

Title (en)  
Detonative cleaning apparatus and method

Title (de)  
Vorrichtung und Verfahren zur Reinigung durch Detonation

Title (fr)  
Appareil et procédé de nettoyage à détonation

Publication  
**EP 1533050 A1 20050525 (EN)**

Application  
**EP 04257185 A 20041119**

Priority  
• US 71873003 A 20031120  
• US 71885503 A 20031120

Abstract (en)  
Methods and apparatus are provided for cleaning a surface within a vessel (20). A fuel/oxidizer charge is provided within a combustion conduit (26). An initial deflagration commenced in a first portion of the charge produces a final detonation at least in another portion of the charge to expel a shockwave from the conduit (26) which impinges upon the surface. The deflagration-to-detonation transition may be encouraged by mechanical enhancements and/or by making the first charge portion more detonable than the second. An initiator (106) is positioned to initiate a reaction of the fuel and oxidizer to produce the shock wave within the conduit for generating the shock wave. A source of purge gas (98) is positioned to introduce the purge gas to the conduit (26) to drive reaction products of the fuel and oxidizer downstream. <IMAGE>

IPC 1-7  
**B08B 7/00**; **B08B 9/08**; **F28G 13/00**; **F27D 23/02**

IPC 8 full level  
**B08B 7/00** (2006.01); **B08B 9/08** (2006.01); **F27D 25/00** (2010.01); **F28G 7/00** (2006.01); **F28G 13/00** (2006.01); **F28G 15/00** (2006.01); **F28G 15/02** (2006.01)

CPC (source: EP)  
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Citation (search report)  
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• [DXAY] US 5494004 A 19960227 - HUNTER JR LOUIS G [US]  
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