

# AKRON 1400

AUTOMATIC SINGLE-SIDED  
EDGEBANDING MACHINES



 **BIESSE**

# THE IDEAL SOLUTION FOR INCREASING PRODUCTION



## THE MARKET DEMANDS

a change in manufacturing processes, enabling companies **to accept the largest possible number of orders**. This is coupled with the need to maintain **high quality standards** while offering product customization with **quick and defined delivery times**, as well as responding to the needs of highly creative designers.

## BIESSE RESPONDS

with **technological solutions** which underline and support technical expertise, as well as process and material knowledge. The **Akron 1400** is a range of single-sided edgebanding machines for the application of edging in either rolls or strips. Compact working units designed to simplify the preparation operations are available with various configurations to suit specific production requirements.



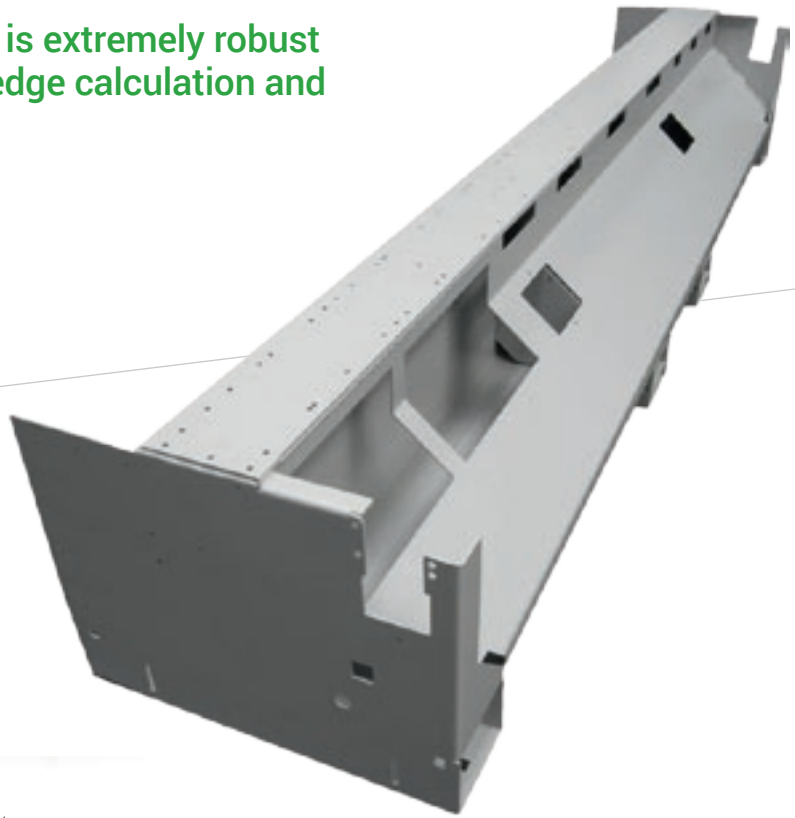
## AKRON 1400

- ✔ BUILT ACCORDING TO THE SPECIFIC PRODUCTION REQUIREMENTS
- ✔ GROUND-BREAKING TECHNOLOGY, FOR TOP PERFORMANCE
- ✔ PERFECT FINISHES WITH EVERY TYPE OF PROCESS
- ✔ TOP QUALITY FINISHED PRODUCT.

# AT THE HEART OF QUALITY

The structure of the machine is extremely robust and rigid, sized with cutting-edge calculation and design tools.

The **monolithic base** provides high stability and allows the machine to operate also over several work shifts while continuing to deliver high quality standards.



The sturdy columns, fixed directly on the base, fully absorb all vibrations generated during machining.

The **Belt Presser**, which is standard in the Akron 1400, allows the panel to run on the belt guaranteeing uniform pressure which is ideal even for more delicate coverings (opt.).



# GROUND-BREAKING TECHNOLOGY, FOR TOP PERFORMANCE



Perfect finish, thanks to the **2-motor Pre-milling unit** with automatic intervention.



A specific Research & Development team creates pioneering solutions to meet the market requirements and offer cutting edge technology that's reliable and guarantees first class results.



As standard, Akron uses only the **electrospindles of the exclusive Rotax range on all the machines**. These are electrospindles of the highest quality, designed and made by HSD (a leader in this sector); they guarantee optimum power, compact dimensions, and extremely high finishing standards.

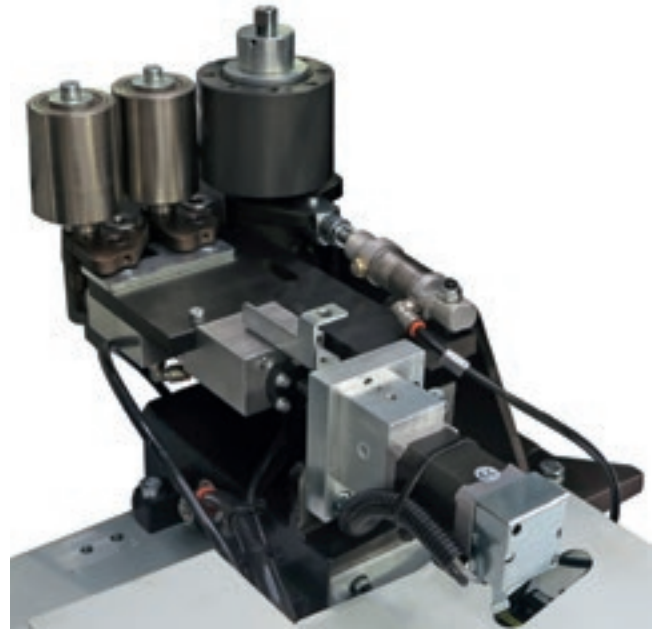


The **autoset device** for Pre-milling unit ensures the automatic centering of the tool in relation to the panel, thereby improving quality while reducing set-up times.

# APPLICATION OF EDGE BANDING OF ANY SIZE



**Gluing unit** for the automatic application of edging in rolls or strips, from 0.4 to 12mm.



**Device for setting the unit automatically**, to suit the edging thickness (opt.).



**Single-roll automatic loader**, enables rapid change of the edgebanding strip with no need to open the cabins.  
**Optic sensor** for detecting the correct positioning of the edgebanding strip (opt.).



**Glue pot**

The **glue pot** is equipped with a pre-copying system to prevent direct contact between the roller and the panel, preserving the surface quality of the machined panel whilst allowing for a smooth and even application of glue, without wear to the glue pot.



**Special new glue chuck for using EVA and PUR**

- One single chuck that can work with both EVA and PUR in granules
- High flexibility thanks to the automatic system that drains the glue from below
- Automatic roller cleaning cycle on the basis of the panel length



**Pre-melter for EVA glue**

To meet all the priority machining needs:

- more glue available
- easy control of the glue level.



**Prefusore Top Melt TM10**

New system for melting polyurethane glue from above.

- High flexibility of use thanks to small cartridge size.
- PUR glue on demand, according to the amount of glue used.
- Hermetically sealed system for extended glue life.



**gPoD pre-melter with "PUR on demand" function for polyurethane glue**

to satisfy even the most complex machining requirements thanks to its excellent melting capacity.

# AIR FORCE SYSTEM

## INVISIBLE EDGEBANDING

**No joints and no glue line, in perfect harmony with the panel.**

Air Force System, available on Biesse edgebanding machines, is based on the physical principle of convection. By using a compressed hot air system, the edge bonds perfectly with the panel guaranteeing resistance to water and heat and an excellent long lasting quality finish.





# MAXIMUM WORKING PRECISION

Maximum cutting quality and precision thanks to the End Trimming Unit, enabling any excess to be eliminated at both ends of the panel. Two versions available according to the machining needs.

## IN801

The edge trimming unit, on its THK double guide rail, guarantees optimal vibration absorption.



The IN801 unit includes, as standards:

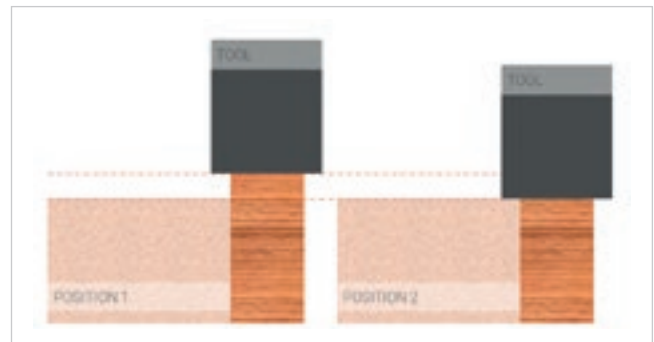
- ▶ the dynamic suctioning system that follows the blades' every move,
- ▶ automatic blade tilting,
- ▶ copying system suitable for processing hinge holes.





**Akron 1400 offers personalized solutions that enable a reduction of set-up and machining times.**

The **Rough Trimmer** reduces the excess edge on the top and bottom of the panel. It guarantees a perfect finish for solid wood, in one single movement.



**Duo System** is a device for the automatic changeover between the rough-shaping and finishing functions.



The **Fine trimmer**, for fine trimming of the top and bottom edges. Complete with 2 high-frequency motors and vertical/horizontal copiers with rotating disc.



Multi-profile tools for various types of edgebanding strip.

# SERVO AXES

## TOP QUALITY CHARACTER

**Unprecedented product quality and reduced machining times, thanks to technological solutions created for the specific day-to-day work.**

The automatic axis of the working units have a reading system that allows the machine to know - at any time - if the setting is correct. They are fitted with motors with a positioning tolerance of 0.01 mm, for optimum machining accuracy. Their compact size considerably extends their range of application. Changeover time reduced by 75%



# PERFECT FINISHES THROUGHOUT THE ENTIRE PROCESS

Maximum working speed  
18m/min



The Multi-purpose corner rounding station with dual motors, forms a radius on both the front/rear and top/ bottom edges.

Linear guides for precise movements and high quality standards.



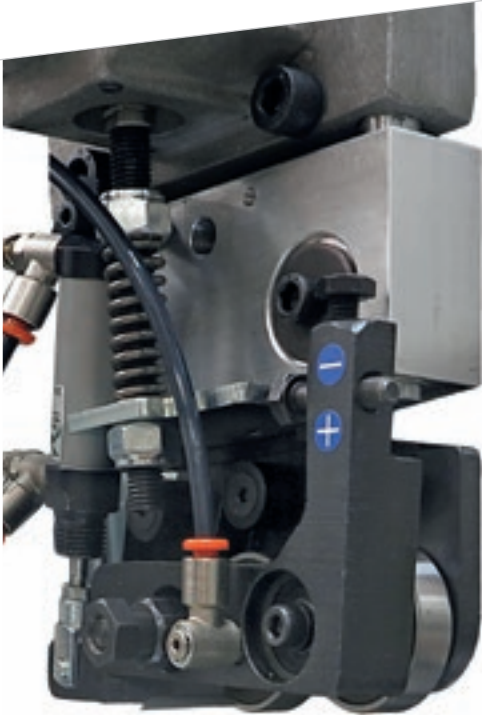
The **Edge scraper** eliminates the imperfections resulting from previous machining operations on the top and bottom of the edge.

The axes on the edge-scraper unit enable automatic positioning in an unlimited range of positions, in accordance with the thickness of the edgebanding strip (opt.).



The **Grooving unit** can be tilted from 0 to 90°. It produces grooves and milling on the underside on the edge of the panel.

# ULTIMATE RESULTS FOR FINISHED PRODUCTS



**Buffing unit** to clean and polish the edge and the panel.



**Hot air blower** for reactivating the color of the edges.



The **Glue Scraper** removes excess glue from the top and bottom of the panel. This is the only model on the market fitted with 4 pneumatic cylinders for a top quality finish.



High quality results even with **high-gloss edged panels** with protective film.



# TECHNOLOGY AT THE USER'S SERVICE



Advanced Statistics for monitoring productivity:

- ✔ Different types of charts available to understand and improve edgebanding machine performance
- ✔ Sub-division of the production statistics on the basis of the batch or the time gap
- ✔ Mobile app for keeping in contact with the machine status at all times.



## New SMART TOUCH control

Immediate, user-friendly programming thanks to the touch-screen control panel.



- ✔ Easy program management and usability.
- ✔ Rapid transition from one machining operation to the next.
- ✔ Modern, intuitive graphic interface.

# SOPHIA

**GREATER VALUE FROM MACHINES**



**SOPHIA IS THE BIESSE IOT PLATFORM WHICH ENABLES CUSTOMERS TO ACCESS AN EXTENSIVE RANGE OF SERVICES TO STREAMLINE AND RATIONALISE THEIR WORK MANAGEMENT PROCESSES.**

**IT IS BASED ON THE ABILITY TO SEND REAL-TIME INFORMATION AND DATA ON THE TECHNOLOGIES IN USE, OPTIMISING THE PERFORMANCE AND PRODUCTIVITY OF MACHINES AND SYSTEMS. IT CONSISTS OF TWO AREAS: IOT AND PARTS.**

- **REDUCED PRODUCTION TIME**
- **LOWER COSTS**
- **REDUCTIONS IN MACHINE DOWNTIME**
- **OPTIMISATION OF THE PRODUCTION PROCESS**
- **INCREASE IN PRODUCTIVITY**
- **MAXIMUM QUALITY OF DAILY WORK**

The various functions of the **iOT** app offer a comprehensive overview of the specific machine performance features, with remote diagnostics, machine stoppage analysis and fault prevention.

**PARTS** is the new replacement parts web portal which allows users to navigate within a personalised account, providing access to all the information on purchases and enabling a replacement parts shopping cart to be submitted, and the progress of orders to be monitored.

# SERV ICE & PARTS

Direct, seamless co-ordination of service requests between Service and Parts. Support for Key Customers by dedicated Biesse personnel, either in-house and/or at the customer's site.

## BIESSE SERVICE

- ✔ Machine and system installation and commissioning.
- ✔ Training centre dedicated to Biesse Field engineers, subsidiary and dealer personnel; client training directly at client's site.
- ✔ Overhaul, upgrade, repair and maintenance.
- ✔ Remote troubleshooting and diagnostics.
- ✔ Software upgrade.

**500**

Biesse Field engineers in Italy and worldwide.

**50**

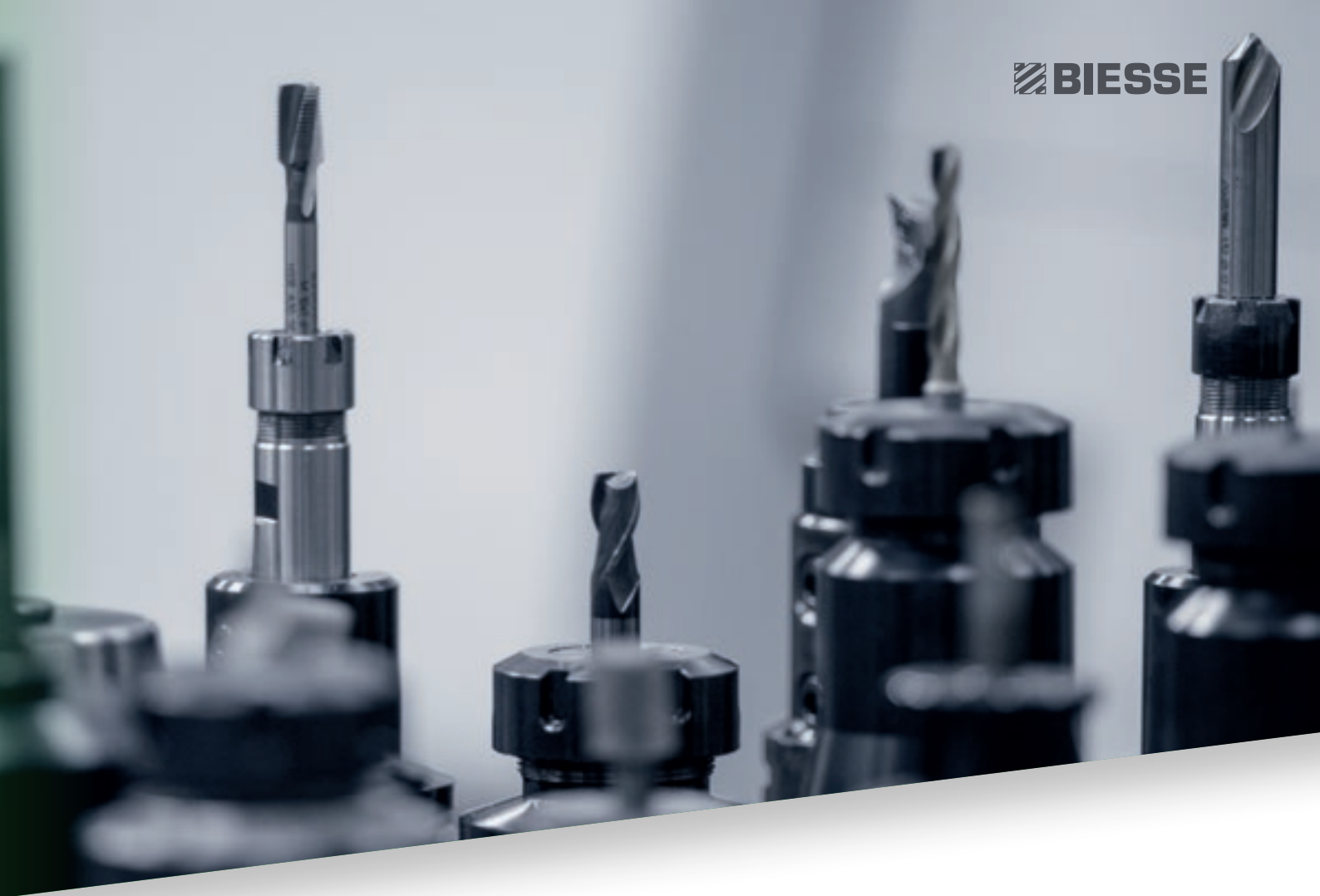
Biesse engineers manning a Teleservice Centre.

**550**

certified Dealer engineers.

**120**

training courses in a variety of languages every year.

A close-up photograph of several metal drill bits and tool components, arranged in a row. The bits are of different sizes and designs, some with standard double-flute and others with more complex, multi-fluted designs. They are set against a blurred background, highlighting their metallic texture and precision engineering.

The Biesse Group promotes, nurtures and develops close and constructive relationships with customers in order to better understand their needs and improve its products and after-sales service through two dedicated areas: Biesse Service and Biesse Parts. With its global network and highly specialized team, it offers technical service and machine/component spares anywhere in the world on-site and 24/7 on-line.

## BIESSE PARTS

- ✔ Original Biesse spares and spare kits customized for different machine models.
- ✔ Spare part identification support.
- ✔ Offices of DHL, UPS and GLS logistics partners located within the Biesse spare part warehouse, with multiple daily pick-ups.
- ✔ Order fulfillment time optimized thanks to a global distribution network with de-localized, automated warehouses.

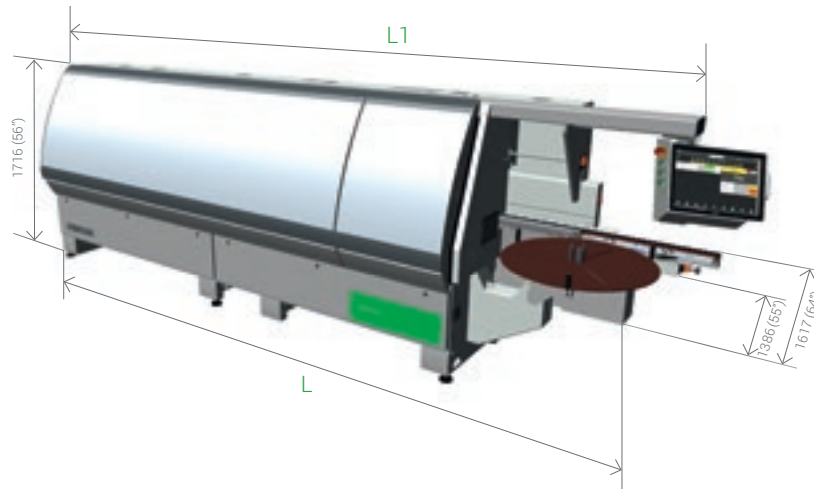
**92%**  
of downtime machine orders fulfilled  
within 24 hours.

**96%**  
of orders delivered in full on time.

**100**  
spare part staff in Italy and worldwide.

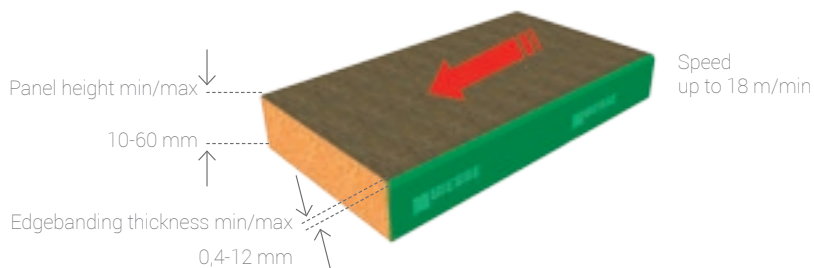
**500**  
orders processed every day.

# TECHNICAL SPECIFICATIONS

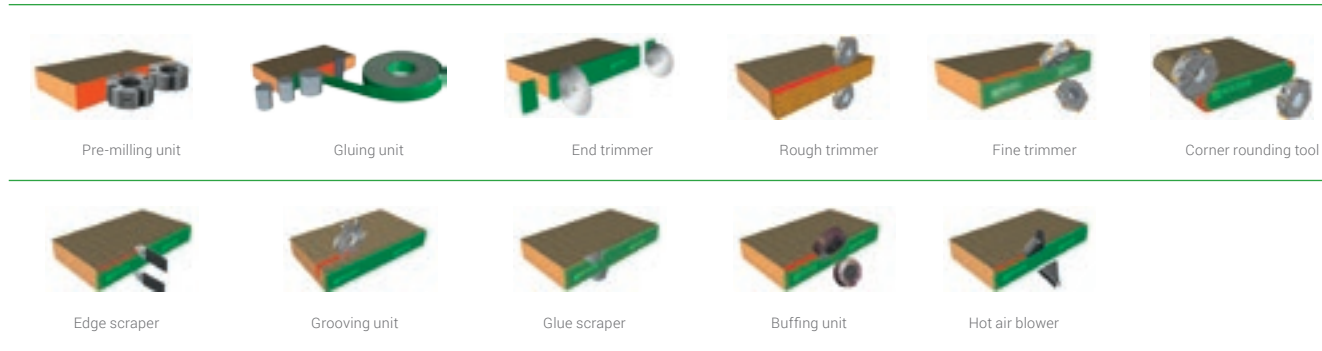


## AKRON 1400

		L	L1
Akron 1430	mm	4550	4390
Akron 1435	mm	5160	5000
Akron 1440	mm	5610	5450
Akron 1445	mm	6040	5880



## MANY UNITS AVAILABLE TO CONFIGURE THE MACHINE BASED ON MACHINING REQUIREMENTS



The technical specifications and drawings are non-binding. Some photos may show machines equipped with optional features. Biesse Spa reserves the right to carry out modifications without prior notice.

A-weighted sound pressure level (LpA) during machining for operator workstation on vane-pump machine LpA=86dB(A) Lwa=106dB(A) A-weighted sound-pressure level (LpA) for operator workstation and sound power level (LwA) during machining on cam-pump machine LpA=86dB(A) Lwa=106dB(A) K measurement uncertainty dB(A) 4

The measurement was carried out in compliance with UNI EN 848-3:2007, UNI EN ISO 3746: 2009 (sound power) and UNI EN ISO 11202: 2009 (sound pressure levels at workstation) during panel machining. The noise levels shown are emission levels and do not necessarily correspond to safe operation levels. Despite the fact that there is a relationship between emission and exposure levels, this may not be used in a reliable manner to establish whether further measures need to be taken. The factors determining the exposure level for the workforce include length of exposure, work environment characteristics, other sources of dust and noise, etc. i.e. the number of other adjoining machines and processes. At any rate, the above information will enable the operator to better evaluate dangers and risks.

# LIVE THE EXPERIENCE

BIESSEGROUP.COM



Interconnected technologies and advanced services that maximise efficiency and productivity, generating new skills to serve better our customer.

**LIVE THE BIESSE GROUP EXPERIENCE AT OUR CAMPUSES ACROSS THE WORLD.**



**BIESSEGROUP**

