

**INDEX** 

Turn-mill center for high flexibility and productivity



# The INDEX G200 with integrated milling spindle Flexible turning and milling – as productive as automatic turning

The INDEX G200 is equipped with two identical work spindles, three tool turrets, all of which have a Y-axis, and one milling spindle with a 360-degree B-axis.

This turn-mill center combines the productivity of an automate lathe with the ability to perform sophisticated milling operations.

The work area, unique in its class, assures with its compact foot print an enormous power density for your economic manufacturing of today and tomorrow.

In addition, the vertical work area design with up to three tool carriers and one milling spindle allows optimum process reliability with minimal setup efforts through the convenient tool pool of up to 43 stations (42x VDI25 and 1x HSK-A40).



Machining example with 360-degree B axis:





# The machine design

- Bar capacity dia. 65 mm Chuck dia. 165 mm
- Up to three tool carriers with Y-axis usable on main and counter spindles
- Simultaneous machining using two or three turrets
- Fast turret indexing
- High acceleration and fast rapid traverse rates up to 60 m/min
- Generously sized work area

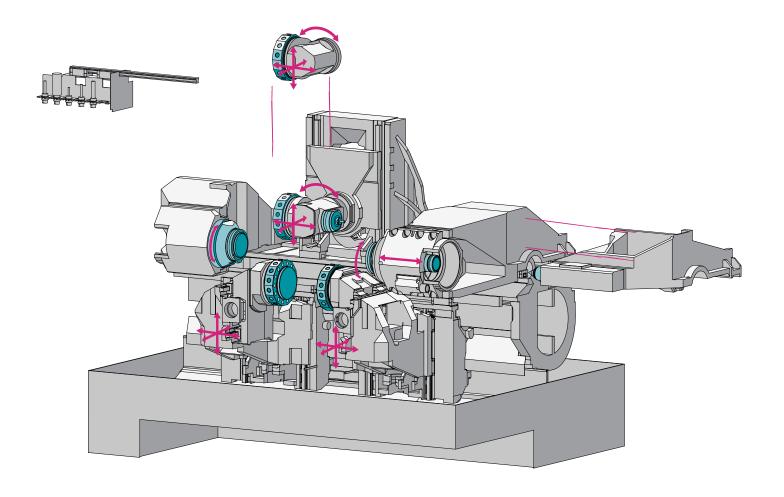
# The milling spindle (option)

- Powerful and dynamic milling spindle (max. 7,200 rpm, 22 kW and 52 Nm), tool mounting HSK-A40
- 360-degree B-axis

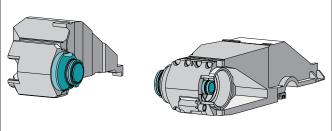
# Flexible productivity from the modular system

With a high degree of rigidity, thermal and dynamic stability as well as very good vibration-damping properties, the INDEX G200 enables production with excellent workpiece qualities.

The powerful milling spindle, in connection with the Y/B-axis running in hydrodynamic bearings ensures sophisticated drilling or milling operations – without the use of live tool holders – easy and cost-effective.

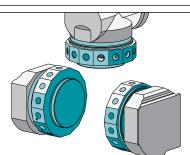


# The components



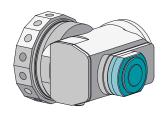
#### Main and counter spindles

- Dia. 65 mm
- 6,000 rpm
- Main spindle 32 kW, counter spindle 24 kW torque 170 Nm (40%)



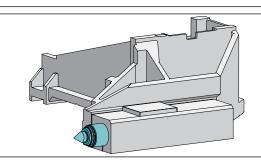
#### Three turrets with up to 42 stations

- 14 stations, VDI25
- 7,200 rpm
- Turret 1 9 kW, 16 Nm (100%)Turret 2 & 3 6.5 kW, 16 Nm (25%)



#### Milling spindle

- 7,200 rpm, 22 kW, 52 Nm (25%)
- Tool mounting HSK-A40
- X-axis 230 mm, rapid traverse rate 30 m/min
- Y-axis +/- 65 mm, rapid traverse rate 15 m/min
- Z-axis 845 mm. rapid traverse rate 50 m/min
- 360-degree B-axis



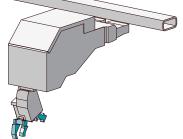
#### Tailstock

- Max. distance from spindle zero 845 mm
- Max. pressure force 5,500 N



### **Turret steady**

• Clamping range 10 – 64 mm

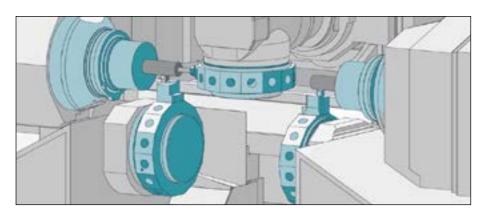


# Gantry-type removal unit

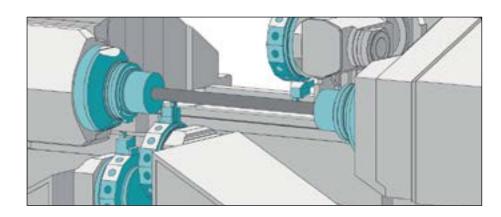
Dia. max. = 65 mm
Length max. = 200 mm
Mass max. = 5 kg

# Incomparably large degrees of freedom in the work area for a wide variety of machining options

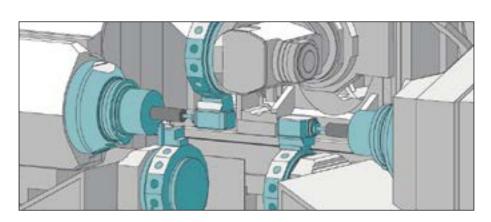
Use of straight tool holders for the most stringent precision requirements.



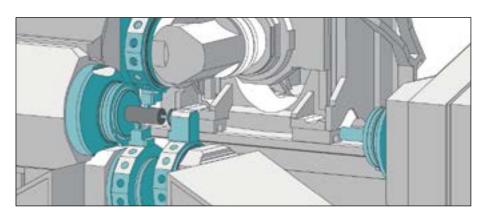
Machining of long workpieces without interruptions with turret 2 or turret 3 in parking position.

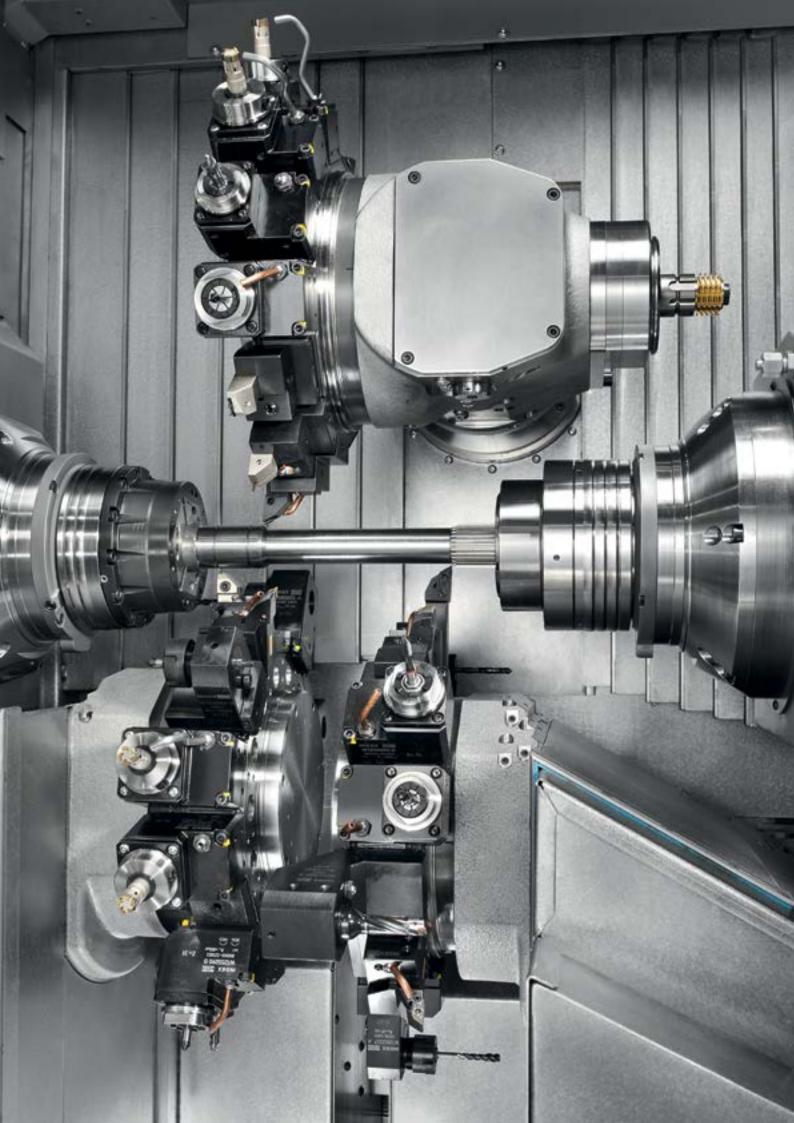


Simultaneous internal machining on main and counter spindles.



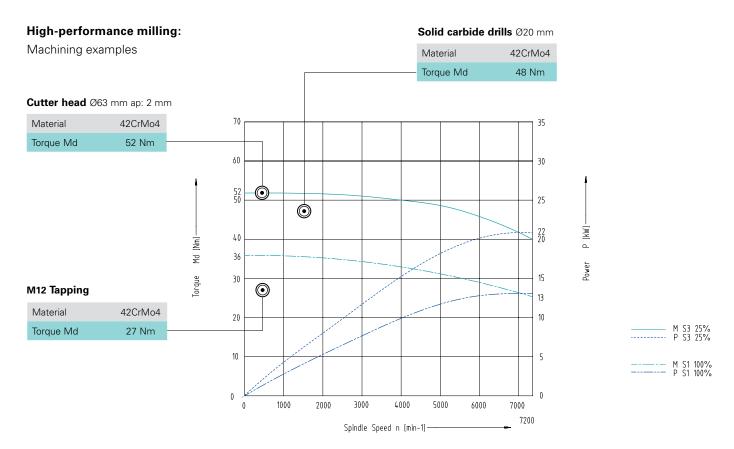
Simultaneous machining with three tools on the main or counter spindle.





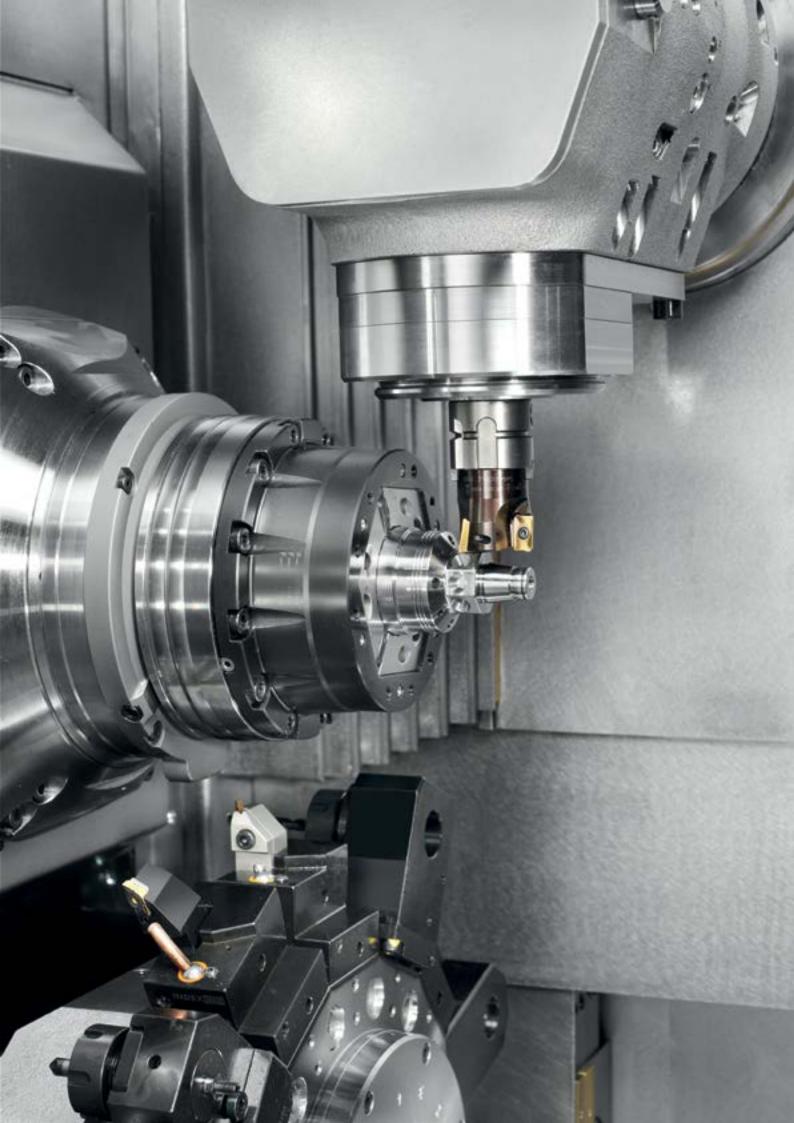
# High-performance milling and drilling – without live tool holders

With the optional integrated milling spindle, all drilling and milling operations can be carried out with high performance, productivity and cost effectiveness.

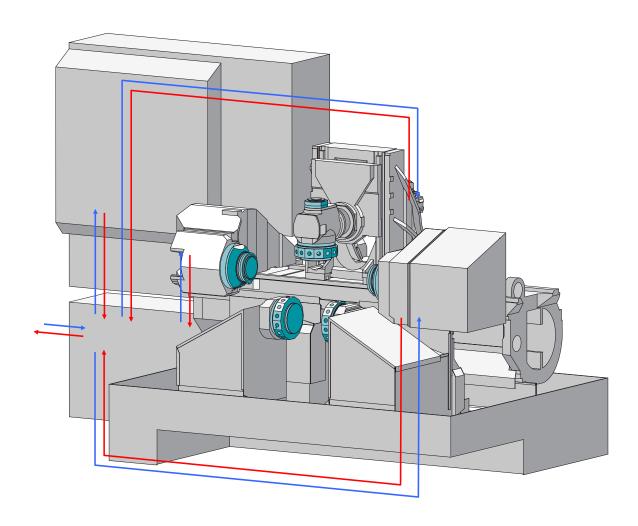


Tools are changed automatically in the integrated milling spindle using a pick-up procedure. With the linear tool magazine moving from the left into the work area, a total of 6x HSK-A40 tool locations are available.





# With intelligent cooling concept: efficient use of energy



#### Intelligent use of proven cooling principles:

#### • Targeted heat dissipation

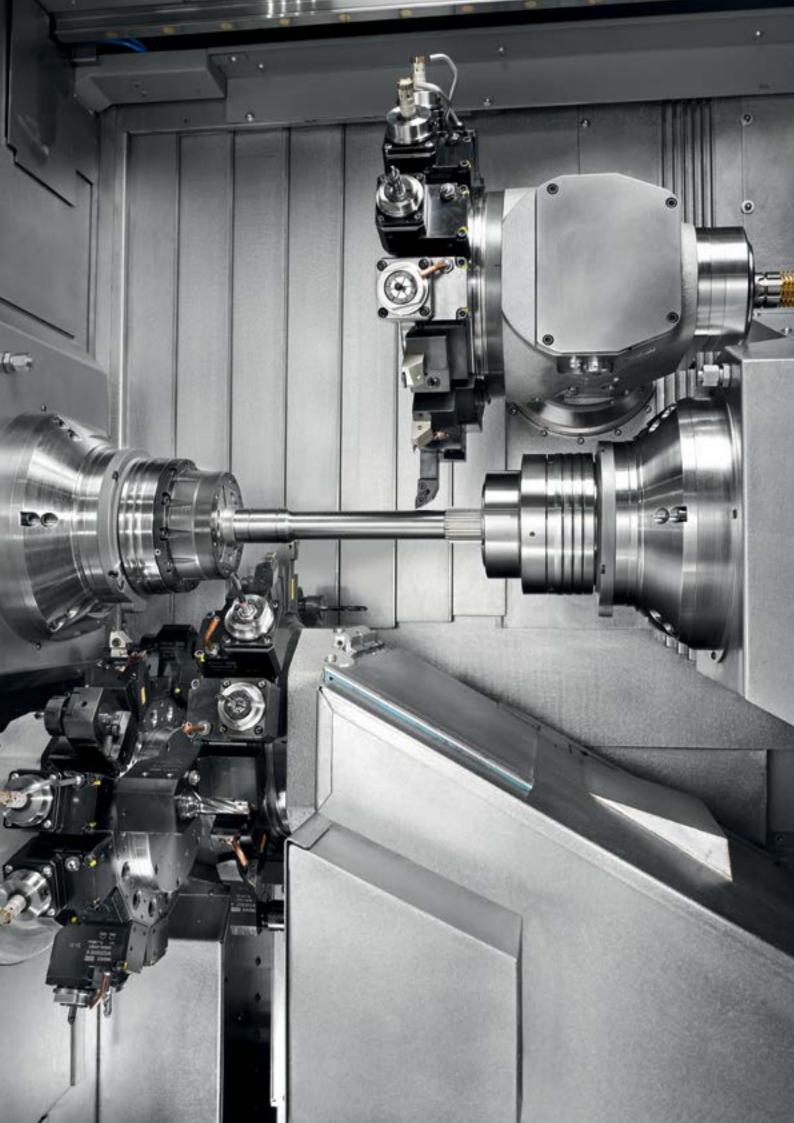
All high-loss heat sources of the INDEX G200 are cooled directly with different cooling media via multiple fluid circuits. In addition to the main and counter spindle, as well as tool carrier 1, the hydraulic system and the control cabinet have a separate cooling circuit. The lost heat energy is absorbed directly in the coolant and removed from a central location of the machine.

#### Economic use of waste heat

The INDEX "cold water interface" allows the heat loss energy stored in the cooling medium to be removed from a central location and conveyed for another use, if required, e.g., production hall heating, service water heating or process heating for other production steps. The recovery of machine waste heat enables a sustainable reduction of energy costs in the company.

#### • Climate-neutral dissipation of heat

The cold water interface provides the ability to dissipate heat in a climate-neutral manner, if the machine waste heat stored in the cooling medium cannot be used otherwise. The necessary cooling unit can be used with the help of the water interface first on the outside of the production hall and secondly also centrally for several machines. This offers a considerable energy savings potential for production hall heating dissipation/climate control or increased efficiency as a result of centralized heat disposal.





# The cockpit for easy integration of the machine in your business organization.



#### Focus on production and control - Industry 4.0 included.

The Xpanel operating concept provides access to networked production. With Xpanel your staff always has all relevant information for efficient production right at the machine. Xpanel is already included in the standard and can be individually extended. So you can use Xpanel as you want it for your business organization – that's Industry 4.0 tailored to your needs.

#### Future-proof.

Xpanel integrates the latest control generation SIEMENS S840D sl. Use XPanel intuitively via an 18.5" touchscreen.







#### Productive.

Maximum performance through comprehensive technology cycles and programming screens, e.g., for optimum turning, milling and drilling, especially when using several tools simultaneously.

### Intelligent.

The machine always starts with the control home screen. Other functions can always be displayed on a second screen, and the operator enjoys direct, activity-related assistance already in the standard version, such as workpiece drawing, setup lists, programming tools, documentation, etc., right at the machine.

# Virtual & open.

With the optional VPC box (industrial PC), Xpanel opens up the world of Virtual Machine with the 3 operating modes

- CrashStop
- RealTime Mode
- independent simulation (VM on board) directly on the control.

Thanks to the VPC box, the machine can be integrated into your IT structure without restrictions.

index-traub.com/xpanel





Industrie 4.0 - features





Customer data



Workpiece counter



Production status



Drawings



Setup sheet



VPC Box





Notes



center



Maintenance & care



management



Technology computer



Programming



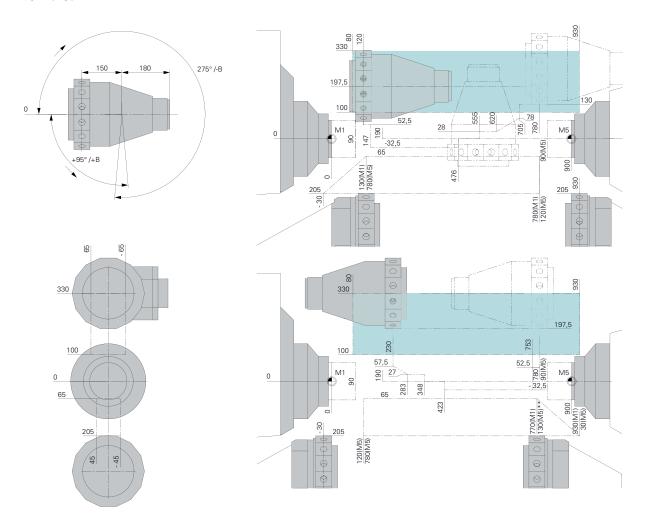
Programming



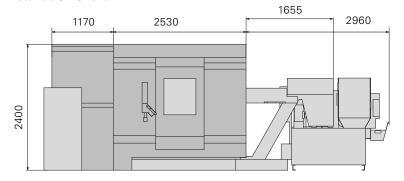
applications

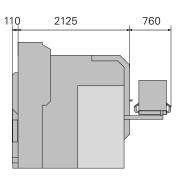
# **INDEX G200**

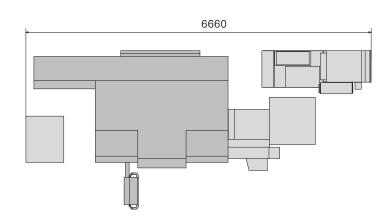
### Work area



### **Installation Chart**







# **Technical data**

| Working rang   | je                               |                |                         |
|--|----------------------------------|----------------|-------------------------|
| Turning length                                       |                                  | mm             | 660                     |
| Main spindle   | , counter spindle                |                |                         |
| Spindle clearance                                    |                                  | mm             | 65                      |
| Spindle diameter in front bearing                    |                                  | mm             | 110                     |
| Spindle nose ISO 702/1                               |                                  | Size           | D140                    |
| Max. speed   |                                  | rpm            | 6,000                   |
| Drive power MSP / CSP (100%/40%)                     |                                  | kW             | (31.5 / 32) / (20 / 24) |
| Torque (100%/40%)                                    |                                  | Nm             | (125 / 170)             |
| Chuck diameter                                       |                                  | mm             | 165                     |
| Max. rotation diameter                               |                                  | mm             | 550                     |
| Aligning and indexing unit                           |                                  | Deg.           | 2.5                     |
| C-axis resolution                                    |                                  | Deg.           | 0.001                   |
| Counter spin   | dle                              |                |                         |
| Slide travel Z, rapid traverse rate, feed force      |                                  | mm / m/min / N | 710 / 60 / 6,000        |
| Minimum distance for collet                          |                                  | mm             | 10                      |
| Tailstock  |                                  |                |                         |
| Max. distance from spindle zero                      |                                  | mm             | 845                     |
| Max. pressure force                                  |                                  | N              | 5,500                   |
| Turret 1, 2 an                                       | d 3                              |                |                         |
| Number of stations                                   |                                  |                | 14                      |
| Tooling system DIN69880                              |                                  |                | 25×48                   |
| Max. speed   |                                  | rpm            | 7,200                   |
| Turret 1   | Max. drive power / torque (100%) | kW / Nm        | 9 / 16                  |
| Turret 2 & 3   | Max. drive power / torque (25%)  | kW / Nm        | 6.5 / 16                |
| Milling spind  | lle                              |                |                         |
| Tooling system DIN69893                              |                                  |                | HSK-A40                 |
| Max. speed   |                                  | rpm            | 7,200                   |
| Drive power / torque (25%)                           |                                  | kW / Nm        | 22 / 52                 |
| Tool carrier 1                                       |                                  |                |                         |
| <b>B-axis</b> Continuous torque / maximum torque     |                                  | Nm             | 340 / approx. 500       |
| <b>B-axis</b> Swivel angle                           |                                  | Deg.           | 360                     |
| B-axis Brake holding torque                          |                                  | Nm             | 2000                    |
| <b>B-axis</b> Angular resolution / swivel angle 180° |                                  | Deg. / sec.    | 0.001 / 0.8             |
| Slide travel X, rapid traverse rate, feed force      |                                  | mm / m/min / N | 230 / 30 / 6,000        |
| Slide travel Y, rapid traverse rate, feed force      |                                  | mm / m/min / N | +/- 65 / 15 / 10,000    |
| Slide travel Z, rapid traverse rate, feed force      |                                  | mm / m/min / N | 845 / 50 / 6,000        |
| Tool carrier 2                                       | and 3                            |                |                         |
| Slide travel X, rapid traverse rate, feed force      |                                  | mm / m/min / N | 140 / 30 / 6,000        |
| Slide travel Y, rapid traverse rate, feed force      |                                  | mm / m/min / N | +/- 45 / 15 / 10,000    |
| Slide travel Z,                                      | rapid traverse rate, feed force  | mm / m/min / N | 810 / 50 / 6,000        |
| Steady rest v  | vith sep. slide                  |                |                         |
| Clamping range                                       |                                  | mm             | 10 - 64                 |
| Gantry-type  | removal unit                     |                |                         |
| Workpiece weight / workpiece length max.             |                                  | kg / mm        | 5/200                   |
| Machine dim  | ensions                          |                |                         |
| Length x width x height                              |                                  | mm             | 5355 x 2235 x 2400      |
| Weight   |                                  | kg             | approx. 8500            |
| Connected power                                      |                                  | kW             | approx. 42 (51 KVA)     |
| Control  |                                  |                | Siemens S840D sl        |

#### 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 br.index-traub.com

#### CHINA // Shanghai

INDEX Trading (Shanghai) Co., Ltd. No.526, Fute East 3rd Road Shanghai 200131 Phone +86 21 54176637 china@index-traub.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

INDEXTRAUB Danmark Havretoften 1 5550 Langeskov Phone +45 30681790 b.olsen@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

INDEXTRAUB Finland Hernepellontie 27 00710 Helsinki Phone +35 8 108432001 pekka.virkki@index-traub.fi www.index-traub.fi

#### FRANCE // Paris

INDEX France Sarl 1A, 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

INDEXTRAUB Norge Postbox 2842 0204 Oslo Phone +46 8 505 979 00 h.sars@index-traub.se www.index-traub.no

#### RUSSIA //Toglyatti

INDEX RUS Lesnaya street 66 445011 Toglyatti Phone +7 8482 691 905 indexrus.info@gmail.com ru.index-traub.com

#### SWEDEN // Stockholm

INDEXTRAUB Nordic AB Fagerstagatan 2 16308 Spånga Phone +46 8 505 979 00 h.sars@index-traub.se www.index-traub.se

#### SLOVAKIA // Malacky

INDEX Slovakia s.r.o. Vinohrádok 5359 901 01 Malacky 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



#### INDEX-Werke GmbH & Co. KG Hahn & Tessky

Plochinger Straße 92 73730 Esslingen

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