



ETS Schaefer

INNOVATIVE

HEAT

CONTAINMENT

SOLUTIONS

Keeping the heat where it belongs – working for you!

Fabricated Products

ETS SCHAEFER

ETS Schaefer offers a wide variety of fabricated and commodity products. Our experienced team of sales and engineering professionals will discuss your application and recommend the most cost-effective solution for your heat containment requirements.

Fabricated Monolithic Lining Systems

When it comes to innovation, ETS Schaefer leads the industry with the most widely recognized and respected monolithic lining

systems available. Our Monster Module™ and Perm+A+Lining® panel systems, combined with ceramic fiber

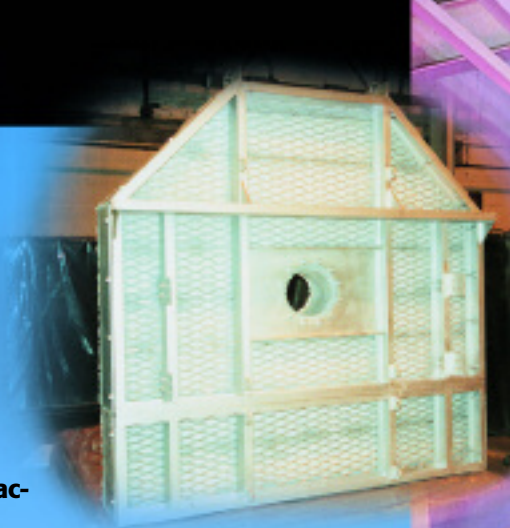


blanket that is manufactured to our exacting specifications, offer a seam-free refractory surface of exceptional quality. With our monolithic lining systems, you'll experience no hot spots, much less heat loss, minimal shrinkage and more uniform heat distribution. Our prefabricated monolithic linings allow a precision fit to your application, reducing installation time, increasing operating efficiency and improving long-term performance.

RENEW™ Program

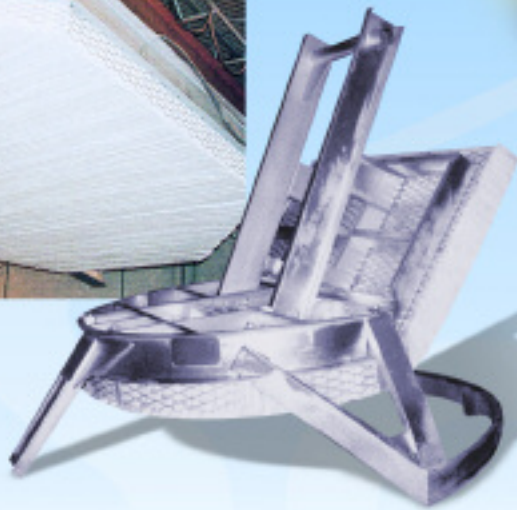
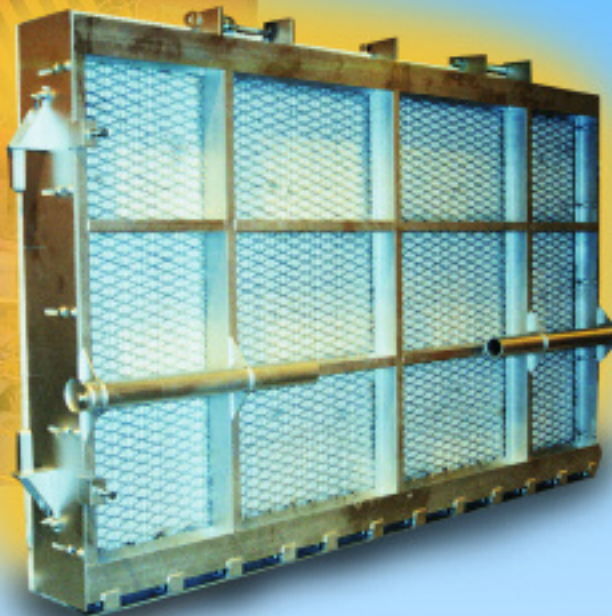
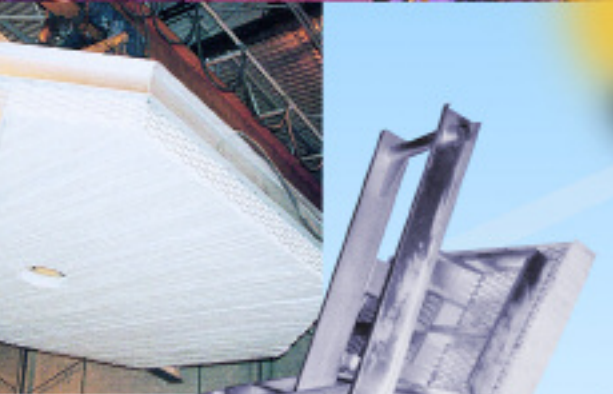
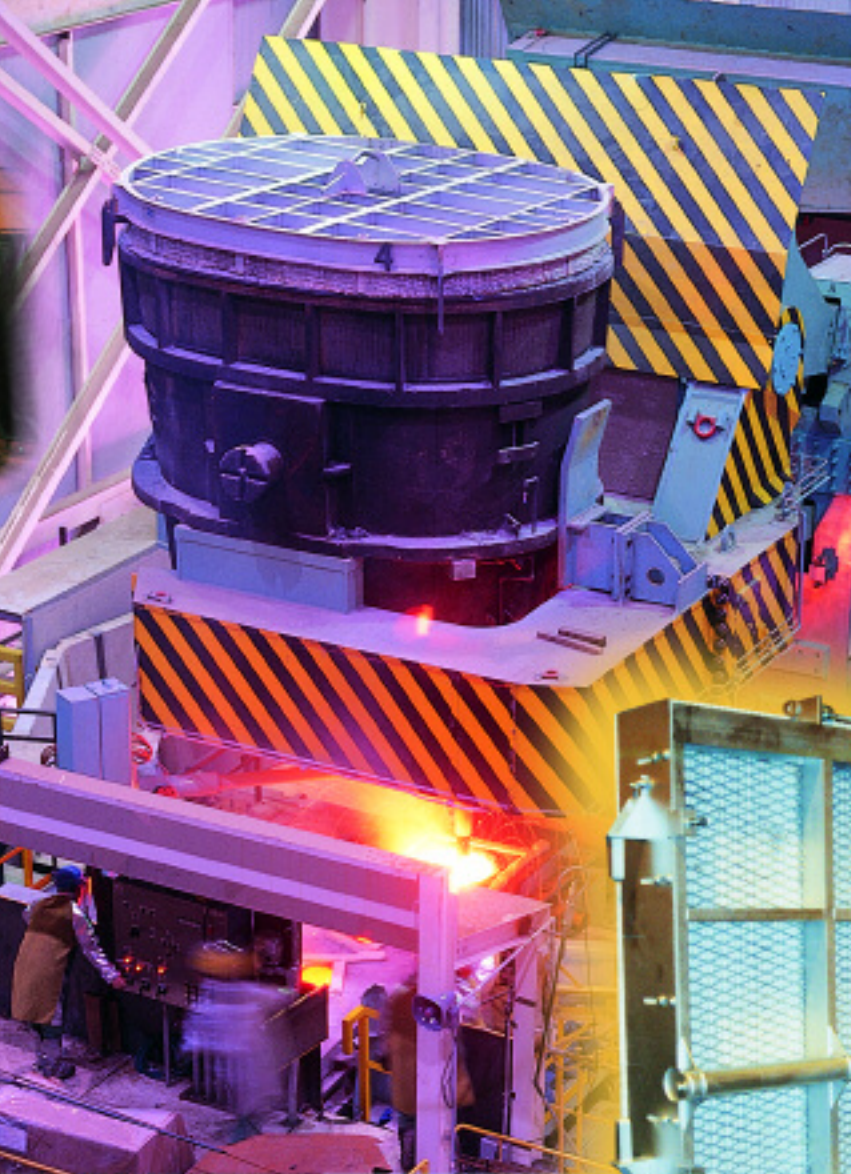
ETS Schaefer's innovative RENEW™ remanufacturing program allows customers to send their heat containment products to our facility for relining and structural maintenance whenever the need arises.

ETS Schaefer will restore your products and ship them back in "as good as new" condition. If your situation requires work to be done at your facility, our expert team of field service technicians will be there to complete the work expeditiously and accurately.



H E A T

C O N T A I N M E N T



Our RENEW™ program brings added service life and increased value to your existing heat containment products.

Customers depend on ETS Schaefer for all of their ceramic fiber requirements. Whether you need a new furnace door or a turnkey furnace structure, ETS Schaefer can meet your urgent demands for quality ceramic fiber products.

T S O L U T I O N S

Commodity Products

K-Lite Bulk Fiber™

Lightweight bulk fiber is manufactured from high purity alumina-silica materials and offers high temperature stability, low thermal conductivity and heat storage, excellent thermal shock resistance, sound absorption and superior corrosion resistance.

For use on:

- Expansion joints
- Furnace base seals
- Vacuum forming
- Tube seals
- Burner tile packing

K-Lite Blanket™

ETS Schaefer offers a ceramic fiber blanket with low shot content, excellent thermal conductivity ("K") values and superior resistance to most corrosives. Choose from:

- K-Lite RT – made from calcined Kaolin and recommended for service temperatures up to 2300°F.
- K-Lite HP – made from calcines of alumina and silica and recommended for service temperatures up to 2400°F.
- K-Lite HT – made from a combination of alumina, silica and zirconia and recommended for temperatures up to 2600°F.

K-Lite Anchor Block™ and Monster Block™

K-Lite Anchor Blocks™ and Monster Blocks™ are durable, high-density linings in an easy to install block form. One-shot welding places the block where you want it, without pre-welded studs.



The Monster Block™ is an ETS Schaefer exclusive and can reduce installation time by up to 35%. Available in lengths up to 4 feet, Monster Blocks™ install with one anchor per square foot and have up to 75% fewer seams than traditional block. K-Lite Anchor Blocks™ can also be configured to your specifications.

- K-Lite 21 Anchor Block – recommended for service temperatures up to 2100°F.
- K-Lite 23 Anchor Block – recommended for service temperatures up to 2300°F.
- K-Lite 26 Anchor Block – recommended for service temperatures up to 2600°F.

K-Lite Anchor Block™ products are excellent for use in ladle and tundish dryer covers, duct linings, furnace roofs and walls, heat shields, trough covers, thermal oxidizer linings and much more.

Innovative Heat Containment Solutions

Since 1934, ETS Schaefer has been a pioneer in the development of the most cutting edge technologies in the refractory industry. Today, ETS Schaefer has emerged as a global leader in the production and application of ceramic fiber insulation products. Known for our innovative and problem solving expertise, customers worldwide have come to depend on ETS Schaefer to help increase operating efficiency, productivity and reduce costly downtime. ETS Schaefer products can be found hard at work in a variety of industries, including:

- steel
- forging
- aluminum
- foundry
- nickel
- heat treating
- specialty alloy
- carbon
- ceramics
- glass

Manufacturing Solutions

Centrally located in Northeast Ohio, ETS Schaefer's new world headquarters provides exceptional access to the customer base in the steel belt. With over 70,000 square

feet of manufacturing and warehousing space, ETS Schaefer is ready to handle virtually any heat containment product, regardless of size or dimension. Utilizing the most advanced manufacturing and inventory systems available today, ETS Schaefer continues to lead the ceramic refractory industry with the most innovative manufacturing solutions.



Engineering Solutions

ETS Schaefer's team of engineers originated the application of folded ceramic fiber to an expanded metal or steel plate shell. ETS Schaefer also holds U.S. and international patents for the best anchoring systems in the industry. Armed with the industry's most advanced CAD design systems, ETS Schaefer engineers can be counted on to tailor a solution to meet your specific heat containment requirements.

Dependable Service Solutions

ETS Schaefer operates on a simple business principle: delivering total customer satisfaction. ETS Schaefer's dedication to customer service, coupled with the highest quality product craftsmanship, ensure long-term reliability and exceptional value for years of worry-free operation. From the sales specialists to our field service representatives, you can rely on the professionals at ETS Schaefer.

QUALITY THAT LASTS FOR THE LONG RUN

ETS Schaefer has the experience and know-how to handle your heat containment challenges.

When the heat is on, ETS Schaefer gets the job done fast! Discover how you can benefit from the efficiency, quality and availability that ETS Schaefer has to offer. Call today: 1-800-863-5400.

ETS SCHAEFER MISSION STATEMENT:

ETS Schaefer sets the industry standards of excellence for quality heat containment products, services and solutions.

ETS SCHAEFER PRODUCTS AND SERVICES:

Complete furnace shells and linings
Roofs and walls
Flues, dampers and ducts
Doors (with our exclusive PosiSeal™ closure system)
Covers, dryers and preheaters for ladles, crucibles, tundishes and AOD's.
Soaking pit covers
Protective thermal screens and covers
ETS Schaefer's exclusive RENEW™ Program to revitalize existing equipment



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ETS SCHAEFER CORPORATION

8050 Highland Pointe Parkway • Macedonia, Ohio 44056
Phone: (330) 468-6600 • Fax: (330) 468-6610
Toll-free: 1-800-863-5400
www.etsschaefer.com