**Customer Requirements:**
1. Process various fasteners, stampings, and forgings.
2. Perform different metallurgical processes such as neutral hardening, carburizing, nitriding, and quenching.
3. Optimal energy efficiency.
4. High uptime >98%.
5. Easy to maintain.

**Solution:**
AFC-Holcroft’s Mesh and Cast Belt Systems

AFC-Holcroft’s continuous conveyor furnace systems are designed for a wide range of heat treat applications, including both atmosphere and non-atmosphere types for neutral hardening, carburizing, nitriding, and quenching processes such as neutral hardening, carburizing, carbonitriding, annealing, and normalizing.

**Loading Systems:**
- AFC-Holcroft’s patented GapMiser™ cast link belt loading systems provide the ability to eliminate excessive gaps between part lots while also minimizing the product being loaded. The belt is loaded in the furnace at the fully expanded mesh belt tension, allowing the system to maintain a flat uniform heating path across the furnace.
- Various other automatic loading systems are available, including roller, bucket, conveyor, and overhead designs.

**Pre-andPost-Cleaning Systems:**
- Multiple pre- and post-aqueous wash system designs are available, including fixed, drum, and sequential systems.
- Aqueous systems are equipped with water treatment equipment and high-efficiency coalescers.

**Furnace Heating Systems:**
- Pre-heat or pre-oxidation systems can be added to the system to ensure that the parts are heated to the desired temperature before entering the furnace atmosphere. The use of high-quality refractory tiles provides excellent temperature uniformity and atmospheric circulation.
- Mesh belt systems: 4000 pounds per hour are equipped with a system for both flush and air-cooled design, using power-driven variable belts to heat and return with dual drives and a complete belt tracking.
- Bag-mounted 6.5” bag diameter, centrifugally cast radiant tubes with uniform heating pathways.
- Silicon carbide U-type or single-ended radiant tubes with optional rotary burners available.
- Modular, water or air-cooled, atmosphere systems are available, including patented “Uniflow” or “Upflow” quench systems.

**Quench Systems:**
- Multiple quench media options, including oil, polymer, sodium hydroxide, nitrate-nitrite salt, and intensive water quenching.

**Control Systems:**
- Fully automated and customized systems to meet your specifications and individual requirements.

**Preheat/Pre-oxidation Systems:**
- Pre-heat or pre-oxidation systems can be added to the system to ensure that the parts are heated to the desired temperature before entering the furnace atmosphere. The use of high-quality refractory tiles provides excellent temperature uniformity and atmospheric circulation.

**Vacuum Systems:**
- Available in both vacuum and non-vacuum systems, including both mesh and cast belt systems.

**Aqueous Systems:**
- Modular, water or air-cooled, atmosphere systems are available, including patented “Uniflow” or “Upflow” quench systems.

**Control Systems:**
- Fully automated and customized systems to meet your specifications and individual requirements.

**Process and quality control management provided by our proprietary BeltMaster SCADA system.**
Mesh and Cast Belt Continuous Conveyor Systems

Standard Mesh Belt Furnaces  

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Effective Load Width (in.)</td>
<td>30</td>
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<td>54</td>
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<tr>
<td>Effective Load Length (in.)</td>
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<td>108 - 384</td>
<td>192 - 456</td>
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<td>Effective Load Height (in.)</td>
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<tr>
<td>Production Capacity (lb/hr)</td>
<td>500</td>
<td>750 - 3000</td>
<td>2500 - 5000</td>
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Standard Cast Belt Furnaces  

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<th>CB 36-192</th>
<th>CB 48-276</th>
<th>CB 72-600</th>
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<td>Effective Load Length (in.)</td>
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<td>Effective Load Height (in.)</td>
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<tr>
<td>Production Capacity (lb/hr)</td>
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<td>3500</td>
<td>10,000</td>
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Join the next generation today!
To learn more about how the AFC-Holcroft conveyor furnace system can give you the edge over the competition, contact us. Wherever your business is located, AFC-Holcroft can provide you access to an unparalleled level of consultation and support that ensures you get the maximum value from your investment dollar.

Pyro-Kleen is a registered trademark of AFC-Holcroft.

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