

Für ein ausgezeichnetes Grün



For An Outstanding »Green«

**SYSTEM  
ETTRICH**

»A golf course  
is more than  
just another  
green field«

Taking care of a putting-green is very important. Indeed, carefully maintained surfaces are the key to promoting successful play and the enjoyment of the game. The investment costs of the machinery needed to keep the greens in order are quite considerable, so to keep additional costs down it stands to reason that the maintenance, i.e. the grinding of the grass mower blades, should be taken in one's own hands.



How satisfying to putt  
your ball right on target  
thanks to a superbly  
trimmed putting-green!

*»Machinery can  
only be considered  
complete once it  
is self-sufficient  
and can handle  
any circumstance  
without the need  
for other extras«*

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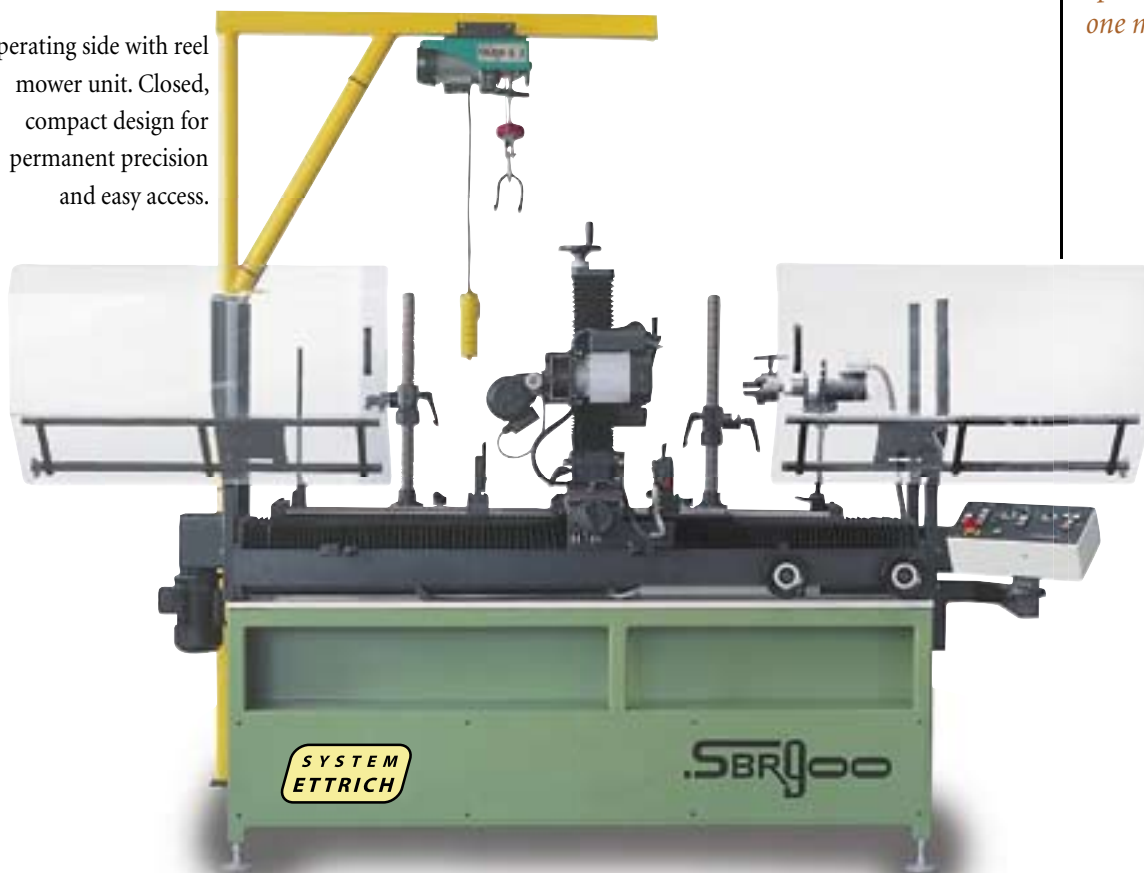
**SBR 100**

## Flexible and accurate grinding of reel mower units

The machine conception of SBR 900 is based on a unique process (patent pending) which grinds mower spindles and bed-knives with highest precision in one single clamping operation by means of which the bed-knives support does not require dismounting. In addition to the work savings, thanks to the omission of large-scale dismantling and remounting operations, the stability of the frame is maintained and thus contributes to the precision of the parallelism. As a result, the grinding results are better, thus prolonging the service life of the spindles and bed-knives, and the grass-cutting results, too. The machine conception is suitable for almost all types of mowers.

*»The easy-to-operate SBR 900 offers you the possibility to carry out four different operations on only one machine«*

Operating side with reel mower unit. Closed, compact design for permanent precision and easy access.



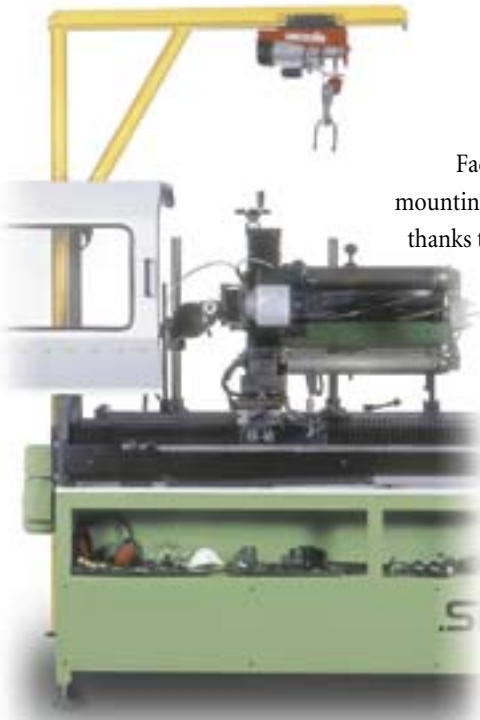
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**SBR 900**

# Straight-forward fixing procedure

The entire mower unit is lifted conveniently into the grinding position by means of the pivotable elevator. Mobile clamping elements permit a stable mounting of all commercially known types of mowers. It is even possible to grind manual putting-green mowers. The perfect fit in prisms and rigid column supports render the grinding operation vibration-free, thus enhancing the grinding results.

Facilitation of mounting operation thanks to pivotable elevator



One of the clamping devices



Manual putting-green mower clamped in position without needing to be dismantled





## »Precision right from the very concep- tion itself«

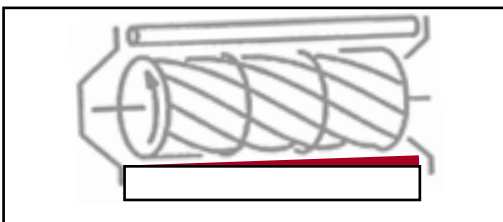


Sturdy bed-knife support promotes grinding operation

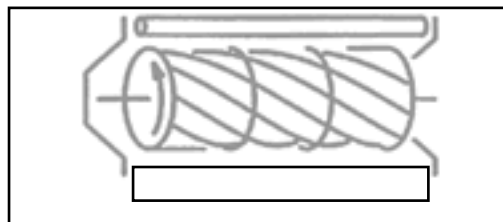
The machine was designed in such a way that the spindle bed-knife can be ground in one clamping operation without having to be reset or dismantled from the mower frame.

In view of the fact that the "single"-machine conception does not require the bed-knife to be removed, any distortions or deformations which would inevitably occur when removing and remounting the blade are avoided.

*»The know-how that has gone into the making of this machine renders an investment worthwhile in no time«*



Inaccurate slanted insertion - the most frequent error with a "multi"-machine conception



The perfect fit: the "single"-machine conception

### *The SBR 900 operating sequence:*

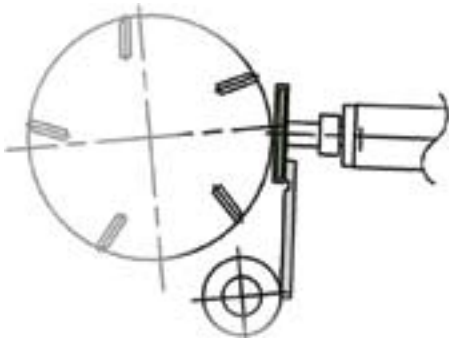
- Grinding of front and top of bed-knife
- Sharp grinding of spindle blades
- Relief (free) grinding of spindle blades

»A single clamping process saves time and is much more economical«

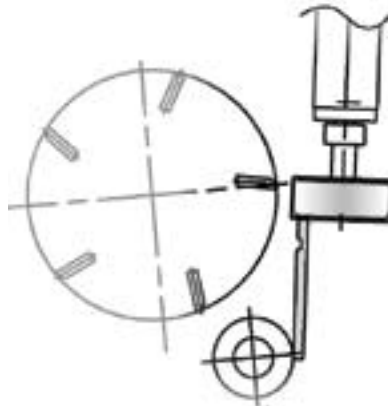
**A** brief outline of the features of the SBR 900:

- Easy access
- Short set-up times for all operations
- Variable clamping possibilities
- Reliable and variable driving system
- Smooth grinding operation
- All grinding processes within a single clamping operation
- Superior cutting results thanks to high-quality grinding operation

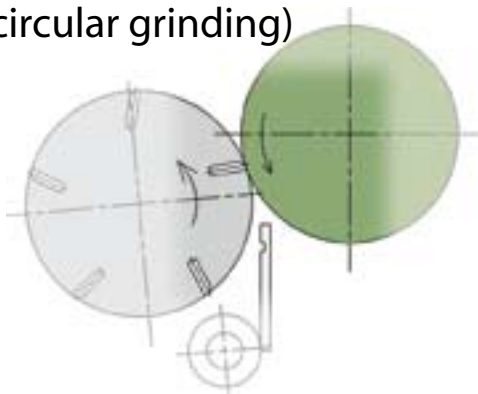
## Bed knife grinding (front)



## Bed knife grinding (top)



## Sharp grinding operation (circular grinding)



## Free grinding operation (relief grinding)



»A sharp grinding operation is possible on any mower grinding machine – a free grinding operation only on a few. Grinding bed-knives in one clamping operation is only possible on the SBR 900 made by System Ettrich – a world novelty«

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**SBR900**

## The special driving technique

A special driving technique was conceived for rotating the mower spindle in order to enable it to be ground. A synchro motor which is tuned to the specific requirements is responsible for the clockwise or anticlockwise rotation. It is fitted with a precision concentric chuck which drives the mower axes either direct or via special adapters.

Other special merits of this superior construction are the extremely quiet running performance and the variable speeds.



### Special adapters:

		
Ransomes Toro	8- and 9 -type spline profile Ransomes / Toro	Ransomes Jacobson

## Precise bed-knife grinding

Dismantling the bed-knife is always a rather complicated process and remounting it requires a lot of time, effort and skill if you want the bed-knife positioned in perfect line with the mowing spindle. With some mower designs the frame becomes deformed when dismantling the bed-knife, causing further inaccuracies. This cannot happen with our "SINGLE"-machine conception.

*»The finest grain of the high-quality CBN grinding wheels guarantees perfectly smooth and straight knife surfaces«*

Grinding  
the front



Grinding  
the top

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## The correct free grinding is a true technical advantage

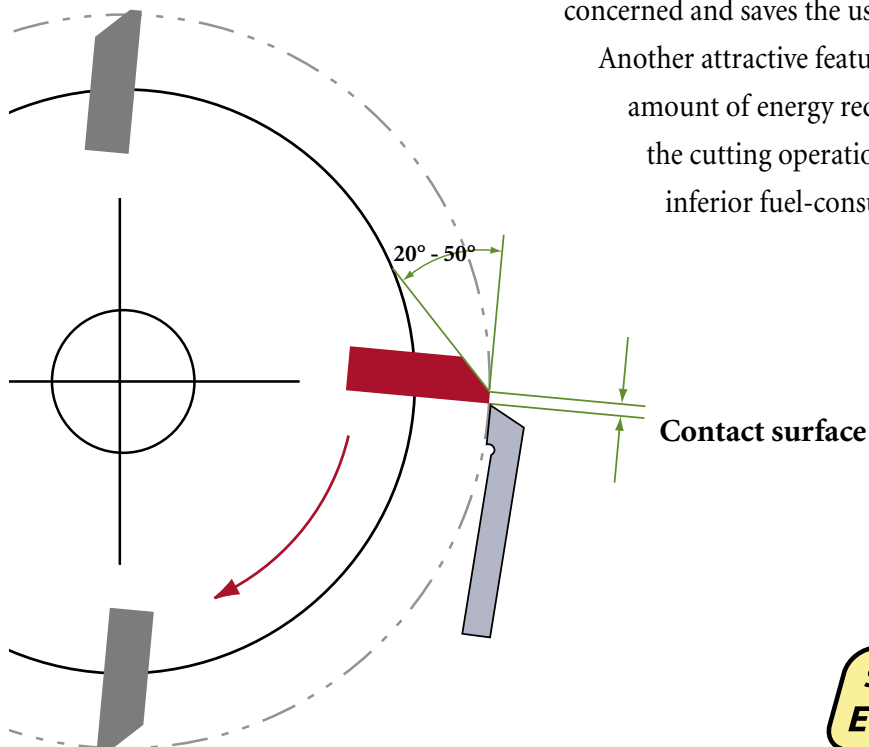


Grinding on the support pin

The free grinding of the spindle blades is effected after the circular grinding operation in the same clamping position. The free grinding angle (see sketch) is selected within a range from  $20^{\circ}$  to  $50^{\circ}$  by setting the support pin accordingly. The support pin secures the exact position between the grinding wheel and spindle blade and guarantees that the contact width is evenly ground over the entire width of the spindle. The support of the spindle blades on the support pin is safeguarded via an electronic spindle drive control.

Free grinding between  $20^{\circ}$  and  $50^{\circ}$  reduces the contact surface of the spindle and bed-knife decisively (see sketch) and decreases the squeezing and fraying of the grass to a minimum. The result is not only an outstanding appearance of the green but also a reduction in the susceptibility to discoloration and the build-up of fungus etc. This is desirable as far as the ecology is concerned and saves the use of chemicals.

Another attractive feature is the lower amount of energy required during the cutting operation and the inferior fuel-consumption



## Technical data

Instead of superfluous extras the SBR900 stands out because of its straightforward and logical operation. Here the clearly arranged control panel:



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- Grinding length up to 1066 mm (42")
- Spindle diameter from 120 to 280 mm (5" - 11")
- Precision grinding unit, grinding spindle 4,200 RPM, grinding wheel diameter from 120 - 150 mm, grinding motor 0.75 kW (1 HP)
- High-speed grinding unit for grinding bed-knife, grinding wheel diameter 50 mm (2"), grinding spindle 12,000 RPM, grinding motor 0.25 kW (0.35 HP)
- Infinitely variable mower spindle drive
- Adapter for driving mower spindle
- Infinitely variable advance speed of grinding unit
- Trueing system for grinding wheel (with angle adjustment)
- Wet grinding device
- Clearly arranged control panel
- 220 to 450 volts, 50/60 Hz, connected wattage 3 kW
- Pivotal elevator, one speed
- Conforms with CE
- Weight approx. 900 kg
- Dimensions: W 1.2 m x L 2.8 m x H 1.8 m

*»Just call us if  
you need more  
details!«*

Subject to technical  
alterations

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