

## Title (en)

PROCESS FOR MANUFACTURING AND TREATING HIGH-ALLOY STAINLESS FERRITIC CHROMIUM-MOLYBDENUM-NICKEL STEELS

## Publication

**EP 0097254 A3 19840704 (DE)**

## Application

**EP 83105064 A 19830521**

## Priority

DE 3221087 A 19820604

## Abstract (en)

[origin: EP0097254A2] Process for manufacturing and treating steel products of highly corrosion-resistant ferritic chromium-molybdenum-nickel steels of the superferrite type with 21 to 31 % of chromium 1.5 to 3.5 % of molybdenum 1.0 to 4.0 % of nickel 0.002 to 0.04 % of carbon 0.01 to 0.06 % of nitrogen 0.10 to 0.60 % of niobium 0.005 to 0.50 % of zirconium 0.005 to 0.20 % of aluminium up to 0.025 % of phosphorus up to 0.010 % of sulphur up to 0.25 % of titanium up to 2.0 % of silicon up to 1.0 % of manganese up to 3.0 % of copper up to 0.01 % each of calcium, magnesium, cerium or mixed cerium metal, boron, the remainder being iron and impurities resulting from smelting. The total of the content of chromium, 8 times that of molybdenum and 6 times that of silicon is limited to at least 40% and at most 50%. Moreover, the total contents of the elements niobium and zirconium, which especially bind carbon and nitrogen, and of 3.4 times the aluminium content and 1.9 times the titanium content is at least 10 times and at most 20 times the total of the carbon and nitrogen contents, but at most 12 times this content total in % (C+N) + 0.16 %. The steel melts produced by known converter steel processes can be cast on continuous casting units to give cast billets or cast slab formats and then be treated, with or without intermediate cooling as desired and, if necessary, reheating, to give semifinished or finished products.

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- [A] FR 2197996 A1 19740329 - SCHOELLER BLECKMANN STAHLWERKE [AT]
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## Cited by

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