

Title (en)
DEVICE FOR AND METHOD OF CLEANING INSTALLATIONS

Title (de)
VORRICHTUNG UND VERFAHREN ZUR REINIGUNG VON ANLAGEN

Title (fr)
DISPOSITIF ET PROCÉDÉ POUR NETTOYER DES INSTALLATIONS

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Application
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Abstract (en)
The invention relates to a cartridge (1) for cleaning installations, such as incinerators, heat exchangers, flue gas channels, and silos, comprising a casing, e.g. a sleeve (2), containing a pyrotechnical mixture (5) and/or components of a pyrotechnical mixture and comprising an electrical detonator (3) for initiating deflagration of the mixture. The cartridge further comprises a housing (4) which accommodates the detonator (3) and which housing (4) is attached to the casing (3) and movable between a first position, wherein the detonator (3) is isolated from the pyrotechnical mixture (5), and a second position, wherein the detonator (3) extends in the pyrotechnical mixture (5).

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Citation (applicant)

- WO 2011096872 A1 20110811 - BENGSSON JAN-AAKE [SE]
- DE 202017001549 U1 20180628 - KRUSE VOLKER [DE]
- EP 1275925 A1 20030115 - HANS EICHNER GMBH & CO KG [DE]
- EP 1067349 A2 20010110 - ZILKA FRANCIS [US], et al
- US 5494004 A 19960227 - HUNTER JR LOUIS G [US]
- "Handbuch Sprengtechnik", 1975, VEB DEUTSCHER VERLAG FÜR GRUNDSTOFFINDUSTRIE, pages: 344 - 351

Citation (search report)

- [YA] FR 2445186 A1 19800725 - MAGYAR ALUMINIUM [HU]
- [Y] FR 2971583 A1 20120817 - ASTRIUM SAS [FR]
- [Y] US 4920852 A 19900501 - MILLER KENNETH A [US]
- [A] US 2006124019 A1 20060615 - COUGHLIN JOHN F [US], et al
- [AD] EP 1275925 A1 20030115 - HANS EICHNER GMBH & CO KG [DE]

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