

# proTherm<sup>®</sup> FURNACES

Protherm Furnaces is a Brand of Alser Teknik Seramik A.S.



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# MOS

SERIES  
ZIRCONIA  
SINTERING  
FURNACE



## Technical Information

Model	Maximum Temperature (°C)	Inner Dimensions HxWxD (cm)	Volume (L)	Outer Dimensions HxWxD (cm)	Power (W)	Supply Voltage (V)
MOS 160/1	1600	12x12x10	1.3	71x51x51	2.000	220V 1/N/PE
MOS 160/2	1600	15x12x15	2.5	77x51x56	3.300	220V 1/N/PE
MOS 170/2	1700	15x12x15	2.5	77x51x56	3.300	220V 1/N/PE

## Furnace properties:

- Two crucible capacity for 1 L version and three crucible capacity for 2 L versions
- High-quality Kanthal MoSi2 heating elements positioned at both sides of the hot-zone for prime temperature uniformity
- Easily operated up & away spring balanced soft opening & closing door
- Dual skin housing for low external temperatures and high inner temperature stability
  - Compact design
  - Furnace frame and bottom is made of high quality fiber board against mechanical damages. Hot-zone is made of high quality dense fiber board providing excellent temperature insulation
  - Phosphate coated, and epoxy painted steel body outer case to increase the corrosion resistance
- Door safety switch and leak current circuit breaker providing additional operator safety.
- Over temperature alarm relay to protect the furnace against over heating
- Easy maintenance design allowing the furnace to have long service life
- Ceramic sheathed Platin/Platin-Rhodium thermocouple
- Programmable temperature controller
  - Freely programmable with 5 programs and 8 segments each. Touch Screen 5" as option.
  - Clear text messages
  - Easy operation and program selection
  - Hot-start function against power outages



**MAXIMUM  
TEMPERATURE**

1700 °C



**CONTINUOUS OPERATING  
TEMPERATURE**

50 °C below Tmax

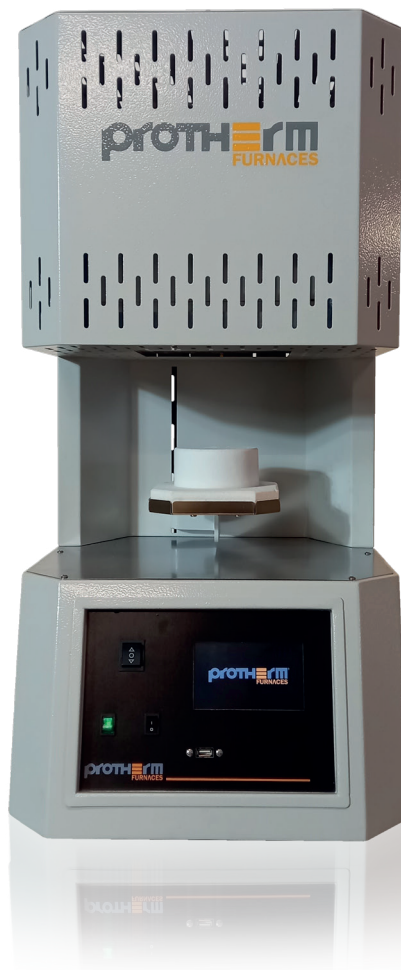


**VOLUME**

1 to 2 liters

# ELV MoS

SERIES  
ZIRCONIA FAST  
SINTERING  
FURNACE



## Technical Information

Model	Maximum Temperature (°C)	Inner Dimensions HxWxD (cm)	Volume (L)	Outer Dimensions HxWxD (cm)	Power (W)	Supply Voltage (V)
ELV MoS 160/05	1600	Ø90 - 55	0.5	78x37x48	2.000	220V 1/N/PE
ELV MoS 160/1	1600	Ø100 - 100	1.0	85x37x48	3.400	220V 1/N/PE

## Furnace properties:

- Two crucible capacity for 0.5 L version and four crucible capacity for 1 L versions
- High-quality Kanthal MoSi2 heating elements positioned radially inside the hot-zone for excellent temperature uniformity
- Electrically driven lift bottom operated via touch panel
- Stepwise opening of the bottom for faster cooling
- Dual skin housing for low external temperatures and high inner temperature stability
  - Compact design
  - Hot-zone is made of high quality dense fiber board providing excellent temperature insulation
  - Phosphate coated, and epoxy painted steel body outer case to increase the corrosion resistance
- Leak current circuit breaker providing additional operator safety.
- Over temperature alarm relay to protect the furnace against over heating
- Easy maintenance design allowing the furnace to have long service life
- Ceramic sheathed Platin/Platin-Rhodium thermocouple
- Programmable temperature controller
  - Freely programmable with 30 programs and 50 segments each. Each program can be named for different blocks.
  - Standard 5" touchscreen with remote monitoring and controlling function via ethernet connection.
  - Graphic display of the heating curve; temperature vs time, history function for 10 sintering cycles.



**MAXIMUM  
TEMPERATURE**

1600 °C



**CONTINUOUS OPERATING  
TEMPERATURE**

50 °C below Tmax



**VOLUME**

up to 1 liter

# PLF

## SERIES LASER SINTERING FURNACE



### Technical Information

Model	Maximum Temperature (°C)	Inner Dimensions HxWxD (cm)	Volume (L)	Outer Dimensions HxWxD (cm)	Power (W)	Supply Voltage (V)
PLF 120/6	1200	14x20x25	7	65x55x58	2.000	220V 1/N/PE
PLF 120/15	1200	23x22x30	15	72x56x64	3.600	220V 1/N/PE
PLF 120/30	1200	28x28x38	30	79x59x69	6.000	400V 3/N/PE

### Furnace properties:

- High-quality Kanthal wire heating elements positioned at both sides of the hot-zone for prime temperature uniformity and protected inside the quartz tubes.
- Easily operated up & away spring balanced soft opening & closing door
- Dual skin housing for low external temperatures and high inner temperature stability
  - Compact design
  - Furnace frame and bottom is made of high quality fiber brick against mechanical damages. Hot-zone is made of high quality fiber board providing excellent temperature insulation
  - Phosphate coated, and epoxy painted steel body outer case to increase the corrosion resistance
- Door safety switch and leak current circuit breaker providing additional operator safety.
- Over temperature alarm relay to protect the furnace against over heating
- Easy maintenance design allowing the furnace to have long service life
- Ceramic sheathed Platin/Platin-Rhodium thermocouple
- Inert gas supply system with analog rotameter
- Programmable temperature controller
  - Freely programmable with 20 programs and 40 segments each.
  - Easy operation and program selection
  - Hot-start function against power outages
  - Delay time function



#### MAXIMUM TEMPERATURE

1200 °C



#### CONTINUOUS OPERATING TEMPERATURE

50 °C below Tmax



#### VOLUME

6 to 30 liters