

Title (en)
Improvements in or relating to injection elements for melt containing vessels.

Title (de)
Einblasdüse bei einem Schmelze enthaltenden Behälter.

Title (fr)
Eléments injecteurs pour des récipients contenant un bain.

Publication
EP 0242155 A1 19871021 (EN)

Application
EP 87303199 A 19870413

Priority
GB 8609063 A 19860414

Abstract (en)
The invention provides a gas injection element for use in the side or base wall of a refractory lined melt containing vessel, comprising at least one refractory block (1) arranged in use to extend lengthwise through the vessel lining into the internal cavity thereof wherein a plurality of ceramic pipes (4) pass through bores in the refractory block (1) along the length thereof.

IPC 1-7
C21C 7/072; F27D 3/16

IPC 8 full level
B22D 1/00 (2006.01); **C21C 5/35** (2006.01)

CPC (source: EP)
B22D 1/005 (2013.01); **C21C 5/35** (2013.01)

Citation (search report)
• [X] GB 2120369 A 19831130 - KSR INT LTD
• [XP] GB 2171187 A 19860820 - DIDIER WERKE AG
• [A] DE 3503222 A1 19860918 - DIDIER WERKE AG [DE]
• [A] US 2947527 A 19600802 - ETIENNE SPIRE
• [A] FR 2507208 A1 19821210 - NIPPON KOKAN KK [JP]
• [A] DE 2719829 A1 19781109 - GAIL GEORG
• [A] PATENT ABSTRACTS OF JAPAN, vol. 9, no. 108 (C-280)[1831], 11th May 1985; & JP-A-60 002 615 (NITSUSHIN SEIKOU K.K.) 08-01-1985
• [A] PATENT ABSTRACTS OF JAPAN, vol. 8, no. 52 (C-213)[1489], 9th March 1984; & JP-A-58 210 112 (SHIN NIPPON SEITETSU K.K.) 07-12-1983

Cited by
DE4104629A1; FR2645543A1; DE3810098C1; FR2629102A1; AT396438B

Designated contracting state (EPC)
BE DE FR IT LU NL

DOCDB simple family (publication)
EP 0242155 A1 19871021; GB 2189583 A 19871028; GB 8609063 D0 19860521; GB 8708836 D0 19870520

DOCDB simple family (application)
EP 87303199 A 19870413; GB 8609063 A 19860414; GB 8708836 A 19870413