HARTNER

Precision Cutting Tools

TM TOOL DISPENSING SYSTEMS

INDIVIDUAL SOLUTIONS FOR EFFICIENT
TOOL STORAGE AND MANAGEMENT

CONTENTS

THE INTELLIGENT TM SOLUTIONS BY HARTNER OPTIMISE YOUR TOOL MANAGEMENT.

The Hartner tool dispensing systems optimise your tool storage. Achieve greater levels of security for your tool stocks and greater transparency in your tool management.

THE HARTNER TOOL MANAGEMENT
▼ BASIS OF A MODERN TOOL MANAGEMENT

Hartner has been offering tool management systems for individual, small and large series manufacturing for small- and medium-sized companies and group customers for more than 15 years.

Due to the great diversity and experience of implementing global customer projects, Hartner has excellent skills when it comes to tool management systems. Thanks to this expertise, Hartner can also help your company to optimise its tool management in a targeted manner.

Classic production processes are currently undergoing dramatic changes: Industry 4.0 sets out to combine industrial production with communication and information technology to help improve productivity and flexibility.

In order to do this, Hartner provides its customers with all the data they need, such as drawings and optimal parameters for a transparent and optimised metal cutting process.

SOCIAL MEDIA

BIG DATA

CLOUDCOMPUTING

SMART FACTORY

INTERNET OF THINGS

LOGISTICS

INDUSTRY 4.0

ADDITIVE MANUFACTURING

SIMULATION

MOBILE COMPUTING

ADVANTAGES

- ▼ 24-hour controlled tool availability
- ▼ Reduction of storage and management costs
- ▼ Permanent use controls
- ▼ Avoidance of production shutdowns
- ▼ Clear allocation of tool costs
- ▼ No secure storage needed

- ▼ Storage and management of all production-relevant items
- ▼ Low-shrinkage and theft-proof
- ▼ Sensitisation of employees to tool costs
- ▼ Communication with all IT systems possible

HIGH-END PERFORMANCE INCLUDING:

▼ COMPUTER

▼ SOFTWARE

▼ TOUCHSCREEN

▼ SCANNER
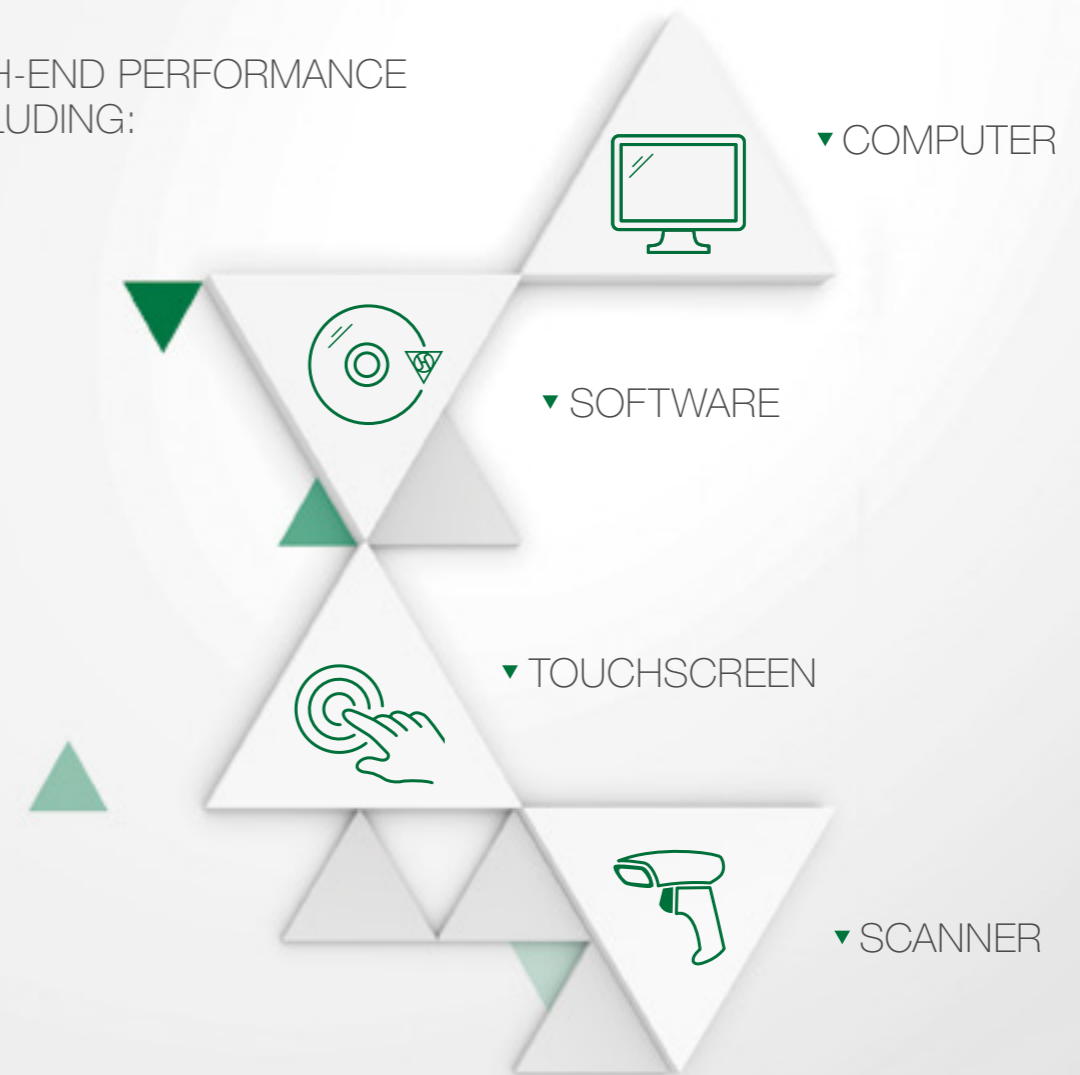
The controlled storage and dispensing of tools is a basis to maintain transparency regarding tool consumption and direct tool costs. A requirement for this, however, is that the tool stocks are kept locked up and that every tool that is removed is recorded in the management software. This is the only way to ensure that the stocks shown in the software are actually physically there and the tool inventory planning can be processed reliably.

All systems are controlled by the logistics module of the Hartner TM Software. It enables simple and intuitive operations of the dispensing machines.

Registration is customer-specific and can be carried out using a PIN, barcode, RFID or biometric data. The tools can be stored and managed with different levels of security depending on the system type. The Hartner machines TM 326 and TM 526 were developed for this.

These are compatible with one another and can be flexibly tailored to the diverse requirements of customers in individual, small series and large series manufacturing.

The Hartner TM tool machines therefore offer you all of the key advantages of intelligent tool dispensing.

INCREASE IN PERFORMANCE IN TOOL MANAGEMENT THROUGH OPTIMISED MANAGEMENT PROCESSES.

THE HARTNER TOOL MANAGEMENT
▼ THE MODULES

Hartner Tool Management systems are designed according to our customers' requirements. Many years of experience in the tool industry and in technology and the professional management of both work processes and customer data are the optimal foundation for reliable and personalised collaboration with Hartner as a partner. Tool management can be broken down into the following modules:

▼ SOFTWARE

The modern and practice-oriented tool management software developed by Hartner is the engine driving tool management.

▼ LOGISTICS

Where necessary, the Hartner TM Software can issue order proposals and coordinate delivery and regrinding services.

▼ SERVICE

All of the production-relevant work materials and tools are provided according to the cost-by-cause principle and in good time through the coordinated delivery and regrinding services.

▼ INTEGRATION

The integration of the software into existing customer infrastructure means the infrastructure is able to support all relevant tool management processes.

▼ INTERFACES

The Hartner TM Software can be connected to all ERP/PPS, CAD and IT systems via interfaces. Logistics systems such as paternosters and shuttle systems can also be controlled and managed.

▼ IDENTIFICATION

Registration can be carried out using a barcode, PIN, RFID or biometric data, as desired.

▼ ONLINE COMMUNICATION

The Hartner TM Software enables the exchange of data via the intranet and internet and web applications on tablets, smartphones and PCs.

▼ MACHINES

Multiple dispensing systems offer solutions for various areas of use and security levels.

THE HARTNER TOOL DISPENSING SYSTEMS
▼ THE TYPES OF CABINETS

The three tool dispensing systems TM 326, TM 426 and TM 526, offer flexible options for tailored tool storage. You can choose between various degrees of automation depending on the need and the size of the company. Individual dispensing options such as drawers or spiral systems are available.

We tailor the Hartner tool dispensing system individually to your wishes and the needs in your company. This means you can make optimal use of the options. Numerous satisfied customers have also confirmed this.

▼ TM SPECIAL
EXPANSION UNITS

▼ TM 526

▼ TM 326

▼ TM 426

INDIVIDUAL SOLUTIONS FOR EFFICIENT TOOL STORAGE AND MANAGEMENT.

TM 326
▼ THE MODULAR SYSTEM

TM 326

MANUAL TOOL REMOVAL
ELECTRONICALLY CONTROLLED.

TM 326 is a flexible storage solution for all operational requirements for individual and small series manufacturers. The electronically locked drawers can be individually tailored in terms of height and layout, depending on the range of items. Ideal for storing small quantities of various products.

The core is the storage module of the Hartner Tool Management Software, which monitors and controls all movements. The system can be combined with all Hartner types of cabinets.

The Hartner TM 326 tool dispensing system is an electronically controlled system that can be expanded by expansion units and includes all of the functionalities of the Hartner Tool Management Software. Electronically locked drawers enable the controlled removal of tools. The construction height and the partition materials are tailored to individual customer wishes.

SPECIAL FEATURES

▾ Flexible combination of drawer heights and layout options

▾ Expansion to individual dispensing possible with a spiral module

▾ Open, multi-supplier system

▾ Secure storage and management of tools, measuring and testing equipment, assembly tools and consumables

▾ Can be expanded at any time by additional expansion units

▾ Control functions can also be used for further storage systems (TM 426, TM 526)

TM 326
▼ DESIGNS AND DIMENSIONS

BASE UNIT

- ▼ Electronically locked dispensing system in a stable steel sheet construction
- ▼ Manually operable drawers with an LED display and full pull-out (max. load capacity per drawer 200 kg)
- ▼ Four drawer heights and numerous layout options
- ▼ Height: 1700 mm (incl. attachment) Usable height: 900 mm
- ▼ PC with WIN 10 I 64 Bit
- ▼ Scanner to read barcodes and QR codes
- ▼ 21.5" HD touchscreen monitor
- ▼ Storage module of the Hartner TM Software
- ▼ Instruction manual in English

1010 mm   750 mm   1700 mm
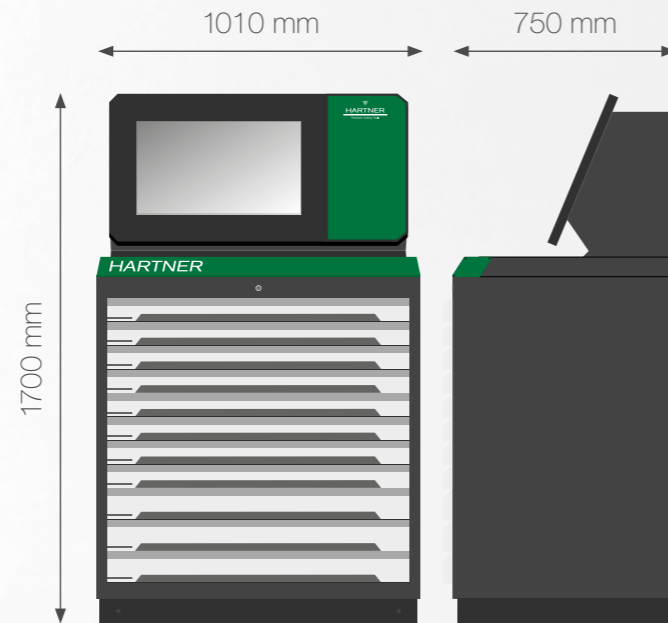
TM 326 Base unit I Front and side view

EXPANSION UNIT

- ▼ Electronically locked dispensing system in a stable steel sheet construction
- ▼ Manually operable drawers with an LED display and full pull-out (max. load capacity per drawer 200 kg)
- ▼ Four drawer heights and numerous layout options
- ▼ Two heights:
  1160 mm I usable height: 900 mm
  1570 mm I usable height: 1300 mm
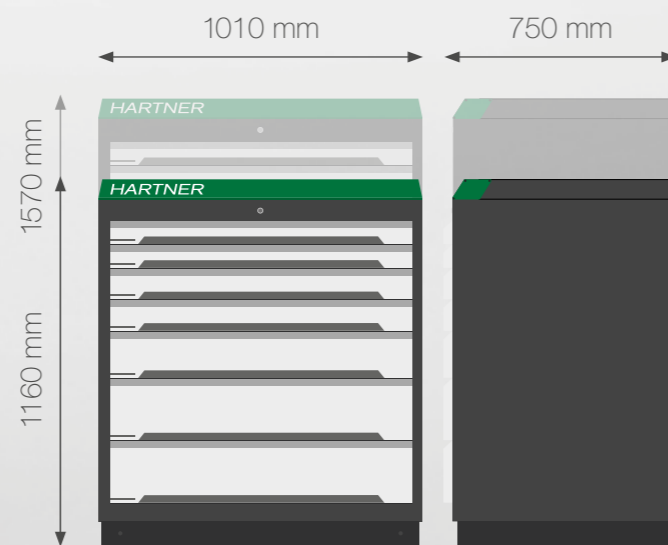
1010 mm   750 mm   1570 mm   1160 mm

TM 326 Expansion unit I Front and side view (2 heights)

OTHER

- ▼ Lifting truck base with a removable front panel
- ▼ Operating voltage: 110 V - 230 V I 50/60 Hz
- ▼ Custom colours in accordance with RAL I NCS on request

DRAWER ▼ PARTITION OPTIONS

- ▼ Flexible combination of drawer heights

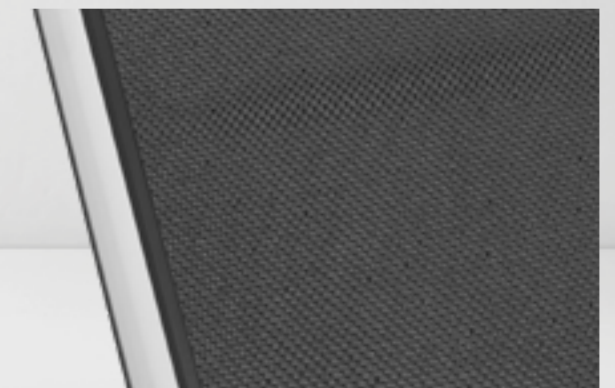| Available front height:	75 mm	100 mm	150 mm	200 mm
Usable height:	60 mm	85 mm	135 mm	185 mm

Partition plate set (standard equipment)

Box set

Trough set

Anti-slip mat

DRAWER ▼ ELECTRONIC FLAP SYSTEM

- ▼ Flexible combination of drawer heights

Available front height:	75 mm	100 mm	150 mm	200 mm
Usable height:	50 mm	75 mm	125 mm	175 mm

Flaps (per drawer)	Inner dimension of the compartment (width x depth)	Split options for flaps (width x depth)
4	440 x 259 mm	2 x 2
8	440 x 125 mm	2 x 4
12	225 x 200 mm	3 x 4
12	440 x 75 mm	2 x 6
16	220 x 125 mm	4 x 4
18	146 x 175 mm	6 x 3
20	220 x 95 mm	4 x 5
24	220 x 75 mm	4 x 6
24	146 x 125 mm	6 x 4
32	109 x 125 mm	8 x 4
36	146 x 75 mm	6 x 6
40	109 x 95 mm	8 x 5
48	109 x 75 mm	8 x 6

TM 426

▼ THE SPIRAL SYSTEM FOR TOOLS
WITH A HIGHER TURNOVER RATE

The TM 426 tool dispensing system is the perfect solution for storing larger quantities of compact tools in the smallest possible space. In the spiral systems, tools can be stored in a space-saving and absolutely secure manner. The tools are dispensed by a goods issuing system or optionally via a lift system.

## LOTS OF STORAGE SPACE, MANAGED TRANSPARENTLY.

SPECIAL FEATURES

▼ Flexible combination of various spiral sizes (depending on the size of the secondary packaging)

▼ Optional installation of lift system to collect products (output tray at top side)

▼ Secure storage and management of compact tools

▼ Can be expanded at any time by additional expansion units

▼ Control functions can also be used for further storage systems (TM 326, TM 526)
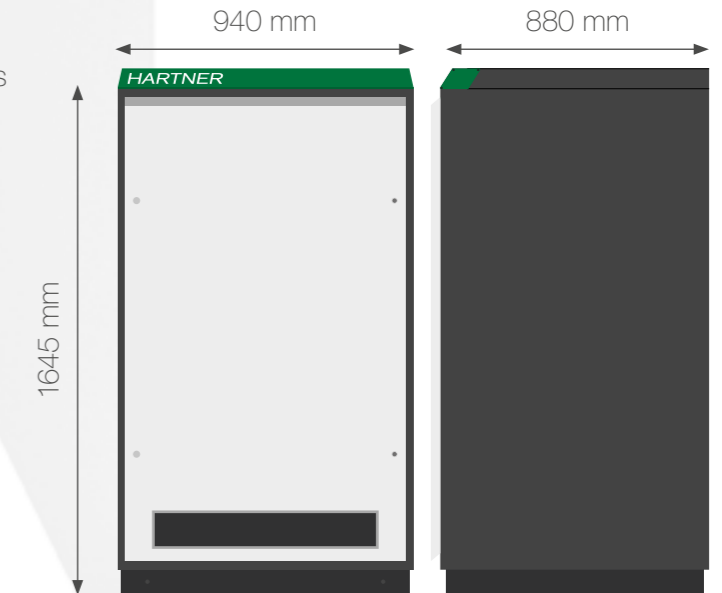
TM 426
▼ DESIGNS AND DIMENSIONS

BASE UNIT

▼ PC with WIN 10 ❘ 64 Bit

▼ Scanner to read barcodes and QR codes

▼ 21.5" HD touchscreen monitor

▼ Storage module of the Hartner TM Software

▼ Instruction manual in English

600 mm   550 mm

1580 mm
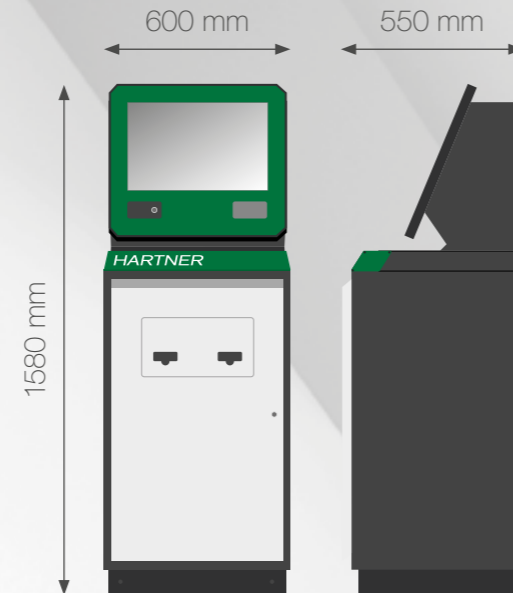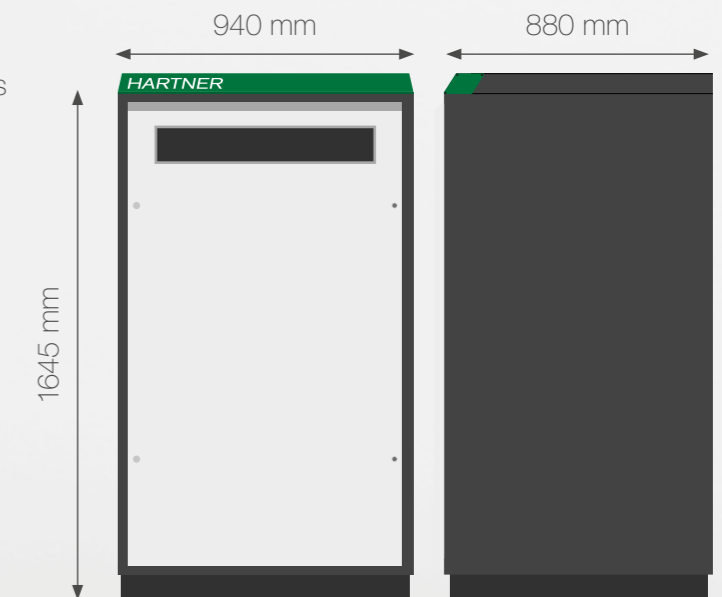
TM 426 Base unit ❘ Front and side view

EXPANSION UNIT

▼ Removal based on the FIFO principle

▼ 6-7 spiral levels each with 10 spiral spaces

▼ Output tray at the bottom side

▼ Spiral variants can be configured in line with the product range

940 mm   880 mm

1645 mm

TM 426 Expansion unit ❘ Front and side view

EXPANSION UNIT WITH LIFT

▼ Removal based on the FIFO principle

▼ 6-8 spiral levels each with 10 spiral spaces

▼ Output tray at the top side

▼ Integrated transport lift for tools

940 mm   880 mm

1645 mm

TM 426 Expansion unit L ❘ Front and side view

OTHER

▼ Possible numbers of spiral coils:
  9 ❘ 13 ❘ 15 ❘ 21 ❘ 24 ❘ 31

▼ Operating voltage: 110 V - 230 V ❘ 50/60 Hz

▼ Lifting truck base with a removable front panel

▼ Custom colours in accordance with RAL ❘ NCS on request

TM 526
▼ DRAWER SYSTEM WITH 100% DISPENSE CONTROL

The TM 526 system is designed for large series manufacturing with a high turnover of products. The individual drawer opens gradually when it is used, which means only the quantity recorded is actually dispensed.

This results in maximum transparency in the tool output and clear allocation of the tool costs.

## ACCESS ELECTRONICALLY LIMITED, TOOL MOVEMENTS TRANSPARENT.

SPECIAL FEATURES

▼ Flexible combination of drawer heights and widths

▼ Open, multi-supplier system

▼ Secure storage and management of tools, measuring and testing equipment, assembly tools and consumables

▼ Can be expanded at any time by additional expansion units

▼ Control functions can also be used for further storage systems (TM 326, TM 426)

TM 526
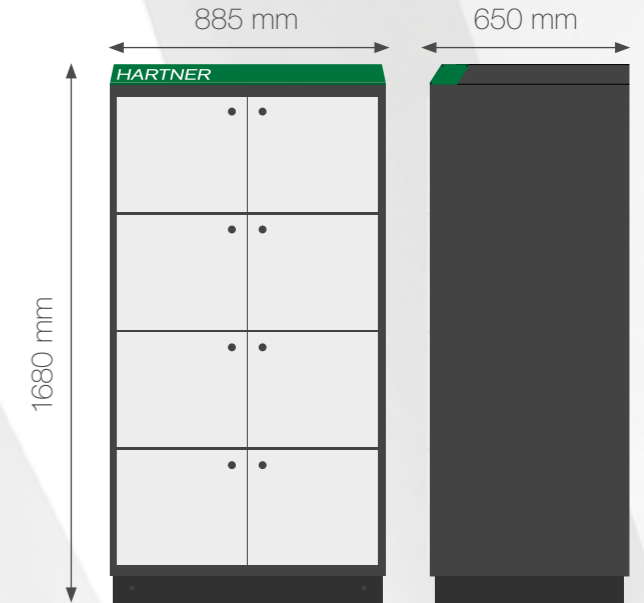▼ DESIGNS AND DIMENSIONS

BASE UNIT

- ▼ Electronically locked dispensing system in a stable steel sheet construction
- ▼ Manually operable drawers with an LED display and full pull-out (max. load capacity per drawer 20 kg)
- ▼ Individual drawer heights and widths
- ▼ Height: 1750 mm (including attachment)
- ▼ PC with WIN 10 l 64 Bit
- ▼ Scanner to read barcodes and QR codes
- ▼ 21.5" HD touchscreen monitor
- ▼ Storage module of the Hartner TM Software
- ▼ Instruction manual in English

885 mm   650 mm

1750 mm
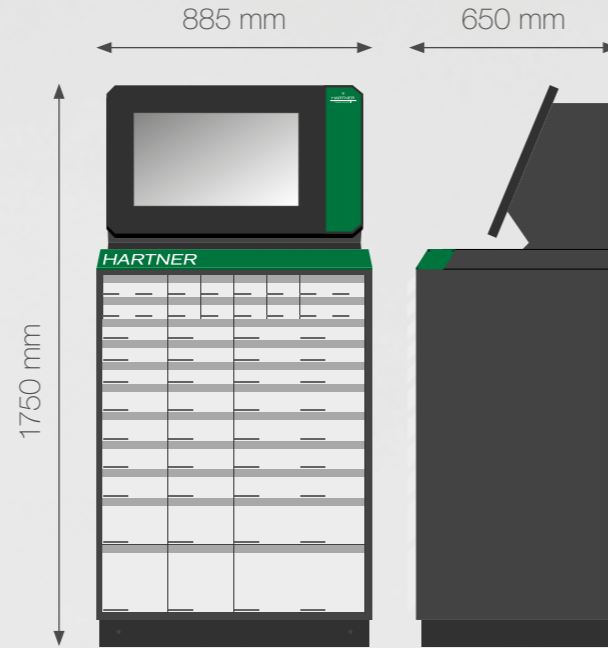
TM 326 Base unit l Front and side view
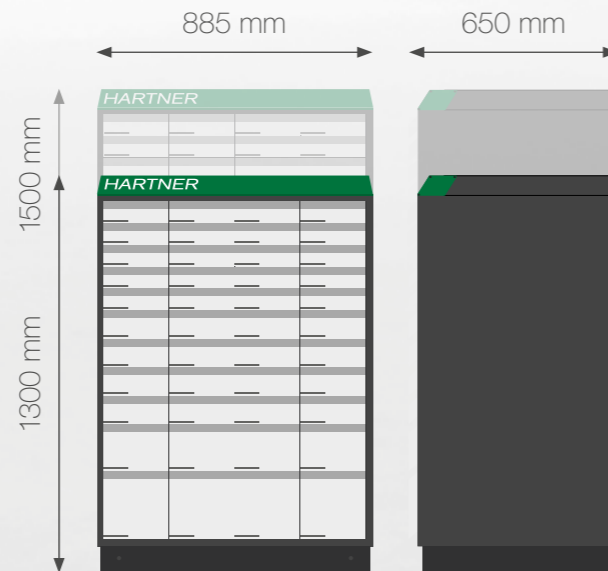
EXPANSION UNIT WITH LOCKER

- ▼ Version with 16 lockers
  Internal dimensions:
  334 x 151 x 534 mm (width x height x depth)
- ▼ Version with 8 lockers
  Internal dimensions:
  334 x 331 x 534 mm (width x height x depth)

- ▼ Version „Power supply"
  Version with 16 lockers
  Each storage locker is equipped with 230 V
  Available internal dimensions:
  334 x 151 x 384 mm (width x height x depth)
- ▼ Version „Power supply"
  Version with 8 lockers
  Each storage locker is equipped with 230 V
  Available internal dimensions:
  334 x 331 x 534 mm (width x height x depth)

885 mm   650 mm

1680 mm

TM 526 Expansion unit locker l Front and side view (8 lockers)

EXPANSION UNIT

- ▼ Electronically locked dispensing system in a stable steel sheet construction
- ▼ Manually operable drawers with an LED display and full pull-out (max. load capacity per drawer 20 kg)
- ▼ Individual drawer heights and widths
- ▼ 2 heights: 1300 mm l 1500 mm

885 mm   650 mm

1500 mm

1300 mm

TM 326 Expansion unit l Front and side view (2 heights)

OTHER

- ▼ Lifting truck base with a removable front panel
- ▼ Operating voltage: 110 V - 230 V l 50/60 Hz
- ▼ Custom colours in accordance with RAL l NCS on request

DRAWERS

- ▼ Available drawer heights / per level: 42 mm l 60 mm l 114 mm l 186 mm l 258 mm l 330 mm
- ▼ Number of drawers per unit variable
  Number of drawers:
  Width per drawer:

8	5	4	3	2
50 mm	110 mm	150 mm	215 mm	350 mm
(only in the 42 mm height)	(only in the 42 l 60 mm height)			

- ▼ Drawers can be split in various ways
  Possible drawer partitions:
  Individual compartment depth:

16	8	4	2	1
28 mm	60 mm	128 mm	252 mm	526 mm

(not for drawers with a width of 50 mm)

TM SPECIAL EXPANSION UNITS
▼ THE SUPPLEMENTARY STORAGE CABINETS

The supplementary storage cabinets that can be freely combined with the Hartner base units ensure a suitable place for all tools.
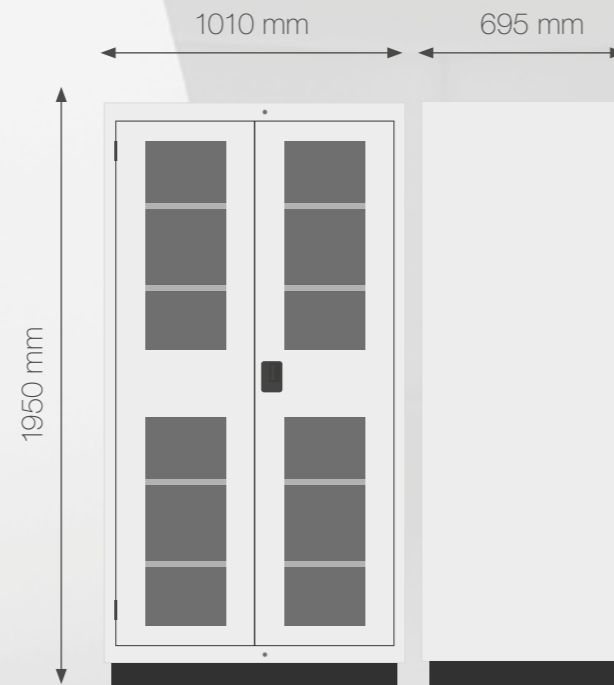
Control via the Hartner TM 326, TM 426 or TM 526 tool dispensing systems guarantees safe storage and removal only after successful booking.

TM DOUBLE DOOR SYSTEM
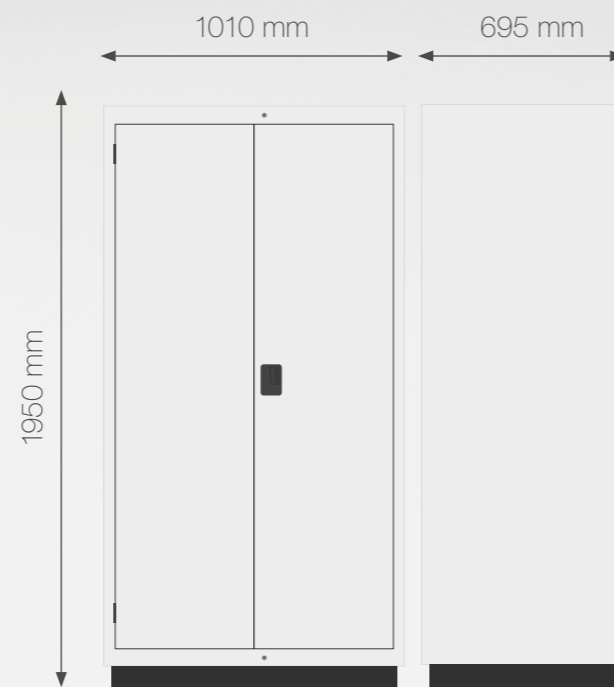## ▼ DESIGNS AND DIMENSIONS

WITH WINDOW

- Double door locker with window
- 4-5 shelves
  (load capacity per shelf: 200 kg)
- Electronic locking using Hartner TM Software

1010 mm   695 mm

1950 mm

TM Double door locker with window |
Front and side view

WITHOUT WINDOW

- Double door locker without window
- 4-5 shelves
  (load capacity per shelf: 200 kg)
- Electronic locking using Hartner TM Software

1010 mm   695 mm

1950 mm

TM Double door locker without window |
Front and side view

OTHER

- Lifting truck base with a removable front panel
- Operating voltage: 110 V - 230 V | 50/60 Hz

- Custom colours in accordance with RAL |
  NCS on request

TM VERTICAL DRAWER SYSTEM
▼ DESIGNS AND DIMENSIONS

DRAWER SYSTEM

- Electronically locking pull-out
  drawers controlled by Hartner
  TM Software
  (load capacity per drawer: 300 kg)
- 3 versions:
  4 pull-outs 300 mm each
  6 pull-outs 200mm each
  8 pull-outs 150mm each
- 2 depths:
  765 mm | 1135 mm
- Robust construction with rolling
  pull-out drawers and finger
  protection
- Individual partition material

1340 mm   765 mm   1135 mm

1680 mm
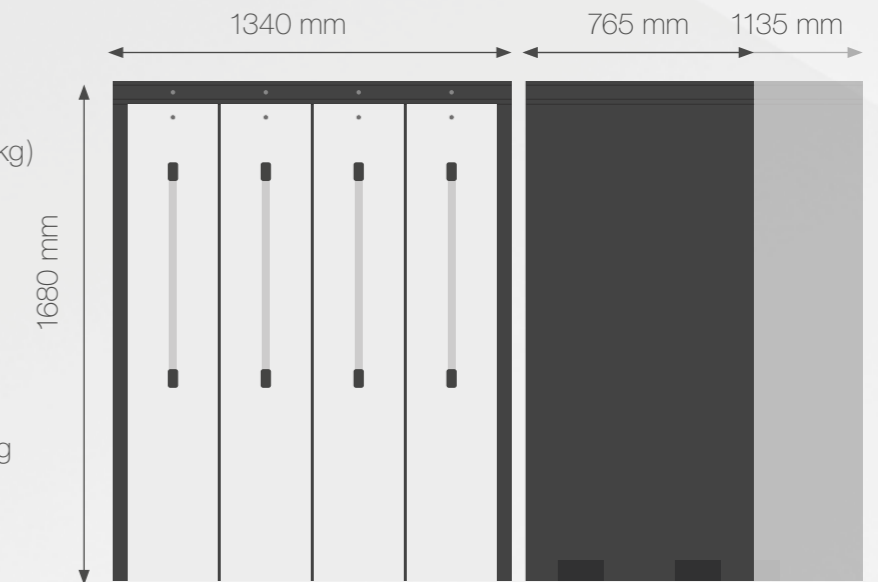
TM Vertical dispensing cupboard | Front and side view

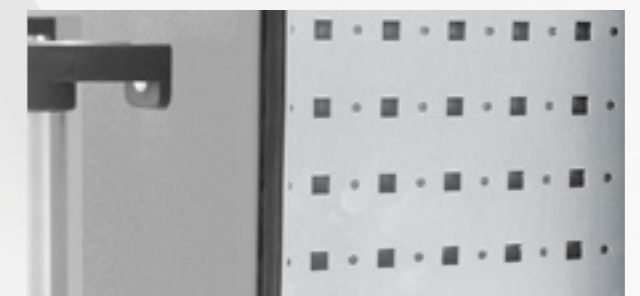### DRAWER ▼ LAYOUT OPTIONS

Tool carrier

Attachment for overlong tools

Storage tray

Perforated plate wall

OTHER

- Custom colours in accordance with RAL |
  NCS on request

THE HARTNER TOOL MANAGEMENT SOFTWARE
▼ BUILT-IN INTELLIGENCE

All Hartner tool dispensing systems are controlled by the user-friendly TM Software. This enables simple, rapid and intuitive operation via the integrated touchscreen.

The software offers customers application-related and individual settings options in all areas of production.
The modular structure means processes in manufacturing can be depicted precisely and all parts of the tool cycle from storage to provision and on to disposal can be displayed in a transparent manner.

The software documents all relevant movement data for the stored stock, triggers order proposals and enables evaluations to be carried out based on various criteria.
This extensive and detailed report offers your company a wide range of areas of potential optimisation in the tool cycle.

Interfaces also enable connection to various ERP systems and online connection to your suppliers by means of automated order processes.

THE HARTNER TOOL MANAGEMENT SOFTWARE
▼ SERVICES AND CUSTOMER ADVANTAGES

- ▼ Simple and intuitive user interfaces and menu navigation

- ▼ Creation of a personal dashboard

- ▼ Creation of tool lists

- ▼ Direct access of CAD systems and graphic programmes to process and display tool drawings

- ▼ Extensive storage management functions that can be used to control Hartner TM tool machines too

- ▼ Depiction of the customer's organisation for the clear allocation of the costs of the tools dispensed

- ▼ Precise analyses of use based on various criteria e.g. tool use per component, machine or production area

- ▼ Individual solutions can be programmed based on customers' wishes

- ▼ Connection to all commonly used ERP/PPS systems, tool management and paternoster lift systems by means of the programming of corresponding interfaces

- ▼ Multilingual software

- ▼ Creation of individual customer forms
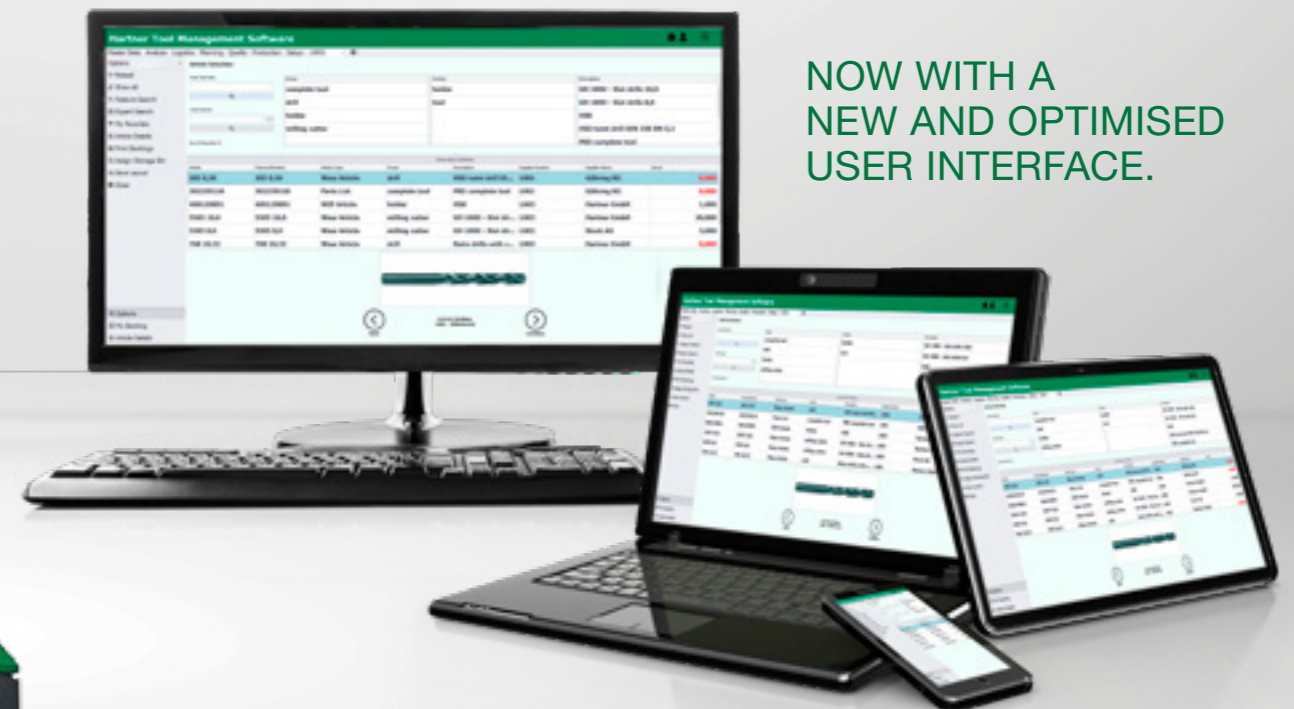
NOW WITH A
NEW AND OPTIMISED
USER INTERFACE.

THE HARTNER TOOL MANAGEMENT SOFTWARE
▼ THE MODULAR STRUCTURE

STORAGE MODULE
▼ THE HEART

- ▼ Machine control
- ▼ Inventory planning
- ▼ Item master data
- ▼ Analysis

PLANNING MODULE
▼ PLANNING FROM A-Z

- ▼ Communication
- ▼ Wear data
- ▼ Components
- ▼ Tool catalogue I DIN 4000

QUALITY MODULE
▼ SECURITY IN THE PROCESSES

- ▼ Calibration tool management
- ▼ Machines
- ▼ Complaints
- ▼ Serial number management
- ▼ Incoming goods

PRODUCTION MODULE
▼ PRODUCTION UNDER CONTROL

- ▼ Workplans
- ▼ Jobs

Software screenshots

THE HARTNER TOOL MANAGEMENT SOFTWARE
▼ SOLUTIONS FOR ALL COMPANY SIZES

REPORTING

- ▼ Resource planning
- ▼ Purchasing
- ▼ Management
- ▼ Controlling
- ▼ Tool management
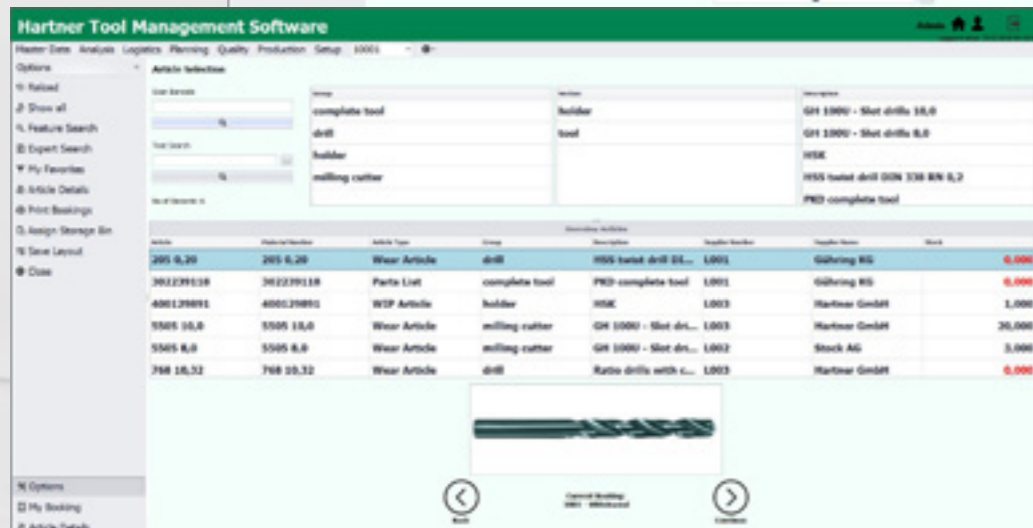
AUTOMATION OF PROCUREMENT PROCESSES

- ▼ Order proposals
- ▼ Delivery service
- ▼ Regrinding service

DATA PROVISION

- ▼ Work preparation
- ▼ Construction
- ▼ Purchasing

DATA EXCHANGE

- ▼ ERP system
- ▼ IT systems
- ▼ Paternoster I lift systems

If desired, Hartner TM tool dispensing systems send out regular reports on material management, purchasing, controlling, management and tool management.

The structure of Hartner TM Software means order proposals and delivery and regrinding services can be fully automated. Optimal and punctual supply of the production team with all work materials and tools that are relevant for production is therefore ensured.

The software can be connected to all existing ERP and IT systems. External systems such as paternosters or lift systems can also be controlled and managed. Incorporating the software into the existing infrastructure also means this can be accessed at any time by work preparation, construction and purchasing.

RAPID HANDLING
WITH LED STATUS LIGHT.

CONTROLLED REMOVAL FOR
GREATER LEVELS OF TRANSPARENCY.

OPTIMAL STORAGE FOR
CONSUMABLES OF ALL KINDS.

OUR CUSTOMERS CONFIRM:

▾ 10 % lower tool costs

▾ 14 % reduction in machine downtime thanks
   to permanent tool availability

▾ 14 % more use of reground tools in produc-
   tion

▾ 1 hour time saving when looking for and pro-
   curing tools per day

THE HARTNER PROGRAMME

▼ FU 500 / FN 500

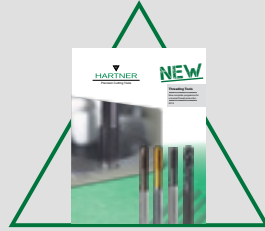▼ GUN DRILLS

▼ INOX-DRILLS

▼ MICRO PRESICION TOOLS

▼ THREADING TOOLS

▼ TS-DRILLS

▼ TF 100 MULTI-MILL

▼ MILLING CUTTERS

▼ SOLID CARBIDE CHAMFERING MILLING CUTTERS

▼ MULTIPLEX

▼ MULTIPLEX HPC

▼ TM TOOL DISPENSING SYSTEMS

HARTNER GMBH

PO box 10 04 25 ▮ 72425 Albstadt ▮ Germany
Telephone +49 74 31 125 - 0 ▮ Fax +49 74 31 125 - 21 547

www.hartner.de