

**SUPER HIGH TEMPERATURE XENON TYPE**

***Optical floating zone furnace***

**Model : FZ-T-12000-X-VIII-VPM-MII-PC**



**Optical floating zone furnace**



**Crystal Systems Corporation**

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## Specifications

Model		FZ-T-12000-X-VIII-VPM-MII-PC		
Type of lamp		Xenon		
Number of lamp		4 pieces		
Number of mirror		4 pieces		
Max. atmosphere		Pressure	0.95 MPa	
		Vacuum	6.7×10 <sup>-3</sup> Pa (5×10 <sup>-5</sup> Torr)	
Chamber (Quartz tube)	Normal pressure	φ 50 mm / 395 mm long / 2 mm thick		
	High pressure	φ 50 mm / 395 mm long / 5 mm thick		
Sealing		Magnetic Liquid Type		
Max. temperature		3,000 °C		
Normal temperature		2,800 °C		
Lamp power		12,000W (3,000W x 4 lamps)		
Max difference of temp around the rod circumference		< 50 °C		
Lamp cooling		Air		
Mirror cooling		Air		
Quartz tube seal cooling		Water		
Mirrors/Shafes		Upper/Lower shafts transfer vertically		
Max. crystal length(mm)		150		
Max. feed rod length (mm)		150		
Growth rate slow move		0.01~300mm/hr		
Growth rate fast move		6~150mm/min		
Shaft rotation rate		5~100rpm		
Monitoring		camera and LCD		
Operating (handling)		Computer	Windows 10 / LabVIEW with remote control function	
		Manual	Hand-control-box	
Atmosphere gas flow control		① 5 L/min Ar MFC ② 500 cc/min O <sub>2</sub> MFC ③ Air 10 L/min float flow meter		
Lamp control power		Programmable (4 lamps as 1 set) with PC		
Output voltage stability		Less than ±0.4% against ±input 10%		
Utility	Electricity	3-phase 200V, 100A		
	Water	5L / min		
Size (mm)		Main body	Control box	Power box
	Width	1,060	605	800
	Depth	800	760	700
	Height	3,000	1,640	1,800

Remarks:

1. Above specifications may be changed without announcement.

## Attachments

- 1) Xenon lamp max. power 3000W ----- 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

## Warranty

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