

Title (en)

APPARATUS FOR ROLLING WORKPIECES, PARTICULARLY METAL FOILS

Title (de)

VORRICHTUNG ZUM WALZEN VON WERKSTÜCKEN, INSBESONDERE METALLFOLIEN

Title (fr)

APPAREIL DE LAMINAGE DE PIECES A USINER, NOTAMMENT DES FEUILLES METALLIQUES

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Application

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Abstract (en)

[origin: WO0170423A2] The present invention relates to an apparatus for rolling workpieces, such as sheets or rods, particularly metal foils, comprising: at least one roll stand (1); at least two driven working rolls (2, 3) rotatably embedded in said roll stand (1), co-operating with each other in rolling said workpiece to a required shape and/or size, located orthogonally to a rolling direction (4); at least one of said working rolls (2, 3) is displaceable within said roll stand (1), orthogonally to the direction of rolling (4), and is associated with a pressure unit (13, 14) which is capable to exert rolling pressure (N) to the working roll; at least one of said working rolls (3, 4) is without any back-up rolls, and is embedded in a rotary manner into a bearing bracket (11, 12) located opposite to the rolling area, supporting at least a part of an external surface (9, 10) of said working roll (2, 3) as a trough; means for providing a continuous lubricant film between the external surface (9, 10) of said working rolls (2, 3) and the bearing bracket (11, 12), preferably at least one groove-like fluid chamber (29, 30; 32 to 35) being provided in the part of said bearing bracket (11, 12) embedding said working roll (2, 3); said means is connected to a fluid source; said working roll (2, 3) is connected via said bearing bracket (11, 12) to said pressure unit (13, 14) for transferring rolling pressure; the pressure unit (13, 14) is provided as a means for transferring rolling pressure evenly along the whole length of said bearing bracket (11, 12), preferably as one or more hydraulic power cylinders (H). The main advantage of the invention is that it provides a considerably simpler and more economical solution by eliminating the supporting rolls and by a new embedding system of the working rolls, thus eliminating abrasion and energy loss which are inevitable in the traditional apparatus.

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