HELLER Services
Lifetime Partnership

RETROFIT PACKAGES
HELLER Retrofit Packages.
Develop yourself.

HELLER Retrofits offer you wide-ranging, innovative options in terms of production, maintenance and sustainability. Through technological enhancement of your existing machines we help you increase reliability and flexibility, improving your ability to respond to changing market and manufacturing requirements.

Production

Operation

- Handheld operating unit
- Interface for handheld operating unit
- LED work area lighting
- Lighting for rack-type magazine
- Screen blow-off device
- USB floppy disc emulator
- Keyboard
- Pneumatic interlock, foot-operated

Performance Increase

- SSD – Solid-State-Drives
- NC memory expansion, Siemens Solutionline
- NC memory expansion, Siemens Powerline
- NC memory expansion, uni-Pro
- Software update for uni-Pro 90 to latest release
- Software update for Siemens 840D to latest release
- Increase in machine performance for NCU 573.5

Programming

- Adaptive Control
- Spline interpolation
- HELLER technology cycles
- Enabling network drive via services function
- Unicom
- Alternative strategy

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- Production data acquisition
- Three-colour status lamp
- Display menu for workpiece counter and effective machining time
- Runtime and quantity recording

Process reliability

- Pneumatic location check
- Conversion of gear switch to Bero proximity switch
- Second counter-pallet clamping monitoring
- Pneumatic unclamp check
- Mains buffering
- Integrated Tool Monitoring (IPM)
- Feed force display
- Tool coding
- In-process tool breakage monitoring

Process optimisation

- Camera system for manufacturing
- HELLER Tool Planning
- Hydraulic workpiece clamping
- Fourth line in work area
- Thread cutting without compensating chuck [uni-Pro]
- Automatic loading and unloading sequence
- Multi-spindle head mounting, incl. air/water
- Tool pick-up from pallet
- Multiple clamping [stand-alone machines only]

Precision

- Coolant cooler [CFC-free] for VRF coolant unit
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- Receiver for RENISHAW measuring probe
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HELLER Services at a glance

Your competent partner. Available at any time wherever you are with fast on-site service.

As a reliable service partner we support you throughout the complete life cycle of your machines, ensuring their productivity and availability. From project planning to the utilisation phase, right through to the decision about the re-use of equipment. The machines and services offered by HELLER are perfectly matched to each other, ensuring maximum performance and productivity in production. Speed is one of our strengths. Quick support in parts ordering, repair enquires or technical queries. Fast response times in case of machine faults. We are here for you, with more than 500 employees working at 30 service bases worldwide. More than 40,000 spare parts are available from stock. HELLER Services offers you a comprehensive range of transparent and clearly structured services. Partnership-based support, outstanding expertise, short response times and customer proximity form the cornerstones of our service range.
Hotline. The right contact person for any requirement
Our HELLER service specialists guarantee quick support with any technical queries concerning your HELLER machines and equipment. With one contact person for repairs, spare parts or other services. In addition to our regular service hours, we also offer extended service availability on request.

Spare Parts. Original spare parts immediately available
Whether you need original spare parts or wear parts – the HELLER Spare Parts Service backed a global logistics network is your partner to ensure maximum machine availability. In addition to short delivery times, all HELLER original spare parts reflect the state of the art and come with a 12-month guarantee.

Customer Service. Services covering every aspect of your machine
HELLER service means first-class service with no ifs or buts. Always close by, available at any time with fast on-site service. Our range of services covers the entire life cycle of your HELLER machine – from commissioning to servicing and inspection through to maintenance and repair.

Retrofit Packages. Develop yourself
HELLER Retrofits offer you wide-ranging, innovative options in terms of production, maintenance and sustainability. Through technological enhancement of your existing machines we help you increase reliability and flexibility, improving your ability to respond to changing market and manufacturing requirements.

Financing. Financing solutions tailored to your individual needs and requirements
Whether new or used machine: we offer you attractive financing and leasing solutions in cooperation with our financing partners. This ensures you have flexibility in financing at favourable and competitive terms. In addition to personalised advice and drafting of the contract to individual requirements, we ensure quick and hassle-free processing.

Insurances. Insurance coverage – just in case
Maintain your innovative strength with an all-round carefree package, guaranteeing comprehensive insurance coverage. With HELLER Protect we offer you coverage for your machines far beyond the usual market standards, whilst HELLER Protect Plus includes compensation of downtime costs in case of a machine standstill.
Service Agreements. Opt for continuous productivity
HELLER Total Productive Services (TPS) – service agreements ensuring continuous performance in your production. Benefit from fixed prices, and thus, predictable costs for inspection, maintenance and repair as well as guaranteed response times for service and parts deliveries.

Training. Transform your staff into experts
From basic course to expert training: the HELLER Academy supports you with hands-on customer-specific training courses, covering the entire life cycle of a machine and helping your staff to become experts in their own right. Whether you opt for training at one of our global training centres or at your own premises, on request we offer you a customised training concept.

Rebuilds. Expect more than the standard
With constructive modifications of individual components or assemblies HELLER Rebuilds open up new possibilities in production. Contrary to standard solutions, we respond to your specific needs to achieve optimal results with your existing machine.

Component Repair. Count on performance made to measure
The HELLER component repair centres provide repairs of machine components based on current value or installation of replacement assemblies and ready-to-install service kits. As a result, downtimes are minimised. The use of HELLER original spare parts and quality testing before delivery ensure that the components and assemblies are in fully functional condition.

Retrofit. Keep up with the best
Update your equipment without purchasing new machines – HELLER Retrofits help to keep your existing machines up to date. The continued use of the existing infrastructure and peripheral equipment makes retrofits a cost-effective alternative. Our specialists overhaul the existing equipment tailored to your needs and wishes to achieve improvements in productivity and precision. In addition to using HELLER original spare parts we ensure comprehensive quality assurance with a full warranty on the complete scope of services.

Used Machines. A safe choice in any case
HELLER Used Machines focus on the purchase and sale of used HELLER machines. The benefit to you: all HELLER used machines are in a technically flawless condition and checked in accordance with HELLER standards. Additionally, all services are provided by the manufacturer, ensuring you can fully rely on your used HELLER machine.
Handheld operating unit

VN.9100650.xxxxy

Particularly when setting up a machine tool and entering the programs, flexible working saves time and makes a significant contribution to safety in the machining process. The handheld operating unit enables greater freedom of movement and flexible operation of the machine – always with a clear view of the work area.

Properties

- Jog and automatic mode switchover
- STOP/START for feed, spindle and control system
- Rapid traverse overlay and direction keys
- Key switches
- EMERGENCY STOP pushbutton
- Display of active axes on an LC display
- Axis preselection
- Handwheel key [incremental mode]
- Spindle override
- Electronic handwheel

Advantages

- Flexible operation of the entire machine
- Operator is not restricted to the fixed operating panel
- Time-saving and economical
- Safe and reliable setup and run-in

Preconditions

Interface for a handheld operating unit

Additional preconditions

- Min. software version of the machine HM-HFS-03.03.01
- If software version of the machine is below HM-HFS_03.03.01: Additional charge for software retrofit

Availability

Delivery time: 1 week, subject to the goods being unsold

Installation time: Commissioning by customer

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC, MCI MCH series with SIEMENS 840D Powerline</td>
<td>VN.9100650.102S</td>
</tr>
<tr>
<td>MCH series with SIEMENS 840D Solutionline</td>
<td>VN.9100650.202S</td>
</tr>
<tr>
<td>H, F, C - Gen1 with SIEMENS 840D Solutionline</td>
<td>VN.9100650.107S</td>
</tr>
<tr>
<td>H, F, C - Gen2 with SIEMENS 840D Solutionline</td>
<td>VN.9100650.108S</td>
</tr>
</tbody>
</table>
Interface for handheld operating unit

VN.9100660.xxxxy

An appropriate interface is required to use a handheld operating unit. This interface can be used to connect a handheld operating unit to several machines.

Properties
- Hardware requirement for connecting a handheld operating unit

Advantages
- Flexible operation during setup
- One handheld operating unit can be used on several machines

Preconditions
- Handheld operating unit
- PCU Win NT/XP

Additional precondition
- Min. software version of the machine HF HFS-03.03.01
- If software version of the machine is below HM-HFS-03.03.01: Additional charge for software upgrade

Availability
- Delivery time: machine-specific conversion, on request
- Installation time: 2 days

<table>
<thead>
<tr>
<th>Machine type</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MC, MCI, MCH series with SIEMENS 840D Powerline</td>
<td>VN.9100660.102S</td>
</tr>
<tr>
<td>MCH series with SIEMENS 840D Solutionline</td>
<td>VN.9100660.202S</td>
</tr>
<tr>
<td>H, F, C - Gen1 with SIEMENS 840D Solutionline</td>
<td>VN.9100660.107S</td>
</tr>
<tr>
<td>H, F, C - Gen2 with SIEMENS 840D Solutionline</td>
<td>VN.9100660.108S</td>
</tr>
</tbody>
</table>
We are setting new standards with efficient work area lighting for your HELLER machine based on advanced LED technology. Glare-free light ensures optimal, homogeneous illumination of the work area, enabling you to work fatigue-free at the machine, especially during workpiece loading.

Properties
Glare-free for optimal, homogeneous illumination of the work area

Advantages
- LEDs provide increased light output with 5 times higher life expectancy
- Maximum brightness - 100% immediately after switch-on
- Energy cost savings of up to 33%
- Flicker-free light
- Precise light control without reflector
- Homogeneous illumination of the work area
- Low heat generation
- Resistant to impact and vibration
- Practically maintenance-free

Availability
Delivery: 1-2 working days, subject to machine being unsold
Installation time: H, F, C, BEA, HCS, MCP, MCS range 1 hour
All other range approx. 4 hours, depending on accessibility, e.g. installed extraction system

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baureihe H², F³, C¹</td>
<td>VN.9101040.999S – the package includes one LED light</td>
</tr>
<tr>
<td>Series H from size 8000, Series F/C from size 6000</td>
<td>VN.9101041.999S – the package includes two LED lights</td>
</tr>
<tr>
<td>Baureihe MC 16</td>
<td>VN.9101040.924Z – the package includes two LED light</td>
</tr>
<tr>
<td>Baureihe MC 25, 26</td>
<td>VN.9101040.925Z – the package includes two LED light</td>
</tr>
<tr>
<td>Baureihe MCH 250/280</td>
<td>VN.9101040.997S – the package includes one LED light</td>
</tr>
<tr>
<td>Baureihe MCH 350-460</td>
<td>VN.9101040.998S – the package includes two LED lights</td>
</tr>
<tr>
<td>Baureihe MCI</td>
<td>VN.9101040.101Z – the package includes one LED light</td>
</tr>
<tr>
<td>Baureihe BEA, HCS, MCP, MCS</td>
<td>VN.9101040.001Z – Retrofitting for machines with direct loading</td>
</tr>
</tbody>
</table>
**Lighting for rack-type magazine**

**VN.9100050.xxxS**

The lighting for the rack-type magazine ensures good visibility of the tool loading area and makes checking for wear easier.

**Properties**
- Automatic illumination when safety doors are unlocked
- Illumination of tool loading area

**Advantages**
- Better overview: faster and more reliable wear monitoring

**Availability**
- Delivery time: machine-specific conversion, on request
- Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCH series, Rotary station lighting</td>
<td>VN.9100050.102S</td>
</tr>
<tr>
<td>MCH series, Rotary station and magazine lighting</td>
<td>VN.9100050.103S</td>
</tr>
</tbody>
</table>
Screen blow-off device

**VN.910023x.xxy**

Keeping a regular eye on the work area provides a quick overview of the machining process. The screen blow-off device ensures a clean screen and easy control of the work area.

## Properties
- Air nozzles attached to side of screen
- Separate blow-off of operator door possible at any time
- Operation by foot switch

## Advantages
- Unobstructed view of the work area at all times
- Reliable control of the machining process
- Particularly suitable for processes which require large quantities of coolant

### Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 2 days
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

### Properties
- Air nozzles attached to side of screen
- Separate blow-off of operator door possible at any time
- Operation by foot switch

### Advantages
- Unobstructed view of the work area at all times
- Reliable control of the machining process
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<table>
<thead>
<tr>
<th>Variante</th>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>With new vision panel</td>
<td>MC 16 / 25 / 26</td>
<td>VN.9100230.924 / 925 / 926S</td>
</tr>
<tr>
<td></td>
<td>MCi 16 / 25 / 26</td>
<td>VN.9100230.024 / 025 / 026S</td>
</tr>
<tr>
<td></td>
<td>MCH 250 / 280 / 300 / 350 / 400 / 450 / 460</td>
<td>VN.9100230.010 / 013 / 011 / 016 / 012 / 014 / 015S</td>
</tr>
<tr>
<td></td>
<td>MCP 200 / 250</td>
<td>VN.9100230.032 / 033S</td>
</tr>
<tr>
<td>Without new vision panel</td>
<td>MC 16 / 25 / 26</td>
<td>VN.9100231.924 / 925 / 926S</td>
</tr>
<tr>
<td></td>
<td>MCi 16 / 25 / 26</td>
<td>VN.9100231.024 / 025 / 026S</td>
</tr>
<tr>
<td></td>
<td>MCH 250 / 280 / 300 / 350 / 400 / 450 / 460</td>
<td>VN.9100231.010 / 013 / 011 / 016 / 012 / 014 / 015S</td>
</tr>
<tr>
<td></td>
<td>MCP 200 / 250</td>
<td>VN.9100231.032 / 033S</td>
</tr>
<tr>
<td></td>
<td>H Gen1 2000 / 4000 / 5000 / 6000</td>
<td>VN.9100231.902 / 904 / 905 / 906S</td>
</tr>
<tr>
<td></td>
<td>H Gen2 2000 / 4000 / 4500 / 5000 / 6000</td>
<td>VN.9100231.912 / 914 / 601 / 915 / 916S</td>
</tr>
<tr>
<td></td>
<td>F 2000 / 4000</td>
<td>VN.9100231.952 / 954S</td>
</tr>
</tbody>
</table>
USB floppy disc emulator

**VN.9101090.999x**

The USB floppy-disc emulator replaces the installed floppy-disc drive. A retrofit of your machine is not required. Instead of floppy discs a USB flash drive is used. USB flash drives are smaller, more compact, have a longer lifespan and are easier to handle.

**Properties**
- The USB floppy-disc emulator replaces the installed floppy-disc drive
- For use of a USB flash drive instead of floppy discs

**Advantages**
- Storage capacity for up to 10 virtual floppy disks with SIEMENS 840D control and up to 100 virtual floppy disks with uni-Pro 90 control on a USB stick
- No more defective floppy disc drives and floppy discs
- Easy exchange of machining program data with the machine control using a USB flash drive
- Convenient to handle

**Availability**
- **Delivery time:**
  - 1-2 days, subject to the goods being unsold
- **Installation time:**
  - approx. 1h with uni-Pro control and 2-3h with SIEMENS 840D control

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines with floppy-disk and control SIEMENS 840D</td>
<td>VN.9101091.999S</td>
</tr>
<tr>
<td>All machines with floppy-disk and control uni-Pro</td>
<td>VN.9101090.999U</td>
</tr>
</tbody>
</table>
Keyboard

**VN.9100210.xxx**

Quick and convenient operation of the machine makes everyday production work that bit easier. The operator works faster in a familiar environment with the keyboard underneath the control panel.

**Properties**
- Depending on the type of control, an additional drawer is mounted below the operating panel.
- Keyboard directly accessible
- Depending on the type of control, a keyboard with PS/2 or USB connector is used

**Advantages**
- More convenience: control system operated via familiar keyboard
- Faster: NC programs modified on the machine itself

### Availability

- **Delivery time:** 1 week, subject to the goods being unsold
- **Installation time:** 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines with control: Siemens 840D Powerline and WinNT</td>
<td>VN.9100210.924S</td>
</tr>
<tr>
<td>All machines with control type: Siemens 840D Powerline and WinXP</td>
<td>VN.9100210.010S</td>
</tr>
<tr>
<td>All machines with control: Siemens 840D Solutionline</td>
<td>VN.9100210.902S</td>
</tr>
</tbody>
</table>
Pneumatic interlock, foot-operated

VN.9100241.xxx

The pneumatic setting station interlock makes operation more convenient and prevents costly consequences of wear.

Properties

- Unlocking of the setting station mounted on anti-friction bearings by operating a foot switch (manual 4 x 90° rotation). To lock, release the foot switch.
- A pneumatic valve is interconnected during manual locking.

Advantages

- Increased convenience: foot-operated locking of the setting station
- Lower costs: less wear and fewer oncosts with more cushioned, pneumatic locking.

Preconditions

- Manually rotated loading station

Availability

- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 2 days
- Standard documentation included.
- Machinespecific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
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</thead>
<tbody>
<tr>
<td>MCH 250 / 280 / 300 / 350 (without C-head)</td>
<td>VN.9100241.010 / 013 / 011 / 016S</td>
</tr>
</tbody>
</table>
SSD – Solid-State-Drives

VN.9101080.xxxS

Hard discs are subject to wear – therefore it is recommended to replace them regularly every 5 years. By replacing the hard disc before a failure occurs, you can prevent unscheduled, lengthy machine standstills. For industrial applications, SDD technology is a recommendable alternative.

Properties
- SSDs have no moving parts which makes them robust and insensitive to vibration
- SSDs are significantly faster than classic hard discs

Advantages
- Shorter access times to the hard disc (reading and writing cycles)
- Increased performance of your machine control, e.g. faster switching between operating screens
- Increased reliability and service life (because SSDs have no moving parts)

Please note
Installation time increases if the hard disc is defective, preventing a data backup. In this case an older data backup has to be used.

Availability
Delivery time: 1-2 days, subject to the goods being unsold
Installation time: 4 hours

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSD for MMC103</td>
<td>VN.9101080.999S</td>
</tr>
<tr>
<td>SSD for PCU50 333/500/566/1200MHz WINNT, 8 GB</td>
<td>VN.9101080.998S</td>
</tr>
<tr>
<td>SSD for PCU50 566/1200MHz WINXP, 40 GB</td>
<td>VN.9101080.997S</td>
</tr>
<tr>
<td>SSD for PCU50.3 and higher, 40 GB</td>
<td>VN.9101080.996S</td>
</tr>
</tbody>
</table>
NC memory expansion, Siemens Solutionline

VN.9100961.999S

In times of complex production processes and the complete machining of numerous workpieces, the scope of machining programs is growing rapidly. The NC memory expansion provides the necessary extra capacity.

Properties
- Expansion of existing NC user memory (3 MB) to max. 15 MB
- Up to 6 SRAM memory modules, each with 2 MB

Advantages
- Complete uploading of very large workpiece machining programs to the control
- No time wasted by reloading program parts
- More machining programs directly available

Please note
The following information is required for determining the feasible NC memory expansion: MLFB of the NCU and the operating system release version of the NCU.

Preconditions
- Control: Siemens 840D Solutionline

Availability
- Delivery: 1-2 weeks, subject to machine being unsold
- Installation time: 1 day incl. data backup

Machine type | Material number
---|---
Machines with SIEMENS 840D Solutionline | VN.9100961.999S
NC memory expansion, Siemens Powerline

**VN.9100960.999S**

In times of complex production processes and the complete machining of numerous workpieces, the scope of machining programs is growing rapidly. The NC memory expansion provides the necessary extra capacity.

### Properties
- Expansion of the existing NC user memory by up to 3 additional 1MB memory packages
- Max. 6 MB memory, depending on the NCU installed. This needs to be checked in advance.

### Advantages
- Very large workpiece machining programs can be fully loaded onto the control
- No time loss due to re-loading of program parts
- More directly available machining programs

### Please note
The following information is required for determining the feasible NC memory expansion:
MLFB of the NCU and the operating system release version of the NCU.
**NC memory expansion, uni-Pro**

**VN.9100960.999U**

In times of complex production processes and the complete machining of numerous workpieces, the scope of machining programs is growing rapidly. The NC memory expansion provides the necessary extra capacity.

**Properties**
- Expansion of existing NC user memory (3 MB) to max. 50 MB

**Advantages**
- Complete uploading of very large workpiece machining programs to the control
- No time wasted by reloading program parts
- More machining programs directly available

**Preconditions**
- Control: uni-Pro (hard drive min. 540MB)
  or an additional Sys90 card must be installed

**Availability**
- Delivery: 1-2 weeks, subject to machine being unsold
- Installation time: 1 day incl. data backup

**Machine type**
- MCP / MCS / HCS / MCx series

**Material number**
- VN.9100960.999U
Software update for uni-Pro 90 to latest release

VN.910044x.xxx

More productivity, more options, more convenient operation – use this upgrade package for the uni-Pro 90 control to bring your machine tool and production processes to state-of-the-art technology.

Properties
- Update to uni-Pro S2.9/x for machine types MCP / MCS / HCS up to hardware version 82
- Update to uni-Pro S2.10/x for machine types MCP / MCS / HCS up to hardware version 83
- Update to uni-Pro S2.11/x for machine type MC

Advantages
- Increased performance: utilisation of all new control functions and options
- Increased convenience: practical innovations improve user-friendliness and operation

Preconditions
- Update capability of the machine’s current hardware version (hardware costs may be incurred)
- Update only from uni-Pro version 2.5
- Older versions require EPROMs which are not included in the price and which have separate delivery times

Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 2 days

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All uni-Pro 90 MCP / MCS / HCS S2.9</td>
<td>VN.9100440.999U</td>
</tr>
<tr>
<td>All uni-Pro 90 MCP / MCS / HCS S2.10</td>
<td>VN.9100442.999U</td>
</tr>
<tr>
<td>All uni-Pro 90 MC S2.11</td>
<td>VN.9100441.999U</td>
</tr>
</tbody>
</table>
Software update for Siemens 840D to latest release

VN.910044x.xxxy

More productivity, more options, more convenient operation – use this upgrade package for the Siemens 840D control to bring your machine tool and production processes to state-of-the-art technology.

Properties

- **SIEMENS 840D Powerline:**
  Update to the highest possible software version for the machine type concerned and the control hardware version installed in the machine.

- **SIEMENS 840D Solutionline:**
  Update to the highest possible software version for the machine type concerned and the control hardware version installed in the machine (NCU hardware version, GIV version).

- Software update according to the standard software versions released at HELLER.

- Software modifications made by parties other than HELLER will be ignored and lost.

- Special software versions also available on request, separate evaluation at cost.

Advantages

- More performance: make full use of all new functions and options offered by the control.

- More convenience: practical and labour-saving innovations in operation.

Preconditions

- Update capability of the machine’s current hardware version (hardware costs may be incurred).

- Technical inspection required. The software version installed on the machine needs to be checked.

Availability

- Delivery time: 1 week, subject to machine being unsold.

- Installation time: 3 days.

<table>
<thead>
<tr>
<th>Provided for machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines with control: Siemens 840D Powerline</td>
<td>VN.9100440.999S</td>
</tr>
<tr>
<td>All machines with control: Siemens 840D Solutionline</td>
<td>VN.9100441.999S</td>
</tr>
</tbody>
</table>
Increase in machine performance for NCU 573.5

**VN.9100410.999S**

More productivity, more performance – use this control upgrade package to bring your machine tool and production processes to state-of-the-art technology. Current options can be retrofitted.

**Properties**
- Increased machine performance with Siemens PC card NCU 573.5

**Advantages**
- Current options can be retrofitted
- Fully updated hardware: spare part availability guaranteed
- More efficiency: more productivity, less non-productive time
- Faster operations: Reduction of program runtime by up to 10% with min. 1 tool change per minute
- Pallet cycle time max. 15-20 min. (with 15-20 tool changes)

**Preconditions**
Control: Siemens 840D Powerline with SIN 6.1 (PCU 50) or SIN 5.5 (MMC103)

**Availability**
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 3 days
- Standard documentation included. Machine-specific documentation available for additional charge and later delivery deadline

**Table:**

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines with control: Siemens 840D Powerline</td>
<td>VN.9100410.999S</td>
</tr>
</tbody>
</table>
Adaptive Control

VN.9100130.xxx

Your day-to-day production demands flexibility and adaptability – also of your control system. Control systems with default process variables quickly reach their limits here. With adaptive control, you can react directly to measured process variables.

Properties

- A second process variable (such as path-specific or axis-specific feed rate) can be controlled in dependence on a measured process variable (such as spindle current)
- Measurable and controllable process variables: drive utilisation, drive efficiency, drive torque setpoint, current actual value of axis or spindle

Advantages

- More production reliability thanks to optimised process costs and machine utilisation
- Optimised process costs: control of the work process for time and cost optimisation
- Optimised machine utilisation: adaptive control constraint for work process

Preconditions

- Control: Siemens 840D
- Windows XP

Availability

- Delivery: 1-2 weeks, subject to machine being unsold
- Installation time: ½ day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCI, MCH series with SIEMENS 840D Powerline</td>
<td>VN.9100130.999S</td>
</tr>
<tr>
<td>H, F, C, MCH series with SIEMENS 840D Solutionline</td>
<td>VN.9100130.998S</td>
</tr>
</tbody>
</table>
Spline interpolation

VN.9100580.xxx

Spline interpolation is used to connect individual nodes with a well-balanced bending line. It efficiently replaces the conventional method of approximation via straight-line blocks.

Properties
- Connection of point sequences for smooth curves
- Faster and more precise method than traditional linear interpolation
- Various spline types with different properties and results available
- Configuration of spline path using additional parameters

Advantages
- Quick and exact: produce precise and smooth curves in the CAD system with low computing effort for programmers and machine
- Lower machine load: calmer axes travel behaviour thanks to spline interpolation protects the machine mechanics
- Less data, more feed: Data reduction procedures enable conversion of a large number of linear blocks into spline blocks, resulting in cost-effective manufacturing at increased feed rates

Preconditions
- Control: Siemens 840D
- Windows XP

Availability
- Delivery: 1-2 weeks, subject to machine being unsold
- Installation time: 1 day

Machine type | Material number
---|---
MCi and MCH series with SIEMENS 840D Powerline | VN.9100580.999S
HELLER technology cycles

VN.9100350.999S

HELLER technology cycles provide practical assistance in programming NC processes.

Properties
- Machining cycles, geometry cycles, measuring and calculation cycles
- Functions, handling and syntactic call up of programs is largely compatible with the technology cycles of the uni-Pro 90

Advantages
- More convenience: fast and rational creation of NC programs
- More reliability: field-tested cycles developed by pros for pros

Preconditions
- Control: Siemens 840D

Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: ½ day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines with control: Siemens</td>
<td>VN.9100350.999S</td>
</tr>
</tbody>
</table>
Enabling network drive via services function

VN.9100600.xxxx

Alongside fast and direct access to server data, networking machines offers the advantage of secure data transfer. The spread of malware on USB sticks is prevented.

Properties
- Direct copying or loading of NC programs from a server or a programming station

Advantages
- More convenience: faster, more direct and secure access to NC programs

Preconditions
- PCU 50

Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: ½ day

Machine type
- MCI, MCH series with SIEMENS 840D Powerline

Material number
- VN.9100600.999S
**Unicom**

**VN.9100450.999U**

Using the Unicom connection, data can be backed up and transferred to an external computer.

### Properties
- Connection of the uni-Pro 90 control to an external computer
- Transfer of user data such as main and sub-programs, zero point data, tool data and pallet jobs
- Connection over an Ethernet network acc. to IEEE 802.3
- Data transfer over FTP server or mounting of external hard drives [TCP/IP]
- Operation on the control corresponds to data import/export via the floppy disk drive (specific description on request)

### Advantages
- Increased convenience: transfer of user data using a custom USER directory (read-in/read-out directory), reading and editing of data on the external computer
- Increased security: back-up of important process data

### Preconditions
- Company network with RJ45 cabling
- Samba server or FTP client on company computer

### Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day

### Machine type | Material number
--- | ---
All machines with control: uni-Pro | VN.9100450.999U
Alternative strategy

**VN.9100190.999S**

The alternative strategy gives the programmer the chance to respond to events during the program sequence.

### Properties
- Appropriate actions can be programmed in the NC program for each fault the monitoring function detects in the machining process.
- After a fault has occurred, the machining operation may be terminated, a machining section may be skipped or an alternative sequence using a different tool or pallet change can be initiated.
- The following events trigger the alternative strategy: tool break monitoring, spare tool strategy, process-integrated tool monitoring.

### Advantages
- No interruption to process.

### Preconditions
- Control: Siemens 840D

### Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: ½ day
Production data acquisition

**VN.9100281.99xS**

This HELLER upgrade package allows to connect the machine to the customer’s MDA/PDA system. For this purpose, the machine control provides a range of different production data.

**Characteristics**
- Provisioning of machine/production data
  - For example: operational state (production, organisational fault, technical fault, etc.), operating mode (AUTO, JOB, etc.)
  - OK/NOK counter (on pallet basis)
  - Information about NC program processing (start, stop, NC program name, etc.)
- Specific, standardised interfaces according to machine series

**Advantages**
- Integration of the HELLER machine into the existing MDA/PDA system
- Easy installation based on HELLER standards

**Preconditions**
- Depending on machine series and software version
- H, F, C option available
- MC, MCi, MCH from PLC/SIN5.1 / 18 / MC 26.010507

**Availability**
- Delivery: 1-2 working days, subject to prior sale
- Installation time: approx. 0.5 days

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H, F, C series – Siemens 840D Solutionline</td>
<td>VN.9100281.999S</td>
</tr>
<tr>
<td>MC, MCi, MCH series – Siemens 840 D Powerline</td>
<td>VN.9100281.999S</td>
</tr>
</tbody>
</table>
Three-colour status lamp

**VN.9100100.xxy**

In the fast and frequently frenzied world of day-to-day production, you need to be able to see at a glance if your machine tools are running without errors or intervention is required. The status lamp gives you a clear signal at all times and is clearly visible from all positions. If the lamp is not green, you can react immediately.

### Properties
- Status lamp red: machine fault
- Status lamp orange: workpiece loading required
- Status lamp green: machine producing

### Advantages
- More overview: machine status can be seen at a glance at any time
- Shorter downtimes: fast error handling thanks to immediate fault indication
- Lower cost: fast response, short machine downtimes

### Availability
- **Delivery time:** 1 week, subject to the goods being unsold
- **Installation time:** 1 day
- **Standard documentation included.** Machine-specific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machine series with SIEMENS 840D Powerline</td>
<td>VN.9100100.999S</td>
</tr>
<tr>
<td>All machine series with SIEMENS 840D Solutionline</td>
<td>VN.9100100.998S</td>
</tr>
<tr>
<td>HF series</td>
<td>VN.9100100.120S</td>
</tr>
</tbody>
</table>
Display menu for workpiece counter and effective machining time

VN.910098x.999S

The display menu presents an overview of the number of produced workpieces.

Properties

- Display of effective machining time, number of completed pallet changes and produced workpieces
- Total and shift counter for workpieces
- Resettable counter values

Advantages

- Overview of displayed operating data

Preconditions

- Control: Siemens 840D sl
- Gen 1 machines from version 01-04-00
- Gen 2 machines from version 02-02-00

Availability

- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H, F, C series - Gen1</td>
<td>VN.9100980.999S</td>
</tr>
<tr>
<td>H, F, C series - Gen2</td>
<td>VN.9100981.999S</td>
</tr>
</tbody>
</table>
Runtime and quantity recording

**VN.910094x.999S**

The runtime and quantity recording supplies states to an external system via two potential-free contacts.

**Properties**

- Two floating 24 volt output signals
- Effective machining time active with active NC program [custom solution on request]
- Pulse with 1 s duration as quantity recording at end of a pallet job
- Runtime and quantity recording active with following parameters:
  - AUTO mode
  - NC program run [not M00, M02, M30]
  - NC start pressed
  - No single block selected
  - Feed override not at 0%
  - No feed stop

**Advantages**

- Overview of displayed operating data

**Preconditions**

- Control: Siemens 840D Solutionline

**Availability**

- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H, F, C series - Gen1</td>
<td>VN.9100940.999S</td>
</tr>
<tr>
<td>H, F, C series - Gen2</td>
<td>VN.9100941.999S</td>
</tr>
</tbody>
</table>
Effective machining time counter

**VN.910092x.999S**

The effective machining time counter records the machine’s effective machining time.

**Properties**
- Hardware counter
- Display of effective machining time

**Advantages**
- More overview: effective machining time can be seen at a glance at any time

**Preconditions**
- Control: Siemens 840D Solutionline
- Only in conjunction with runtime and quantity recording (VN.910094x.999S)

**Availability**
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H, F, C series - Gen1</td>
<td>VN.9100920.999S</td>
</tr>
<tr>
<td>H, F, C series - Gen2</td>
<td>VN.9100921.999S</td>
</tr>
</tbody>
</table>
Pallet job counter

**VN.910093x.999S**
The pallet counter is incremented on every pallet change.

**Properties**
- Hardware counter
- Count per pallet change

**Advantages**
- More overview: total number of pallet jobs can be seen at a glance

**Preconditions**
- Control: Siemens 840D Solutionline
  - Only in conjunction with runtime and quantity recording (VN.910094x.999S)

**Availability**
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H, F, C series - Gen1</td>
<td>VN.9100930.999S</td>
</tr>
<tr>
<td>H, F, C series - Gen2</td>
<td>VN.9100931.999S</td>
</tr>
</tbody>
</table>
Pneumatic location check

**VN.9100390.xxxxy**

The pneumatic location check guarantees you fewer rejects and greater process reliability. Regular monitoring of the correct position of the workpiece prevents unnecessary manufacturing errors and ensures the reliability of automated processes.

**Properties**
- Check to ensure correct position after setting the workpieces

**Advantages**
- More precision: fewer reject parts caused by incorrect insertion at setting station
- Greater reliability: the location check adds to the process reliability, particularly for automatic workpiece loading

**Preconditions**
- Fixture to support the function [HELLER is able to support the fixture reconstruction]
- 60 bar (see VN.9100610.xxxxy) or 200 bar (see VN.9100611.xxxxy) hydraulic workpiece clamping

**Availability**
- Delivery time: machine-specific conversion, on request
- Installation time: 2 days

**Machine type** | **Material number**
--- | ---
MCP series | VN.9100390.103S
MC, MCI series | VN.9100390.100S / 101S
MCH series | VN.9100390.102S
H, F, C series - Gen1 | VN.9100390.107S
H, F, C series - Gen2 | VN.9100390.108S
Conversion of gear switch to Bero proximity switch

**VN.9100800.999y**

The conversion to the Bero proximity switch ensures greater reliability of gear shifting.

### Properties
- Conversion of the gear switch at the pneumatic cylinder to a Bero proximity switch

### Advantages
- More easily accessible, easier to configure
- More reliability: fewer gear unit switching errors

### Preconditions
- Machine with gear unit

### Availability
- **Delivery time:** 1 week, subject to the goods being unsold
- **Installation time:** 1 day
- **Standard documentation included.** Machinespecific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP / MCS Siemens</td>
<td>VN.9100800.999S</td>
</tr>
<tr>
<td>MCP / MCS uni-Pro</td>
<td>VN.9100800.999U</td>
</tr>
</tbody>
</table>
Second counter-pallet clamping monitoring

**VN.9100360.999S**

An incorrectly clamped or totally unclamped pallet can result in serious consequential damage.

**Properties**
- Monitoring of the volume flow of the hydraulic pallet clamping by means of a meter
- Indirect control of pallet clamping on the rotary table

**Advantages**
- More reliability: detection of incorrect clamping and check of correct pallet clamp position

**Preconditions**
- Control: Siemens 840D Powerline

**Availability**
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

**Machine type** | **Material number**
---|---
MC, MCI, MCH series with SIEMENS 840D Powerline | VN.9100360.999S
MCP-H 200 / 250 | VN.9100360.999S
Pneumatic unclamp check

**VN.9100950.xxxS**
The pneumatic unclamp check prevents damage to the workpiece, the fixture or the loading gripper:

**Properties**
- Monitoring of workpiece unclamping by clamping fixture

**Advantages**
- More reliability: the unclamp check adds to the process reliability, particularly for automatic workpiece loading
- Less damage: no damage to workpiece, fixture or loading gripper when no unclamp check was performed

**Preconditions**

- Fixture to support the function [HELLER is able to support the fixture reconstruction]
- 60 bar (see VN.9100610.xxxS) or 200 bar (see VN.9100611.xxxS) hydraulic workpiece clamping
- Fourth line free
- See Pneumatic location check VN.9100390.xxxS with Bosch or Aventics Pneumatik

**Availability**

- Delivery time: machine-specific conversion, on request
- Installation time: 2 days

---

**Machine type** | **Material number**
--- | ---
MCi 16 / 25 / 26 | VN.9100950.101S
MCH 250 / 280 / 300 / 350 | VN.9100950.001S
H, F, C series Gen1 | VN.9100950.107S
H, F, C series Gen2 | VN.9100950.108S
Mains buffering

**VN.9100170.999S**

A power cut during production can quickly cause oncosts to explode. Often, power surges not only damage the drive electrics but also destroy valuable tools. Mains buffering improves process reliability.

**Properties**
- Controlled shutdown of drive movements in case of power failure
- Reliable activation of motor brake prior to drive switch-off
- Sagging of vertical axis almost completely prevented

**Advantages**
- More process reliability: automatic shutdown of machine tool before costly damage is caused
- More protection: drive engineering is protected against power surges
- Less damage: valuable tools and workpieces are effectively protected against damage and destruction
- Fewer downtimes: controlled shutdown in the process enables rapid return to production

**Preconditions**
- Control: Siemens 840D Powerline

**Availability**
- Delivery time: 1 week, subject to machine being unsold
- Installation time: 1 day
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

**Machine type** | **Material number**
--- | ---
MC 16 / 25 / 26 mit SIEMENS 840D Powerline | VN.9100170.999S
MCi 16 / 25 / 26 mit SIEMENS 840D Powerline | VN.9100170.999S
MCH 250 / 280 / 300 / 350 / 400 / 450 / 460 mit SIEMENS 840D Powerline | VN.9100170.999S
MCP 200 / 250 / 300 / 400 / 450 / 460 mit SIEMENS 840D Powerline | VN.9100170.999S
Integrated Tool Monitoring (IPM)

VN.9100120.xxx

In unmanned shift operation, but also in normal production routines involving operators, automatic tool monitoring not only prevents expensive damage, but also unnecessary spoilage.

Properties
- Monitoring of tool breakage and overload during the machining process
- Evaluation of process signals from the digital drive technology, no additional sensors required
- Assignment of various monitoring processes (e.g. fixed limit, travelling threshold) and responses to each tool
- Full integration of basic monitoring in the Sinumerik 840D user interfaces, incl. machine-end preparation

Advantages
- More process reliability: full monitoring and current data from each tool at all times
- Fewer unplanned failures, fewer downtimes: proactive and controlled tool replacement
- Lower costs: no costly response to tool breakage and protection of machine from overload

Preconditions
For tools with the appropriate power and torque input, i.e. drilling from a depth of 6-8 mm depending on the main spindle type and the machining process
Control:: Siemens 840D

Availability
Delivery time: 2 weeks, subject to machine being unsold
Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCI 16 / 25 / 26 with SIEMENS 840D Powerline</td>
<td>VN.9100120.999S</td>
</tr>
<tr>
<td>MCH 250 / 260 / 300 / 350 / 400 / 450 / 460 with SIEMENS 840D Powerline</td>
<td>VN.9100120.999S</td>
</tr>
<tr>
<td>MCH 250 / 260 / 300 / 350 / 400 / 450 / 460 with SIEMENS 840D Solutionline</td>
<td>VN.9100120.998S</td>
</tr>
<tr>
<td>H, F, C series with SIEMENS 840D Solutionline</td>
<td>VN.9100120.998S</td>
</tr>
</tbody>
</table>
Feed force display

**VN.9100460.xxx**

The feed force display is used to check the current feed force without additional measuring devices.

### Properties
- Feed force display as an extension of the Sinumerik 840D user interface
- Overlay of graphic display by pressing a function key on the main control panel
- Information on current feed force of axes X / Y / Z in kN, on currently machined NC block, current position and residual path

### Advantages
- Simple and reliable: monitoring of the machining process without additional measuring instruments
- Fast response: current display enables direct reaction to values that are out of tolerance

### Machine types and material numbers

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 16 / 25 / 26 with SIEMENS 840D Powerline</td>
<td>VN.9100460.999S</td>
</tr>
<tr>
<td>MCI 16 / 25 / 26 with SIEMENS 840D Powerline</td>
<td>VN.9100460.999S</td>
</tr>
<tr>
<td>MCH 250 / 260 / 300 / 350 / 400 / 450 with SIEMENS 840D Powerline</td>
<td>VN.9100460.999S</td>
</tr>
<tr>
<td>MCH 250 / 280 / 300 / 350 / 400 / 450 with SIEMENS 840D Solutionline</td>
<td>VN.9100460.998S</td>
</tr>
<tr>
<td>H, F, C series with SIEMENS 840D Solutionline</td>
<td>VN.9100460.998S</td>
</tr>
</tbody>
</table>

### Preconditions
- Control: Siemens 840D Powerline

### Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day
## Tool coding

### VN.910014x.xxy

Fewer input errors, fewer collisions: tool coding ensures reliable processes and minimises collision-related costs.

### Properties

- Contactless tool coding from BALLUFF (Industrial RFID)
- Storage of all relevant tool data, including ID numbers, dimensions or tool life, on a chip
- Code chip format: HELLER Standard (HL06)
- Other formats on request (additional charge possible)

### Advantages

- More availability: clear, reliable assignment of tools in the magazine, enabling reliable processes
- More efficiency: efficient tool usage and tool maintenance
- Lower oncosts: fewer input errors, less consequential damage from collisions

### Preconditions

- Machine software may need to be updated
- HSK only
- PCU 50 with SIN > 6.0

### Availability

- Delivery time: machine-specific conversion, on request
- Installation time: 2 days

### Please note

The chain-type magazine is available with and without tool loading parallel to machining (HZPR).

Rack-type magazine: depending on the manufacturer, the console and the tool holders must be ordered separately.

### Version Machine type Material number

<table>
<thead>
<tr>
<th>Version</th>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain-type magazine</td>
<td>MC, MCI</td>
<td>VN.9100140.024S</td>
</tr>
<tr>
<td>(with and without HZPR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCH</td>
<td></td>
<td>VN.9100140.010S</td>
</tr>
<tr>
<td>H, F, C Gen1 and Gen2</td>
<td></td>
<td>VN.9100140.912S</td>
</tr>
<tr>
<td>Rack-type magazine</td>
<td>MC, MCI</td>
<td>VN.9100141.024S</td>
</tr>
<tr>
<td></td>
<td>MCH</td>
<td>VN.9100141.010S</td>
</tr>
<tr>
<td>H 2000 / H 4000 Gen1 and Gen2</td>
<td></td>
<td>VN.9100141.912S</td>
</tr>
</tbody>
</table>
In-process tool breakage monitoring

**VN.910008x.xxx**

The in-process tool breakage monitoring function prevents a damaged tool from being used for the rest of the machining process, and protects the downstream tool from consequential damage.

### Properties
- Tactile system touches tool tip at magazine provisioning place
- Monitoring within tool change process without loss of time
- For drill bits with a diameter of 1-6 mm, point angle >118°, minimum tool length 70 mm
- Angular boring heads and boring heads cannot be checked

### Advantages
- No time lost: check at same time as tool change
- Lower costs: fewer rejects, fewer failures, less consequential damage

### Please note
The in-process toolbreakage monitoring function is also possible for the H, F, C series with FANUC control, but a technical check is necessary.

### Preconditions
- Control: Siemens 840D Powerline, Sin 5.5 / NCU 572.3
- Control: Siemens 840D Solutionline

### Availability
- Delivery time: 1-2 weeks, subject to machine being unsold
- Installation time: 2 days
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

### Version Machine type Material number

<table>
<thead>
<tr>
<th>Version</th>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machines with chain-type magazine</td>
<td>MC, MCI, BG 16 / 25 / 26</td>
<td>VN.9100080.024S</td>
</tr>
<tr>
<td>MCH, BG 250 / 280 / 300 / 350 / 400 / 450 / 460</td>
<td></td>
<td>VN.9100080.010S</td>
</tr>
<tr>
<td>H, F, C series - Gen1 und Gen2, BG 2000 / 4000</td>
<td></td>
<td>VN.9100080.902S</td>
</tr>
<tr>
<td>H, F, C series - Gen1 und Gen2, BG 5000 / 6000</td>
<td></td>
<td>VN.9100080.905S</td>
</tr>
<tr>
<td>Machines with rack-type magazine</td>
<td>MC, MCI, BG 16 / 25 / 26</td>
<td>VN.9100081.024S</td>
</tr>
<tr>
<td>MCH, BG 250 / 280 / 300 / 350 / 400 / 450 / 460</td>
<td></td>
<td>VN.9100081.010S</td>
</tr>
<tr>
<td>H, F, C series - Gen1 und Gen2, BG 2000 / 4000</td>
<td></td>
<td>VN.9100081.902S</td>
</tr>
<tr>
<td>H, F, C series - Gen1 und Gen2, BG 5000 / 6000</td>
<td></td>
<td>VN.9100081.905S</td>
</tr>
</tbody>
</table>
Production camera system

**VN.9101300.999Z**

Clear view of the machining process – also when using coolant emulsion. Provides increased safety and time savings when running in workpieces. Camera system with state-of-the-art technology provides flexible use and new perspectives.

**Properties**
- Camera system: Full HD 1080p
- Sealing air system enables use in environments exposed to splash water
- Rotating, special glass panel ensures unobstructed field of view at all times

**Advantages**
- Optimal view of the manufacturing process
- Independent camera system, no integration into the machine’s control technology required
- Flexible positioning of camera and monitor
- Low-cost, easy installation
- Ideally suited for use at trade shows and presentations

**Please note**
Several camera systems can be used on the same machine, Multi-camera and multi-monitor use possible.

**Preconditions**
None

**Availability**
Delivery: 2 working days, subject to prior sale
Installation time: approx. 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Series</td>
<td>VN.9101300.999Z</td>
</tr>
</tbody>
</table>
HELLER Tool Planning

VN.9101050.999S

Optimisation of the tool magazine usage. Maintaining an overview and knowing which tools are available for which workpieces. Reducing tool loading times and being able to identify at a glance tools that need to be unloaded or loaded.

Properties

- Optimal utilisation of the machine due to optimised tool loading time
- Support of work preparation/tool provisioning. Preparation of the required tools for the planned machining operation at the machine
- Tools for the selected operations that are missing in the magazine. Purposeful loading at the machine
- Tools that can be removed from the magazine. Purposeful unloading of tools from the machine

Advantages

- Overview of tools available in the machine
- Purposeful setting - unloading/loading of tools
- Reduction of tool-related machine idle times
- Optimal tool magazine utilisation
- Support of work preparation in terms of tool provisioning

Preconditions

All series with PCU 50

Availability

Delivery: 1-2 working days, subject to machine being unsold
Installation/machine: approx. 4 hours

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H, C, F, MC, MCH, MCI series with PCU 50 - Windows NT, XP, Win7</td>
<td>VN.9101050.999S</td>
</tr>
</tbody>
</table>
Hydraulic workpiece clamping

**VN.910061x.xxy**

More convenience, more precision, more reliability: with hydraulic workpiece clamping, you can securely clamp workpieces at 60 or 200 bar and rely on the very best machining quality.

**Properties**
- Feedthrough of lines for 5-point media interface through pallet
- Maximum four coupling elements available for hydraulic functions
- Additional air transfer via central vent nipple

**Advantages**
- Rapid, automated and reliable workpiece clamping

**Availability**
- Delivery time: machine-specific conversion, on request
- Installation time: 3-4 days
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

**Please note**
- Retrofit package only possible with >> workpiece setting station, 4x90° manual pallet rotation <<.

---

<table>
<thead>
<tr>
<th>Variante</th>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 bar</td>
<td>H Gen1 2000 / 4000 / 5000 / 6000</td>
<td>VN.9100610.902 / 904 / 905 / 906S</td>
</tr>
<tr>
<td></td>
<td>H Gen2 2000 / 4000 / 4500 / 5000 / 6000</td>
<td>VN.9100610.912 / 914 / 601 / 915 / 916S</td>
</tr>
<tr>
<td></td>
<td>MCH 250 with Siemens 840D Powerline</td>
<td>VN.9100610.010S</td>
</tr>
<tr>
<td>200 bar</td>
<td>H Gen1 2000 / 5000 / 6000</td>
<td>VN.9100611.902 / 905 / 906S</td>
</tr>
<tr>
<td></td>
<td>H Gen1 4000</td>
<td>VN.910611.904S</td>
</tr>
<tr>
<td></td>
<td>H Gen2 2000 / 4000 / 4500 / 5000 / 6000</td>
<td>VN.9100611.912 / 914 / 601 / 915 / 916S</td>
</tr>
</tbody>
</table>
Fourth line in the work area

VN.9100270.xxx

Using the fourth line in the work area, you can activate hydraulic switching functions from the machining program and thus utilise hydraulic workpiece clamping.

Properties

- Fourth line for activating hydraulic switching functions in the work area
- Please note: not in combination with pneumatic unclamp check/position check at the load/unload station with fourth line

Advantages

- More precision: hydraulic switching between rough-machining pressure, relief, finish-machining pressure
- More convenience: e.g. clamping lever is swivelled clear quickly and safely

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 16 / 25 / 26 with Siemens 840D Powerline</td>
<td>VN.9100270.924 / 925 / 926S</td>
</tr>
<tr>
<td>MDi 16 / 25 / 26 with Siemens 840D Powerline</td>
<td>VN.9100270.024 / 025 / 026S</td>
</tr>
<tr>
<td>MCH 250 / 260 / 300 / 350 with Siemens 840D Powerline</td>
<td>VN.9100270.010 / 013 / 011 / 016S</td>
</tr>
<tr>
<td>H Gen1 2000 / 4000 / 5000 / 6000</td>
<td>VN.9100270.902 / 904 / 905 / 906S</td>
</tr>
<tr>
<td>H Gen2 2000 / 4000 / 4500 / 5000 / 6000</td>
<td>VN.9100270.912 / 914 / 915 / 916S</td>
</tr>
</tbody>
</table>

Preconditions

- 5-point media interface

Availability

- Delivery time: machine-specific conversion, on request
- Installation time: 3 days
Thread cutting without compensating chuck [uni-Pro]

**VN.9100720.999U**

Thread cutting without compensating chuck saves costs and produces ideal results.

### Properties
- Coordination of spindle and the axes involved in the feed motion
- Compensating chuck no longer required

### Advantages
- Lower costs: thread cutter is clamped in conventional collet chuck
- Maximum precision: exact thread depth with compensating chuck
- Shorter machining times: faster thread cutting, no time-consuming adjustment of the compensating chuck

### Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day

---

**Machine type** | **Material number**
--- | ---
All machines | VN.9100720.999U
Automatic loading and unloading sequence

**VN.9100160.xxx**

Manual loading and unloading is time-consuming, expensive and can be a source of errors. With the automatic loading/unloading sequence, you save time and gain process reliability.

**Properties**
- **Automatic unloading**
  Depending on the expansion levels incorporated into the machine, the following operations are performed automatically after a pallet change:
  - Automatic unclamping of the workpiece on the loading station (with hydraulic workpiece clamping)
  - Automatic unlocking of the safety door at the workpiece loading station (with automatic door)
  If the requisite expansion stages are not incorporated in the machine, these operations have to be carried out by the operator.
- **Automatic loading sequence**
  Pressing the loading key (stand-alone machine: “pre-set start”) will initiate the loading sequence. After completion of the sequence, the pallet on the loading station is ready for automatic pallet change. Depending on the expansion stages incorporated in the machine, the sequence comprises the following functions:
  - Automatic closing of the safety door at the workpiece loading station (with automatic doors)
  - Automatic locking of the safety door at the workpiece loading station (if door is closed)
  - Automatic clamping of the workpiece on the loading station (with hydraulic workpiece clamping)
  - Automatic locating of the loading station in change position (automatically rotary loading station)
  If the requisite expansion stages are not incorporated in the machine, these operations have to be carried out by the operator.

**Advantages**
- Shorter loading and unloading times: automatic process drastically reduces loading and unloading times, increases potential savings when operating several machines
- More reliability: automated processes ensure reliable production processes

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP, MC, MCl, MCH series with SIEMENS 840D Powerline</td>
<td>VN.9100160.999S</td>
</tr>
<tr>
<td>MCH series with SIEMENS 840D Solutionline</td>
<td>VN.9100160.998S</td>
</tr>
<tr>
<td>H, F, C series with SIEMENS 840D Solutionline</td>
<td>VN.9100160.998S</td>
</tr>
</tbody>
</table>
Multi-spindle head mounting, incl. air/water

**VN.910007x.xxx**

The use of multi-spindle and angular drill heads expands the machining spectrum. Multiple bores can be machined in a single step. The benefit to you: production time per component is noticeably reduced.

**Properties**
- Required when using multi-spindle drill heads, angular milling heads or mechanical facing heads
- Sturdy fixture: solid 3-point support with integrated position fixing
- Coolant and air supplied via coupling points
- Automatic blow-off of contact points during tool change

**Advantages**
- More productivity: several machining steps in one operation
- Less non-productive time: fewer tool changes, more machining options with one tool, shorter production time

**Preconditions**
- Not compatible with MCP and MCS series

**Availability**
- Delivery time: 1-2 weeks, subject to machine being unsold
- Installation time: 1 day [if customer has grinder]
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Version</th>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SK 40</td>
<td>MC 16 / 25</td>
<td>VN.9100070.924 / 925S</td>
</tr>
<tr>
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<td>MCI 16 / 25</td>
<td>VN.9100070.024 / 025S</td>
</tr>
<tr>
<td></td>
<td>H Gen 2000 / 4000</td>
<td>VN.9100070.902 / 904S</td>
</tr>
<tr>
<td></td>
<td>H Gen 2 2000 / 4000</td>
<td>VN.9100070.912 / 914S</td>
</tr>
<tr>
<td></td>
<td>F 2000 / 4000</td>
<td>VN.9100070.952 / 954S</td>
</tr>
<tr>
<td>SK 50</td>
<td>MCH 250 / 280 / 300 / 350 / 350 C / 400 / 450</td>
<td>VN.9100071.010 / 013 / 011 / 016 / 006 / 012 / 014S</td>
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<tr>
<td></td>
<td>H 5000 / H 6000</td>
<td>VN.9100071.915S</td>
</tr>
<tr>
<td>HSK 63</td>
<td>MC 16 / 25</td>
<td>VN.9100072.924 / 925S</td>
</tr>
<tr>
<td></td>
<td>MCI 16 / 25</td>
<td>VN.9100072.024 / 025S</td>
</tr>
<tr>
<td></td>
<td>H Gen 2 2000 / 4000</td>
<td>VN.9100072.902 / 904S</td>
</tr>
<tr>
<td></td>
<td>H Gen 2 2000 / 4000</td>
<td>VN.9100072.912 / 914S</td>
</tr>
<tr>
<td></td>
<td>F 2000 / 4000</td>
<td>VN.9100072.952 / 954S</td>
</tr>
<tr>
<td>HSK 80</td>
<td>MC 26</td>
<td>VN.9100073.926S</td>
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<tr>
<td></td>
<td>MCI 26</td>
<td>VN.9100073.026S</td>
</tr>
<tr>
<td>HSK 100</td>
<td>MCH 250 / 280 / 300 / 350 / 350 C / 400 / 450</td>
<td>VN.9100074.010 / 013 / 011 / 016 / 006 / 012 / 014S</td>
</tr>
<tr>
<td></td>
<td>H 4500</td>
<td>VN.9100074.601S</td>
</tr>
<tr>
<td></td>
<td>H 5000 / H 6000</td>
<td>VN.9100074.905S</td>
</tr>
</tbody>
</table>
**Tool pick-up from pallet**

**VN.9100320.xxx**

You know the problem if you frequently work with oversize tools: the tools cannot be loaded from the magazine. The “Tool pick-up from pallet” retrofit package is a software solution that allows the spindle to pick up the tool directly from the fixture in the work area.

**Properties**
- Loading and unloading of a tool provided in the fixture in the work area
- Execution via NC sub-program (call-up from machining program)

**Advantages**
- More flexibility: can be used for oversize tools, e.g. boring bars that cannot be stored in the tool magazine
- More reliability: reliable tool handling and loading via NC program

**Preconditions**
- From Windows XP

**Availability**
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day

**Machine type**  |  **Material number**
--- | ---
MC, MCH, MCI series with SIEMENS 840D Powerline | VN.9100320.999S
MCH series with SIEMENS 840D Solutionline | VN.9100320.998S
H, F, C series with SIEMENS 840D Solutionline | VN.9100320.998S
Multiple clamping (stand-alone machines only)

**VN.9100200.999S**

This HELLER retrofit package allows several workpieces to be assigned to each pallet via separate CNC programs, or several CNC programs to be run for each pallet in succession.

### Properties
- Up to 16 separate machining programs per pallet
- Workpiece status and CNC program information [zero offset and parameters] are available for the pallet and for each of the machining programs

### Advantages
- More flexibility: optimum utilisation of the clamping fixture for a broad range of types

### Preconditions
- Control: Siemens 840D pl from Windows XP, 840D Solutionline

### Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day

---

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines with control: Siemens from Windows XP</td>
<td>VN.9100200.999S</td>
</tr>
</tbody>
</table>
Coolant cooler (CFC-free) for VRF coolant unit

VN.910043x.xxx

The machine tool’s constant temperature sensitivity characteristics are a key factor for its precision and hence for the reliability of your process. The coolant cooler avoids precision-relevant temperature influences on the machine.

Properties

- Autonomous continuous recooler
- Coolant temperature adapted to the ambient temperature via a probe in the machine bed
- No temperature influences on the machine from heated coolant

Advantages

- More process reliability: temperature sensitivity characteristics of the machine remain constant
- More precision: no heating of the machine bed, no consequential heating of precision-related machine parts

<table>
<thead>
<tr>
<th>Version</th>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without drip pan</td>
<td>MC 16 / 25 / 26</td>
<td>VN.9100430.924 / 925 / 926S</td>
</tr>
<tr>
<td></td>
<td>MCi 16 / 25 / 26</td>
<td>VN.9100430.024 / 025 / 026S</td>
</tr>
<tr>
<td></td>
<td>MCH 250 / 280 / 300 / 350 / 400 / 450 / 460</td>
<td>VN.9100430.010 / 013 / 011 / 016 / 012 / 014 / 015S</td>
</tr>
<tr>
<td>With drip pan</td>
<td>MC 25 / 26</td>
<td>VN.9100431.925 / 926S</td>
</tr>
<tr>
<td></td>
<td>MCi 16 / 25 / 26</td>
<td>VN.9100431.024 / 025 / 026S</td>
</tr>
<tr>
<td></td>
<td>MCP 250</td>
<td>VN.9100431.033S</td>
</tr>
<tr>
<td></td>
<td>MCH 400 / 450</td>
<td>VN.9100431.012 / 014S</td>
</tr>
<tr>
<td>Air/water</td>
<td>H Gen1 2000 / 4000 / 5000 / 6000</td>
<td>VN.9100432.902 / 904 / 905 / 906S</td>
</tr>
<tr>
<td></td>
<td>H Gen2 2000 / 4000 / 4500 / 5000 / 6000</td>
<td>VN.9100432.912 / 914 / 601 / 615 / 916S</td>
</tr>
<tr>
<td></td>
<td>F 2000 / 4000</td>
<td>VN.9100432.952 / 954S</td>
</tr>
</tbody>
</table>

Preconditions

Only in conjunction with a VRF coolant unit

Availability

Delivery time: 1-2 weeks, subject to machine being unsold
Installation time: 1 day
Online compensation

VN.9100060.999S

The online temperature compensation function actively responds immediately to temperature fluctuations in your production system.

Properties

- Online compensation of Z-spindle growth via additional sensors at the machine and software for processing various sensor values via a mathematical Z-compensation curve
- This online compensation is active during the process and reacts to temperature fluctuations of the manufacturing system, irrespective of whether these result from the process itself or are caused by environmental factors
- The online compensation eliminates the need for manual Z-axis correction or hard-coded Z-axis correction via the NC program
- Furthermore, fixed set-point control of the supply temperature has been replaced by an adaptive closed-loop control on the basis of the machine bed temperature
- Not in combination with spindle speed upgrade to n = 24,000 rpm with HSK 63

Advantages

- Enhanced geometric accuracy of the spindle system
- Improved process stability and reduced tolerance spread
- Machining within close tolerances is less critical
- Operator support through continuous compensation throughout the shift without any manual intervention being required
- This package is recommended for dry machining or machining with Minimal Quantity Lubrication (MQL) where temperature is not stabilised by means of work area flushing

Preconditions

- Windows XP
- Export restrictions (only for EU countries)

Availability

- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCi 16 / 25 / 26 with SIEMENS 840D Powerline</td>
<td>VN.9100060.999S</td>
</tr>
<tr>
<td>MCH 250 / 280 / 300 / 350 / 400 / 450 with SIEMENS 840D Powerline</td>
<td>VN.9100060.999S</td>
</tr>
</tbody>
</table>
BLUM measuring probe with infrared technology

VN.9100010.xxy

Quality assurance in the production process saves on complex and protracted correction cycles, as it indicates errors directly where they occur. The BLUM measuring probe with infrared technology checks the workpieces while they are still in the work area for precise machining and transfers the measured values to the control system for correction.

Properties
- Measuring of bores and surfaces with subsequent automatic compensation in the control (zerooffset, tool compensations)
- Detection of impermissible preconditions (e.g. bore not present)
- Recording of workpiece dimensional and position tolerances

Advantages
- More process reliability: no lengthy process interruptions due to complex troubleshooting, continuous quality control
- More machine safety: machine safety for unmanned production
- More precision: direct error detection and automatic compensation

Preconditions
- Measuring probe interface

Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: Commissioning by customer

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machines with HSK63</td>
<td>VN.9100010.912S</td>
</tr>
<tr>
<td>Machines with HSK80</td>
<td>VN.9100010.026S</td>
</tr>
<tr>
<td>Machines with HSK100</td>
<td>VN.9100010.916S</td>
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<tr>
<td>Machines with SK40</td>
<td>VN.9100010.914S</td>
</tr>
<tr>
<td>Machines with SK50</td>
<td>VN.9100010.915S</td>
</tr>
</tbody>
</table>
Receiver for BLUM measuring probe

**VN.9110030.999x**

This interface is required for use of the BLUM measuring probe.

### Properties
- Interface for use of a measuring probe acc. to VN.9100010.xxy
- Incl. HELLER measuring cycles

### Advantages
- More process reliability: no lengthy process interruptions due to complex troubleshooting,
- Continuous quality control
- More machine safety: machine safety for unmanned production
- More precision: direct error detection and automatic compensation

### Preconditions
- BLUM measuring probe acc. to VN.9100010.xxy

### Availability
- Delivery time: 1 week, subject to machine being unsold
- Installation time: 2 days
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

### Machine type and Material number

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines with control: Siemens 840D</td>
<td>VN.9110030.999S</td>
</tr>
<tr>
<td>All machines with control: uni-Pro</td>
<td>VN.9110030.999U</td>
</tr>
</tbody>
</table>
RENISHAW measuring probe

VN.91x0020.xxy

Quality assurance in the production process saves on complex and protracted correction cycles, as it indicates errors directly where they occur. The RENISHAW measuring probe checks the workpieces while they are still in the work area for precise machining and transfers the measured values to the control system for correction.

Properties

- Measuring of bores and surfaces with subsequent automatic compensation in the control (zero offset, tool compensations)
- Detection of impermissible preconditions (e.g. bore not present)
- Recording of workpiece dimensional and position tolerances
- Available in infrared or radio technology

Advantages

- More process reliability: no lengthy process interruptions due to complex troubleshooting, continuous quality control
- More machine safety: machine safety for unmanned production
- More precision: direct error detection and automatic compensation

Please note

For connecting the interface, machines with uni-Pro require two PLC inputs and one PLC output in the control cabinet. Address allocation is machine-specific. If all inputs and outputs on a machine are used, additional I/O cards may be required. These are ordered and charged separately.

Preconditions

The RENISHAW measuring probe requires installation of the receiver VN.9100040.xxy.

Availability

Delivery time: 1 week, subject to the goods being unsold
Installation time: Commissioning by customer

### Technical design

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrared technology [OMP]</td>
<td></td>
</tr>
<tr>
<td>Machines with HSK63</td>
<td>VN.9100020.025S</td>
</tr>
<tr>
<td>Machines with HSK80</td>
<td>VN.9100020.026S</td>
</tr>
<tr>
<td>Machines with HSK100</td>
<td>VN.9100020.011S</td>
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<tr>
<td>Machines with SK40</td>
<td>VN.9100020.024S</td>
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<tr>
<td>Machines with SK50</td>
<td>VN.9100020.010S</td>
</tr>
<tr>
<td>Radio technology [RMP]</td>
<td></td>
</tr>
<tr>
<td>Machines with HSK63</td>
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<tr>
<td>Machines with HSK80</td>
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<tr>
<td>Machines with HSK100</td>
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<tr>
<td>Machines with SK40</td>
<td>on request</td>
</tr>
<tr>
<td>Machines with SK50</td>
<td>on request</td>
</tr>
</tbody>
</table>
Receiver for RENISHAW measuring probe

**VN.9100040.xxx**
This interface is required for use of the RENISHAW measuring probe.

### Preconditions
The receiver requires installation of the RENISHAW measuring probe VN.9100020.xxx.

### Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 2 days
- Standard documentation included.
- Machine-specific documentation available for additional charge and later delivery deadline.

### Properties
- Interface for use of the RENISHAW measuring probe acc. to VN.9100020.xxx
- Requirement for the use of measuring probes in the work area
- Incl. HELLER measuring cycles

### Advantages
- More process reliability: no lengthy process interruptions due to complex troubleshooting, continuous quality control
- More machine safety: machine safety for unmanned production
- More precision: direct error detection and automatic compensation

### Please note
Machines from the F series are equipped with an RMI receiver.
For connecting the interface, machines with uni-Pro require two PLC inputs and one PLC output in the control cabinet. Address allocation is machine-specific. If all inputs and outputs on a machine are used, additional I/O cards may be required. These are ordered and charged separately.

### Technical design

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrared technology (OBI)</td>
<td>MCP, MC, MCS series with uni-Pro 90</td>
</tr>
<tr>
<td></td>
<td>MC, MCI, MCH series with Siemens 840D Powerline / Solutionline</td>
</tr>
<tr>
<td></td>
<td>H series with Siemens 840D Solutionline</td>
</tr>
<tr>
<td>Wireless technology (RMI)</td>
<td>MCP, MCS, MC series with uni-Pro 90</td>
</tr>
<tr>
<td></td>
<td>MC, MCI, MCH series with Siemens 840D Powerline / Solutionline</td>
</tr>
<tr>
<td></td>
<td>H series with Siemens 840D Solutionline</td>
</tr>
<tr>
<td></td>
<td>C, F series with Siemens 840D Solutionline</td>
</tr>
</tbody>
</table>
**Control hardware upgrades**

**VN.9110415.xxxS**

Greater productivity, more options, better performance – use this upgrade package to bring you machine and production processes up to the state of the art.

### Properties
- Hardware upgrade to OP 012 in combination with PCU 50.x
- Upgrade magazine operating panel computer via OP 012T
- Software update from Windows 95/WinNT to Windows XP, including software release update

### Advantages
- Increased productivity due to higher performance of the NCU
- Increased productivity due to higher performance of the PLC
- State-of-the-art spare parts ensure machine availability
- Technical improvements due to new software version

### Please note
- Productivity increase depends on
  - the intensive operations in the NC program (e.g., coordinate transformation, spline interpolation, ...)  
  - the number of NC program tool changes.
- A productivity increase in percent cannot be guaranteed, experience at HELLER: higher than 10%

### Preconditions
- Control: Siemens 840D Powerline
- NCU 57x.5
- Only in connection with retrofit package „Increasing machine performance NCU 573.5“ (VN.9100410.xxxS) possible

### Availability
- Delivery time: 4-6 weeks, subject to machine being unsold
- Installation time: 5 days
- Standard documentation included. Machine specific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All MC</td>
<td>VN.9110415.100S</td>
</tr>
<tr>
<td>All MCi</td>
<td>VN.9110415.101S</td>
</tr>
<tr>
<td>All MCH</td>
<td>VN.9110415.102S</td>
</tr>
</tbody>
</table>

Greater productivity, more options, better performance – use this upgrade package to bring your machine and production processes up to the state of the art.
Replacement for LEUKHARDT magazine operator panel

VN.9100860.999S

Because LEUKHARDT has discontinued the tool loading station operator panel previously used on HELLER MCi and MCH machining centres, we are now offering a terminal as a successor model.

Properties
- Replacement for the discontinued Leukhardt magazine control panel (Material number 21.020016)

Advantages
- More reliability: universal spare part availability

Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.
Replace frequency converter for the tool changer

**VN.9100670.xxx**

The MM75 frequency converter installed in series MC 16, 25 and 26 is being replaced by the MM420.

### Properties
- Replacement of MM75 and MM220 against successor model MM420  
  (Material number 21.012172)

### Advantages
- Lower costs: cheaper than predecessor model, which is now only available as a spare part
- More reliability: universal spare part availability thanks to new model

### Availability
- **Delivery time:** 1 week, subject to the goods being unsold
- **Installation time:** 1 day
- **Standard documentation included.**
  - Machinespecific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 16 / 25 / 26</td>
<td>VN.9100670.100Z</td>
</tr>
<tr>
<td>MCH 250 / 300 / 400 / 450 with SIEMENS 840D Powerline</td>
<td>VN.9100670.102Z</td>
</tr>
</tbody>
</table>
Replacement of ET 200X distributed I/O modules

**VN.940Axxx.xxxS**
Replacement of the ET 200X I/O distributed modules discontinued by the manufacturer with ET 200pro I/O modules.
Exchange of entire I/O islands ensures easy transition to the new technology.

**Properties**
- Modular distributed I/O islands
- Robust design
- IP65, IP66 or IP67 rating [protection against the penetration of solid foreign objects and water]

**Advantages**
- Guarantees the machine availability
- Transition to current ET 200pro I/O modules
- Easy commissioning
- After the transition to ET 200pro: easy one-to-one replacement of individual components when spare parts are required!

**Please note**
Benefit from a price advantage: on request, we offer you a complete package including the replacement of all distributed I/O islands of your machine

**Availability**
- Delivery time: 1 - 2 days, subject to the goods being unsold
- Installation time: 1 day

---

<table>
<thead>
<tr>
<th>Maschinetype</th>
<th>Unit</th>
<th>Materialnumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 16, MC25, MC 26</td>
<td>DIO control panel -A055</td>
<td>VN.940A055.100S</td>
</tr>
<tr>
<td></td>
<td>DIO control panel -A060</td>
<td>VN.940A060.100S</td>
</tr>
<tr>
<td></td>
<td>DIO magazine -A065 MC</td>
<td>VN.940A065.100S</td>
</tr>
<tr>
<td></td>
<td>DIO Z axis -A070</td>
<td>VN.940A070.100S</td>
</tr>
<tr>
<td></td>
<td>DIO pallet changer -A075</td>
<td>VN.940A075.100S</td>
</tr>
<tr>
<td></td>
<td>DIO proportional technology -A080</td>
<td>VN.940A080.100S</td>
</tr>
<tr>
<td></td>
<td>DIO pallet changer -A085</td>
<td>VN.940A085.100S</td>
</tr>
<tr>
<td></td>
<td>DIO pallet changer -A090</td>
<td>VN.940A090.100S</td>
</tr>
<tr>
<td></td>
<td>DIOA axis -A095</td>
<td>VN.940A095.100S</td>
</tr>
<tr>
<td>MCi, MCH</td>
<td>DIO Z axis -A070 MURR</td>
<td>VN.940A070.101S</td>
</tr>
<tr>
<td>MCP</td>
<td>DIO pallet changer -A083</td>
<td>VN.940A083.103S</td>
</tr>
</tbody>
</table>
Safety pane work area operating door

VN.910103x.999Z

Safety panes are guards that prevent tools or workpieces being ejected out of the machine work area, thereby protecting people from injury from flying parts. Vision panels on machine tools allow the operator to see into the machine, make the production process transparent and facilitate program run-in.

Properties

The safety pane is made of polycarbonate. The pane is protected on the inside by single-layer safety glass and on the outside by blown film. Polycarbonate can age and become brittle, which reduces its impact resistance. It is not possible to see this embrittlement. In order to protect persons in the machine surroundings, we recommend to replace the safety pane after eight years as a precautionary measure.

Advantages

- Better view into the work area
- Reliable protection against:
  - Hot chips
  - Fragments of broken tools
  - Unclamped workpieces

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEA 1 / 2 / 4</td>
<td>VN.9101030.999Z</td>
</tr>
<tr>
<td>MCP 150-450</td>
<td></td>
</tr>
<tr>
<td>MCS / HCS 250-450</td>
<td></td>
</tr>
<tr>
<td>MC 12-26</td>
<td></td>
</tr>
<tr>
<td>MC 16-28</td>
<td></td>
</tr>
<tr>
<td>MCH 250-460</td>
<td></td>
</tr>
<tr>
<td>H / CP / FP 2000-6000</td>
<td></td>
</tr>
</tbody>
</table>

Availability

Delivery time: 1 week, subject to the goods being unsold
Installation period: 0.5 man days
Collision detection Brankamp

**VN.9100403.999x**

The consequential damage caused by a collision between a tool and a workpiece is usually considerable. Protect machine, tool and workpiece with high-precision sensors and prevent expensive downtimes.

### Properties
- High-precision sensors with corresponding evaluation circuits
- Machine stop with all relevant axes in the shortest possible time in case of collision
- Integrated, simple process monitoring which detects machine overload and triggers an automatic stop

### Advantages
- Lower costs: high repair costs and expensive downtime reduced
- More availability: optimised process reliability
- More safety: reliable detection of machine overload and systematic machine stop

### Preconditions
- Steuerung: uni-Pro 90 bzw. Siemens 840D Powerline

### Availability
- Delivery time: machine-specific conversion, on request
- Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines with control: uni-Pro 90</td>
<td>VN.9100404.999U</td>
</tr>
<tr>
<td>All machines with control: Siemens 840D Powerline und Solutionline</td>
<td>VN.9100404.999S</td>
</tr>
<tr>
<td>Machine series H, F, C with control: Fanuc</td>
<td>VN.9100404.999F – technical examination required</td>
</tr>
</tbody>
</table>
Collision detection

**VN.9100402.999x**

The consequential damage caused by a collision between a tool and a workpiece is usually considerable. Protect machine, tool and workpiece and prevent expensive downtimes. Use the uni-Pro collision monitoring to minimise machine damage as far as possible.

**Properties**
- Brake feed axes with maximum available drive power in case of collision
- Interruption of the current machining operation
- Rapid collision detection before further damage is caused by drive transfer of forces, no additional sensor required

**Advantages**
- Damage limitation in case of collision: less consequential damage, lower repair costs
- More availability: longer machine service life expectancy
- More safety: approved as precautionary measure by property insurance

**Preconditions**
- uni-Pro:
  - software and hardware upgrade may be required
- Siemens:
  - Min. NCK version 5.xxx
  - Min. SIN version 5.xxx
  - NCU hardware version 57x.3/4/5
  - Software and hardware upgrade may be required

**Availability**
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP, MCS, MC series with control: uni-Pro 90</td>
<td>VN.9100402.999U</td>
</tr>
<tr>
<td>MCP, MCS, MC, MCH, MCI with SIEMENS 840D Powerline</td>
<td>VN.9100401.999S</td>
</tr>
<tr>
<td>MC, MCH, MCI, H, F, C with SIEMENS 840D Solutionline</td>
<td>VN.9100401.998S</td>
</tr>
</tbody>
</table>
Leakage monitoring on spindle

VN.9100260.xxxx

Undetected leaks can quickly lead to an expensive and time-consuming machine failure. The leakage monitoring function protects the main spindle from a total failure.

Properties

- Monitoring the rotary feed for leakage resulting from defective sealing rings in case of internal coolant feed

Advantages

- More safety: no ingress of cooling lubricant to the spindle bearing thanks to timely leak detection
- More availability: no failure of the main spindle caused by cooling lubricant ingress in the spindle bearing
- Lower costs: no protracted, expensive machine downtime

Availability

Delivery time: 4 weeks [software is installed individually in the existing environment], subject to machine being unsold

Installation time: 2 days

Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Unit</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 16 / 25 / 26 with Siemens 840D Powerline</td>
<td>Gamfior</td>
<td>VN.9100260.924 / 925 / 926S</td>
</tr>
<tr>
<td>MCI 16 / 25 with Siemens 840D Powerline</td>
<td>8000 / 10000 / 16000</td>
<td>VN.9100260.024S</td>
</tr>
<tr>
<td>MCH with Siemens 840D Powerline</td>
<td>HSM</td>
<td>VN.9100260.102S</td>
</tr>
<tr>
<td>H 2000 / 4000 Gen 1 und Gen 2</td>
<td>EC / PC / SC</td>
<td>VN.9100260.902S</td>
</tr>
<tr>
<td>H 5000 / 6000 Gen 1 und Gen 2</td>
<td>PC / HPC</td>
<td>VN.9100261.905S</td>
</tr>
<tr>
<td>H 8000</td>
<td>SC</td>
<td>VN.9100260.908S</td>
</tr>
<tr>
<td>H 8000</td>
<td>PC / HPC</td>
<td>VN.9100261.908S</td>
</tr>
</tbody>
</table>

PRODUCTION | MAINTENANCE > MACHINE PROTECTION | SUSTAINABILITY
Leakage monitoring on hydraulic system

**VN.9100090.999S**

The leakage monitoring function on the hydraulic reservoir detects both creeping and sudden leaks.

### Properties
- Level sensor installed on the hydraulic reservoir (replaces standard float switch)
- Measurement of creeping and sudden leaks [from approx. 4.5 l in < 400 secs.]
- Detection of defects, e.g. on coupling element of hydraulic workpiece clamp or on hydraulic clamping fixture

### Advantages
- Less damage: only a limited quantity of hydraulic fluid escapes, not the entire reservoir volume
- Lower costs and less downtime thanks to early damage detection

### Preconditions
- Control: Siemens 840D Powerline
- Preferably with „Media monitoring“ option

### Availability
- Delivery time: machine-specific conversion, on request
- Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC, MCI 16 / 25 / 26 series with SIEMENS 840D Powerline</td>
<td>VN.9100090.999S</td>
</tr>
<tr>
<td>MCH 250 / 280 / 300 / 350 / 400 / 450 with SIEMENS 840D Powerline</td>
<td>VN.9100090.999S</td>
</tr>
</tbody>
</table>
Activated carbon filter for buffer air scales

**VN.9100740.999Z**

Expect the best production quality from your machine: the activated carbon filter finely filters buffer air discharged to the scale, thereby guaranteeing maximum process reliability.

### Properties
- Installation of an activated carbon filter for finely filtered buffer air

### Advantages
- More reliability: less contamination of the measuring systems, greater precision

### Availability
- **Delivery time:** 1 week, subject to the goods being unsold
- **Installation time:** ½ day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines</td>
<td>VN.9100740.999Z</td>
</tr>
</tbody>
</table>
Tool change doors with damping

**VN.910025x.xxx**

Frequent tool changes under extreme production conditions demand maximum performance from the tool change doors. Optimised damping guarantees enhanced reliability in day-to-day production.

### Properties
- The existing lifting cylinder and the two dampers are replaced with a new lifting cylinder with integrated central damping
- Reinforcement of lift cylinder attachment to protective coating and tool change doors

### Advantages
- More reliability: central damping reduces asymmetric loads
- More safety: no breakage or loosening of the cylinder piston rod

### Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 16 / 25 / 26</td>
<td>VN.9100250.924 / 925 / 926S</td>
</tr>
<tr>
<td>MCi 16 + 16.1 / 25 + 25.1 / 26</td>
<td>VN.9100250.024 / 025 / 026S</td>
</tr>
<tr>
<td>MCH 250 / 280 / 280 C / 300 / 350 / 350 C</td>
<td>VN.9100250.010 / 013 / 003 / 011 / 016 / 006S</td>
</tr>
<tr>
<td>MCi 16.2 / 25.2</td>
<td>VN.9100252.024 / 025S</td>
</tr>
</tbody>
</table>
Tool holder optimised HSK100

**VN.9100300.103Z**
This retrofit package makes your MCP machining centre more reliable and ensures it is future-proof.

### Properties
- Reinforcement of all tool holding fixtures with additional stabilisation plates
- Support for heavily stressed storage tray areas
- Installation of additional skids at corner for safe guiding of heavy or large tools in the full tool magazine
- Replacement of wear parts and cleaning of machine frame

### Advantages
- More availability: avoidance of unplanned machine downtime thanks to extended lifetime
- More reliability: replacement of wear parts and cleaning

### Preconditions
- MCP tool magazine

### Availability
- **Delivery time:** 1 week, subject to the goods being unsold
- **Installation time:** 3-4 days

### Machine type | Material number
--- | ---
MCP 200 / 250 / 300 / 400 / 450 / 460 | VN.9100300.103Z
RDS - Remote Diagnostic Services - basic package

**VN.9120420.998S**

With the HELLER Teleservice package you can rely on fast and competent support. We offer reliable emergency assistance which directly improves the availability of your machine.

### Properties

- Online fault diagnostics:
  - Remote control, i.e. access to functions such as tool, pallet and job management, NC programs, machine data, PLC program etc.
  - Data transfer [transmission of data, programs or software modules relevant to the diagnosis]
  - Teleconference, i.e. to conference in another expert

- Offline fault diagnostics:
  - Automatic alarm notification to the machine-specific alarm receivers via email and/or SMS
  - Event-specific creation of alarm configurations/notifications [configurable trigger function for non-reproducible events, e.g. logbook data]
  - Machine-specific service and event history on a central server

### Advantages

- Fast: global fault analysis and rectification wherever possible
- Direct: remote instructions to operator during troubleshooting
- More availability, fewer faults: immediate detection and elimination of faults thanks to extremely short response times
- Cost-savings: low communication costs, no costs for service engineer

### Please note

To increase protection against malware, we recommend the following optional retrofit packages:

- Trend Micro Virus Scan VN.9101060.999S licence [term 12 months] and one of the two firewall retrofits
  - Net Guard (DIN rail) VN.9101020.999Z
  - Net Guard (PCI) VN.9101021.999S

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCH, MCI, H, F, C, HF series</td>
<td>VN.9120420.998S</td>
</tr>
<tr>
<td>with FANUC 3xi und SIEMENS 840D</td>
<td></td>
</tr>
</tbody>
</table>

### Preconditions

Network and Internet access, including cabling to machine

Alternative: full ISDN/ADSL connection with indication of Internet service provider, incl. access data

### Availability

Delivery time: 2 weeks, subject to machine being unsold

Installation time: 1 day
RDS - Remote Diagnostic Services - extension

VN.9120590.999Z

The RDS Teleservice extension package is available for all controls. Secure the availability of your machine in good time.

Properties

- Online fault diagnostics:
  - Remote control, i.e. access to functions such as tool, pallet and job management, NC programs, machine data, PLC program etc.
  - Data transfer [transmission of data, programs or software modules relevant to the diagnosis]
  - Teleconference, i.e. to conference in another expert
- Offline fault diagnostics:
  - Automatic alarm notification to the machine-specific alarm receivers via email and/or SMS
  - Event-specific creation of alarm configurations/notifications [configurable trigger function for non-reproducible events, e.g. logbook data]
  - Machine-specific service and event history on a central server

Advantages

- Fast: global fault analysis and rectification wherever possible
- Direct: remote instructions to operator during troubleshooting
- More availability, fewer faults: immediate detection and elimination of faults thanks to extremely short response times
- Cost-savings: low communication costs, no costs for service engineer

Please note

To increase protection against malware, we recommend the following optional retrofit packages:

- Trend Micro Virus Scan VN.9101060.999S licence [term 12 months] and one of the two firewall retrofits
  - Net Guard (DIN rail) VN.9101020.999Z
  - Net Guard (PCI) VN.9101021.999S

Availability

- Delivery time: 1 week, subject to the goods being unsold
- Installation time: none, online by administration at HELLER Services

Preconditions

- RDS Teleservice basic package
- Currently active contract

Machine type | Material number
--- | ---
MCH, MCi, H, F, C series with FANUC 3xi | VN.9120590.999Z
MCH, MCi, H, F, C series with SIEMENS 840D Powerline / Solutionline | VN.9120590.999Z
RDS - Remote Diagnostic Services - reactivation

**VN.9120700.999Z**

The RDS Teleservice reactivation is required to reactivate a non-active machine already equipped with RDS Teleservice. It is required for the extension of RDS in addition.

**Properties**

- Online fault diagnostics:
  - Remote control, i.e. access to functions such as tool, pallet and job management, NC programs, machine data, PLC program etc.
  - Data transfer (transmission of data, programs or software modules relevant to the diagnosis)
  - Teleconference, i.e. to conference in another expert
- Offline fault diagnostics:
  - Automatic alarm notification to the machine-specific alarm receivers via email and/or SMS
  - Event-specific creation of alarm configurations/notifications (configurable trigger function for non-reproducible events, e.g. logbook data)
  - Machine-specific service and event history on a central server

**Advantages**

- Fast: global fault analysis and rectification wherever possible
- Direct: remote instructions to operator during troubleshooting
- More availability, fewer faults: immediate detection and elimination of faults thanks to extremely short response times
- Cost-savings: low communication costs, no costs for service engineer

**Preconditions**

- RDS Teleservice basic package
- Inactive contract which was not renewed

**Availability**

- Delivery: 1 week, subject to prior sale
- Installation time: none, online by administration at HELLER Services

---

**Machine type** | **Material number**
--- | ---
All machines with RDS teleservice | VN.9120700.999Z
CDS - Condition Dependent Services - basic package

VN.9120901.999S

Unplanned downtimes don’t just waste time unnecessarily, they also often result in considerable oncosts. With the HELLER CDS predictive maintenance package, you can reduce unplanned downtime to a minimum and ensure the availability of your machines.

Properties
- RDS as basis for CDS features
- Condition monitoring of axes (torque, rigidity)
- Performance of axes (travel and time, positioning)
- Counter readings (e.g. tool change, pallet change)
- Temperatures (e.g. motors, spindle bearings)
- Runtimes (e.g. programs, tools, pressure stages)
- Speed distribution at the main spindle
- Analogue values (e.g. tool clamping, tool change)

Advantages
- More precision: early detection and elimination of quality-related changes
- More availability: full overview of all machining parameters, foreseeable maintenance, fewer unplanned failures
- Lower costs: less downtime, less consequential damage, lower oncosts
- Cost-effective dynamic maintenance planning: flexible matching of maintenance strategy to the machine and individual production process

Preconditions
- Network and Internet access configured by customer, including cabling to machine

Availability
- Delivery time: 4 weeks, subject to machine being unsold
- Installation time: 2 days
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

Please note
- To increase protection against malware, we recommend the following optional retrofit packages:
  - Trend Micro Virus Scan vn.9101060.999S licence (term 12 months) and one of the two firewall retrofits
  - Net Guard [DIN rail] VN.9101020.999Z
  - Net Guard [PCI] VN.9101021.999S

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machines with control: SIEMENS 840D Powerline / Solutionline</td>
<td>VN.9120901.999S</td>
</tr>
</tbody>
</table>
CDS - Condition Dependent Services - extension

**VN.9120990.999S**

Unplanned downtimes don’t just waste time unnecessarily, they also often result in considerable oncosts. With the HELLER CDS predictive maintenance package, you can reduce unplanned downtime to a minimum and ensure the availability of your machines. Renew your CDS basic package in good time!

### Properties
- RDS as basis for CDS features
- Condition monitoring of axes (torque, rigidity)
- Performance of axes (travel and time, positioning)
- Counter readings (e.g. tool change, pallet change)
- Temperatures (e.g. motors, spindle bearings)
- Runtimes (e.g. programs, tools, pressure stages)
- Speed distribution at the main spindle
- Analogue values (e.g. tool clamping, tool change)

### Advantages
- More precision: early detection and elimination of quality-related changes
- More availability: full overview of all machining parameters, foreseeable maintenance, reduction in unplanned failures
- Lower costs: fewer failures, less consequential damage, lower oncosts
- Cost-effective dynamic maintenance planning: flexible matching of maintenance strategy to the machine and individual production process

### Please note
- To increase protection against malware, we recommend the following optional retrofit packages:
  - Trend Micro Virus Scan VN.9101060.999S licence [term 12 months] and one of the two firewall retrofits
    - Net Guard (DIN rail) VN.9101020.999Z
    - Net Guard (PCI) VN.9101021.999S

### Preconditions
- CDS Teleservice basic package
- Currently active contract

### Availability
- Delivery time: none
- Installation time: online by HELLER Services
- Administration

---

**Machine type** | **Material number**
--- | ---
All machines with CDS teleservice | VN.9120990.999S
CDSplus - HELLER Spindle Monitoring

**VN.9101200.xxx**

Vibration diagnostics for condition and process monitoring of the main spindle. CDSplus provides analysis and monitoring options supplementary to HELLER CDS through acquisition of additional condition and process data.

**Features**
- Load monitoring of the main spindle (vibration during machining)
- Condition monitoring of the main spindle (vibration)

**Advantages**
- Early identification of changes in the machine condition affecting quality
- Reduction of consequential damages and costs
- Scheduled maintenance and reduction of unscheduled downtimes

**Please Note**
Precondition for HELLER CDSplus is an existing CDS agreement based on an existing TPS contract or an existing RDS agreement.

The CDS agreement is only valid for the ordering parting and not transferable to any future machine owners.

**Availability**
- **Delivery:** 1–2 working days, subject to prior sale
- Technical inspection necessary

**Installation time:**
4–8 hours, but may vary depending on the machining unit

---

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HF and H series</td>
<td>VN.9101200.999S</td>
</tr>
<tr>
<td>more series</td>
<td>on request</td>
</tr>
</tbody>
</table>
## HELLER Services Interface

**VN.9130001.xxxS**

Transparency in production and maintenance. The HELLER Services Interface is a browser-based solution giving you secure access to your production and maintenance data from anywhere.

### Characteristics
- **Production:** Visualisation of productivity data, program run-times, tool and process data. Statistics for a quick overview.
- **Maintenance:** Identification of preventive and predictive measures by displaying the condition of axes, spindles and other assemblies

### Advantages
- Identification of optimisation potentials to increase productivity
- Reduction of unscheduled downtimes through visualisation of downtime-relevant parameters
- Key production and maintenance parameters available at your fingertips
- Clear presentation of your HELLER machinery and its condition
- Provision of process data to ensure manufacturing quality

### Please Note
- In addition to fault analysis and rectification, HELLER Remote Diagnostic Services (RDS) provides the contents for the production view.
- In addition to the identification of quality-relevant changes, HELLER Condition Dependent Services (CDS) provides the contents for the maintenance view.

### Secure transfer and storage of data:
- Secure communication channels from your machine to the web server
- HELLER RDS and CDS serve as proven data sources, i.e. no additional installation required on the machine
- Browser-based solution is hardware-independent
- Login via website

### Pre-requisites
- **Production perspective:** HELLER Remote Diagnostic Services (RDS)
- **Maintenance perspective:** HELLER Condition Dependent Services (CDS)

### Installation time:
4–8 hours, but may vary depending on the machining unit

### Table: Machine type and Material number

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H, F, C, HF series with RDS or CDS and SIEMENS 840D Powerline</td>
<td>VN.9130001.998S</td>
</tr>
<tr>
<td>Other series with RDS or CDS and SIEMENS 840D Solutionline</td>
<td>VN.9130001.999S</td>
</tr>
</tbody>
</table>

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PRODUCTION | MAINTENANCE > MACHINE NETWORKING | SUSTAINABILITY

76 HELLER Retrofit Packages

Published in 07/2018
Trend Micro Virus Scanner

VN.9101060.999S
Virus protection is ensured using a virus scanner approved by the control supplier, providing state-of-the-art protection.

Properties
- The virus scanner is updated on a daily basis in the background with the latest virus signatures [pattern]
- The file system is scanned as per HELLER configuration
- Does not affect process runtime

Advantages
- Protection against virus infection
- Security for production

Please note
The machine has to be equipped with network and internet access configured by the customer. If required, the necessary configuration data for the Trend Micro pattern update server can be provided by HELLER Services. Internet access shall be provided at the customer’s cost. The customer shall be responsible for network security and for enabling regular automatic updates of the virus scanner.

Preconditions
- Windows operating system (Windows XP, Windows 7).

Availability
- Delivery: 1 week, subject to prior sale
- Installation time: 2 hours

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All machines equipped with Windows operating system (XP, 7)</td>
<td>VN.9101060.999S</td>
</tr>
</tbody>
</table>
Net Guard firewall retrofit (DIN rail/PCI)

VN.9101020.999Z

A central, company-wide firewall does not offer adequate protection from unauthorised access, including originating in the internal network. The problem has been compounded by the ending of support for WinXP by Microsoft. Therefore, only a decentralised securing of the machine is able to significantly reduce the risk of a production stoppage.

Properties
- Protects the machine control from unauthorised access or malware
- Decentralised security mechanism in the operator’s network
- HELLER basic parameter assignment in due consideration of machine and control function

Advantages
- High-end security: individual protection of machine and control thanks to HELLER basic parameter assignment
- More flexibility: company-specific modifications possible at any time thanks to open parameter assignment
- High data throughput: greater safety, no deterioration in response times
- Little effort for excellent security: simple installation on network [inline], quick mounting thanks to housing which can be installed on mounting rails

Preconditions
- DIN rail:
  Machine controls with WinNT or WinXP operating system
- PCI:
  all HELLER machines with control: Siemens 840D based on WinNT or WinXP PCU 50.x with free PCI slot in main operator panel or control cabinet

Verfügbarkeit
- Delivery time: 1 week, subject to machine being unsold
- Installation time: 2 hours

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>All HELLER machines</td>
<td>VN.9101020.999Z</td>
</tr>
<tr>
<td>PCI: MCI / MCH</td>
<td>VN.9101021.999S</td>
</tr>
<tr>
<td>PCI: H, M, MC, F with PCU 50.x in the control cabinet</td>
<td>VN.9101021.999S</td>
</tr>
</tbody>
</table>
BLUE Coolant Schneider/Siemens frequency converter

**VN.910085x.999Z**

Use Blue coolant to match the energy consumption of the high pressure coolant pump to your machining tasks. This effectively reduces operating costs and minimises costs per unit.

### Properties
- Control of high pressure pump with frequency converter
- Direct adjustment of the high pressure coolant pump’s volume flow and hence the energy consumption to the machining task concerned
- Motor and pump are retained

### Advantages
- Excellent potential for savings with high pressure pump: approx. 50% less energy consumption compared to a system with a pressure relief valve
- Excellent potential for savings in coolant cooling: approx. 50% less energy consumption thanks to reduced heating of the high pressure pump
- Rapid payback: less than 2 years at 100% on-period, 3-4 years at 35% on-period
- Longer service life: at least 50% longer pump life thanks to process-adapted on-period

### Preconditions
- Schneider frequency converter control:
  - Siemens 840D pl and 840D Solutionline
- Siemens frequency converter control:
  - Siemens 840D Solutionline
  - HMCF Gen2
  - MCi / MCH / H Gen1 / F Gen1
- Other machine types on request

### Availability
- Delivery time: 4 weeks, subject to machine being unsold
- Installation time: 1 day
- Machine-specific documentation included

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schneider frequency converter 50 bar version</td>
<td>VN.9100850.999Z</td>
</tr>
<tr>
<td>Schneider frequency converter 70 bar version</td>
<td>VN.9100851.999Z</td>
</tr>
<tr>
<td>Siemens frequency converter 50 bar version</td>
<td>VN.9100852.999Z</td>
</tr>
<tr>
<td>Siemens frequency converter 70 bar version</td>
<td>VN.9100853.999Z</td>
</tr>
</tbody>
</table>
BLUE Service Supply

VN.9100870.xxy

Minimise your machine’s operating costs and with it your costs per unit. With the Blue service supply, you save energy costs easily and efficiently, even during non-productive time.

Properties
- Deactivation of auxiliary units when not required
- Deactivation of air
- Deactivation of refrigeration units
- Deactivation of lighting

Advantages
- Lower consumption, lower costs: reduction in power and air consumption of the machine, noticeable reduction in machine operating costs

Preconditions
- Control: Siemens 840D pl and 840D Solutionline
- MCi / MCH / H / F

Availability
- Delivery time: 2-3 weeks, subject to machine being unsold
- Installation time: 1 day

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCi series with SIEMENS 840D Powerline</td>
<td>VN.9100870.999S</td>
</tr>
<tr>
<td>MCH series with SIEMENS 840D Powerline / Solutionline</td>
<td>VN.9100870.999S</td>
</tr>
<tr>
<td>H, F series with SIEMENS 840D Solutionline</td>
<td>VN.9100870.999S</td>
</tr>
</tbody>
</table>
Standard interface for emulsion mist extraction system

VN.9100181.xxy

This retrofit package provides the power supply for an emulsion mist exhaust system to your machine. The extraction system is not included in the package price.

Properties
- Machine-end preparation at the work area hood, incl. electrical interface
- Power supply via machine with HAN6E connector (Harting)
- Socket in control cabinet
- Standard interface without extraction system connection sockets (D = 250)

Advantages
- More protection: reliable filtering of coolant mist and solid aerosols, no risk of explosion
- Safe work environment: operator reliably protected against hazardous gases

Preconditions
- Customer has emulsion mist extraction system

Availability
- Delivery time: 1 week, subject to the goods being unsold
- Installation time: 1 day
- Standard documentation included. Machinespecific documentation available for additional charge and later delivery deadline.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 16 / 25 / 26</td>
<td>VN.9100181.924S</td>
</tr>
<tr>
<td>MCi 16 / 25 / 26</td>
<td>VN.9100181.024S</td>
</tr>
<tr>
<td>MCH 250 / 280 / 300 / 350 / 400 / 450</td>
<td>VN.9100181.010S</td>
</tr>
<tr>
<td>H Gen1 2000 / 4000 / 5000 / 6000</td>
<td>VN.9100181.902S</td>
</tr>
<tr>
<td>H Gen2 2000 / 4000 / 4500 / 5000 / 6000</td>
<td>VN.9100181.912S</td>
</tr>
<tr>
<td>F 2000 / 4000 Gen1</td>
<td>VN.9100181.952S</td>
</tr>
</tbody>
</table>
HELLER Services
Lifetime Partnership

If you have any questions about our products or would like a quotation, please contact your HELLER Services support point.

HELLER Services GmbH
Gebrüder-Heller-Straße 15
72622 Nürtingen, Germany
Tel: +49 7022 77-0
Fax: +49 7022 77-1200
retrofitpackages@heller.biz

www.heller.biz