SEN/ATOR

78 & 92 compact / advance

Guillotines





- Direct electromechanical knife drive
- User-friendly PCC control unit
- · Fast, automated knife change from the front
- Drastic reduction in energy consumption
- Low space requirement and silent in standby mode





SCHNEIDER SENATOR manufactures quillotines with hydraulic pressing and mechanical knife drive for the paper industry since 1948. The continuous model development and technical progress characterise Schneider Senator from the beginning. Already in 1977 the worldwide first microprocessor control was introduced.

Following the takeover by Gerhard Busch GmbH in 2009 complete cutting systems are supplied from one source. The product portfolio comprises machines for loading and unloading, tailor-made solutions for cutting waste disposal as well as productive banding machines.

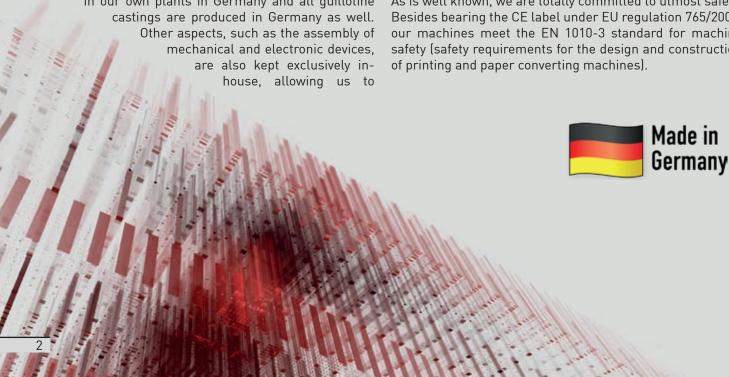
For cutting half-size formats Schneider Senator offers guillotines with cutting widths of 780 mm and 920 mm in two different versions: the *compact* version as the basic model for industrial operation and the advance machine with useful additional features for a challenging production.

Quality Made in Germany

The proven quality that is the hallmark of Schneider Senator units is based on the solid construction and a label that says it all: Made in Germany. All production parts are made in our own plants in Germany and all guillotine castings are produced in Germany as well. Other aspects, such as the assembly of mechanical and electronic devices, are also kept exclusively inhouse, allowing us to

take care of everything in our Schneider Senator factory in Germany. As a result, ultimate production quality is a given.

As is well known, we are totally committed to utmost safety. Besides bearing the CE label under EU regulation 765/2008, our machines meet the EN 1010-3 standard for machine safety (safety requirements for the design and construction of printing and paper converting machines).



High performance. Compact format.

Small-format cutting requires absolute precision and reliability - and Schneider Senator meets this challenge. Ideal for cutting widths of 780 and 920 mm, the *compact* and *advance* machines deliver ultimate energy efficiency and a variety of quality advantages associated with the Schneider Senator brand.

78 / 92 compact

- cutting width: 780 or 920 mm
- direct electromechanical knife drive
- hydraulic clamp bar
- rust-proof stainless steel side tables (without air film)
- one-piece rear table (without slot cover band)
- closed rear table cover
- manual clamp pressure adjustment
- 1 HSS knife

78 compact
with BN compact side tables (standard)

78 / 92 advance

- cutting width: 780 or 920 mm
- direct electromechanical knife drive
- hydraulic clamp bar
- rust-proof stainless steel side tables with air film
- one-piece rear table (without slot cover band)
- hinged rear table cover
- proportional valve controlled clamp pressure adjustment
- program correction linear and in percentage terms
- Ethernet interface
- scaled swinging / tilting back gauge adjustment
- 2 HSS knives



92 advance with BN side tables (standard)

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Standard equipment

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compact advance

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•	direct electromechanical knife drive			
•	hydraulic clamp bar			
•	solid cast iron frame			
•	control: PCC <i>compact</i>			
	control: PCC <i>advance</i>			
•	15" TFT touch screen display			
•	infrared safety barriers			
•	safety catch with shear bolt (safety bolt)			
•	rust-proof cutting table with air film, stainless steel surface (2 mm)			
•	one-piece rear table (without slot cover band)			
•	frequency-controlled back gauge drive with ball-screw spindle			
•	closed, removable rear table cover			
	hinged rear table cover			
•	rust-proof side tables, left and right			
	rust-proof side tables with air film, stainless steel surface (2 mm)			
•	optical cut indicator			
•	knife change and adjustment from the front			
1	quantity HSS knives			
5	quantity sinus cutting sticks			
•	clamp bar cover plate			
	second clamp bar cover plate (option)			
•	ergonomic cut buttons			
•	manual clamp pressure adjustment			
	programmable clamp pressure adjustment			
•	USB interface			
	Ethernet interface for network connection			
•	anual swinging / tilting back gauge adjustment			
	anual swinging / tilting back gauge adjustment			
	tool kit			

colour: RAL 7035, light grey

CE & EN 1010 compliant

Silent and strong

The *compact* and *advance* machines are absolutely silent in standby mode and consume power only during cutting. The tried-and-tested Schneider Senator technology has been developed and improved with systematic and methodical approach and ensures high user-friendliness.

The electromechanical knife drive operates without a geared fly wheel, so that the risk of wear and tear is eliminated. The unit is driven precisely by a gear motor, which as a result reduces the maintenance costs drastically. Knife changes and adjustments are made conveniently from the front. Thanks to the knife changer, automatically replacing the cutting knife is child's play and meets the highest safety standards. There's no more need to adjust the knife draw rod and all grease points are easy to access. The machines also come with a PCC control unit, which is simple to use and doesn't involve a steep learning curve.



92 *advance*, one-piece rear table (without slot cover band), hinged rear table cover

Matched to industrial needs and precision

The hydraulic clamp bar and the precise electromechanical knife drive on these guillotines are ideal for industrial operation in half-size formats. The electric and hydraulic components are housed in the lower section of the machine to deliver a highly precise cut, meeting the highest standards.

Depending on the properties of the material being cut, the machine can be operated at up to a maximum clamp opening of 120 mm. Materials that are typically cut on this machine include paper, paperboard and cardboard, as well as paper banknotes containing cotton fibres. Depending on the knife grade, even challenging materials can be cut with the guillotine.

The clamping hydraulics are activated centrally using two powerful equalising levers which deliver a pressing clamp capacity of between 100 and 2500 kg (78 *compact / advance*) or up to 3000 kg (92 *compact / advance*). The pre-clamping time can be preset in 0.1-second increments from 0 to a maximum of 9.9 seconds.

After the cut is released, the clamp lowers onto the cutting material using a predefined pressure for a preset clamping time. After pre-clamping, the knife in the knife carrier is drawn through the material from above in a swinging motion. After reaching the lower dead centre, the knife carrier with the knife returns to the starting position. To adjust the cutting depth and the parallel position of the knife versus the cutting sticks, two excentric adjustments can be made. The back gauge speed can be programmed. Swing and tilt of the back gauge is set manually - at *advance* machines with the help of a useful scale.

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Everything under control

- user-friendly
- 15-inch TFT colour display
- clear icons
- intuitive coding







The up-to-date Power Cutting Control (PCC) acts as the central operating and control unit for Schneider Senator guillotines. The PCC guarantees ultimate user-friendliness due to high definition graphics on a 15-inch TFT colour touch screen, designed to give a clear overview. The control functions, the visualisation and drive technology have all been merged into a single

package, making this industrial control unit ideal for challenging industrial applications. The unit also features a variety of future-proof and reliable control components provided by our development partner B&R. To make it practically fail-safe, the unit contains no specially produced PC boards or moving parts (eg: aerator or rotating hard disk).

PCC compact



The traditional safety wire system has been replaced by SafeLOGIC, an intelligent electronic control system that delivers ultimate operating reliability and adheres to the strictest safety standards. To make data exchange as simple as possible, the unit is equipped with a USB interface that allows limitless memory capacity for cutting programs.

PCC advance



The network connections and open system architecture are ideal for rapid digital workflows. The unit provides numerous programming options plus the possibility to control peripherals centrally through the PCC unit, thus underscoring the user-friendliness of the overall system.

PCC control compact advance 15-inch TFT colour touch screen back gauge visualisation **USB** interface Ethernet interface for network connection control of miscuts (stop of cut release in case of exceeding the positioning tolerance) switchover inch / mm / cm feeding precision 1/100 mm cut counter programmable cut counter, resettable supply of air fault diagnosis pocket calculator time and date display deletion protection of programs data protection in case of power failure language selection Programming options for the PCC single cut, repeat cut, programmed cut digitally adjustable and programmable pre-press time digitally adjustable and programmable pressing power value input or actual value transfer adjustment of back gauge feed speed clamping without cut linear program correction program correction in percentages Automatic paper ejection and programmable ejection mark user information cutting optimiser subroutines

Options for compact / advance guillotines

LST side tables

To make material handling as easy as possible on the guillotine, it is recommended to replace the standard BN side tables with larger LST side tables. The ventilated side tables with a stainless steel surface are available in two standard sizes $750 \times 750 \text{ mm}$ (LST 750) and $1000 \times 1000 \text{ mm}$ (LST 1000) as well as a variety of special table sizes. The integrated air nozzles facilitate the material movement on the air cushion. The tables come in 2 mm wear-free solid stainless steel for ultimate durability.



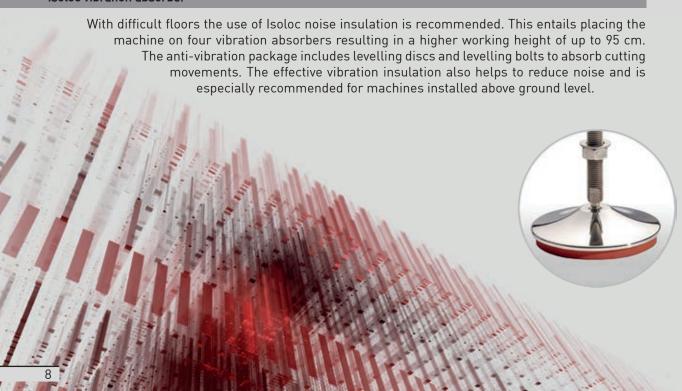
Waste bin

This solid plastic container comes on rollers to provide plenty of space for cutting waste, improving efficiency by facilitating the disposal next to the side table.

Tungsten carbide knife

These knives are much more durable than standard HSS steel knives. The ultra-fine grain of the material makes the knives perfect for even the most difficult cutting tasks. The knife change is made quickly and easily from the front.

Isoloc vibration absorber



Options for advance guillotines

Multi-functional hand wheel (MFH)

The MFH is used to position the back gauge quickly and precisely. The hand wheel is located centrally between the cut buttons. The speed of the forward and backward movement of the back gauge can be adjusted by using two electronic controls. It is easy to make adjustments at any time without interrupting the cutting program.

- Not available for compact guillotines -



Second clamp cover plate

In addition to the standard clamp cover plate (60 mm - smallest cut 70 mm) the guillotine can be equipped with a second clamp cover plate. This special clamp cover plate comes in a narrow version to replace the existing plate and allows for small cutting sizes - naturally, without any loss of quality. The unit can be mounted from the operator side.

Available in two versions:

40 mm - smallest cut 50 mm or

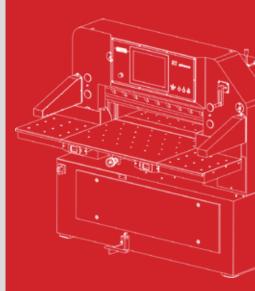
50 mm - smallest cut 60 mm.

- Not available for *compact* guillotines -

For the *compact* guillotines only one clamp cover plate can be selected. The 78 and 92 *compact* are delivered with a 60 mm clamp cover plate as a standard. If required the standard unit can be factory-replaced by a special clamp cover plate of 40 or 50 mm width.

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Peripherals

Gerhard Busch GmbH provides a wide range of peripherals, making the *compact* and *advance* guillotine a core piece of an efficient cutting system. To prepare material outside the guillotine, pile hoists and joggers are recommended. To transport cutting waste into containers, BUSCH provides a variety of perfectly developed waste conveyor solutions. Afterwards, cut reams can be bundled into clearly arranged packages using the extensive range of BUSCH banding machines.



BUSCH Pile Hoist model HL 85

Pile Hoist

This hoist is for automatically lifting and lowering cutting materials on pallets. To increase productivity and simplify processes, working heights are individually adjustable at the operating arm. The pile hoist can also be used for de-stacking cutting materials.



BUSCH Jogger model BRA 87

Jogger

To cut materials accurately, reams need to be aligned uniformly in exactly the right position. They are formed into blocks by using the air removal roller. The jogger increases the guillotine productivity because it allows material preparation outside the guillotine during the ongoing cutting process.



BUSCH Waste Conveyor model SF 110-50 PT

Waste Conveyor

BUSCH provides tailor-made solutions for transporting cutting waste into containers, by dropping it manually into the funnel above the conveyor. The conveyor can be positioned on the right or the left side of the guillotine. Moreover it can be controlled via the PCC unit. Apart from the manual on / off controls, the unit can run in automatic mode with a predefined follow-up time.



BUSCH Table Banding Machine model TB 26 I with Large Reel Stand GRS



Banding Machines

All BUSCH banding machines operate with coated Kraft paper or transparent foil tape. The versatile table banding machines cope with banding small to high volumes. For ultimate flexibility and productivity, the system can also be connected to a mobile large reel stand.

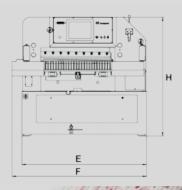
The BUSCH Feed Bander model ZFB 32/75 is used for automatic feed of product piles and rows of product piles. Its use is especially recommended right after a guillotine as it comes with an intelligent feed pusher and pneumatic bundle compression for ultimate efficiency and perfect banding results.

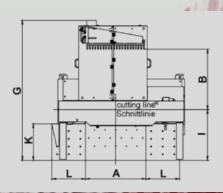
Technical Data

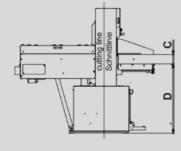
compact / advance

			78	92
Α	Cutting width	mm	780	920
В	Feed depth	mm	780	920
С	Clamp opening	mm	120	120
D	Table height	mm	900	900
Е	Machine width (without side tables BN)	mm	1.620	1.675
F	Machine width (including side tables BN)	mm	1.719	1.835
G	Machine depth	mm	1.811	1.992
Н	Machine height	mm	1.615	1.620
I	Front table depth	mm	657	657
K	Side table depth (BN)	mm	471	471
L	Side table width (BN)	mm	436	436
	Side table width and depth (LST 750)	mm	750	750
	Side table width and depth (LST 1000)	mm	1000	1000
	Power required (main drive), max.	kW	3,8	5,5
	Weight net	kg	1.550	1.720
	Clamp pressure, min.	daN	120	120
	Clamp pressure, max.	daN	2.500	3.000
	Knife thickness	mm	12	12
	Smallest cut, automatically, with clamp cover plate (60 mm) *	mm	70	70
	Smallest cut, automatically, without clamp cover plate **	mm	30	30
	Back gauge speed	mm/s	225	225
	Static floor load	daN/m²	590	605
	Contact area load (+/- 12 %)	daN/cm²	1,9	2,1
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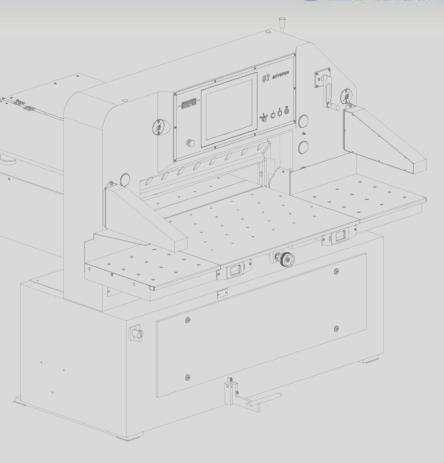
^{*} optional: smallest cut 60 mm with narrow clamp cover plate (50 mm) smallest cut 50 mm with extra narrow clamp cover plate (40 mm) ** manual: smallest cut reducible to 20 mm







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