ENG

REX

AUTOMATIC CUTTER RANGE

MorganTecnica

Rex. It's a Game Changer

THE EVOLUTION OF AUTOMATIC CUTTING IS **GREEN TECH**

MorganTecnica showcases innovation with the launch of a groundbreaking product on the market: THE “REX” SERIES.

The REX Series is a cutting-edge product that places us at the top of the rankings regarding both real and perceived quality. A result of our years of expertise, we have unveiled a new automated cutting system complete with three patented features which substantially enhance performance and energy efficiency.

This marks the introduction of a true “game changer” into the market.

The REX RANGE is a revolutionary product boasting remarkable energy efficiency and cutting precision. This machine enables substantial energy savings, with an **estimated 50% reduction in energy consumption** compared to traditional cutting machines within the same range. Experience the future of cutting technology with REX, where innovation meets efficiency.

UNVEILING **REX**

- It eliminates supply chain problems
- It reduces logistics cost problems
- It solves energy cost problems
- It is compatible with the new green rules
- It improves performance

Bosch technology

Made in Germany — Better performance — Ready for energy recovery — Better service

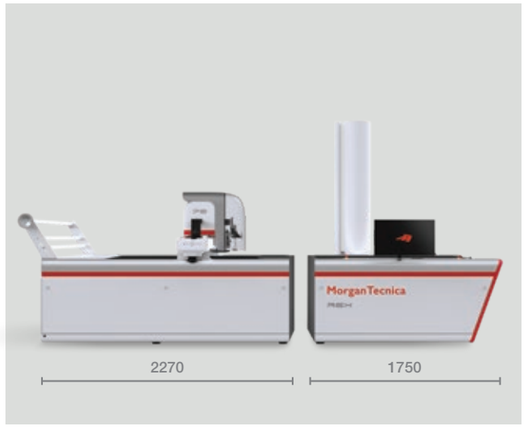
Rexroth
Bosch Group

ELIMINATING SUPPLY CHAIN PROBLEMS

By implementing advanced technology, REX delivers an extraordinary level of precision in fabric cutting, ensuring impeccable results in record time.

The German origin of most components not only attests to our commitment to reliability but also ensures uncompromising quality.
Owning innovative and efficient technology for the fabric cutting process is crucial, and REX stands out as the ideal choice for those seeking excellence.

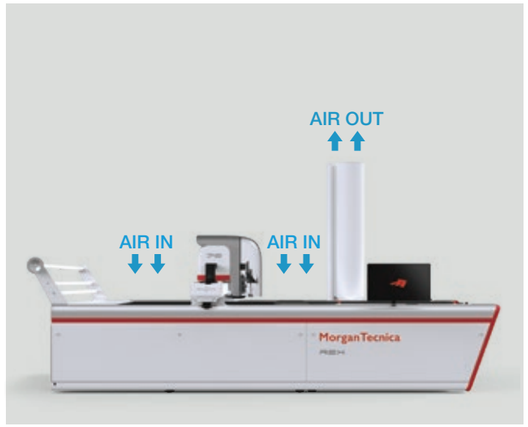
Innovation Made in Europe



REDUCING LOGISTICS COST PROBLEMS

REX has been designed to be easily divided into two parts. This has reduced transport handling costs and has also opened the doors to shipment by air.

The new product is more compact compared to previous versions (the cutting area has been reduced to 140 cm instead of the previous 170-180 cm).
The machine can be shipped without disassembling the mechanical part, including the cutting area, machine axes and the cutting head.
Additionally, we have reduced the size of the vacuum chamber compared to the previous version, leading to two main advantages:
The first is the ability to optimize the installed suction power to only what is needed during cutting.
The second is that the installed power is approximately 40% lower than the previous version. We have also integrated a new fan inside the machine, which allows us to reduce both dimensions and operating temperatures.



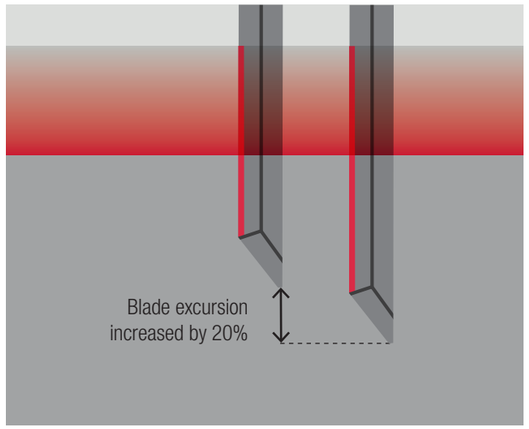
SOLVING ENERGY COST PROBLEMS / COMPATIBLE WITH THE NEW GREEN RULES

MorganTecnica has applied for 3 international patents, two of which are tied to innovative energy recovery mechanisms.
These advancements highlight our commitment to pushing the boundaries of technology in the pursuit of more sustainable and efficient solutions.

TECHNOLOGIES:

SPIN POWER

ENERGY RECOVERY SYSTEM



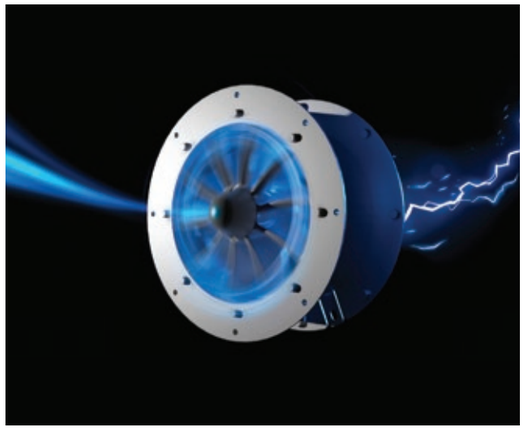
IMPROVING PERFORMANCE

TECHNOLOGIES:

ACTIVE DATABASE

CUTTING HEAD IMPROVEMENTS
- Blade excursion increased by 20%
- Sharpening device equipped with more powerful brushless motor
- Peripheral speed of the blade increased to 20%
- Sharpening spring system redesigned
- Fewer cables (easier to assemble and maintain)
- New covers (new design - less shaking).

VACUUM IMPROVEMENTS
- Smaller depression chamber
- Rexroth vacuum inverter 3 times higher performance
- New vacuum pump rbx 250 - 30% higher performances (both air vacuum and air flow)
- Less noise
- Between 20% to 40% less power consumption.



Spin Power

As this type of machine need to aspirate, it creates an airflow that is expelled upward through a chimney inside of which we have positioned a small horizontal-axis wind turbine. This turbine allows the extraction of some of the energy from the airflow discharged by the machine, and then makes it available for various other purposes within the machine.

ERS ENERGY RECOVERY SYSTEM

The drives supplied by Bosch Rexroth have allowed us to create a “hybrid” product, whereby every time the motors slow down the waste energy is recovered and put back into circulation.
This possibility is provided by a feature called Smart Energy Mode, which is capable of reducing consumption peaks, thereby satisfying the need to equip the machine with strong energy efficiency.

ADB ACTIVE DATABASE

Automatic cutting machines are designed to process a large number of shapes, with files that can contain hundreds of them: among these, it may happen that some are more problematic than others and require cutting at a reduced speed or with other precautions. Operators therefore tend to reduce the overall cutting speed, and along with it productivity, since there is currently no algorithm that properly recognizes a potentially problematic shape.

MorganTecnica has chosen a different path, combining operator experience, automatic procedures, and a collaborative approach.
When the operator comes across a problematic shape, he inserts it with a simple click into the Morgan ADB and applies the correctional features.

The user can decide whether to simply create a local personal database or share it via MorganTecnica (which securely filters shapes and features) with other ADB users who have signed up for a specific subscription.

PERFORMANCE**

• Max. cutting thickness:	ES 50: 5 cm compressed
	ES 80: 8 cm compressed
• Max. cutting speed:	up to 65 m/min
• Max. cutting acceleration:	up to 8 m/s²
• Max. positioning speed:	up to 120 m/min
• Max. positioning acceleration:	up to 10 m/s²
• Effective cutting window lengh:	up to 140 cm
• Effective cutting window width:	180 – 220 cm

TECHNICAL SPECIFICATIONS**

• Power consumption:	up to < 13 kW
• Installed electrical power:	10 kW + 18,5 kW
• Voltage / Frequency:	400 V 3Ph 50/60 Hz
• Max. blade vibration frequency:	4.000 rpm
• Environment temperature:	10°- 40°C
• Humidity (at 30° without condensation):	< 95%
• Blade (thickness x length):	2,4 x 8,5 mm
• Compatibility:	ISO cut file
• Operating system:	Windows 10

** *Please note that the values indicated may change, for continuous improvement and adaptation to production needs.*

TECHNOLOGIES:

- **ERS** : Energy Recovery System
- **ADB** : Active Database

PERFORMANCE**

• Max. cutting thickness:	PRO 70: 7 cm compressed
	PRO 90: 9 cm compressed
• Max. cutting speed:	up to 65 m/min
• Max. cutting acceleration:	up to 8 m/s²
• Max. positioning speed:	up to 120 m/min
• Max. positioning acceleration:	up to 10 m/s²
• Effective cutting window lengh:	up to 140 cm
• Effective cutting window width:	180 – 220 cm

TECHNICAL SPECIFICATIONS**

• Power consumption:	up to < 13 kW
• Installed electrical power:	10 kW + 18,5 kW
• Voltage / Frequency:	400 V 3Ph 50/60 Hz
• Max. blade vibration frequency:	6.000 rpm
• Environment temperature:	10°- 40°C
• Humidity (at 30° without condensation):	< 95%
• Blade (thickness x length):	2,4 x 8,5 mm
• Compatibility:	ISO cut file
• Operating system:	Windows 10

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TECHNOLOGIES:

- **Spin Power**
- **ERS** : Energy Recovery System
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PERFORMANCE**

• Max. cutting thickness:	7 cm compressed
• Max. cutting speed:	up to 65 m/min
• Max. cutting acceleration:	up to 8 m/s^2
• Max. positioning speed:	up to 120 m/min
• Max. positioning acceleration:	up to 10 m/s^2
• Effective cutting window lengh:	up to 140 cm
• Effective cutting window width:	180 – 220 cm

TECHNICAL SPECIFICATIONS**

• Power consumption:	up to < 13 kW
• Installed electrical power:	10 kW + 22 kW
• Voltage / Frequency:	400 V 3Ph 50/60 Hz
• Max. blade vibration frequency:	6.000 rpm
• Environment temperature:	10°- 40°C
• Humidity (at 30° without condensation):	< 95%
• Blade (thickness x length):	3 x 9,3 mm
• Compatibility:	ISO cut file
• Operating system:	Windows 10

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TECHNOLOGIES:

- **Spin Power**
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PERFORMANCE**

• Max. cutting thickness:	5 cm compressed
• Max. cutting speed:	up to 65 m/min
• Max. cutting acceleration:	up to 8 m/s^2
• Max. positioning speed:	up to 120 m/min
• Max. positioning acceleration:	up to 10 m/s^2
• Effective cutting window lengh:	up to 140 cm
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TECHNICAL SPECIFICATIONS**

• Power consumption:	up to < 13 kW
• Installed electrical power:	10 kW + 18,5 kW
• Voltage / Frequency:	400 V 3Ph 50/60 Hz
• Max. blade vibration frequency:	6.000 rpm
• Environment temperature:	10°- 40°C
• Humidity (at 30° without condensation):	< 95%
• Blade (thickness x length):	2 x 7 mm
• Compatibility:	ISO cut file
• Operating system:	Windows 10

***Please note that the values indicated may change, for continuous improvement and adaptation to production needs.*

TECHNOLOGIES:

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- **ERS** : Energy Recovery System
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