Horizontal Mitre Cutting Bandsaws

ABS 540 S NC

SKU : 152843

The ABS S NC is a high-performance production band saw with a dual column design. The material is fed via a controlled servo motor with ball screw drive and measuring system with a positioning and repeat accuracy of +/- 0.2 mm. The Omron touchscreen controller can store up to 30 programs with 50 steps each. For additional flexibility, this series also offers hydraulic bundle clamping as an option. The manually set miter angle can be read on a digital display. The workpiece is clamped hydraulically.

- Double-column design with precise linear guidance
- Miter cutting with hydraulic workpiece clamping and digital display
- Omron touchscreen controller for fast programming and setup
- Material servo-feeding for high precision +/-0,2 mm
- Automated stroke height control with optical sensor

TECHNICAL SPECS

WORKING AREA

Minimum cut length	1 mm - 2 mm
Remaining length	190 mm

CUTTING CAPACITIES

Feed per single stroke (max.)	700 mm
Cutting speed	20 m/min - 100 m/min
Cutting capacity 0° (round)	540 mm
Cutting capacity 0° (flat) (length x width)	670 mm x 540 mm
Cutting capacity 0° (square)	540 mm
Cutting capacity 30° (round)	540 mm
Cutting capacity 30° (flat) (length x width)	670 mm x 540 mm
Cutting capacity 30° (square)	540 mm
Cutting capacity 45° (round)	510 mm
Cutting capacity 45° (flat) (length x width)	450 mm x 540 mm
Cutting capacity 45° (square)	450 mm
Max. feed length (multiple strokes)	9999 mm

ACCURACIES

Positioning accuracy (multiple strokes)	0.2 mm

CUTTING CAPACITY IN SEMI-AUTOMATIC MODE

Cutting capacity 60° (round)	270 mm
Cutting capacity 60° (flat) (length x width)	250 mm x 540 mm
Cutting capacity 60° (square)	250 mm

DRIVE CAPACITY

Motor rating main drive	4 kW
Motor rating hydraulic pump	2.2 kW
Motor rating coolant pump	0.12 kW

MEASURES AND WEIGHTS

Blade dimensions	6000 mm x 41 mm x 1.3 mm
Overall dimensions (length x width x height)	3 m x 2.42 m x 2.25 m
Weight	4190 kg

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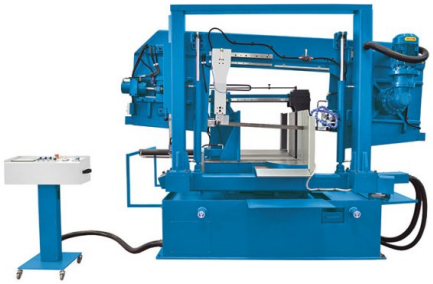

PRODUCT DETAILS

- The ABS S NC is a fully automated horizontal band saw series with parallel guiding system, which is ideally suited for series production with miter cuts in solid materials, tubes, and profiles
- The workpiece feed with servo motor drive and preloaded ball screws deliver maximum precision
- The combination of linear guides and box ways result in low maintenance, long tool life and extreme ruggedness under heavy production conditions
- The saw frame, including guide frame, can be rotated manually up to 60° and fixed in the selected position via a hydraulic clamping device
- The fully automated mode allows miter cut angles up to 45°, and the semi-automatic mode up to 60°
- The exact saw frame angle can easily be checked by the operator on a digital display
- A slight 3° inclination of the saw frame on the cutting axis increases cutting capacity and saw blade life
- Rigid saw blade guides ensure vertical angular accuracy
- The reliable hydraulic unit provides the controlled clamping force for workpiece clamping
- Hydraulically controlled saw frame micro-feed
- The reliable Omron control with touchscreen allows for easy and convenient programming for a fully automated operation
- Unnecessary downtime is reduced by an optically controlled change-over from rapid feed to work feed
- A motor with infinitely variable speeds transmits power via a continuous-operation idler gear to the machine drive wheel
- The correct saw blade tension can be verified directly at the pressure gauge display
- An automatic band breakage control, a high-performance coolant system, and a chip brush complement the standard equipment package
- Available options for this series include Minimal Quantity Lubrication (MQL) and hydraulic bundle clamping

CONTROLS & SOFTWARE

Omron control with touchscreen

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Intuitive operation and efficient control of all parameters

- Reliable OMRON control with rugged touchscreen input panel
- High-precision workpiece feed via servo motor and preloaded ball screws
- Up to 30 cutting jobs, each with 50 cut positions, can be programmed and saved
- Number of programs: 30
- Working steps in the program: 50

STANDARD EQUIPMENT

Omron control with touchscreen
Automatic workpiece feed (servo)
Hydraulic part clamping
hydraulic cutting angle clamping
Digital angle display
Optical height adjustment
Saw-band
Mechanical saw blade tensioning with hydraulic pressure gauge
Saw blade cleaner brush
Coolant system
Operating tools
Operator manual

OPTIONAL EQUIPMENT

- 3 meter roller table for ABS S 540 NC / ABS H 540 NC, SKU : 253826
- hydraulic top clamping, SKU : 253717
- micro cooling system, SKU : 253719
- Clamping force controlled at operator panel, SKU : 253808
- Chip conveyor for ABS H(S) 540 NC, SKU : 253891
- Hydraulic saw blade tensioning for ABS S 540 NC/ABS H 540 NC, SKU : 253824
- Laser pointer for ABS S NC / ABS H CNC, SKU : 253753

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