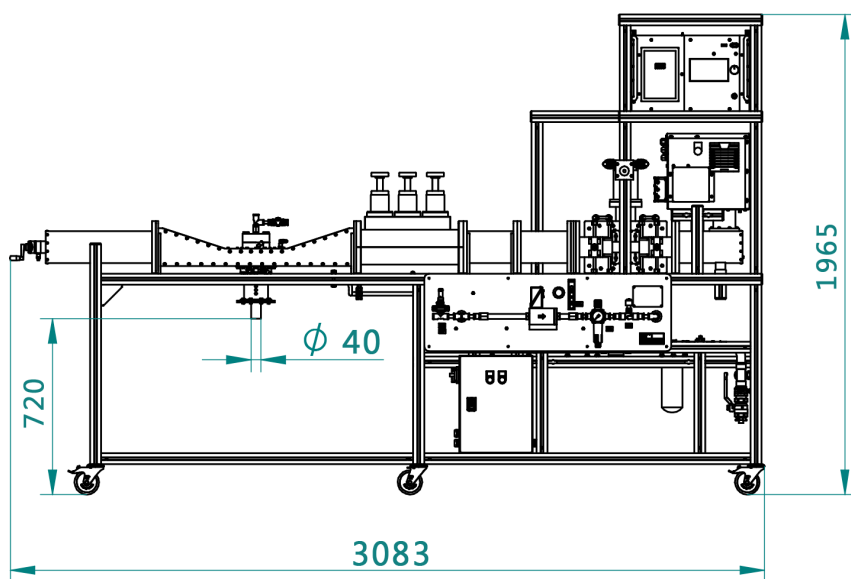
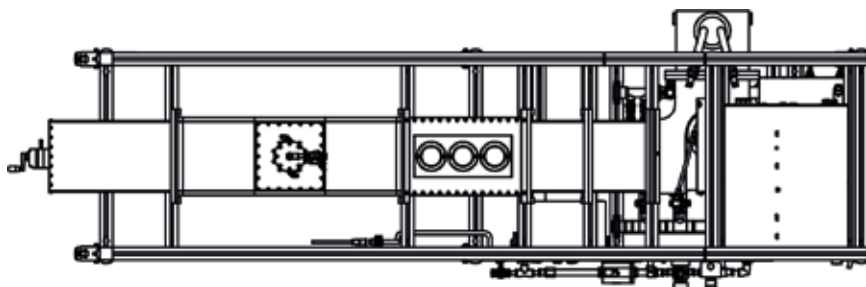
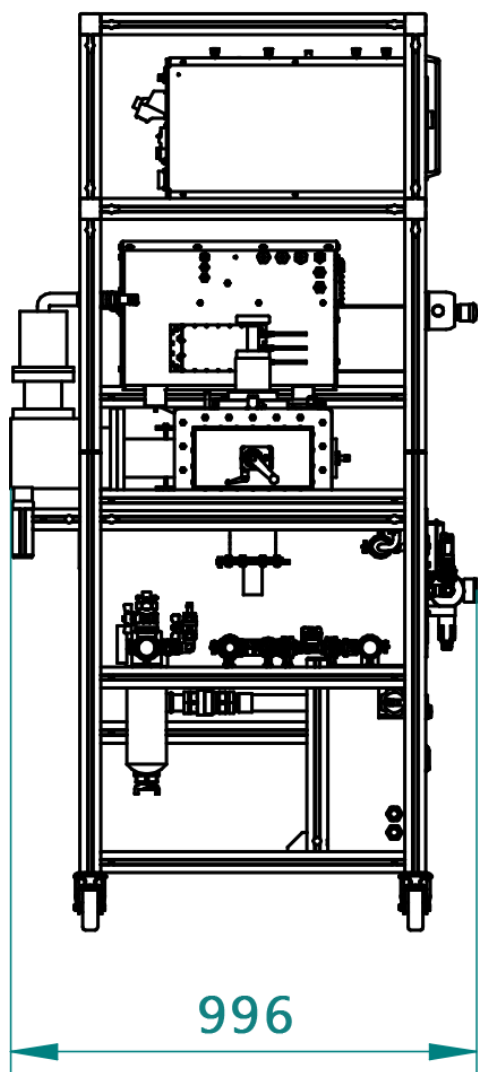


GENERAL INFORMATION

The microwave coaxial plasma source is an atmospheric plasma system capable of generating and sustaining plasma at a frequency of 915 MHz using relatively low power. A 5 kW microwave plasma unit has been specifically designed for operation under low gas flow conditions, utilizing argon and hydrogen as process gases. The resulting plasma environment and flame temperature are optimized for powder synthesis applications.

KEY FEATURES | TECHNICAL DETAILS

Feature	Description	Notes
Plasma Type	Atmospheric plasma	Operates under atmospheric pressure
Energy Coupling	>80%	High-efficiency energy transfer to plasma
Operating Frequency	915 MHz	Low-power microwave source at 915 MHz
Plasma Power	5 kW	Suitable for low gas flow rates
User Interface	Touch panel operation	Simple and intuitive control
Powder Injection Port	Hollow inner electrode	Feeding into the hot plasma region



## SPECIFICATION

### Plasma Components and Condition

Parameter

Power

Plasma Ignition

Plasma Spectroscopy

Type of Gas

Tuner

Gas Pressure

Gas Flow

Type of Tube

Tube Diameter

Tube Length

External Dimension

Specification / Condition

1250 - 5000 W, SMPS

Automatic

Optical Holes

Argon- (Argon/Hydrogen)

Manual Automatic

1 - 10 bar

15 - 70 l/min

Quartz

30 - 40 mm (inside)

Can be designed to customer's specifications

max 1000 x 3100 x 2000 mm (W x D x H)

### Technical Data of Magnetron

Frequency

Output Power

Waveguide

Line Input

Line Frequency

Input Power

Interface

915 MHz  $\pm$  15 MHz

5 kW

WR975

3 phase, 400 V

50 / 60 Hz

8.3 kVA at 400 V

HMI or Profinet

### Cooling Water Quality

Total Water Flow

Water Temperature

Water Pressure

Min. 40 l/min

17 °C - 28 °C

4 - 5 bar