

Title (en)

DEVICE FOR THE PNEUMATIC APPLICATION OF A HARDENABLE BUILDING MATERIAL HYDROMECHANICALLY TRANSPORTED IN A HIGHLY VISCOS FLOW, PARTICULARLY OF A HYDRAULICALLY INJECTED CONCRETE OR MORTAR

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Application

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Priority

DE 3523143 A 19850628

Abstract (en)

1. Apparatus for the pneumatic application of a hardenable building material hydromechanically transported in a highly viscous flow, particularly of hydraulically injected concrete or mortar, which apparatus has a mouthpiece (8) at the end of a tube or hose conveyor pipe which feeds the building material delivered preferably by means of a pump, the conveyor tube possessing a delivery end preferably constructed as a nozzle (11), an opposite end having a compressed air feed opening, and a tube terminating between the two ends which feeds the viscous flow into the compressed air flow, wherein an accelerator is added to the building material by at least one feed pipe for promoting hardening, and the outward flow of building material is conducted by a flexible supply pipe section (19), wherein the mouthpiece (8) is provided with at least one connecting piece (3) of the compressed air supply and the tube or hose conveyor pipe (2), and the control pipe section (19) is connected to the output end (17) of the mouthpiece (8), and the accelerator feed pipe (25-29) is connected to the free end (22, 23) of the control pipe section (19) which ends directly before the outlet aperture (31), characterised in that a feed pipe (12) for a second accelerator which, together with the first accelerator added in the control pipe section (19, 30), promotes hardening of the building material, opens into the supply pipe end (9) of the mouthpiece (8) having the mouth of the compressed air feed pipe (13).

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Cited by

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