

# HK PRECISION PARTS: SWISS QUALITY, MADE IN THE USA

When Hans Kocher came to the USA in the 80s, he brought with him a great deal of expertise and experience in bar turning, together with a love for the land of boundless opportunities. By founding HK Precision Parts Inc. in 1994, this Swiss man with an obsession for quality took the first step towards independence. Specializing in the high-precision production of a multitude of different parts has enabled the company to position itself very successfully in a highly competitive market to the present day. In order to achieve this, HK Precision deliberately makes use of Swiss technology, such as Tornos machine tools and Motorex machining fluids.



Small but perfectly formed – HK Precision Parts in Ronkonkoma/NY has established itself as a precision manufacturer of bar turning parts. In addition to the high degree of expertise of its motivated staff members, one of the major factors in the company's success is their particularly innovative use of production technologies.

Hans Kocher, who came originally from Meinisberg near Biel founded his company in New York State in 1994 together with his wife. Today, the firm, based in Ronkonkoma on Long Island/New York occupies around 1,115 m² of land and employs 8 members of staff. HK Precision Parts uses more than 18 different machines to manufacture turned parts made of non-ferrous metals, aluminium, a whole variety of different types of steel, titanium and even synthetic materials. The company covers the entire range of machining from demanding one-off production and small series on CNC-controlled machining centres right up to comprehensive series manufacturing on cam-controlled turning machines. One further advantage: Hans Kocher and his team can also offer

in-house metal finishing processes such as milling, thread rolling and honing. The main customers for what are mostly pre-finished parts are companies from the following sectors:

- Aerospace
- Precision gear manufacturing
- Precision instruments
- Electric motor manufacturing
- Electric component manufacturing
- Pneumatic parts manufacturing
- Special screws
- Shafts
- Dental implants and tools

03/12 **deco**magazine 51

## The present



Internationality is the norm at HK Precision Parts: In this respect, people from 5 different nations work at the firm on machinery that is constructed to exactly match market requirements, and which is operated entirely with Motorex machining fluids.

The company can process bar stock with diameters from 3 to 65 mm. The company is currently working in accordance with ISO 9001:2008 and is aiming to gain certification in accordance with ISO 14001 with regard to environmental standards.

## Specialising in 'Swiss-style turning'

In the United States, the term 'Swiss-style turning' is understood to mean the conceptual standard design of the long turning automatic screw machine to achieve the highest degree of precision. The required tolerances are in the micrometer range; one tenthousandth of an inch or millimetre. This is used to hold and fix the workpiece using a collet chuck and a lathe barrel. Most CNC automatic turning machines are designed as multiple axle machines today and in this way enter into the highest performance class. Often, they are equipped with so-called 'live tools', which are tools driven by a small motor. For a long time, this type of machining combined with CNC



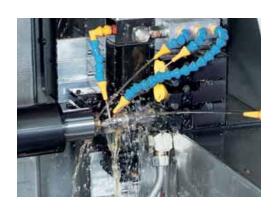
# "TECHNOLOGY PAYS FOR ITSELF"

"The knowledge I had gained in Switzerland enabled me to quickly find the ways and means of accessing the hardware I know so well in the USA. This allowed me initially to find a niche in the field of high-precision parts manufacturing. This then gave us the opportunity to make a breakthrough with various different series orders. It was the combination of perfectly matched machinery, reliable tools and particularly Motorex's universally applicable cutting oil which produced the process safety we were looking for. Combined with our knowledge and ability, our commitment is paying off from an economic standpoint."

Hans Kocher, Owner HK Precisions Parts Inc., Ronkonkoma/New York, USA



This approx. 1.5 cm long high-precision atomizer shaft made of brass for a textile machine was manufactured on a Tornos Deco 2000 shortly after a series of stainless steel parts using the same cutting oil (Ortho NF-X).



52 **deco**magazine 03/12

control was seen as quite exotic and the industry continued to work in the USA for many years with traditional turning machines (fixed head lathe). By his use of Tornos machining centres (13 machines, including a Deco 20A, 2000, ENC-167, Delta 20/5 and MS-7), Hans Kocher put his faith in high-tech machines and was thus able to produce parts that other companies had great difficulties with.

## **HK Precision Parts meets Euroline Inc.**

While searching for qualitative and high-value performance machining fluids, Hans Kocher got to know Peter Feller in 1998, the owner of Euroline Inc. from New Milford. The company also has Swiss roots and

has been importing Motorex products into the USA for more than 25 years. With a core competency in industrial applications, Peter Feller knows what many clients want in terms of modern cutting oils and cooling lubricants: universal application with high performance and easy handling. By means of comparison tests with traditional lubricants, Peter Feller was able to convince his clients in nine out of ten cases of the product advantages of industrial lubricants made by Motorex Swissline. The same is also true for the team at HK Precision Parts, who have been successfully using the universal high-performance cutting oil Motorex Ortho NF-X for many years, as well as the groundbreaking Magnum UX 200 cooling lubricant in the field of applications with emulsion.



A selection from the HK product palette: The universal high-performance cutting oil Swisscut Ortho NF-X is equally convincing in terms of processing high-alloy steels as well as non-ferrous metals, aluminium and plastics.

03/12 **deco**magazine 53

## The present

#### **Breakthrough with Motorex Ortho NF-X**

Every operator of a bar turning business understands the fundamental significance of the type of cutting oil used. Motorex was able to use Ortho NF-X, with its vast range of applications, to convince not only Hans Kocher, but several firms in the USA straight away. The universal character of its applications and the high degree of quality have a direct effect on convenience and economy. In this way, Ortho NF-X can be used to process stainless steel, aluminium and brass without the need for a fluid change. In addition, the cost of logistics (-60%) and recycling costs (-96%) could be reduced considerably. The latter is also true, since the cutting oil is periodically filtered and quantities that have been removed are supplemented with fresh Ortho NF-X. In doing so, a great deal of care is taken to ensure that no mixing with other lubricants takes place. This saves on having to dispose of even the tiniest amount of oil, which incidentally costs more in the USA than the new product itself! Using this tried and tested procedure, HK Precision Parts has been saving on costs for years and was therefore able to increase process safety and productivity sustainably in the face of tough competition. Workplace quality has also been improved by the use of the chlorine, zinc and heavy metal-free Swisscut Ortho NF-X

## Cutting costs – protecting the environment

Motorex Swisscut Ortho NF-X is an innovation in production technology - one single cutting oil is suitable for all machining processes. The removal of various complex procedures resulting from several types of

cutting oil means that production lines can be utilised to capacity, even with mixed machining. The result is a considerable cost optimization. The current generation of Swisscut Ortho products is also harmless to people and the environment.

We would be delighted to provide you with information about the range of Motorex machining fluids and the options for optimisation within your area of application:



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54 **deco**magazine 03/12