

MUNROE



**Leading the way in
BOF/EMF hood components.**

SETTING THE STANDARD FOR

MUNROE MAKES IT EASY.

Since the basic oxygen and electric arc furnace were invented, Munroe has been the leading North American provider of superior and proven, water-cooled hood components for BOF and EAF applications. Past history has provided us with an extremely well-rounded understanding of BOF and EAF requirements and the environment where our products must perform.

Our experience is based on a high level of technical expertise and an ongoing relationship with the operation and maintenance staff.

We know that the last thing you need is a forced or unplanned outage.

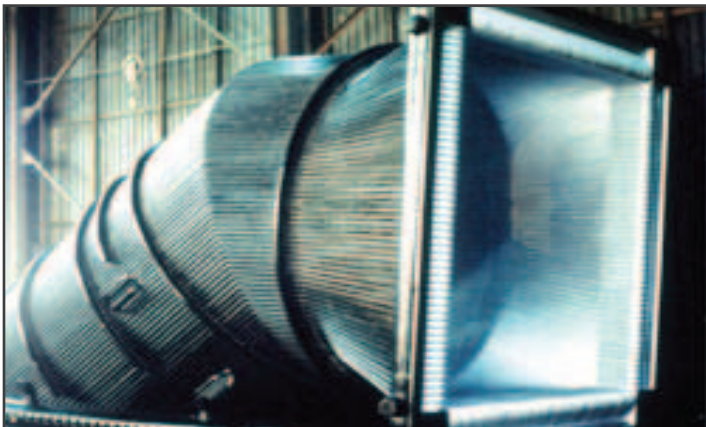
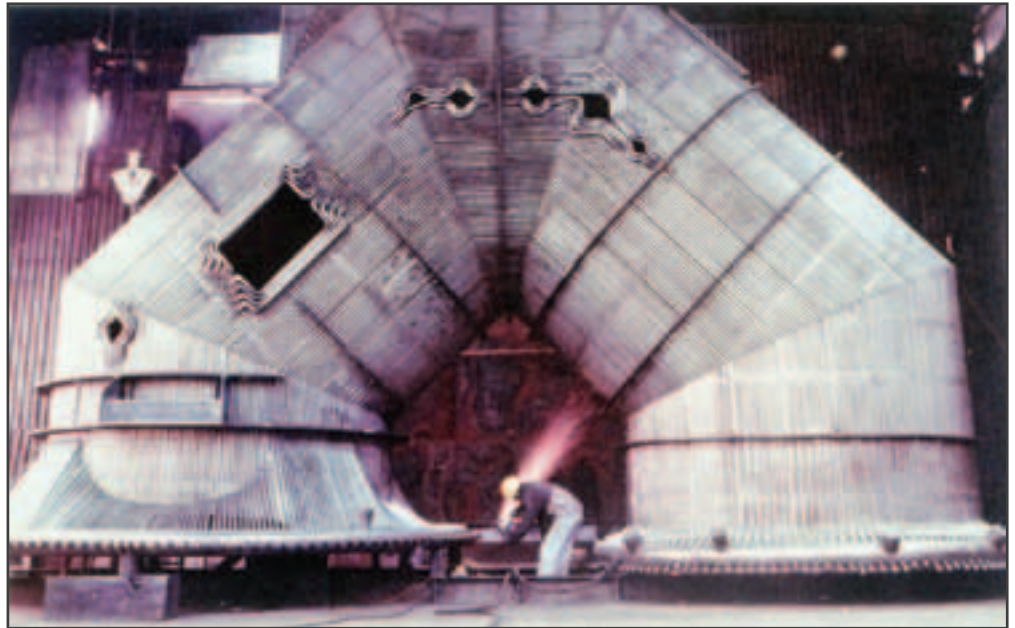
And we understand when you place an order with Munroe for new, replacement or retrofit components, you want peace of mind; you want to know that the solution will be precisely what you need, the job will be done exactly right, the product will be delivered when needed and will provide reliable performance.

Munroe's job is to increase your productivity and reduce unplanned outages.

World class products that fit and perform.

Munroe manufactures a broad range of products for BOF/EAF applications that provide excellent quality, fit and performance. All of our products are fabricated to ASME code specifications under strict quality control and monitoring throughout the process. Products include but are not limited to:

- Hood Sections
- Skirts
- Troughs
- Water Cooled Ducts
- Removable Doors
- Lance Inserts
- Header Pipe



Technology, control and craftsmanship.

Munroe fabricates superior quality products using the latest technology and equipment combined with strict quality control, well developed know-how and craftsmanship. Quality engineering and fabrication is our priority and each employee working on the project is certified to perform their specific task. Quality control is maintained through random testing and sampling throughout the fabrication/manufacturing process.

EXCELLENCE AND RELIABILITY.

- Munroe utilizes computerized submerged arc welding where possible to provide smooth weld beads with a proper profile.
- “Difficult” tight radius bends are performed “in house” with strict control, to reduce wall thinning and ovality.
- Weld metal overlay (Inconel and stainless) to extend product life is performed in-house, reducing delays and ensuring quality.
- Post weld heat treatment and/or stress relief is performed as dictated by ASME Code or customer requirements.
- Chemical cleaning is available to ensure proper ID cleanliness and latent debris removal.
- Hydrostatic testing can be performed on finished components to ensure reliable operation.
- Components may be “test” fit as required.
- A wide variety of paint coatings are available to meet customer specific requirements.



You can lean on us for help in evaluating your project and translating your technical needs to our manufacturing, guaranteeing a positive project outcome.



Engineering at your service.

Munroe is proud to offer customers the capabilities and skills of a full staff of veteran engineers supported with the latest technology. With over 75 years of experience, our staff brings a strong and wide base of technical knowledge and experience to each project. We excel at problem solving, customer interaction and assistance.

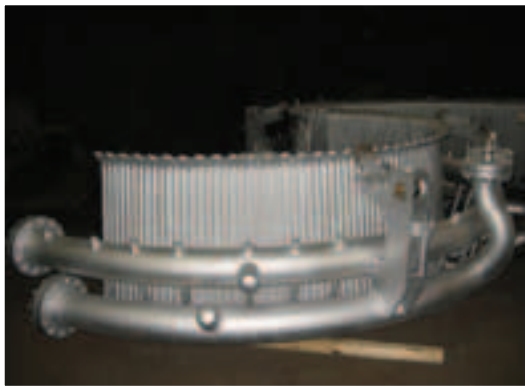
Our engineering staff is also adept at reverse engineering to ensure the project is effective, efficient and provides customers with unerring reliability.

A Powerhouse of Capabilities

Munroe, Inc. was acquired by Munroe Holdings (an affiliate of Woodings Industrial Corporation) in 2007 and joined other affiliated companies Advanced Refractory Technologies and Progressive Power Technologies to form a metals equipment powerhouse.

With over 300 years of collective hot metal equipment engineering and manufacturing experience, our team combines extensive hot metal industry understanding, engineering expertise, world-class fabrication, custom refractory application and complete construction services to answer the most demanding customer needs.

From a simple retro-fit to a turnkey fabrication/installation, Munroe can meet your requirements.



No job is too large for Munroe.

With three fully-equipped manufacturing facilities and over 300,000 square feet of fabrication space, Munroe can expedite production of any order to meet your need. We are capable of handling very large projects and fast-tracking smaller projects simultaneously with efficiency.

- 150-ton lifting capacity with 55 feet under hook allows easy movement of large, tall and heavy components.
- Industry standard tube is warehoused on site to speed production and reduce material delivery delays.

Our network of facilities allows us to strategically manufacture based on customer requirements.

• **Manufacturing**

- Ringgold, Georgia
- Youngstown, Ohio
- Ambridge, Pennsylvania
- Holders of the ASME "S", "U", "H" and National Board "R" symbols

• **Headquarters and Sales Office**

- Pittsburgh, Pennsylvania

A turn-key source.

Munroe provides "full" turnkey project management to our customers. We can engineer, fabricate and install any of our components. Every task is managed by Munroe employees to ensure control and reliability. This control leads to smoother startups and faster returns for reliable production.

Shipping is easy too.

Wherever you are, whatever your shipping requirements, Munroe can provide the right solution. We offer truck, rail or barge shipping depending on your needs.



www.munroeinc.com

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