

SUCCESS STORY

www.gerber-maschinen.ch

Efficient and reproducible rounding of threading inserts

Customers are accustomed to the accuracy and extreme precision of René Gerber AG, based in Lyss, Switzerland. For years, the company has been a specialist in the field of rounding cutting tools made of carbide.

Introduction

Selectively rounding the cutting edge can significantly increase the service life of both drill and milling inserts as well as indexable inserts. This results in a longer service life for inserts, which in turn has a positive effect on economic efficiency. The long-life formula of the cutting edges of threading inserts is one of René Gerber AG's specialist areas, in which it sets itself the goal of continuously improving itself and cementing its reputation as a specialist.

It may even seem that the tool can no longer perform its task if the cutting edge is no longer razor-sharp. However, the results of edge rounding are quite the opposite.

Solution

Edge rounding produces a considerably lower chipping along the cutting edge. As a result, the tools run smoother, more precisely and oscillate less. The result is higher precision, better surface quality and ultimately a longer service life and process reliability. In addition, a rounded cutting edge allows significantly faster cutting speeds and feeds, which has a positive influence on process efficiency and economy.

Initial situation

At first glance, it might seem illogical to round off the cutting edge of a long-life threading insert.

THE RENÉ GERBER AG

Mechanical engineering

RENÉ GERBER AG was founded in 1955 and initially successfully manufactured rounding and polishing machines for the Swiss watch jewel and sapphire crystal industry. The engineers at René Gerber AG have meanwhile consistently advanced developments in the machining of hard and ultra-hard materials.

Today, Gerber is one of the leading suppliers of edge rounding and polishing machines for carbide inserts.

With service centres and agencies in 17 countries, with which we maintain close cooperation, we seek close proximity to our customers so that we can continuously respond to their needs.

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BP-MX brush polishing machine

With the BP-MX brush polishing machine, René Gerber AG has the solution for precise, targeted and reproducible edge rounding and polishing.



The handling of the BP-MX by touch panel is fast, simple and perfectly controllable. Thanks to the exchangeable revolving or rotary table for rotating parts, the modular machine is available in a user-specific configuration. Tables can be equipped with fixed or swivelling spindles and with cylindrical or hollow taper shank holders.



The advantage of Gerber's edge preparation over other solutions lies in its well thought-out concept and superior technology:

- long tool life
- higher abrasive performance
- smooth tool running»

Marc Schori CEO, René Gerber AG

Process

Part designation:

Indexable inserts

Material:

Carbide

Industry:

Tool manufacturers, automotive, oil and gas pipe connections

Task:

Edge preparation (before coating)

Brush:

Diaflex, interspersed with diamond

Workpiece holder:

Triangular inserts, 10 rotating mandrels (several inserts per mandrel), thread chaser (and all flat inserts), 6 cages

Processing time:

5.0 minutes

Capacity 5/8" triangular inserts:

Rounding 0.07 mm, 500 pieces/hour

Capacity 1" thread chaser:

Rounding 0.08 mm, 600 pieces/hour

