

# Reheat Furnaces

## Steel Industry

Gouda Refractories delivers complete refractory solutions for all types of Walking Beam Furnaces, Pusher Furnaces, Walking Hearth Furnaces, Rotary Furnaces, Soaking Pit Furnaces and Tunnel Kilns used in the production of steel.

Since 1901, Gouda Refractories has proven that the company adds extra value when designing and producing refractory linings. Its state of the art production facilities does not just deliver refractory bricks, monolithic and precast shapes, but offers worldwide customer-specific total solutions for the iron & steel, non-ferrous metals, petrochemical, environment & energy and cement industries.



Scope  
**A-Z**

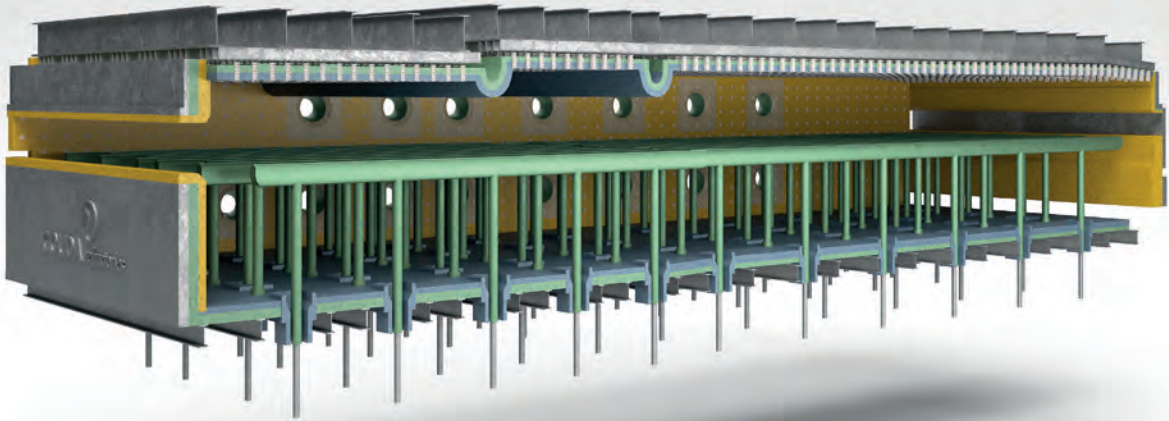
Years of  
experience  
**> 40**

Dedicated  
product  
range

Every industry has its own specific challenges and demands. Whether it's a greenfield project or maintenance, Gouda Refractories seamlessly matches the design and the choice of materials to the specific needs of the industry and process. Longevity, ease of installation and consistency are all top priorities. Dialogue and cooperation with the customer mean that products for any specific application can be developed.

Steel finishing reheat furnaces have specific requirements for refractory materials, due to different steel qualities, operating practices and energy sources & efficiencies. These differences in the process mean that different types of refractory material are required. With its unique product line, Gouda Refractories has solutions for process specific problems such as alkali growth, high wear, thermal shock, mechanical stresses and heat loss. Gouda Refractories delivers high quality, tailored products for the critical stages of the steel finishing process.

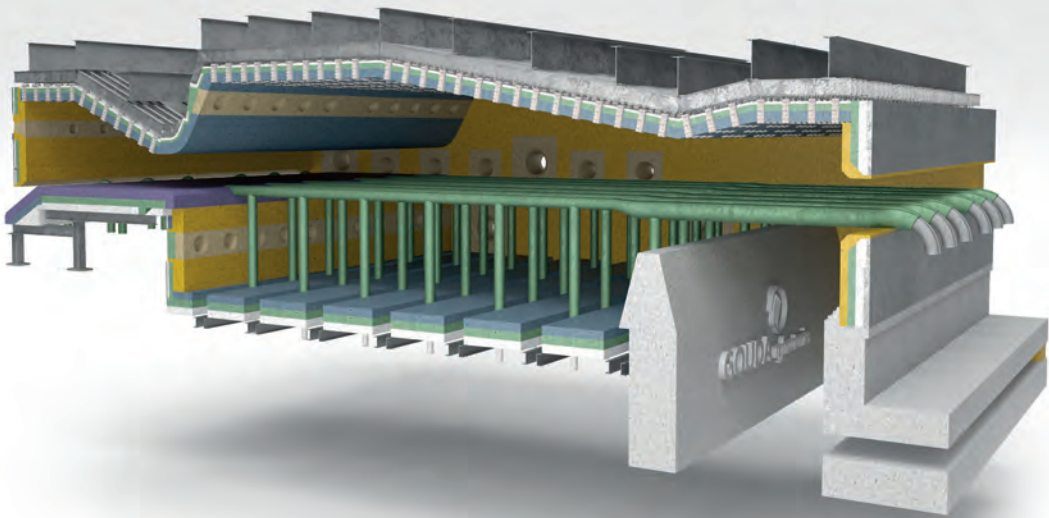




Walking Beam Furnace



Roof Panels



Pusher Furnace

Walls:	Roof & Floor:	Solid Hearth:	Burner Panels:	Skid Pipes:
<b>Hot Face Castable:</b> Vibron 170 H (GM) Vibron 160 H (GM) Vibron 150 H (GM) Curon 140 HS (GM)  <b>Ceramic Anchors &amp; Hot Face Bricks:</b> AK 60 A  <b>Insulating Castable:</b> Golite 130 (GM) Golite 1.0.6. Mix C&G	<b>Hot Face:</b> Vibron 170 H (GM) Vibron 160 H (GM) Vibron 150 H (GM) Curon 140 HS (GM) Flucon 160 H Flucon 140 HS  <b>Ceramic Anchors:</b> AK 60 A  <b>Floor Hot Face Bricks:</b> AK 45 & AK 60 A  <b>Insulation Castable:</b> Golite 110 XLW C&G Golite 125 R (GM)	<b>Precast Blocks:</b> Vibron 180 T Mg  <b>Levelling Castable:</b> Curon 160 HS  <b>Hot Face Castable:</b> Vibron 170 H Vibron 160 H Curon 140 HS  <b>Insulating Castable:</b> Golite 145 LV Golite 155	<b>Hot Face Castable:</b> Vibron 170 H (GM)  <b>Hot Face Mouldable:</b> Curas 60 PD  <b>Insulating Castable:</b> Golite 125 R (GM) Golite 130 (GM)  <b>Ceramic Anchors:</b> AK 60 A	<b>Hot Face Castable &amp; Precast:</b> Vibron 160 H Flucon 140 HS  <b>Hot Face Mouldable:</b> Curas 60 PD  <b>Insulating Castable:</b> Golite 145 LV

<b>Hot Face Layer:</b> Vibron 170 H Vibron 160 H Vibron 150 H Curon 140 HS Flucon 160 H Flucon 140 HS  Applied by casting or gunning for steeply sloping panels.	<b>Insulation Layers:</b> Golite 110 XLW G&G Golite 125 R  Applied by casting or gunning for steeply sloping panels.	<b>Ceramic Anchors:</b> AK 60 A with AISI310 Scissor Clips  Metallic Anchors added if required for steeply sloping panels.	Panels can be installed in-situ by casting and/or gunning or supplied as pre-dried precast blocks.  Panel sizes are approximately 1 m² for in-situ handling and thermal expansion.
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Walking Hearth Furnace Side Wall Panels and Hearth

<b>Hearth Charge Zone Hot Face Layer:</b> Vibron 160 H  <b>Hearth Heating Zones Hot Face Layer:</b> Vibron 170 H  <b>Hearth Discharge Zone Hot Face Layer:</b> Vibron 180 T Mg  Installed by casting or precast.	<b>Hearth Insulation Layers:</b> Golite 145 LV Golite 155 Load Bearing Insulation Brick Calcium Silicate Slab  Monolithic installed by casting or precast.	<b>Side Wall Hot Face Layer:</b> Vibron 170 H GM (below pass line) Vibron 150 H GM (above pass line)  <b>Side Wall Insulation Layers:</b> Golite 130 (GM) Golite 1.0.6. Mix C&G Calcium Silicate Slab C/F Blanket  <b>Ceramic Anchors:</b> AK 60 A with AISI310 Anchoring System.	Hearth panels can be installed in-situ by casting or supplied as pre-dried precast blocks. Side wall panels can be installed in-situ by casting, gunning or supplied as pre-dried precast blocks.  Panel sizes are approximately 1 m² for in-situ handling and thermal expansion.
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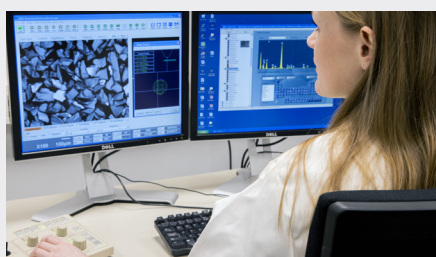


The team at Gouda Refractories has decades of experience working with Pusher Furnaces, Walking Beam Furnaces, Walking Hearth Furnaces, Rotary Furnaces, Soaking Pit Furnaces and Tunnel Kilns.

The Research & Development department, with an advanced, independent ISO-certified laboratory, develops products designed specifically to our customer's needs.

Product Managers at Gouda Refractories work with our customers to determine the best solutions for increasing thermal efficiency and durability to reduce their production costs.

Our qualified supervisors and installers ensure that all products are installed correctly and efficiently. Gouda Refractories welcomes the opportunity to discuss your requirements and optimal solutions for the betterment and longevity of your furnace.



### Material Properties

Product	Description	Max. Service Temp.	Density (kg/m³)	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	CCS (N/mm²)	HMoR (N/mm²)
		°C	110 °C	%	%	%	110 °C	816 °C
CURON 145 CC Rapid	Dense refractory castable, extra coarse	1.450	2.150	44	45	< 2	50	4.4
CURON 160 HS	Dense refractory castable	1.600	2.300	62	30	< 1.5	70	6.9
CURON 160 HS GM	Dense refractory gunning mix	1.600	2.200	65	29	< 1.5	60	4.2
VIBRON 150 H	Dense low cement refractory castable	1.500	2.250	50	44	< 1.5	65	23.8
VIBRON 160 H	Dense low cement refractory castable	1.600	2.500	63	31	1.5	80	24.2
VIBRON 160 H GM	Dense low cement refractory gunning mix	1.600	2.350	63	31	1	40	14.6
VIBRON 170 H	Dense low cement refractory castable	1.700	2.600	72	22	1	70	24.0
VIBRON 170 H GM	Dense low cement refractory gunning mix	1.700	2.450	72	22	1	40	13.8
VIBRON 180 T Mg	Dense low cement refractory castable	1.800	3.000	93	0.1	0.1	50	18.4
GOLITE 1.0.6. Mix C&G	Insulating refractory castable & gunning mix	1.000	600	29	27	-	1	-
GOLITE 110 XLW C&G	Insulating refractory castable & gunning mix	1.100	680	30	39	-	1.5	-
GOLITE 135 RL C	Insulating refractory castable, extra coarse	1.350	1.200	40	40	< 3.5	10	0.74
GOLITE 145	Insulating refractory castable	1.450	1.500	52	40	-	20	1.9
GOLITE 155	Insulating refractory castable	1.550	1.500	52	38	< 2.5	18	1.46
AK 60 A	Dense refractory brick based on andalusite	1.680	2.550	60	37	< 1	90	12.8
AK 60 AX	Dense refractory brick with low creep	1.680	2.550	60	37	< 1	70	12.7
AK 60 A L	Dense refractory brick, semi-insulating	1.650	2.050	60	37	< 1	40	11.2
CURAS 60 PD	Mouldable refractory, Phosphate-bonded	1.600	2.290	59	36	1.5	-	6.5
VELOX 160 H	Rapid heating refractory castable	1.600	2.450	63	31	1.5	40	23.8
VELOX MD 160 H GM	Rapid heating refractory gunning mix	1.250	2.150	55	32	-	20	14.6
FLUCON 140 HS	Dense self-flowing refractory castable	1.400	2.200	52	36	-	75	24.2
FLUCON 150 S	Dense self-flowing refractory castable	1.500	2.750	79	10	1.3	100	24.6
FLUCON 160 H	Dense self-flowing refractory castable	1.600	2.500	65	31	1	50	25.2

Values are typical. Datasheets are available upon request.

