High-Speed Cutters

PERFECTA Cutting Systems

Make finishing more industrial

History

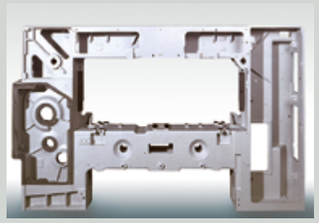
„The origin of PERFECTA dates back to 1896 when the first paper cutting machines were designed and built in Bautzen, Germany. Since this time, we have been market leader in the cutting innovation and design. Today, PERFECTAs are still manufactured in Bautzen, Germany in a modern manufacturing facility. The high speed cutters we manufacture today are part of our newly designed innovative cutting technology. At the same time, we have improved existing functions and integrated new features.

Whether as standalone machine or as part of a cutting system, PERFECTA high-speed cutters always are the best choice when processing paper, board, aluminium or plastic materials. With PERFECTA cutters, you will always be competitive in the market place. PERFECTA high-speed cutters combine innovative technologies, solid design and high-performance electronics for one goal: ***Make finishing more profitable.***"

Strong arguments

PERFECTA Cutpit

With three different computer operating modes, the PERFECTA Cutpit can process the simple jobs to the very difficult jobs.

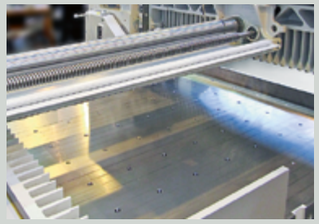


PERFECTA cast-iron machine frame

The double enclosed machine frame gives PERFECTA paper cutter superior stability.

PERFECTA gearbox

The robust PERFECTA gearbox for driving the knife ensures high efficiency and guarantees long life with minimal maintenance.



PERFECTA cutting table

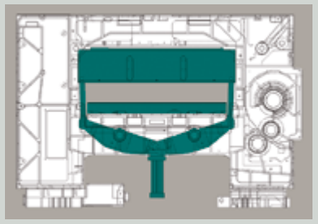
The slotless PERFECTA cutting table of a PERFECTA cutter facilitates easy stock handling and prevents paper dust from building up in the backgauge drive mechanism. The laminated surface of corrosion-free stainless steel protects the cutting table from rust.

PERFECTA ServoDrive

The PERFECTA ServoDrive guarantees precise positioning of the material to be cut by a servo-based or linear backgauge drive system.

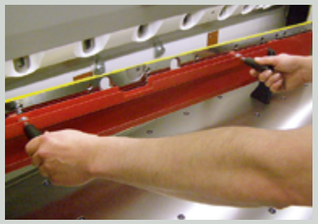
PERFECTA clamp drive

The central PERFECTA clamp drive optimizes the distribution of the clamping force to ensure utmost cutting precision.



PERFECTA knife changing device

The PERFECTA knife changing device is the safest and most logical on the market.



PERFECTA safety

Utilizing dual safety computers to monitor all safety aspects of the paper cutter, such as the safety light guard, safety bolt, proper guarding and low pressure foot pedal clamping makes the PERFECTA paper cutter the safest paper cutter in the industry.

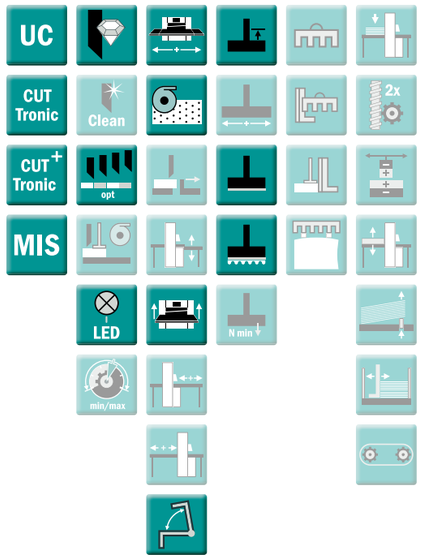
Small but perfectly formed

„Frequently changing jobs for runs of various quantities and different materials – this is where PERFECTAs range of small and half-size format high-speed cutters are ideal for you whether in offset printing, digital printing, bookbinding or in offices and copy shops. The PERFECTA 76 TS E and the PERFECTA 92 TS areheavy duty cutting machines for 24/7 capabilities, just like our larger cutting machines."

PERFECTA 76 TS E

The machine illustrations include optional equipment.

Optional equipment



Performance data

Cutting table width	30”
Cutting table height	34.25”
Smallest cut	0.6”
Smallest cut with false clamp	1.6”
Maximum clamp opening	4.3”
Useful rear table length	30”
Knife cycle rate	50 cuts/min
Maximum backgauge speed	12”/sec
Main drive power	3 hp
Weight	3,640 lbs

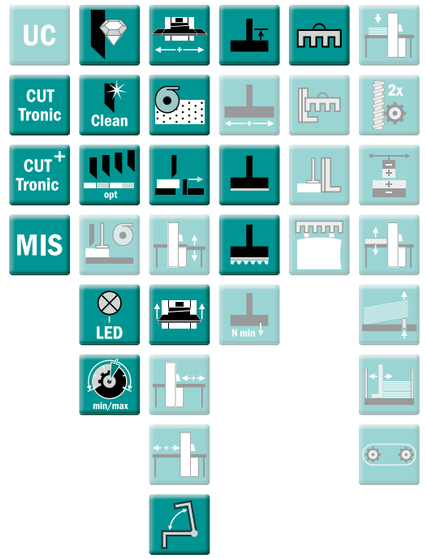
PERFECTA 92 TS

The machine illustrations include optional equipment.

Performance data

Cutting table width	36”
Cutting table height	34.25”
Smallest cut	0.7”
Smallest cut with false clamp	2.2”
Maximum clamp opening	4.7”
Useful rear table length	36”
Knife cycle rate	50 cuts/min
Maximum backgauge speed	12”/sec
Main drive power	4 hp
Weight	4,410 lbs

Optional equipment



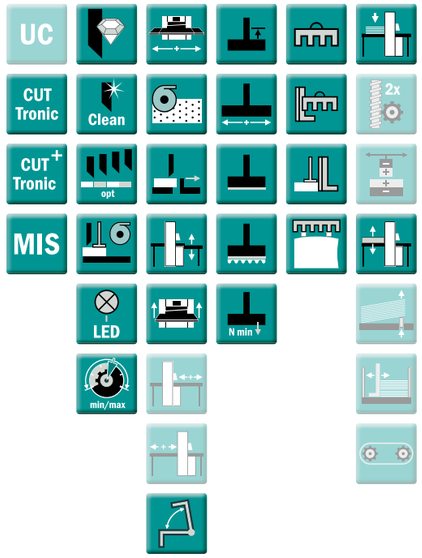
Strong middle class

„No matter whether you handle flimsy lightweight paper, heavy chipboard or plastics, our medium-size PERFECTA high-speed cutters always perform outstanding. They are well designed for use in commercial shops, packaging printing, bookbinderies, paper companies and paper converters. The PERFECTA 115 TS and PERFECTA 132 TS machines take various challenges and ensure efficient productions flows."

PERFECTA 115 TS

The machine illustrations include optional equipment.

Optional equipment



Performance data

Cutting table width	45.25”
Cutting table height	34.25”
Smallest cut	0.8”
Smallest cut with false clamp	3”
Maximum clamp opening	6.5”
Useful rear table length	45.25”
Knife cycle rate	44 cuts/min
Maximum backgauge speed	12”/sec
Main drive power	5.4 hp
Weight	7,055 lbs

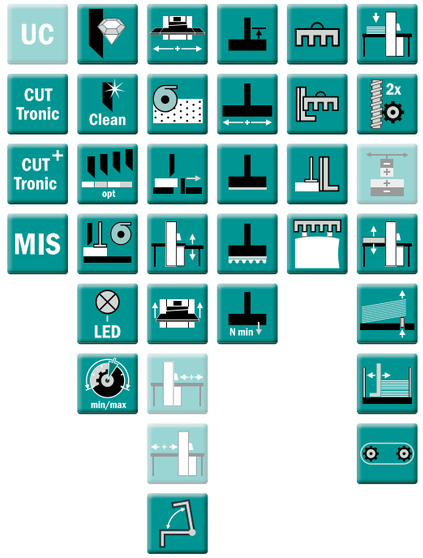
PERFECTA 132 TS

The machine illustrations include optional equipment.

Performance data

Cutting table width	52”
Cutting table height	34.25”
Smallest cut	0.8”
Smallest cut with false clamp	3”
Maximum clamp opening	6.5”
Useful rear table length	52”
Knife cycle rate	44 cuts/min
Maximum backgauge speed	12”/sec
Main drive power	5.4 hp
Weight	7,520 lbs

Optional equipment



Great opportunities

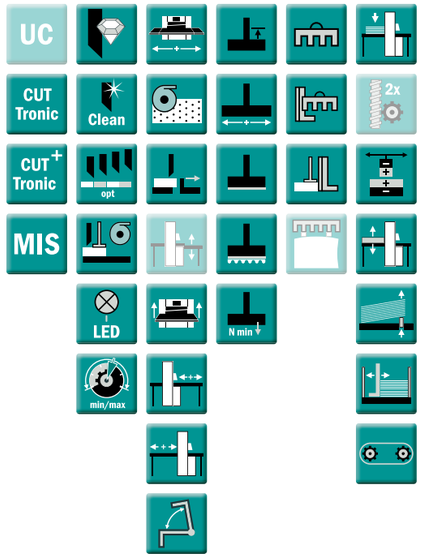
„Bigger, faster, more efficient, with their 168 (66”) or 225 cm (88.5”) wide cuts, our high-speed cutters have no problems with the processing of large size and very large size formats.

Whether as a standalone machine or integrated into a high efficient cutting system, our large format cutters will always perform in the toughest situations.“

PERFECTA 168 TS

The machine illustrations include optional equipment.

Optional equipment



Performance data

Cutting table width	66”
Cutting table height	35”
Smallest cut	1”
Smallest cut with false clamp	3”
Maximum clamp opening	6.5”
Useful rear table length	66”
Knife cycle rate	42 cuts/min
Maximum backgauge speed	12”/sec
Main drive power	10 hp
Weight	15,210 lbs

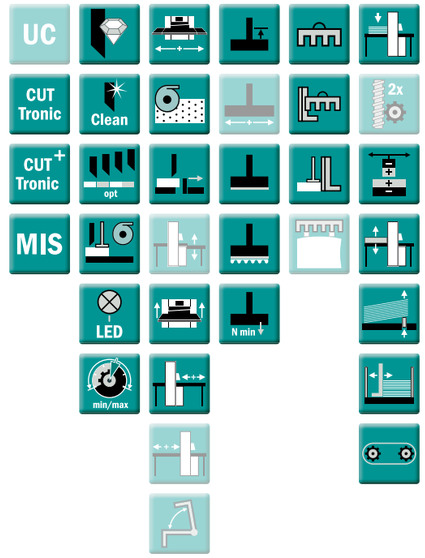
PERFECTA 225 TS

The machine illustrations include optional equipment.

Performance data

Cutting table width	88.5”
Cutting table height	35”
Smallest cut	4.3”
Smallest cut with false clamp	Not available
Maximum clamp opening	6.5”
Useful rear table length	106”
Knife cycle rate	34 cuts/min
Maximum backgauge speed	78”/sec
Main drive power	13.4 hp
Weight	17,640 lbs

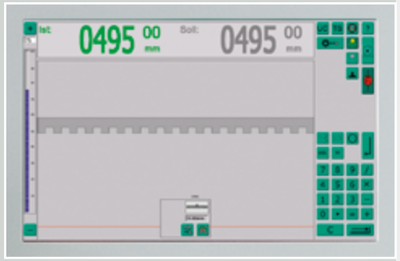
Optional equipment



Convenience in your workflow

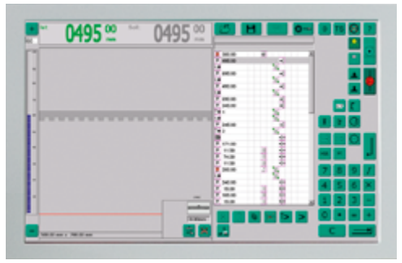
„The PERFECTA Cutpit offers convenience for the processing of various cutting jobs. Depending on the type and extent of the work they have to do, operators can choose among three different operating modes. The user interface of the touch screen can thus be matched to individual needs.

Clearly understandable symbols make the PERFECTA easy to operate. All working processes before, during and after cutting can be centrally monitored and evaluated. This guarantees you a smooth and efficient workflow and will significantly improve your production process."



0 mode

The 0 mode offers the simplest way to operate the backgauge. Through the numeric touch keypad, you can simply enter in your cut measurements and touch the move icon to automatically position the backgauge.

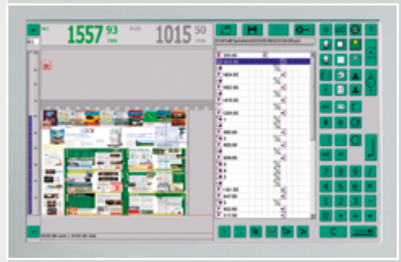


UC mode

The UC mode has some standard functions that enable you to create basic cutting programs. These programs can easily be saved for future use.

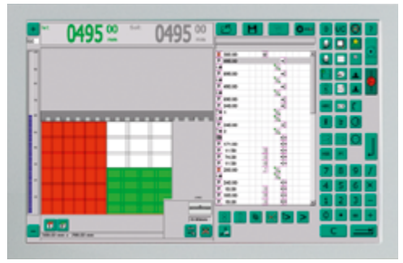
TS mode

Full performance for complex tasks. The TS mode offers a comprehensive user interface that enables you to create and edit complex cutting jobs. CIP3 data generated at the pre-press stage can be converted and transferred into cutting programs. The TS mode has numerous graphic options for monitoring the cutting process. These include a graphic image of the printed sheet and the sequence of the respective cutting program to be executed. Monitoring and controlling of all peripherals connected to the cutter will also be possible.



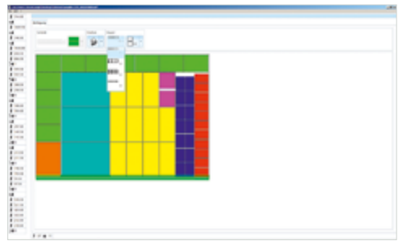
Cuttronic

Cuttronic is our software solution to connect pre-press to the cutting process automatically. CIP3/4 data generated in pre-press can be converted by the Cuttronic software and translated into a cutting program. After the generation of the cutting program, the PERFECTA cutter is ready to run the job. The generation of a cutting program from pre-press takes less than 10 seconds.



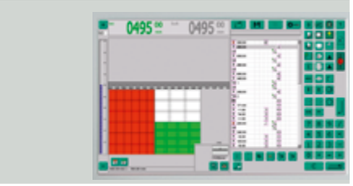
CuttronicPlus

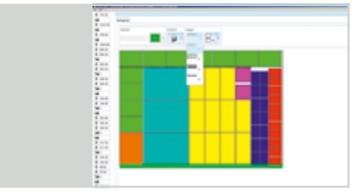
CuttronicPlus offers some additional benefits over the Cuttronic software. You can use it to externally edit existing CIP3/4 data to optimize the workflow. Data can be transferred to the machine in three different ways, either via USB, Ethernet or through WLAN. CuttronicPlus offers you flexibility and versatility in your workflow.



Well prepared for the cutting process

„In addition to the basic equipment, we offer a number of options for our high speed cutters. Depending on your cutting requirements, you can upgrade your PERFECTA cutter and optimize your workflow."





Control and electronic systems

UC control

The UC control offers you convenience by menu-prompted operation from a color LC display with softkeys. You can save any cutting program you have created.

Cuttronic - Software for the utilization of CIP3/4 data

Cuttronic software allows you to create your own cutting programs from pre-press files. CIP3/4 data can be directly transferred from pre-press to the Cuttronic software where it will be converted to a cutting program. This does not require any additional PC. You can use a USB stick, an Ethernet port (LAN) or a wireless device (WLAN) to transfer such CIP3/4 data to the PERFECTA paper cutter.

CuttronicPlus – Software with a cutting program generator

This cutting program generator is an additional Cuttronic plug-in. You can use it for externally editing your cutting programs and integrate them into your workflow.

Management Information System (MIS)

The integration of the cutting process into a MIS serves for efficient planning and calculation of the production process.

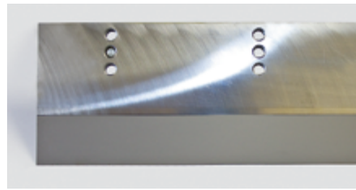
Knives and cutting sticks

Carbide-tipped knives, special knives, cutting sticks

PERFECTA carbide-tipped knives are ideal for the processing of various materials. Compared with standard HSS knives, carbide-tipped knives are extremely resistant and guarantee more cuts between knife changes. We also offer the corresponding cutting sticks that match to the knives.

Knife cleaning device

When you cut pressure-sensitive paper or perfect bound books the adhesives can stick to the back of knife. The knife cleaning device is a strip of felt soaked with a releasing agent and located in the clamp. The felt moistens the back of knife before each cut, thus preventing adhesives from sticking to the knife. For this option, you should use a special knife with a non-stick back.



Optimized cutting cycle

PERFECTAs' Optimized cutting will speed up the cutting cycle by 25%. This option is especially helpful for label printers and internet printers.

Hold-down with blowing air in front of the knife

The hold-down in front of the knife prevents the small pieces of the lift that was just cut from falling over, moving or shuffling by gently holding them during the cutting process. This is especially helpful while cutting small pieces in the automatic mode. The air blast keeps the scrap off the knife during the cut.

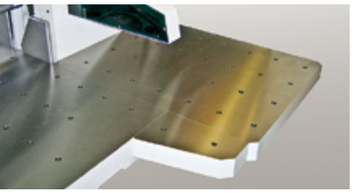
LED cutting light

The cutting line light is indicated by an incandescent light. The LED cutting light is maintenance free and insensitive to vibration caused by cutting and clamping. In addition, it has a considerably longer life and consumes much less energy.

Reduced knife speed

When particularly hard materials such as aluminium offset printing plates are being cut a lot of heat is generated along the cutting edges. This can lead to welding or burring. To guarantee a perfect cut even for especially hard and brittle materials the cutting speed can be reduced. This means slowing down the main motor speed from 1500 rpm to 1000 rpm. Alternatively, you can control the cutting speed in an infinitely variable manner through a potentiometer or in individual steps you select on the touch screen. With this option, both the cutting width and the pile height may be restricted.

Cutting tables

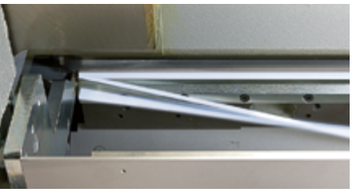


Enlarged side tables

Enlarged side tables offer more working space on the cutter. This is an advantage for loading, unloading or for buffering and packaging the material just cut.

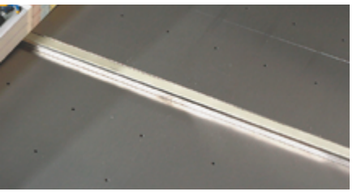
Micro-perforated air tables

This patented and novel air bed technology ensures smooth and gentle handling that enables you to easily move your stock over the table. No longer using air jets guarantees gentle handling of the material without marking the sheets. These new micro-perforated air tables are provided with some 350 openings per square meter, that's more than 7 times the conventional tables with air jets. They can be connected to compressed air.



Automatic waste removal unit – AWR

Simple four side trimming or many small gutter cuts produce a lot of waste that must be removed by hand during cutting. This is what the automatic waste removal unit is intended for. During the cutting process, the front table opens, and the waste is automatically removed and dropped below the cutting table. The waste is then disposed into a container or by a conveyor located under the table. The front table opening speed can be adjusted in an infinitely variable manner. The front table can be lowered (P92, P115, P132) along the cutting line, which will allow operator to place chipboard on the front table for easy handling of small pieces.

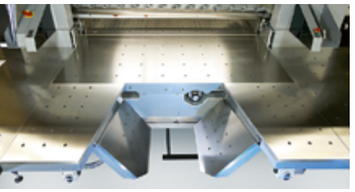


Honeycomb cutting device

For honeycomb cutting, the front table can be lowered by up to 10 mm. This avoids damage to honeycomb materials as the latter can tilt away by the amount of the knife angle.

Working height lift

The working height can be raised to your desired height.



Front table extension

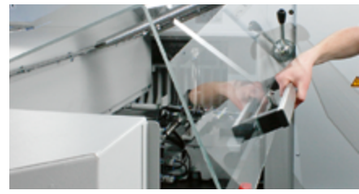
To handle large formats you can enlarge the front table area by transfer corners and swinging, pneumatically operated flaps.

Rear table extension

For the PERFECTA 168 TS high speed cutter, it is possible to replace the standard 1680 mm (66") rear table with an extended one that is 2000 mm (78.7") long. This serves for feeding wider piles onto the rear table, or is of advantage if you wish to split large format stock.

Hinged rear table guardings

PERFECTA high speed cutters have a closed acrylic glass hood as a standard feature. To facilitate cleaning of the rear table and the knife back, the machines can be provided with a hinged alternative for the rear table.



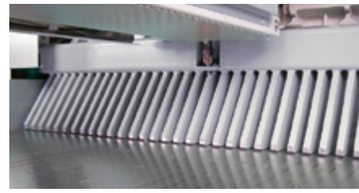
Clamping system

Smart Clamp

This is to limit the height the clamp lifts above the material after cutting. This option is efficient for low or medium pile heights. This clamp stroke limitation is especially suitable for cutting jobs that include repetitive cutting.

Extended clamp

The wide clamp covers a larger surface of the pile to be clamped. This type of clamp is 200 mm (7.87") wide (standard with: 80 mm (3.15")). Thus, the clamp will have a firmer grip of smooth or wavy material for a precise cut.

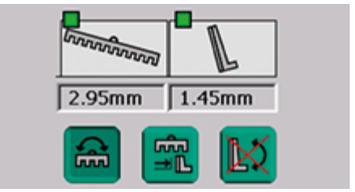


Narrow false clamp

This false clamp ensures improvement in cutting extremely small formats such as business cards. The minimum cut with the optional false clamp is 47 mm (1.85"). The control system will automatically recognize the narrow false clamp when installed.

Foam pad for false clamp

The foam pad serves for compensating height differences in the stock along the cutting line, for example, in wavy or particularly hard materials such as plastics. Thus, the clamping force will distribute uniformly over the entire cut. This guarantees precise cutting even of hard or uneven materials.



Low pressure device

Bulky materials such as corrugated cardboard or foam can suffer damage when being cut as a result of too high of a clamping pressure. The clamping pressure minimizer prevents such damage.

Backgauge

Swivel backgauge

This swivel-type model is a modified version of the standard backgauge. It serves for compensating the position of skew prints. For this purpose, the backgauge can swivel up to 3 mm around a defined vertical axis. Its swivel can be controlled from the PERFECTA touch screen. This function can be integrated into cutting programs.

Swivel/tilting backgauge

This swivel/tilting version is a modified design of the standard backgauge. It serves for compensating skew prints or cut deviations caused by over or undercutting. For this purpose, the backgauge can swivel up to 3 mm around a vertical axis or tilt up to 1.5 mm around a horizontal axis. You can control the swivel/tilting backgauge from the PERFECTA touch screen. This function can be integrated into cutting programs.

Backgauge-mounted hold-down

This backgauge-mounted hold-down can prevent cutting inaccuracies.
It ensures that the printed sheets will stay in position at the backgauge instead of getting rolled up.
The hold-down can be activated by either through the cutting program or manually by a pushbutton. As long as the backgauge is moving, the hold-down applies some preclamping force while its maximum main clamping force is 600 N during cutting.

Print mark positioner

The print mark positioner serves for positioning concave or convex piles by their print marks

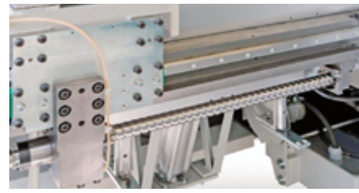
Rear table

Rear table loading

By the use of an automatic gripper or pusher system, you can also load the machine through its rear table.

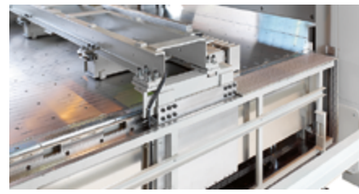
Double-spindle drive

Mounted to both sides of the rear table, the double-spindle drive makes way for loading material onto the high speed cutter (P 132) from the back. An automatic rotary gripper unit can also be used in this connection.



Linear drive

The backgauge linear drive for machines with free rear tables (P 168, P 225) is a precondition for the use of conveying systems for rear table loading and/or of automatic rotary gripper systems. It is an almost non-wearing and maintenance-free drive assembly. Since no gearbox or a leadscrew is used, maximum speeds can be achieved.



Retractable side plates

These side plates can be lowered to enable stock to be loaded and unloaded through the rear table.

Pile lifting device

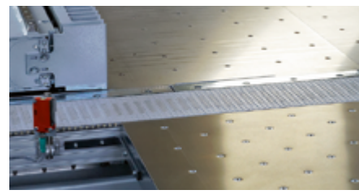
It lifts the pile to enable the gripper system to move in and seize the stock.

Side aligner

This side aligner allows you to automatically align the stock on the side plate.

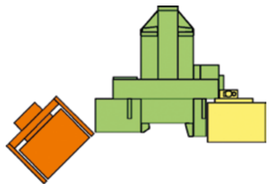
Covering belt

When stock is being loaded and unloaded through the rear table the backgauge travel range will be covered by this belt.



Making things easy

„PERFECTA peripherals optimize the processes before, during and after cutting. Whether lifting, jogging, loading or positioning, the stock will always be prepared for the cutting process in the best possible way, with working ergonomics being significantly improved

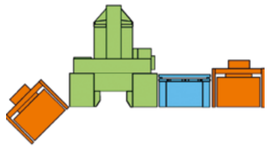


System 1

Loading and unloading by pile lifts.

Suitable for unprinted stock in low to medium-sized runs.

- PERFECTA TS high-speed cutter
- Attached SHR pile lift
- BSH mobile pile lift

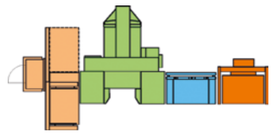


System 2

Loading by pile lift and jogger, unloading by pile lift.

Suitable for printed stock in low to medium-sized runs.

- PERFECTA TS high-speed cutter
- BSH mobile pile lift
- BSB automatic jogger
- BSH mobile pile lift



System 3

Loading by pile lift and jogger, unloading by pile unloader.

Suitable for printed stock in medium- to large-sized runs.

- PERFECTA TS high-speed cutter
- BSH mobile pile lift
- BSB automatic jogger
- BA N unloader

Control and electronic systems

- Complete electrical system for 230 V, 60 Hz, three-phase current with separately lockable main switch
- Main drive motor with protection switch and star-delta circuit
- CE-conformity knife safety control with optimized cutting sequence
- Self-monitoring diagnostic software
- Utilization of CIP3/PPF data for cutting program generation
- Workplace light, cutting light, mechanical preclamping facility
- Self-monitoring safety light guard
- Simultaneous two-hand cut control device
- Self-monitoring diagnostic software
- Ethernet port
- One (1) USB stick (except for UC)
- CE mark, GS certificate

Accessories

- Pile support
- Tools
- Operator's Manual with Spare Parts Catalogue and circuit diagram.

Knives and cutting sticks

- Two (2) high-speed steel (HSS) knives
- Knife changing device with two-point support
- Mechanical knife non-repeat device
- Knife thickness compensation up to ± 0.99 mm
- 10 pcs. of cutting sticks
- Cutting stick ejector (except for P 76 and P 92)

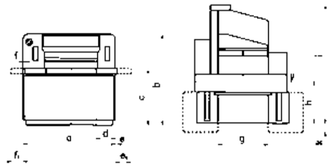
Cutting table

- Non-corroding (cladded) surfaces of the cutting and side tables
- Cast-iron side tables
- Air bed unit for the cutting and side tables, complete with blower
- Rear and front side plates on the left and right
- Acrylic glass rear table guarding

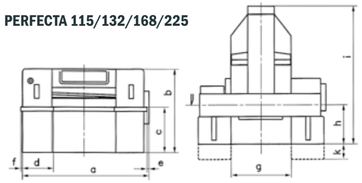
Clamping system

- Hydraulic clamping system (without oil filling)
- Automatic clamping pressure adjustment
- Electronically preselectable clamping time extension up to 9.9 seconds
- False clamp

PERFECTA 76/92



PERFECTA 115/132/168/225



PERFECTA	76 TSE	92 TS	115 TS	132 TS	132 L-TS	168 TS	168 L-TS	225 L-TS
a (mm / inch)	1400 / 55"	1580 / 63"	2440 / 96"	2610 / 103"	2610 / 103"	2935 / 115.5"	2935 /115.5"	3400 / 134"
b (mm / inch)	1400 / 55"	1460 / 57.5"	1660 / 65.4"	1660 / 65.4"	1660 / 65.4"	1815 / 71.5"	1815 / 71.5"	1815 / 71.5"
c (mm / inch)	870 / 34.3"	870 / 32.3"	870 / 34.3"	870 / 34.3"	870 / 34.3"	890 / 35"	890 / 35"	890 / 35"
d (mm / inch)	290 / 11.4"	300 / 11.8"	590 / 23.2"	590 / 23.2"	590 / 23.2"	485 / 19"	485 / 19"	475 / 18.7"
e (mm / inch)	30 / 1.2"	30 / 1.2"	80 / 3.2"	80 / 3.2"	80 / 3.2"	150 / 5.9"	150 / 5.9"	60 / 2.4"
e1 (mm / inch)	240 / 9.5"	240 / 9.5"	-	-	-	-	-	-
f (mm / inch)	30 / 1.2"	30 / 1.2"	30 / 1.2"	30 / 1.2"	30 / 1.2"	135 / 5.3"	135 / 5.3"	60 / 2.4"
f1 (mm / inch)	180 / 7.1"	260 / 10.2"	-	-	-	-	-	-
g (mm / inch)	760 / 30"	920 / 36"	1150 / 45.25"	1320 / 52"	1320 / 52"	1680 / 66"	1680 / 66"	2250 / 88.5"
h (mm / inch)	650 / 3.5"	735 / 29"	750 / 29.5"	750 / 29.5"	835 / 32.9"	835 / 32.9"	835 / 32.9"	835 / 32.9"
i (mm / inch)	1825 / 72"	1885 / 74.2"	2630 / 103.5"	2800 / 110.2"	3250 / 128"	3670 / 144.5"	4200 / 165.4"	4800 / 189"
k (mm / inch)	135 / 5.3"	290 / 11.4"	290 / 11.4"	290 / 11.4"	290 / 11.4"	280 / 11"	280 / 11"	280 / 11"

- **UC control**
- **Cuttronic – Software for the utilization of CIP3/4 data**
- **CuttronicPlus – Software with a cutting program generator**
- **Management Information System (MIS)**
- **Carbide-tipped knives, special knives, cutting sticks**
- **Knife cleaning device**
- **Optimized cutting cycle**
- **Hold-down with blowing air in front of the knife**
- **LED cutting light**
- **Controllable knife speed**
- **Enlarged side tables**
- **Micro-perforated air tables**
- **Automatic Waste Removal unit AWR**
- **Honeycomb cutting device**
- **Working height lift**
- **Front table extension**
- **Hinged rear table guarding**
- **Smart Clamp**
- **Extended clamp**
- **False clamp**
- **Foam pad for false clamp**
- **Low pressure device**
- **Swivel backgauge**
- **Swivel/tilting backgauge**
- **Backgauge-mounted hold-down**
- **Print mark positioner**
- **Rear table loading**
- **Double-spindle drive**
- **Linear drive**
- **Retractable side plates**
- **Pile lifting device**
- **Side aligner**
- **Covering belt**

Option available

Option not available

PERFECTA	76 TSE	92 TS	115 TS	132 TS	168 TS	225 TS
Cutting table width (mm / inch)	760 / 30"	920 / 36"	1150 / 45.25"	1320 / 52"	1680 / 66"	2250 / 88.5"
Cutting table height (mm / inch)	870 / 34.25" *950 / 37.4"	870 / 34.25" *950 / 37.4"	870 / 34.25" *950 / 37.4"	870 / 34.25" *950 / 37.4"	890 / 35" *950 / 37.4"	890 / 35" *950 / 37.4"
Smallest cut (mm / inch)	15 / 0.6"	18 / 0.7"	20 / 0.8"	20 / 0.8"	26 / 1"	110 / 4.3"
Smallest cut with false clamp (mm / inch)	42 / 1.6"	57 / 2.2"	77 / 3"	77 / 3"	77 / 3"	-
Maximum clamp opening (mm / inch)	110 / 4.3"	120 / 4.7"	165 / 6.5"	165 / 6.5"	165 / 6.5"	165 / 6.5"
Useful rear table length (mm / inch)	760 / 30"	920 / 36"	1150 / 45.24"	1320 / 52" *1565 / 61.6"	1680 / 66" *2100 / 82.7"	2700 / 106"
Knife cycle rate (cuts/min)	50	50	44	44	42	34
Safety clamping force (N)	300	300	300	300	500	500
Minimum clamping force (kN)	2	2	2.5	2.5	3.5	3.5
Maximum clamping force (kN)	25	30	45	45	60	80
Backgauge return speed (in/s)	12	12	12	12 *47	12 *70	78
Main drive power (kW / hp)	2.2 / 3	3 / 4	4 / 5.4	4 / 5.4	7.5 / 10	10 / 13.4
Weight (kg / lbs)	1,650 / 3,640	2,000 / 4,410	3,200 / 7,055	3,410 / 7,520	6,900 / 15,210	8,000 / 17,640

* = Option

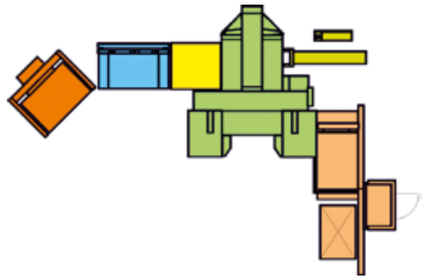
at the same time. The waste removal unit, an unloader and buffering systems ensure that the workflow will keep going. By coordinated interaction, PERFECTA peripherals form an unbeatable unit with the high-speed cutter."

System 4

Feeding by pile lift and jogger in connection with gripper clamp or pusher systems, unloading by unloader.

Suitable for larger-size format printed stock in medium- to large-sized runs.

- PERFECTA TS high-speed cutter
- BSH mobile pile lift
- BSB automatic jogger
- Intermediate buffer
- ZTS gripper clamp system for automatic rear table loading of the cutter
- BA unloader

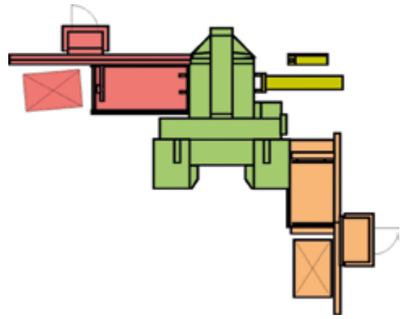


System 5

Feeding by loader in connection with gripper clamp or pusher systems, unloading by unloader.

Suitable for unprinted or separately prepared printed stock in medium- to large-sized runs.

- PERFECTA TS high-speed cutter
- BB automatic loader
- ZTS gripper clamp system for automatic rear table loading of the cutter
- BA unloader

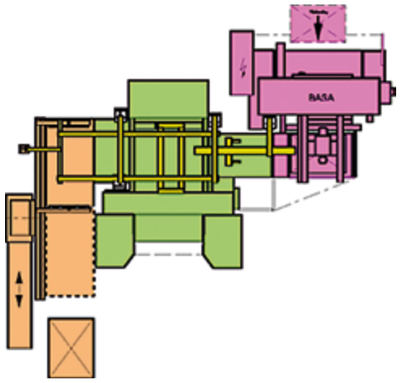


System 6

Feeding by automatic jogger in connection with gripper clamp systems.
Turning and aligning by automatic positioning system.
Cutting and automatic waste removal.
Unloading by unloader with the aid of gripper clamp system.

Suitable for unprinted or printed large-format stock in large-sized runs.

- PERFECTA TS high-speed cutter
- BASA automatic jogging system
- Gripper clamp system for unloading the jogger and transport to the intermediate buffer
- BDG rotary gripper system
- BA multi unloader



Published by: PERFECTA Schneidemaschinenwerk GmbH Bautzen
Concept & graphic design: www.agentur-kirschgruen.de
Photographs: Rainer Weisflog, www.agentur-kirschgruen.de, PERFECTA
Editorial deadline: 9/2012 · 2000 copies/English

PERFECTA Schneidemaschinenwerk GmbH Bautzen
Schäfferstraße 44 · 02625 Bautzen · Germany
Phone: +49 3591 556-0 · Fax: +49 3591 556-119
E-Mail: info@perfecta.de · www.perfecta.de