

新型小型万能工具磨床设计

摘要

随着制造业的飞快的发展，制造业特别是以加工中心为代表的现代机械对刀具的使用达到了非常严格的要求，加工刀具的精度，寿命和刀具的构造日趋成为影响加工能力，精度和生产效率的限制因素，与此同时价值不菲的刀具在工厂生产成本中的权重也日趋增加。因此，加工刀具的再加工（重磨）成为制造业不得不重视的环节，也使得刀具的操作者对工具磨床的选择提出了更加严苛的要求。

本论文根据小型万能工具磨床的主要技术参数和其所能实现的功能进行了整体性设计，通过查找相关参考文献，首先进行了工艺和运动分析，整体性把握了磨床的结构与构成，从而在此基础上进行了字滑板进给设计其包含纵向进给和横向进给两部分，之后完成了垂直升降套筒进给设计及纵向，横向和垂直导轨的设计与固定，电动的设计，选择与固定，磨床得支承件设计，磨床的操作控制，最后在此基础上进行了铣刀，车刀，钻头的夹具设计，完善了万能工具磨床的设计，实现了对刀具的再加工。

关键字 工具磨床；再加工；结构设计；夹具设计

Abstract

With the rapid development of manufacturing industry, the use of tools by modern machinery, especially in the manufacturing industry, especially by the processing center, has reached very strict requirements, and the precision, life and construction of machining tools have increasingly become a limiting factor affecting processing capacity, precision and production efficiency, while the weight of valuable tools in the production costs of factories has increased day by day. Therefore, the reprocessing (regrinding) of machining tools has become a link that the manufacturing industry has to pay attention to, and also makes the operator of the tool to the choice of tool grinder put forward more stringent requirements.

This paper according to the main technical parameters of the small universal tool grinder and its function can be achieved for the overall design, through the search for relevant references, the first process and motion analysis, the integrity of the grinding machine structure and composition, and thus on this basis, the word skateboard into the design of its include vertical feed and horizontal feed two parts, and then completed the vertical lifting sleeve into the design and vertical, horizontal and vertical rail design and fixing, electric design, choice and grinding, The operation control of the grinder, and finally on this basis, the fixture design of milling knife, car knife and drill bit has perfected the design of the universal tool grinder and realized the re-machining of the tool.

Key word Tool grinder; reprocessing; structural design; fixture design

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要
下载或阅读全文，请访问：

<https://d.book118.com/138113052130006110>