

Title (en)  
REACTOR FOR WOOD RETIFICATION

Title (de)  
HOLZBEHANDLUNGSANLAGE

Title (fr)  
REACTEUR DE RETIFICATION DU BOIS

Publication  
**EP 1099084 A1 20010516 (FR)**

Application  
**EP 99931345 A 19990713**

Priority  
• FR 9901718 W 19990713  
• FR 9809252 A 19980717

Abstract (en)  
[origin: FR2781180A1] The gas-tight reactor chamber, rectangular in section, has entries at either end, through sealable doors, for trolleys piled with layers of woody material, successive layers being separated by wood or metal battens to encourage gas circulation. Fragmented material like sawdust is first consolidated, e.g. as briquettes. Trolleys are inserted alternately; while one undergoes the treatment cycle the other is being loaded outside the opposite door. In the reactor the load is subjected to constant compression by hydraulic rams (9) acting on pressure plates - opt., by springs on the trolleys. The atmosphere is rendered inert (max 3% oxygen) by injected nitrogen, and electrically heated by resistor banks, while circulation through the load is effected by ceiling fans (17) powered by external motors (10). To promote even heating, the circulating gas flows are regularly (e.g. every 5 minutes) reversed by shutters (18,19) mounted on pivots (20). Before recirculating, gases are passed through coolers where water, methanol, acids, etc. extracted from the wood are removed as condensates. This also serves to reduce load temperatures during cooling phases. Optionally, the chamber is cooled by cold air within double-skinned walls. In a variant designed for continuous operation, loads pass successively through 5 chambers dedicated to specific cyclic functions.

IPC 1-7  
**F26B 7/00**; **F26B 21/06**

IPC 8 full level  
**F26B 7/00** (2006.01); **F26B 9/06** (2006.01); **F26B 21/08** (2006.01)

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**C10L 9/083** (2013.01); **F26B 7/00** (2013.01); **F26B 9/06** (2013.01); **F26B 21/086** (2013.01); **F26B 2210/16** (2013.01); **Y02E 50/10** (2013.01)

Citation (search report)  
See references of WO 0004328A1

Cited by  
CN107940941A; US8246788B2; US8252966B2; US9359556B2

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