

# Material handling Zünd Digital Cutter



Your first choice in digital cutting.

# Manual loading of sheets/boards

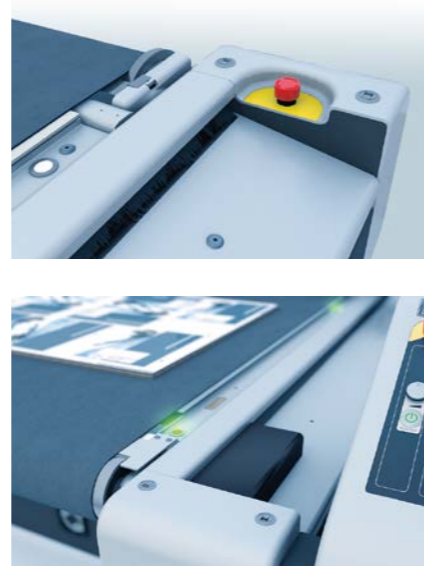
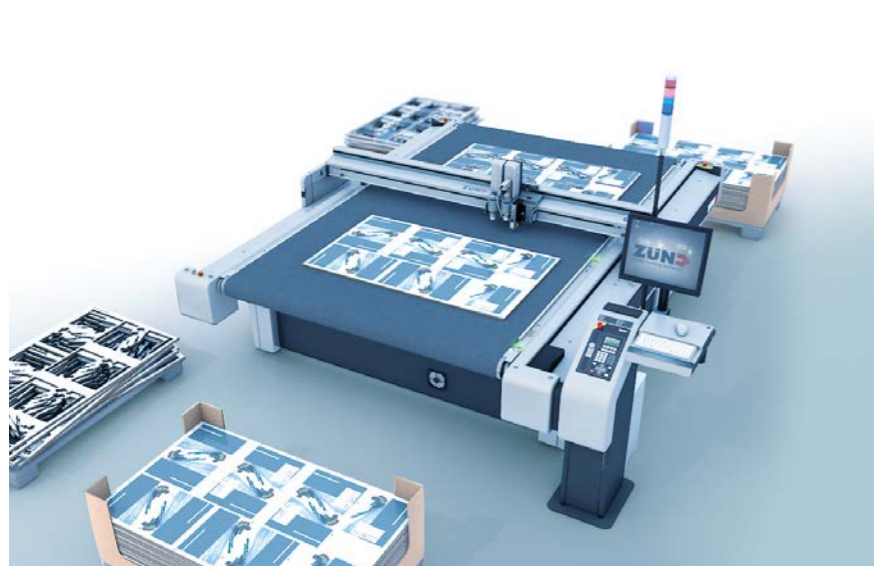
## Tandem operation

In tandem operation, loading/unloading takes place in parallel to production. While the operator feeds material on one side, the cutter works on the other side. This saves time, reduces downtimes to a minimum and increases productivity.

The working area of the tandem vacuum system consists of two vacuum plates that can be switched on and off independently of one another. Each side of the working area has buttons for switching the vacuum on/off and for processing approval.

G3 S3

To place the material, the vacuum can be activated for the relevant working area. Once the material is placed correctly, the operator signals that processing may start by pressing the enable button.



# Fully automated board feeding

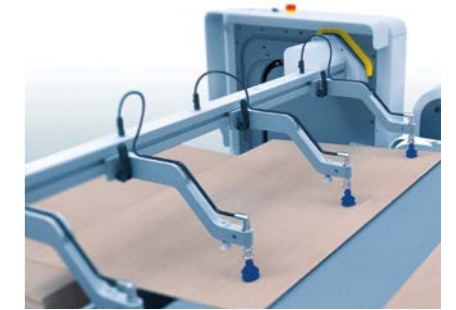
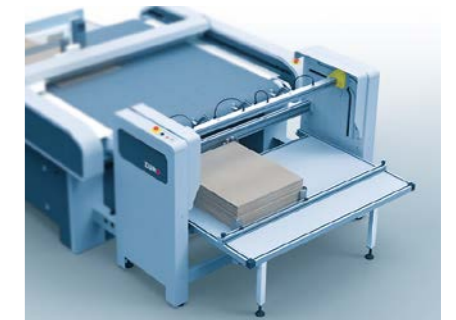
## Sheet feeder

Highly productive and reliable material feeding - expand your Zünd Cutter into an automated production machine! Printed films and dense cardboard materials are trans-

ported from the loading table to the cutter work surface using suction cups. After processing, waste and the end product are collected from the removal table.

With this automatic job process you are also able to master large jobs quickly and flexibly.

S3



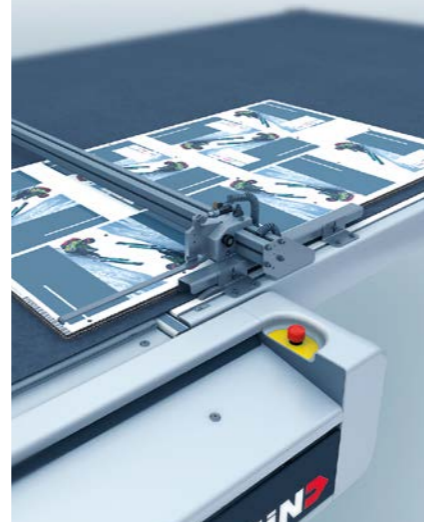
## Board loading feature

The board loading device serves as a mechanical guide for the exact alignment of manually fed board materials. It is always used in combination with a cutter extension. This

allows the boards to be placed onto the conveyor belt while the material is being processed on the cutter working area. If an additional cutter extension is used in the

G3 S3 D3

front, this serves as the unloading area. Thus, loading and unloading can take place during production.



## Board Handling System - BHS

High-volume orders, unique quality and maximum flexibility - with the board handling system, production can take place around the clock while reducing personnel require-

ments to a minimum! The fully automatic board feeding and removing process perfects your processes. Personnel requirements are limited to loading and unloading

the stacked pallets. Zünd cutters and the Board Handling System are designed for 24/7 operation.

G3 D3



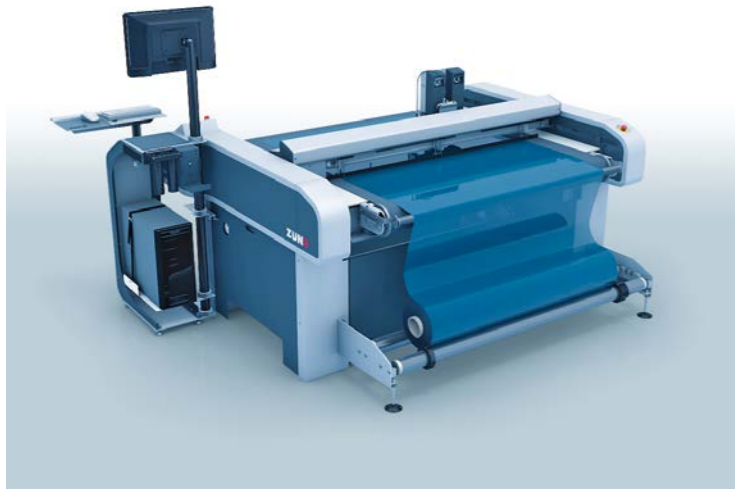


# Automatic unwinding of roll material

## Roll-off unit Universal, passive

G3 S3 D3

The Universal roll-off unit is especially well suited for light rolls of material that need to be changed often. Changing rolls is quick and easy. Ideally, the roll material should not be thick or prone to creasing (e.g., paper or plastic film). An adjustable brake effectively prevents the material from continuing to unwind. Creasing is greatly reduced through the use of a material guide roll.



## Roll-off unit Shaft, passive

G3 S3 L3 D3

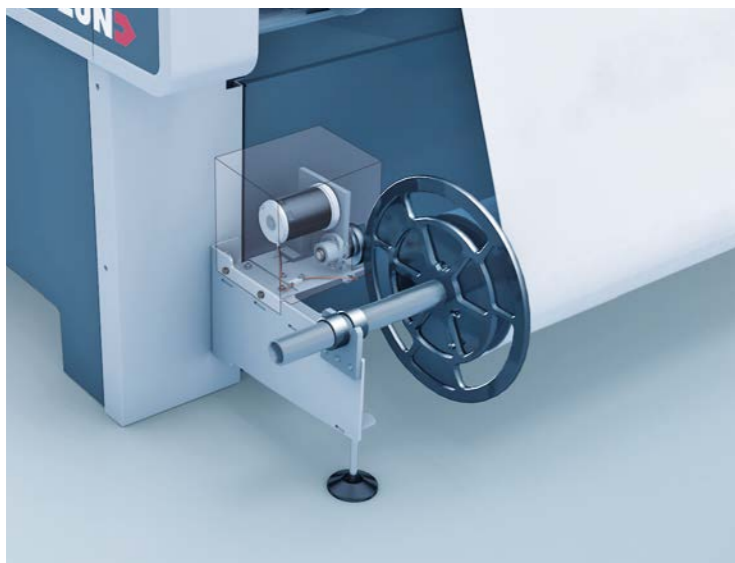
In contrast to the Universal roll-off, the shafted roll-off is well suited for soft and flexible materials as well as textiles. The roll is threaded onto a shaft and placed in the roll-off unit. This keeps the roll from flexing during advances.



## Roll-off unit Shaft, active

G3 S3 D3

The active roll-off unit with shaft is motor driven and designed to rewind any slack at the end of the unwinding process. This effectively prevents creases from occurring as the material is being fed onto the working area.



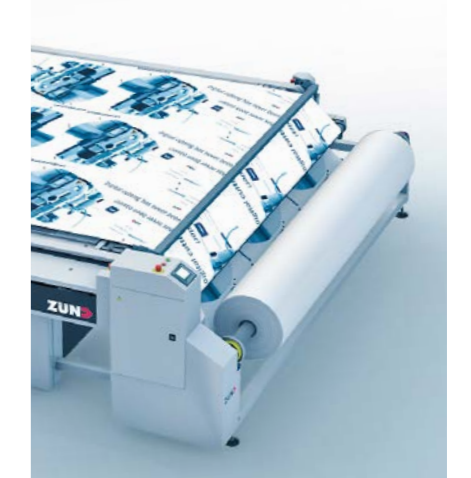
## Roll-off unit Center Winder

G3 D3

Expand your production capacity! The robust design of the Zünd Center Winder enables processing rolls up to 100 kg / 220 lbs. The well-designed mechanics of this sys-

tem ensure consistent feeding tension. This allows even challenging textiles to be advanced without creases. The driven center winder not only unwinds but also rewinds

materials after processing is finished. Light rolls up to 40 kg / 88 lbs can be loaded onto and advanced from the double-roll dancer, which then functions as a passive roll-off unit.



## Roll-off unit Cradle Feeder 100

G3 S3 D3

The cradle feeder 100 enables tension-free advancing of stretchy textile materials. At the heart of the system is a cradle consisting of belts and rollers that advances material from a roll to the cutting area.

A dancer roller continuously registers fluctuations in web tension. If needed, the cradle feeder 100 regulates the drive speed, ensuring completely tension-free material advancing.

Integrated edge control guarantees precise alignment of the material edges. If the

sensor detects an irregularity, the cradle feeder 100 automatically adjusts the horizontal alignment of the cradle. Because no shaft is used to hold the roll in place, the core need not meet any special requirements. Even rolls with crimped, broken or missing cores can be processed.

A rapid-rewind feature can be employed after processing to rewind material and create tightly wound rolls.

A new, integrated cross-cut feature permits cutting the web at the end of a marker.

The cross-cut option can be triggered manually or activated automatically in the cutter software. It allows for cross-cutting the material even while the cutter is still processing the job, which leads to significant reductions in set-up times. Especially for users who frequently need to process short markers, this translates into significant time-savings in job preparation and setup of subsequent jobs.



# Overview of roll-off units

Universal, passive



Shaft, passive



## Technical data

max. roll diameter	350 mm / 13.75"	350 mm / 13.75"
max. roll width	M-3XL <sup>1)</sup>	M-3XL <sup>1)</sup>
roll core diameter	-	3"
max. roll weight	70 kg / 155 lbs	70 kg / 155 lbs
available for cutter series	<b>G3, S3, D3</b>	<b>G3, S3, L3, D3</b>
available for cutter sizes	M-3XL	M-3XL

## Product features

Attaches to cutter extension	yes	yes
Motor-driven	no	no
End-of-roll detection	no	no
Web edge control	no	no
Automatic tension control	no	no
Pneumatic shaft to secure roll	no	no
Axis support to compensate for roller deflection	no	yes
Roll-up function	no	no
Direction of roll winding	inwards and outwards	inwards and outwards
Cut-off system		

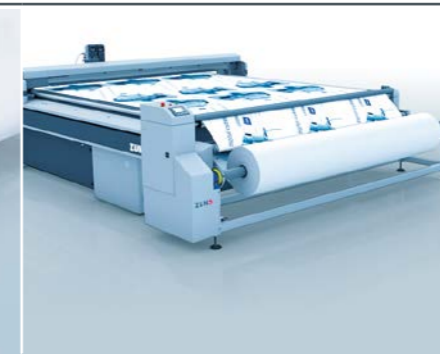
## Recommended use

Wrinkle-free advances	✓	✓
Tension-free advances	✗	✗
Prevent unwanted unwinding	✓	✗
Process stretchy textile materials	✗	✓
Fast roll changes	✓	✓
Constant material tension	✗	✗
Adjust for irregular material edges	✗	✗
Automatic cross-cut option at end of marker	✗	✗

Shaft, active



Center winder



Cradle Feeder 100



max. roll diameter	350 mm / 13.75"	350 mm / 13.75"	400 mm / 15.75"
max. roll width	M-3XL <sup>1)</sup>	L-3XL	M-3XL
roll core diameter	3"	3"	-
max. roll weight	70 kg / 155 lbs	100 kg / 220 lbs	100 kg / 220 lbs
available for cutter series	<b>G3, S3, D3</b>	<b>G3, D3</b>	<b>G3, S3, D3</b>
available for cutter sizes	M-3XL	L-3XL	L, XL, 3XL <sup>2)</sup>

Attaches to cutter extension	no	yes	yes
Motor-driven	no	yes	yes
End-of-roll detection	no	yes	no
Web edge control	no	no	yes
Automatic tension control	no	yes	yes
Pneumatic shaft to secure roll	no	yes	no
Axis support to compensate for roller deflection	yes	no	no
Roll-up function	yes	yes	yes
Direction of roll winding	either inwards or outwards	inwards and outwards	inwards and outwards
Cut-off system			optional

Wrinkle-free advances	✓	✓	✓
Tension-free advances	✗	✗	✓
Prevent unwanted unwinding	✓	✓	✓
Process stretchy textile materials	✓	✓	✓
Fast roll changes	✓	✓	✓
Constant material tension	✓	✓	✗
Adjust for irregular material edges	✗	✗	✓
Automatic cross-cut option at end of marker	✗	✗	✓

<sup>1)</sup>Max. roll width reduced by 100 mm in combination with auxiliary drive.

<sup>2)</sup>The cradle feeder 100 is compatible with all G3 and D3 sizes; for M and 2XL models, the slightly wider than necessary L/3XL feeders are used.

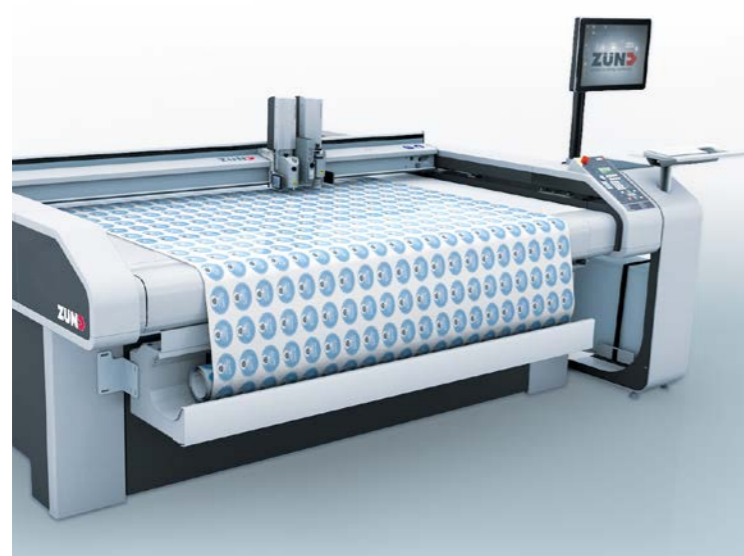


# Automatic winding of roll material



## Roll-up unit Shaft, active G3 S3

With the driven roll-up unit shaft, large kiss cutting jobs can be produced fully automatically! The material is immediately rolled on to the roll core after processing, which ensures that it remains clean and free of kinks and creases. This roll-up unit is ideal for vinyl or printed textiles with a roll weight of up to 70 kg.



## Roll-up unit Tray, active G3 S3

The roll-up unit tray, active, is perfectly suited for small Kiss-Cutting jobs. The foil is automatically wound in the tray after processing. After each separating cut the wound foil can be immediately taken out of the tray - directly and without interrupting production. Make sure that the individual foil sections are no more than 20 m long.

# Overview of roll-up units

Shaft, active



Tray, active



### Technical data

max. roll diameter	350 mm / 13.75"	-
max. roll width	M-XL <sup>1)</sup>	M-XL
roll core diameter	3"	-
max. roll weight	70 kg / 155 lbs	10 kg / 22 lbs
available for cutter series	<b>G3, S3</b>	<b>G3, S3</b>
available for cutter sizes	M-XL	M-XL

### Product features

assembly on the cutter extension	no	yes
driven	yes	yes
roll end detection	no	no
automatic regulation of the material tension	no	no
pneumatically tensioned winding shaft to fix the roller	no	no
axis support to compensate for roller deflection	yes	no
roll-up function	yes	yes
direction of roll winding	either inwards or outwards	outwards

### Recommended use

crease-free wind-up	✓	✗
preventing unwanted roll-off	✓	✓
processing flexible materials	✓	✗
fast roller change	✓	✓
steady material tension	✓	✗

<sup>1)</sup> Max. roll width reduced by 100 mm in combination with auxiliary drive.

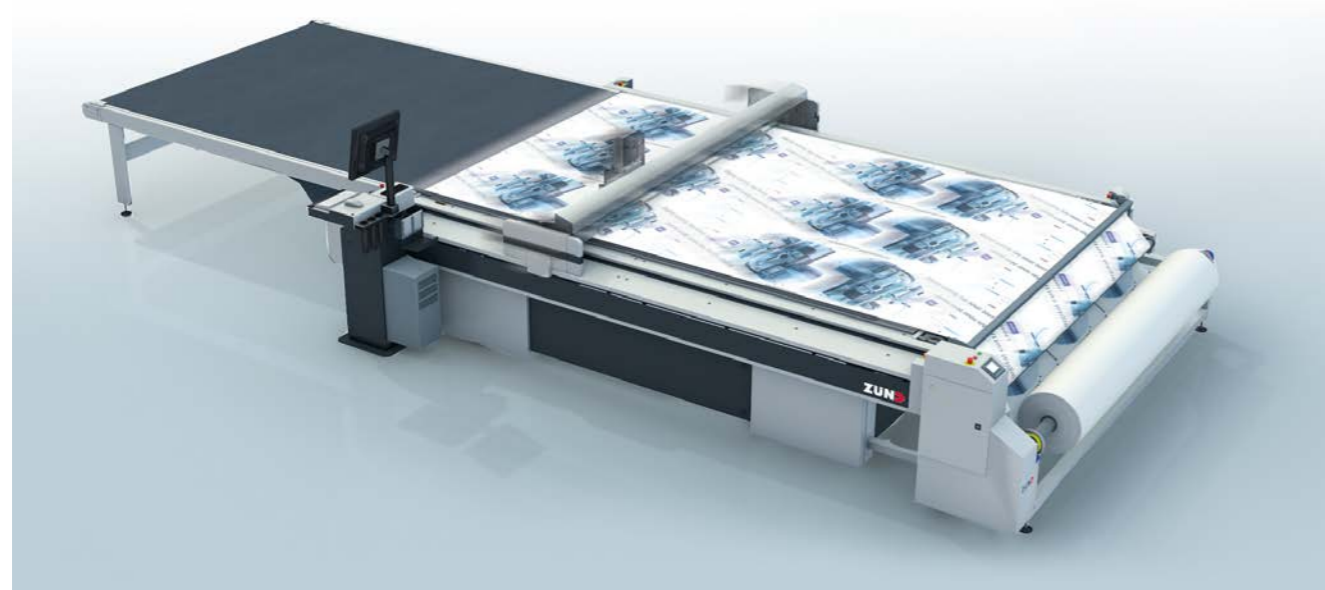
# Additional material handling options

## Material transport

The conveyor belt is a cutting board and transport belt at the same time. Cut parts are automatically transported away from the cutting area while the cutter is loaded at the same time.

The material transport allows the use of cutter extensions and the production of jobs that are longer than the actual working area of the cutter.

Transport elements fix the material during feeding. Use of the optional transport bars is recommended for thin and flexible roll or sheet materials.

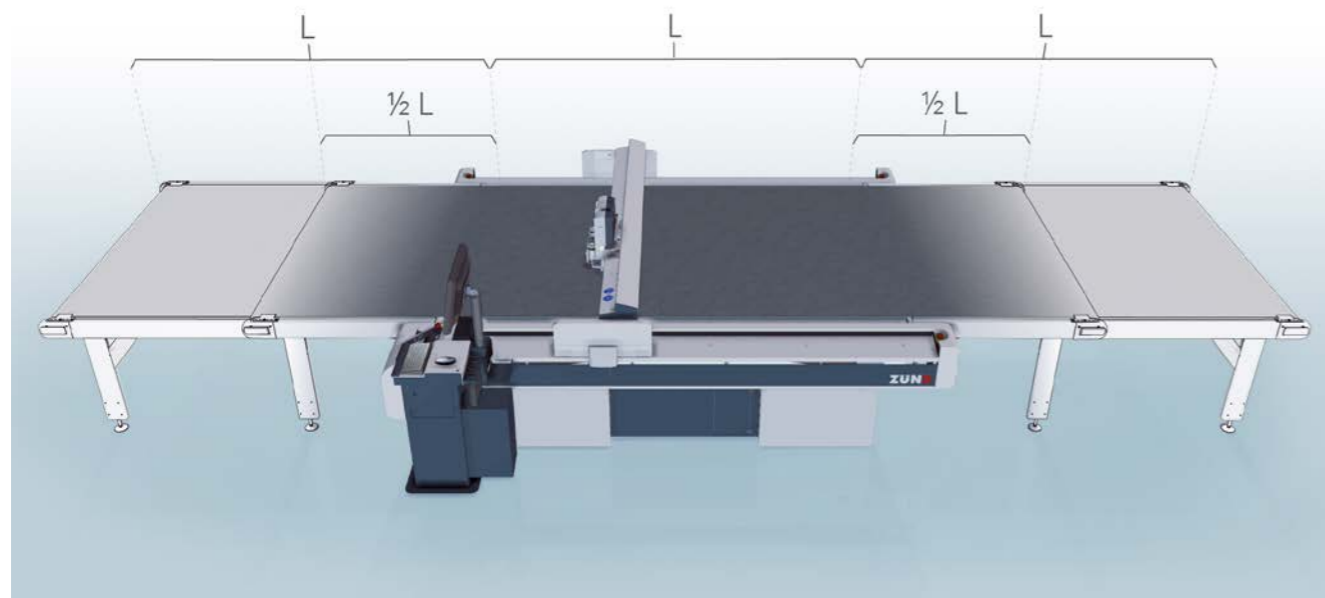


## Cutter extensions

Cutter extensions are available for installation on the front and/or rear of the cutter in the following sizes:

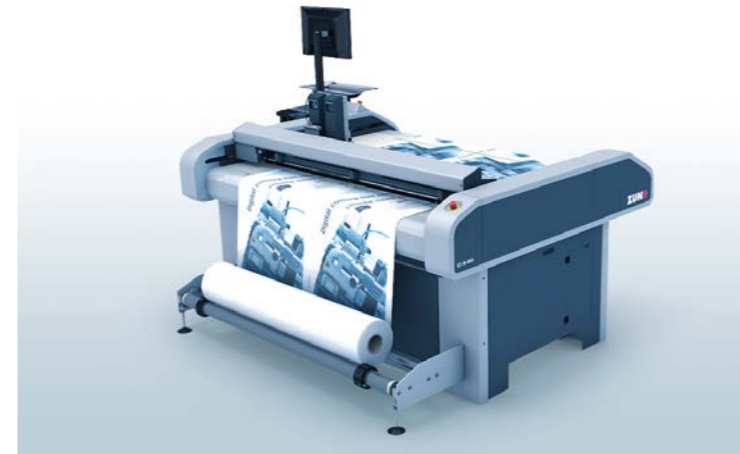
**G3, D3:** enlargement by the full length (L) or half of the cutter working area ( $\frac{1}{2} L$ ).

**S3:** enlargement by the full length of the whole cutter working area (L).



## Vinyl advance system S3

A special vinyl advance system makes the S3 the perfect cutter for vinyl and other foil-cutting applications. Central to this type of configuration is the vacuum plate designed especially for kiss-cutting. Cutting occurs directly on the table plate without any kind of underlay. The system comes with a roll-end sensor that automatically suspends operations when the end of a roll is reached. A cutting strip for automatic sheeting completes the system.



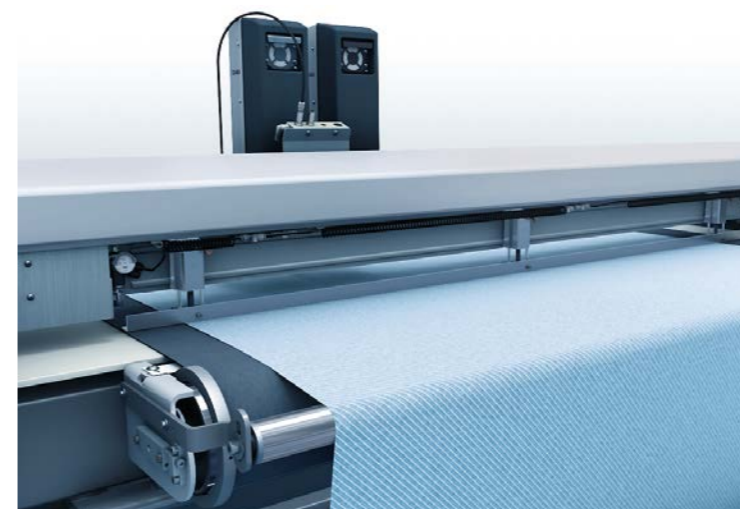
## Collection tray G3 S3 D3

The collection tray is a handy, removable bin for collecting cut materials and waste as they come off the conveyor belt. It helps protect cut pieces and keeps the work area neat and clean. For emptying, the collection tray can easily be detached from the machine.



## Material-guide roll G3 S3 D3

The material guide roller effectively prevents creasing in textile materials. In this process, the material is fed over a guide roller. We recommend always using the material guide roller in combination with a roll-off unit.



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