GUHRING

COMPETENT TOOL MANAGEMENT





FLEXIBLE.
PROFESSIONAL.
SUSTAINABLE.

MAXIMUM NETWORKING THROUGH WORLDWIDE PRODUCTION SITES.





























ITALY MISSAGLIA





E - N

AUSTRIA



POLAND

















AFRICA



AUSTRALIA



Choice of Gühring locations





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»WE ARE **READY**FOR INDUSTRY 4.0 «



GÜHRING TOOL MANAGEMENT COMPETENT PARTNER

For more than 15 years Gühring has successfully carried out tool management projects worldwide in a variety of extension levels. Small as well as medium-sized companies with individual and small batch production as well as enterprise customers with large batch production are supported by Gühring with full responsibility.

Because of the wide variation and the experience in implementing worldwide customer projects Gühring possesses an outstanding expertise in the tool management sector.

With this know-how Gühring can also support your company in specifically optimising your tool management.

All TM systems can be combined with each other and can be operated via the basic units of the TM 326 and TM 526 systems or via the TM 426 control terminal.





GÜHRING TOOL MANAGEMENTADVANTAGES



Whilst direct tooling costs reflect tool consumption they remain the target of optimisation in companies, indirect tooling costs are hidden in the process organisation of tool management. They are less transparent and less quantifiable.

On the one hand indirect tooling costs are for example costs incurred through the necessary process organisation such as procurement, storage etc., on the other hand they are also costs arising from deficits in these management processes.

GÜHRING TOOL MANAGEMENT OPTIMISES PROCESSES & REDUCES COSTS.

FOR THE COMPANY'S PRODUCTION IT MEANS:

- Interruption of production orders due to unavailable tools
- Insufficient transparency of tool stock and storage locations
- Increased time investment of foremen and machine operators due to unavailable tools
- Overstock or missing/understock in warehouse
- \ Increased tool variety

RECEIVE ALL THE COMPONENTS YOU REQUIRE FROM ONE SUPPLIER – GÜHRING.

Any activities to optimise the process organisation and the costs connected that have to be carried out by employees responsible in addition to the daily work schedule are often neglected due to lack of time. This is where Gühring begins with its modular tool management concepts.

You can receive all required components from one supplier – Gühring.



RE-ORGANISATION AND CONTROL OF YOUR TOOL MANAGEMENT

TRANSPARENCY OF ALL PROCESSES THANKS TO THE APPLICATION OF GÜHRING'S TOOL MANAGEMENT SOFTWARE

AUTOMATED TOOL DISPENSING SYSTEMS

>>>>>

GSS SHRINK FIT AND PRE-SETTING EQUIPMENT

FURTHER OPTIMISING
DIRECT TOOLING COSTS.
IDENTIFYING AND REDUCING
INDIRECT TOOLING COSTS.

GÜHRING TOOL MANAGEMENTCONCEPTS

LOGISTIC TOOL MANAGEMENT.

PERFORMANCE

- Gühring as central logistics partner for the procurement of all products in the machining and production area
- Article spectrum includes all types of cutting tools as well as accessories
- The customer decides which tools are applied during the project
- Scheduling and ordering of all tools to be applied including non-Gühring products
- Nonitoring delivery schedules
- Tool availability including consignment stock
- Monitoring stock levels
- Gühring TM tool dispensing system for tool storage
- Re-grinding and re-coating in Gühring service centres or with original supplier
- Delivery of new and refurbished tools
- Filling the Gühring TM tool dispensing system.
- Consumption and costing report
- Monthly invoicing by Gühring based on withdrawn tools. Subcontractors paid by Gühring

ADVANTAGES

- The customer can focus on core competences and value adding activities
- Customer specific compilation of scope of performance
- Only one contact person for the procurement of all tools and products
- Reduction of tied-up capital thanks to consignment stock
- Determining the cost reduction potential for indirect tooling costs
- Cost transparency thanks to clear cost allocation and monthly consumption reports to various criteria such as time period, product, cost centre, tool type etc.
- 24 hour tool dispensing during partly unmanned shifts

TECHNOLOGICAL TOOL MANAGEMENT.

PERFORMANCE

- Nesponsibility of complete tool management
- Gühring project team including tool managers, application technicians and pre-setting personnel on-site
- Looking after Gühring tools and non-Gühring products – including turning, grinding, honing and assembly
- Scheduling and ordering all tools to be applied
- Monitoring delivery deadlines
- Incoming goods inspection
- Managing tool stock
- Assembly and pre-setting of tools
- Delivery of pre-set tools directly to manufacturing facilities
- Collection of worn tools from production area
- Disassembly and assessment of worn tools including wear analysis
- Dispatch of tools for refurbishment, i.e. re-grinding and re-coating
- Continuous technological improvements of tools and processes (CIP)
- Comprehensive reporting such as for example tooling costs per component, determining the cost driver per workpiece, documentation of tool life development
- Monthly invoicing by Gühring according to agreed modus, sub-contractors are paid by Gühring

ADVANTAGES

- Customer specific compilation of scope of performance
- Quick achievement of optimisation targets as Gühring tool managers can invest 100% of working time in optimisations
- Reduction of personnel costs in tool management
- Reduction of tied-up capital thanks to consignment stock
- Determining the cost reduction potential for indirect tooling costs
- Cost transparency thanks to clear cost allocation and monthly consumption reports to various criteria

GÜHRING TOOL MANAGEMENT CONCEPT MODULES

Gühring's tool management concepts are designed according to customer requirements. Long-term experience of the tooling sector, the technology and the professional handling of workflow and customer data

form the optimal basis for a reliable and individual co-operation with Gühring as a partner.

Tool management is divided into the following concept modules.



GTMS

Modern and practice-oriented tool management software from Gühring is the engine of tool management.



LOGISTICS

The GTMS triggers order suggestions as required and co-ordinates delivery and re-grind service.



SERVICE

Thanks to the co-ordinated delivery and re-grind service all production relevant working materials and tools are made available based on requirement and on time.



INTEGRATION

By incorporating the software in the existing customer infrastructure it provides support to all relevant tool management processes.





INTERFACES

With the assistance of interfaces GTMS connects to all ERP/PPS, CAD and IT systems. Also logistics systems like paternoster or shuttle systems can be controlled and managed.



IDENTIFICATION

Login is either by barcode, PIN, RFID or by biometric data.



ONLINE COMMUNICATION

GTMS enables data exchange via Intranet and Internet, web applications on tablet, smartphone and PC.



MACHINES

Multiplex dispensing systems offer solutions for various areas of application and security levels.

» OUR **INTELLIGENT** TM SOLUTIONS OPTIMISE YOUR TOOL MANAGEMENT.« GTMS

GÜHRING TOOL MANAGEMENTCUSTOMER EXAMPLES

MillCraft 3D in Affalterbach is a young, fast growing company in the model mould and prototype construction sector. For the machining of high-tech materials the team applies the technology of Gühring to satisfy the high customer demands.



MillCraft 3D Managing Director Sven Goldschmidt appreciates the use of Gühring's TM 326 tool dispensing system:

» For us, flexibility and speed, coupled with a high degree of quality, are enormously important. Here, Gühring's tool dispensing system is a great help. As well as an accurate order management it guarantees us quick tool availability and is therefore indispensable in our daily work process. «



Sven Goldschmidt I Managing Director MillCraft 3D



» GÜHRING'S TOOL DISPENSING SYSTEM IS INDISPENSABLE IN OUR DAILY WORK PROCESS.«



»TM 526 – **OF ESSENTIAL BENEFIT** TO
OUR COMPANY.«

» SELF-EXPLANATORY SOFTWARE – TOOL SEARCH IS A THING OF THE PAST. «

GÜHRING TOOL MANAGEMENTCUSTOMER EXAMPLES

»Hightech made in Regensburg« – how the dynamic company Aytec faces the challenges of its international customers. Here it relies on tools and dispensing systems from Gühring to guarantee the quality for manufacturing special machines.«



AyTec Managing Director Christian Ruhland about the tool management:

»The controlled dispensing and the automatic re-ordering of tools is very important to us. With the Gühring tool dispensing system TM 526 required tools for the production process are always available and we can fully concentrate on our core competences. This is a significant benefit for our company.«

The users Jonas Polleter and Paul Troppmann are also convinced of the Gühring tool dispensing system:

» Thanks to the GTMS self-explanatory software tool search is a thing of the past. «



Jonas Polleter and Paul Troppmann I Company employees of AyTec

GÜHRING TOOL MANAGEMENTCUSTOMER EXAMPLES

EDUR has been producing and selling state-of-the-art centrifugal pumps with high quality standards since 1927. The innovative pump technology of the EDUR pump factory has developed continuously over the decades and today sets new standards on the world market. The product range is the result of excellent engineering services, innovative manufacturing methods and a high level of quality and a forward-looking corporate philosophy.



EDUR Managing Director Dr. Glenny Holdhof on Tool Management:

» We convince our customers with high-quality products and short delivery times. To achieve this, we rely on lean, flexible and efficient production processes. The Gühring Tool Management System supports us in an excellent way. It guarantees fast tool availability for work preparation and machine operators, so that our employees can concentrate on their core tasks. «



Dr. Glenny Holdhof I Managing Director EDUR



» THE GÜHRING TOOL MANAGEMENT

PROVIDES EXCELLENT SUPPORT FOR

OUR PRODUCTION PROCESSES. «

GÜHRING TM-SOFTWARE MODULAR DESIGN

All Gühring tool dispensing systems are controlled by the user-friendly GTMS. It allows a simple, quick and intuitive operation via integrated touchscreen and provides the customer application and individual setting possibilities in all areas of production.

Thanks to the modular design processes in manufacturing can be accurately costumised and all aspects of the tool cycle, from provision and storage to disposal, can be transparently presented. The software documents all relevant movement data of stock, triggers order suggestions and enables evaluations to different criteria.

This comprehensive and detailed reporting offers your company a multitude of optimisation potentials in the tool cycle.

Interfaces furthermore enable the connection to different merchandise management systems as well as an online connection to your suppliers thanks to automated order processes.



CENTREPIECE. LOGISTICS MODULE.

- Machine control
- Article master data

Scheduling Evaluations

A-Z PLANNING. PLANNING MODULE.

- Communication
- Components

- Wear data
- Tool catalogues/DIN 4000

SAFETY IN ALL PROCESSES.

QUALITY MODULE.

- Inspection instrument management
- Serial number management
- Parts list

- Incoming goods data
- Complaints

PRODUCTION UNDER CONTROL. PRODUCTION MODULE.

- Work plans
- Machines

- Orders
- Setup plans



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GÜHRING TM-SOFTWARE PERFORMANCE & CUSTOMER ADVANTAGES

- Simple and intuitive user interface and menu navigation
- Personal dashboard
- Creation of various tool lists
- Direct call-up of CAD systems and graphics programmes for processing and presenting tool drawings
- Comprehensive storage management functions with which also Gühring's TM tool machines are controlled
- Depiction of customer organisation for clear cost allocation of tool withdrawals

- Accurate consumption analyses to various criteria, i.e. tool consumption per component, machine or manufacturing area
- Individual solutions can be programmed according to customer requirements
- Connection to all current ERP/PPS systems, tool management and paternoster lift systems via programming of corresponding interfaces
- Multi-lingual software
- Production of individual customer forms



NOW WITH
NEW AND OPTIMISED
USER INTERFACE.





GÜHRING TM TOOL DISPENSING SYSTEMS DISPENSING SYSTEMS TM 326/TM 426/TM 526/TM 626

Controlled storage and dispensing of tools is the basis for gaining tool consumption transparency and direct tooling costs. A prerequisite for this is however that tool stock is kept under lock and key and that every tool withdrawal is indeed registered in the management software. This is the only way to ensure that the stock displayed by the software physically exists and the tool scheduling can work reliably.

All systems are controlled by the GTMS logistics module. It enables a simple and intuitive operation of the dispensing machines.

Log-in is customer specific by PIN, barcode, RFID or biometric data. Depending on the system type tools can be stored and managed under different security levels. The Gühring dispensing systems TM 326, TM 426, TM 526 and TM 626 were developed for this purpose.

They are compatible to one another and can be adapted to various customer requirements for individual, small and large series production.

These Gühring TM tool systems therefore offer the decisive advantages of an intelligent tool dispensing system.

ADVANTAGES

- 24 hour controlled tool availability
- Reduction in storage and management costs
- Permanent consumption control
- Prevention of production stoppages
- Clear allocation of tooling costs
- Elimination of safety stock
- Storage and management of all articles relevant to production
- \ Eliminates loss and theft
- Employee awareness of tooling costs
- Communication with all IT systems possible

POWERED BY GÜHRING.
HIGH-END-PERFORMANCE.

INCLUSIVE:



COMPUTER



TOUCHSCREEN



GÜHRING TM-SOFTWARE



SCANNER

SECURE NOW.
LONG-TERM SAVING.
PROFIT.



TM 326 BASIC VERSION



TM 326 embodies a flexible storage solution for all application requirements for individual and small batch production. Electronically locked drawers can be individually adapted in height and partitioning options according to the article spectrum. It is ideal for accommodating different products in small quantities.

The storage module is the centrepiece of Gühring's Tool Management Software that monitors and controls all movements. The system can be combined with all Gühring system types.

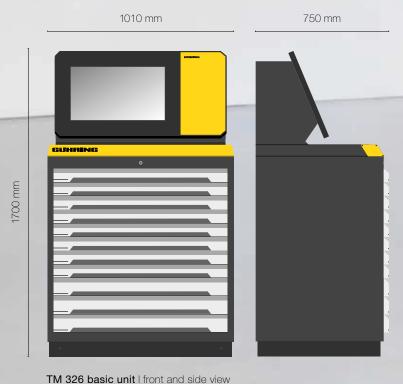


TM 326 DESIGNS AND DIMENSIONS

BASIC UNIT **EQUIPMENT**

- Electronically locked dispensing system in a rigid steel sheet construction
- Manually operated drawers with LED display and full pull-out (load capacity per drawer max. 200 kg)
- \ Individual drawer height and partitioning options
- Neight: 1700 mm (incl. attachment)
 Usable height: 900 mm
- Scanner for reading barcodes and QR codes
- √ 21.5" HD touchscreen monitor





OTHER

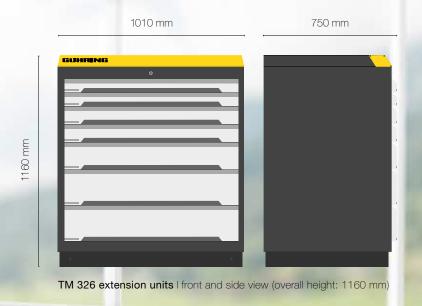
- Lift truck base with removable front panel
- Operating voltage: 230 V I 50 Hz

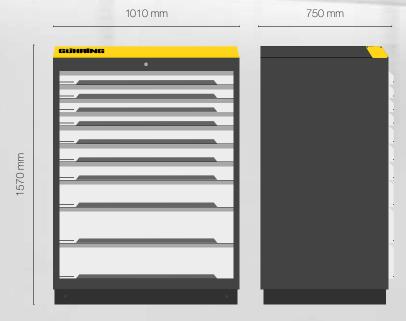
Special colours to RAL I NCS on request

EXTENSION UNIT EQUIPMENT

- Electronically locked dispensing system in a rigid steel sheet construction
- Manually operated drawers with LED display and full pull-out (load capacity per drawer max. 200 kg)
- Individual drawer height and partitioning options
- 2 different heights:

Height: 1160 mm | 1570 mm Usable height: 900 mm | 1300 mm





TM 326 extension units I front and side view (overall height: 1570 mm)

TM 326 DESIGNS AND DIMENSIONS

DRAWER PARTITIONING OPTIONS

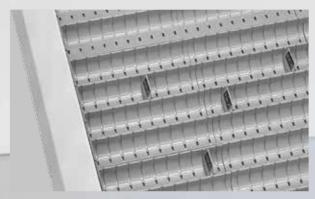
Flexible composition of drawer height
 Available front height: 75 mm | 100 mm | 150 mm | 200 mm
 Usable height: 60 mm | 85 mm | 135 mm | 185 mm



Partition set (standard equipment)



Box set



Recess set



Anti-slip mat



ELECTRONIC DRAWER FLAP SYSTEM

Flexible composition of drawer height

Available front height: 75 mm | 100 mm | 150 mm | 200 mm Usable height: 52 mm | 77 mm | 127 mm | 177 mm

Flaps per drawer	Internal compartment dimension width x depth	Flap partitioning width x depth
48	109 x 72 mm	8 x 6
40	109 x 92 mm	8 x 5
36	146 x 72 mm	6 x 6
32	109 x 122 mm	8 x 4
24	146 x 122 mm	6 x 4
24	219 x 72 mm	4 × 6
20	219 x 92 mm	4 x 5
18	146 x 172 mm	6 x 3
16	219 x 122 mm	4 × 4
12	440 x 72 mm	2×6
12	219 x 172 mm	3 x 4
8	440 x 219 mm	2 x 4
4	440 x 272 mm	2 x 2



TM 526 DRAWER SYSTEM



The TM 526 system has been designed for large batch production with high product turnover rate. The individual drawer gradually opens when operated, this means only the respective booked quantity is dispensed. This results in 100% tool withdrawal transparency as well as a clear allocation of tooling costs.

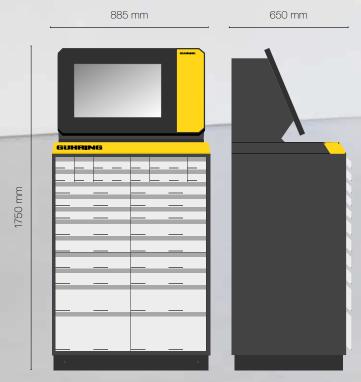


TM 526 DESIGNS AND DIMENSIONS

BASIC UNIT **EQUIPMENT**

- Electronically locked dispensing system in a rigid steel sheet construction
- Manually operated drawers with LED display and full pull-out (load capacity per drawer max. 20 kg)
- \ Individual drawer height and width
- Neight: 1750 mm (incl. attachment)
- Scanner for reading barcodes and QR codes
- ≥ 21.5" HD touchscreen monitor
- Note: The control of the control of





TM 526 basic unit I front and side view

OTHER

- Lift truck base with removable front panel
- Operating voltage: 230 V I 50 Hz

Special colours to RAL I NCS on request

EXTENSION UNIT EQUIPMENT

- Electronically locked dispensing system in a rigid steel sheet construction
- Manually operated drawers with LED display and full pull-out (load capacity per drawer max. 20 kg)
- 885 mm 650 mm
 - TM 526 extension unit (2 heights) I front and side view

Individual drawer height and width

885 mm

2 different heights: 1300 mm | 1500 mm

GUHRING

650 mm

EXTENSION UNIT LOCKABLE COMPARTMENT EQUIPMENT

885 mm 650 mm

- Option with 16 lockable compartments Available internal dimensions: 315 x 150 x 534 mm (W x H x D)
- Version "Power supply"
 Option with 16 lockable compartments,
 each storage locker is equipped with 230 V
 Available internal dimensions:
 315 x 150 x 384 mm (W x H x D)
- Option with 8 lockable compartments Available internal dimensions: 315 x 330 x 534 mm (W x H x D)
- Version "Power supply"
 Option with 8 lockable compartments,
 each storage locker is equipped with 230 V
 Available internal dimensions:
 315 x 330 x 384 mm (W x H x D)

TM 526 extension unit lockable compartment I front and side view

TM 526 DESIGNS AND DIMENSIONS

DRAWER PARTITIONING OPTIONS

- Norawers in a rigid steel sheet construction (load capacity per drawer max. 20kg)
- Navailable drawer height/level: 42 mm | 60 mm | 114 mm | 186 mm | 258 mm | 330 mm
- Possible drawer partitioning: 16 | 8 | 4 | 2 | 1 Individual compartment depth of drawer partitioning: 30 mm | 60 mm | 128 mm | 252 mm | 526 mm
- Variable drawer width per level
 - 50 mm | 1 8 drawers per level (only for 42 mm height) | Possible drawer partitioning: 13
 - 110 mm | 1 5 drawers per level (only for 42 mm and 60 mm height) | Possible drawer partitioning: 16
 - 150 mm | 1 4 drawers per level | I Possible drawer partitioning: 16
 - 215 mm | 3 drawers per level | Possible drawer partitioning: 16
 - 350 mm | 2 drawers per level | Possible drawer partitioning: 16









GÜHRING TM TOOL DISPENSING SYSTEMS FLEXIBLE STORAGE OPTIONS FOR ALL APPLICATION AREAS





Control via the Gühring TM tool dispensing systems TM 326, TM 426 Terminal and TM 526 guarantees safe storage and withdrawal only after booking.

LARGE STORAGE SPACE.
TRANSPARENT MANAGEMENT.

TM 426 SPIRAL SYSTEM DESIGNS AND DIMENSIONS

EQUIPMENT CONTROL TERMINAL

- Scanner for reading barcodes and QR-Codes
- Notional label printer (1 or 2 printer)
- 1 21.5" HD touch screen monitor
- Notage module of Gühring TM software
- \ Operating manual



OTHER

- Lift truck base with removable front panel
- Operating voltage: 230 V I 50 Hz
- Note: Special colours to RAL INCS on request





Optional pull-out drawer for the label printer

EQUIPMENT SPIRAL SYSTEMS

- Nithdrawal to Fifo principle
- √ 6-7 spiral levels with 10 spiral places each
- Goods dispensed bottom
- Spiral options can be configured according to product spectrum

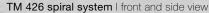
EQUIPMENT SPIRAL SYSTEM LIFT

- Withdrawal to Fifo principle
- → Goods dispensed top
- \ Integrated transport lift for tools











TM 426 spiral system Lift I front and side view

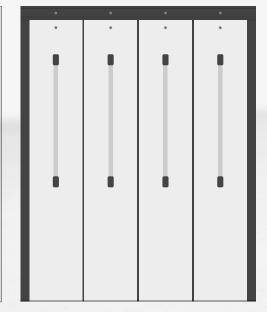
VERTICAL PULL-OUT SYSTEM AND LOCKER DOOR SYSTEM

THE COMPLEMENTARY STORAGE SYSTEMS

EQUIPMENT VERTICAL PULL-OUT SYSTEM

- Pull-outs with electronic locking via GTMS (load capacity per pull-out: 300 kg)
- > 3 different pull-out options:
 - 4 pull-outs per 300 mm
 - 6 pull-outs per 200 mm
 - 8 pull-outs per 150 mm

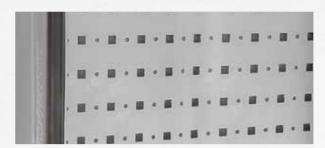
1340 mm



Vertical pull-out system I front and side view (2 depths)



Storage tray

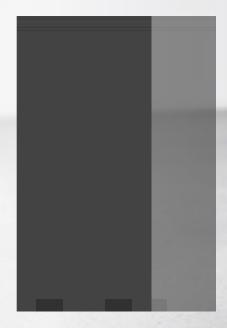


Perforated sheet wall

- 2 different depths: 765 mm | 1135 mm
- Robust design thanks to rotating pull-out roller and reaching in security
- Various partitioning material available

765 mm

1135 mm





Tool holders



Holders for extra length tools



- Locker door cabinet available with or without viewing window
- 1 4-8 shelves (load capacity per shelf: 200 kg)

\ Electronic locking by Gühring TM software



Locker door system with and without viewing window I front and side view

TM 626 DESIGNS AND DIMENSIONS

EQUIPMENT

- Automatic load cell machine with or without viewing window
- \ Up to 13 shelves possible
- Available shelf variants:

Number load cells: 1 | 4 | 4 | 6 | 6 | 8 Weighing range in kg: 80 | 8 | 20 | 4 | 8 | 4

Available storage boxes, yellow:

Dimension: small | medium | large | Internal dimensions L x W x H (mm): 139 x 87 x 68 | 199 x 129 x 116 | 299 x 186 x 134

► Electronic control via Gühring TM machines/control terminal or as stand-alone unit with network connection and RFID authentication (data transfer via FTP server)

1070 mm





OTHER

- Operating voltage: 230 V I 50 Hz
- Special colours to RAL I NCS on request



Reader for authentication available for stand-alone units



Optimal stock management and bulk material



The TM 626 is the ideal storage system solution for small parts, auxiliaries and consumables. All storage locations are equipped with load cell technology that registers every filling and removal.

The booking is done in the Gühring Tool Management Software. Direct access to the system via an RFID solution enables decentralised placement and can avoid long distances in production.



CONTROLLED WITHDRAWAL

FOR MORE TRANSPARENCY.

OPTIMAL STORAGE FOR

ALL TYPES OF CONSUMABLES.

TARGETED AND QUICK THANKS TO STATUS LED LIGHT.



OUR CUSTOMERS CONFIRM:

- 10% lower tool consumption
- 14 % less machine stoppages thanks to permanent tool availability
- 14% greater application of re-ground tools in production
- Noting 1 Daily 1 hour time saving in tool search and procurement

E CREATE





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