

SpeedLine C42/C65

Production turning machine



High productivity, ideal for bar machining

Three tool systems on two work spindles of identical design allow:

- Shorter cycle times of up to 30% compared with 2 turrets
- Max. 36 tool stations (all driven)
- If desired, 2 Y-axes for 3 turrets and 2 work spindles

The clearly organized working area allows:

- Simultaneous machining using 3 turrets on 2 work spindles
- Working without risk of collision



Polygon turning with main spindle and counter spindle

The extremely high rigidity and large flywheel mass of the work spindles has now made polygon turning possible even in highly resistant materials.

Machining example:

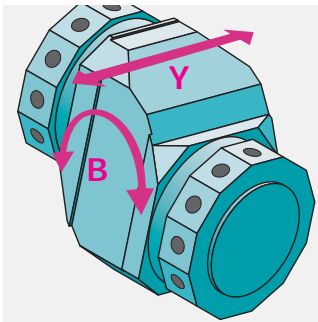
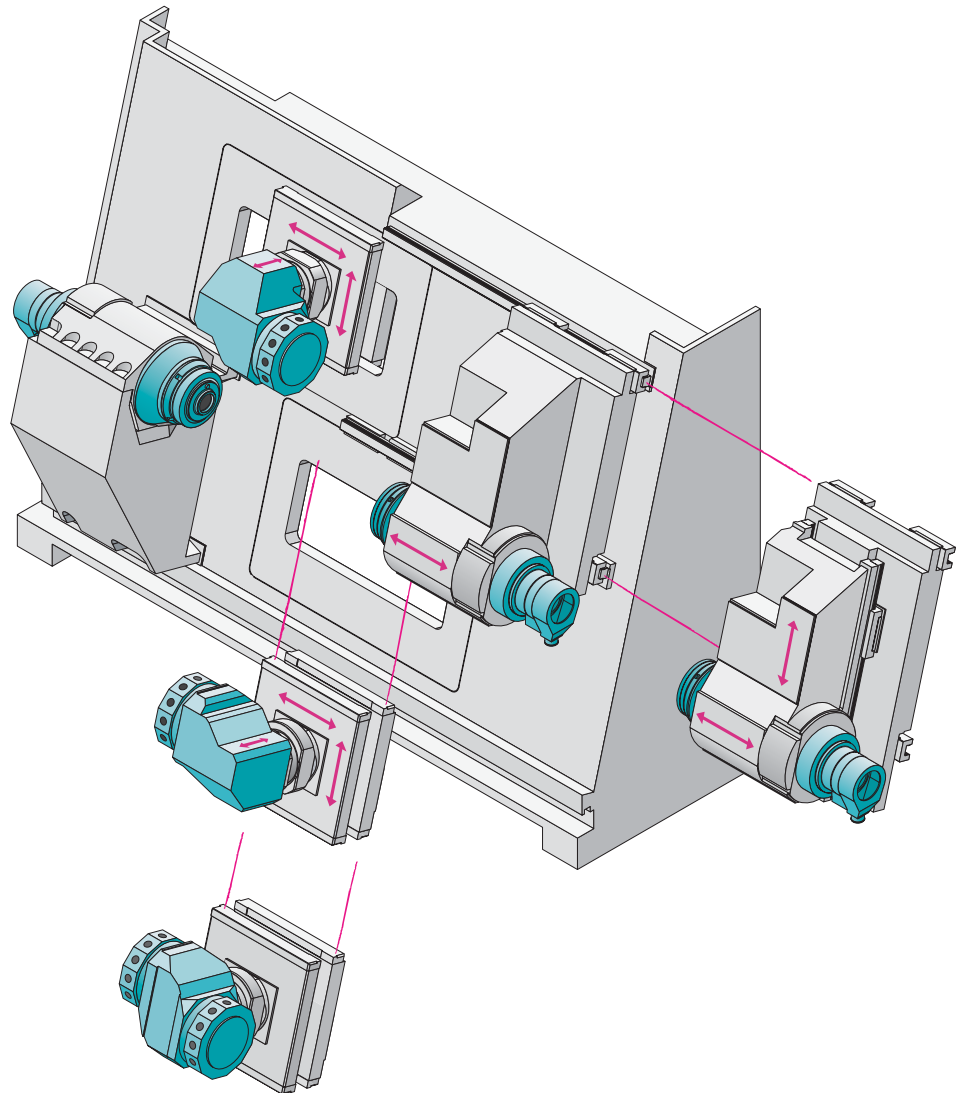
Material 42CrMoS4
heat-treated to 1.100 N/mm²

- Cutting speed = 170 m/min
- Feed rate = 0.2 mm/rev
- Achieved tool life quantity at over flat 20 = 1400 workpieces
- max. over flat 48 achievable



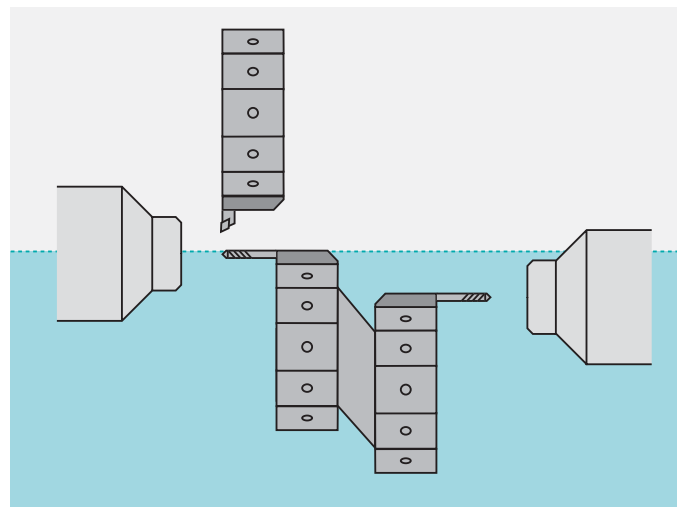
Investment made-to-order

You determine yourself which options you want: The clearly structured modular system offers you the unique advantage of incorporating in your machine precisely those functions that you need for solving the specific production tasks – no more and no less.



Powerful details:

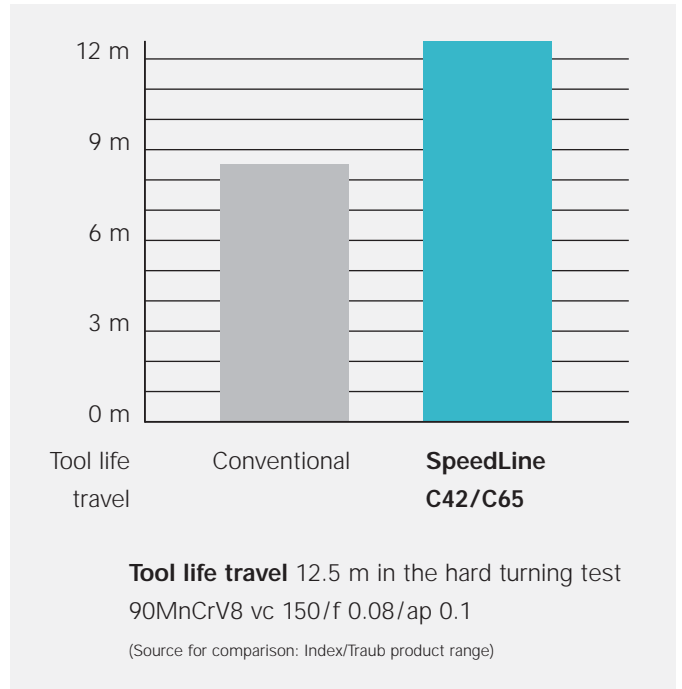
- B correction axis ($\pm 1^\circ$) for all tool carriers
- up to 2 Y-axes possible



SpeedLine C42/C65:
Horizontal division of the working area

Up to 30% higher tool lives

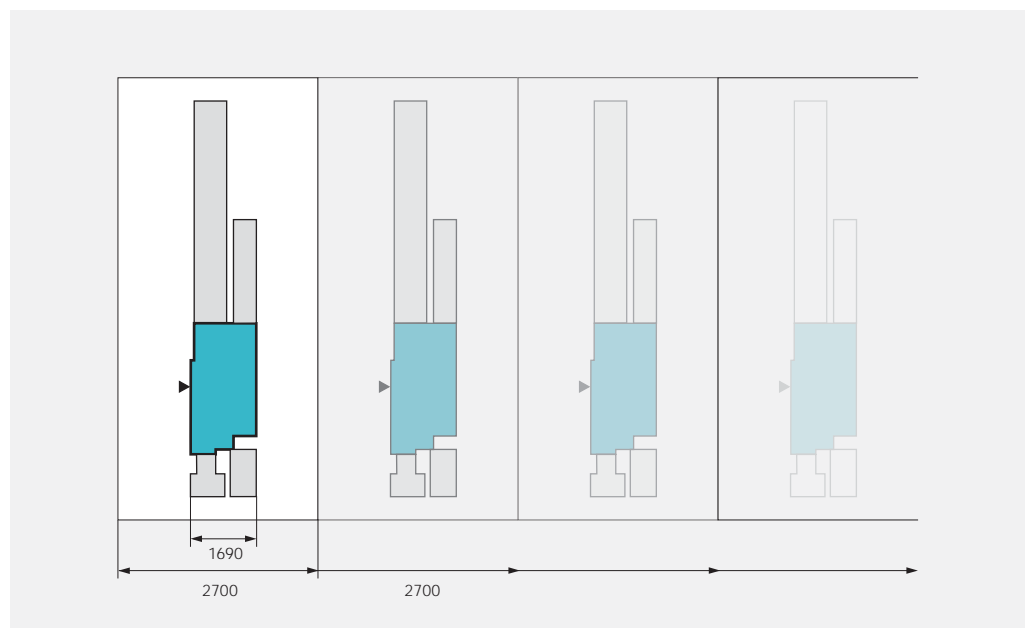
The turret slides travel on flat, highly innovative sliding guides in X and Z directions. The sliding pair consists of a hardened guide plate and ceramic-coated steel rails. This design allows the damping properties and the rigidity almost to be doubled compared with conventional multi-axis slide systems. A further highlight: The traveling movements of the slides are effected by rod kinematic drives on the rear of the cast machine bed.



Performance level of INDEX C42 / C65

High performance values requiring little space

- Use your valuable production surface area to your best benefit



SpeedLine C42/C65

Economical through an intelligent control concept

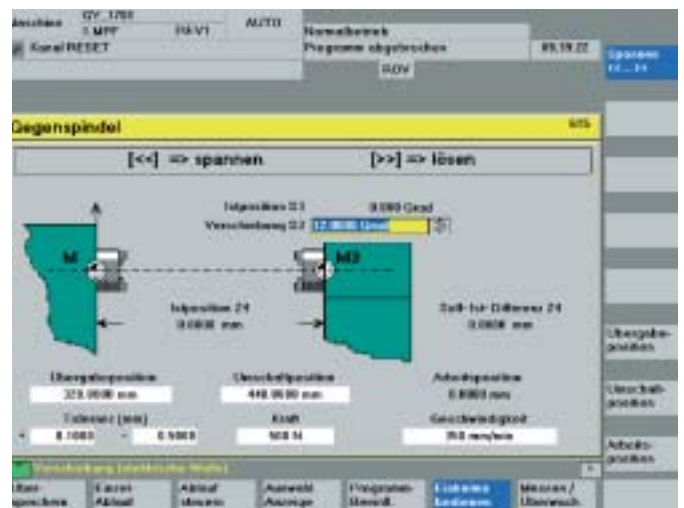
You're in control ...

- Cleartext in display and operation
- All spindles and axes at a glance
- Identical interface for all machines
- In case of error: Display of "Place" and "Cause"
- "Online"-error and service documentation

Expert programming ...

Far more than 70 user cycles

- offer application-specific support down to the smallest detail
- guarantee safe program run with maximum flexibility
- secure optimum machine utilization and machine running



INDEX C 200-4D



Based on Siemens 840D

Quick setup ...

Including axis lock

- Approach of tool carriers "step by step"
- Check of superimposed machining processes at standstill

Including T word acknowledgement mode

- User control prior to each turret indexing
- All of that is done without any modification in the programs

Starts immediately ...

Via block search

- key press resumes process at the point of interruption
- channel-synchronous advance to any desired program point
- REPOS-guided safely to the (new) starting point

Via start requirements

- establishes correct machine state simply and without collision

Operational safety ...

Absolute encoder systems know position in any situation

Safety Integrated ...

- maintains axis positions and clamping positions even with the protective hood open
- checks whether safety device function is working correctly with respect to the cycle
- personal protection quick to react

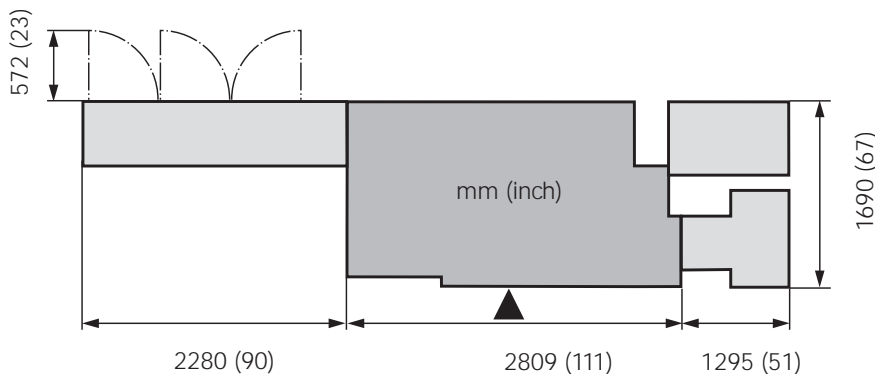
and flexibility!

- Tool breakage monitoring system upon request
- Tool control system and replacement tools possible
- ETHERNET network connection to DNC possible
- Machine data acquisition (MDA / ODA possible)
- Teleservice possible

Technical data

Working range

Clearance between the clamping chucks	mm (inch)	615 (24.2)			
Main spindle, counter spindle		C42	C65		
Bar capacity (max. bar diameter)	mm (inch)	42 (1.7)	65 (2.6)		
Spindle head ISO 702 / 1	Size	A5	140 mm (5.5 inch)		
Chuck diameter	mm (inch)	140 (5.5)	140 / 160 (5.5/ 6.3)		
Speed	rpm	6300	5000		
Power at 100% / 40% duty cycle	kW (hp)	20 / 27 (27/ 36.5)	20 / 27 (27/ 36.5)		
Torque at 100% / 40% duty cycle	Nm (ft lbs)	105 / 145	105 / 145		
Alignment and indexing attachment	Degrees	2.5	2.5		
C axis resolution	Degrees	0.001	0.001		
Counter spindle slide		X	Z		
Slide travel	mm (inch)	150 (5.9)	600 (23.6)		
Rapid traverse	m (inch) / min	25 (984)	45 (1770)		
Turret slides 1 and 2 / 3		X	Z	Y	B-correction axis
Slide travel	mm (inch)	110 (4.3)	360 (14.2)	70 (2.8)	± 1°
Rapid traverse	m (inch) / min	25 (984)	45 (1770)	12 (472)	
Tool turrets 1 and 2 / 3					
Number of stations / of which are driven		12 / 12			
Tool system DIN 69880		25 x 48			
Tool drive speed	rpm	6000			
Tool drive power (at 25% duty cycle)	kW (hp)	8 (10.8)			
Tool drive torque (at 25% duty cycle)	Nm (ft lbs)	16 (12)			
Weight and connecting power at maximum configuration					
Weight	approx. kg (lbs)	6500 (14300)			
Connecting power		42 kW, 53 kVA, 80 A, 400 V, 50 / 60 Hz			
Control		INDEX C200-4D (based on Siemens 840D powerline)			



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