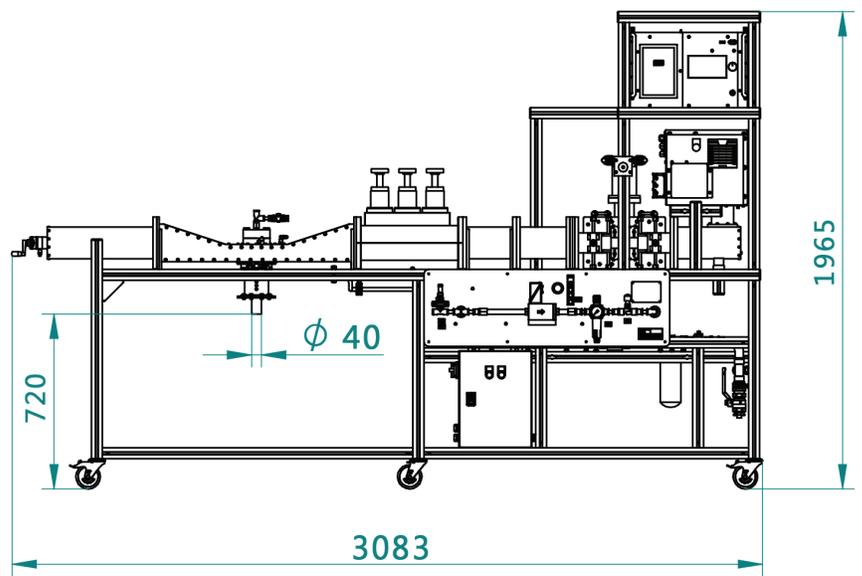
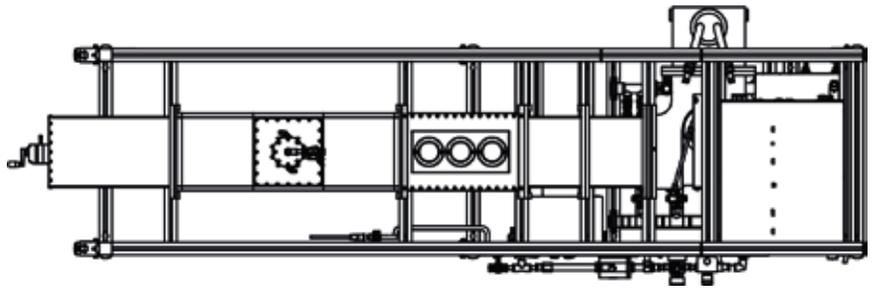
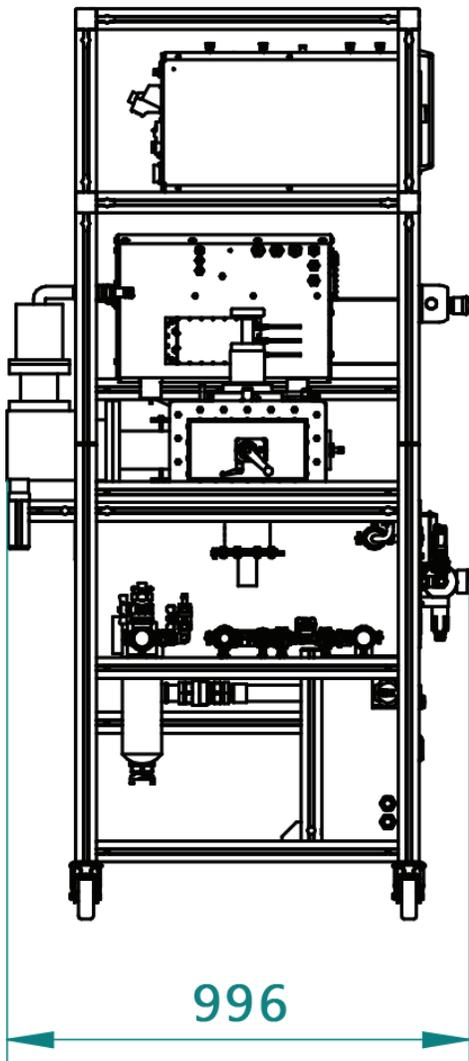


## GENERAL INFORMATION

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	Specification / Condition
Power	1250 - 5000 W, SMPS
Plasma Ignition	Automatic
Plasma Spectroscopy	Optical Holes
Type of Gas	Argon- (Argon/Hydrogen)
Tuner	Manual Automatic
Gas Pressure	1 - 10 bar
Gas Flow	15 - 70 l/min
Type of Tube	Quartz
Tube Diameter	30 - 40 mm (inside)
Tube Length	Can be designed to customer's specifications
External Dimension	max 1000 x 3100 x 2000 mm (W x D x H)

### Technical Data of Magnetron

Frequency	915 MHz $\pm$ 15 MHz
Output Power	5 kW
Waveguide	WR975
Line Input	3 phase, 400 V
Line Frequency	50 / 60 Hz
Input Power	8.3 kVA at 400 V
Interface	HMI or Profinet

### Cooling Water Quality

Total Water Flow	Min. 40 l/min
Water Temperature	17 °C – 28 °C
Water Pressure	4 - 5 bar