Steel Frame Furnaces (SFF)

Versatility, reliability and flexibility describe the complete system featured here, incorporating the Pillar Induction fully-shunted, steel frame furnaces (SFF). Processing brass and aluminum, these melting systems utilize the industry standard for power supply performance – the Pillar patented MK-8 Power Supply.

Melting System Specifications:

- **Power Supply:** Pillar MK-8
- **Power Range:** 225 kW - 450 kW
- **Furnace Capacity:** 2,200 lbs - 3,300 lbs

System Includes:

- MK-8 Power Supply with (2) Furnace Selector Switches
- (2) Steel Frame Furnaces with Hydraulic Tilt Operation
- Hydraulic Power Supply
- Hydraulic Valve Pedestal
- Lead Adaptors
- Water Cooled Power Leads

Options:

- Manually Operated Furnace Lids
- Fume Collection Ring
- Isolation Water Cooling System
- Furnace Weighing Systems Available on 2,000 lb and Larger Furnaces
- Closed Pressurized Water Cooling System (Single and Dual Pump)
- Cooling System available with dry or evaporative cooler
- Melt Monitoring Systems
- Melt-Dek – Prefabricated enclosure and operating platform for the melt system

<table>
<thead>
<tr>
<th>SX System #</th>
<th>MK-8 Power Supply Rating</th>
<th>Frequency Rating</th>
<th>Furnace / Size</th>
<th>Cooling System Type</th>
<th>Melt Time Brass at 2,150°F*</th>
<th>Melt Time Aluminum at 1,400°F*</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>450 kW</td>
<td>600 Hz</td>
<td>2,200 lb (1,000 Kg) SFF</td>
<td>Water to Water (Power Supply Only) or Single Pump Station with Dry Cooler</td>
<td>39 minutes</td>
<td>–</td>
</tr>
<tr>
<td>13</td>
<td>225 kW</td>
<td>1,000 Hz</td>
<td>1,100 lb (500 Kg) AL capacity 2,385 lb (1,084 Kg) brass capacity</td>
<td>Dual Pump Station with Dry Cooler</td>
<td>–</td>
<td>73 minutes</td>
</tr>
</tbody>
</table>

* Based on nominal furnace size for a second heat utilizing a lid or blanket and a rammed lining with a 10% heel, when lining is hot, charge is dense and proper interconnect.

www.pillar.com
Non-Ferrous Melting Systems

Steel Frame Furnace (SFF) — MK-8 Power Supply

- High Efficiency design allows use of maximum inlet water temperature of 115°F.
- Full Range Power Adjustment from a single operator control.
- Load Matching Water Cooled Capacitors with pressure sensitive safety switches
- Fused disconnect switch
- Instrumentation
  - Output power (KW) meter
  - Output voltage meter
  - Operating frequency meter
  - Leakage current meter
- Self Diagnostic monitor and indicators
- Operator Controls
  - High frequency power on/off/reset
  - Power control potentiometer
  - Leakage detector test / reset push button

Optional Equipment

- Safety interlocks
- Front access
- Cast aluminum handle assembly for reliable, long life

Steel Frame Furnace (SFF)

- Fully grounded structural steel frame assembly & steel column type stanchions
- Fully captive electromagnetic flux containment system
- High efficiency induction coil
- Upper & lower refractory cooling coils
- Precast solid refractory bottom
- Sectioned precast top insulation ring
- Leak detector probes
- Hydraulically tilted furnace

Furnace Selector Switches

- Safety interlocks
- Front access
- Cast aluminum handle assembly for reliable, long life

MK-8 Power Supply

Standard Features:

- Compact, Economical, Easy Access Package incorporates a design with convenient front access
- Most Efficient Coupling Method utilized to give the best matching capabilities over a wider range of operating conditions without the need for transformer tap or capacitor switching

Hydraulic Power Supply

- Pump, motor, manual motor starter, start/stop buttons, reservoir & filter
- Use of a water/glycol based fluid or suitable synthetic fluid required

Ancillary Equipment

- Isolation Water Cooling System (ICER)
  - Water to Water heat exchanger
  - Closed & Pressurized Power Supply Cooling
  - Air elimination system
  - Expansion tank
  - Structural steel frame
  - Pump with motor
  - Requires customer supplied water source

- Closed Pressure Water Cooling System – Single Pump (Dual also available)
  - Pump Station with Dry Cooler
  - Closed & Pressurized System Cooling
  - Air elimination system
  - Expansion tank
  - Structural steel frame
  - Pump with motor
  - Internal piping & wiring included
  - Electrical & temperature control panel with alarm circuit
  - Dry Cooler (liquid to air) complete with fans, coils and enclosure for outdoor mounting
  - Automatic pump switchover to standby pump (Dual Pump Station Only)

— www.pillar.com —

USA Headquarters
21905 Gateway Road
Brookfield, WI 53045
Phone: +1 262-317-5300
Fax: 262-317-5353

CHINA
No. 533 Yuan Zhong Road
Nanhui Industrial Zone
Shanghai, China 201399
(86) 21-68009546
(86) 21-68009542 (FAX)

ENGLAND
2 Dorset Road,
Salford Business Park
Salford, Birmingham B1 1BG
(44) 121 322 8003
(44) 121 322 8080 (FAX)

GERMANY
Ersteimer Str. 87
69434 Hirschhorn, Germany
49 62 72 92 17 500
49 62 72 92 17 587 (FAX)

JAPAN
1-6-35 Shinjuku
N Building, 7th Floor
Koto-Ku, Tokyo, 136-0075 Japan
(81) 33647 7661
(81) 33647 7662 (FAX)

KOREA, Seoul
Room #201, Dae-Ryuk Bldg, 103-9
Guro-Dong, Guro-Ku, Seoul Korea
(82) 2 837 2290
(82) 2 837 2292 (FAX)

MEXICO
Avenue Manantiales No. 11
Esq. Acueducto
Parque Industrial Bernardo Quintana
E Marquez, Queretaro
C P 76246 Mexico
(011) 52 442 221 5415
(011) 52 442 221 5090 (FAX)

Induction OEM for

Westinghouse CycleDyne

www.pillar.com