Inductotherm Group

Leading Manufacturers of Melting, Thermal Processing & Production Systems for the Metals and Materials Industry Worldwide
From the brilliant yellow of gold and the warm glow of copper to the cold gray of iron and steel, no matter what metal you melt, heat treat, hot forge, hot roll or otherwise process, there's an Inductotherm Group company with the equipment, technology or services that may benefit you.

The Inductotherm Group brings together 40 companies, which are strategically located around the world. All cooperate and share a commitment to serving the metals and materials industry and all are leaders in their respective disciplines.

As a multi-technology organization, the Inductotherm Group offers many advantages:

- The unique ability to offer the best solution from a broad range of available technologies.
- The support of a global network of manufacturing and service facilities.
- Access to a full range of engineering, installation and repair services.

While you probably already know some of our companies by their individual brand names, this brochure introduces you to all product lines of the Inductotherm Group.
Bricmont offers thermal equipment and consulting services to primary and secondary metal producers worldwide. Its expertise encompasses large capacity fuel-fired melting/holding furnaces, including some of the world’s largest aluminum holders and slab reheating furnaces. Bricmont also produces rotary hearth furnaces used for the production of direct reduced iron (DRI).

Inductotherm is the world’s leading manufacturer of induction melting systems. Its furnaces range from coffee cup size for melting precious metals to furnaces holding hundreds of tons of iron. Inductotherm is the most recognized brand name in foundries for the production of iron, copper and aluminum.

Three 16,500 kW 20T furnaces pouring 80T iron/hr

110,000 kg capacity aluminum tilting holding furnace

For most metals, melting is the first step in producing a useful product. Four Inductotherm Group companies are leading manufacturers of melt shop and automatic pouring systems for a full range of ferrous, non-ferrous, precious and reactive metals.

Acutrak® Direct Electric Heat (DEH) for aluminum and non-ferrous melting

Charging a 100T aluminum melter

High efficiency mini stack melter
HI T.E.Q. specializes in engineering and building turn-key systems to provide consistently high quality metal to the casting station. Its products include fuel-fired, electric and regenerative aluminum melting, holding, degassing and filtration furnaces and heated launders.

**Inductotherm** is recognized as the world’s leading supplier of foundry automation systems. These include: charge handling conveyors, supervisory melt assist computers and automatic metal pouring systems with real-time vision controls.

**Visipour* Automatic Pouring System for precision pouring control to meet the high industry standards**

*In the foundry, automated systems built by an Inductotherm Group company reduce labor costs, increase production and enhance quality. These include automated charging systems, computerized controls, push-out lining removal mechanisms and automatic pouring systems.*

- 1,800 kg/hr integrated aluminum treatment & casting line
- Moled aluminum transfer line
- Time-saving lining push-out mechanism
- Vibratory conveyor loading charge materials into the induction furnace
Inductoheat, the world’s largest manufacturer of induction heating equipment, offers general purpose through fully customized heat treating and annealing machines, pipe end heaters, crankshaft and camshaft heating machines and copper tube annealing plants. Manufacturing at more than 20 locations around the world, it is a recognized leader in the automotive and machine tool industries.

Inductoheat HWG, based in Germany, manufactures both highly customized and standardized induction heat treating systems. It also operates two commercial heat treat shops in Europe.

Many metals require heating and/or heat treating to achieve their optimum physical properties. Heating also is used as part of other metal forming processes. The Inductotherm Group companies manufacture heating and/or heat treating equipment.
Inductotherm Heating and Welding Technologies (HWT), based in the United Kingdom, builds Radyne brand wire heat treatment systems used worldwide for automotive spring, tire cord and construction markets. It also builds Radyne brand pipe coating systems which are used for coating thousands of miles of off-shore gas and oil distribution pipeline.

Inductotherm HWT serves all non-ferrous manufacturers by producing Banyard brand induction units for applications, such as pre-heaters for extrusion plants, in-line annealing systems for tube production, pre-heaters for rolling mills and stub heaters for smelter rod production.

Inductotherm HWT manufactures Newelco brand large capacity induction billet and bar heating equipment used with major forming machine manufacturers worldwide.

Plasticity of metals changes with its temperature. Whenever a part has to be formed, the workpiece is heated. Inductotherm Group companies manufacture a wide range of standard and specialized equipment to precisely preheat metal blanks for forging, extrusion and shaping.
Inductotherm brings the world’s most advanced induction technology to the coating line.

It supplies the steel industry with inductively heated coreless, channel and premelt pots for galvanizing, galvannealing, Galfan® and Galvalume® product lines. It also manufactures strip heaters, boost heaters and tin reflow, as well as systems for paint drying and polymerization of coatings.

Inductotherm induction mass heating systems for bars, blooms, billets, plate and slabs are used prior to rolling operations. These compact and In-Line or oscillating heaters include the world’s largest and most technologically advanced induction reheater - an oscillatory 500 ton-per-hour system designed to boost the temperature of steel slabs by 500°F (260°C) prior to rolling.

Galvalume® is a registered trademark of Biec International, Inc.
Galfan® is a registered trademark of International Lead Zinc Research Organization, Inc.

Rolling mills require a wide range of thermal processes from heating and reheating slab, bar and rod source materials to melting, holding and heating zinc and aluminum coatings. Inductotherm Group Mass Heating & Coating companies manufacture thermal equipment for both hot and cold rolling mill applications.
Thermatool is the global leader in production technology and equipment for the pipe and tube industry, serving the automotive, oil/gas exploration, recreational equipment, electrical construction, furniture, structural and industrial utility boiler markets.

T&H Lemont is a leading supplier of form and weld mills, roll forming mills, and roll tooling solutions for the tube, pipe and roll form industries. It is the preferred choice for reliable designs for equipment and tooling.

Inductotherm HWT produces Thermatool brand pipe and tube welders and Alpha brand tube cutoff equipment in Europe.

W. J. Savage designs, builds and services high performance spindle saws. These high production saws cut tubes, plates or formed shapes of ferrous alloys, non-ferrous alloys, or nonmetallics. They can be designed for cutting hot or cold product, wet or dry. They can utilize carbide, abrasive or diamond blades.

The application of heat is often key to many manufacturing processes, such as welding, cutting, bending, shaping, fitting and sealing, to name just a few. Inductotherm Group companies build equipment to perform a variety of thermal processing functions.
The creation and casting of superalloys and many other advanced and reactive metals requires sophisticated vacuum or controlled atmosphere melting and remelting systems. Three Inductotherm Group companies are world leaders in the manufacture of these technologically advanced systems and related materials.

**Consarc** manufactures a complete line of vacuum and controlled atmosphere systems including:

- VIM, VAR, ESR and Induction Vacuum Ladle (IVL) refining for production of superalloys, stainless and specialty steels and electronic alloys.
- Refractory-free Induction Skull Melting (ISM) for titanium and reactive alloy casting.
- Vacuum Precision Casting (VPC) furnaces for casting superalloy parts using equiax, DS and SC processes.
- Vacuum Brazing and de-oiling systems for radiators, cold plates and heat exchangers.

**Consarc** uses Inductotherm® multi-output (patented) power supplies with zoned coil in its Vacuum Heating furnaces for densification, CVI and specialty heat treatment of composite materials such as carbon-carbon.

**Calcarb** produces carbon bonded carbon fiber, a high temperature rigid insulation, for use in controlled atmosphere and vacuum furnaces.

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**Vacuum & Controlled Atmosphere Systems**

Melting, Remelting & Heating • Graphitizing & CVD • Brazing & De-oiling

*900 mm VAR furnaces for steels and superalloys*

*6T VIM for master alloy production*

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Radyne, the industry leader for high frequency (HF) induction applications, builds systems for brazing and soldering, heat treating, curing, wire heating, coating, crystal growing, bonding and getter flashing.

Inductoheat, in addition to heat treating, builds Ross 60 cycle and MF equipment for motor and stator heating, shrink fit and copper tube annealing equipment.

Thermatool manufactures advanced power supplies designed specifically for Inductively Coupled Plasma applications, including the manufacture of nanopowders, material coating, material separation processes, and waste processing.

While most Inductotherm Group companies manufacture equipment for the thermal processing of metals, several companies in the Group build equipment for the thermal processing of other materials.
Bricmont is a full-service, international engineering company with special expertise in thermal engineering applications for the metals industry. It designs, builds and installs custom furnace systems; provides comprehensive engineering studies; and offers in-depth training and training systems. Bricmont designs and builds turn-key installations for billets, blooms, slabs or near net shape reheating and heat treating applications.

Its products include tunnel, pusher, car, walking hearth and walking beam furnaces.

ABPLAN is a European-based electrical engineering company specializing in integration and automation control. It has extensive experience in complete process line automation of robot-based automotive machinery, welding and assembly lines, both inside and outside Europe.
EMSCO specializes in the installation and repair of induction melting furnaces and associated systems. It operates U.S. regional service facilities in New Jersey, Ohio, Alabama and California, as well as in the U.K. Inductotherm Group Canada offers complete induction repair, retrofit, rebuild and installation services in Canada. Alpha I Induction Service Center specializes in the manufacture and repair of coils to customer specifications for induction heating applications. Material handling equipment, transformer repairs and field service are also provided. ServMelt, based in Brazil, offers a full range of upgrade and repair services to induction melting and heating customers throughout Latin America. Ondaran is based in Spain where it provides retrofit, rebuild and repair services for induction furnaces and related systems on the Iberian Peninsula.

All Inductotherm Group companies offer their customers the industry's highest level of technical support and service, but for several companies in the Group, providing such services is their principal business. These companies operate well-equipped facilities located at major industrial centers around the world, providing field service worldwide.