

**TX8i-s V7**

**TRAUB**



**i4.0  
READY**

*better.parts.faster.*

## Maximum programming flexibility

The performance of a modern machine tool depends not only on a well-designed machine construction but also to a large degree on the CNC control. TRAUß already realized this early on, which is why they have been developing their own control concepts that are setting new standards.

Easy and quick creation as well as optimization of programs using integrated programming techniques on an external PC workstation or directly at the machine using the same functions.



### **Advanced and intelligent drive concept**

- 64-bit RISC high-performance processor
- Ultra-fast drive network via optical fiber
- Extremely short block reading times
- Shortest gauging circuit cycle time
- Absolute measuring systems, therefore no referencing necessary
- Extremely high reliability

### **Ergonomic control unit with powerful PC and multi-touch display**

The pivoting operating panel designed specifically for the needs of the “user” offers top-edge convenience for programming, simulating, setting up and operating the machine. The layout and the functions of the user interface are designed for the use of touch capabilities with gesture technology and for menu operation via keys.

- 15” multi-touch flat screen
- USB and Ethernet ports
- Handwheel / full ASCII keyboard
- Short-stroke keys for quick data entry and safe setup
- Confirm key on the cable for mobile operation
- Depending on the operating side, installation on the left-hand side or right-hand side

### **Prepared and ideally equipped for Industry 4.0 as standard**

The “touch select screen” and standard functions and interfaces available in the control allow easy integration of the machine in the respective production environment as well as quick access to production information and custom applications directly on the control screen.

- Remote access through VNC display of on-screen information on a tablet/smartphone
- Display and control of any applications via Virtual Network Computing (VNC), which run on a computer in the corporate network.
- Integrated browser for web applications as standard
- Display of manufacturing information via PDF viewer
- Note functions, for example, to store information for setup engineers
- Installation of third-party software on a gateway computer in the control cabinet of the machine (option)

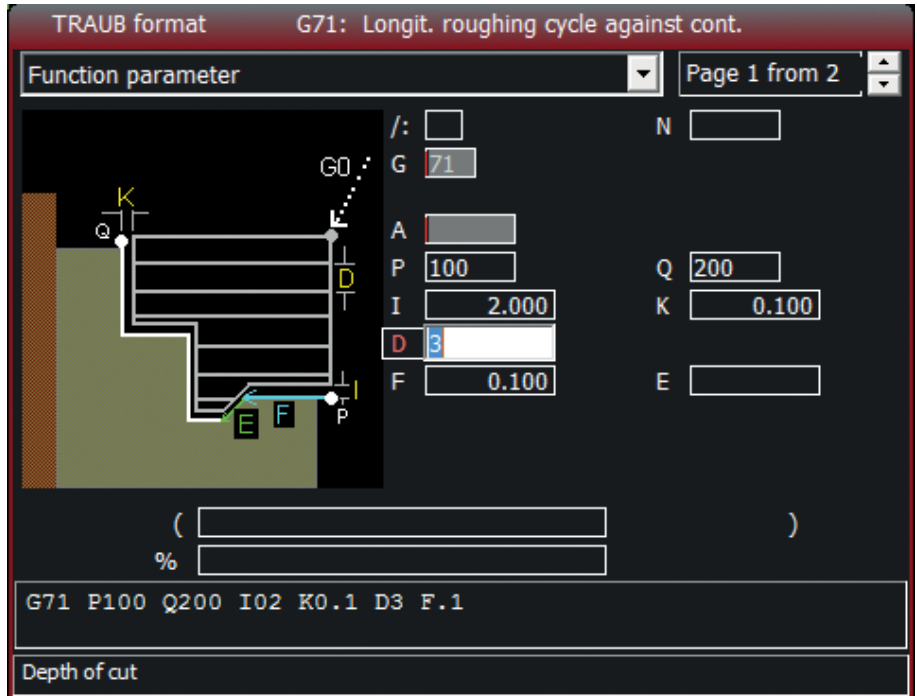


See more details on the Industry 4.0 features on page 10.

# Programming and optimization

## Quick and flexible creation and optimization of programs

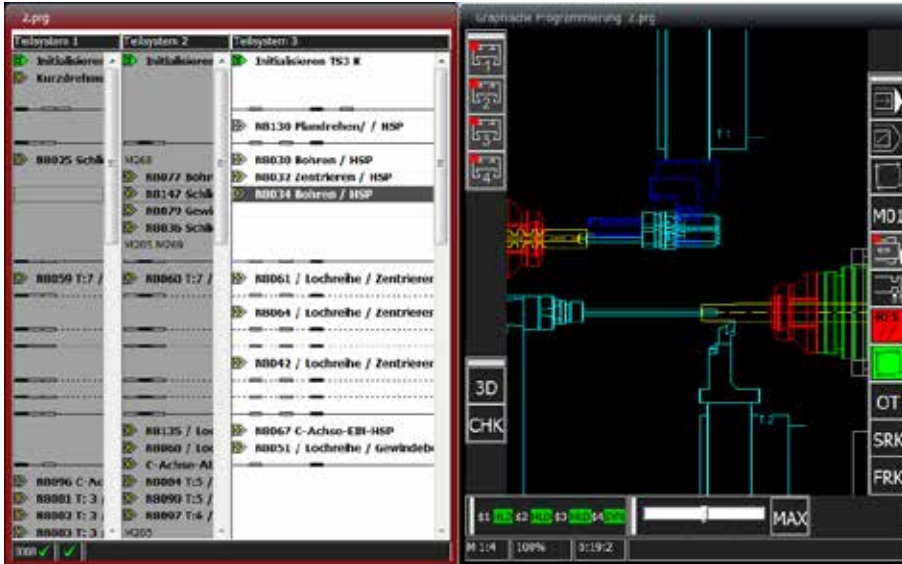
- Easy-to-use, interactive plain text-supported NC block input
- Extended DIN 66025 format
- The graphic contour input via the TRAUB geometry processor facilitates the input in the case of incompletely dimensioned drawings by means of the clear, interactive guidance
- Upward compatible with all TRAUB control units



## Extensive canned cycles and functions

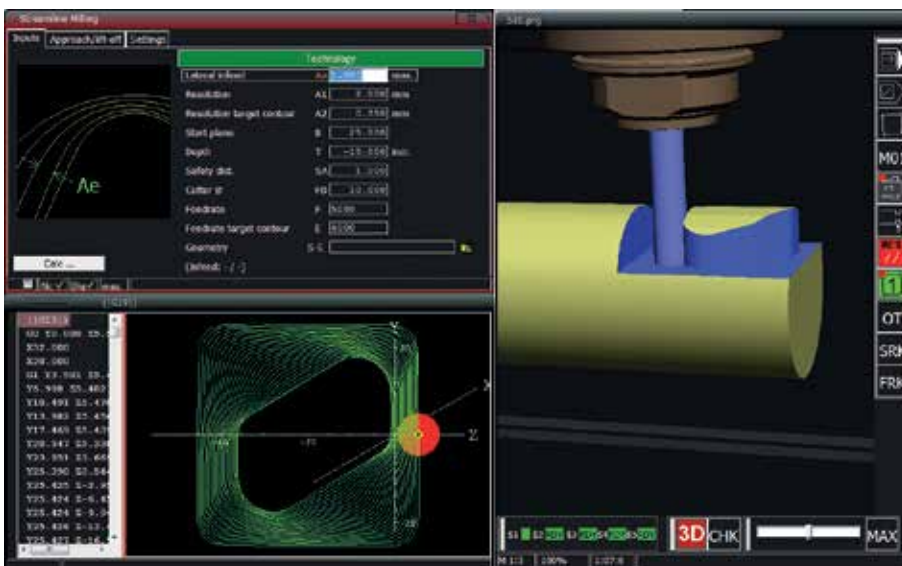
- Predefined standard functions such as initialization or picking up/cutting off
- Only few inputs are needed for a complete program section
- User interface in the language of the "user"
- Graphical, object-oriented input screens
- The sequence and the dialog screens of the functions can be customized





### Safe synchronization of multiple subsystems and parallel dynamic simulation

- Easy toggling between interactive dialog and NC programming modes at any time when creating a program
- All inputs in the dialog are immediately available in an NC program
- Optimizations in the NC program are fed back to the dialog



### Powerful milling packages (option)

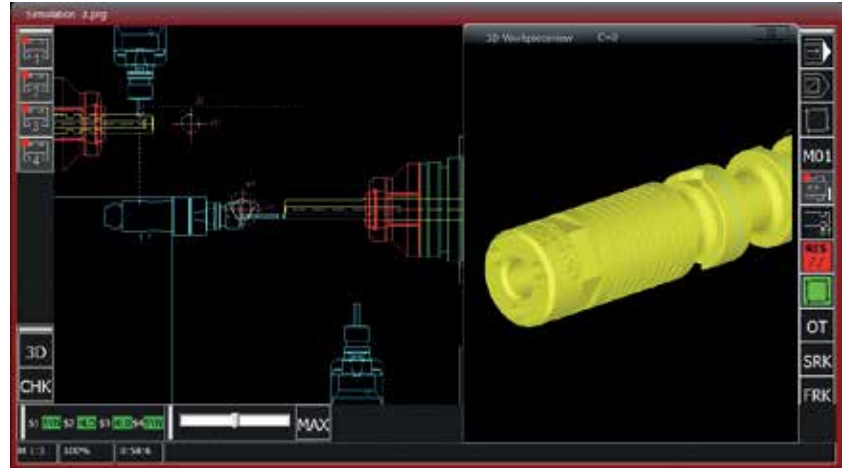
Machining strategies with the latest technology to reduce cycle times and tool paths through continuous engagement of the cutter. The time-chip volume is considerably increased. Increase of tool life through better use of the tool cutting edge and reduced tool load. Easy and quick creation of NC programs.

- Thread milling with MRC (conical and cylindrical)
- Helical contour milling
- Trochoidal milling
- Streamline milling (spiral milling between two contours)
- Torx milling (T6-T100)

## Simulation and control

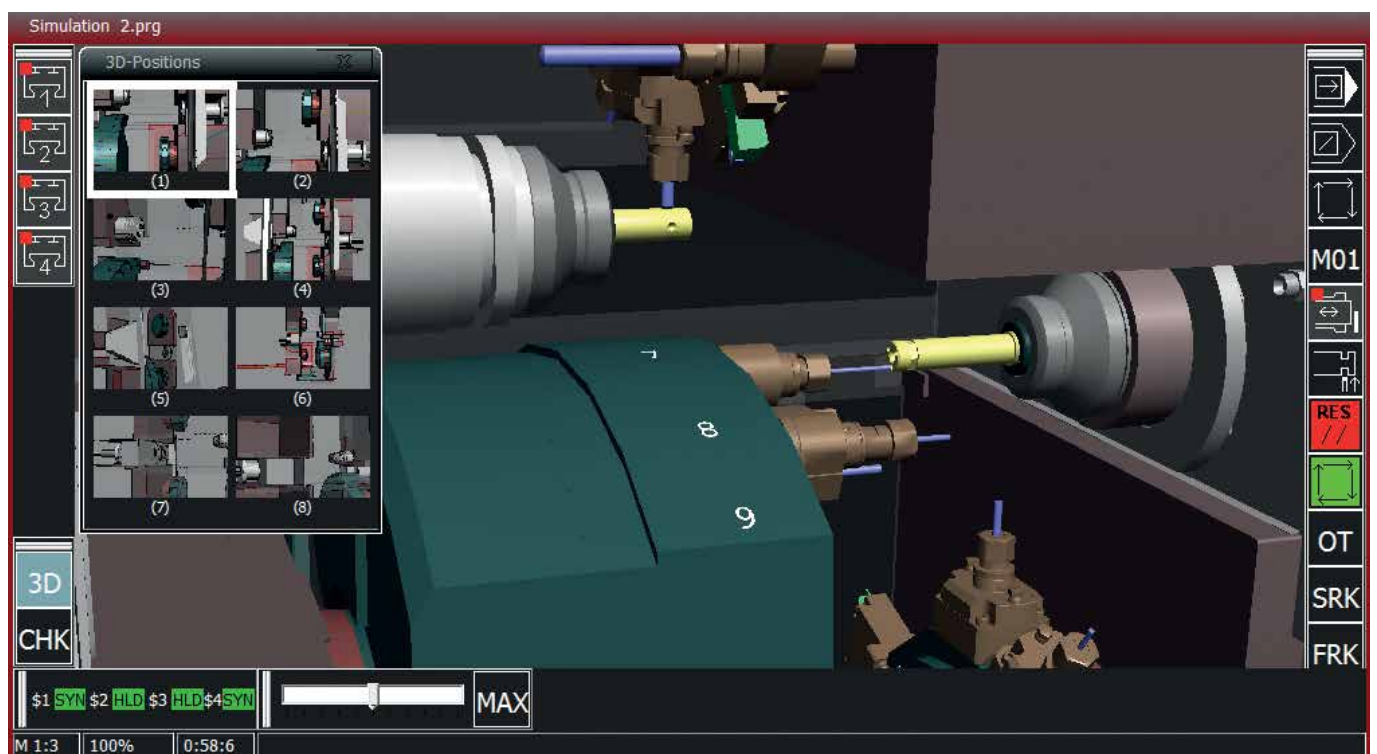
### Graphical dynamic process simulation

Each input can be checked immediately in the simulation run. The simulation can be started at any position and run forward and backward. Even direct inputs and program optimization during the simulation run are possible.



### 3D simulation and collision detection in the machine or externally with WinFlexIPS Plus (option)

- Production-ready programs already during program creation
- Step-by-step parallel programming and simulation possible
- Extremely easy synchronization of machining sequences including up to 4 subsystems
- Cycle-time optimization already during programming
- Planning and optimizing the setup procedure according to the real machine
- 3D simulation and calculation collision check provide for additional safety



# Easy setup, configuration and operation

## Using the machine's potentials

The configuration and setup functions must be optimally supported by the control. This offers decisive potentials for improvement, which have a significant effect on the machine's productivity.

The TRAUB TX8i-s V7 control ideally provides you with the required support. For example, in tool gauging with optical TRAUB ATC.



## Running in and optimization

- Clear representation of programs, axis positions and machine states
- Extensive program test functions (dry run, graphical simulation, direct entry, setup)
- Safe input and correction of tool data
- Quick program access for setup and optimization (SETUP)

## Graphical support in machine setup

- Reduction of setup times through object-oriented setup dialogs

## Visualization of important functions

- Work clamping on the main spindle and counter spindle
- Ejection position of the workpiece
- Bar position
- Workpiece handling unit
- Remnant handling



# Control functionality and process safety

## Quick re-entry

- Resume the program at any block
- Block search
- Tool inspection cycle



## Tool monitoring

TRAUB AWUE (option)

- Highly sensitive tool breakage and tool wear monitoring
- No additional sensors required
- Easy-to-use, for example, through automatic generation of limiting curves
- Live monitoring – Any deviations of the actual monitoring from the learning curve are displayed live

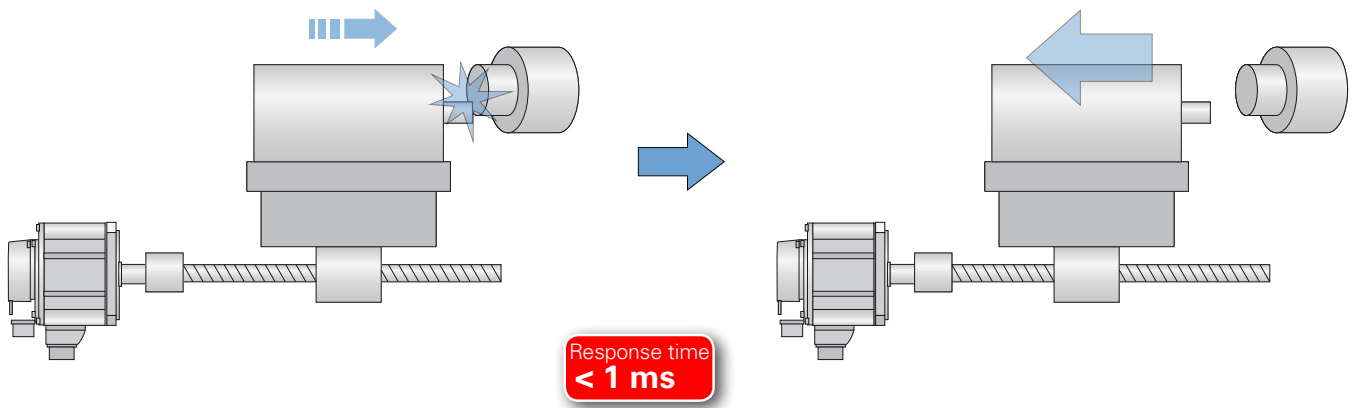




## Overload and collision monitoring

### Additional safety feature – electronic quick retraction

- Active on all TRAUB machines
- Minimizes damage to the machine
- Active counter control in case of malfunction
- Response time in the millisecond range by intelligent servo amplifier
- More effective than mechanical safety systems



Electronic quick retraction

## TRAUB remote access

- Retrieve and view the current machine status and view the control screen by TRAUB remote access on your tablet or smartphone

## TRAUB Messenger (option)

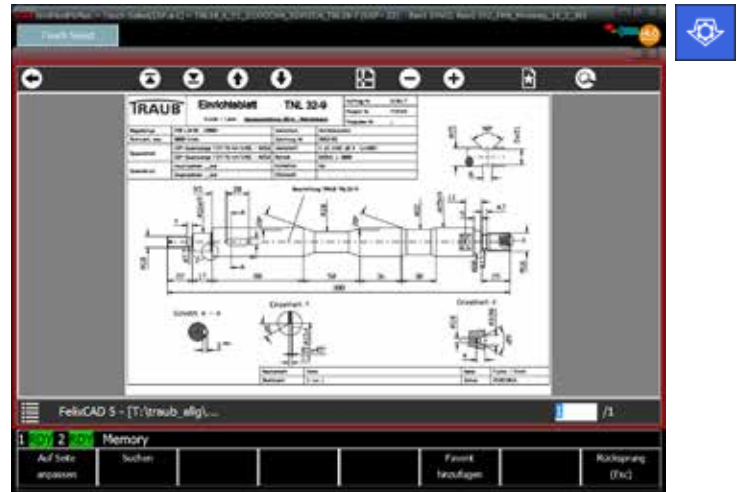
- Automatic notification at defined machine states by email





## Fit for Industry 4.0 – paperless production

Standard functions and interfaces available in the control enable easy integration of the machine in the respective production environment. You have quick access to production information and custom applications that are displayed directly on the control screen.



Extended functions (excerpt):



Integrated browser for web applications as standard



Remote access display on tablet/smartphone  
Display/control of applications via VNC



Job documentation, display of production information



Custom documents



Configuration information / setup sheet



Workpiece drawings



Instructions & function documentation



Note feature,  
for example, for storing information

## Process interfaces / automation interfaces

### TRAUB MDE/BDE interface

Data generated on the machine are selectively logged and made available for external evaluations. The data, which may contain also information from the NC-program, is stored on the control PC.

Access is via a browser over the Internet or a shared network computer (HTTP Get command).

### OPC UA – the basic interface for Industry 4.0

OPC UA runs over Ethernet on TCP/IP, HTTP and complies with all the essential features of an I4.0-component:

- Operating system and platform independence
- Compliant communication (SOA) compliant semantics
- Security and safety
- Identifiability, nesting capability

# Function documentation

## Diagnostics, maintenance and support

- Permanent recording of relevant analog and digital signals and data
- These can be represented at any time with correct temporal reference and compared to other recordings
- Alarm messages with detailed information are issued
- Quick troubleshooting

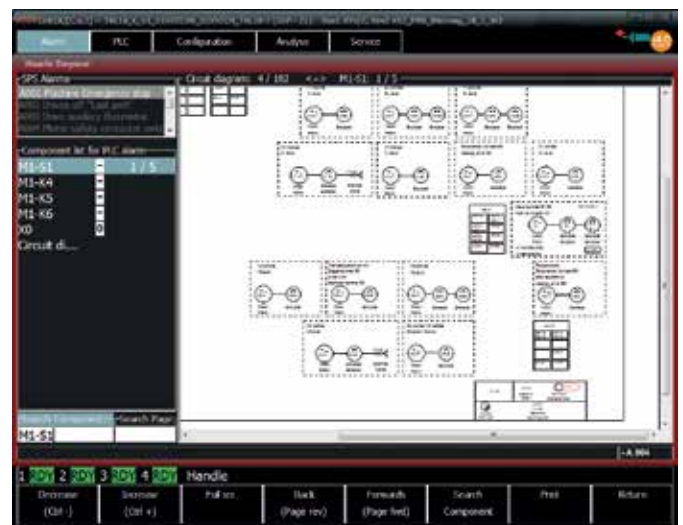
## Optimum support in maintenance

- Automatic reminder of maintenance intervals and their acknowledgement
- Maintenance information and instructions are stored



## Graphical “wiring diagram diagnostics” assists in fast identification of any defective components

- Quick search for components that are associated with alarm messages of the control
- Intelligent algorithms determine the components which could be the cause of the alarm messages
- Convenient search functions show the corresponding components graphically in the wiring diagram of the corresponding machine immediately on the screen



# Qualified training

- Qualified product training held by competent staff members
- Theory in training rooms equipped with advanced PC technology
- Practical operator training in small groups
- Training directly at the production machine
- Courses for maintenance and service



**BRAZIL // Sorocaba**  
INDEX Tornos Automaticos Ind. e Com. Ltda.  
Rua Joaquim Machado 250  
18087-280 Sorocaba - SP  
Phone +55 15 2102 6017  
vendas@indextornos.com.br  
www.indextornos.com.br

**CHINA // Shanghai**  
INDEX Trading (Shanghai) Co., Ltd.  
No. 18 Gu Fang Rd  
Shanghai 201102  
Phone +86 21 54176637  
info-shanghai@indextraub-china.com  
www.index-traub.cn

**CHINA // Dalian**  
INDEX DALIAN Machine Tool Ltd.  
17 Changxin Road  
Dalian 116600  
Phone +86 411 8761 9788  
dalian@index-traub.com  
www.index-traub.cn

**DENMARK // Langeskov**  
INDEX TRAUB Danmark  
Havretoften 1  
5550 Langeskov  
Phone +45 65993401  
t.frydensberg@index-traub.dk  
www.index-traub.dk

**GERMANY // Esslingen**  
INDEX-Werke GmbH & Co. KG Hahn & Tessky  
Plochinger Straße 92  
73730 Esslingen  
Phone +49 711 3191-0  
info@index-werke.de  
www.index-werke.de

**GERMANY // Deizisau**  
INDEX-Werke GmbH & Co. KG Hahn & Tessky  
Plochinger Straße 44  
73779 Deizisau  
Phone +49 711 3191-0  
info@index-werke.de  
www.index-werke.de

**GERMANY // Reichenbach**  
INDEX-Werke GmbH & Co. KG Hahn & Tessky  
Hauffstraße 4  
73262 Reichenbach  
Phone +49 7153 502-0  
info@index-werke.de  
www.index-werke.de

**FINLAND // Helsinki**  
INDEX TRAUB Finland  
Hernepellontie 27  
00710 Helsinki  
Phone +35 8 108432001  
pekka.virkki@index-traub.fi  
www.index-traub.fi

**FRANCE // Paris**  
INDEX France Sarl  
Avenue du Québec / Z.A. de Courtabœuf  
91941 Les Ulis Cedex  
Phone +33 1 69187676  
info@index-france.fr  
www.index-france.fr

**FRANCE // Bonneville**  
INDEX France Sarl  
399, Av. de La Roche Parnale  
74130 Bonneville Cedex  
Phone +33 4 50256534  
info@index-france.fr  
www.index-france.fr

**NORWAY // Oslo**  
INDEX TRAUB Norge  
Postbox 2842  
0204 Oslo  
Phone +47 4695 8385  
a.stjepic@index-traub.no  
www.index-traub.no

**SWEDEN // Stockholm**  
INDEX TRAUB Nordic AB  
Fagerstagatan 2  
16308 Spånga  
Phone +46 8 505 979 00  
h.sars@index-traub.se  
www.index-traub.se

**SLOVAKIA // Malacky**  
INDEX-Werke GmbH & Co. KG Hahn & Tessky  
Vínohrádok 5359  
Malacky 901 01  
Phone +34 654 9840  
info@index-werke.de  
www.index-traub.com

**UNITED STATES // Noblesville**  
INDEX Corporation  
14700 North Point Boulevard  
Noblesville, IN 46060  
Phone +1 317 770 6300  
sale@index-usa.com  
www.index-usa.com

*better.parts.faster.*

**INDEX**  
**TRAUB**

**INDEX-Werke GmbH & Co. KG  
Hahn & Tessky**  
Plochinger Straße 92  
73730 Esslingen

Phone +49 711 3191-0  
Fax +49 711 3191-587  
info@index-werke.de  
www.index-werke.de