

## NEW TECHNOLOGIES FOR DOORS AND WINDOWS

### NEW MACHINING CENTRE ACCORD 42 FX

**increases output volumes and production speed**  
**increases the positioning accuracy in window element machining**

Doors and windows are essential elements for a house, as they must be able to guarantee the thermal insulation necessary for energy saving and the acoustic insulation required for comfort - mandatory requirements for today' building standards. Similarly, windows are also furnishing accessories, and wood is undoubtedly one of the most suitable materials for decorating any environment - ensuring warmth, style and cosiness. Wood continues to be of great importance in a sector that increasingly seeks to combine technology with design. Consequently, the personalisation skills that are expected from door and window frames manufacturers manufacturers are not always easy to manage.

**SCM**, a long-standing manufacturer of equipment for door and window machining, responds to these needs with **accord**, a range of flexible machining centres ranging from the simplest, manually controlled machine all the way to the **accord wd** automatic cell.

At Holz-Handwerk 2018, a new model joins the range: it is the **accord 42 fx** productivity which, thanks to its new machining head equipped **with two independent routing units**, considerably reduces cycle time: during machining by one unit, the other unit performs tool changeover, resulting in zero downtime.

#### Other advantages include:

- **greater productivity** thanks to the use of the **new 21 kW** electrospindle which allows for higher machining speeds;
- the required tools are always at hands, thanks to the **three tool stores** with a **total capacity of 76 tools**;
- **maximum speed and accurate positioning in processing window elements**, with multiple locking points within the work cycle. With the MATIC worktable, workpieces are locked by clamps which are equipped with direct transmission system and independent drive units.

#### TECHNICAL SPECIFICATIONS:

- X-Y-Z axis speed **95 – 90 – 30 m/min**
- Work area X **6360 mm**
- Work area Y **1905 mm**
- Workpiece passage Z **350 mm**
- 3-axis routing unit **21 kW @ 20000 RPM**
- 5-axis routing unit **12 kW @ 20000 RPM**
- Rear tool magazine **48 stations**
- Front tool magazine **16 stations**

## **SUPERSET NT SCM moulding machine enabling endless applications, presented at Nuremberg with the new MOBILE PC electronic control unit**

The range of SCM **superset nt moulders** has been updated to make solid wood machining even easier and smarter.

**The main asset of this range is its great versatility**, which makes it possible to create an extremely wide selection of products: profiles for windows, doors, stairs and furniture.

### **USER-FRIENDLINESS**

The electronic control **MOBILE PC**, which comes with **MAESTRO 4-SIDE** software, and with a 19" touch screen monitor, has many **new features**: simplified program searching, thanks to profile image importing; detailed reporting on the use of the machine; clear and intuitive icons; customised machine layouts, etc.

**MOBILE PC** allows for full **integration of all the machine management functions** - including management of the electronic axes, of the drive system and of each spindle motor.

The operator is therefore assisted in all the machine setting phases thanks to **the MDI feature** - which also allows for manual axes control.

### **FAST, ACCURATE ADJUSTMENT**

The "**SET-UP**" **system** allows the operator to change tools and perform adjustments by minimising the likelihood of errors and **making set-up time up to twenty times faster**.

### **PROFILE VARIABILITY**

**HSK technology** makes a wide range of tools for the creation of different profiles available to the user, ensuring highly flexible production of even increasingly smaller batches. Tool replacement is fast and accurate and occurs in the best ergonomic conditions for the operator. **Down-times are dramatically reduced and outstanding finished product quality is ensured**.

### **CUSTOMISED COMPOSITION**

**Superset nt offers eight different possible set-ups**, thanks to **two right-hand vertical spindles**, and two upper horizontal spindles, with and without universal spindle.

### **TECHNICAL SPECIFICATIONS:**

- **15 - 260 mm**
- Workpiece width **6 - 200 mm**
- Axial strokes **80 mm** for vertical spindles, **45 mm** for horizontal spindles
- Profiling capacity **50 mm**
- Feed speed **up to 36 m/min**
- Number of operating units **4 to 8**

## **WINDOR NT1**

### **All window production features in one machine**

**windor nt1** is an angular machining centre with a compact footprint able to offer all the required features for window production, with an outstanding output potential of up to 20-25 windows daily.

#### **UNRIVALLED TENONING EFFICIENCY**

The rotary movement of the presser **allows any downtime and risks for operators** to be minimised; it is possible to switch from machining one side of the workpiece to machining the other side in a **completely automatic** way.

#### **TOP TECHNOLOGY AT YOUR FINGERTIPS**

Interchangeable spindles with HSK connectors allow for great variability in terms of number of tools. This results in **extreme user-friendliness**, quick machine **setting up** and **top finishing quality results**.

#### **ASSEMBLY-READY WORKPIECE, NO FINISHING NEEDED ON OTHER MACHINES**

**OPTIMA 1"** is the new boring-routing machining head suitable for all tenoning-complementary machining features, such as drilling holes for handles, tilt-and-turn sashes, workpiece head and lengthwise boring.

#### **MINIMUM NOISE, MAXIMUM SAFETY**

windor nt1 has an **enclosed, compact structure** ideal for small-sized manufacturers who want to offer **high quality products** but have limited floor space.

#### **TECHNICAL SPECIFICATIONS:**

- Workpiece length: 200 - 3000 mm std (4500 mm opz)
- Workpiece width: 40 - 200 mm
- Workpiece thickness: 40 - 140 mm
- Maximum inclination: +/- 60°

## **BALESTRINI PICO MD3**

### **The CNC tenoner-mortiser for joints of cupboard doors, frames, doors and windows**

#### **UNIQUE FLEXIBILITY, STRENGTH AND PRECISION**

**balestrini pico md3** is a CNC machine that brings together tenoning and mortising functions in one product. Its mechanical equipment and software make it ideal for machining door and window frames with 45° joints, without splintering solid wood profiles or tearing coated MDF.

The machine is highly versatile: for door and window frame joints it can perform tenons and mortises **in both the classic and crescent shape**. The latter type of joint ensures an exceptional long-term solidity, because the stress is distributed in three directions, ensuring extraordinary strength and absolute precision.

**As well as machining head parts the pico md3 can also end trim and drill:** in particular, the ability to perform a series of mortises and holes on the long side of workpieces, can be used to **secure hinges and handles** along the uprights of doors and window frames.

### **MAXIMUM PRODUCTIVITY**

pico md3 is able to produce up to 200 tenons and 200 mortises in one hour and a frame every 72 seconds. The very fast set-up times and programs that can be recalled in just a few seconds, make it particularly suited to small batches.

And finally the extraordinary flexibility of the pico md3 makes it ideal, as well as for door and window frames, for other types of machining operations such as **table frames, mirrors, kitchen cupboard doors** and **drawer fronts**.

### **TECHNICAL DATA:**

#### **Dimensions of machinable workpiece**

Width x thickness with 45° cut:	110x70 mm
Width x thickness with 0° cut:	155x70 mm
Min. workpiece length:	100 mm

#### **Dimensions of tenons**

Max. tenon length:	0-150 mm
Max. tenon thickness:	0-20 mm
Tenon depth:	5-15 mm

#### **Dimensions of mortises**

Mortise length:	0-150 mm
Mortise thickness: (can be doubled by interpolation)	0-16 mm
Mortise depth:	0-30 mm
Min. execution time for a tenon and a mortise:	18 seconds