

# REFRACTORY SOLUTIONS



# HWI

Every day around the world, HWI's people and products stand up to the challenges and pressures of every job. And for over 150 years, we've served virtually every industry that needs refractory products to do its job.

As HWI, a member of Caldersys, we deliver one of the industry's widest, deepest lines of refractory solutions. We have been forged by legacy. We are fueled by excellence. Our world-class refractory products perform to the highest degree. And by bringing long-lasting reliability, and our passion and excellence to work every day, we're able to provide superior value to our customers and their businesses.

# 150+

**YEARS OF  
REFRACTORY  
EXPERIENCE**

**HARBISONWALKER INTERNATIONAL**  
HWI, A member of Caldersys, is the largest supplier of refractory products and services in North America



# 1,300+

**EMPLOYEES WORLDWIDE**

HarbisonWalker International (HWI) and Caldersys joined forces as a privately owned company to create a single, market-leading, high temperature solutions provider. HWI is now a member of Caldersys and is the brand for the Americas region of the Group.

**AMERICAS HEADQUARTERS:**  
PITTSBURGH, PENNSYLVANIA, USA



The company's Advanced Technology and Research Center (ATRC) is located in West Mifflin, near Pittsburgh, Pennsylvania and is the largest refractories R&D space in North America at 71,000 sq.ft

# 25 • 20 • 40

HWI has 25 manufacturing sites, 20 distribution centers, and over 40 active patents in the Americas region

# 20

**STRATEGICALLY PLACED  
GLOBAL SOURCING CENTERS**

 **C/I NETWORK**

# 100+

HWI's Contractor/Installer Network is one of the largest and most established in the industry. It includes more than 100 companies in North America and around the globe.





- IRON & STEEL • ALUMINUM • COPPER & HEAVY NON FERROUS • FERROUS FOUNDRY • FOUNDRY
- GLASS • POWER GENERATION • REFINERIES & PETROCHEMICALS • CHEMICALS • GASIFIERS
- INCINERATION • CEMENT • PULP & PAPER • LIME • OTHER INDUSTRIES • BRICK OVENS & ARTISANS

### IRON & STEEL

HarbisonWalker International (HWI) is one of the largest suppliers of refractories to the US iron and steel industry. As the inventors of COMANCHE®, we revolutionized ladle refractory practices. Today the tradition of innovation continues with our energy-efficient ladle preheater systems incorporating smart burner technology and Emisshield® coatings.\*

### ALUMINUM

We have been serving the aluminum industry for over half a century, and today HWI is one of the top refractory suppliers to the world's largest aluminum producers. When you choose HarbisonWalker International, you're choosing quality without compromise.

### COPPER & HEAVY NON-FERROUS

HWI supports customers in the primary and secondary copper and heavy non-ferrous industries across the globe. We were the first to introduce chrome alumina refractories to the industry. We also pioneered technology to help optimize the life of our customers' units through specific application of products that provide extreme protection in select high-wear areas.

### FERROUS FOUNDRY

We have one of the largest field services teams of any refractory supplier, and our dedicated ferrous foundry application specialists know the challenges specific to your refractory processes. So many customers trust the reliability of HarbisonWalker International products because we invented many of the most common product formulations in the ferrous foundry industry.

### FOUNDRY

HWI is a one-stop shop for all aspects of metal processing for ferrous and non-ferrous foundries, from melting, treating and transferring to the casting process.

### GLASS

HWI provides the largest refractory manufacturing capacity to the glass industry in North America. Over 85 years of research and development in the glass market have enabled us to pioneer innovative glass solutions.

### POWER GENERATION

We offer one of the widest selections of products to address every installation need, including refractory brick, plastics, castables, gunnites, and shotcretes. We also offer unique solutions such as Emisshield®, a proprietary emissivity coating that has been successfully used in applications to decrease fuel usage, increase production rates, and extend refractory life.\*

### REFINERIES & PETROCHEMICALS

We are a member of the API Refractory Products Group and have supplied brick gasifier linings to this industry in North America, Europe, and East Asia for more than three decades. We conduct ongoing research on the best refractory solutions as processes and industry standards evolve.

### CHEMICALS

Our refractory products designed for the chemistry industry are put to the test around the world every day. To achieve success, we form tight partnerships with our customers, their original equipment manufacturers (OEMs), and refractory contractor/installers. This coordinated approach ensures that the most relevant and accurate refractory solutions are applied to your business.

### GASIFIERS

We have been a refractory technology leader in the gasification industry since 1974. We are a member of the API Refractory Products Group and support both slagging and non-slagging gasifiers around the world. Our gasifier solutions serve the chemical, incineration, power generation, and the refineries and petrochemical industries.

### INCINERATION

HWI maintains one of the most complete portfolios of refractory products for vessel applications in the incineration industry. Our line includes the KORUNDAL® and TUFLINE® series of high-alumina brick and the RUBY® and AUREX® series of alumina-chrome brick. We also supply the NOVAICON® family of products for areas requiring a no-cement monolithic solution. These established, high-end refractory brands are the gold standard for even the harshest incinerator system environments.

### CEMENT

We are a leading US supplier of refractory products to the cement industry. We have one of the widest networks of experienced field sales representatives and application specialists to service your cement kilns and total refractory needs. At our Advanced Technology and Research Center, we're studying how changes in process and material composition are adversely affecting refractory service life in pyroprocesses. We're delivering new ideas to optimize refractory products and installations to address today's changing line fuels.

### PULP & PAPER

At HWI, our goal is to keep you running. We are a leading refractory supplier to the pulp and paper industry in the United States, and we have 30 global sourcing centers in North America keeping contractors and installers supplied. Our UFALA® brick is recognized among manufacturers as one of the most reliable, quality refractory products available for limekiln operation. We keep large quantities of UFALA® brick in stock at all times.

### LIME

We are a leading refractory supplier to the lime industry in the United States. We are one of the most trusted, reliable partners in the industry, with people and refractory products that have proven their performance for decades. Our dedicated application specialists provide extensive knowledge and experience in lime production.

### OTHER INDUSTRIES

HWI refractory products are time tested against highly corrosive, heat-intensive applications. We can provide consultation on the right product choices, and we offer a breadth of services and support for a variety of technology solutions that work across industries. We have dedicated application specialists to help you choose the refractory products best suited to your environment.

### SPACE EXPLORATION

For more than 60 years, HWI has been a pioneer in delivering refractory launch pad solutions to the space flight industry, starting with America's first satellite Explorer 1 in 1958. Today, we continue to innovate with new refractory products and technology for aerospace launch pad and landing pad applications.

\*Emisshield® coatings are manufactured by Emisshield Inc. Emisshield® is a registered trademark of Emisshield Inc.







# SERVICE LIKE YOU'VE NEVER SEEN.

## VALUE-ADDED SERVICES (VAS)

Enjoy the utmost in service. HWI's dedicated VAS team provides on-site management, installation, equipment, inventory management, and supervisory services. Benefits include:

- Single-source responsibility that delivers cost savings
- Just-in-time delivery of refractory materials, ensuring the freshest product on the jobsite
- Quick response times, minimizing outages and downtime
- More in-depth knowledge of your business, yielding the best refractory solutions

## GLOBAL PROJECTS AND ENGINEERING

The Global Projects and Engineering Team specializes in greenfield construction, manufacturing and plant modernization, and also services the advanced engineering needs of existing facilities. These services include the following benefits:

- End-to-end delivery of refractories: drawings, products, and installation
- Expertise in all applications, including rapidly advancing technologies such as coal gasification units
- Strong conceptual drawing capabilities with meticulous attention to detail

Call **412-375-6920** to mobilize a HWI projects team today.

## ADVANCED TECHNOLOGY AND RESEARCH CENTERS (ATRC)

HWI's Advanced Technology and Research Center is used for learning, testing, exploration and innovation. Housing some of the brightest minds in the refractory industry, the ATRC is the largest refractories R&D space in North America at 71,000 sqft and home to over 30 engineers and scientists. Our team of development experts works directly with our customers to design, test, and trial new products and applications.

- Research and development of new applications and products
- Customer-focused product development
- Comprehensive technical analysis
- Quality-assurance testing
- Benchmark and failure analysis of refractory material
- Slag analysis
- Postmortem analysis
- Introductory refractory training to more highly customized education that is specific to your business (at your place or ours)

Meet our problem-solving, fly-into-action, whatever-it-takes people who are driven to minimize your downtime. We're beyond responsive.

At HWI, we're beyond reliable. And here's how: Dedicated personnel ready to respond 24/7/365. North American distribution centers which shipped over 130,000,000 pounds last year—most with same-day or next-day delivery. HWI associates and partners strategically located around the world—and ready to take your call.

Being a member of the Calderys Group, we have the capability to operate in proximity to our customers to meet the specific challenges of our local markets anywhere in the world.

## INSTALLATION, SERVICE, AND SUPPORT

- Support from HWI's network of premier independent contractor/installers
- Small emergency repairs to new plant construction
- Skills, resources, and experience to meet demanding specifications and time constraints

To learn more, contact us at:  
**CINetwork@thinkHWI.com**

## EDUCATION AND TRAINING

- Ongoing educational seminars at our Advanced Technology and Research center
- Customized, on-site training for customers upon request
- Webcasts and video training modules upon request



## CONTRACTOR/ INSTALLER NETWORK

### They Work with Intensity Too.

HWI is associated with a preferred network of independent contractor/installers who, like us, work intensely to provide high-quality refractory construction and maintenance services.

From small emergency repairs to new plant construction, these companies have the skills, resources, and experience to meet your most demanding specifications and time constraints.

We invite you to get to know HWI's preferred contractor/installers. Look into their wide range of refractory industry experience. See why they have satisfied customers from coast to coast and around the globe.

To contact them directly, refer to our contractor/installer listings. And if you'd like more information about the C/I network, email **CINetwork@thinkHWI.com**.



# WE'RE EVERYWHERE YOU NEED US TO BE.

## PLANTS

**ALABAMA**  
**AL1, AL**  
2595 Ensley-Pleasant  
Grove Road  
FAIRFIELD, AL 35064

**GEORGIA**  
**Thomasville, GA**  
109 Genesis Parkway  
THOMASVILLE, GA 31792

**INDIANA**  
**Gary, IN**  
76 North Bridge Street  
GARY, IN 46404

**IOWA**  
**Waterloo, IA**  
307 Vaughn Street  
WATERLOO, IA 50701

**KENTUCKY**  
**South Shore, KY**  
29378 US Highway 23  
SOUTH SHORE, KY 41175

**MICHIGAN**  
**White Cloud, MI**  
1301 East 8th Street  
WHITE CLOUD, MI 49349

**MISSISSIPPI**  
**Aberdeen, MS**  
10033 IMC Road  
ABERDEEN, MS 39730

**MISSOURI**  
**Fulton, MO Calcining**  
1301 Westminster Avenue  
FULTON, MO 65251

**FULTON, MO**  
111 West Saint  
Eunice Road  
FULTON, MO 65251

**MEXICO, MO MACHINE SHOP**  
Green Boulevard  
MEXICO, MO 65265

**MEXICO, MO PROD INSTALL**  
1805 West Boulevard  
MEXICO, MO 65265

**VANDALIA, MO**  
1000 Booker Street  
VANDALIA, MO 63382

**NEW YORK**  
**Niagara Falls, NY**  
4111 Witmer Road  
NIAGARA FALLS, NY 14304

**OHIO**  
**Cincinnati, OH**  
1099 Summer Street  
CINCINNATI, OH 45204

**LOWELLVILLE, OH**  
1089 North Hubbard Road  
LOWELLVILLE, OH 44436

**MINERVA, OH**  
1316 Alliance Road NW  
MINERVA, OH 44657-9767

**SOUTH POINT, OH**  
500 HWI Way  
SOUTH POINT, OH 45680

**WINDHAM, OH**  
9686 East Center Street  
WINDHAM, OH 44288

**OKLAHOMA**  
**Pryor, OK**  
6471 South Highway 69  
Corner Highway 69 & 69A  
PRYOR, OK 74361

**PENNSYLVANIA**  
**West Mifflin, PA ISO**  
1001 Pgh-McKeesport  
Boulevard  
WEST MIFFLIN, PA 15122

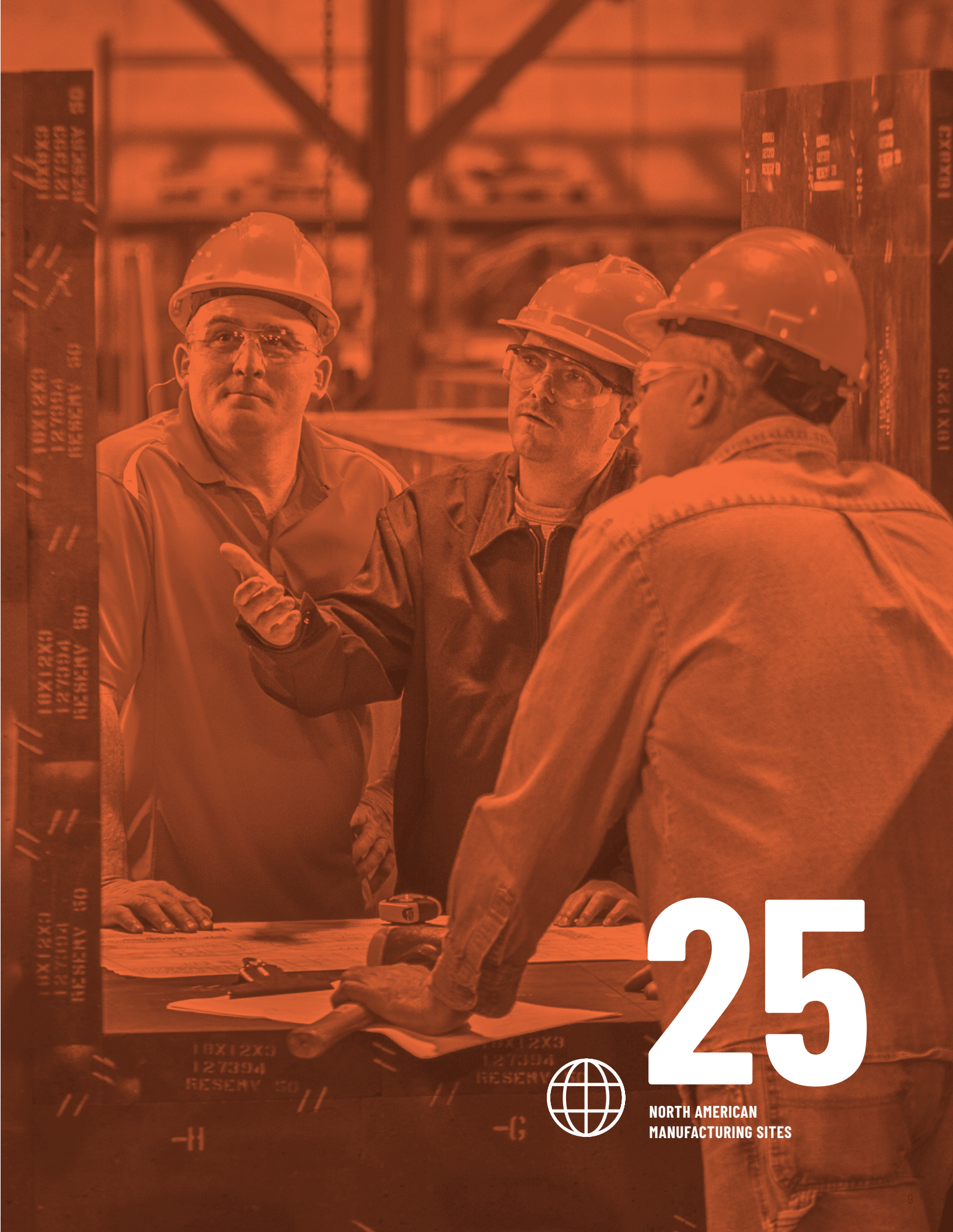
**AMERICAS  
HEADQUARTERS**  
2000 Park Lane Drive  
Suite 400  
PITTSBURGH, PA 15275

**BRAZIL**  
**HarbisonWalker  
International do Brasil**  
Rua Milton Jose Nunes  
Fernandes 1315  
12.522-450  
Guarantigueta, Brazil

**CANADA**  
**Acton, ONTARIO**  
159 Perth Street  
ACTON, ON L7J 1C9

**SMITHVILLE, ONTARIO**  
2689 Industrial Park Road  
PO Box 160  
SMITHVILLE, ON L0R 2A0  
Toxic Reduction Plan  
Public Summary

**MEXICO**  
**HarbisonWalker  
International, S. A. de C. V.**  
Carr. Monterrey-Colombia  
K.M. 23.2  
Salinas Victoria, Nuevo  
Leon, 65500



# 25



NORTH AMERICAN  
MANUFACTURING SITES





NO ONE DELIVERS  
LIKE WE DO.

DISTRIBUTION CENTERS

The products you need. When you need them. HWI delivers like a world-class pro. Here's how:

- 20 distribution centers providing one of the quickest response times in the industry
- Dedicated sales personnel ready to respond 24/7/365
- Ready-to-ship inventory of our best-selling glass products
- Usually shipping with same-day or next-day delivery
- Staging and shipping to anywhere in the world
- Inventory solutions tailored to your business

Call **1-800-887-5555** to immediately be connected to the distribution center nearest you.

LIGHTNING-FAST DELIVERY

Of course our 20 distribution centers across North America are strategically placed. Of course we ship around the world at a moment's notice. Of course we stock our most popular products so that you can have them the same day or the next day. Let us work with you to reduce your potential for downtime.

FIND A DISTRIBUTION CENTER NEAR YOU

<b>ALABAMA</b> <b>Birmingham, AL DC</b> 2595 Ensley-Pleasant Grove Road Fairfield, AL 35064 P: 205-788-1685 F: 205-788-1688	<b>KANSAS</b> <b>Lenexa, KS DC</b> 9734 Pflumm Road Lenexa, KS 66215 P: 913-888-0425 F: 913-888-0490	<b>ONTARIO</b> <b>Smithville, ON DC</b> 2689 Industrial Park Road PO Box 160 Smithville, ON L0R 2A0 P: 905-957-4564 F: 905-957-4610	<b>HOUSTON, TX DC</b> 4845 Homestead Road Suite 500 Houston, TX 77028 P: 713-635-3200 F: 713-635-1161
<b>CALIFORNIA</b> <b>Richmond, CA DC</b> 776 Market Avenue Richmond, CA 94801 P: 510-236-7415 F: 510-215-8524	<b>LOUISIANA</b> <b>Gonzales, LA DC</b> 9380 Ashland Road Suite 140 Gonzales, LA 70737 P: 225-644-2111 F: 225-647-2405	<b>OREGON</b> <b>Tualatin, OR DC</b> 21051 SW 115th Avenue Tualatin, OR 97062 P: 503-656-2854 F: 412-893-1113	<b>UTAH</b> <b>Salt Lake City, UT DC</b> 2594 South 3600 West Suite D West Valley City, UT 84119 P: 801-886-0545 F: 801-886-0548
<b>SANTA FE SPRINGS, CA DC</b> 11042 Forest Place Santa Fe Springs, CA 90670 P: 562-942-2151 F: 562-942-1494	<b>MICHIGAN</b> <b>Romulus, MI DC</b> 28777 Goddard Road Suite 201 Romulus, MI 48174 P: 734-955-6025 F: 734-955-6073	<b>PENNSYLVANIA</b> <b>Leetsdale, PA DC</b> C/O Buncher Industrial Dist Ave B, Building #14-A Leetsdale, PA 15056 P: 412-741-3200 F: 412-741-3205	<b>MEXICO</b> <b>Mexico DC</b> Ave. Toluca # 160 Col. Valle Ceylan Tlalnepantla, Edo. De Mexico C.P. 54150 P: (55) 5369-6430 / 5369-6629 F: (55) 5367-3479
<b>FLORIDA</b> <b>Lakeland, FL DC</b> 3615 Waterfield Road Lakeland, FL 33803 P: 863-669-1040 F: 863-669-1060	<b>NEW YORK</b> <b>Cheektowaga, NY DC</b> 575 Ludwig Avenue Cheektowaga, NY 14227 P: 716-692-1761 F: 716-692-1764	<b>TREVOSE, PA DC</b> <b>4667 Somerton Road</b> Suite A Trevose, PA 19053 P: 215-364-5555 F: 215-364-5562	<b>GUADALAJARA DC</b> <b>Heroes Ferrocarrileros # 1238</b> Col. Washington Ferrocarril (Paradero), Guadalajara Jalisco C.P. 44430 P: (33) 3619-1961
<b>GEORGIA</b> <b>Doraville, GA DC</b> 300 Piedmont Court Suite 300F Doraville, GA 30340 P: 770-448-6266 F: 770-448-6286	<b>NORTH CAROLINA</b> <b>Charlotte, NC DC</b> 6600 Northpark Blvd Suite E Charlotte, NC 28216 P: 704-599-6540 F: 704-599-6519	<b>TENNESSEE</b> <b>Knoxville, TN DC</b> 2847 John Deere Drive Suite 104 Knoxville, TN 37917 P: 865-546-4930 F: 865-546-9750	
<b>ILLINOIS</b> <b>Rock Island, IL DC</b> 2832 5th Street Rock Island, IL 61201 P: 309-283-0133 F: 309-794-1448	<b>OHIO</b> <b>Batavia, OH DC</b> 4065 Clough Woods Drive Unit A Batavia, OH 45103 P: 513-576-6240 F: 513-576-6245	<b>TEXAS</b> <b>Dallas, TX DC</b> 4585 Mint Way Dallas, TX 75236 P: 214-330-9243 F: 214-330-6085	





## FORGED IN LEGACY, FUELED BY EXCELLENCE.

HWI refractories stand the test of time.

We're the people who respond like no one else. The ideas that will change tomorrow. We're nearly 1,500 people, part of a Group of 5,000, with one goal: to keep your business moving forward.

We are your one-stop shop for refractory solutions. And we can take your inventory or new build to the next level. To learn more, talk with a HarbisonWalker International representative at **800-492-8349** or visit **[thinkhwi.com](http://thinkhwi.com)**.





**+1-800-492-8349**

**THINKHWI.COM**