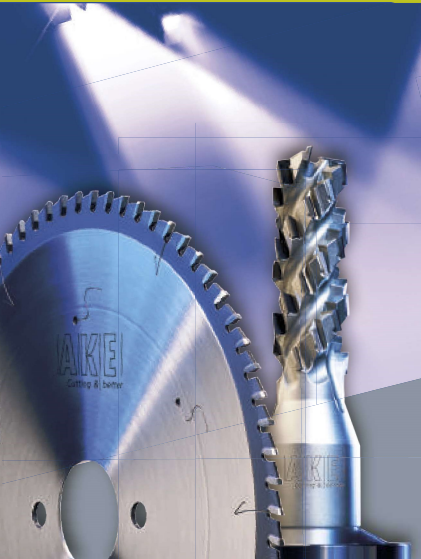
AKE
Cutting & better

INNOVATION IS OUR IMPETUS



Hall 12 / C70
Hall 25 / F40

LIGNA

22.05.-26.05.2017

www.ake.de

Presentation of the Cutting 2.0 Success Story at the LIGNA 2017

chip'n chill Cutting 2.0 AKE

The new age of Cutting 2.0 started in 2013 with the first presentation of the award-winning SuperSilent sizing saw blade.

Today the 2.0 product line includes a wide range of cutters and now also panel sizing saw blades for mechanical feed.

AKE will take the opportunity at the upcoming **LIGNA 2017** to present the gained experience to a wide professional audience. We would like to invite all customers and anyone with an interest in our products to experience the performance of the new technology for themselves at AKE in **hall 12, stand C70**.

LIGNA

22.05.-26.05.2017

Visit us at the LIGNA 2017

Hall 12 / C70 (Main stand)
Hall 25 / F40 (Raw wood processing)

LIGNA Live: You will be thrilled by the numerous experiences of our customers.

It is our claim to provide our customers with complete tooling solutions satisfying their specific needs. This is exactly the target we are pursuing with the new Cutting 2.0 technology as well.

Regarding tool application and individual requirements every customer is unique. We take account of this whenever we give technical advice and consider it a special opportunity to convince our customers of the new 2.0 Cutting technology.

Past experience with the latest product family has shown that AKE is on the right track. Now we want to demonstrate the performance of the Cutting 2.0 tools by presenting several practical applications. Interesting life interviews with notable representatives from the woodworking and furniture industry will be taking place every day at 2 p.m. We are looking forward to your visit – convince yourself of the cutting 2.0 line.

Cutting 2.0 – „AKE re-invents sawing“

Previous approach:

The traditional way of thinking makes the strict assumption that every chip produced by a cutting edge is directed into a chip gullet situated in front of the cutting edge and is ejected from the workpiece once the cutting edge has left the material. AKE questioned this dogma and arrived at extremely interesting findings, which ultimately led to a new generation of saw blades, such as the SuperSilent.

Award-winning technology – The cutting 2.0 product family

The Cutting 2.0 technology has proven to be extremely successful since being introduced to the market in 2013. From its origins in the SuperSilent sliding table saw with manual feed, it has been constantly developed and expanded, starting with the cutter range and now moving on to panel saws with mechanical feed.

INDUSTRIE PREIS 2015 BEST OF

reddot award 2014 honourable mention

Main Price VR-InnovationsPreis Mittelstand 2014

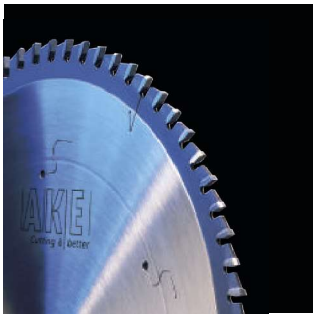
1. Price WOODEX INNOVATIONSPREIS 2013

1. Price LIGNA INNOVATIONSPREIS 2013

2013
SuperSilent

2015
DP-Cutter HARMONY 2.0

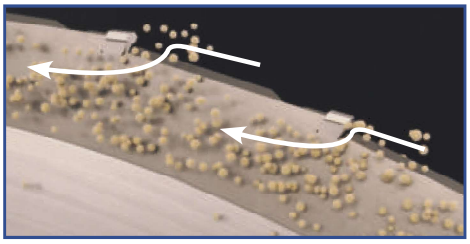
2015
DP-Shank Cutter Z3



2016
Panel sizing saw blade 2.0

The functional principle of the innovation

In general, the feature of Cutting 2.0 that makes it so special is its revolutionary approach to the cutting method. All products, whether circular saw blades such as those used in the SuperSilent or the recently newly developed panel sizing saw blade 2.0 or the cutter tools Z3 and Harmony for manual and mechanical feed, have one thing in common: The cutting method they use is completely different. To this end, the chip gullets have been rearranged so that they discharge chips in a way that prevents repeated chip cutting.



Cutting 2.0 – Success Story - Product Family

Panel sizing saw blade 2.0

The cutting 2.0 panel sizing saw blade with genuine added value.

- **Universal material usage**
- **Long service life, increase of tool life by up to 70%**
- **Finish cut quality**

The new high-performance panel sizing saw blade with the cutting 2.0 technology provides best finish cut quality in single boards and in packs. Compared to conventional saw blades on the market the overall costs are reduced by up to 35%.

LIGNA	BIESSE
Live interview on 24th May at 2 p.m.	***with Marco Campana Product*** *Manager for the SELCO line*

Tool solution by AKE:

Being a manufacturer of high-quality machines BIESSE expects the applied tools to meet the **customers' performance demands** and the **productivity of its machines**. With the panel sizing saw blade 2.0 AKE as manufacturer grants its customers an **outstanding performance, long tool life** and convinces with a dense **local service network**.

DP shank cutter Z3 Cutting 2.0

The universal router cutter for sizing, grooving, jointing, rebating.

- **No multiple machining**
- **Extremely long tool life**
- **Large variety of material**

The router cutter of the Cutting 2.0 generation features exceptionally smooth running. This results in excellent surface quality. A cost-effective tool for sizing a wide range of material.

LIGNA	fm Büromöbel
Live interview on 23rd May at 2 p.m.	***with Florian Landwehr*** *Head of pre-production*

Tool solution by AKE:

For FM as manufacturers of high-quality office furniture it is extremely important that their products are **cleanly processed** and that unnecessary fine **dusts and chips are avoided**. The **intelligent chip removal** of the Z3 cutter **improves the efficiency of the dust extraction**. On top of that a higher feed rate and an **increased tool life** were achieved.

Cutting 2.0 – Success Story - Product Family

DP Jointing Cutter Harmony 2.0

The precision tools for modern furniture manufacture

- **No tearing with transverse edge banding**
- **Extremely economical with long tool life**
- **Precise and efficient, little reworking**

With the new AKE Harmony 2.0- diamond-tools a large variety of materials can be processed. Thus it is also possible to work economically with diamond tools on stationary machines and throughfeed machines.

LIGNA	IKEA Industry
Live Interview on 25th May at 2 p.m.	***with Gabor Maczko*** *Head of Product Engineering*

Tool solution by AKE:

IKEA Industry places especially **high demands** on its suppliers and service partners with regard to **flexibility** as well as **service- and reaction times**. AKE is able to react to changes in a **fast and targeted** way. Thus AKE grants a continuous **optimization** of production processes and a **reduction of downtimes**.

HP Collet Chuck

HP clamping system: The high-performance alternative

- **Precise: The AKE HP chuck can achieve a concentricity of up to 0,008 mm**
- **For high speeds up to 24.000 rpm**
- **Suitable for standard collets**

The HP collet chuck bridges the gap between the flexible collet chucks and high-precision but inflexible shrink chucks used previously

LIGNA	SALESTECH
Live Interview on 22nd May at 2 p.m.	***with Sam Travers*** *AKE representative Australia*

Tool solution by AKE:

As a specialized dealer SALESTECH is close to the customer and constantly expects **highest quality** and **innovative tooling solutions –** always adapted to the respective requirements of the user. **AKE as an innovation leader** is able to bring new technologies to the market in many fields. This keeps creating new incentives to choose **AKE precision tools**.

New findings versus „the workshop's laws of nature"

„Conventional saw blades are generally submitted to extreme wear and tear. Thus you have to pay specific attention to maintaining the cutting quality of the blades as a joiner or cabinetmaker in order to achieve consistent high-quality results.

[...] Alexander Knebel, Managing Director of AKE, was rather annoyed concerning the „workshop's laws of nature" for cutting. Consequently he analysed the procedure in micro steps to research into the reasons for noise, wear and unclean cutting edges.

[...] During the development of the Cutting 2.0 technology the tooth geometry had been changed in such a way that the classical gullet was, depending on the product, either no longer there or reduced to a minimum. With the saw blades the removal of the majority of chips is effected via a belt area underneath the tips. Only a small fraction gets to the saw body. Special features are patented as MircoGeo and ChipBelt.

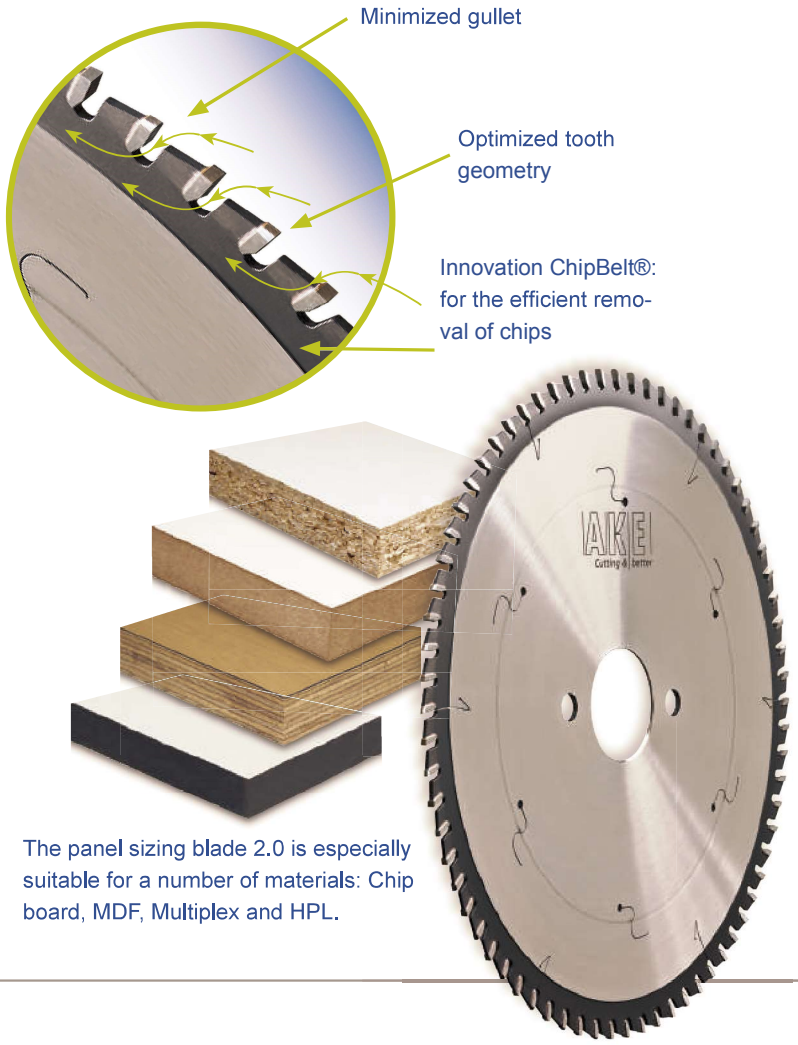
[...] The bottomline is that the user is saving in various ways: with the saw blade (longer tool life), with staff (lower set-up costs), the material (less waste due to higher cutting quality) and energy consumption, always depending on the field of application."

Transfer of 2.0 technology to horizontal panel saws

„Subsequent to the success of the SuperSilent and the successful transfer to the cutter programme [...] the AKE team set about transferring the Cutting 2.0 technology to panel saws with mechanic feed. [...] Focussing in particular: Best possible cutting results with universal material plus a large number of re-grinding cyles on top. [...] Throughout Europe joiners and cabinetmakers as well as industrial companies had been addressed.

[...] Tests had been carried out in 29 companies with between 8 and 500 staff members and on all well-known machines in comparison with previously applied standard saw blades. One and the same saw blade did cut a material mix of chip board, MDF, Multiplex and HPL just as reliably and cleanly as it cut each of these materials individually. Despite the variety of materials the service life after 54,829 meters and up to 80 m/min was up to 70% longer than previously.

On an average 40 % were achieved. The evaluation of the finish cut quality was consistently „very good" and „good". The noise generation had been decreased by 10 dB(A), which corresponds to a noise reduction of 50 % . At the end of the tool life of the panel saw 2.0 the savings as against the conventional saw blades amount to 35 % - the effects of energy savings not included. The kerf reduction by 25 % with the thin-kerf version results in one quarter less power consumption and waste."



The panel sizing blade 2.0 is especially suitable for a number of materials: Chip board, MDF, Multiplex and HPL.

Biesse is heading to the 2.0-Technology

„AKE has been supplying original equipment tools to BIESSE, the leading machine manufacturer, for quite some time now. [...] The BIESSE-Group, based in Pesaro / Italy maintains four business segments [...] Since 1969 the quality manufacturer has continuously been expanding their portfolio. Today BIESSE is worldwide one of the leading enterprises in this segment.

Incredible potential

The panel sizing saw blade 2.0 does have the potential to supersede the longstanding standard in this field, the AKE panel sizing saw blade type 0024. Why? Mainly because it does correspond to type 24 in terms of handling, but is on top coming up with all the advantages of the 2.0 technology. With this new development, too, up to 17 re-grinding cyles can be done by the user's respective grinding service.

The AKE range convinces

According to Marco Campana the great confidence Biesse puts in AKE is based on previous experiences: „We are convinced, that AKE is worldwide one of the best manufacturers of circular saw blades. AKE is probably the one with the highest investment in research and development. We do simultaneously get excellent technical support, for both wood and non-wood material. A very important criterion for us, because it is quite clear that BIESSE is increasingly investing in "alternative types of material".

Maximum productivity and quality

It will therefore be rather fascinating to learn about the results of the BIESSE tests for the panel sizing saw blade 2.0, which particularly stands out due to its high flexibility with different types of material. Its unique range covers chip board, MDF, Multiplex and also HPL. The expectations at BIESSE are high: „Based on our previous tests we know that with AKE we are in the position to saw quicker and better than ever and at the same time get the maximum performance from our machines.

With Cutting 2.0 it will be possible to achieve a further increase in productivity, thanks to the longer tool life and the outstanding feed. [...] Moreover, AKE is represented worldwide - as we are – and therefore in the position to always offer the necessary service locally. [...] Topics such as energy efficiency are getting increasingly important. Due to the fact that multiple machining is avoided and due to the thin kerf variant the energy consumption is decreased significantly and the formation of dust drastically reduced.

[...] The thin-kerf variant of the panel sizing blade 2.0 reduces energy consumption by 25 %. Extensive test runs at AKE revealed a tool life increase of up to 70 % and the noise is reduced by 50 %. [...]"

Marco Campana speaking to the AKE Sales Director Markus Sense