



### SUPER TURNKNIFE NEXT GENERATION

#### THE RESULTS OF OUR R&D WORK



The goal of our research and development work is to increase the operating efficiency and durability of our products and create an even better level of production economy for our customers.

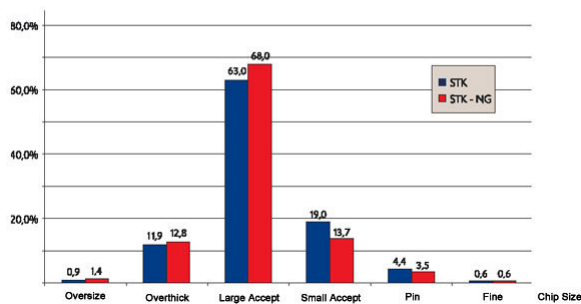
We develop materials, test angles and other geometric configurations. We try to minimize weight while simultaneously improving strength, flexibility and output quality.

After several years of development work, we can now confidently launch the second generation of our Super TurnKnife system.

Super TurnKnife – Next Generation gives a better quality yield because the chips are more homogenous and the proportion of “small chip fractions” is minimized.

Compared with its predecessor, Super TurnKnife – Next Generation can also be customized to a greater extent and thus delivers an optimal financial result.

Scan size distribution - Softwood



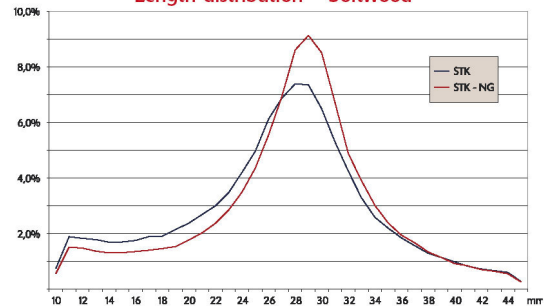
#### TECHNICAL ADVANCES WITH SUPER TURNKNIFE - NEXT GENERATION

Over the years, we have used a unique combination of industry know-how and products, particularly our System II/2000 knife system and the Super TurnKnife, to help individual pulp-mill customers in Europe and North America to optimize the quality, length, width and thickness of their chips.

Jointly with these same customers, we have been able to reduce the consumption of chemicals used in the cooking of wood chips. We have also been able to raise production levels by improving the edge quality of our knives, thereby extending their operational lifetime, and also improved the inherent properties of the pulp by reducing the proportion of fine fractions.

Today, after several years of development, we can now present a third knife system: Super TurnKnife – Next Generation (or STK-NG). The new knife system combines the strength of the original Super TurnKnife with the configuration of the System II/2000. Super TurnKnife Next Generation has greater flexibility, which significantly increases opportunities to optimize chip quality and meet specific customer demands. The cassette has also been improved in order to reduce the build-up of sawdust around the boltheads. This has resulted in easier knife-replacement operations.

Length distribution – Softwood





## CHIP QUALITY

The detailed SCAN+ standard tests conducted on the Super TurnKnife – Next Generation using different chip lengths and types of wood show conclusively that the volume of pins and fines is significantly reduced in favor of the prioritized large accept fraction. Our new Super TurnKnife – Next Generation thus generates considerable wood savings.

With Super TurnKnife – Next Generation, a much narrower chip lengths distribution is obtained, which means that:

- Chipping is conducted under controlled conditions
- A lower proportion of short chips with short fiber-lengths results in a stronger pulp
- A reduction in the amount of cooking chemicals consumed creates cost savings
- The proportion of undesirable chips, such as excessively thick chips and pin chips that can disrupt the cooking process is reduced.

The limited range of chip lengths is achieved as a result of the Next Generation knife's short top surface in combination with the fact that the top surfaces of the knife clamp and wear plate are screw- or helical-shaped.

The Super TurnKnife – Next Generation offers substantial opportunities to rapidly adjust settings to meet changed chipping conditions. This enables an optimal level of chip quality to be achieved, depending on the individual customer's needs.

Iggesund Tools new Super TurnKnife – Next Generation system provides:

- Improved chip quality
- Simplified handling
- Opportunities to rapidly adjust settings to meet new chipping conditions
- Maximal strength combined with optimal chipping geometry.

