

Title (en)

TIGHTENING AND FASTENING DEVICE OF HEATING CONDUCTORS ON ELECTRICALLY HEATED VACUUM FURNACES

Publication

EP 0399306 A3 19910123 (DE)

Application

EP 90108865 A 19900511

Priority

DE 3916497 A 19890520

Abstract (en)

[origin: EP0399306A2] The device for sealing and fastening heating conductors (1) on electrically heated vacuum furnaces according to the invention has a heating conductor (1) which is provided with an insulating sleeve (5), is guided in the heating conductor (1) with insulating sleeve (5) with the aid of a guide sleeve (3), and is detachably connected to the wall (2) of the vacuum furnace vessel. Between the insulating sleeve (5) and the heating conductor (1), and between the guide sleeve (3) and the furnace vessel wall (2), there are arranged seals (9, 4) which achieve their full sealing effect on the furnace vessel wall by deformation during displacement of the insulating sleeve (5) and pulling on the guide sleeve (3).
<IMAGE>

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IPC 8 full level

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Citation (search report)

- [A] FR 2449139 A1 19800912 - ALUSUISSE [CH]
- [A] US 3967047 A 19760629 - LONG JAMES MICHAEL, et al
- [A] DE 1072334 C
- [A] US 3117213 A 19640107 - LENNART ENGSTROM AKE, et al
- [A] FR 2622381 A1 19890428 - ELECTRICITE DE FRANCE [FR]
- [A] US 4093816 A 19780606 - CASE THOMAS L
- [A] FR 2540574 A1 19840810 - ELECTRICITE DE FRANCE [FR]
- [A] DE 852628 C 19521016 - VOIGT & HAEFFNER AG
- [A] EP 0196221 A2 19861001 - SCHLUMBERGER ELECTRONICS UK [GB]

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