

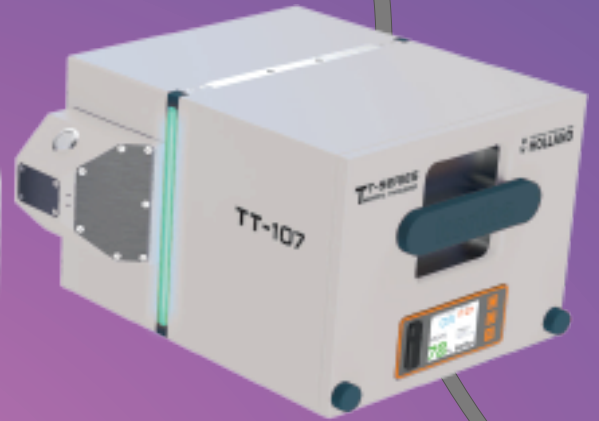
Distinctly Different Digital



TT-32



TT-53



TT-107

autonomous[®]

TT-SERIES
THERMAL TRANSFER

THERMAL TRANSFER PRINTERS

- ✓ **SLIMLINE: SAVE UP TO 50% ON EQUIPMENT COSTS**
- ✓ **SMART, OMNICOOMPATIBLE & 100% INDUSTRY READY**
- ✓ **OPTIMAL PRINT QUALITY UNDER ANY CONDITION**
- ✓ **1800M OF RIBBON & BULLETPROOF RELIABILITY**

INDUSTRY 4.0 IS NOW A TURN-KEY AVAILABLE COMMODITY!

SLIMLINE
CONCEPT

SMART 
FORCE 

kortho **CONTROL CENTER**

Loftware
NiceLabel



digital
NEXTGEN

autonomous®

TI SERIES

THERMAL TRANSFER PRINTERS

HIGHLIGHTS

MADE IN HOLLAND

Kortho was founded in Amsterdam in 1926 and is still a Dutch family owned business today. The TT-Series is our third generation TTO and, like all our printers, 100% made in Holland.



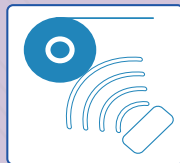
1.800 METER RIBBON

Patented **SMARTFORCE™** technology actively regulates ribbon tension. Avoiding all ribbon related problems, but also allowing for the longest ribbon on the market.



ULTRASONIC INDEXING

Real-time ultrasonic ribbon indexing offers extreme ribbon transport accuracy and foolproof reliability by no longer needing the use of moving (encoder) parts.



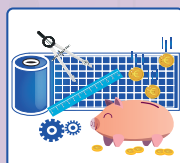
SMALLEST RIBBON GAP

Ribbon waste gap in between prints is kept on a constant value no wider than 0,5mm on average. Optimizing ribbon consumption by minimizing waste.



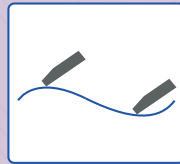
RIBBON SAVE FUNCTIONS

*Multiple ribbon save functions for continuous and intermittent operation. Including shift print, radial, interleaved and slip printing.



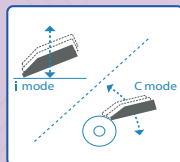
BEST SUBSTRATE CONTACT

Patented **SMARTFORCE™** technology actively regulates the pressure of the printhead onto the substrate. Ensuring an optimal substrate contact and print quality at all times.



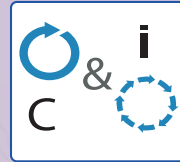
EXTREMELY FORGIVING

Automatic printhead positioning sets the printhead in optimal position in relation to the substrate. Making the printer extremely forgiving to changing conditions.



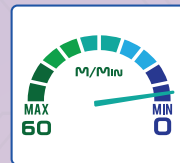
LONGEST PRINthead LIFE

Printhead is kept on operating temperature mechanically without dotline activation. Extending its lifespan drastically and producing perfect prints in cold or moist environments.



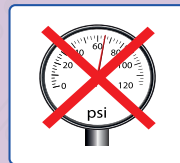
C & i WITH SAME PRINTER

Printhead orientation can be easily changed so that next to Intermittent the printer can also print Continuous Left and Right handed, making it suited for all applications.



PRINT TO ZERO FUNCTION

*Print to zero underspeed safeguard prevent bad prints or burning through the ribbon when product transport speed becomes too low.



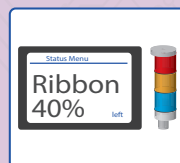
NO AIR FEED NEEDED

100% electric operation so no compressed air is needed anymore. Enabling a quick and easy installation, but also maximum reliability by not depending on air quality.



SAVE ON CONTROLLERS

Built according to **SLIMLINE™** Smart, Less Is More philosophy. Save costs on controllers by operating multiple printers from one single terminal. Maximizing central control benefits.



LED-STRIP SIGNALING

Printer integrated dual RGB LED strips and full color status screen facilitates the use without (nearby) HMI, but also avoids the need for additional signaling equipment.



KORTHO CONTROL CENTER GUI

Operated with Kortho Control Center (KCC) software. Free and very complete platform designed to make Industry 4.0 coding easy and quick to implement. See separate KCC leaflet for details.



100% INDUSTRY 4.0 READY

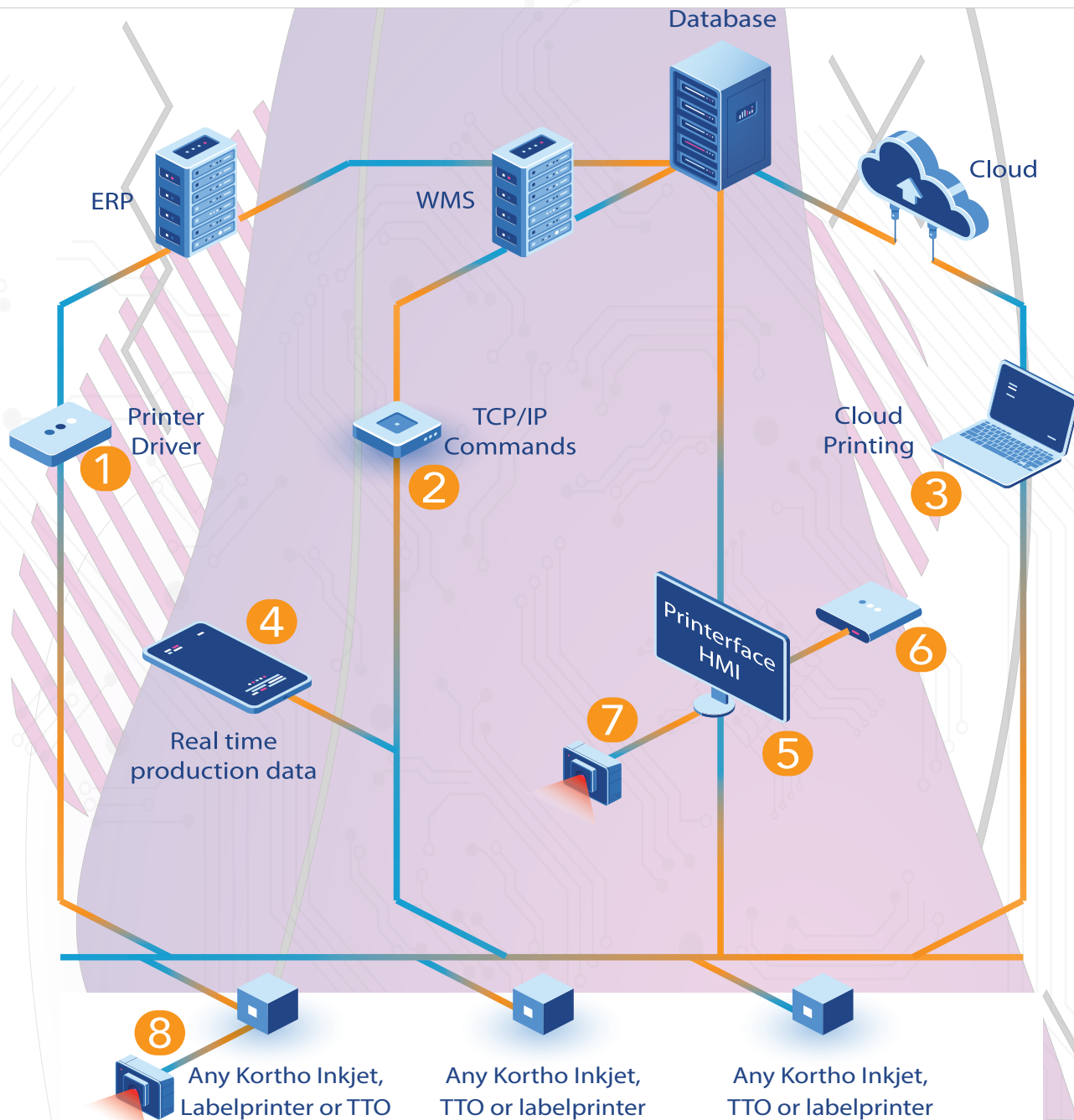
Open platform and Windows native OS. Especially designed for extended communication options with third party software. Including Windows generic network driver and 350+ commands protocol.



REMOTE DIAGNOSTICS

Full printer diagnostics including real-time scope traces of the physical status, position, speed and trajectory of all internal wearing and moving parts.

*yet to be established or unlocked with future firmware releases



1 Print directly from an ERP or WMS* by sending your own labels through the Windows printer driver.

2 Select labels, update label data or choose any of 350+ TCP/IP commands to communicate to the printer.

3 Print directly from the cloud or use *LMS to collect your data from the cloud to print real time information.

4 Monitor production data and statistics from the printer. Use the free variable Machine ID's to see your real time production status.

5 Let operators control the printer by using Kortho Control Center on the Printerface or an (previously purchased) third party HMI.

6 Connect PLC's, checkweighers, metal detectors or other in-line equipment to the Printerface and use LMS to read or send data.

7 Use a barcode scanner to select your label template from an LMS with the correct product information from a database and update the variable data.

8 Connect a barcode scanner directly to the printer to select the correct label from the label library by scanning a barcode from a production sheet.

* Enterprise Resource Planning (ERP) / Warehouse Management Software (WMS) / Label Management Software (LMS)

TT-32

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TT-107

	TT-32	TT-53	TT-107	
Printing	Max. print area I-mode	32 x 60 mm	53 x 95 mm	107 x 95 mm
	Max. print speed I-mode	*t.b.e.	280 ppm @3 mm label	*t.b.e.
	Min. print speed I-mode	*t.b.e.	70 ppm @95 mm label	*t.b.e.
	Max. print area C-mode	32 x 60 mm	53 x 200 mm	107 x 200 mm
	Max. print speed C-mode	*t.b.e.	*t.b.e.	*t.b.e.
	Min. print speed C-mode	*t.b.e.	*t.b.e.	*t.b.e.
	Resolution	300 DPI	300 DPI	300 DPI
Physical	Printunit dimensions (WxHxD)	*t.b.e.	294 x 195 x 248 mm	*t.b.e.
	Printunit weight	*t.b.e.	10,2 kg	*t.b.e.
	Power supply dimensions (WxHxD)	183 x 183 x 75 mm		
	Power supply weight	1,2 kg		
	Print modes	Intermittent and Continuous L & R in any orientation (omnidirectional)		
	Connectors	Free configurable I/O port - Ethernet - USB - Power - Encoder		
	Power supply	External IP-67, 230V AC main cable 300 cm, 42V DC main cable 500 cm		
	Air supply	None needed		
	Signaling	Integrated full color status display and dual RGB LED strip beacons		
	Ribbon system	Cassette based system with simple 2 axle ribbon trajectory		
	Ribbon indexing	Real-time indexing through ultrasonic sensors		
	Printhead preheat	Printhead is kept on operating temperature with external heating element		
	Printhead pressure	SMARTFORCE keeps the printhead pressure on a exact value while printing		
	SLIMLINE concept	No controller needed, operation from any Windows (10+) system		
	Material	Stainless steel and aluminum		
	Consumables	Ribbon length	1.000 m	1.800 m
Ribbon width		35 mm	55 mm	110 mm
M2 on roll		35 m2	99 m2	198 m2
Compounds		Standard (4.5 µ wax) - Premium (4 µ wax/resin) - Excellence (4 µ resin)		
Ribbon print gap		< 0.5 mm consistent		
Ribbon save functions		Standard*		
Core material		Plastic without notches - Extra core included with each ribbon		
HMI	Kortho HMI/GUI**	See separate KCC leaflet for label design and (printer) control functions		
	Third party HMI/GUI	Any Windows based LMS - Nicelabel, Bartender or other		
	ERP direct	Direct printer control through ERP output files - SAP, Navision or other		
Coms	Wired communication	Ethernet - I/O - USB		
	Wireless communication	Bluetooth - RFID		
	Supported protocols	Escape protocol - Communication Protocol with 350+ commands		
	Driver	Generic Windows network driver		
Accessories	Kortho Printhead IoT	Optional: Kortho Branded Windows 10 Industrial tablet + bracket		
	Ethernet cable	Industrial ethernet cable 5 meters + M12/RJ45 coupling		
	Ethernet Switch	Fast ethernet switch 16 ports		
	I/O cable	I/O cable 5 meters		
	Encoder	Pulse encoder - can be mounted on Kortho bracket		
	Universal bracket	770mm x 440mm x 310mm - can be cut to size on location - bracket is suitable for I and C applications		
	Pressure roller kit	Combine with universal bracket for continuous applications		
	Pressure platen kit	Combine with universal bracket for intermittent applications		
	Bracket cutting kit	Set to cut bracket to size on location without the need of power tools		
	Custom bracket size	Available on request		

* yet to be established or (new features) unlocked with future firmware releases

** LMS = Label Management Software, HMI = Human Machine Interface, GUI = Graphical User Interface

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