Title (en)

SYSTEM TOOL AND TOOL FOR MACHINING

Title (de)

SYSTEMWERKZEUG UND WERKZEUG ZUR SPANABHEBENDEN BEARBEITUNG

Title (fr)

SYSTÈME-OUTIL ET OUTIL PERMETTANT L'USINAGE PAR ENLÈVEMENT DE COPEAUX

Publication

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Application

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Abstract (en)

[origin: WO2014183742A2] The invention relates to a system tool (50) and a tool (50) for the rotational machining of a workpiece and for connecting to a cooling lubricant supply, comprising a plurality of cutting elements, which are arranged at an offset from each other in an axial and/or radial direction of the tool or tool system and which can be divided into at least two cutting groups depending on the function of the cutting elements, a feed-in point (34) for feeding in a cooling lubricant, and an inner cooling lubricant channel system for distributing the cooling lubricant from the feedin point to each cutting element. The first and second cutting groups (64, 74) are assigned first and second lead-off or branching points (68, 78), respectively, for leading off cooling lubricant from the cooling lubricant channel system. A connection channel of a first or second type (70a, 70b, 80a, 80b) is associated with each cutting element of the first and second cutting groups, respectively, which connection channel establishes fluid communication from the first and second lead-off or branching points (68, 78), respectively, to the respective cutting element. Thus, a supply path of a first or second type is formed for each cutting element of the first and second cutting groups (64, 74), respectively, which supply path establishes fluid communication from the feed-in point (34) via the first or second lead-off or branching point (68, 78), through the connection channel of the first or second type (70a, 70b) associated with the respective cutting element. The designs of the supply paths of the first type and the designs of the supply paths of the second type are selected in such a way that the response time of the supply of the cutting elements of the first cutting group (64) and the response time of the supply of the cutting elements of the second cutting group (74) with cooling lubricant are matched as closely to each other as possible. The designs of the supply paths of the first and second types can be selected in such a way that, of the supply rate of the cooling lubricant provided from the cooling lubricant supply via the feed-in point (34), a predetermined first partial supply rate and a predetermined second partial supply rate of the cooling lubricant are conducted to the first and second cutting groups (64, 74), respectively.

IPC 8 full level

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