



NETWORK / SERVER



18,5" TOUCH  
SCREEN



## PRODUCTION FIRST.

Xpanel® – i4.0ready®

The operating system for a direct communication with your business organization.



STANDARD

OPTION

# FOCUS ON PRODUCTION & CONTROL. INCLUDING INDUSTRY 4.0.



The communication needs in production at modern companies are continuing to increase. To manufacture efficiently with complex machinery, companies need everything: all information, every support, concentrated knowledge and experience. On site. At any time. Directly on the machine. These are exactly the requirements that the **Xpanel** operating system by INDEX has been developed for.

Thanks to its system structure, **Xpanel** easily connects between the machine control in production and the operating organization in your company. In addition to job and setup data, the information exchange may include drawings, test plans and documents or any number of documents and other data!

With its capabilities for information linking, **Xpanel** meets all the requirements for the use of **Industry 4.0** demanded everywhere – without losing the necessary focus on optimized control of the machine, for efficient production of workpieces, at the highest precision.

The **Xpanel** philosophy promotes the machine control panel to a command panel for maximum productivity. After starting up the machine, the familiar control screen appears. Alternating with the control view, the second screen becomes your information center on the machine: the operator receives exactly the information on the screen that best supports him in his current work.

Xpanel® from INDEX –  
i4.0ready® and uncompromisingly more productivity!

## Information & data network for paperless production



- Workpiece drawings & quality documents
- Setup information & tool assignment
- Instructions & machine documentation
- Create custom notes
- Custom documents & many more functions

*Included in every new machine with  
Siemens S840D SL control starting July 2015.*



### Optional extensions:

- 3D simulation / Virtual Machine on board
- VirtualPro Studio programming support
- CAM system on board
- Custom applications / open interface

## Open system also for your own applications

STANDARD // included at no cost

OPTIONS

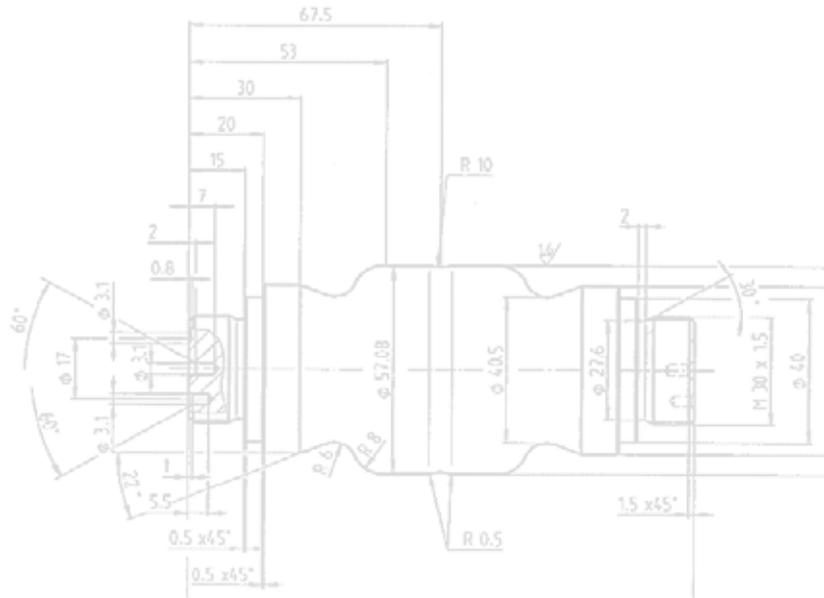


# A DRAWING SAYS MORE THAN A THOUSAND WORDS.



During production, Xpanel holds job or quality requirements in the background. Whether workpiece drawings or other documents, they can be accessed and viewed in parallel to the current machine operation. So you always have all the current information directly on site. Uncertainties and loss of time cannot arise at all.

This permanently ensures maximum productivity!





### ONLINE SETUP SHEET

Tool assignment and data of the job directly displayed.



# PAPERLESS & ERGONOMIC. SIMPLE EFFICIENT SETUP.



When setting up tools for a new job, Xpanel displays setup sheets and tooling information on the second screen. All information is instantly searchable at any time and always in sight. A real support for the operator on the machine!

No matter how setup sheets or tooling information may look like: using simple navigation and zoom functions, all required details can be moved into focus – this is effective and allows reducing errors in the work process.

The current setup sheet including all the tooling information for the workpiece to be machined can be generated automatically directly from the Virtual Machine <sup>(option)</sup>.



# INFORMATION CENTER INCLUSIVE.



Maintenance has questions about wiring diagrams or wants to see BOM documentation of the machine?

Xpanel provides the entire user and machine documentation as background information ready for access on the second screen view! Questions about the operation or the workpiece programming are answered easily online at the machine.

Besides a full-page PDF display format, extensive navigation features support the search for content, while the zoom functions of the touch-sensitive screen ensure that no information is hidden.

Xpanel – all the knowledge ready for retrieval directly on the machine!





**INDEX**

**Circuit  
diagrams**

**INDEX**

**Hydraulic  
diagrams**

**INDEX**

**Bill of  
materials**

**ONLINE DOCUMENTATION**

All knowledge around the machine  
and production always available.

**INDEX**

**Operating  
manuals  
of the machine**

**INDEX**

**Structure &  
function  
of the machine**

**INDEX**

**Manual pro-  
gramming**



### NOTES ONLINE

Store your own comments and notes for the job.

Workpiece: rotor shaft

Feed rate F0.04  
R, now OK.

Watch note diameter 20.93!

# YOUR PERSONAL KNOWLEDGE BASE.



During workpiece machining, Xpanel allows you to easily attach your own comments or notes to the workpiece job. If the workpiece program is used again at a later time, the documented empirical values help to get back to an error-free production in the shortest possible time.

This function is also very helpful for passing information during a shift change.

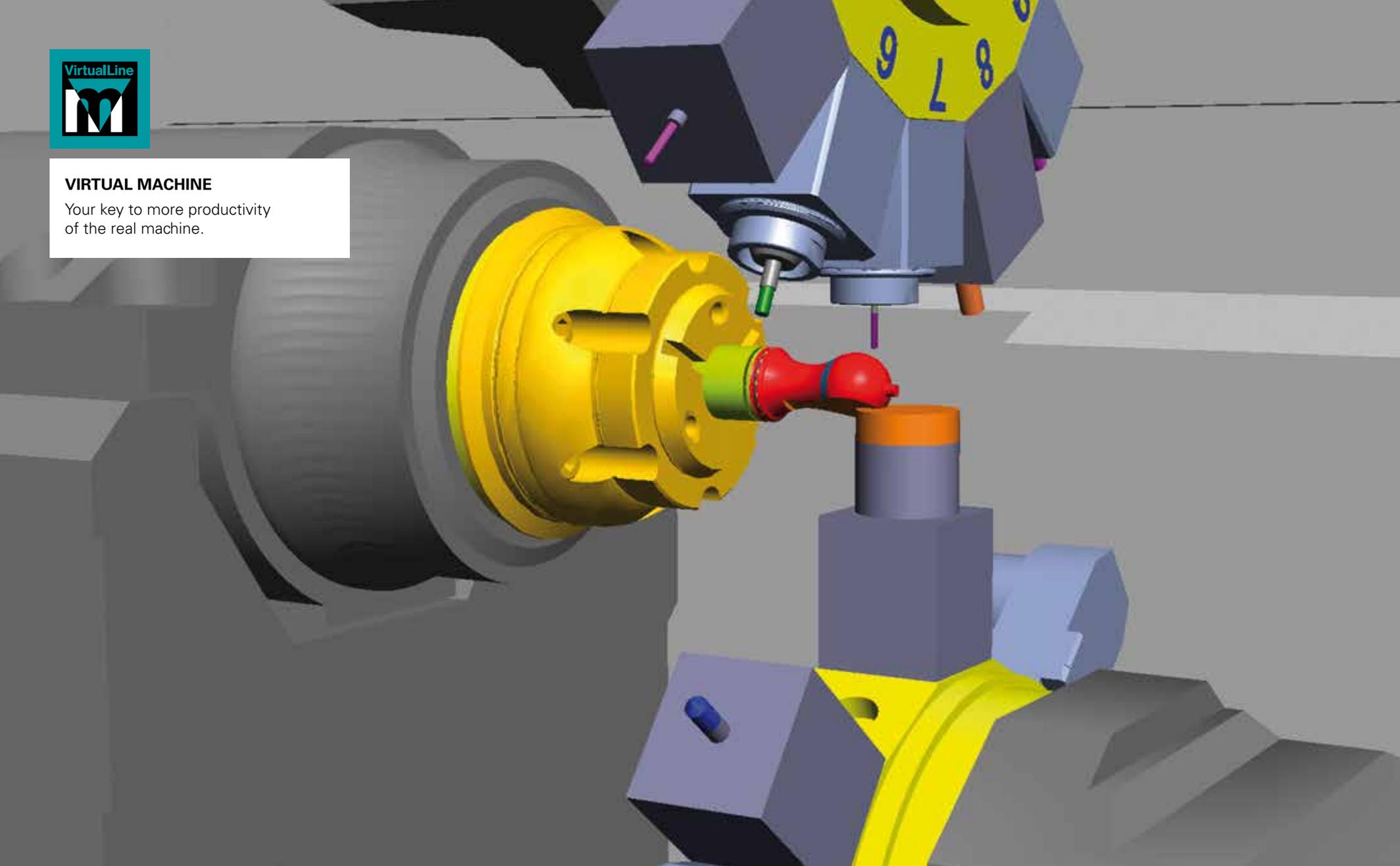
```
N10 M3=28 H25↵
N15 G273↵
N20 GX73↵
N25 T1↵
N30 WAITM ( 1 , 1 , 2 , 3 )↵
N35 START_:↵
N40 L130↵
N45 G59 X=XMW_5 Z=ZMW_5 C=CMW_5↵
N50 SETMS(5)↵
N55 G92=4500↵
N60 WAITM ( 5 , 1 , 2 , 3 )↵
N65 WAITM ( 10 , 1 , 2 , 3 )↵
```





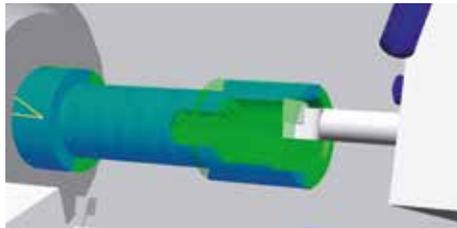
## **VIRTUAL MACHINE**

Your key to more productivity  
of the real machine.

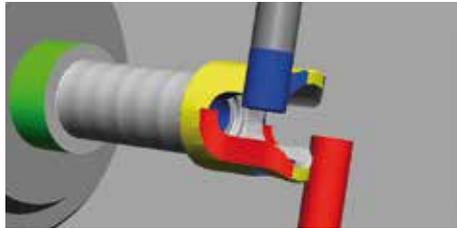


# VIRTUAL MACHINE ON BOARD AS WELL.

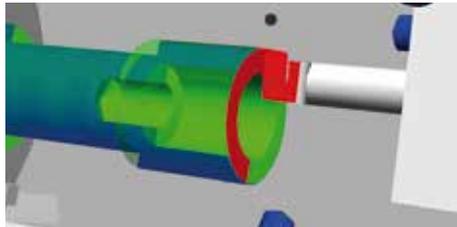
Touch functionality and wide-screen view of Xpanel allow the use and consistent operation of the **Virtual Machine** (3D simulation) directly on the machine panel. Whether independently or coupled with the machine – the **Virtual Machine on Board** means operator support in a new dimension!



Minimized changeover times and risk of collision during internal machining that is not possible to view.



Simulation of parallel machining with 2 tools to prevent collisions and reduce setup/test times.



Detecting a collision means avoiding a collision.

## Operating modes



Programming in parallel with machine operation



Preemptive simulation and stopping the machine before a collision



Simultaneous display of machining in real time on the control panel



# WITH THE BEST SUPPORT BY THE MACHINE MANUFACTURER.



Xpanel provides the entire know-how in machine programming directly to the programmer and the machine!

Because Xpanel allows you to run **VPro Programming Studio** not only as part of the Virtual Machine (VM on Board), but also directly with simulation on the machine control – this is consistent programming support from beginning to end. This leaves nothing to be desired!

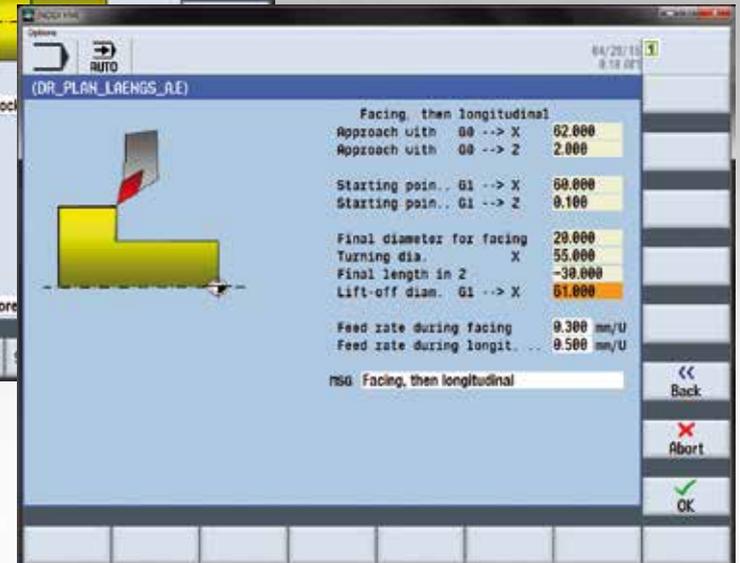
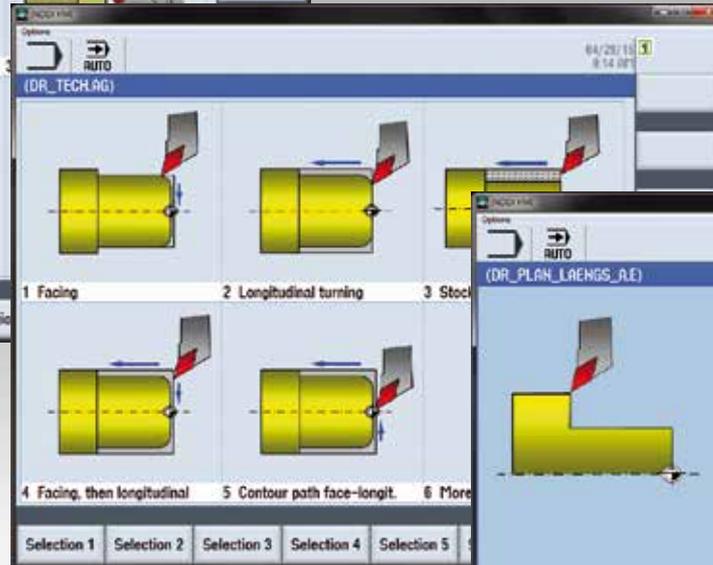
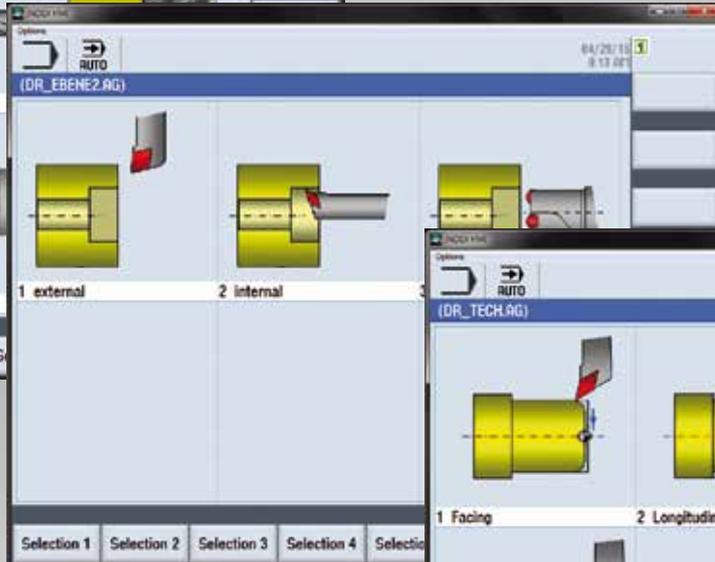
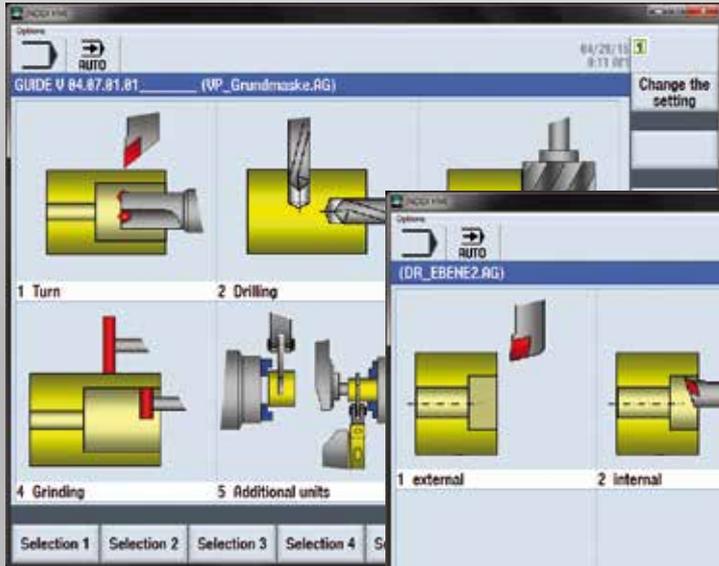
Self-contained machining operations are generated as NC code by repeated sequential selection of individual technology steps.

The functionality of the machine and control equipment is taken into account at every step. The generated NC code can be viewed and edited manually.



**VPro Programming Studio** includes the following features:

- Workpiece editor
- Guide (interactive programming support)
- DXF reader to import complex geometries
- Contour generator for easy geometry definition
- Multi-channel step editor: all programming channels at a glance
- Templates for cycles and function lists
- Setup sheet
- Sequence plan
- Print function

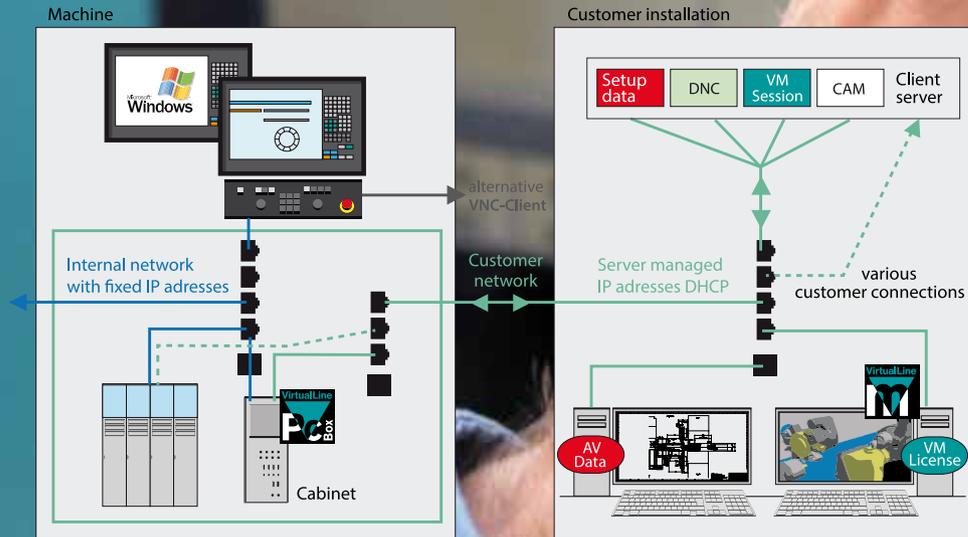


**VPRO PROGRAMMING STUDIO**  
Programming support for the practice  
– optimization included.



## OPEN SYSTEM

The office on the machine using VPC-box with Windows7.



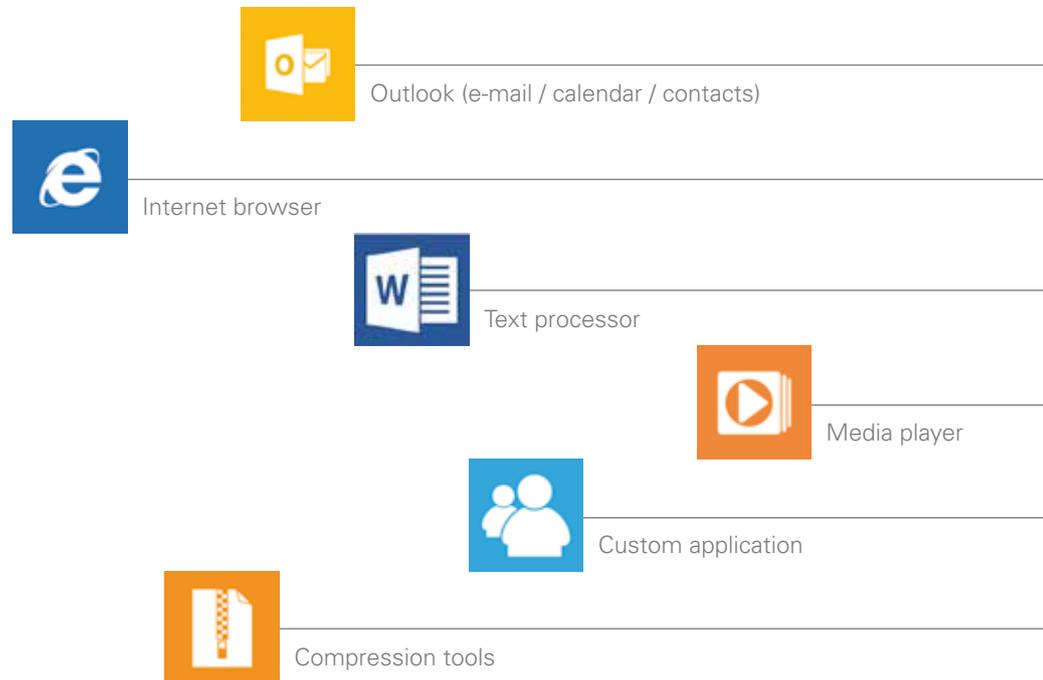
# PRODUCTION AND ORGANIZATION AS A UNIT.



With Xpanel and the optional VPC-box extension, custom or specific applications can be used directly on the machine in the workshop. Xpanel provides a comparable display and the touch navigation a comparable ease of use as in the office environment.

Easily expand the applications in production according to your personal requirements and needs.

You can use Xpanel just as you want it!



# ALL THIS AND MUCH MORE.



Xpanel includes many other useful tools and features that support you in carrying out a production job.

The open system allows you to adapt Xpanel to your specific needs and to integrate your own applications and functionalities. Complement or extend Xpanel according to your requirements for your optimized manufacturing process. We are happy to advise you on the versatile options.



## Other included standard features:

- Job documents
- Custom documents
- Workpiece counter
- Production times
- Maintenance intervals
- Diagnostics (service & remote maintenance)



## Other optional feature:

- CAM system on board / integration NX CAM





## Questions about Xpanel?



[xpanel@index-werke.de](mailto:xpanel@index-werke.de)

[www.index-werke.de/xpanel](http://www.index-werke.de/xpanel)

To arrange a demonstration:  
[xpanel@index-werke.de](mailto:xpanel@index-werke.de)



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