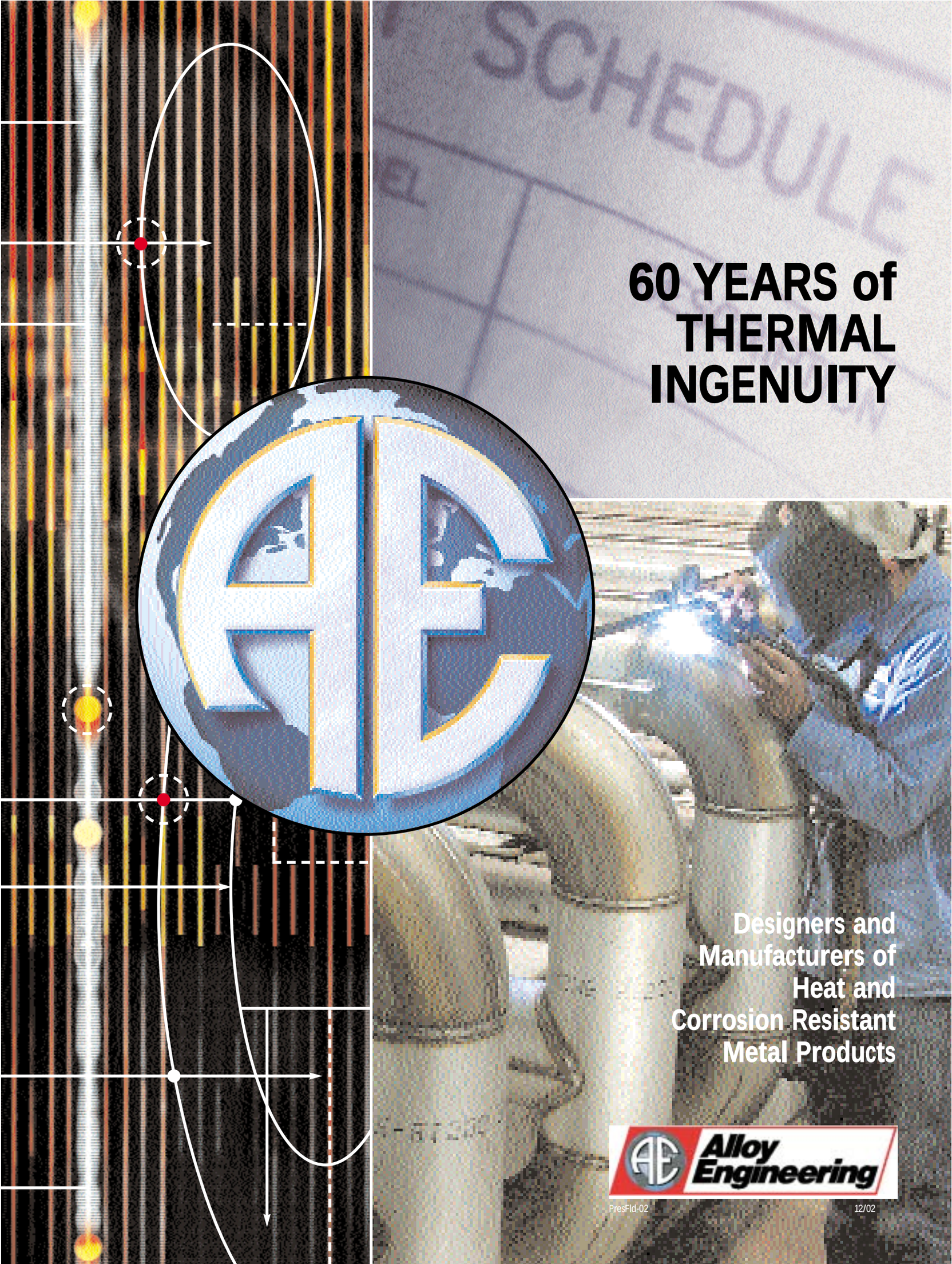
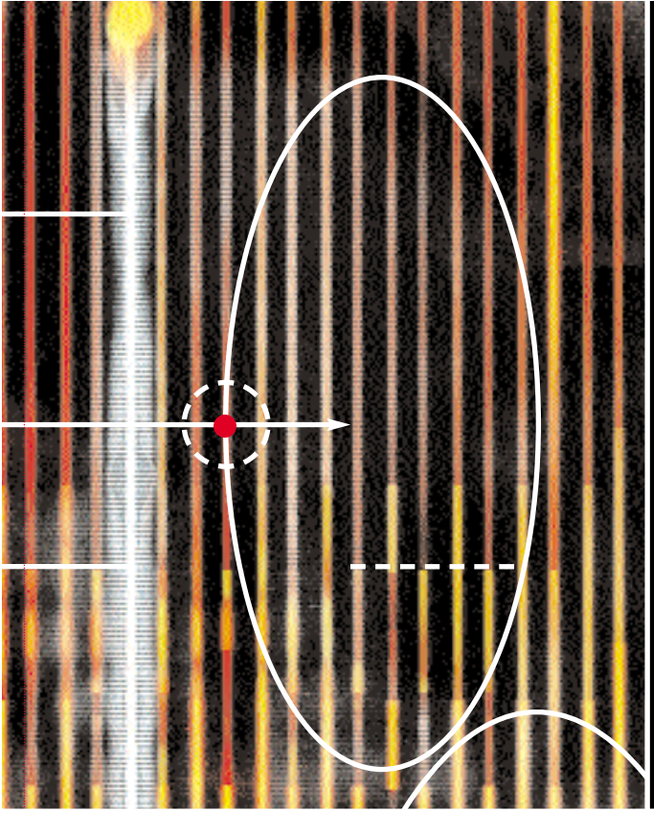


60 YEARS of THERMAL INGENUITY

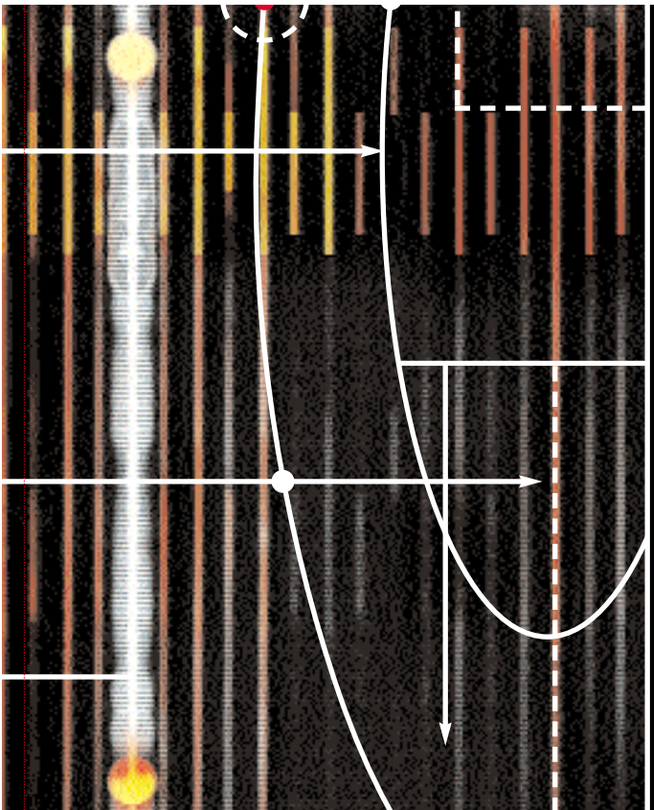
Designers and Manufacturers of Heat and Corrosion Resistant Metal Products

Alloy Engineering



Since 1943, The Alloy Engineering Company has been recognized as the premier designer and manufacturer of high-quality, alloy equipment for furnace and high-temperature and corrosive industrial applications. Our high-temperature fan capability complements our traditional product offering and provides customers with the synergistic technical and economic advantages of one-stop shopping with the industry's leader.

Our heritage of design and manufacturing innovation is as important as our commitment to sharing our application expertise with customers and providing responsive, technical support of products throughout their operational life.



We believe that customer satisfaction defines quality. And, delivering, or surpassing, expected product performance and life is the essence of customer satisfaction. Assurance of quality–performance as specified–results from constant evaluation and improvement of design and fabrication. As a full partner with customers in a quest to enhance their long-term success, we strive to achieve the lowest cost per hour of operation through engineering and material selection. The pursuit of this goal has led to an innovative, and highly effective, participatory management structure. The result is a dedicated, well-informed, and highly motivated workforce that understands that success ultimately depends on an appreciation and responsiveness to customer needs and concerns.

QUALITY ASSURANCE

Our commitment to quality assurance is demonstrated at every level: from application analysis, to design engineering, to procurement of materials, to final fabrication. These quality assurance policies and procedures ensure our products meet the highest quality standards and provide predictable, consistent performance throughout their operational life.

Alloy Engineering carries a Certificate of Authorization to build to ASME Section VIII, Division 1, specifications. We combine these ASME code procedures with our experience, expertise, and dedication to assure your component meets all specifications and tolerances.

COMPUTER AIDED DESIGN

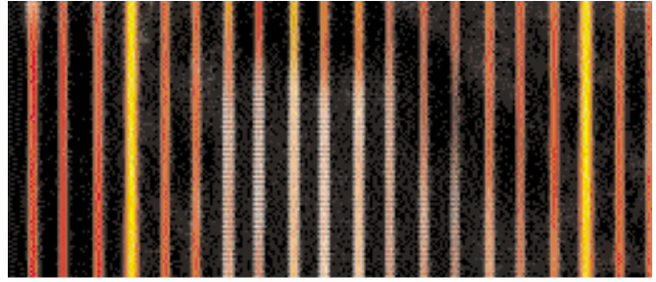
Our state-of-the-art CAD capabilities are constantly upgraded. This system provides powerful 3-D functionality through solid modeling that allows for fast and accurate design and generation of drawings and graphics. As a result, we can quickly respond with a design solution and can seamlessly integrate our product designs with customer system specifications. Our design analysis capabilities include stress, frequency, displacement, buckling, steady state and transient thermal analyses, assembly analysis with gap and contact checks, nonlinear stress, shape optimization, dynamic response, fluid flow dynamics and fatigue capabilities.

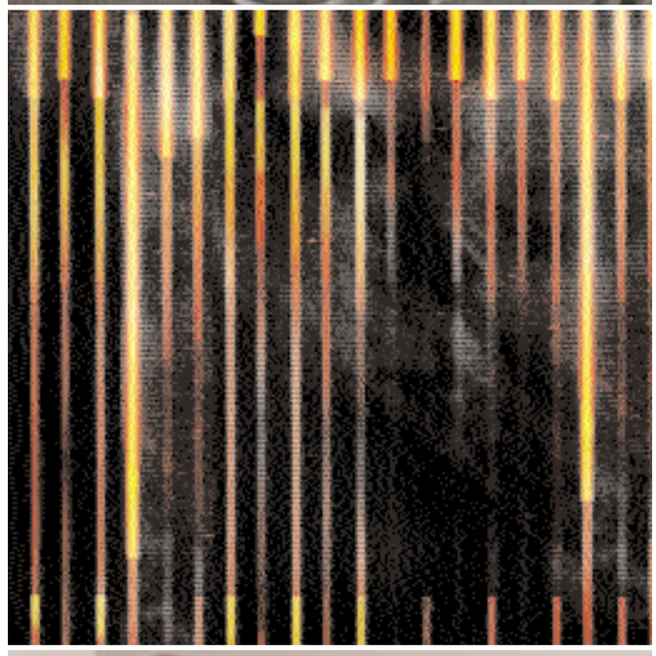
ENGINEERING

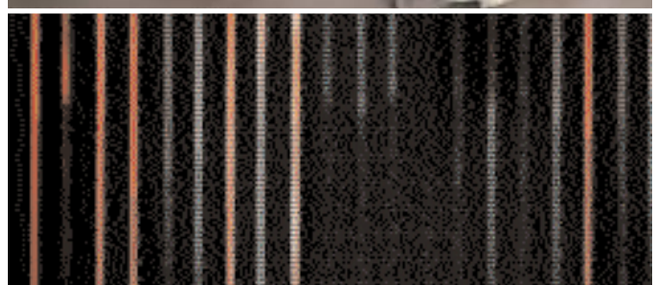
The focus of our design engineering effort, working closely with customers, is to custom design a solution for each application. We also specialize on redesign of current customer applications to provide higher cost-effective performance and longer life.

Alloy Engineering products and components not only perform as required for their design life, but they also significantly reduce overall operating costs. Our engineering team analyzes and evaluates the many factors influencing long-term performance in a hostile, high-temperature or corrosive industrial environment. With a thorough understanding of these factors, and their interaction, we can assure you of an optimal solution designed to meet the requirements of your unique application.

Each Alloy Engineering sales consultant is an accomplished engineer, as well as an innovative designer. Collectively, our engineering staff and sales consultants bring a wealth of experience, insight, and knowledge to your application.







MATERIALS PREPARATION

Product dependability and long life are as dependent on fabrication excellence as they are on design expertise. Over the years, Alloy Engineering has pioneered the development of rolling, forming and welding techniques to ensure the highest quality, most durable products available, anywhere.

Our production capabilities include a full line of metal bending and forming equipment, including a 1,000-ton press brake that allows us to form large, high-integrity fabrications with a minimum of seams. We have the ability to roll a variety of cylindrical and conical shapes and we can produce corrugated, rolled shapes in a single cost and timesaving operation. Our plasma and oxy-acetylene cutting torches quickly and cleanly slice through the heaviest of plates, including 1-in. thick stainless steel plate.

MANUFACTURING

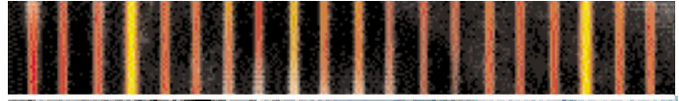
Alloy Engineering's manufacturing team is focused on fabricating engineered products that meet, or exceed, your specific requirements. Critical fabrication operations are performed in work areas with flat, rigid steel-plate flooring to ensure dimensional accuracy and stress-free joints.

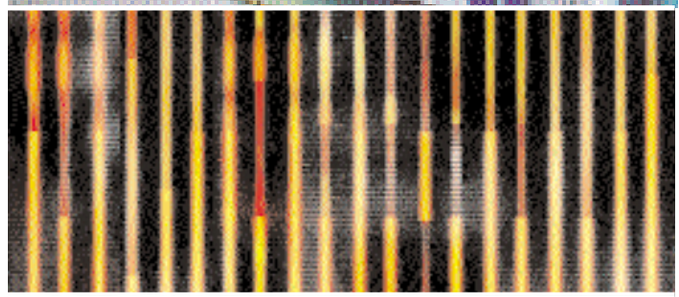
Our 42,000 sq ft manufacturing facility houses cutting, forming, welding, and positioning equipment. With this equipment, our experienced manufacturing team produces products with high, consistent quality that meet, or exceed, customer requirements.

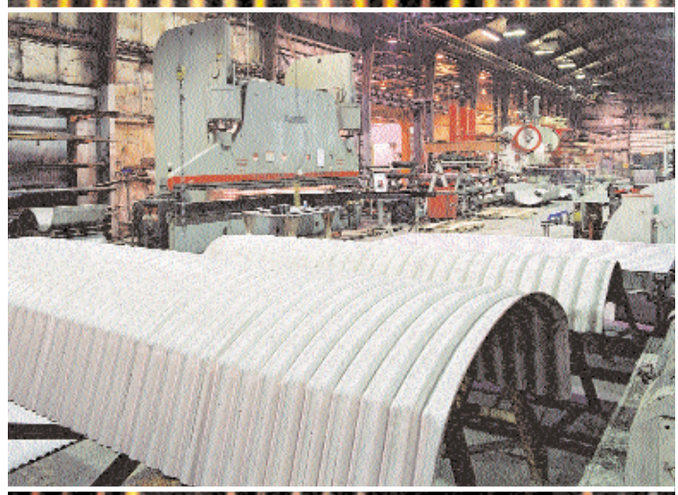
WELDING

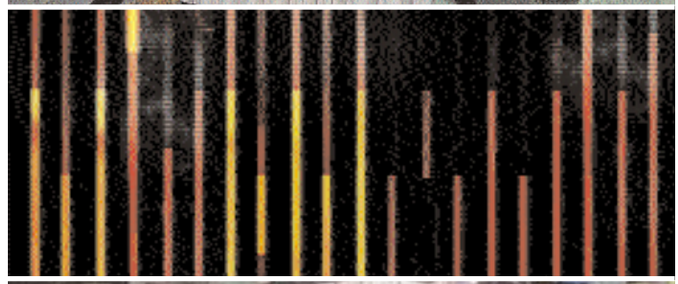
Alloy Engineering offers a full range of welding capabilities. We are an ASME Certified Code facility and all our welders are certified by the American Welding Society. We are experienced in welding stainless steels, nickel-based alloys, and other exotic metals.

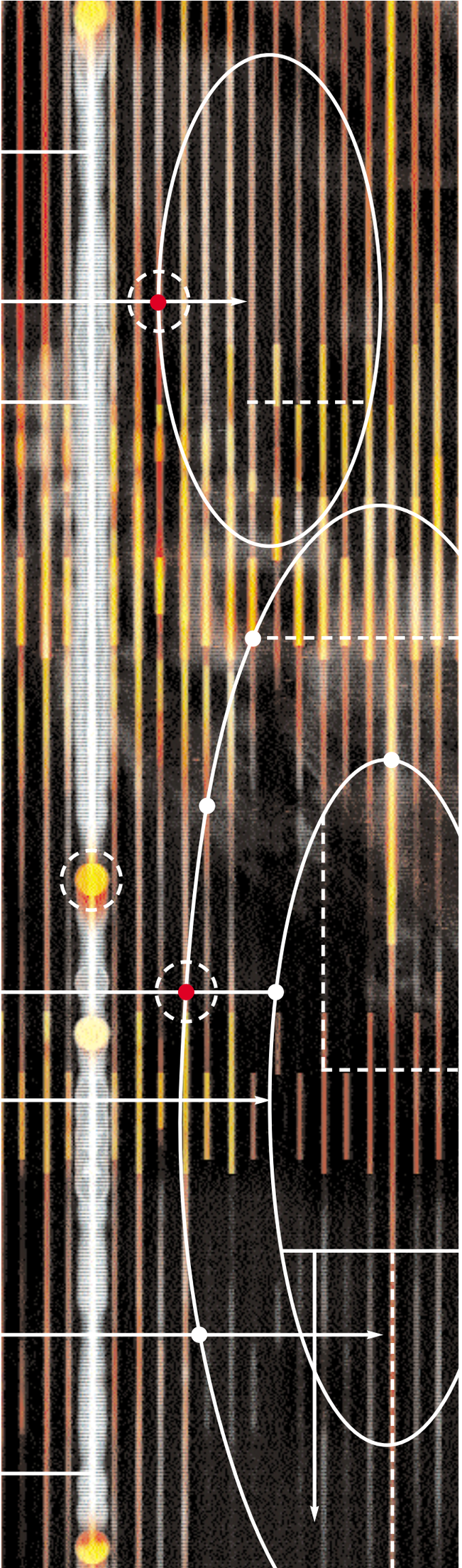
Our welders use the most sophisticated equipment including automated beam and boom welders that are each capable of MIG, TIG, and flux-core welding. We are also capable of performing precise plasma cutting on our computerized servograph system.









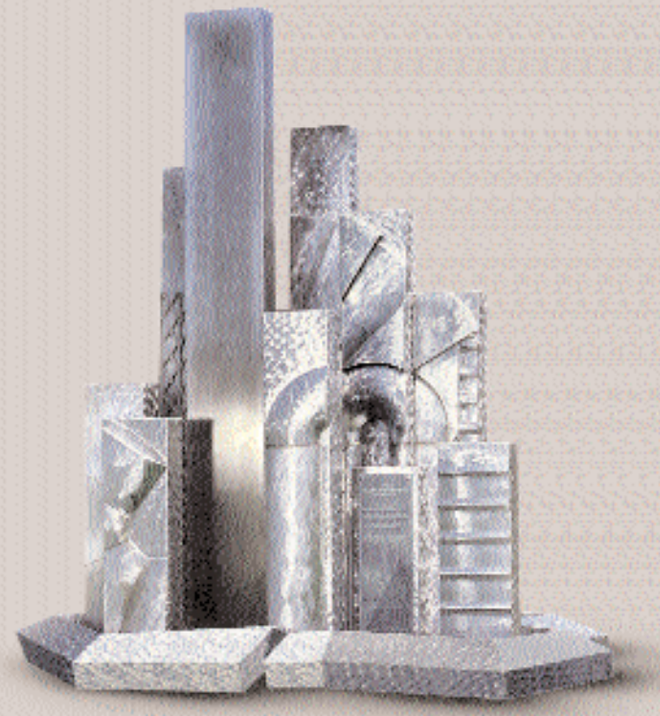


APPLICATIONS and INDUSTRIES

- Brazing
- Sintering
- Heat treating
- Powdered metal
- Bearings
- Automotive
- Aerospace
- Nitric acid
- Carbon black
- Carbon fiber
- Rod, wire, copper, brass and aluminum mills
- Petrochemicals

PRODUCTS

- Industrial and high-temperature fans
- Muffles
- Rotary batch retorts
- Rotary continuous retorts
- Pickling hooks
- Catalyst baskets
- ASME code vessels
- Forced air coolers
- Hydrogen annealing equipment
- Radiant tubes
- Atmosphere generators
- Ammonia dissociators



A VISION OF QUALITY, DEDICATION, IDEALS.

The stainless steel sculpture adorning the grounds of the company's headquarters facility is symbolic of the materials used, products manufactured, and the 'can-do' spirit that is the essence of Alloy Engineering.

Alloy Engineering

Designers and Manufacturers of Heat and Corrosion Resistant Metal Products

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