set 500		✓	✓	✓



Notice

Connection has to be carried out by our Technical Support.

Observe instructions for operation and maintenance according to the operating manual of the exhaust system.

Technical data of the corresponding exhaust systems:

Exhaust system	Hose connection ø [mm] (inside diameter)	Volume flow [m³/h]	Pressure[Pa]
Atmos Nano	45	200	8500 (230V)
Atmos Cube (Atmos Compact)	80 / 80 (70 / 45)	250	8500 (230V) 5800 (115V)
Atmos Mono	70 / 70 / 45	320	8500 (230V) 5800 (115V)
Atmos Mono Plus	70 / 70 / 45	320	8500 (230V) 5800 (115V)
Atmos Duo Plus	70 / 70 / 45	(2x) 320	8500 (230V)
Vent Set 300	80	max. 1000	max. 2550
Vent Set 400	100	max. 1000	max. 3800
Vent Set 500	100	max. 1200	max. 7000

Requirements for the exhaust system:

Machine	Volume flow [m³/h]	Pressure [Pa]
Speedy 100	200	1000
Speedy 300	200 (without table exhaust)	1000 (without table exhaust)
	350 (with table exhaust)	1600 (with table exhaust)
Speedy 360	300 (without table exhaust)	2500 (without table exhaust)
	400 (with table exhaust)	4200 (with table exhaust)
Speedy 400	400	4200

The monitoring point for flow rate and pressure is at the exhaust port at the laser machine. Pressure loss by hoses / pipes or filter parts of the exhaust system has to be determined and additionally calculated when selecting a proper exhaust system.

A powerful exhaust system keeps the lifetime of optics and mechanical components, the cutting quality and the laser power interacting with the workpiece from being impaired by fumes and dust accumulating in the machine.



Notice

The exhaust power available for the application will be reduced by e. g. bends, small hose diameters and long hoses.

You should therefore note the following:

- Avoid bends.
- Keep hose as short as possible.
- Use hose diameters as large as possible.

Applications generating large amounts of dust or fumes may require a stronger exhaust system. Use of separate exhaust systems for head and table exhaust may also be necessary.

In this case it is absolute necessary to consult your distributor.