

FIVES PROVIDES INNOVATIVE AND HIGH TECHNOLOGY SOLUTIONS ALL OVER THE WORLD IN ORDER TO MEET CUSTOMERS' REQUIREMENTS IN TERMS OF PERFORMANCE, ENVIRONMENT AND SAFETY.

Gas Treatment Center - Alcoa Fjarðal (Iceland)



HARBOUR

Liquid Pitch Marine Terminal:

- Pitch fume treatment with Lineos

CARBON

Green Anode Plant:

- Dry material preparation with Rhodax®
- Anode Paste preparation with IMC®, Intensive Mixing Cascade
- Anode forming with Xelios
- Pitch Fume Treatment with Eolios, combining a dry-scrubber with a RTO system
- Anode Cooling Tunnel
- Carbon Butts recycling with two crushing stages

Anode handling and storage

Anode Baking Furnace:

- Firing and Control System
- ECL Furnace Tending Assembly to handle the anodes and the firing ramps during the baking process
- Fume Treatment Center to treat fumes generated by the anodes baking

Anode Rodding Shop:

- Separation, sorting and recycling of anode butt materials
- New anode assembly

Bath Processing and Recycling Unit

REDUCTION

Gas Treatment Center:

- Alumina storage silos, alumina metering and transport system
- Innovative Dry Scrubbing Solution for modern smelters, Ozeos
- Sea water scrubbers for the desulphurization of gases
- Reduction of emissions during pot maintenance with Yprios

ECL Pot Tending Machine

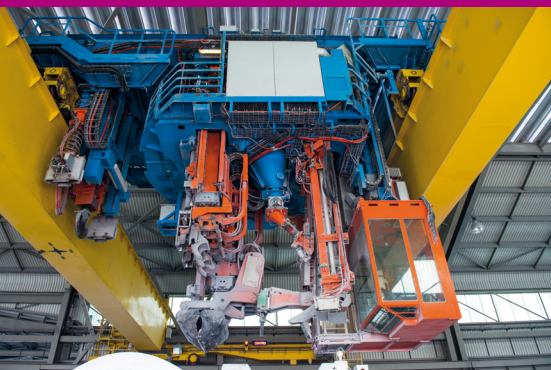
ECL Potroom cranes:

- Transfer system for crane transport
- Cathode transfer crane
- Tapping crane

Pot equipment:

- Anode beam raising frame
- ECL Crust breaking & feeding device
- ECL Anode stem connection device
- ECL Sealing jaws
- ECL Anode jacking system

Pot Tending Machine - E.G.A. (U.A.E.)



Anode Rodding Shop - (Canada)



Green Anode Plant - Sohar Aluminium (Oman)



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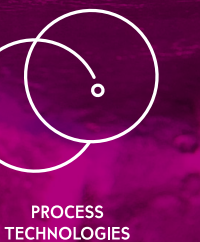
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Services locations:

- Australia
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- Southern Africa
- United Arab Emirates



PRIMARY ALUMINIUM PRODUCTION PROCESS



PROCESS TECHNOLOGIES

ALUMINIUM

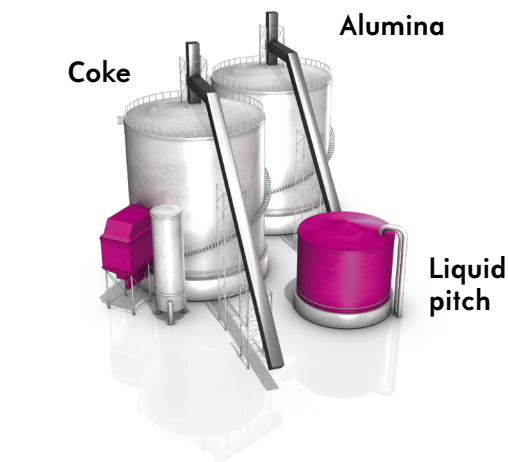


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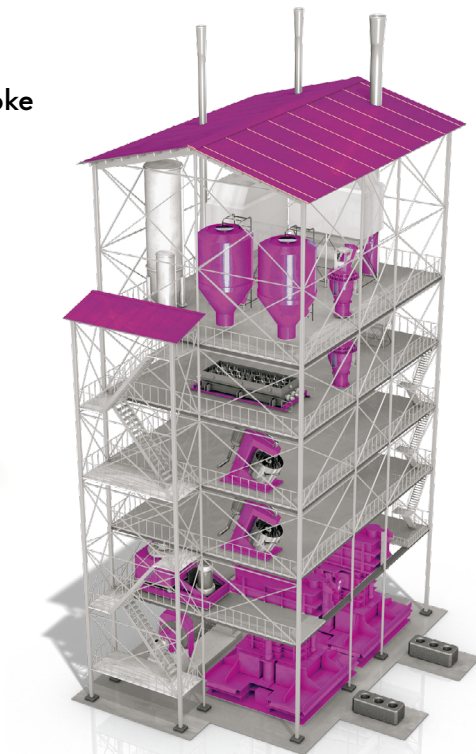
FIVES WITHIN THE ALUMINIUM PRODUCTION PROCESS

HARBOUR

LIQUID PITCH MARINE TERMINAL



Liquid pitch
Coke

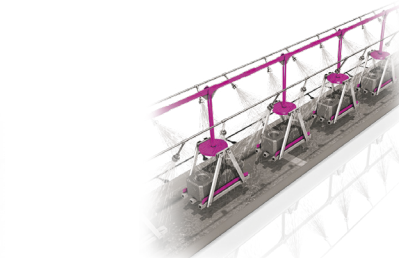
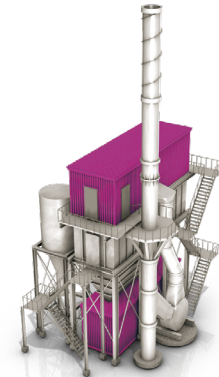


GREEN ANODE PLANT

Alumina

Pitch fumes

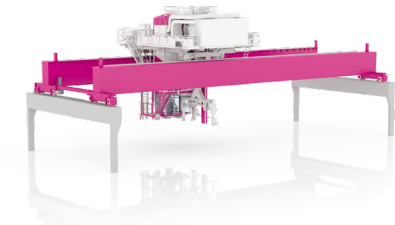
PITCH FUME TREATMENT SYSTEM



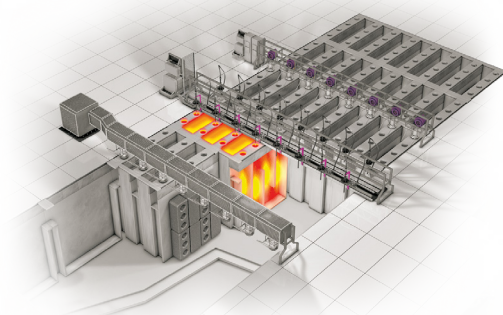
ANODE CONVEYING SYSTEM

Alumina

FURNACE TENDING ASSEMBLY

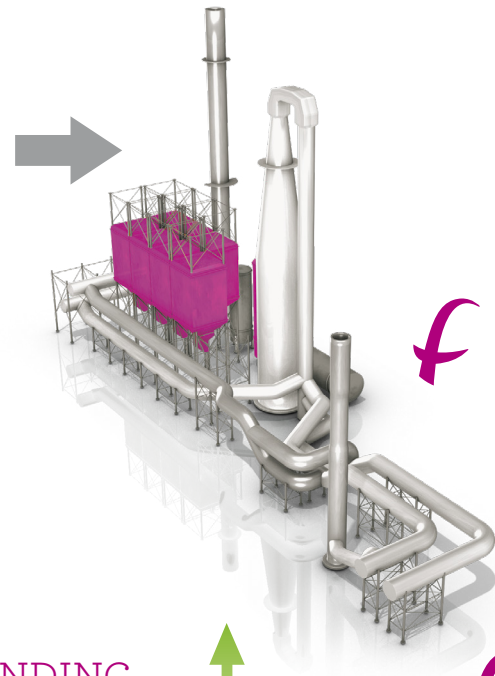


Green anodes



ANODE BAKING FURNACES

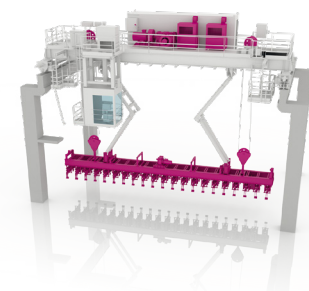
CARBON SECTOR



FUME TREATMENT CENTER

Fumes

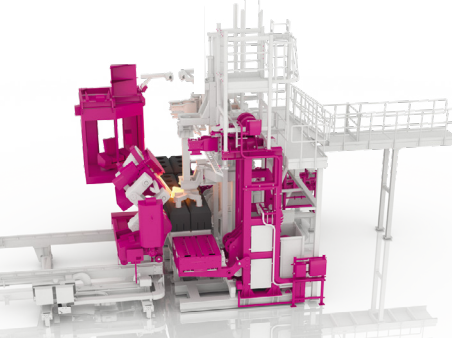
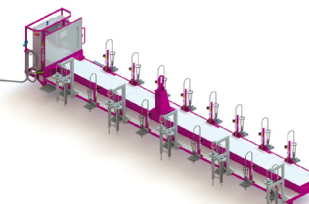
ANODE HANDLING SYSTEM



Baked anodes



FIRING AND CONTROL SYSTEM



ANODE RODDING SHOP

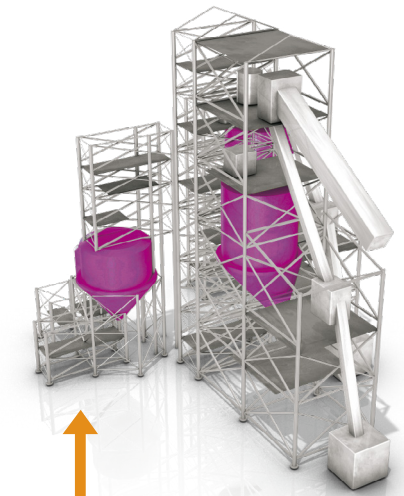
Rodded anodes



Bath

Bath

BATH PROCESSING UNIT



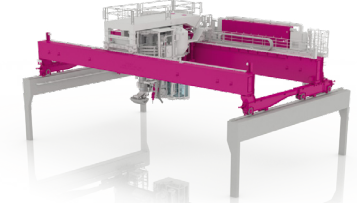
Fluorinated gas

Fluorinated alumina

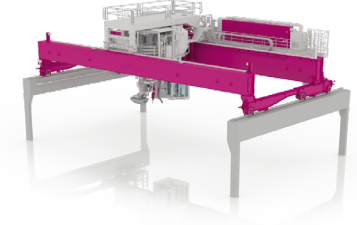
Bath

Bath

POT TENDING MACHINES AND POTROOM CRANES



POT EQUIPMENT



Anode butts and rods

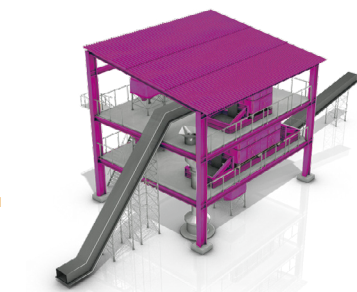
ELECTROLYSIS POT



Electricity

Carbon butts

CARBON BUTTS RECYCLING UNIT



REDUCTION SECTOR

GAS TREATMENT CENTER

