



REFRACTORIES

— FOR —

FOUNDRY



Global **Refractory** Solutions



ABOUT ALLIED

Allied Mineral Products is a world leader in the design and manufacture of monolithic refractories and precast shapes. With strong sales and service teams in the foundry, aluminum, steel, heat treat/forge and industrial markets, our success is based on our dedication to *Being There Worldwide with Refractory Solutions*.

Producing quality, consistent products is top priority at Allied and we have the products to meet your refractory needs. Our extensive product line includes innovative refractory technology and longstanding refractory alternatives.

Allied's focus on quality at every stage in the production process is unparalleled. A stringent raw material standard and global quality control testing before and after each batch is produced, provides customers with consistent products. We provide quick response times to any urgent request through flexible manufacturing systems at all our manufacturing facilities.

Global **Refractory** Solutions



14 MANUFACTURING FACILITIES
OVER 160 INTERNATIONAL SALES REPRESENTATIVES
3 RESEARCH AND TECHNOLOGY FACILITIES
SALES ACTIVITY IN MORE THAN 130 COUNTRIES
7 PRECAST SHAPE FACILITIES



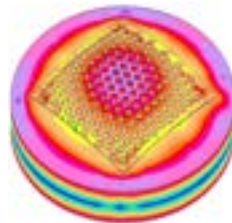
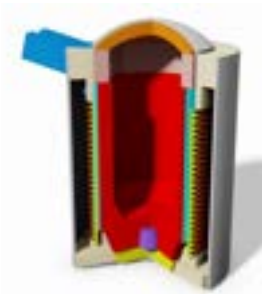
RESEARCH & ENGINEERING

After gaining a detailed understanding of your specific needs, our team evaluates operating criteria and physical design parameters to create a detailed engineered design encompassing:

- Patented technologies
- Optimized product zoning
- Thermal models to optimize and validate designs
- Proven safety lining system designs
- Unique installation properties and techniques
- Leading edge refractory system designs

We're focused on developing new products, improving existing products and perfecting installation techniques. Our product development and testing is conducted in our state of the art research and technology center. We have an on-site gunning and shotcreting lab allowing extensive testing of installation properties.

As an innovative, technology-driven supplier we're devoted to providing customized refractory solutions for various industry operations. We offer a wide variety of high performance refractory products with superior raw material quality.



FEA Thermal Analysis



Flow Testing



Contact Tests



Strength Tests





CORELESS | IRON ALLOYS

TOP CAP / SPOUTS

DRI-VIBE® 54A-FR
DRI-VIBE® 53A
MINRO-SIL® RAM 1001
MINRO-SIL® 2001
STEEL-PAK 86Cr
RAM MAX® 70 P FINE
RAM MAX® 75 P

COVER

MINRO-FIRE CAST F80
INSULMIX® 33100
LCF 52A

WORKING LINING

MINRO-SIL® RAM 1001
MINRO-SIL® 2001
DRI-VIBE® LGS HTC
DRI-VIBE® LGS
TEK-SIL
TEK-SIL LGS

STRUCTURAL COMPONENTS

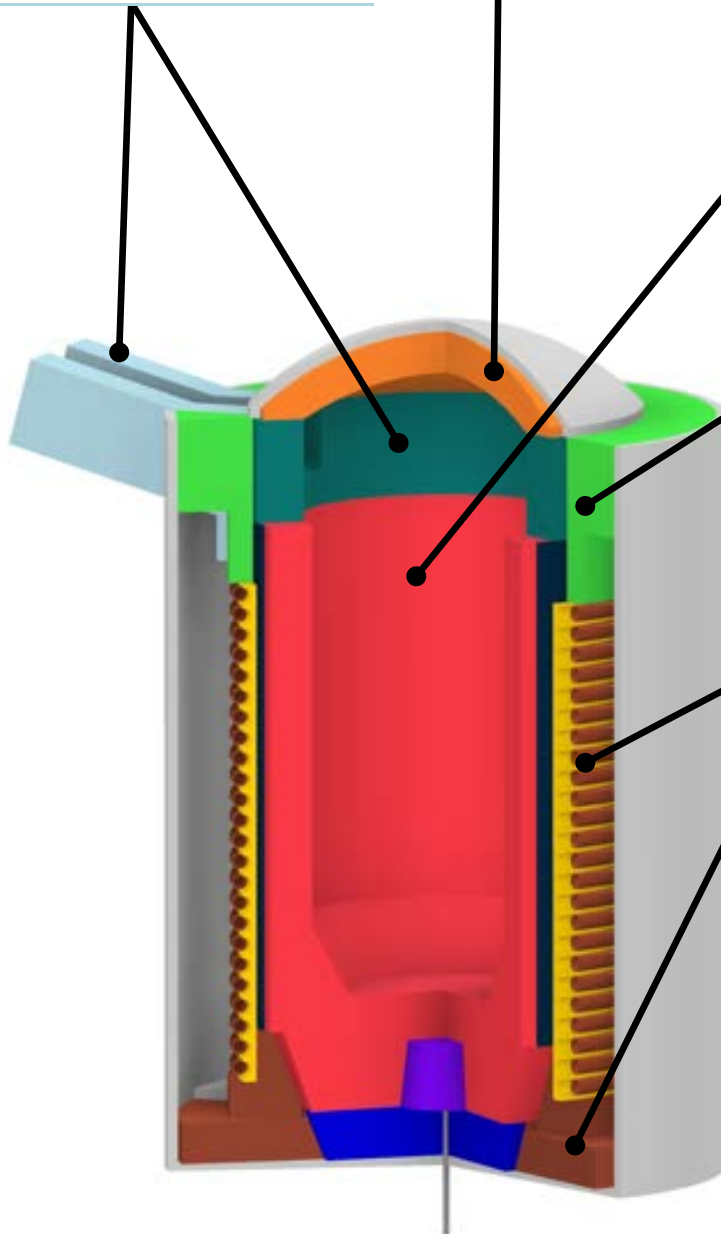
LCF 47A-FR
MINRO-AL® CAST A43
QUICK CAST® 62

GROUT

GROUT 163AF
GROUT 563A
GROUT 663A
COIL-CAST 97A
MINRO-AL® CAST A44

SPECIALTY LINING

DRI-VIBE® 462S
DRI-VIBE® 461S
DRI-VIBE® 458Cr
DRI-VIBE® 149Z
DRI-VIBE® 799A
DRI-VIBE® LGS 258S-CR





CORELESS | STEEL ALLOYS

TOP CAP / SPOUTS

DRI-VIBE® 480CR
CW HS 85 PLASTIC
DRI-VIBE® 88A
STEEL-PAK 86Cr / 90Cr
RAM MAX® 90 P FINE
DRI-VIBE® 493A

COVER

MINRO-FIRE CAST F80
INSULMIX® 33100
LCF 52A

WORKING LINING

DRI-VIBE® 388A
DRI-VIBE® 883A
DRI-VIBE® 682A
DRI-VIBE® 931A / 975A / 985A
DRI-VIBE® LGS

STRUCTURAL COMPONENTS

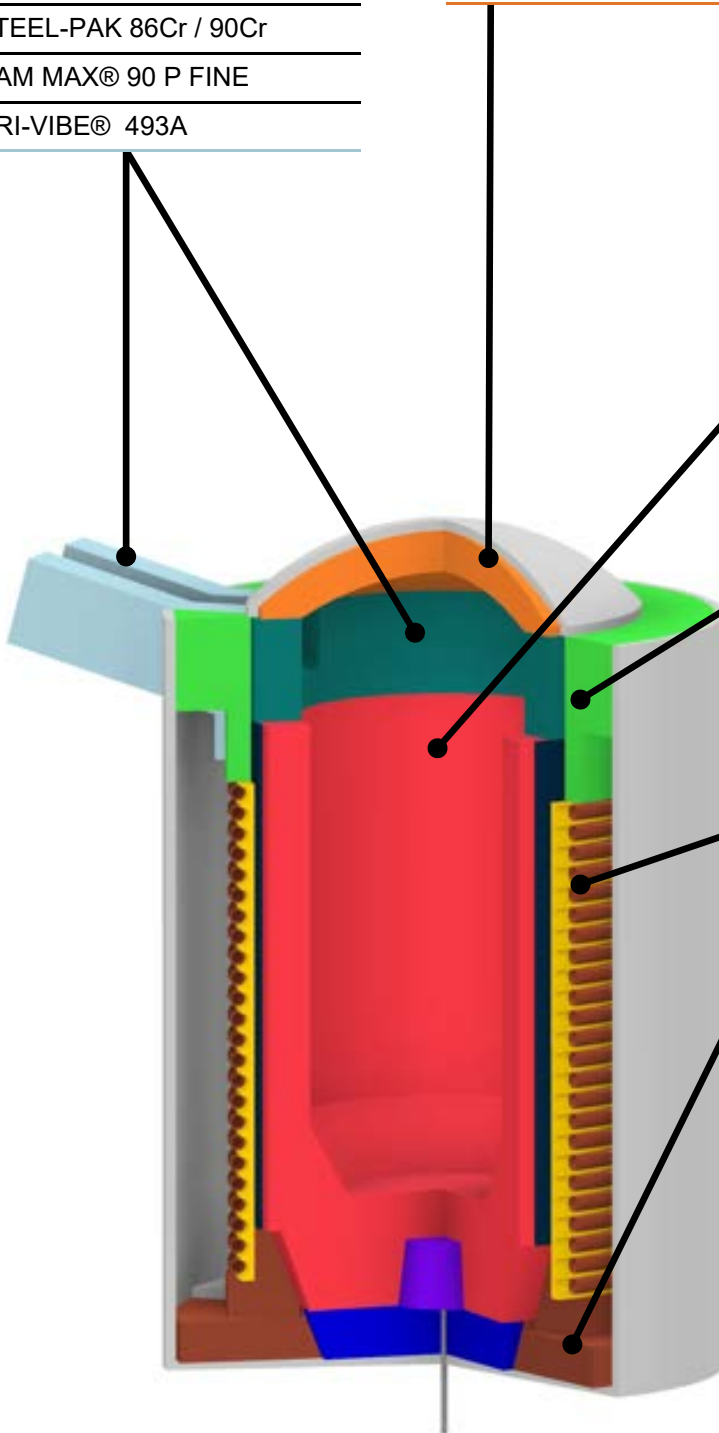
LCF 47A-FR
MINRO-AL® CAST A43
QUICK CAST® 62

GROUT

GROUT 163AF
GROUT 563A
GROUT 663A / 763AF
COIL-CAST 97A
MINRO-AL® CAST A44

SPECIALTY LINING

MINRO-MAG RAM M20
MINRO-Z RAM Z73-W
DRI-VIBE® 529M / 673M
MINRO-AL® RAM A55-W
MINRO-AL® RAM A60-W
AC RAM
DRI-VIBE® 967Cr





CORELESS | COPPER ALLOYS

SPOUTS

RAM MAX® 70 P FINE

RAM MAX® 75 P

RAM MAX® 85 P

RAM MAX® 90 P FINE

QUICK-FIRE® 88

MATRIFIRE® 8085ACX

PRECAST SHAPES

COVER

MINRO-FIRE CAST F80

INSULMIX® 33100

LCF 52A

WORKING LINING

DRI-VIBE® 31A

DRI-VIBE® 252A / 253A

DRI-VIBE® 351A / 357A

DRI-VIBE® 390A

DRI-VIBE® 462S

DRI-VIBE® LGS Cu

DRI-VIBE® 401Z

PRECAST SHAPES

STRUCTURAL COMPONENTS

LCF 47A-FR

MINRO-AL® CAST A43

QUICK CAST® 62

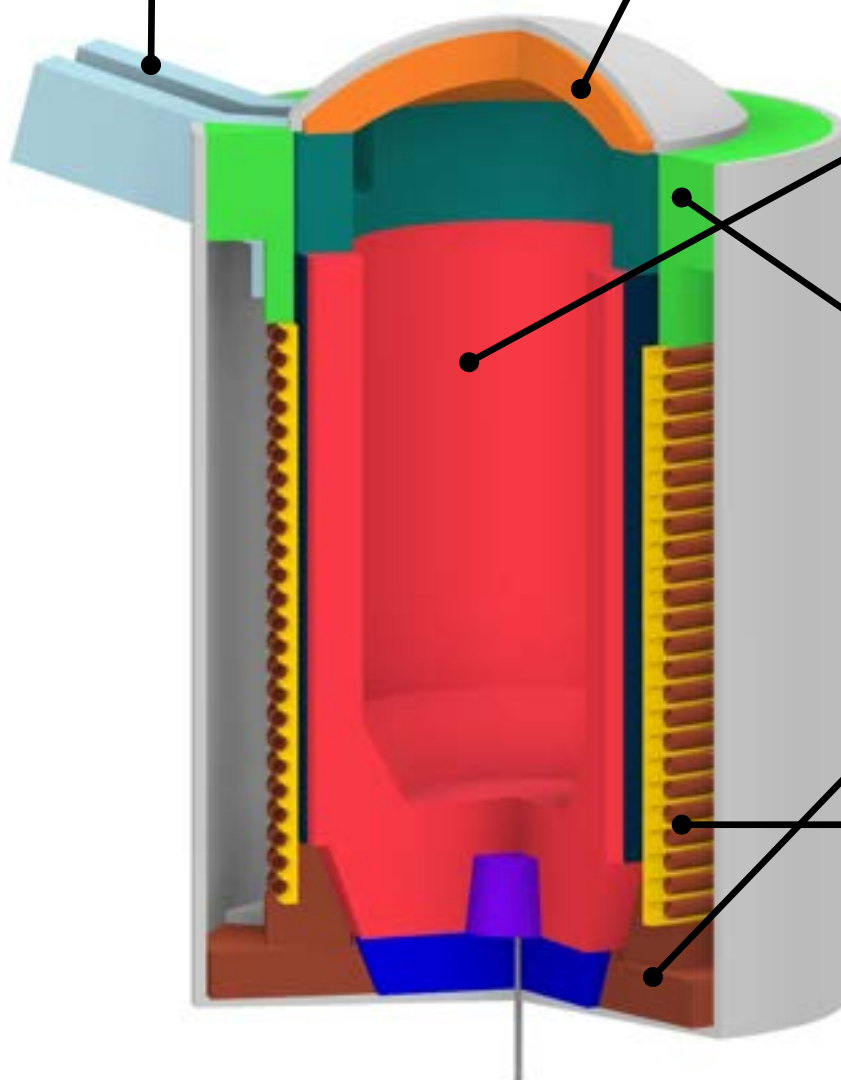
GROUT

GROUT 263AF / 563A

GROUT 663A / 763AF

MINRO-AL® CAST A44

COIL-CAST 97A





CORELESS | ALUMINUM ALLOYS

SPOUTS

RAM MAX® 70 P FINE

RAM MAX® 75 P

RAM MAX® 90 P FINE

QUICK-FIRE® 88

MATRIFIRE® 8085ACX

PRECAST SHAPES

COVER

MINRO-FIRE CAST F80

INSULMIX® 33100

LCF 52A

WORKING LINING

X-ACT® Technology*

DRI-VIBE® 520A

DRI-VIBE® 622A

PRECAST SHAPES

DRI-VIBE® 558A-FR*

DRI-VIBE® 522A-FR*

*Patented / Patent pending

STRUCTURAL COMPONENTS

LCF 47A-FR

MINRO-AL® CAST A43

QUICK CAST® 62

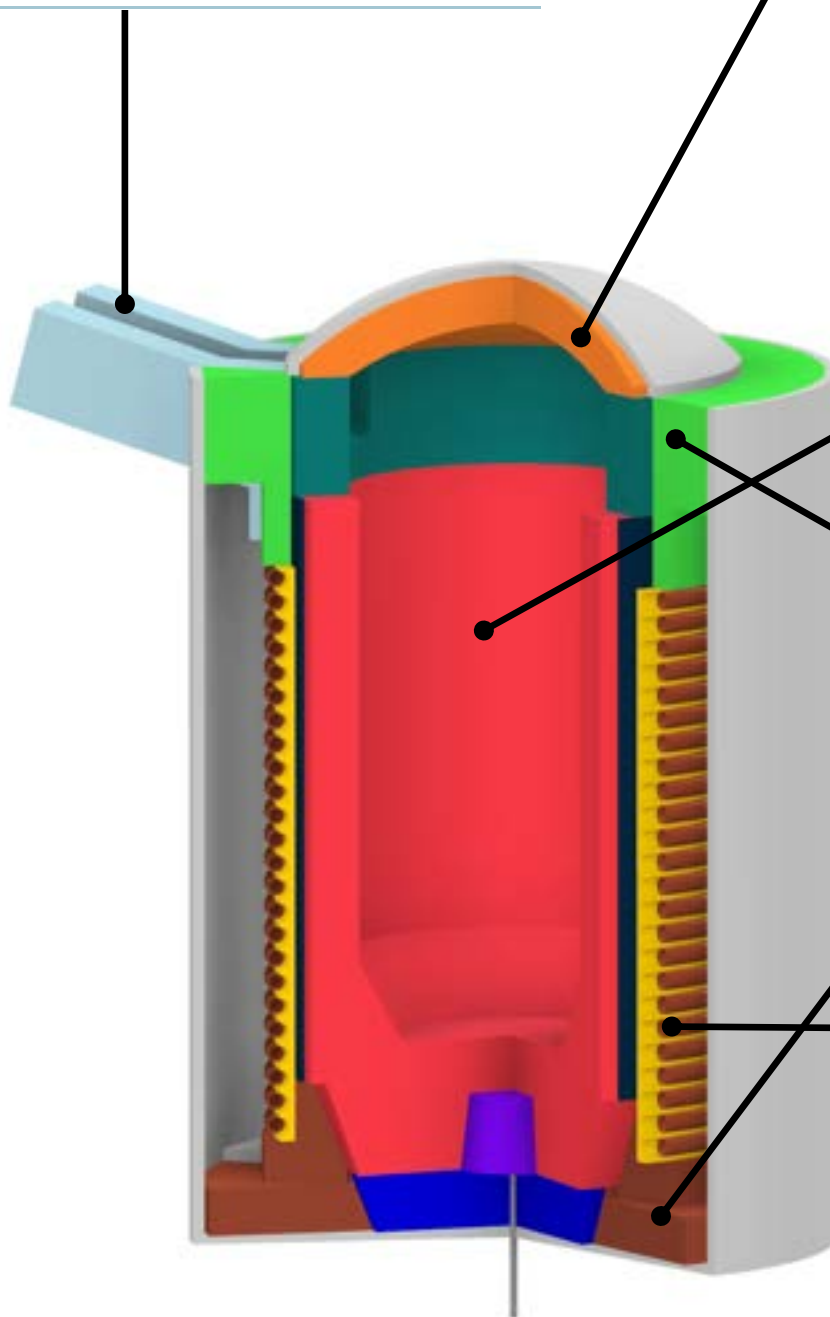
GROUT

GROUT 263AF / 563A

GROUT 663A / 763AF

MINRO-AL® CAST A44

COIL-CAST 97A





CHANNEL FURNACE | FERROUS

COVER

MINRO-FIRE CAST F80

LCF 52A

INSULMIX® 33100

RECEIVER / POUR SPOUTS

CW 965 CASTABLE

V-CAST® 426A

DRI-VIBE® 336Cr

V-CAST® 707A / 712A

STEEL-PAK 90Cr

WORKING LINING / UPPER CASE

MINRO-AL® RAM A29

V-CAST® 418A / 426A

DRI-VIBE® 336Cr

DRI-ROK® 2029 / 2036

V-CAST® 707A / 712A

V-CAST® 720A / 724A

MINRO-AL® RAM A26

V-CAST® 397Cr

INDUCTORS

DRI-VIBE® 331A

DRI-VIBE® 696M

DRI-VIBE® 305A, 306A

MINRO-MAG RAM M10

GUNNING / SHOTCRETE / REPAIRS / MAINTENANCE

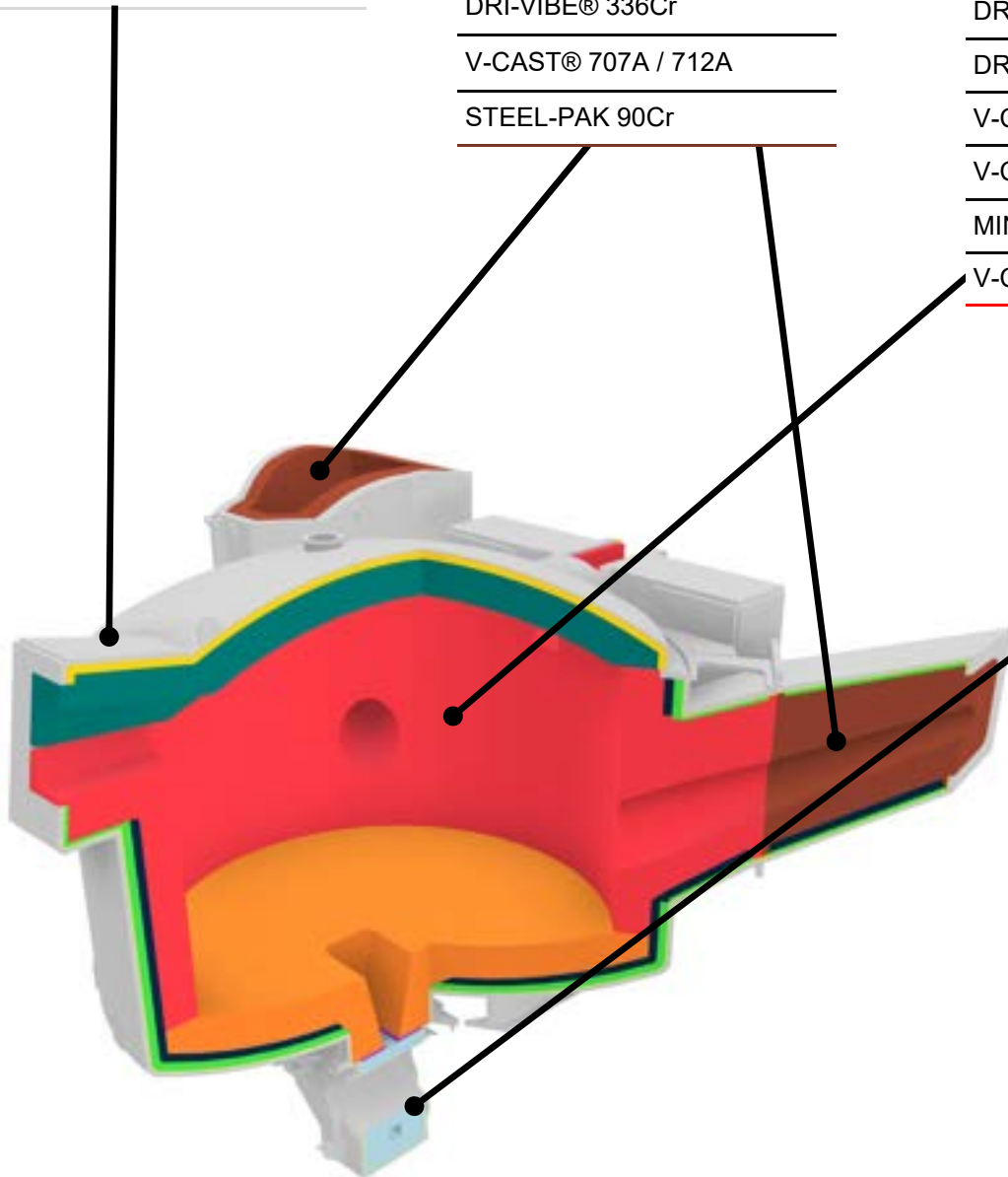
DURAGUN® 80

DURAGUN® 90Cr

DURAGUN® 90NF

STEEL-PAK 90Cr

TEK-GUN 31A





CHANNEL FURNACE | NON-FERROUS

COVER

MINRO-FIRE CAST F80

LCF 52A

INSULMIX® 33100

RECEIVER

CW 965 CASTABLE

METAL KAST 68

V-CAST® 426A

WORKING LINING / UPPER CASE

V-CAST® 426A

MINRO-AL® RAM A29

DRI-VIBE® 351A

V-CAST® 707A

TUFF-FLO 608

MINRO-SIL® 1001

LCF 579A

LCF 596Cr

INDUCTORS

DRI-VIBE® 351A / 355A

MINRO-AL® RAM A34W

DRI-VIBE® 432Cu

DRI-VIBE® 800Cu

TUFF-FLO 608

DRI-VIBE® 252A

V-CAST® 426A

MINRO-SIL® 2001

GUNNING / SHOTCRETE / REPAIRS / MAINTENANCE

DURAGUN® 90NF

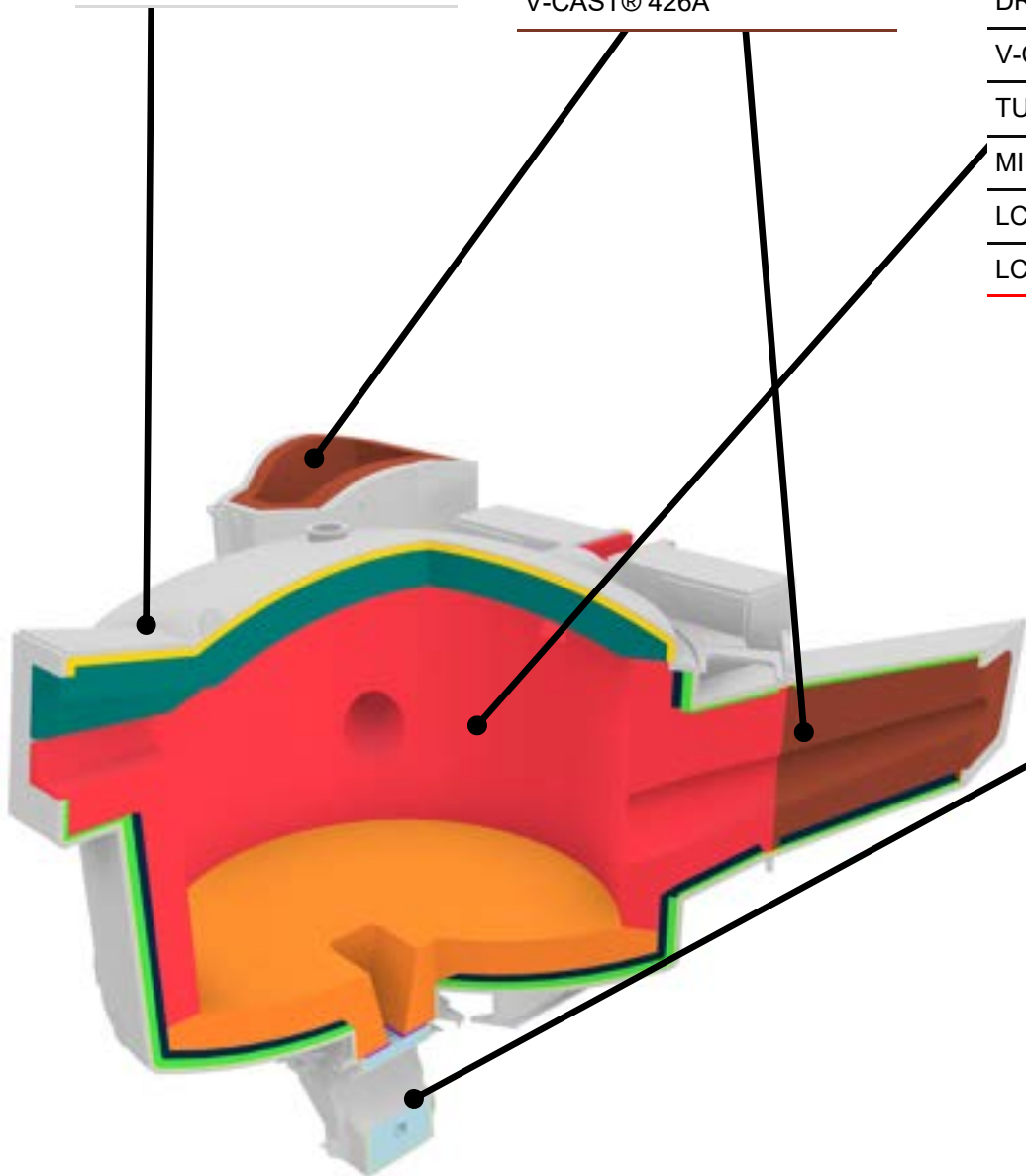
STEEL-PAK 90Cr

MATRIGUN 70AC-H

V-CAST® 397Cr

TEK-GUN 31A

V-CAST® 426A





PRESSURE POUR | FERROUS

COVER

MINRO-FIRE CAST F80

LCF 52A

INSULMIX® 33100

RECEIVER / POUR SPOUTS

CW 965 CASTABLE

V-CAST® 426A

DRI-VIBE® 336Cr

V-CAST® 707A / 712A

WORKING LINING / UPPER CASE

MINRO-AL® RAM A29

CW 921 CASTABLE

V-CAST® 418A / 426A

DRI-VIBE® 336Cr

DRI-ROK® 2029 / 2036

V-CAST® 707A / 712A

V-CAST® 720A / 724A

MINRO-AL® RAM A26

V-CAST® 397Cr

V-CAST® 701A

INDUCTORS

DRI-VIBE® 696M

DRI-VIBE® 305A, 306A

MINRO-MAG RAM M10

GUNNING / SHOTCRETE / REPAIRS / MAINTENANCE

DURAGUN® 90NF

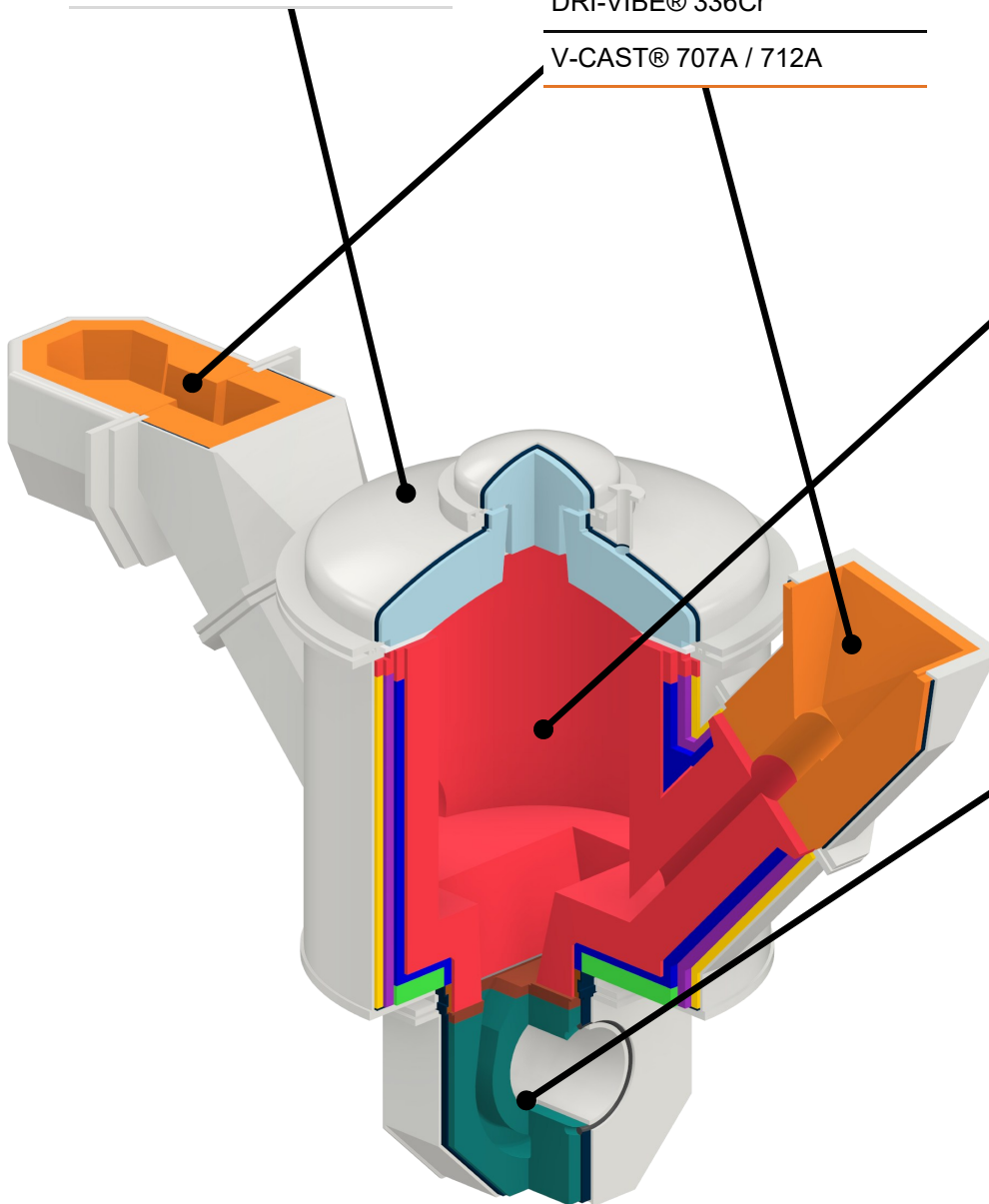
STEEL-PAK 90Cr

MATRIGUN 70 AC HOT

V-CAST® 397Cr

TEK-GUN 31A

V-CAST® 426A





PRESSURE POUR | NON-FERROUS

COVER

MINRO-FIRE CAST F80

LCF 52A

INSULMIX® 33100

RECEIVER / POUR SPOUTS

CW 965 CASTABLE

TUFF-FLO 608

V-CAST® 426A

WORKING LINING / UPPER CASE

V-CAST® 426A

DRI-VIBE® 351A

V-CAST® 707A

METAL KAST 68

MINRO-SIL® 1001

LCF 579A

LCF 596Cr

INDUCTORS

DRI-VIBE® 351A / 355A

MINRO-AL® RAM A34W

DRI-VIBE® 432Cu

DRI-VIBE® 800Cu

METAL KAST 68

DRI-VIBE® 252A

V-CAST® 426A

GUNNING / SHOTCRETE / REPAIRS / MAINTENANCE

DURAGUN® 90NF

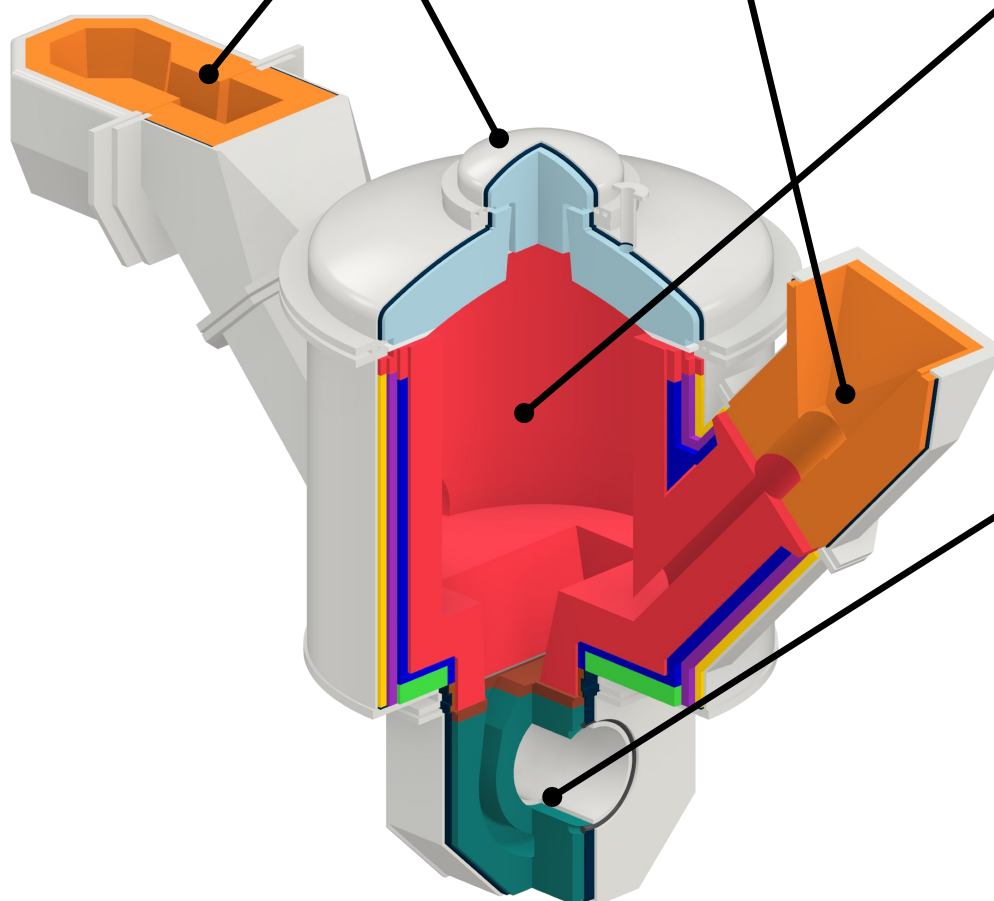
STEEL-PAK 90Cr

MATRIGUN 70ACG

V-CAST® 397Cr

TEK-GUN 31A

V-CAST® 426A

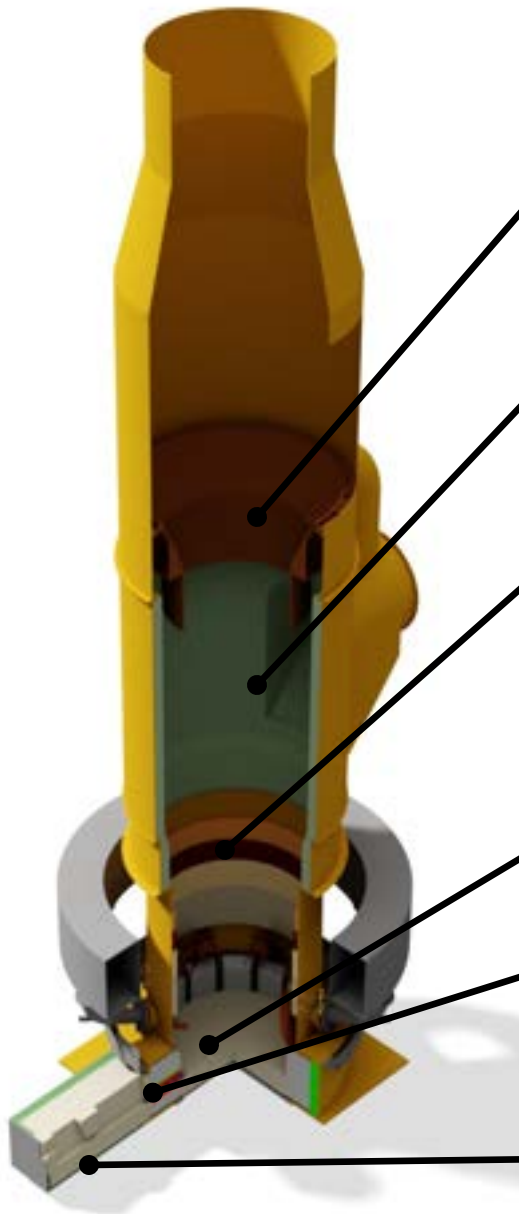




CUPOLAS

Allied provides the refractory and Allied Mineral Technical Services, Inc. provides the technical expertise. Allied Mineral Technical Services provides value added technical support for refractory systems and specializes in the following.

- Melt zone monitoring and modeling
- Data collection and analysis
- Engineering and design services
- Analysis of melt practices
- Emergency responsiveness
- On-site supervision and assistance



CHARGE RING
METAL-ROK® SHAPES
ARMORMAX 70SR
UPPERSTACK
TUFF-GUN™
DURAGUN®
REZIST ABRADE
STACKCRETE®
GUNCAST®
STACKGUN
MELTZONE
CW 500 SERIES GUN MIXES
STACKGUN
DURAMELTZ®
STACKCRETE®
WELL
300 SERIES PLASTICS
500 SERIES GUN MIXES
V-CAST® CASTABLES
KARBSHIELD
TAPHOLE
CW 300 WET RAM SERIES PLASTICS
V-CAST® CASTABLES
DURAMELTZ®
PRECAST SHAPES
SEPARATOR
CW 400 SERIES RAMS
ALPHA RAM
V-CAST® CASTABLES
OMEGA RAM



LADLES | FERROUS & NON-FERROUS

IRON ALLOYS

WORKING LINING

LADLE KAST	METAL KAST 60
DURACON® 32	CW 965 CASTABLE
METAL KAST 68	METAL KAST 85
CW 712 CASTABLE	VIB RAM 70
MINRO-AL® PLASTIC A76	DRI-VIBE® 916A

LADLE COATINGS / MAINTENANCE

CW 85 KOTE	STEEL-PAK 90Cr
LADLE WELL	T-COAT® 692M

STEEL ALLOYS

WORKING LINING

CW 965 CASTABLE	METAL KAST 85
METAL KAST 90	DRI-VIBE® 88A
DRI-VIBE® 916A	

LADLE COATINGS / MAINTENANCE

CW 85 KOTE	STEEL-PAK 90Cr
LADLE WELL	T-COAT® 692M / 689M

NON-FERROUS ALLOYS

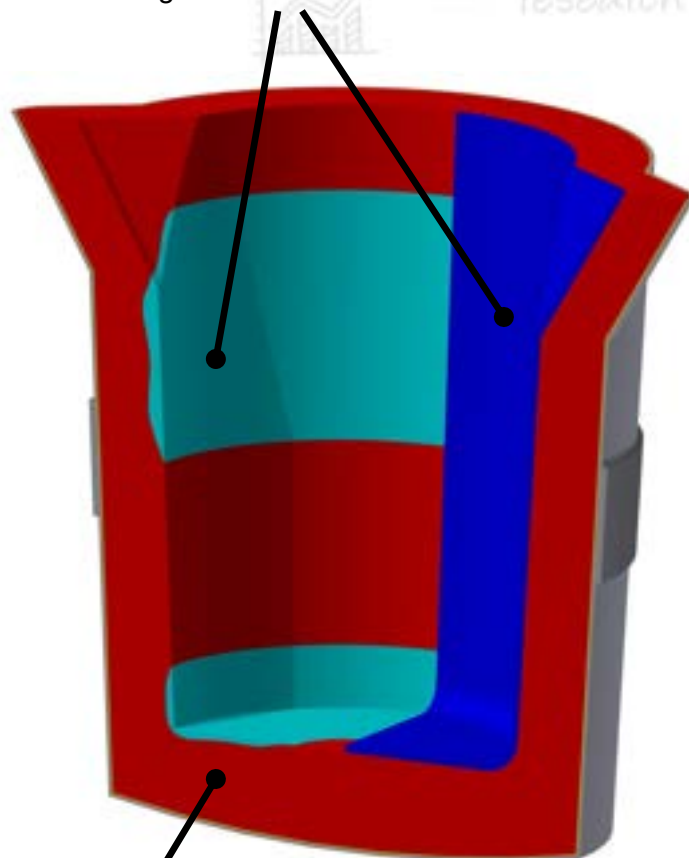
WORKING LINING

LADLE KAST	CW 712 CASTABLE
MATRIFIRE® 8085ACX	QUICK-FIRE® 8085
MATRISIL CV	RAM MAX® 70 P FINE
VIB RAM 70	DRI-VIBE® 916A

LADLE COATINGS / MAINTENANCE

CW 85 KOTE	STEEL-PAK 90Cr
LADLE WELL	T-COAT® 692M
PLASTER 55AC	DRI-LITE® 79AL-M
MATRIFIRE® 8085ACX	QUICK-FIRE® 88

Coatings and Maintenance



Working Lining





PRECAST SHAPES

Allied's precast center is a leading supplier in the manufacture of precast, prefired refractory shapes in a variety of industries. Allied has locations worldwide which provide access to over 1000 product formulations for custom designed refractory solutions.

PRECAST BENEFITS:

- Consistent quality
- Extensive product offerings including the ultimate ceramic-metal composite for shapes, METAL-ROK®
- Shapes manufactured from Allied's flagship product lines
- Solution-driven: Collaboration between Sales, Research and Technology, Manufacturing and Engineering
- Shape capabilities from 2 lbs to 10 tons (1 kg to 9 MT)

ALLIED'S PRECAST SHAPES LOCATIONS:

- Columbus, Ohio, USA
- Pell City, Alabama, USA
- Tianjin, China
- Tholen, The Netherlands
- Germiston, South Africa

PRECAST APPLICATIONS:

- | | |
|------------------------------------|--------------------------------------|
| • Coreless Induction Furnaces | • Vacuum Induction Tundishes |
| • Channel Induction Furnaces | • Transfer Ladles |
| • Cupolas | • Ductile Treatment Ladles |
| • Gas-fired Furnaces | • Pouring Tundishes / Boxes |
| • Resistance Rod Furnaces | • Launderers |
| • Heat Treating & Forging Furnaces | • Centrifugal Casting Feed Equipment |
| • Reverberatory Furnaces | • Impact Shapes |





RELATED PRODUCTS

- Bricks and Mortar
- Microporous Insulation
- Mica and Cloth Slip Plane Material
- Flues
- Fiber Insulation Products
- Installation Equipment (Mud Hog mixers, EVS, Allied IDEAL Rammers, Bosch Tampers and Stopper Rods)
- Ladle Bowls
- Digital Thermometers and Thermocouple Wire
- Cast Loop Forms for Inductors



MINRO STIR PRO NOZZLES & FLOW KITS

MINRO STIR PRO NOZZLES bring the advantages of inert gas stirring of molten metals to the coreless induction furnace and foundries. These nozzles are available in various sizes to fit a range of coreless furnaces. MINRO STIR PRO FLOW KITS are also available to ensure accurate and consistent delivery of the inert gas to the furnace.





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Global **Refractory** Solutions



Scan to view our locations

alliedmineral.com

