• Ladles
• Crucibles
• Tundishes
• Torpedo Cars

Prepackaged Heating and Drying Stations
Bloom Engineering Company, Inc. supplies a complete line of packaged heating and drying stations for tundish, nozzle and ladle applications. Shop testing ensures minimum start-up time. Each unit is custom engineered for the customer’s needs. To meet specific application requirements, Bloom uses a variety of burners ranging from regenerative and adjustable flame types to conventional and premix designs. For energy savings, recuperative, regenerative or oxygen-enriched equipment is available.

Firing wall construction consists of soft refractory modules backed and is surrounded by steel and structural members. The refractory is chosen for its low heat loss and low heat storage characteristics. A suitable temperature safety factor for the refractory material (2400°F service factor for 2000°F to 2200°F operation) ensures minimum maintenance. Stud-welding the modules to the fire wall’s steel back enables future maintenance to be completed easily.

The stations are available with a variety of control packages for temperature and air/fuel ratio control. Direct spark or pilot ignition and flame detection are used. Bloom units are pre-piped and pre-wired with the regulators, controller, flame monitoring equipment, fan, valves, components, and piping mounted either in a free standing rack or on an integral platform depending upon the type of station being supplied. Direct refractory temperature control is an available option.

Every Bloom station features the rugged construction required for long life in a demanding environment. Each unit is shipped pre-assembled within transportation restrictions. In general, only the upper section of the firewall is shipped loose. To the extent possible, items shipped loose utilize bolts rather than welding for final assembly.

Although natural gas is most common, any gaseous fuel with Btu content per cubic foot of 500 or more is suitable. Bloom burners for operation with liquid commercial or by-product fuels through No. 6 oil and tar are available.

Bloom Engineering offers the complete package, including all required design, equipment, accessories and start-up service. Burners and components designed for easy retrofit to existing systems or for new systems are also available. These can be supplied with all necessary engineering, application advice and start-up service. Bloom uses readily available commercial components and, as an option, will adapt the standard system to comply with special customer needs and preferences. Maintenance, restoration, modernization and upgrade services for existing stations are performed in Bloom’s many worldwide locations.
Designed specifically for heating torpedo cars, and other hard to reach enclosed places, Bloom’s Je Burner System produces directed flames and circulation patterns ensuring uniform temperature distribution. The burner features a wide operating window having flame stability from slightly reducing through high excess air operation for meeting or exceeding most refractory dry-out cycle specifications. Two angled, offset, high-velocity burner heads direct the flames and hot gases to the extreme ends of the car or enclosure while producing circulation patterns for optimum drying, heating and cycle control.

The Dual Jet Burner System generally can use a variety of control techniques to monitor cold air and natural gas combustion and the heat-up, soak and dry-out cycles. Direct spark or pilot ignitions are available. Bloom supplies an optional free-standing, pre-piped and pre-wired rack containing the regulators, controller, flame monitoring equipment, fan, valves, components and piping.

Bloom Engineering Company, Inc. offers a complete package including all required design, equipment, accessories, and start-up service. Burners and components designed for easy retrofit to existing systems or for application to new systems are also available. These can be supplied with all necessary engineering, application advice and start-up service. Bloom uses readily available commercial components and, as an option, will adapt our standard system to comply with customer needs and preferences.

The Dual Jet Burner System mounts through a heat shield, which helps to achieve positive pressure and protect the burner’s components. A rugged Bloom-supplied shield is an available option.