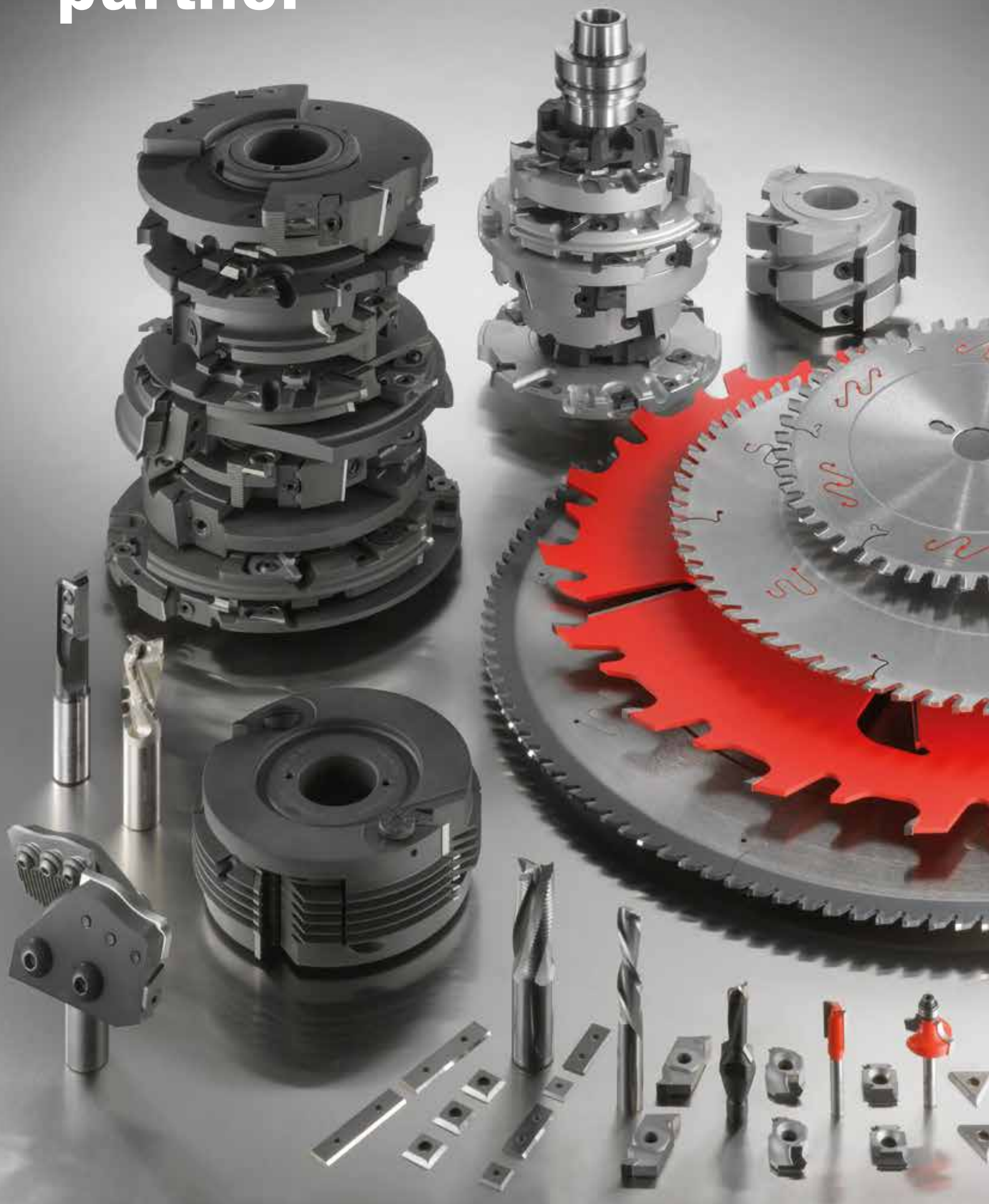


freud

Highlights 2019



Your productive partner



A wide range of top performing products

An extensive variety of precise and high-tech tools.

- Circular Saw Blades: the biggest manufacturer of high quality saw blades worldwide.
- Cutterheads and Brazed Cutters: freud sets the highest standard in the wood industry and window tooling.
- Knives, Spare parts and Accessories: in-house production of all Carbide inserts, unique in the world.
- Drilling, Routing & CNC Tools: a complete range for all applications.



A wide range of industrial cutting tools.

High quality solutions for your applications

Engineering competence and manufacturing know-how.

- Customized-to-Order: products to match special production needs.
- Enhanced technologies: Silver I.C.E., Perma-SHIELD, EXrim, ISOprofil, High Speed ISOprofil and Split-Edge.

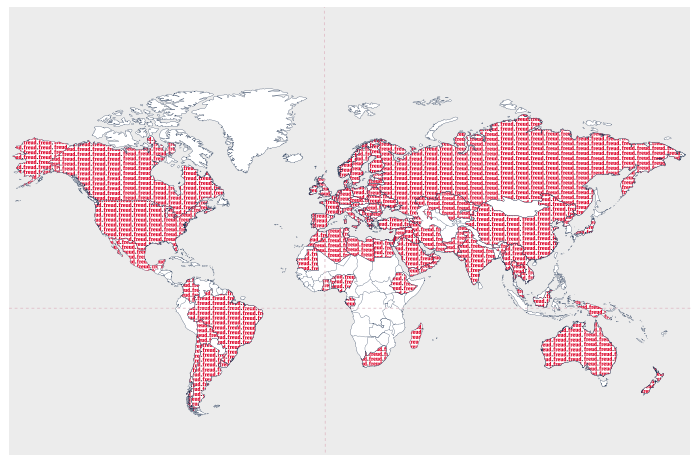


Advanced engineering and technology.

Global services wherever you are

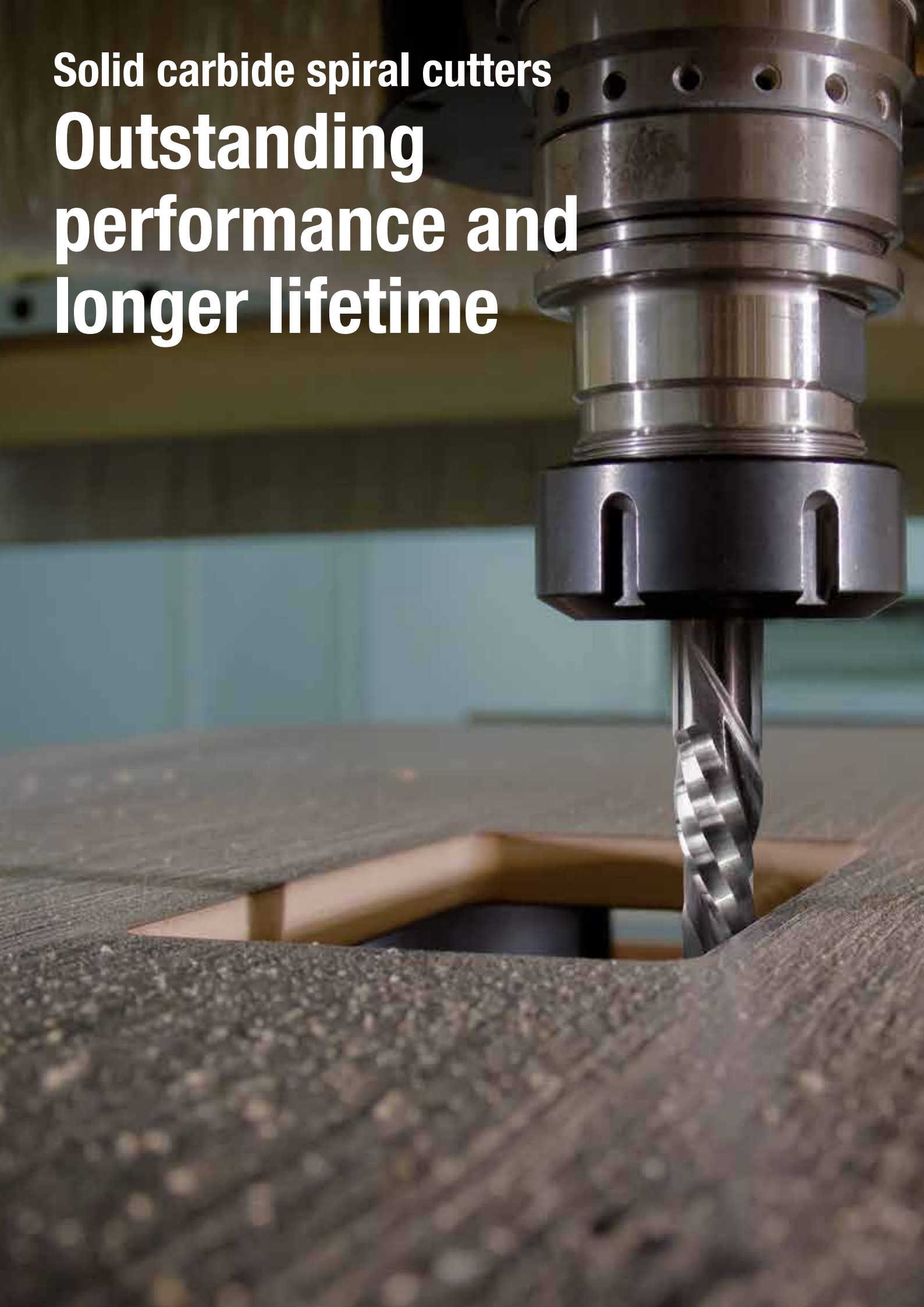
A belief in “think global and act local”.

- Our worldwide subsidiaries and partners in over 90 countries ensure an extensive service and distribution network.
- Since 2009 freud is part of Bosch group, leveraging the global network of the world leading technology supplier.



Worldwide presence.

Solid carbide spiral cutters
Outstanding
performance and
longer lifetime



Superior cutting performance

- Tight mechanical tolerances, special flute design and best-in-class manufacturing machines ensure the highest cutting performance, with reduced eccentricity and no vibrations.

Flawless finishing in high demanding applications

- The range delivers a perfect finishing, as a result of the newly developed helix design and geometries.
- The exclusive relief angle of freud solid spiral cutters lowers the pressure on the cutting edge and reduces vibrations at high feed rate. The improved chip removal guarantees impeccable results.

Up to 50% longer lifetime

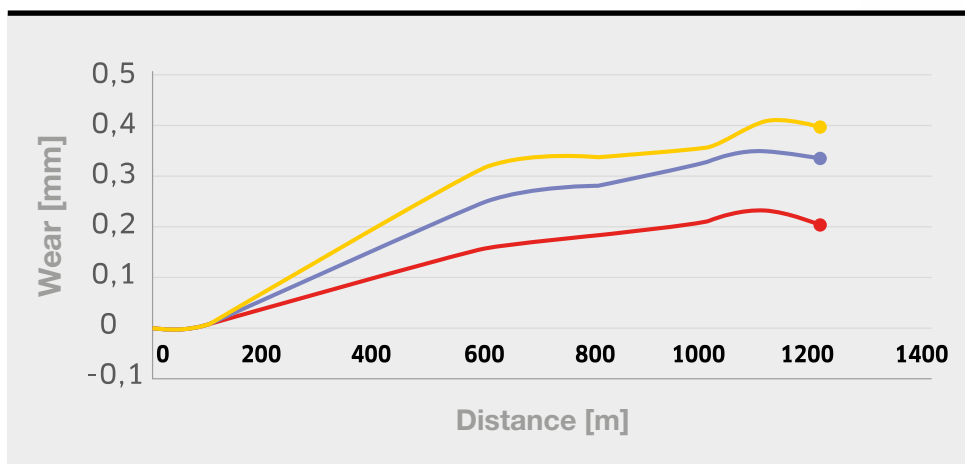
- The new micrograin carbide formula (H05MG), specifically engineered to achieve a high level of hardness and tenacity, guarantees the greatest resistance to wear and impact. Freud spiral cutters are, in fact, up to 2 times more resistant to heat and abrasion than competition.
- Freud manufactures a premium Titanium Cobalt Carbide – TiCo – for its unique resistance to resin and glue corrosion that extends the tool lifetime.



Applications

To be used on all CNC routers for:

- Nesting
- Sizing
- Rabbeting
- Grooving
- Dividing cuts of raw material.



Wear test results : Freud SCH cutters deliver 50% longer lifetime than competitors.



- Freud SCH
- Competitor 1
- Competitor 2

Spoilboard surfacing cutters

**Flawless finishing
and extraordinary
durability**



Remarkable cutting performance

- Freud Spoilboard surfacing cutters NC12 provide the greatest cutting performance and vibration-free cuts, on accounts of tight body mechanical tolerances, tool dynamic balancing and extremely precise knives.

Flawless finishing

- The new range of NC12 cutters delivers perfect results, thanks to the shear angle positioning of the knives.

Exceptional durability

- A dedicated and premium Titanium Cobalt Carbide – TiCo – formula, in-house manufactured by Freud, offers 40% higher resistance to wear.



Applications

Surfacing/skimming and rabbeting.

Materials

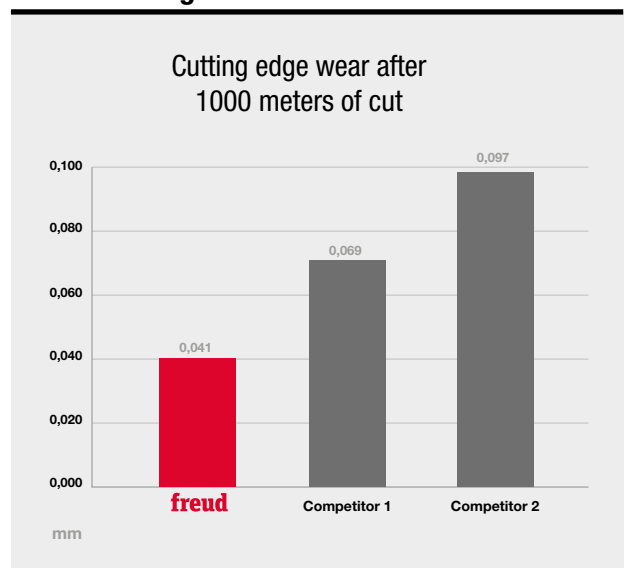
Wood and derivate panels.

Knife wear



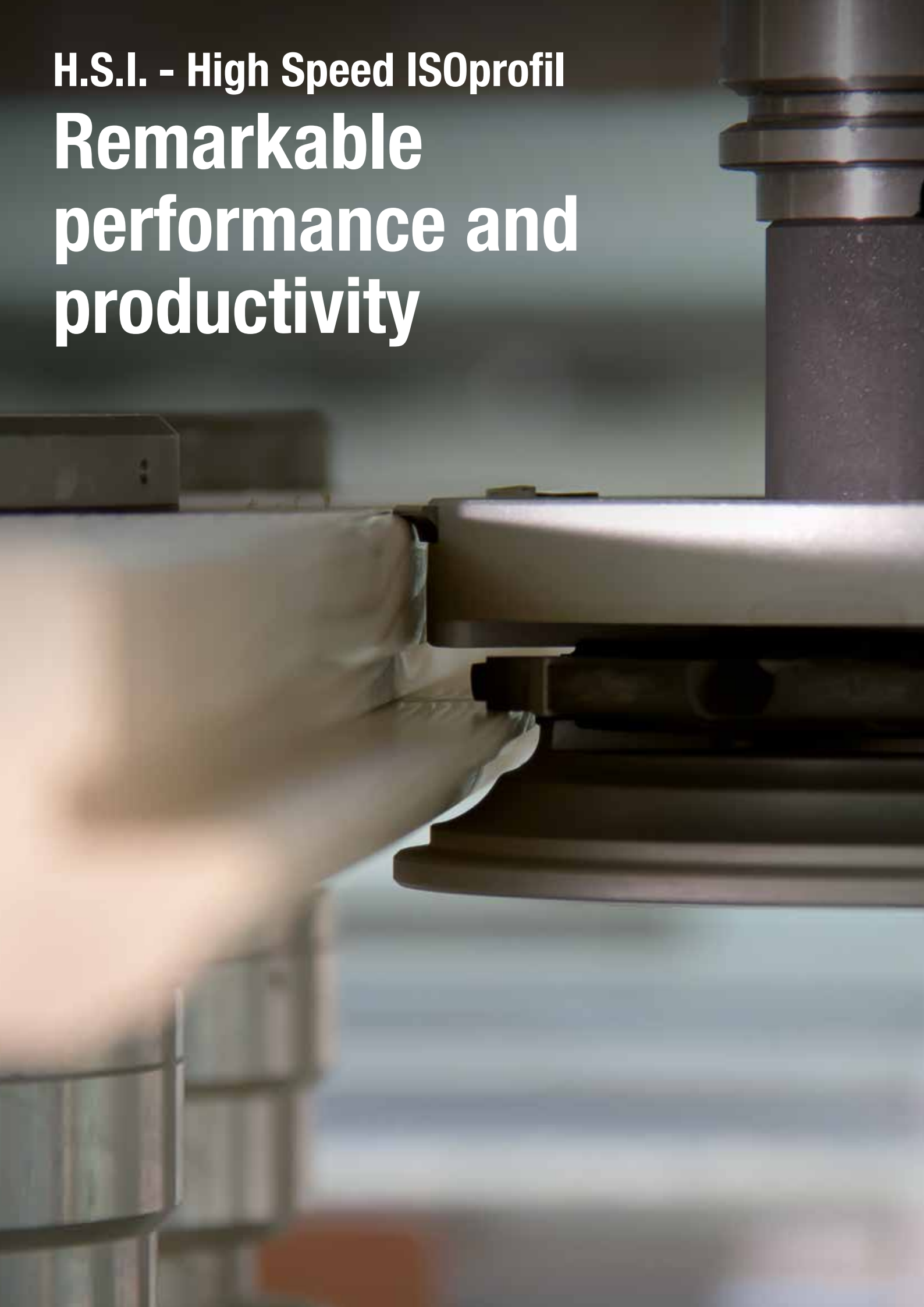
Wear has been measured as the distance between new and worn edge.

Higher resistance to wear



Test results prove that freud NC12 deliver at least 40% higher resistance to wear.

H.S.I. - High Speed ISOprofil
Remarkable
performance and
productivity



Supreme productivity

- Freud H.S.I. - High Speed ISOprofil, with an exclusive locking system, allows the use of ISOprofil re-sharpenable knives at high rotating speed (100m/s) and at extreme feed-rates.
- H.S.I. improves the machine performance, enabling a higher production in a reduced time. The ease of access to knives and their fast re-positioning reduce both the set-up and the maintenance time.

Maximized efficiency

- Freud Split-Edge knives reduce the cutting pressure and prevent edge chip out.
- These knives, re-sharpenable up to 6 times, both enhance the productivity and increase profitability, always delivering a flawless profiling of door and window joints.

Perfect surface cutting

- Freud leverages the Hybrid technology, a combination of existing Freud tested locking systems, which process in one step, the 2 step phases of pre-cutting and finishing. This results in an impeccable finishing and in an increased productivity.



ISOprofil



Performance System



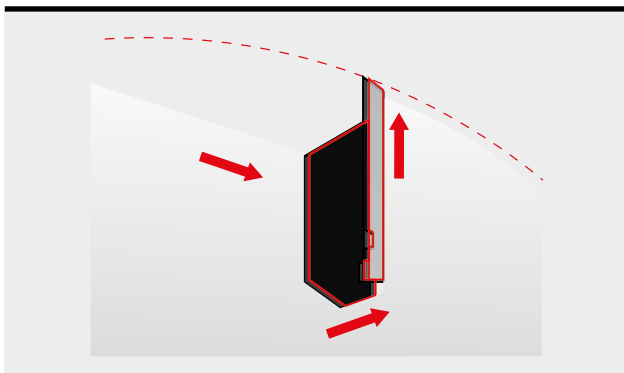
Split-Edge

Applications

Window tooling.

Materials

Hard and soft wood.



Automatic cutting diameter recovery system after re-sharpening.



New Carbide rounded razors

**Perfect results
and longer
lifetime**



Flawless finishing in high demanding applications

- The range delivers a perfect finishing, as a result of tight tolerances, bore centering and thickness. Premium roughness is ensured by state-of-the-art grinding technology.

Outstanding longer lifetime

- Fine-grain Carbide (K01S), specifically formulated to achieve a high level of hardness and tenacity. The formula guarantees the greatest resistance to wear and impact.



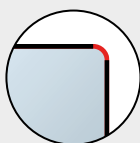
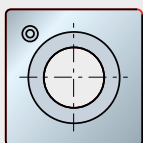
Applications

Spiral or helical planer heads.

Materials

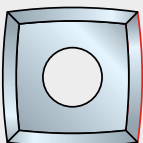
Wood and derivatives.

How to read codes



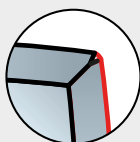
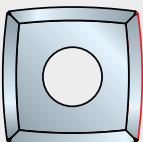
RR01

Razor with rounded corners



RR10

Razor with rounded edges



RR11

Razor with both rounded corners and edges



**LSB X - Saw blades for
panel sizing**

**30% longer
lifetime**



Long lasting results

- Increased durability per sharpening cycle, due to the latest improvements in the production process.
- Advanced technology implementation to deliver a superior performance in the panel sizing applications.

Multiple sharpenings

- Tip thickness 30% greater than standard tips - super square tooth design.
- Up to 30 sharpenings to extend the product lifetime.

Wider range - a solution for every need

- A larger variety of blade dimensions fulfills the requirements of the most popular panel sizing machines.
- The range includes diameters from 300 mm to 720 mm.



Longer life



Silver I.C.E.
Coating



Anti-vibration

Applications

Panel sizing.

Materials

Chipboard or MDF laminated with melamine or plastic materials.

Diameter from 300 mm to 720 mm.

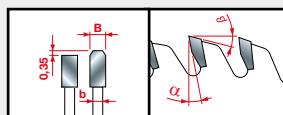
$D \leq 600 \text{ mm } \alpha 15^\circ \beta 15^\circ$

$D > 600 \text{ mm } \alpha 18^\circ \beta 13^\circ$



Material

HW H00XA



Tooth features

DP scorers

Polycrystalline diamond for supreme lifetime



Exceptional longer lifetime

- Freud scorer tips combine the hardness of the Polycrystalline Diamond with the extreme wear resistance of the in-house manufactured Carbide, to achieve extended lifetime as well as unparalleled finishing results.
- The tips help to reduce the machine downtime and improve the machine productivity, especially in the industrial panel sizing application.

Reduced friction

- Freud Silver I.C.E. Coating, a high performing and anticorrosive coating, laid over the entire body, minimizes friction, ensures lower operating temperature and delivers cut precision.
- The non-stick feature improves chip ejection and notably reduces resin build up, extending the blade lifetime.

Improving machining performance

- DP conical and adjustable scorers are suitable for manual and automatic feed, achieving the greatest results when cutting bilaminated chipboard or MDF.
- With a continuous commitment in new materials and their properties, Freud engineers design and develop innovative solutions that deliver a distinctive advantage to players in the furniture and construction industry.



Applications

Panel sizing.

Materials

Chipboard or MDF laminated with melamine or plastic materials.

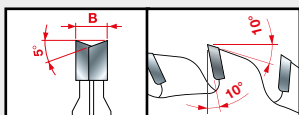


Adjustable scorer

Diameters: 100 - 120 mm
Number of teeth: Z=12 + 12
DP height: H6 mm



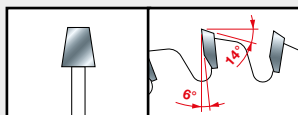
Material



Tooth features

Conical scorer

Diameters: 120 – 215 mm
Number of teeth: Z=24 – Z=36
DP height: H4 mm and H6 mm



Tooth features

freud

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