

PAUL WURTH

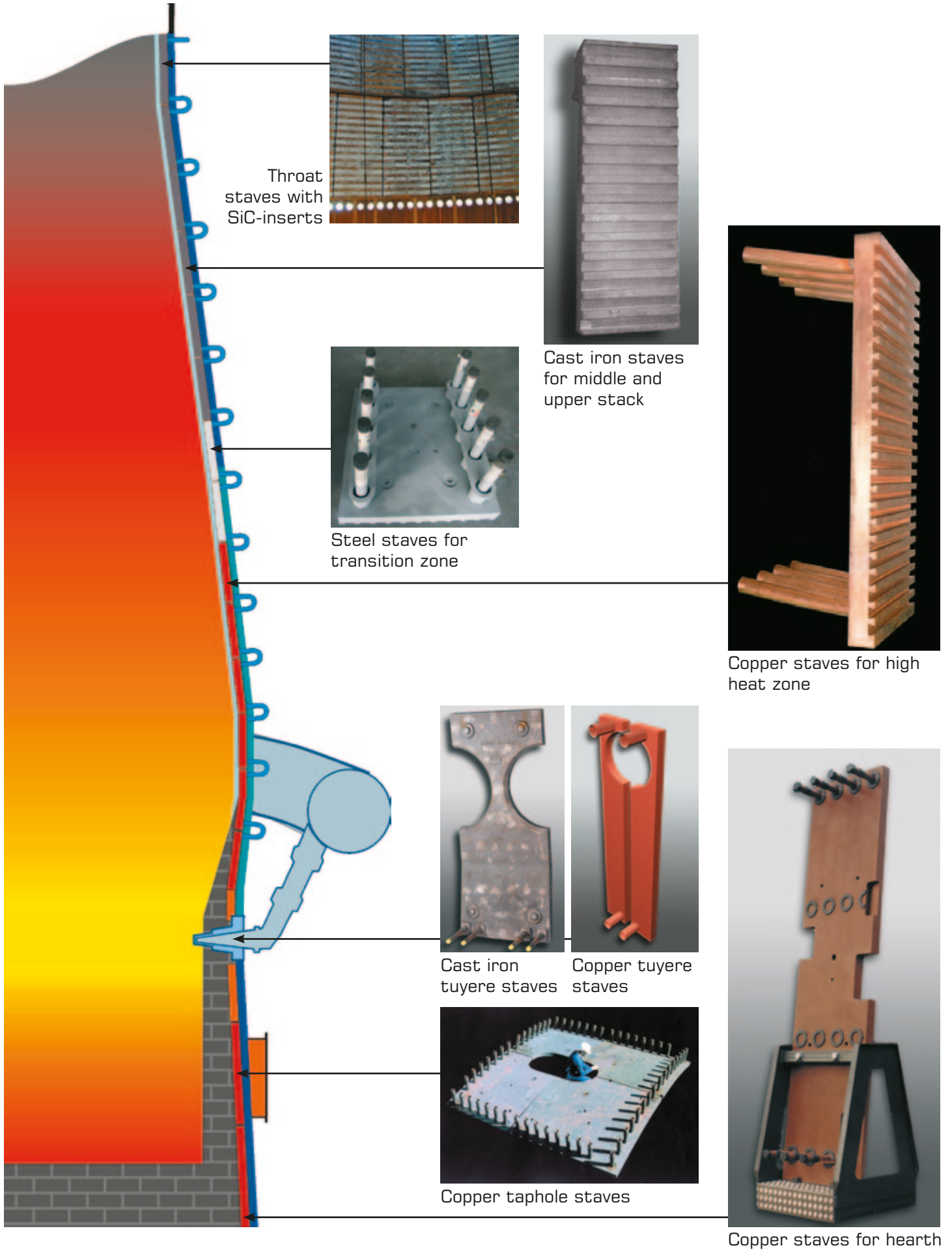
SMS group

Stave Coolers

Ironmaking



Stave Coolers



Copper Staves

Paul Wurth supplies continuous cast hot-rolled and drilled copper staves for the high heat load zone of the blast furnace and for the hearth area.

- ▶ Min. 99.9% pure copper
- ▶ Low surface working temperature allows:
 - Formation of self-protecting skull
 - Low wear / multiple campaign life
 - Low thermal losses in high heat zones
- ▶ Increased furnace working volume
- ▶ Simple shell design
- ▶ Electrical conductivity > 95% IACS
- ▶ Round or oblong channel shape

Steel Staves

Paul Wurth supplies steel staves for the transition zone between copper staves and cast iron staves in the middle stack.

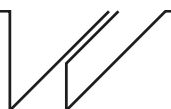
Steel staves have a behaviour which can be classified between the copper staves and the cast iron staves. The heat removal capacity is better than with cast iron staves, but less than with copper staves. Their mechanical properties (resistance against abrasion wear) suit best for the efficient protection of the specific blast furnace shell area.

Cast Iron Staves

Paul Wurth supplies cast iron staves for the upper stack and for the hearth area.

- ▶ Spheroidal graphite cast iron for the stack area.
- ▶ Lamellar graphite cast iron for the hearth and tuyere belt.

Special design for the throat staves using SiC insert bricks for wear resistance.



Engineering & Technology worldwide

The Paul Wurth Group is today one of the world leaders in the design and supply of complete plants, systems and processes as well as specialised mechanical equipment for

■ the iron & steel industry:

Blast Furnaces & Auxiliary Plants
Coke Making Plants
Agglomeration Plants
Direct Reduction Plants
Environmental Protection, Recycling & Energy-Saving Technologies

■ other industries:

Systems & Equipment for Non-Ferrous Pyrometallurgy, Electrometallurgy & Residue Treatment
Intralogistics Solutions for Heavy Loads
Engineering & Project Management for Civil Construction and Infrastructure Projects

Feasibility Studies – Conceptual, Basic and Detail Engineering – Project Management – Plant and Components Supply – Turnkey Projects – Assistance in Plant Assembly and Commissioning – Technology and Operations Consultancy – On-site and Remote Operational Assistance – After-sales Services

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