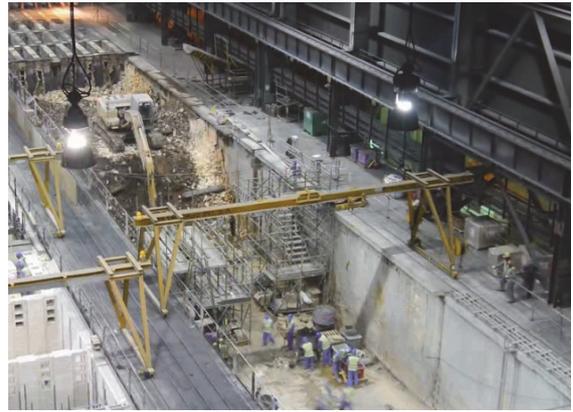

ANODE BAKING TECHNOLOGY



**OPEN TOP BAKING FURNACES FOR
HIGH QUALITY ANODES**



RIEDHAMMER
CARBON BAKING TECHNOLOGY

COMPANY PROFILE

In 1924 Ludwig Riedhammer decided to start his own company for the development and construction of industrial furnaces for manufactured carbon. The furnaces were soon accepted throughout the world, and were the basis for the success of the company.



First Riedhammer Baking Furnace

Nowadays Riedhammer GmbH, located in Nuremberg Germany, is the leading manufacturer of industrial kiln plants worldwide and offers innovative technologies for Advanced Materials, besides its traditional business areas like ceramics and sanitary ware.

For the Carbon Industry, Riedhammer is presently the only independent supplier worldwide being able to deliver complete solutions and its proven furnace technologies for baking anodes, cathodes and electrodes, supplemented with solutions specifically tailored for the production of special carbon

products. 90 years of experience and know-how guarantee a high economic efficiency and reliability of the plants.

Riedhammer provides various solutions from revamping up to new turn-key plants based on the most advanced technology and proven reliability. Tradition and experience are conjoining here as best with state of the art development, engineering, construction and commissioning to a new generation of furnaces including all required auxiliary equipment.



Riedhammer main office in Nuremberg

A worldwide net of representatives guarantees a most effective customer service and professional support whenever and wherever required.

Engineers and technicians of the Riedhammer team are trained to optimize projects progresses in the sense of the client. That results in minimized project run-times, minimized costs and maximized return on investment.

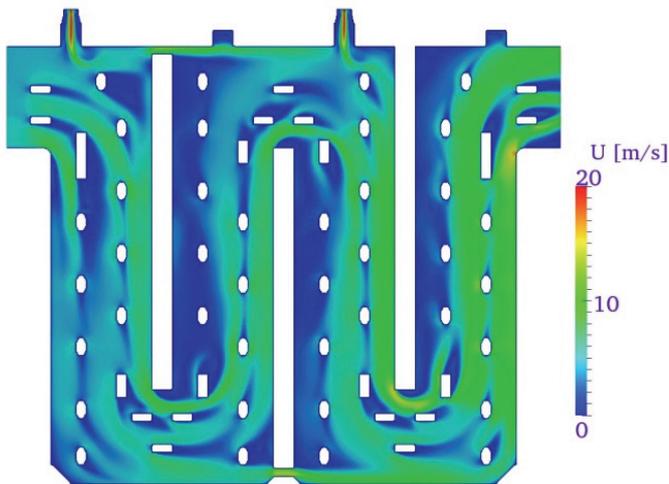


Open Top Anode Baking Furnace

ENGINEERING & SERVICES

Our team of specialists provides you with the most suitable technical and economical solutions for specific requirement such as:

- Customized solutions for the industry worldwide
- Conceptual analysis and feasibility studies
- Retrofit and modernization of existing plants
- Design and engineering of baking furnaces and baking facilities
- Supply of complete baking facilities including equipment
- CFD Modelling



CFD Modelling

PROJECT EXECUTION

From the supply of engineering packages up to the execution of "turnkey" projects world-wide:

- Design & Engineering
- Procurement & supply
- Quality control (QA/QC)
- Project administration
- HSE management
- Construction services and job site management
- Start-up & commissioning

TECHNICAL SERVICE & SUPPORT

Our after sales service network provides support for existing equipment and process, and keeps customers informed about recent developments and improvements.

- After sales and customer support
- Optimization of baking process
- Plant audits
- Furnace inspections
- Maintenance strategies
- Operation & maintenance training

ADVANTAGES

Our advanced furnace design offers the following advantages:

- Proven refractory design
- Extended brickwork lifetime
- Low fuel consumption
- Flexible design
- RH life-time maintenance concept
- Low operation costs

FURNACE CHARACTERISTICS

Riedhammer Open Top anode baking furnaces are designed for high performance and benchmark productivity figures.

Characteristics - Open Top Anode Baking Furnace

Riedhammer GmbH, Germany

<i>Number of fire groups</i>	2 - 4	<i>nos</i>
<i>Sections per fire</i>	16 - 18	<i>nos</i>
<i>Pits per section</i>	6 - 10	<i>nos</i>
<i>Productivity</i>	> 1.100	<i>kg/h/pit</i>
<i>Productivity per fire group</i>	> 85.000	<i>tba</i>
<i>Fuel consumption</i>	1,8 - 2,3	<i>GJ/tba</i>
<i>Packing material consumption</i>	8 - 10	<i>kg/tba</i>
<i>Refractory material consumption</i>	5 - 6	<i>kg/tba</i>
<i>Fluewall lifetime</i>	> 180	<i>cycles</i>

REFERENCES

During the last 10 years the Open Top furnace technology has been re-implemented within Riedhammer and has become one of the most successful products on the market. Our reference list shows well-known Aluminium producers from all over the world.

References Open Top Anode Baking Furnace Technology

Riedhammer GmbH, Germany

Project	Location	Year	Type	Sections
<i>Aluminij MOSTAR</i>	<i>Mostar, BIH</i>	<i>2005</i>	<i>Revamping</i>	<i>36</i>
<i>ALMAHDI Hormozal</i>	<i>Bandar Abbas, Iran</i>	<i>2006</i>	<i>New Construction</i>	<i>34</i>
<i>Dubai ABF#1</i>	<i>Dubai, U.A.E.</i>	<i>2006</i>	<i>Revamping</i>	<i>32</i>
<i>EMAL Phase 1</i>	<i>Al Taweelah, U.A.E.</i>	<i>2007</i>	<i>New Construction</i>	<i>2 x 64</i>
<i>TRIMET</i>	<i>Hamburg, Germany</i>	<i>2008</i>	<i>ABF Conversion</i>	<i>48</i>
<i>KAS</i>	<i>Pavlodar, Kazakhstan</i>	<i>2009</i>	<i>New Construction</i>	<i>50</i>
<i>DUBAL ABF#2</i>	<i>Dubai, U.A.E.</i>	<i>2011</i>	<i>Revamping</i>	<i>32</i>
<i>HINDALCO ABF#6</i>	<i>Renukoot, India</i>	<i>2011</i>	<i>New Construction</i>	<i>34</i>
<i>DUBAL ABF#4</i>	<i>Dubai, U.A.E.</i>	<i>2013</i>	<i>Revamping</i>	<i>48</i>
<i>RUSAL TAZ</i>	<i>Taishet, Russia</i>	<i>2013</i>	<i>New Construction</i>	<i>2 x 64</i>
<i>DUBAL ABF#3</i>	<i>Dubai, U.A.E.</i>	<i>2014</i>	<i>Revamping</i>	<i>32</i>
<i>TRIMET</i>	<i>St.-Jean-de-Maurienne, France</i>	<i>2014</i>	<i>Cross-over Revamping</i>	<i>n/a</i>
<i>DUBAL ABF#1</i>	<i>Dubai, U.A.E.</i>	<i>2015</i>	<i>Revamping</i>	<i>32</i>
<i>DUBAL ABF#2</i>	<i>Dubai, U.A.E.</i>	<i>2015</i>	<i>Height Increase</i>	<i>32</i>
<i>EMAL Phase 1 Upgrade</i>	<i>Al Taweelah, U.A.E.</i>	<i>2015</i>	<i>Height Increase</i>	<i>2 x 64</i>
<i>ALBA ABF#3 Rebuild</i>	<i>Askar, Bahrain</i>	<i>2015</i>	<i>Revamping</i>	<i>68</i>
<i>SUAL (Rusal) VgAZ</i>	<i>Volgograd, Russia</i>	<i>2016</i>	<i>New Construction</i>	<i>52</i>
<i>RUSAL TAZ#1 Modification</i>	<i>Taishet, Russia</i>	<i>2016</i>	<i>Height Increase</i>	<i>64</i>
<i>ALBA ABF#6</i>	<i>Askar, Bahrain</i>	<i>2016</i>	<i>New Construction</i>	<i>68</i>
<i>HINDALCO ABF#5</i>	<i>Renukoot, India</i>	<i>2017</i>	<i>Revamping</i>	<i>32</i>

CONTACT

RIEDHAMMER GmbH

Industrial Kiln Plants
Carbon Division
Klingenhofstrasse 72
90411 Nuremberg
Germany

Telephone: +49 911 5218 0
Telefax: +49 911 5218 231
Email: carbon@riedhammer.de

