

Title (en)

Vessel for casting a molten metal and prefabricated sleeve for fixing the casting tube in such a vessel

Title (de)

Gefäß zum Giessen einer Metallschmelze und vorgefertigter Muffenkörper zur Befestigung eines Giessrohres in solchen Behälter

Title (fr)

Récipient de coulée de métal liquide et manchon préfabriqué de fixation de la busette dans un tel récipient

Publication

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Application

EP 95402010 A 19950905

Priority

- FR 9410619 A 19940905
- US 81192997 A 19970305

Abstract (en)

[origin: EP0703027A1] A vessel for containing molten metal has a permanent ceramic lining (3) penetrated in the floor region by at least one frusto-conical opening (6) designed to receive the upper rim (8) of a pouring nozzle (7). An annular sleeve (11) is sandwiched between rim (8) and the wall of opening (6). The sleeve comprises compacted particles which will not significantly sinter together at the molten metal temperature so that the sleeve remains frangible after use, facilitating removal of a clogged nozzle prior to its replacement by a new one. Opening (6) is formed directly in lining (3) or in a brick (5) which forms a continuation thereof. The sleeve wall thickness may be 1-40 mm, and the upper edge of the sleeve may be separated from the molten metal by a refractory cement seal (12). Sleeve (11) may be preformed of particles bonded by an agent which will be decomposed by the heat of molten metal, or the sleeve is formed in situ by pouring material into the gap between rim (8) and opening (9). The sleeve may comprise mineral and organic bonding agents, granular refractory material such as sand or graphite, organic and/or mineral fibres and lubricant. An exemplified mix comprises 68.32% MgO and 19.22% SiO₂ with smaller proportions of Cr₂O₃, Al₂O₃, CaO, Fe₂O₃, Na₂O, H₂O and C, and exhibits a 4.81% weight loss when fired at 1000 degrees C.

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