

Title (en)
DEVICE FOR APPLYING A DESCALING AGENT TO THE INNER SURFACE OF A LOOP

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Application
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Abstract (en)
[origin: EP0309945A2] The invention relates to a device for applying a descaling agent to the inner surface of a red-hot hollow blank in the production of seamless tubes.

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Citation (search report)

- [XP] EP 0250881 A1 19880107 - LONZA AG [CH]
- [X] DE 1206677 B 19651209 - KLEAN KOTE INC
- [X] US 4055025 A 19771025 - SEESE RAY BRUCE, et al
- [Y] US 3137974 A 19640623 - KIRKLAND WYATT S
- [A] EP 0172366 A1 19860226 - LONZA AG [CH]
- [AD] EP 0133937 A1 19850313 - LONZA AG [CH]
- [A] US 3139711 A 19640707 - SODERBERG JR CARL RICHARD
- [A] GB 1012442 A 19651208 - KLEAN KOTE INC
- [A] DE 3235506 A1 19840329 - MARUBENI CONSTR MACH [JP], et al
- [A] FR 2483265 A1 19811204 - NIHON PLANT SERVICE CENTER LTD [JP]

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