

# *Optical floating zone furnace*

Model : FZ-T-10000-H-VIII-VPM-MII-PC



## **Optical Floating Zone Furnace**



**Crystal Systems Corporation**

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## Specification

Model		FZ-T-10000-H-VIII-VPM-MII-PC	
Lamp system		Halogen	
No. of lamp and mirror		4 pieces each	
Atmospheric pressure	Pressure	0.95 MPa	
	Vacuum	$6.7 \times 10^{-3}$ Pa ( $5 \times 10^{-5}$ Torr)	
Sealing for shafts		Shafts are sealed with Magnetic Liquid Quartz tube is sealed with O-ring	
Max. temperature		2,200°C	
Normal temperature		1,850°C	
Lamp power	1,200W (300W x 4 lamps)		
	4,000W (1,000W x 4 lamps)		
	6,000W (1,500W x 4 lamps)		
Shaft		Upper and lower shafts transfer vertically	
Temperature difference		< 30°C	
Lamp cooling		Air cooling	
Mirror cooling		Air cooling	
Quartz tube seal cooling		Water	
Max. growth length		150 mm	
Max. gap adjustment		150 mm	
Max. feed rod length		150 mm	
Growth rare slow move		0.01~300mm/hr	
Growth rate fast move		6~150mm/min	
Shaft rotation rate		5~100rpm	
Monitoring		camera and LCD	
Control system	Computer	LabVIEW / Windows 10 (with remote control function)	
	Manual	Hand-control-system	
Atmosphere gas flow rate		① 5L/min Ar MFC ② 500cc/min O <sub>2</sub> MFC ③ 10L/min Air (Float) flow meter	
Lamp control power		Programmable (4 lamps as 1 set) with PC	
Fluctuation of power		Less than +/-0.2% against +/-10% of source	
Utilities	Electricity	3-phase 200V, 40A	
	Water	3L/min	
Size (mm)	Main body		Control box
	Width	890	605
	Depth	800	760
	Height	2900	1640

### Remarks:

1. Above specifications may be changed without any announcement
2. Alternative lamp power (option): 150W / 500W / 750W
3. It is possible to change other type of gas and flow amount
4. Warranty;

Crystal Systems Corporation warrants for one (1) year from the date of installation, except for abnormal use. Glassware such as (1) lamp (2) mirror and (3) quartz tube are out of warranty.

## Attachments

- 1) Halogen lamp max. power 300W ----- 8 pieces  
  1,000W ----- 8 pieces  
  1,500W ----- 8 pieces
- 2) Quartz tube (Normal pressure) ----- 2 pieces  
                  (High pressure) ----- 2 pieces
- 3) O-ring (P-50,V-50 for quartz tube)----- each 4 pieces
- 4) Seed holding jig ----- 2 pieces
- 5) Feed holding jig ----- 2 pieces
- 6) Tool box ----- 1 box

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