cab®
product marking

a+ **and XD Label Printers.**

Made in Germany.

One concept – six designs

A2+ label printer

Sleek
The sleek solution for precision and accuracy. For exceptionally narrow labels with widths from 4 to 60 mm and with a print resolution of 300 and 600 dpi.

A4+ label printer

Our top-seller, with optimum accessories
The fast solution for every industrial application. For labels and continuous materials with widths from 4 to 120 mm, print resolutions of 200, 300 and 600 dpi and a print speed up to 250 mm/sec.

A4+M label printer

With centered material guide
The ideal solution for thick continuous materials such as tubes and tapes or if customers need to switch frequently between labels with different widths. For material widths from 4 to 110 mm and a print resolution of 300 and 600 dpi.

A6+ label printer

Wide

The ideal solution for labels with widths of up to 176 mm. Perfect for use with Odette and UCC/EAN 128 labels.

More about this product on page 5

A8+ label printer

Extra wide

The best solution for label widths up to 220 mm. Typical areas of application for the A8+ include the packaging industry, the chemical industry, pallet labeling, drum labeling, color and lacquer application.

More about this product on page 5

XD4M label printer

Double-sided with centered material guide

An impressive solution for simultaneous front and back printing of continuous or prefabricated materials up to 110 mm in width. Whether textiles, paper, cardboard or flat compressed heat shrink tubes – the materials are printed double-sided with a print resolution of 300 dpi.

More about this product on page 8

Printers for industrial demands

Our professional printers are used in a wide variety of applications. During development, we focused first and foremost on simple and convenient operation coupled with high reliability. The printing units and housing are made of high-quality materials and are perfectly matched in terms of their form and function. Extensive peripherals and software enable customized solutions – any time.

Regardless of whether the A+ printer is operated as a stand-alone solution, a PC application or in a network, it is always up to the mark! The high-speed processor ensures fast job processing and immediate label output.

Accurate and fast output of small and large labels

PCB label
Smallest label size measuring 4 x 4 mm, if only limited space is available.

Nameplates
Sharp fonts, graphics and barcodes with 600 dpi.

Shipping and pallet labels
Labels up to standard A4 format.

Just a few steps to the optimum appliance

Thermal transfer

For printing on standard paper, cardboard, textiles, plastics PE, PP, PVC, PA or PI. This print method requires wax, resin or wax/resin ribbons.

Thermal direkt

All transfer printers can be operated in thermal direct printing mode without ribbon.

Basic version

For printing on labels and continuous material.
The material is torn off at the perforation. Optionally, it can be cut off or rewound externally.

Dispensing version "P"

For printing and dispensing labels.
The label is removed from the liner during the printing process. It can either be taken off manually or with an applicator. The present sensor must be ordered separately.

Compact cover

The 2-part cover made of impact-resistant ABS plastic folds up when opened, ensuring that this printer has the smallest footprint in its class.

Metal cover

The A4+ and A6+ transfer printers are also available with a metal cover on request. (Supplied as standard with the A8+.)

Technical details of the A⁺ series.

A4⁺ label printer with dispensing function

1 Big graphic display
White backlight for optimum readability.

2 Ribbon holder
Three-part tightening axles enable quick and easy ribbon exchange.

3 Straightforward adjustment
The printhead is pressed down with two sliding toggles. One is mounted to the left label margin, the other is pushed to the right label margin.

4 Peel-off option
The label is removed from its liner via a peel-off plate. A high printing and dispensing accuracy can be achieved with the additionally powered rewind assist roller and the pinch roller.

5 Peripheral connection
Add-on modules such as cutters, external rewinders, present sensors and applicators are easy to connect via the USB peripheral interface. All peripherals are connected to the printer in seconds using two pins and fixed in place with a screw.

6 Solid metal housing
Made of die-cast aluminum. All components are mounted on it.

7 Roll holder
Available for core diameters from 38 mm. (We provide adapters for core diamters wider than 76 mm for improved label winding). The spring-mounted margin stop ensures constant tension during feeding, thus ensuring a highly precise imprint.

8 Internal rewinder
The three-part tightening axles ensure the easy rewinding and removing of labels or liners with or without paper core.

9 Only one tool for all maintenance tasks
For exchanging wear parts and connecting peripherals, the Allen key is located ready to hand at the printer.

Easy maintenance.

Do it yourself. You no longer need a service technician for these tasks.

Label sensor

The label sensor can be unlocked with finger pressure and removed for cleaning.

Printhead

It takes only a few simple steps to exchange the printhead. Adjustments and settings are not necessary.

Print roller

For cleaning or replacement, the print roller can be easily removed by loosening just three screws.

Technical details for A4⁺M

With centered material guide

› No adjustment of the printhead for different widths of material.
› Printing on very narrow or very thick continuous materials.
› The gap height at the material sensor for flat tubes and plastic tapes is up to 4 mm.
› The print speed for difficult printable materials is set to between 30 and 125 mm/sec.
› Operation and software are compatible with the A⁺ series.
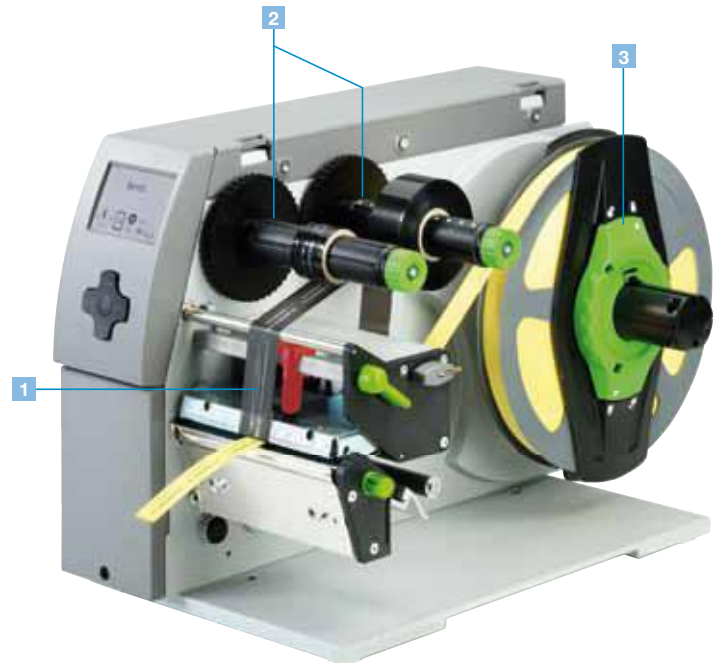
1 Material guide
Precise printing as the material guide is located directly behind the print roller. The width is adjusted using a spindle.

2 Ribbon holder
Simple and centered insertion of the ribbon with the three-part tightening axles. The imprinted rule simplifies ribbon positioning.

3 Label holder
The material to be printed is inserted into the label holder and adjusted automatically by fitting the margin stops.

Technical details for XD4M

For double-sided printing with centered material guide

› Two stacked printing units for simultaneous printing of front and back.
› No adjustment of the printhead for different widths of material.
› For continuous or prefabricated materials such as paper, cardboard, textiles and synthetics.
› The gap height at the material sensor for flat tubes and plastic tapes is up to 4 mm.
› The print speed for difficult printable materials ranges from 30 to 125 mm/sec.
› Operation and software are compatible with the A⁺ series.

1 Material guide
Precise printing as the material guide is located directly behind the print roller. The width is adjusted using a spindle.

2 Ribbon holder
Simple and centered insertion of the ribbon with the three-part tightening axles. The imprinted rule simplifies ribbon positioning.

3 Label holder
The material to be printed is inserted into the label holder and adjusted automatically by fitting the margin stops.

All required interfaces

1 RS232C interface. *

2 USB 2.0 slave interface.

3 Ethernet 10/100 Base T interface with TCP/IP.

4 Slot for wireless LAN card.

5 Two USB Master interfaces for connecting an external operation panel, keyboard, scanner or service key.

6 Slot for CompactFlash Type I memory card.

Options

› Centronics bi-directional interface acc. to IEEE 1284.
  RS422/RS485 interface 1,200 up to 230,400 Baud/8 Bit. *
  The interfaces are plugged into the PC.
  Connection to the printer via mini USB connection cable.

› Label selection – I/O box. *
  Up to 16 different labels can be loaded via PLC from a memory card. Operation of four inputs/outputs via Basic Interpreter.

› cab WLAN card 802.11 b/g.

* not for XD4M

Stand-alone operation

Printing with a cab printer without a PC.

The layout of the labels is created either using label software or through direct programming via a text editor on the PC. Label formats, fonts and graphic data, serial data and database contents are saved or imported on the CF memory card, USB flash drive or the internal IFFS printer memory.

Only variable data is sent to the printer via keyboard or host computer before being printed out. Data from a barcode scanner or a balance can also be received by the printer.

Accessories for stand-alone operation

Memory card
CompactFlash Type I

Compact keyboard
Connection: USB, number of keys: 86
L x W mm: 282 x 132
Cherry G84-4100

Device functionality and compliance with CE standards are only warranted by using the accessories provided or recommended by cab.

Software tools

Direct programming with J-Script

The printer language is easy to understand and simple to integrate into your host system. Variable data is linked with host applications. Label design, graphic data and fonts are recorded on the CompactFlash card. The host computer sends only variable data to the printer.
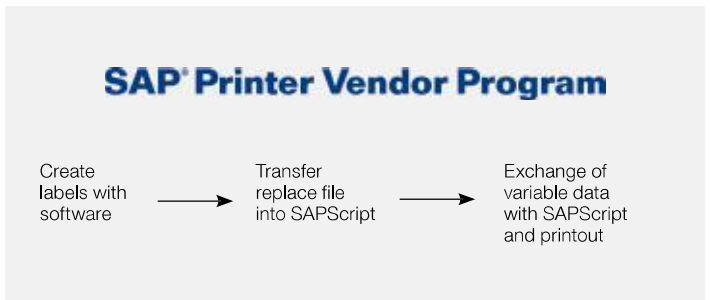
```
J                                      Job start
H 100                                  Speed (100 mm/s)
O R                                    Orientation rotated by 180°
S l1;0,0,68,70,100                     Size of label (100x68 mm, gap 2 mm)
T 10, 10,0,5,pt20;sample               Text object/font: Swiss bold, 20 pt
B 10,20,0,EAN-13,SC2,401234512345      Barcode EAN 13, size SC 2
G 8,3.5,0;R:30,9,0.3;0.3               Graphic, box 30 x 9 mm,
                                       Line strength 0.3 mm
A 1                                    Number of labels (in this example 1)
```

Integration into SAP R/3*

In cooperation with SAP, cab developed the "replace method" for controlling cab printers quickly and easily from SAP R/3 using SAPScript. As a Silver Level partner in SAP's Printer Vendor Program, cab has access to the SAP development area for optimum printer support in SAP environments.

* SAP and R/3 are registered trademarks of SAP AG.

SAP® Printer Vendor Program

Create labels with software → Transfer replace file into SAPScript → Exchange of variable data with SAPScript and printout

abc – Basic Compiler

As an integrated element of the firmware, the Basic Compiler enables the printer to process data via BASIC programming before it is sent for print editing. This makes it possible for external printer languages to be replaced or data from other systems, e.g. a PLC or balance, to be transferred so information can be printed in different label formats.
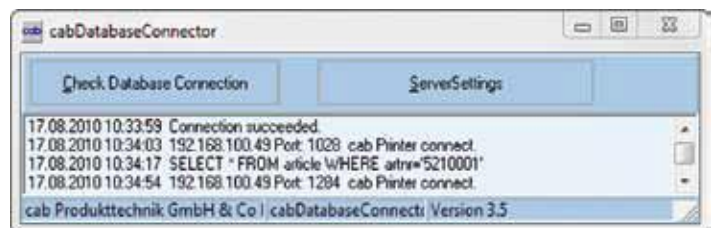
Example of use:
Connection to a balance
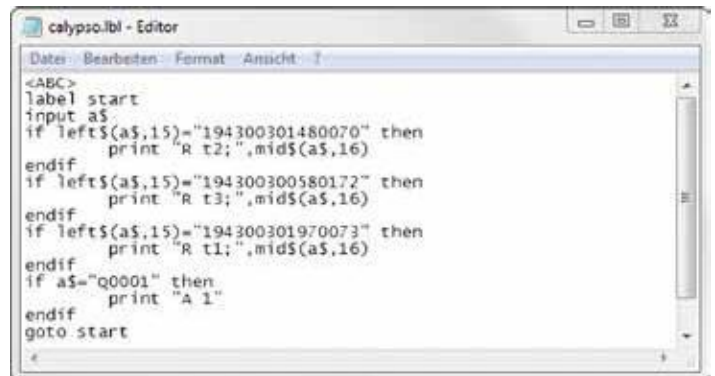
Database Connector

In stand-alone mode with additional network connection, the Database Connector enables stand-alone printers to access data directly from a central SQL-compatible database and to print it as a label. Data can also be written back to the database or changed during the printing process.

Printer monitoring with Intranet and Internet

Using standard programs such as the web browser or FTP clients, the integrated HTTP and FTP server enables print monitoring, configuration, firmware updates and memory card administration. Status, warning and error messages are sent to administrators or users as e-mails or SNMP datagrams via SNMP and SMTP clients. A time server is used to synchronize the time and date.

Administration Network Manager

The cab Network Manager enables the user to control multiple printers across a network simultaneously. It supports monitoring, configuration, firmware updates, memory card administration, file synchronization and PIN administration centrally.
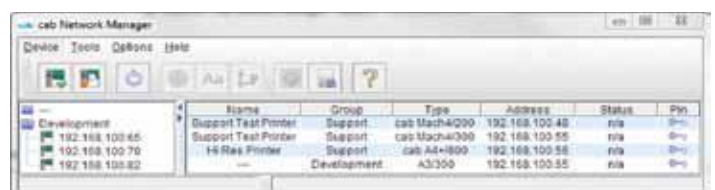
WHQL-certified Windows printer driver for

Windows XP   Windows Server 2003
Windows Vista   Windows Server 2008
Windows 7   Windows Server 2008 R2

Our printer drivers are officially certified and signed by Microsoft. They ensure optimum stability on your Windows operating system. The programs Word, Excel, Access, Corel Draw, etc. can be used to design and print labels.

Apple-Mac OS X® driver*
Alternatively, cab offers a CUPS-based printer driver for Mac OS X.
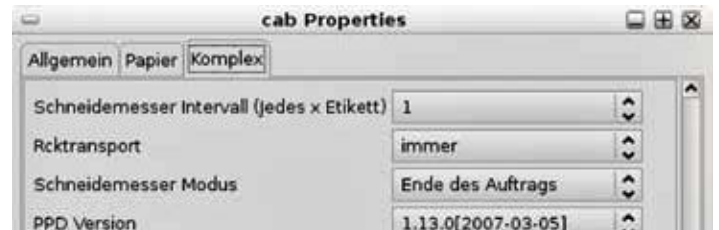
Linux driver*
Alternatively, cab offers a CUPS-based printer driver for Linux.

* not for XD4M

Microsoft® is a registered trademark of Microsoft Corporation.
Mac OS® is a registered trademark of Apple Computer, Inc

Label software

cablabel R2+
A powerful label software that is available free of charge and specially designed for cab printers and print & apply systems.

Different fonts, barcodes and graphics in variable heights, widths and printing directions can be used to produce the best possible label design.

In addition to the loadable TrueType fonts available with MS Windows, cab printers also offer a large number of internal bitmap and vector fonts. Thanks to the support of the most commonly used codepages, country-specific special characters can also be printed.

High-performance functions make it possible to design and print even complex labels in just a few minutes. cablabel R2+ supports special functions of the cab printers, such as real-time clock, printer counter, stand-alone operation without PC, circular fonts or the printout of the printer data stream in a file. The MDI technology makes it possible to open several labels at the same time and to move objects from one label to another.

cablabel R2+ is available in 24 different languages for the following operating systems:

Windows XP   Windows Server 2003*
Windows Vista   Windows Server 2008*
Windows 7   ** Terminalserver / Citrix are not supported.*

Additional label software
Highest possible variability – other commercially available label software solutions, such as Codesoft, Nicelabel, Easylabel, Bartender, Label Matrix or Labelview, support the cab label printers and labeling systems. More information is available on our website.

Technical data

Label printer		A2+		A4+			A4+M		A6+		A8+	XD4M
Printhead	Printing method: Thermal transfer	■	■	■	■	■	■	■	■	■	■	■
	Thermal direct	■	-	■	■	-	■	-	■	■	■	-
	Print resolution dpi	300	600	203	300	600	300	600	203	300	300	300
	Print speed up to mm/s	150	100	250	250	100	125	100	200	200	150	125
	Print width mm	54.2	57	104	105.6	105.6	105.6	105.6	168	162.6	216	105.6
Material	Labels, continuous rolls or fan-folded	Paper, cardboard, textiles, plastics such as PET, PE, PP, PVC, PU, acrylate, PI										
	Material thickness mm / weight g/m²	0.05 – 0.8 / 60 – 300										
	Label width[1] mm	4 – 63		20 – 116			4 – 106		50 – 176		50 – 220	-
	Width of liner or continuous material mm	25 – 67		25 – 120			10 – 110		50 – 180		50 – 235	10 – 110
	Heat shrink tube mm	10 – 67		25 – 110			3.5 – 110		-		-	3.5 – 110
	Label height[1] without back-feed from mm	4	4	4	4	4	5	5	6	6	10	-
	when dispensing[1] from mm	12	12	12	12	12	-		25	25	-	-
	up to mm	5000	2000	5000	4000	1000	4000	1000	4000	3000	2000	2000
	Media roll Total diameter up to mm	205					205		205			300
	Core diameter mm	38 – 100										
	Winding direction	Outside or inside										
Ribbon	Ink	Outside or inside										
	Roll diameter up to mm	80									72	72
	Core diameter mm	25									25	25
	Ribbon length variable up to m	500									360	360
	Width[2] up to mm	56		114			165				220	114
Internal rewinder (only peel-off version)	Total diameter up to mm	142									-	-
	Core diameter mm	38.1									-	-
	Winding direction	Only outside									-	-
Printer dimensions	Height x Depth mm	274 x 446										395x 554
	Width mm	190		242					302		352	248
	Weight kg	8.5		9					13		15	21
Label sensor	Gap sensor	For leading edge of the label or punching marks and end of material										
	Reflective sensor from the bottom / from the top	For printing marks										
	Distance to locating edge mm	5 – 26		5 – 53			-		5 – 53			-
	Distance from the center to the left mm	-		-			0 – 53		-			0 – 53
Electronics	Processor high speed 32 Bit ColdFire/clock rate MHz	266										
	RAM MB	64										
	Memory IFFS MB Flash	8										
	Slot for CompactFlash Type I memory card	■										
	Slot for wireless LAN card	■										
	Battery buffer for	Real-time clock, printout of time and date, data storage on shut-down										
	Warning signal	Acoustic signal in case of error										
Interfaces	Centronics bi-directional acc. to IEEE 1284	□										-
	RS232 C 1,200 up to 230,400 Baud/8 Bit	■										-
	USB 2.0 high speed slave for PC connection	■										■
	Ethernet 10 / 100 Base T, LPD, RawIP printing, ftp printing, DHCP, HTTP, FTP, SMTP, SNMP, TIME, Zeroconf, mDNS, SOAP	■										■
	RS422, RS485 1,200 up to 230,400 Baud / 8 Bit	□										-
	Peripheral connection	■										■
	WLAN card 802.11b/g WEP/WPA PSK (TKIP)	□										□
	2 x USB master for	External operation panel, keyboard, scanner, service key, USB flash drive										
Operating data	Power supply	100 – 240 V ~ 50 / 60 Hz, PFC										
	Power consumption	Max. 300 W										
	Temperature / humidity	10 – 35°C / 30 – 85% not condensing										
	Approvals	CE, FCC class A, CB, CCC, UL										

[1] Limitations may apply to small labels, thin materials or strong adhesives. Critical materials or applications must be tested and approved.
[2] The ribbon should be roughly the same width as the label in order to avoid folding.

ENERGY STAR

With innovative technology for better climate protection
Energy saving – Environmentally friendly

Label printer		A$^+$ and XD	
Operation panel	Buttons/LED display	Pause, Feed, Cancel, Menu, Enter, 4 x Cursor	
	LCD graphic display	Width 60 mm, height 40 mm, text 4 lines, ca. 20 characters per line	
Settings		Time, date, digital or analog clock 25 language settings System settings, print parameters, interfaces, security	
Monitoring	Stop printing if:	End of ribbon End of labels Printhead open	
	On the display	Data reception Used memory Clock Input buffer WLAN field intensity Temperature of printhead Date sheet Remaining quantity of ribbon Ethernet status Access to memory card abc Debug	
Test routines	System diagnosis	When switched on, incl. printhead testing	
	Short status, status print	Font list, device list, WLAN status, label profile, test grid, monitor mode, PPP status	
	Status reports	Extensive status printout with information about settings, e.g. print length counter, runtime counter, etc. Request of machine status via software commands. Detailed status messages on the display, e.g. network error – no link, barcode error, etc.	
Fonts	Font types	5 Bitmap fonts incl. OCR-A, OCR-B and 3 Vector fonts Swiss 721, Swiss 721 Bold and Monospace 821 available internally, loadable TrueType fonts. Thai and Chinese (simplified Chinese) available as options.	
	Character sets	Windows 1250 up to 1257, DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869, EBC DIC 500, ISO 8859-1 to -10 and -13 up to -16, WinOEM 720, UTF-8, Macintosh Roman, DEC MCS, KOI8-R. All West and East European Latin, Cyrillic, Greek, Hebrew and Arabic characters are supported. Thai and Chinese available as options.	
	Bitmap fonts	Size of width and height 1 – 3 mm Zoom 2-10 Orientation 0°, 90°, 180°, 270°	
	Vector / TrueType fonts	Size of width and height 0.9 – 128 mm Variable zoom, Orientation 360° in steps of 1°	
	Font formats	Bold, italic, underlined, outline, negative, gray, vertical, depending on character fonts	
	Font width	Variable	
Graphics	Graphic elements	Line, arrow, box, circle, ellipse, filled and filled with fading	
	Graphic formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG	
Barcodes	Linear barcodes	Code 39, Code 93 Interleaved 2 / 5 Code 39 Full ASCII Ident- and lead code of Deutsche Post AG Code 128 A, B, C Codabar EAN 8, 13 JAN 8, 13 EAN / UCC 128 MSI EAN / UPC Appendix 2 Plessey EAN / UPC Appendix 5 Postnet FIM RSS 14 HIBC UPC A, E, E0	
	2D codes	Aztec, Codablock F, Data Matrix, PDF 417, Micro PDF 417, UPS Maxicode, QR-Code, RSS 14 truncated, limited, stacked and stacked omnidirectional, EAN-Datamatrix, GS1 Data Bar	
		All codes variable in height, module width and ratio. Orientation 0°, 90°, 180°, 270°. Optionally with check digit, printed characters and start/stop code, depending on code type.	
Software	Programming	J-Script direct programming	■
		abc – Basic Compiler	■
		Database Connector	□
	System diagnosis / administration	Printer monitoring	■
		Network Manager	□
	Label software	cablabel R2$^+$	■
		Codesoft, NiceLabel, Easylabel	○□
		Bartender, Label Matrix, Labelview	○
	Windows driver certified	32 / 64 bit for Windows XP Server 2003 Windows Vista Server 2008 Windows 7 Server 2008 R2	■
	Mac driver*	OS X printer driver from version 10.4	■
	Linux driver*	Tested with Suse 9.0, CUPS-based	■
	Stand-alone operation		■
	* not for XD4M		

For current data, please go to www.cab.de/en/aplus

*Scan this QR code with your smartphone
and learn more about A$^+$ series.*

Accessories for basic devices

Cutter
The cutter is used to cut paper, adhesive labels, cardboard, textiles, plastics and heat shrink tubes.

Perforation cutter and cutter
The perforation cutter also enables the perforation of the material for manual separation

Cutter tray
The cutter tray can collect up to 50 labels.

Stacker with cutter
The printed materials are cut and collected with the stacker. The print job stops when the maximum pile height is reached. Restrictions may apply to the use of stiff or curved materials. We recommend testing such materials at cab.

Adapter 100 mm Ø
To keep the bending of the material to a minimum during piling, cab recommends a broad core diameter.

Storage table label width x height
The storage table and protective cover are adjusted to the label size and must be ordered separately.

Base frame A4 / XD
With the base frame, the devices can be arranged on the table in any order.

	Cutter				Perforation cutter and cutter PCU4	Stacker with cutter	
	CU2	CU4	CU6	CU8		ST4 / L	ST4 / M
Application	A2$^+$	A4$^+$ / A4$^+$M XD4M	A6$^+$	A8$^+$	A4$^+$ / A4$^+$M / XD4M	A4$^+$	A4$^+$M XD4M
Material width up to mm	67	120 / 110	180	232	85	20 – 110	20 – 100
Weight of material gr/m² / cardboard	60 – 500				60 – 300	60 – 300	
Material thickness mm	0.05 – 0.8				0.05 – 0.8	0.05 – 0.8	
Cutting length mm	> 5				> 5	20 – 150	
Gap height up to mm	2,5				4,5	1,2	
Cuts/min.	130	120	110	100	Cutting 120 / Perforating 150	120	
Stop print job if:	Final position not reached				Final position not reached	Final position not reached, cover open, height of pile is reached	
	Cutter tray 4 for A4$^+$ and A4$^+$M				**Perforating**	**Piling**	
	For material width up to mm 120 material height up to mm 100				Web width mm 0.5 Web distances mm 2.5 or 10	Height of pile up to mm 140	

Rewind guide plate for internal rewinding

The dispensing printer takes care of internal rewinding. The peel-off plate is replaced by the rewind guide plate (for devices A2+ and A4+).

ER1 / 2 / 3 external rewinder for direct printer connection

The rewinder is screwed directly onto the printer. Labels can be wound either inside or outside. Electronic control of the swing arm ensures smooth and tight winding.

ER4 / 6 / 8 external rewinder with built-in power supply

The rewinder can be attached to almost any third-party printer. All other technical data is the same as for the rewinder ER1 / 2 / 3.
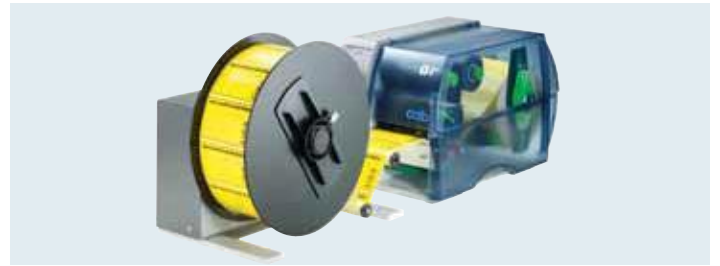
EU4 / 6 / 8 external unwinder

It enables smooth label feed for heavy rolls. The unwinder works both with inside and outside wound labels.

Tester for linear barcodes

The built-in scanner tests horizontally printed barcodes directly after printing. If the barcode cannot be read, the printing process can be stopped at once so the faulty labels can be removed. It is primarily intended for use with the ER4 – ER8 external rewinder or in dispensing mode.

Hand or foot switch for printing on demand (see page 16).

	External rewinder			External rewinder						External unwinder			
	ER1 / 210		ER2 / 210	ER3 / 210	ER4 / 210		ER4 / 300		ER6 / 300	ER8 / 300	EU4 / 300		EU6 / 300	EU8 / 300
Application	A2+	A4+	A6+	A8+	A2+	A4+	A2+	A4+	A6+	A8+	A2+	A4+	A6+	A8+
Material width up to mm	67	120	180	235	67	120	67	120	180	235	67	120	180	235
Roll Ø max. mm	205	205	205	205	205	205	300	300	300	300	300	300	300	300
Core Ø mm	40 / 76				40 / 76						40 / 76			
Operating voltage	From label printer				100 – 240 V~ 50 / 60 Hz						-			
Label winding	Outside or inside													

Accessories for dispensing devices

1 **Present sensor or pause adapter**
An additional present sensor or peel-off adapter is needed to dispense labels. cab offers devices for both manual and automatic operation.

Extended peelbar
(only for PS5 present adapter).
If labels are difficult to remove from the liner, a peel-off plate with rewind guide plate, extended by 10 mm, is used.

PS8 present sensor for manual operation
The sensor detects that the label is in dispensing position and pauses the print process. Once the label has been removed manually, the next one is printed automatically.

PS5 present adapter for automatic operation
Printing and dispensing of the label is triggered by an external signal. The label is removed by a robot or an applicator.
Inputs: Start, label removed, external error
Outputs: No print job, printer not ready, print started, label in dispensing position.

PS6 present sensor
for manual or automatic operation
1. As with PS8, once the label has been removed, the next one is printed automatically.
2. Dispensing on demand with hand or foot switch or an external signal (as with PS5).

PS9 extended present sensor
for manual operation
For dispensing labels whose front edge is not detected by the PS8 present sensor. The extension can be customized

PS7 pause adapter for basic
and dispensing devices
The print job is stopped by the pause signal.
The label being printed is finished first, e.g. by using a label loop.
Inputs: Pause, external error
Outputs: No print job,
               printer not ready,
               print job active

Accessories for stand-alone operation
A hand or foot switch can be connected to the PS6 present sensor to start print jobs.

Hand switch
Starts printing and dispensing.

Foot switch
Starts printing and dispensing.

Sub D plug
for PS5, PS6 and PS7
To connect external control signals for automatic operation. Sub D plug 15-pin with screw clamps.

External panel
If the panel is no longer accessible, e.g. after installation within a facility, an external panel can be installed. There are additional slots for a CF memory card Type I and a USB master interface.