

# Staircases

Cutting tools – optimum solutions





### **A wide product range**

We give you access to a wide range of standard tools from the world's best manufacturers – in high quality and at prices much lower than you would think.

# Challenge your tool supplier

## **Only the results count**

Manufacturing staircases in the most rational way poses a real challenge. A multitude of factors must come together to enable you to manufacture quality products at the lowest possible unit costs.

Your entire production process must be optimized to ensure that the combination of machinery, human resources and tools results in the best possible competitiveness.

## **Our job is to solve your challenges**

Over many years, we have built up extensive knowledge about everything related to chip removal. Therefore, you can expect us to understand your challenges and goals, and that our counseling as well as our tooling solutions are targeted towards your products and your everyday challenges.

Step by step, we can advise you about the perfect solution for your production of staircases. The right standard tools combined with specially developed solutions and our know-how about machining parameters can increase your productivity significantly.

## **Much more than tools**

By choosing Kyocera Unimerco as your supplier, you get access to the latest know-how on production optimization, tooling and machining technology, numerous services, and, of course, a complete tooling range.

For the production of staircases, a large number of customized tools are used. Our experienced experts are ready to contribute with their special skills, and in a close dialogue with you, we create the special tools needed for your particular production process.

Besides customized solutions we offer a wide range of standard tools carefully compiled from the best manufacturers in the world. Just like the customized tools, the standard tools are characterized by high quality matching the needs and requirements of our customers.

# Strings



## Shaping of strings

Wide range of standard and customized roughing and finishing cutters made of solid carbide. The cutters feature the latest carbide qualities and have optimum cutting geometries. They may be PVD-coated in our coating centre, for even better tool life and cutting quality.

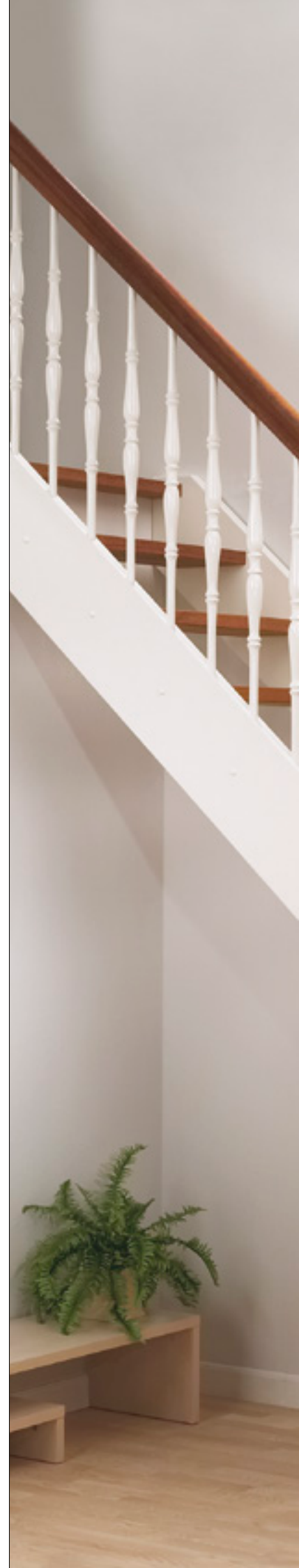
All of the tools are customizable for the specific machining situation, resulting in high cutting quality and long tool life.

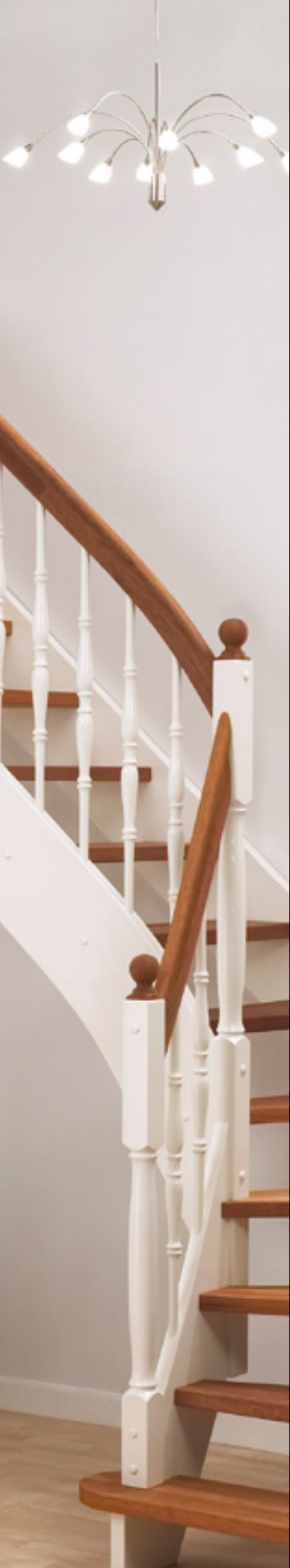


## Sawing

Wide range of carbide circular saw blades, for instance specially developed blades with optimized cutting geometries.

Optimum cutting quality, less tear-out, longer tool life and less noise.





## Tenoning

Reversible knife/insert knife solutions as well as brazed tools for end machining/tenoning of strings.



## Stair housing

Specially developed dovetail cutter designed with exchangeable reversible knives or solid carbide milling cutters for stair housing.



## Drilling

Large and complete drilling programme comprising standard through-hole and dowel drills as well as cylinder boring bits in different qualities. Specially developed drills for optimum drilling of balusters.

# Steps



## Sizing

Solid carbide roughing cutters for sizing wooden steps, either as standard tools or as customized tools to ensure optimum performance for the specific task.

When sizing steps in MDF or other abrasive materials, UM diamond tools (DP) are recommended. One benefit of DP tools compared to solid carbide tools is much longer tool life. However, in many cases, solid carbide roughing cutters can be treated with a special coating, which increases tool life significantly.



## Drilling

Large and complete drilling programme comprising Standard Performance (SP) dowel drills and cylinder boring bits. Wide range of High Performance (HP) drills.



## Profile milling

UM PROFILE™ and other insert knife solutions are perfect for profile milling of steps. We can make you an optimized, customized solution within a few days.

For MDF and other abrasive materials, UM PCD tools are recommended. Optimum profile milling means less scrapping, which benefits your manufacturing economy.





# Banisters



## Profile milling

Profile milling of banisters is made on either CNC machines (spiral banisters) or on moulding machines (straight banisters). For both types of machines, several different tooling solutions are available, with exchangeable or brazed knives.



## Drilling

Large and complete drilling programme comprising Standard Performance (SP) dowel drills and cylinder boring bits. Wide range of High Performance (HP) drills. Holes with no tear-out reduce your rate of complaints significantly.

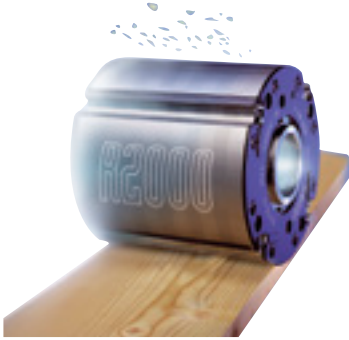


## Saw-cutting

Wide range of carbide circular saw blades, for instance specially developed blades with optimized cutting geometries.

Optimum cutting quality, less tear-out, longer tool life and less noise.

# Posts & balusters



## Square planing

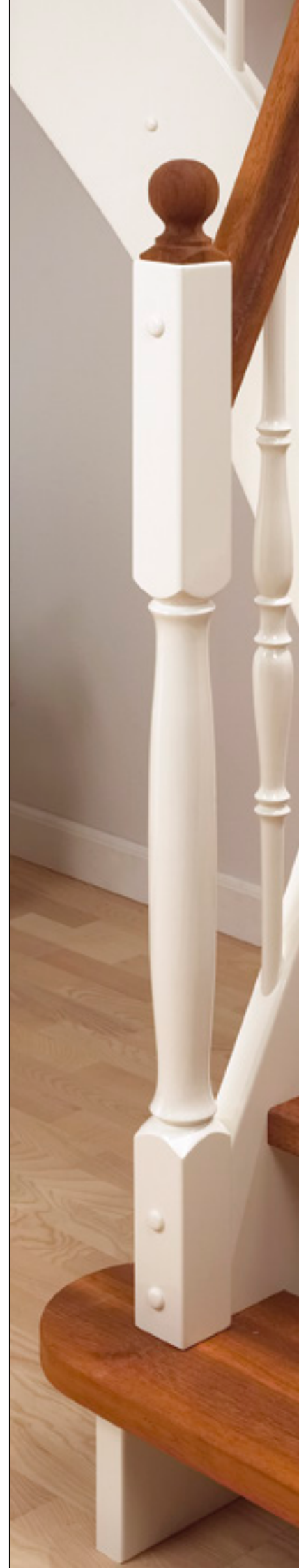
Original Tersa from the manufacturer Samvaz in Switzerland is the most flexible system for square planing on the market. With 5 types of knives, you always have the optimum solution for your specific task.



## UM Rotary Tool

We have developed an insert knife tool solution for turning balusters. Older systems for the task had short tool life, and setting up the tool after regrinding was cumbersome.

With the UM Rotary Tool, the insert knives can be replaced without the tool bodies leaving the machine. This allows you to resume the turning of balusters within minutes. All this increases your capacity.







### **Milling of posts**

For machining post ends, 3-point cutters for insert knives may be used.

With customized solutions, the machining process becomes even more effective.



### **Saw-cutting**

For saw-cutting posts, you can choose the most suitable solution from a wide range of carbide circular saw blades, for example specially developed blades with optimized cutting geometries, ensuring low noise and a good saw cut. Using the right blade for your specific task is very important in relation to noise and, thus, to the overall working environment.



### **Drilling**

Large and complete drilling programme comprising Standard Performance (SP) dowel drills and cylinder boring bits. Wide range of High Performance (HP) drills.



# Good cooperation shows on the bottom line

## **Your competencies are the basis**

You are an expert within your field, and you know all there is to know about your products. We can help you strengthen your competencies in process and tooling techniques through competent guidance and possible training of your staff.

## **Know-how about efficient production**

We have gathered the extensive international experience of our experts and combined it with the latest know-how about tooling and processing techniques. We use this knowledge to develop new tools and advise you on possible rationalizations in your production.

## **Effective cooperation makes all the difference**

We help you review your production, focusing on any quality issues and bottlenecks.

Solid hands-on experience and unique calculation models give you an optimum basis to decide which processes may benefit from rationalization.

Together we select the right tools for the given task and we advise you on cutting technique, machining parameters, etc.

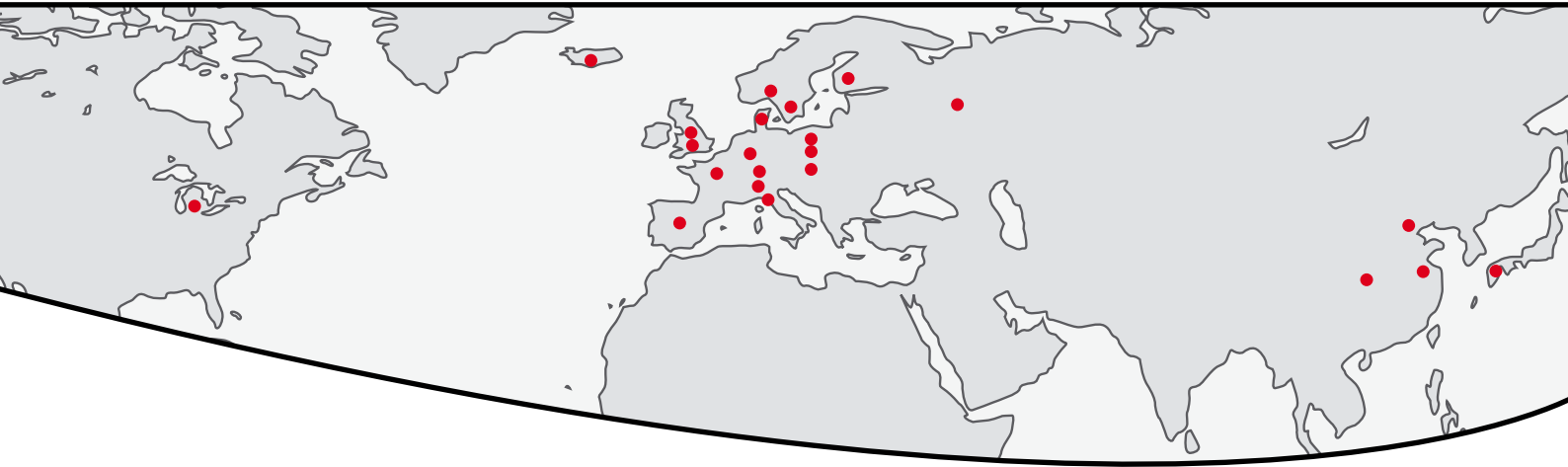
In brief, we help you achieve the quality you want at the lowest possible unit costs.

## **It shows on the bottom line!**

## KYOCERA UNIMERCO Tooling Ltd.

KYOCERA UNIMERCO manufactures, distributes and services tools for machining, primarily for the metal, woodworking, automotive, aerospace, power generation and fluid power industries. The technology centre in Lichfield focuses on effective solutions for production. The tooling concept comprises standard and customised tools, RE•NEW® tool maintenance, coating and optimisation guidance. The Sheffield branch specialises in supplying inserts, standard tools and related tool solutions to the industrial market in the UK, including the general machining, aerospace, offshore and medical industries.

The company was established in 1998, services all of the UK, and is part of the KYOCERA UNIMERCO group, founded in Denmark in 1964 and originally named UNIMERCO. In 2011, all activities were acquired by Japan-based KYOCERA. This has created an even stronger company with a larger range of products, a wide network of companies and distributors all over the world, and an ambitious growth plan.



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