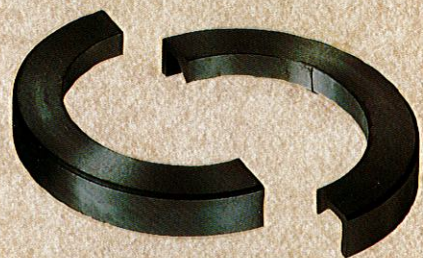
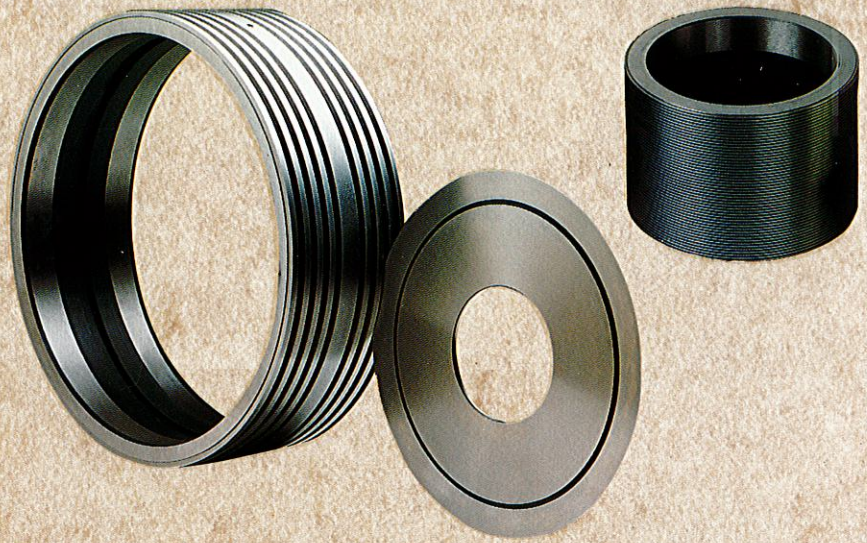


**TOP QUALITY
KNIVES
FOR PAPER INDUSTRY**

RUMMAKKO COMPANY

manufactures and markets high quality blades for the wood processing industry and is a world-level supplier of blades to the paper industry.

Our products mean high quality coupled with economy, both in cost and in use, as we have developed and supplied some of the best blade applications in the world for winders. An example would be the development of the Tugesten Carbide slitter pairs for VALMET slitter-winders.



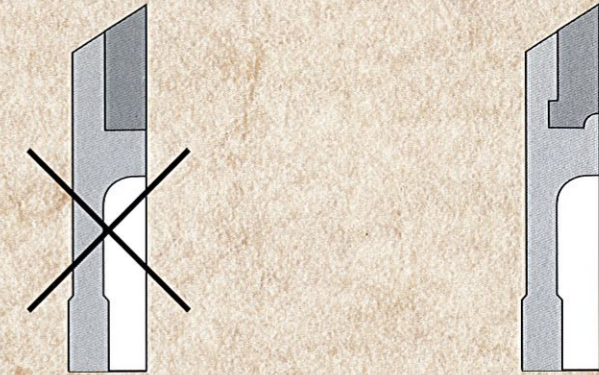
RUMCUT TCS

A special super-finished blade application with a bottom blade of Tungsten Carbide and a top blade of special powder high speed steel, with special polishing and the sides of the cutting edge micro-finished. This is the proper selection for very rigorous conditions as in abrasive paper grades and printing fine paper grades.

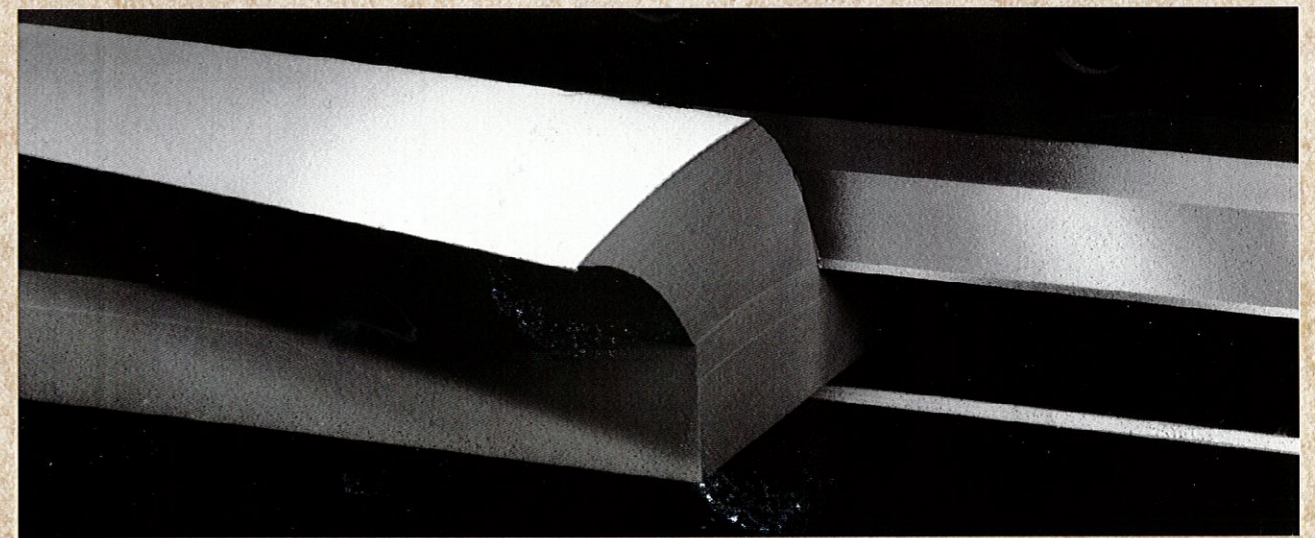


SAFETY CONSTRUCTION

The Tungsten Carbide slitter blades have two parts, the base ring and the Tungsten Carbide knife ring. Traditionally they are clued together. This traditional construction may fail in some situations causing the Tungsten Carbide ring to become loose.



To avoid dangerous situations RUMMAKKO has developed a unique safety construction.



TRIMMER BLADES

Our product range consists of a large selection of cutting blades for 1-sided, 2-sided and 3-sided trimmers.

The blade materials are different grades of tool steel, high speed steel and Tungsten Carbide. We also have quality blades for BIELOMATIC, PERFECTA, POLAR and many other trimmers.

QUALITY

Dust is the traditional problem with cutting paper. The formation of dust can be reduced with the following methods:

- using high quality blades
- selecting the right blade material
- proper operation of the winder, pressures, transmissions
- proper handling, sharpening and finishing the blades

AVAILABILITY AND DELIVERY

RUMMAKKO inventories a large variety of blades for such machines as BELOIT, JAGENBERG, VALMET, VOITH, WÄRTSILÄ, ect., and accompanies this with fast delivery on special-sized blades and blades of special application.

W I N D E R B L A D E S

BLADE MATERIALS

Our winder blades (top and bottom slitter) are available in:

- tool steel
- high speed steel
- powder high speed steel
- Tungsten Carbide

Each of these materials have different grades and qualities, but we use only the best available.

Features to achieve the best economical results:

- wear resistance
- toughness
- grinding

WEAR RESISTANCE AND TOUGHNESS

Described here with an index based on tool steel (TS)

	1. WEAR RESISTANCE	2. TOUGHNESS
Tool Steel (TS)	5	10
Powder Steel (PS)	50 - 95	10
Tungsten Carbide (TC)	50 - 200	5 - 10

1. Test at upper abrasion situations; bottom blade TC; top blade hardness HCR 62±1 (Rockwell C-test)

2 Toughness CHARPY C-NOTCH

The above indexes are approximate and depend on each material.

RUMMAKKO TOP AND BOTTOM BLADE PAIRS

TS/TS traditional; no special requirements for resistance to abrasion; not for abrasive paper grades

TS/PS one of powder high speed steel; resistance to abrasion and cutting results will increase

TC/TS increased resistance to abrasion; the bottom blade is of Tungsten Carbide; printing papers

TC/PS very good resistance to abrasion and excellent cutting results, the bottom blade is of TC; high quality printing papers

TC/TC very good resistance to abrasion; excellent cutting result, long life; high quality printing papers

RUMCUTTCS special finish, long lasting blade pair

SPECIAL BLADES

Our wide product range covers the whole pulp and paper industry:

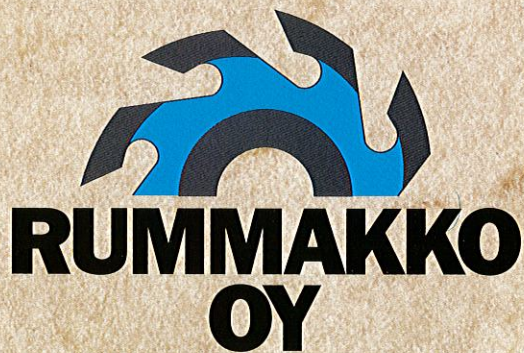
- circular saw blades*
- chipper knives*
- cutters*
- flaker knives*
- special blades*



SERVICE

We will service all of our blades if so desired; if a mill does not have the equipment available, we can suggest such a service outlet or make arrangements for the return to our facilities for sharpening. We are also in ISO 9000 system.





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