

## عنوان مقاله:

Troubleshooting and optimization for drilling process based on deflection and breakage of HSCO twist drills in use with multi spindle, Jigs and fixture on special drilling Machine

## محل انتشار:

هفدهمین همایش ملی و ششمین کنفرانس بین المللی مهندسی ساخت و تولید (سال: 1399)

تعداد صفحات اصل مقاله: 5

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## خلاصه مقاله:

Drilling is a cutting process which uses a twist drill bit to cut or enlarge a hole of circular cross-section in solid materials such as metals, polymers, etc. In this study, optimization of the cutting parameters on drill deflection and fractions was performed. The optimization of the cutting parameters was evaluated based on imperfection in Drilling tools and substantial tool life decreasing. The control parameters were considered as machine properties, cutting speed, feed rate, drill ratio lengths to diameters, workpiece material and other relevant parameters in order to detect malfunctioning root causes. All of the parameters were studied deeply in order to detect the root cause. All parameters as tool originality, tool material, machine properties, tool lengths, and all the possible parameters step by step and at the end root cause of problem had been detected in machine tool clutch system. All the parameters and study methods are explained in detail and step by step accordingly.

## کلمات کلیدی:

drilling-optimization-deflection

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1278095>

