



Barcode/Label Printer MACH4
**Precise. Innovative.
The Business Class.**

The future is present: MACH4 – The new generation of transfer printers



Primary features

The future “made by cab”: MACH4, the new idea of printing which sets new, innovative benchmarks.

It offers all the features of a high class industrial printer with a wide application range. Labels and ribbons can be inserted from the front.

The print mechanism and the cover are made of premium materials and are perfectly harmonised in their form and their functions. Easy and comfortable handling and high reliability were the requirements during development.

The large display with white backlight offers best readability. The navigation pad with the additional “Enter” button simplifies the operation - thereby only the operated functions are indicated.

The centred label path makes adjustments unnecessary and avoids creases on the ribbon.

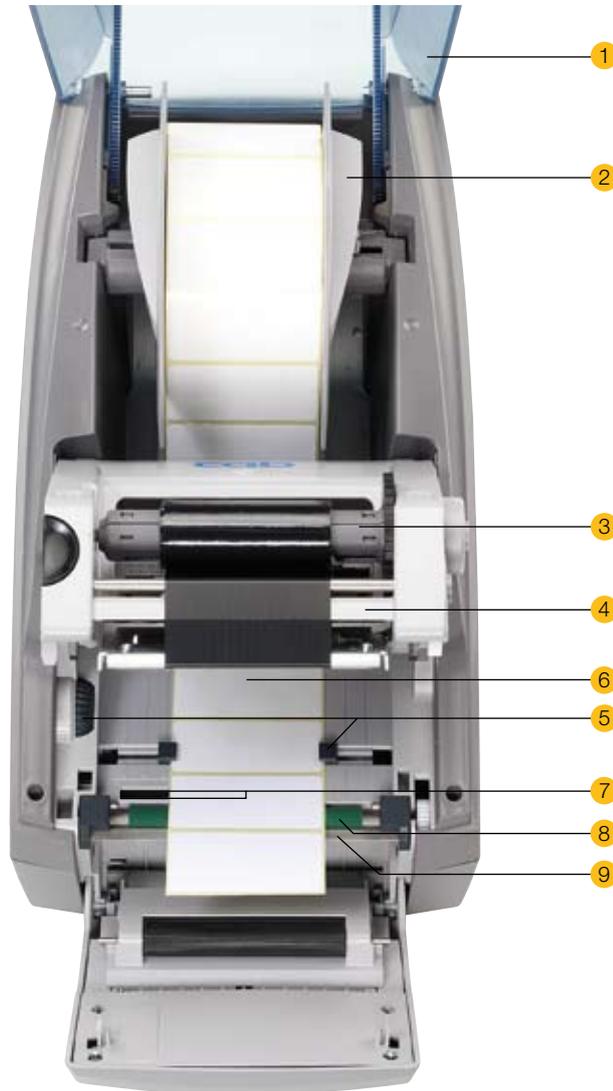
All required interfaces are serially integrated on the high-tech electronic board and applicable for every adapter.



MACH4 is available in two designs. Serial dispense plate. In the process the ribbon is carried down behind the operator panel. The second model is equipped with a blade, which is integrated within the operation panel and is able to cut material up to 200g/m².

The software is compatible with all cab devices.

MACH4 – Made by cab. Made by craft and brain.



Convincing product advantages



1. Cover with large window

It is made of shock-resistant synthetic material. The integrated absorbability mechanism provides smooth closing. The labels, the ribbon and the printing device are protected against contamination.

2. Media hub

The label roll is placed within the media hub and centred automatically. Materials varying in width can be easily bedded within the box.

3. Ribbon re-winder and un-winder

The ribbon is slid onto a ribbon supply hub with spring mounted brackets. It can be centred with a movable flange and a positioning indicator. Inserting the ribbon into the print mechanism is now easy and comfortable.

4. Printing with 200, 300 or 600 dpi

The print heads can be replaced easily. Automatic print head identification.

5. Label guidance

The user can adjust the width of the printing area with the adjustment knob on the left side of the print head. This is to centre the labels.

6. Gap sensor

To detect the beginning or end of labels the gap sensor is mounted in the centre of the label path. For two or four labels in a row it is possible, as an option, to use a gap sensor which can be marginally shifted 8 mm.

7. Reflex sensor

Printer's imprint and top of form can be identified with a relocatable reflex sensor.

8. Drive roller

The drive roller can be easily removed for cleaning or replacement.

9. Peel-off-plate

The ribbon is guided down behind the operation panel. The label is peeled off at the peel-off-plate.

Interface variety



All interfaces built in

Predominant in Network Connections

- 2. Ethernet 10/100 Base T interface with TCP/IP protocol printing with LPR/LPD or Raw IP-Printing.
IP adress can be sent manually or obtained via DHCP status inquiry and settings via internet browser.
FTP for firmware updates, control of CF card files messages can be sent via e-mail or SNMP.
Time and date is synchronized with a time server.
- 1. WLAN with optional bridge for every operation system.

PC-Connections

- 3. USB 2.0 Full Speed-slave interface.
- 4. Serial RS232 C-interface up to 230.400 Baud.

For Stand-Alone operation without PC

- 5. Two USB-master interface for PC-keyboards or scanner.
- 6. CompactFlash card to save fixed data.

Optional Interfaces

- Parallel Centronics interface acc. IEEE 1284.
- Serial RS422 interface for long distance communication.
- Serial RS485 for networking up to 26 printers.

Technical Data

Technical Data		MACH4		
Printing method	Thermal/Thermal transfer			
Print resolution dpi	203	300	600	
Print speed up to mm/s	200	200	100	
Print width up to mm	104	105.6	105.6	
Labels				
Material- labels, continuous mat. on rolls or leporello				
Thermal- a. standard paper, cardboard, textil ¹⁾ , plastic foils	PE, PP, PVC, PA, PI			
Material thickness mm / weight g/m ²	0.07 - 0.35 / 60 - 250			
Media roll: Total diameter up to mm	210			
Core diameter mm	38 - 76			
Winding direction	inside or outside			
Material width mm with a thickness 0.07 - 0.35 mm	25 - 120			
with a thickness 0.25 - 0.35 mm	10 - 120			
Label width mm	12 - 116			
Label height min. mm	6			
Label height when dispensing ¹⁾ min. mm	12			
Label height max. mm	2000			
Ribbon				
Ink	inside or outside			
Roll diameter up to mm	72			
Core diameter mm	25			
Ribbon length variabel up to m	360			
Width up to mm	114			
Dimensions				
Height x Depth x Width mm	290 x 425 x 240			
Weight kg	6			
Label sensor				
See through for start of label and end of material	middle fixed			
optional 8 mm adjusted to the left				
Reflex sensor from below, adjustable for label start printed marks, cut-outs	from the middle to the left 56 mm to the right 8 mm			
Electronics				
Prozessor 32 Bit ColdFire/CPU speed MHz	266			
RAM MB	64			
ROM MB Flash	8			
Slot for Compact-Flash Type I up to 1 GB	■			
Slot for Cardbus / PC-Card Type II	■			
Real time clock, Print out of date and time	■			
Operation panel				
Digits/LEDs:	Pause, Feed, Cancel, Menue, Enter, 4 x Cursor			
LCD-Graphics display width x height in dots	128 x 64			
Lines/characters	4 / about 20			
Interfaces				
Parallel Centronics bi-directional acc. IEEE 1284	□			
Serial RS 232 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, DHCP, HTTP, FTP, SMTP, SNMP, Time client	■			
RS 422, RS 485 1.200 up to 230.400 Baud/8 Bit	□			
WLAN Karte 802.11b/g	□			
USB Master for keyboard and scanner	2x ■			
Twinax/Coax-Converter	□			
Accessories				
Cutter	□			
Dispense function	■			
Barcode tester	□			
RFID read-write modul	□			
External Rewinder	□			
Memory card				
Compact-Flash Type I up to 1 GB	□			
Power supply	100 - 240 V ~ 50/60 Hz, PFC			
Energy consumption	max. 250 W			
Operating temperature	10 - 35°C /			
Humidity not condensing	30 - 85%			
Safety regulations	CE, FCC class A, CB, CCC			

Self diagnostics		MACH4	
Stop printing if	Out of ribbon Out of labels		
Testing routines	System diagnosis of memory and print head when switched on Print-out of system data		
Status reports	Total print length Total operation hours		
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.		
Character sets	Windows 1250 up to 1257, DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869, EBCDIC 500, ISO 8859-1 up 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.		
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, grey, vertical, depending on character fonts		
Font width	Variable		
Graphics			
Graphic elements	Line, arrow, box, circle, ellipse, filled, filled with fading		
Graphic formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG		
Codes			
Linear Barcodes	Code 39, Code 93	Interleaved 2/5	
	Code 39 Full ASCII	Ident and lead code	
	Code 128 A, B, C	of German Post	
	Codabar	JAN 8, 13	
	EAN 8, 13	MSI	
	EAN/UCC 128	Plessey	
	EAN/UPC Appendix 2	Postnet	
	EAN/UPC Appendix 5	RSS 14	
	FIM	UPC A, E, E0	
	HIBC		
2D Codes	Aztec, Codablock F, Data Matrix, PDF 417, Micro PDF 417, UPS Maxicode, QR-Code, RSS 14		
	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 diagnostics/ Administration	cab-printer monitoring		■
	cab-Network Manager		□
	cab-Card Manager		□
cab label software	cablabel Lite		■
	cablabel Professional,		□
More label software	Easylab, Codesoft, Nicelabel, Bartender, Label Matrix, Labelview		□
Windows driver	98, ME, 2000, 2003, XP Windows NT from Version 4.0		■
Mac driver	OS X printer driver from version 10.3		■
Linux driver	Testet with Suse 9.0, CUPS based		■

■ Standard □ Option

¹⁾ Depending on label size, material and adhesive limitations are possible. Critical material or applications have to be tested and cleared.

Optimal output by optimal input: Software and tools

Printer Control

Direct programming with J-Script

J	Job Start
H 100	Geschwindigkeit (100 mm/Sek.)
O R	Orientierung gedreht um 180°
S I1;0,0,68,70,100	Größe Etikett (100x68 mm, Lücke 2 mm)
T 10,10,0,5,pt20;sample	Textobjekt/Schriftart: Swiss bold, 20 pt
B 10,20,0,EAN-13,SC2;401234512345	Barcode EAN 13, Größe SC 2
G 8,3,5,0;R:30,9,0,3,0,3	Grafik, Rechteck 30x9 mm, Linienstärke 0,3 mm
A 1	Anzahl Etiketten (in diesem Beispiel 1)

cab J-Script allows easy programming of the printer by using text strings and this independently from the used label software. Labels can be designed and the status of the printer can be enquired. The memory card allows to save layouts, complex graphics and special fonts, which reduces the data transmission time.

abc - Basic Compiler

```

default.lbl - Editor
Datei Bearbeiten Format Ansicht ?
<ABC>
DO
  LINE INPUT a$
  IF LEFT$(a$,15)="194300301480070" THEN
    PRINT "R t2;";MID$(a$,16)
  ENDF
  IF LEFT$(a$,15)="194300300580172" THEN
    PRINT "R t3;";MID$(a$,16)
  ENDF
  IF LEFT$(a$,15)="194300301970073" THEN
    PRINT "R t1;";MID$(a$,16)
  ENDF
  IF a$="Q0001" THEN
    PRINT "A 1"
  ENDF
LOOP
</ABC>
  
```

The cab Basic Compiler is always one step ahead. By means of an easy basic programming data is operated or logically combined before they are sent to the printer for further processing. This offers e.g. the possibility to emulate other printers or to integrate data strings from barcode readers or scales in printing processes. All data received is printed in real time.

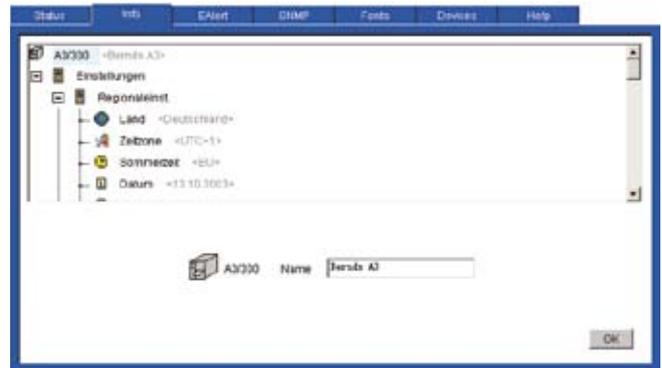
Database Connector



The cab database connector allows to link up stand-alone printers via TCP/IP interface to central SQL databases in the network. Data can be requested, printed and written back during the printing-process.

Monitoring

cab printer monitoring with Intra and Internet



cab printers provide to be monitored and configured with standard web browsers or FTP clients. Firmware updates or data management on the memory card are easy to handle. By the use of SNMP and SMTP clients, status, warning and error messages are sent via email or SNMP telegram to the network.

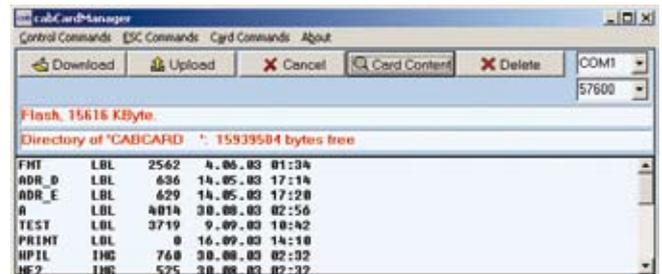
Administration

cab-Network Manager



The cab network administration enables the administrator to manage all printers connected to one network at the same time. With a single mouse click different printers can be monitored, configured or updated with firmware; furthermore PIN codes of the printers are changed and data on the memory card can be managed.

cab-Card Manager



Via RS 232 port the memory card is fast and easily administrated. Label layouts, special text fonts, complex graphics or databases can be up- or downloaded.

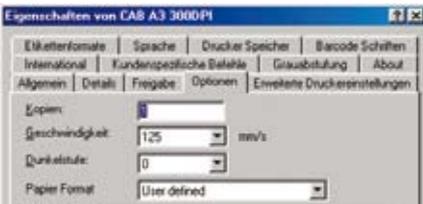
Quality made visible



Perfect labels need to have optimized text fonts. cab offers a large number of bitmap and vector fonts. Height and width of the font can be scaled and the object can be positioned and arranged. Additional true type fonts can be downloaded to the memory card.

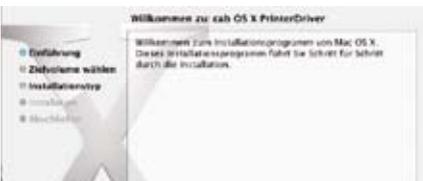
Most of the country specific codepages are supported.

cab Windows driver



Windows printer drivers are provided for Windows 98, ME, 2000, NT and XP.

Mac OS X driver



For MAC OS X cab offers a CUPS based printer driver.

Linux driver



For LINUX cab offers a CUPS based printer driver.

Powerful functions enable the creation and printing of even complex labels within minutes.

Take advantage of using the multiple possibilities of cablabel for including simple texts, barcodes, graphics and databases. cablabel is most flexible - and all this in 18 languages.

MDI (Multiple Document Interface) helps to open and handle several labels at the same time. Objects may be copied, moved and inserted into another label.

cablabel provides its own drivers with individual respond to all different function of cab printer. This most effective communication between software and printer enables to achieve perfect results.

● cablabel Lite

Free of charge with every cab printer.

● cablabel Professional

By including the label into data bases professional handling is supported. There is an interactive assistant that supports the creation of an UCC/EAN 128 barcode.

Further label Software

cab offers a range of additional label software (Easylabel, Codesoft, NiceLabel) enabling to program printers, to print and to apply systems.

cablabel	Lite	Professional
32-bit platform compatibility	■	■
Label samples	■	■
Online documentation with tutorials	■	■
Multi-level Undo	■	■
number of levels	1	40
Hidden (not printable) objects		■
Graphic format import	■	■
Color support	■	■
Color graphic reduction		■
TrueType font	■	■
Graphic barcodes	■	■
numbers	9	37
Native printer barcodes	■	■
Label preview	■	■
Graphics preview	■	■
Languages: Arabic, CZ, D, DK, E, F, GB/USA, H, I, IL, N, NL, P, PL, RUS, S, SF, TR	■	■
Grid view/print		■
Database		
ASCII database		■
ODBC (Microsoft Open Database Connectivity)		■
OLEDB		■
Database manager		■
Variables		
Flexible date and time stamping		■
Variable graphic images		■
Shared serial files		■
Decimal value formatting		■
Add an offset to a date		■
Tools		
Set input format		■
Minimum input length		■
Default value proposal		■
Automatic prompt		■
User Input Fields		
UCC/EAN 128 assistant		■
Font Downloader		■
Bi-directional communication to the printer		■
Programming		
OLE-Client		■

Delivery program



Transfer Printer	
Part No.	Description
5540812	Transfer printer MACH4/200P
5540813	Transfer printer MACH4/300P
5540816	Transfer printer MACH4/600P
5540822	Transfer printer MACH4/200C
5540823	Transfer printer MACH4/300C
5540826	Transfer printer MACH4/600C
 55408xx.102	Transfer printer MACH4/XXXX RFID with RFID read-write unit 13,56 MHz
Content of delivery: Label printer, power cable, operation manual, Windows driver, cablabel Lite, Service manual on CD-ROM	
Spare Parts	
5540882	Print head 203 dpi Typ 4220S
5540883	Print head 300 dpi Typ 4320S
5540884	Print head 600 dpi Typ 4620S
5540862	Driver roller DR4
Connecting cables	
5550818	Connecting cable RS232 C, 9/9-pin, length 3 m
5901616	Connecting cable USB, length 3 m
Accessories	
5946930	External operation panel
5901630	Compact PC-keyboard USB Cherry Classic Line G84 4100
5917909	Numerical PC-keyboard USB
5561040	Memory card 128 MB Compact-Flash Type 1
5561041	WLAN card 802.11b/g
5948100	External rewinder ER4 Roll diameter 200 mm



Software	
Part No.	Description
5580210	Database Connector
5580215	Network Manager
5580216	cab-Card Manager
5580153	Label software cablabel Lite
5580151	Label software cablabel Professional
5580105	Label software Easylabel 5 silver
5580106	Label software Easylabel 5 gold
5580107	Label software Easylabel 5 platinum



The current specifications are according to our technical knowledge. They are subject to change.

Headquarter

Germany

cab-Produkttechnik GmbH & Co KG

Postfach 1904
D-76007 Karlsruhe

Wilhelm-Schickard-Str. 14
D-76131 Karlsruhe

Telefon +49 721 6626-0
Telefax +49 721 6626-249

www.cabgmbh.com
info@cabgmbh.com

cab subsidiaries in other countries

France: cab technologies s.a.r.l.
F-67350 Niedermodern
Téléphone +33 388 722 501
info@cab-technologies.fr

España: cab España S.L.
E-08304 Mataró (Barcelona)
Teléfono +34 937 414 605
info@cabsl.com

USA: cab Technology Inc.
Tyngsboro MA, 01879
Phone +1 978 649 0293
info@cabtechn.com

Russia: OOO cab Technology
RUS-123001 Moscow
Phone +7 495 937 38 79
cabrus@co.ru

South Africa: cab Technology (Pty.) Ltd.
2125 Randburg
Phone +27 11-886-3580
info@cabtech.co.za

Asia: cab Technology Co., Ltd.
Taipei, Taiwan, R.O.C.
Phone +886 2 2950 9185
cabasia@cabgmbh.com

Representatives in other countries on request.