

# *Optical floating zone furnace*

Model : FZ-T-4000-H-VIII-VPM-PC



**Optical Floating Zone Furnace**



**Crystal Systems Corporation**

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## Specification

Model		FZ-T-4000-H-VIII-VPM-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)			
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-box			
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, 30A			
	Water	3L/min			
Size (mm)		Main body		Control box	
		Width		605	
		Depth		760	
		Height		1640	

### Remarks:

1. Alternative lamp power (option): 150W / 500W / 750W
2. It is possible to change other type of gas and flow amount
3. 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.

4. Above specification may be changed without any notification.

## Attachments

- 1) Halogen lamp max. power 300W ----- 8 pieces  
1,000W ----- 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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