

## ***C200 tandem***

*Double-spindle automatic production lathe  
for highly productive bar machining*

# INDEX



*better.parts.faster.*

## 2 x 2 spindles for double productivity

INDEX C series production turning machines have always been among the most productive and reliable automatic turning machines in the world.

The newly developed INDEX C200 *tandem* double-spindle automatic production lathe builds on the proven basic structure of the C series.

The double-spindle concept makes it possible to unlock further potential in terms of economic efficiency.

The unique *tandem* concept doubles the output of parts without increasing the amount of space, energy or personnel required.

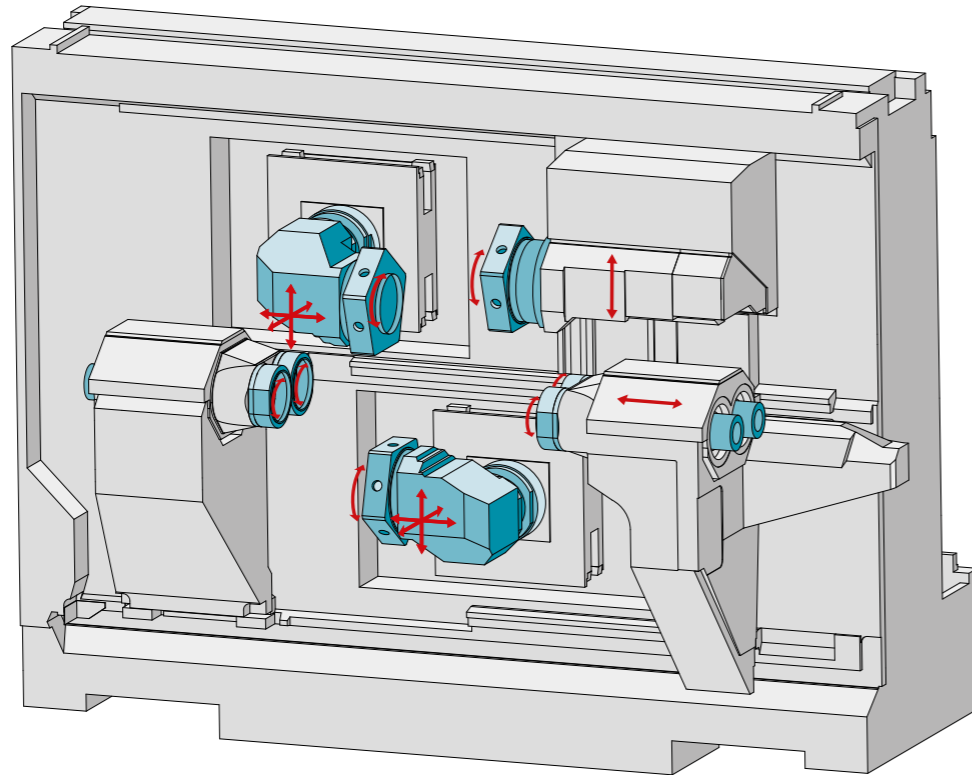
### The machine concept

- Clearly structured and ergonomically designed concept for the work area
- 2 x 2 powerful motor spindles of identical design
- Spindle clearance: 2 x 52 mm
- High part diversity thanks to 3 turrets and 5 x 2 tools
- Full rear-end machining by tandem counter spindles
- Machining with bottom turret possible on main and counter spindles
- Very good vibration damping as a result of INDEX SingleSlide
- Integrated removal device
- High productivity per unit area because of extremely compact design
- Siemens Sinumerik 840D solution line control
- Specifically matched bar loader INDEX MBL52 *tandem*



## Excellent productivity – impressive flexibility

The added value in the machine design typical of INDEX manifests itself in many details of the INDEX C200 tandem. Three turrets and a clearly structured work area ramp up productivity. Other details maximize flexibility and the part variety that can be attained in combination with short setup times. The vertical design of the machine bed provides for optimum chip flow and ready access.



### Powerful tandem spindles

2 x 2 powerful motor spindles provide for particularly effective cutting. The main and counter spindles have an identical design and are fluid-cooled. The rapid traverse rate of the counter spindle is 50 m/min.

- Main spindles and counter spindles: each 2 x ø 52 mm; 2 x 4,500 rpm

### Three turrets with up to 30 tools

The tool pool, including max. 5 x 2 tools for VDI 30 twin-tool mounting with the patented INDEX W-serration, ensures short setup times, even for small batch sizes. The extremely high dynamic response and the quick turret indexing lower the chip-to-chip times.

- Only the tools currently in use are driven – at full cutting performance
- 8,000 rpm, 10 kW

### Two Y axes for optimum distribution of work

2 Y axes on the tandem main spindle or 1 each on the main and counter spindles are possible. This allows an optimum division of operations and a reduction to cycle times.

- Simultaneous machining on both tandem spindles
- 100 mm Y-axis travel
- Stable quill guide

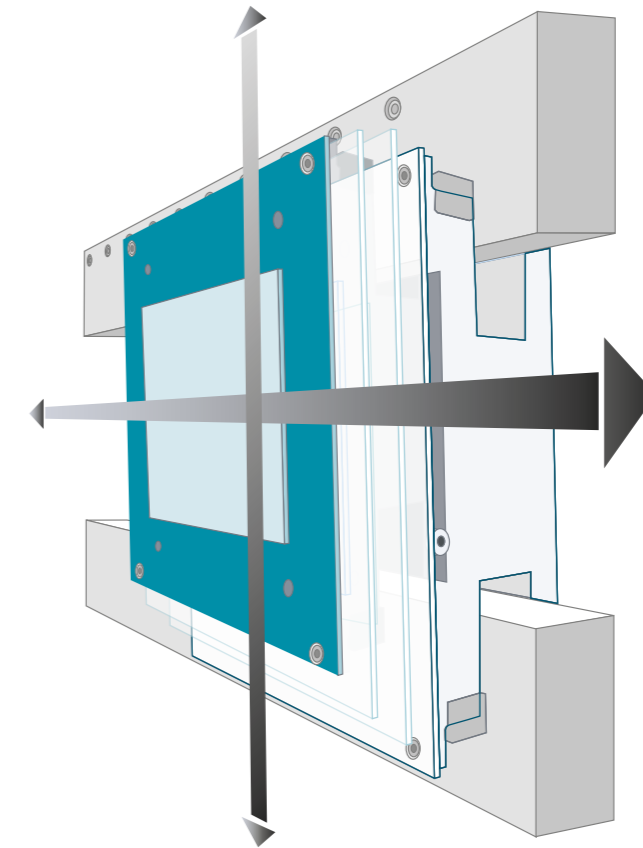
### Integrated handling system for part removal

The integrated gantry-type removal unit allows quick workpiece removal without damage to the workpiece. In addition, the bar remnants can be removed separately from the spindles.

- Workpiece/remnant removal possible from main and counter spindles
- Workpiece weight max.: 2 x 2 kg

## INDEX SingleSlide: Better and clearly faster machining

The market demands production turning machines that shorten cycle times, increase tool life and work more economically. The INDEX C200 tandem meets these requirements to a high degree. By virtue of the INDEX SingleSlide, a slideway with two degrees of freedom in one plane, the INDEX solution has many advantages compared with conventional machines.



## The benefits

### Higher workpiece quality thanks to better guides

INDEX SingleSlide is an innovative slideway composed of guide bars with wear and friction-reduced coating and hardened and surface-treated guide plates.

### Longer tool life on account of higher damping

The INDEX SingleSlide concept significantly enhances the damping properties compared with conventional systems. Superior properties result in further benefits, such as tool life increased by up to 30% and higher surface quality.

### Higher rapid traverse rates and accelerations brought about by increased dynamic response

The turret slides travel on flat, highly innovative slideways in X and Z directions. The two directions of movement are in one traversing plane. The low weight of the one-piece cross slide means that rapid traverse rates of up to 50 m/min and acceleration up to 1g can be reached.

### Increased cutting performance because of high rigidity

In conventional linear guideways, it is customary for one drive to support the other one. With the INDEX SingleSlide, a different approach is taken. Two degrees of freedom in one plane of movement produce high rigidity, ensuring maximum cutting performance with excellent damping properties.

## The cooling concept: efficient use of energy

The INDEX C200 *tandem* impresses with its sophisticated cooling concept. Heat that is generated in the spindles, hydraulic unit, and control cabinet is dissipated from the machine through a central fluid circuit. The energy is bound in

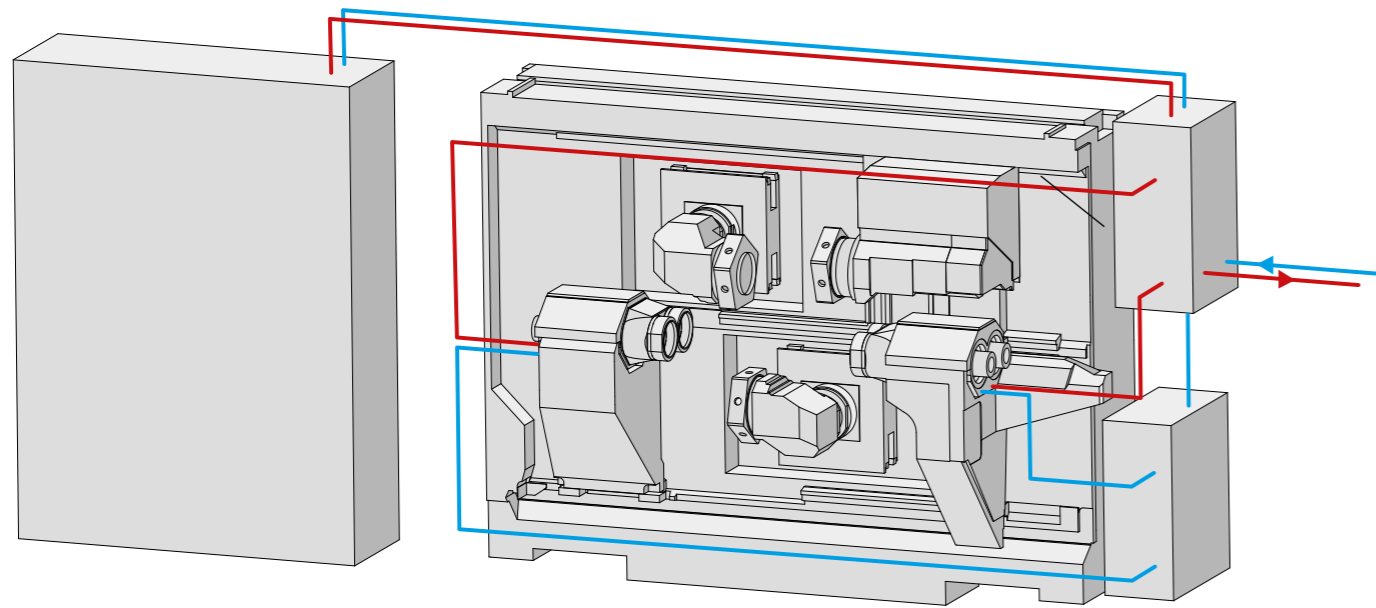
one single medium and not dissipated to the environment of the machine.

### The dissipation: locally or centrally

The innovation from INDEX: You decide which cooling concept you want to use.

The design of the INDEX C200 *tandem* with an integrated water interface allows two solutions for heat dissipation: connecting to a local cooling unit or alternatively to a central system. This means that you can adapt the machine for ideal per-

formance in your production environment. No matter which variant you choose, optimum cooling will be achieved at all times.



### High manufacturing precision

The spindles, hydraulic system and control cabinet are cooled using a continuous cooling concept. Heat energy is effectively dissipated, and temperature stability is improved, thus supporting a precise and reliable machining process.

### Better working environment: cooling takes place away from production

The noise and heat emissions are reduced to a minimum and your staff are not unnecessarily burdened.

### Safe investment

Whether centralized or decentralized, the cooling concept of the INDEX C200 *tandem* is always economic. You decide which variant matches your production environment best. The centralized system solution offers the advantage that multiple machines can be connected.

### Higher reliability

The innovative design allows elimination of components commonly used with conventional cooling principles, such as fans and temperature sensors. This enhances availability and increases profitability. The space required is also reduced.





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



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

The iXpanel operating concept provides access to networked production. With iXpanel, your operator always has all relevant information for efficient production right at the machine. iXpanel is already included as standard and can be individually extended. You can use iXpanel just as you require it for your business organization – that's Industry 4.0 tailored to suit your needs.

### Future-proof.

iXpanel integrates the latest control generation SIEMENS S840D sl. Use iXpanel intuitively through an 18.5" touch monitor.



### Productive.

Machine performance is maximized 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 can already enjoy direct, activity-related assistance in the standard version, such as workpiece drawings, setup lists, programming tools, documentation, etc., right at the machine.

### Virtual & open.

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

- CrashStop
- RealTime
- Independent simulation (VM on board) directly in the control system.

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

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



18,5" TOUCH-MONITOR

### STANDARD included as standard



Order documents



Customer data



Workpiece counter



Production status



Drawings



Setup sheet



Notes



Information center



Maintenance & care



User management



Technology computer



Programming help

### OPTION



VPC Box



Virtual machine 3D simulation



VirtualPro programming studio



Custom applications

Industry 4.0 features

+ many more standard features

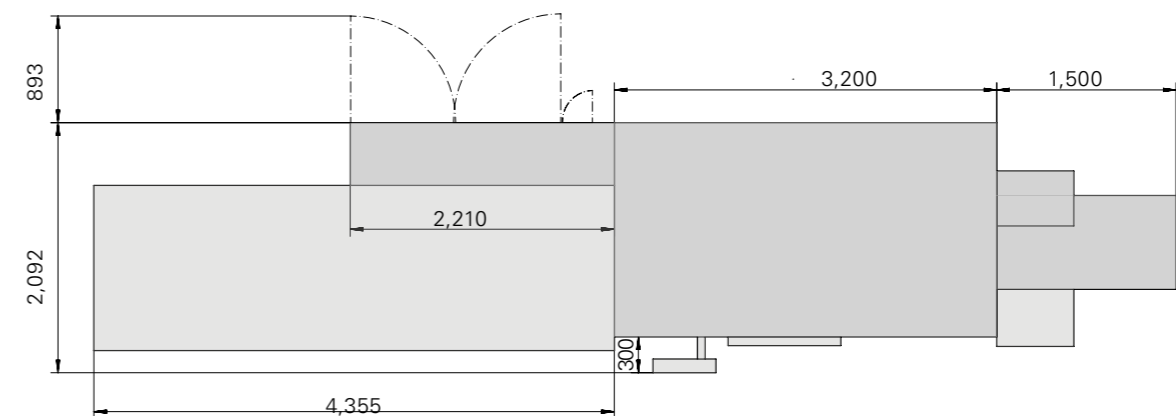
## Technical data INDEX C200 *tandem*

<b>Working range</b>				
Distance between main spindles and counter spindles:	mm	722		
<b>Main spindles</b>				
Spindle clearance	mm	2 x 52		
Speed max.	rpm	2 x 4,500		
Power at 100%/40% duty cycle	kW	2 x 20/25		
Torque at 100%/40% duty cycle	Nm	2 x 92/115		
Chuck diameter	mm	2 x 140		
Spindle nose ISO 702/1	Size	KK5		
C-axis resolution	Deg.	0.001		
<b>Counter spindle</b>				
Spindle clearance	mm	2 x 52		
Speed max.	rpm	2 x 4,500		
Power at 100%/40% duty cycle	kW	2 x 20/25		
Torque at 100%/40% duty cycle	Nm	2 x 92/115		
Chuck diameter	mm	2 x 140		
Spindle nose ISO 702/1	Size	KK5		
C-axis resolution	Deg.	0.001		
<b>Counter spindle slide</b>				
Slide travel	mm	700		
Rapid traverse rate	m/min	50		
<b>Tool turret</b>				
Number of stations		5		
Tooling system DIN 69880	mm	30 x 55 (VDI 30 mounting for twin tool holder only)		
Tool drive speed	rpm	8,000		
Power at 25% duty cycle	kW	10		
Torque at 25% duty cycle	Nm	16		
<b>Tool carrier 1 (top left)</b>				
		<b>X</b>	<b>Z</b>	<b>Y</b>
Slide travel	mm	110	320	100
Rapid traverse	m/min	30	50	15
<b>Tool carrier 2 (bottom)</b>				
		<b>X</b>	<b>Z</b>	<b>Y</b>
Slide travel	mm	110	550	100
Rapid traverse	m/min	30	50	15
<b>Tool carrier 3 (top right)</b>				
		<b>X</b>		
Slide travel	mm	180		
Rapid traverse	m/min	30		
<b>Gantry-type removal unit</b>				
Workpiece weight	kg	2 x 2		
<b>General data</b>				
Length x width x height	mm	6,910 x 2,092 x 2,490		
Weight	kg	9,000		
Connecting power		72 kW, 84 kVA, 122 A, 400 V, 50/60 Hz		
Control		Siemens S840D sl		

## Technical data of bar loader INDEX MBL52 *tandem*

<b>Bar stock</b>			
Round	Ø	mm	10 - 52
Vertical	AF	mm	10 - 45
Square	AF	mm	9 - 36
Bar support			
Capacity			max. 11 bars ø 50 mm max. 6 bars ø > 50 mm
<b>Bar length</b>			
Min.		mm	1,600
Max.		mm	3,200
<b>Feeding speed</b>			
Rapid traverse / retraction		m/min	30
Working gear, continuously adjustable / feed rate		m/min	1 - 10
<b>Feed force</b>			
continuously adjustable		N	1,500
<b>Drive</b>			
Servomotor			
<b>Mass</b>			
Bar length 3,200		mm	2,200 kg

INDEX C200 *tandem*  
INDEX bar loader MBL52 *tandem*



**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 3<sup>rd</sup> 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**

INDEX TRAUB 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**

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  
 1A, Avenue du Québec / Z.A. de Courtabœuf  
 91940 Les Ulis / Villebon  
 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 +46 8 505 979 00  
 h.sars@index-traub.se  
 www.index-traub.no

**RUSSIA // Togliatti**

INDEX RUS  
 Lesnaya street 66  
 445011 Togliatti  
 Phone +7 8482 691 600  
 info@index-rus.ru  
 ru.index-traub.com

**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

**SWITZERLAND // St. Blaise**

INDEX Werkzeugmaschinen (Schweiz) AG  
 Av. des pâquiers 16  
 2072 St. Blaise  
 Phone +41 (32) 756 96 10  
 info@index-traub.ch  
 www.index-traub.ch

**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

*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-traub.com