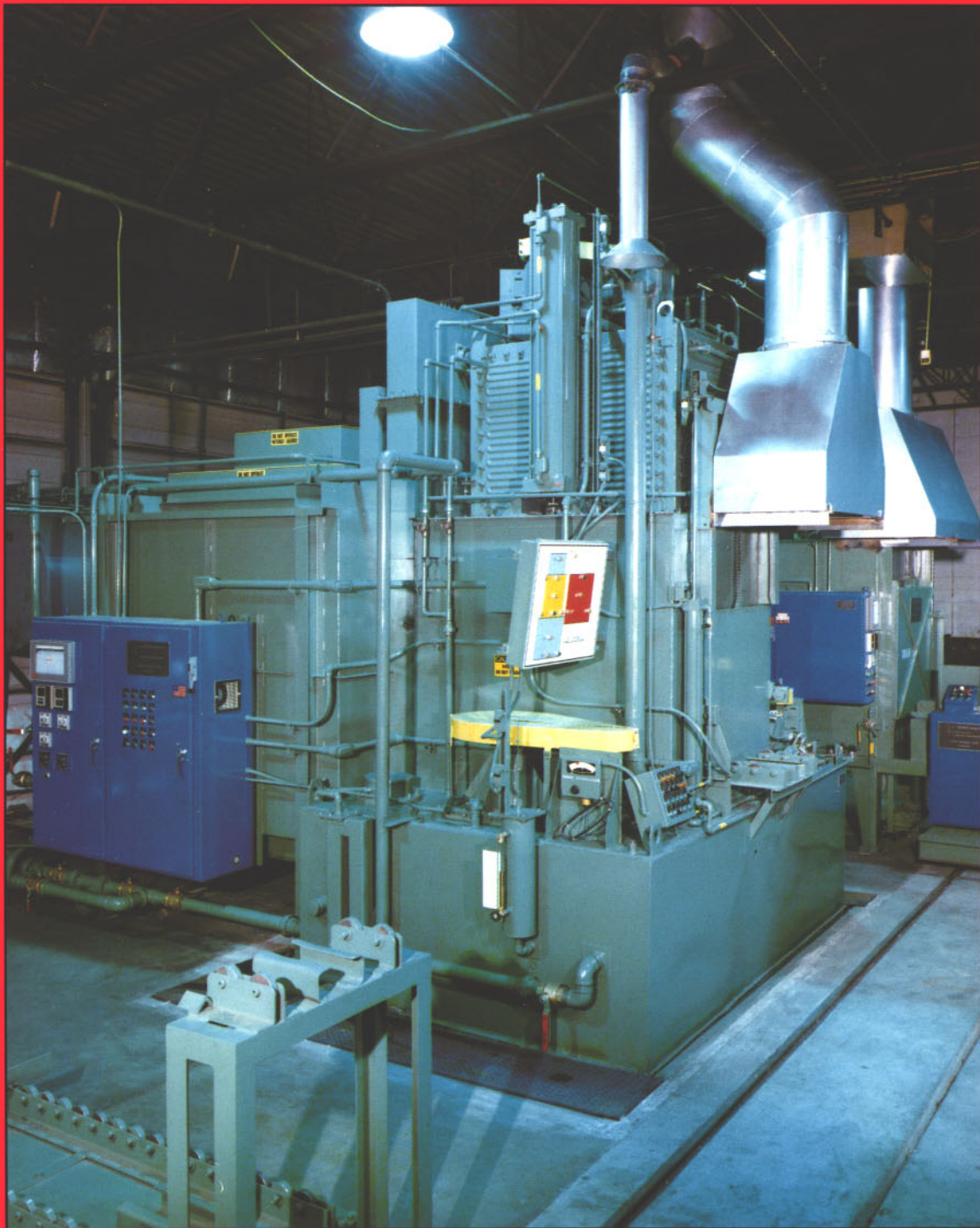


J. L. BECKER COMPANY

QUALITY HEAT TREATING EQUIPMENT AND COMPONENTS



INTEGRAL QUENCH FURNACE SYSTEMS

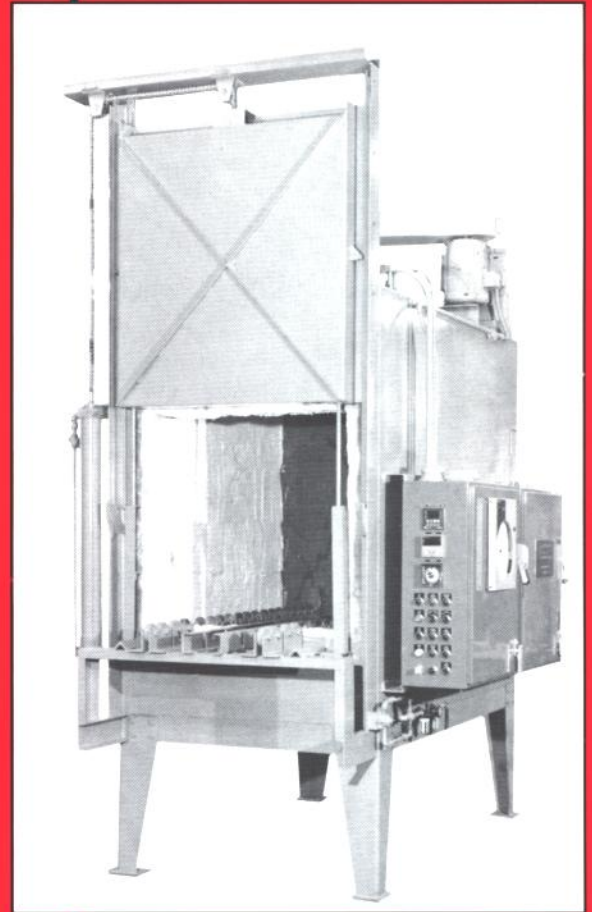
41150 Joy rd * Plymouth, MI 48170

Phone: 734.656.2000 Fax 734.656.2009

The best single source for all your heat treating requirements

J.L. BECKER TEMPERING FURNACE

- Ceramic Fiber Lined
- Excellent Temperature Uniformity
- Gas or Electric Heating Systems
- Nitrogen Atmosphere Capability
- FM-IRI Standards
- Cast Alloy Roller Rails and Rollers
- Pneumatically Operated Door
- Standard Operation 350°F to 1350°F
- Furnace Mounted Control Panel
- Roof Mounted Plug Type Forward Curve Axial Flow Fan and Alloy Scroll



Load Tables (Scissor Lift Type)

- Pneumatically Operated
- 8" to 48" Travel
- 1500 to 7500 lb. Load
- Safety Skirt - Optional
- Foot Pedal or Pushbutton
Cover Box

Holding Station

- Construction (Heavy Duty)
- 3-1/2" dia. Rollers
- Standard Sizes

Charge Carts

- Double Ended
- Extended Reach
- Power or Manual Operation
- Construction (Heavy Duty)
- Over Load Protection

Blast Cooling Cabinets

- Off-On Operation
- Manually Operated Door
- Enclosed Load
- Guarded Bottom Mounted Fan
- 3-1/2" dia. Rollers

Features:

- Gas or Electric Heating Systems
- Top Mounted Radiant Tubes
- Cast Axial Flow Fan
- Dual Agitation
- Full Flow Oil Quenching
- Heavy Duty Construction
- Gas Tight Construction
- Cast Alloy Roller Rails
- Cast Chain Guide
- Furnace Mounted Control Panel
- Optional Free Standing Panel

J.L. BECKER INTEGRAL QUENCH FURNACE

The standard JLB IQ (integral quench furnaces) are batch type units equipped with recirculating roof fan, radiant tubes, enclosed vestibule and integral quench tank. The furnace is designed for annealing, neutral hardening, carburizing, carbonitriding, and other heat treating processes where a controlled environment is required during the heating and quenching portions of the cycle.

Standard Specifications @ 1750°F

FURNACE NUMBER	Gross (lbs.) Loading	Quench Tank (Gallons)	Gross Energy Input		Overall Dimensions		
			(BTU/HR)	(KW/HR)	L	W	H
JLB IQ-24-36-24	1500#	1200	800,000	90KW	15'-4"	9'-7"	12'-3"
JLB IQ-30-48-30	2800#	2900	1,200,000	140KW	17'-7"	11'-10"	13'-4"
JLB IQ-36-48-30	3200#	2900	1,400,000	180KW	17'-7"	11'-10"	13'-4"
JLB IQ-36-48-36	4000#	3700	1,500,000	216KW	17'-7"	14'-10"	14'-10"
JLB IQ-36-72-36	6000#	5600	2,000,000	240KW	19'-7"	14'-10"	14'-10"

Engineering

The J.L. Becker Company has the ability to provide computer generated designs on all new equipment and existing equipment modifications. Our engineered drawings will be supplied to define equipment layout, utility locations and connections sizes. Electrical, fuel and atmosphere drawings will be in detail to permit ease of connection from supply sources to the common connection points. Detailed and simple to follow operating instructions are provided for each piece of equipment.

Manufacture

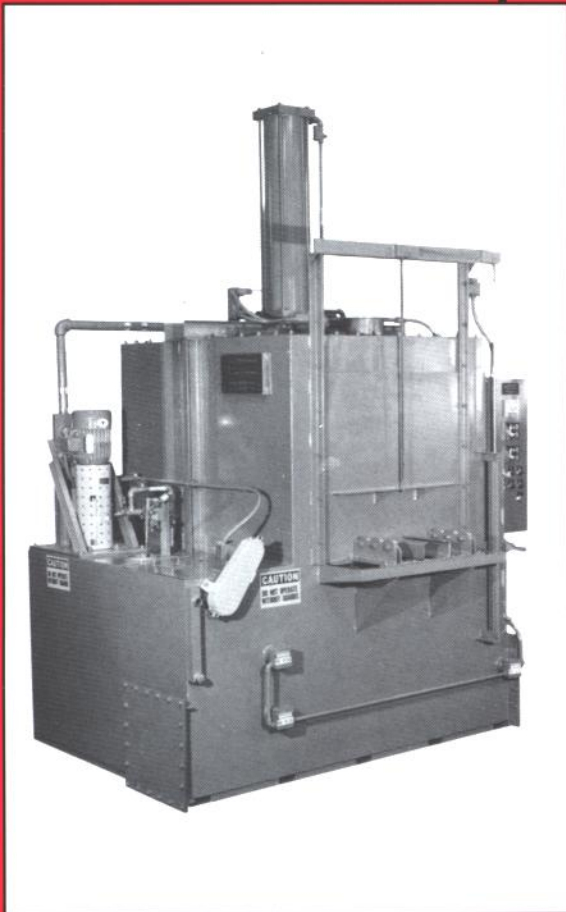
The J.L. Becker Company builds all equipment at our facility in Livonia, Michigan. The equipment is cold tested and demonstrated to the customer for final approval before shipping. The equipment is shipped as complete as possible, only dismantling due to shipping limitations and/or to prevent damage. All equipment is painted with high quality heat resistant paint per customer's specifications.

Options

- Oil Cooled Top Cool Chamber
- Variable Speed Agitation
- Hot Oil Quenching
- Insulated Quench Tank
- Position Display Graphics
- High Temperature Operation (1400°-1950°F)
- Carbon Control Systems
- Recuperation Systems
- Oil Filtration and Centrifuge
- Nitrogen Purge System
- Waukeg Tronics Flow Meters
- Microprocessor Controls

Above specifications are for demonstration purposes only. Actual specifications may vary.

J.L. BECKER BATCH WASHERS



- Gas or Electric Heating Systems
- Spray Dunk Agitation
- Spray Only
- Oil Skimmer Systems
- Insulated Tank - Optional
- Surface Skimming Nozzles
- Vertical Mounted Pump
- Access Clean Out Door

ATMOSPHERE SYSTEMS

Nitrogen Methanol Atmosphere

The J.L. Becker Company will design and build your furnace system for operation with Synthetic Atmosphere to include the necessary flow meters, methanol injectors, and flow panels.

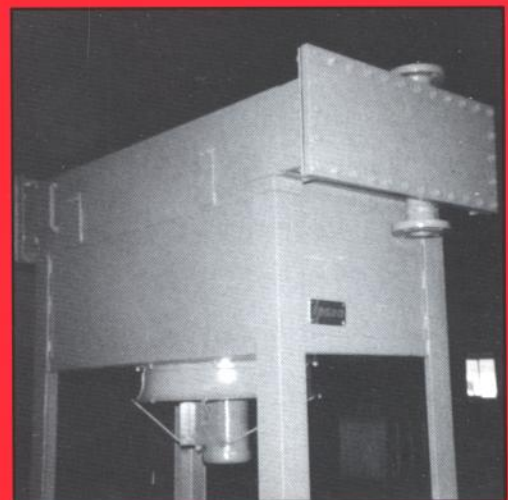
J.L. Becker Endothermic Generators

- Gas or Electric Heating Systems
- Cast Alloy Retorts
- Variable Turn Down Output
- Brick or Fiber Lined
- Carbon Control - Optional
- Mounted NEMA 12 Panel
- Air Cooled Gas Coolers
- Waukee Systems
- Standard Instrumentation
- 750 CFH - 10,000 CFH

Quench Oil - Air Heat Exchanger

Heat Recovery Systems, Div. J.L. Becker

- Standard with all Quench Furnaces
- Heavy-Duty Steel Construction
- Automatic Oil Temperature Control and Recording Optional
- Designed and Engineered to Meet Your Specific Requirements



Features:

- FM-IRI Safety Standards
- JIC Machine Wired
- Double Deck Quench Elevator
- Full Compatibility
- Ceramic Fiber Insulation or IFB
- HRS Air Cooled Heat Exchanger
- Oil Level Control
- Waukee Flow Meters
- Automatic Control
- Endothermic or Nitrogen Methanol Atmosphere



J. L. BECKER COMPANY

QUALITY HEAT TREATING EQUIPMENT AND COMPONENTS

PRODUCT INFORMATION

NEW HEAT TREATING EQUIPMENT AND SYSTEMS

Standard Lines

Car Bottom
Continuous Belt Brazing Furnace
Continuous Belt Sintering Furnace
Exothermic Generators
Ammonia Dissociators
Batch Annealing
Batch Carburizing
Batch Hardening
Slot Forge
Continuous Pusher
Cast Link Belt Furnace
Roller Hearth
Continuous Shaker Hearth
Bell Furnace
Kilns
Ovens

Custom Services

Equipment Designed Specifically to Your Requirements
Engineering Consulting Services
Field Installation
Furnace and Generator Rebuilding

Auxiliary Equipment

Atmosphere Control Systems
Water Cooling Systems
Heat Exchanger Systems
Parts Loading Systems
Quench Tanks
Holding Stations
Blast Cooling Stations
Charge Car
Instrumentation

USED HEAT TREATING EQUIPMENT • STOCK • BUY • SELL

Component Parts

Silicon Carbide Hearth Plates
Generator Catalyst
Alloy Baskets
Wire Mesh Alloy Liners & Screens
Retorts — Fabricated & Cast
Radiant Tubes — Fabricated & Cast
Heat Treat Furnace Fixtures
Roller Rails and Piers
Furnace Rollers
Fabricated Alloy Hearths
Flow Meters
Cast Link Conveyor Belts

Silicon Carbide Heating Elements
Metallic Heating Elements — Rod, Ribbon & Wire
Wire Mesh Conveyor Belting
Furnace Curtains
Flat Wire Conveyor Belts
Flue Gas Analyzers
Oxygen Probe and Carbon Sensor Systems
Chain Drive Conveyor Belts
Quench Belts
Refractories
Insulating Firebricks, Fiber, Block Insulation & Castables
Thermocouples & Protection Tubes

35850 Industrial Road • Livonia, Michigan 48150
(313) 591-6036 • Fax: (313) 591-7858

The best single source for all your heat treating requirements