

KUZIK BR400T

AUTOMATED NATURAL STONE SPLITTING LINE

400 TONNES SPLITTING FORCE | 1,500 MM HEAD | UP TO 500 MM MATERIAL HEIGHT

Industrial production line for precision splitting of large-format natural stone

A complete industrial splitting line

The KUZIK BR400T is an automated production line engineered for splitting natural stone from large slabs. The system combines heavy-duty material handling, computer-controlled positioning, a 400-tonne hydraulic splitter and a dedicated hydraulic manipulator into one integrated process.

400 t Maximum splitting force	1,500 mm Splitting head length	500 mm Max. material height	10 t Feeder load capacity



Developed through cooperation between WRKB-GRANIT Sp. z o.o., KUZIK Sp. z o.o. and researchers from the Wrocław University of Environmental and Life Sciences, the technology is designed to use the natural mechanical properties of stone more effectively. The supplied technical documentation reports approximately 14-18% lower electrical energy consumption per unit of production and approximately 11-16% lower noise during splitting.

Integrated production flow

Six coordinated modules form the complete line:

01	Loading Roller Table Hydraulically lifted rotary platform for loading large slabs; rubber-coated rollers support gravity transfer.
02	ST 4000 x 1200 Two-Speed Feeding Table Heavy-duty steel-slat feeder with bidirectional transport and rotation; maximum load 10 tonnes.
03	Positioning Module Computer-controlled precise positioning and feeding, synchronized with the splitting cycle.
04	BR 1500 x 500 x 400T Hydraulic Splitter 400-tonne splitting force, four hydraulically controlled cylinders and programmable parameters.
05	MP-1200 x 500 Hydraulic Manipulator Hydraulic handling arm for rotation, positioning and placement beneath the working blades.
06	4000 x 1200 Receiving Slat Conveyor Hydraulic rotary turntable plus automatic hydraulic waste discharge.

Material handling & positioning



Loading Roller Table



Two-Speed Feeding Table ST 4000 x 1200



Positioning Module



Receiving Conveyor Table 4000 x 1200

Feeding table: 400 V, 50 Hz, 1.5 kW, 1,500 Nm gearbox output torque, 7 m/min travel speed, 100 bar auxiliary hydraulic pressure, 10 t maximum load, 1,200 x 4,000 mm working area.

Positioning module: computer-controlled positioning, light curtain protection, magnetic safety gates and operator control panel. Working area: 1,200 x 3,500 mm.

The heart of the line: 400-tonne hydraulic splitter



The BR 1500 x 500 x 400T is designed for dimension stone blocks, building stone and other large-format natural stone products. Splitting heads are mounted on four hydraulic cylinders connected through a dedicated hydraulic system controlled by the central computer, enabling programmed and repeatable splitting parameters.

Splitting force	400,000 kg / 400 t
Maximum hydraulic pressure	350 bar
Cylinder stroke	510 mm
Number of blades	52
Machine weight	10,500 kg
Hydraulic oil tank	390 l
Pump capacity	130 l/min
Motor power	11 kW
Power supply	400 V / 50 Hz

Hydraulic manipulator





The MP-1200 x 500 hydraulic manipulator is a heavy-duty handling arm enabling precise rotation, positioning and placement of stone beneath the splitter blades.

Drive type	Hydraulic
Maximum lifting capacity	500 kg
Working reach	1,800 mm
Operating pressure	100 bar
Control voltage	24 V DC
Machine weight	583 kg

Innovation, efficiency & working conditions

The supplied documentation highlights industrial automation and a proprietary slab-splitting approach developed specifically for natural stone processing.

14-18%	reported reduction in electrical energy consumption per unit of production
11-16%	reported reduction in noise emissions during splitting
Automation	computer-controlled positioning and synchronized production cycles
Safety	light curtains, magnetic safety gates and reduced manual handling
Resource efficiency	improved utilization of natural stone material

SCIENTIFIC VALIDATION OF THE TECHNOLOGY

> “The presented proposal is fully innovative, and the innovative nature of both the production process and the final product is beyond any doubt.”

Prof. Marek W. Lorenc
Wrocław University of Environmental and Life Sciences

The expert summary also emphasizes improved resource utilization, automation replacing older manual methods, better working conditions, waste reduction and advantages of the resulting stone product.

Available for acquisition



This brochure presents the KUZIK BR400T production line currently installed and shown in the accompanying photographs. The offer concerns the complete line configuration described in this document.

For qualified buyers: additional technical documentation, inspection arrangements and commercial terms can be provided through the seller's representative.

Documentation available Detailed technical description and specifications	Inspection By prior arrangement	Commercial terms Available on request

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Sales presentation. Technical data based on materials supplied by the seller. Final scope, condition and contractual specifications should be confirmed during buyer due diligence.

SEE THE LINE IN OPERATION

Video demonstration of the KUZIK BR400T

400 TONNES SPLITTING FORCE

AUTOMATED LINE

SCIENTIFICALLY VALIDATED TECHNOLOGY

Scan the QR code to watch the machine on YouTube