

Press Release

MultiLine INDEX MS40C

Maximum productivity with optimum flexibility

The INDEX MS40C multi-spindle automatic turning machine is a new addition to the MultiLine series for machining bars up to 40 mm in diameter. Customized configuration with up to 12 CNC cross-slides, Y-axes, synchronous spindles, and further options enables high-productivity machining of bars as well as chucked parts.



The INDEX MS40C represents an expansion to the successful MultiLine series that accommodates loading of bars up to 40 mm in diameter. Chucked parts can be machined up to a blank diameter of approximately 70 mm. The INDEX machine features a tool carrier arrangement in the working area without a longitudinal sliding block, which allows more than one tool to be used on each spindle. The generously dimensioned working area can be optimally accessed through two sliding doors on the side. This is not only very convenient for the user but also reduces setup time appreciably.

An advantageous slide arrangement also ensures unhindered chip flow and, thus, a high level of process reliability. The core of the machine is the compact spindle drum with 6 fluid-cooled motor spindles in synchronous design. Additional characteristics of the machine include: infinitely variable speed control, high torque, small frame size, and maintenance-free operation.

Customized machining options in every spindle position

The INDEX modular system allows customer-specific configuration of up to 12 hydrostatic bearing-supported CNC cross-slides, Y-axes, up to 2 synchronous spindles, and numerous fixed and driven tools for machining the front and reverse sides of workpieces. The V-shaped arrangement of the tool carriers ensures that the optimum technological sequence alone determines the machining method. Thus, for example, external and internal machining operations using fixed or driven tools can be carried out in every station.

Independent speeds and optimum cutting data

The familiar proven advantages of the INDEX CNC multi-spindle machines, such as the use of hollow-shaft motor technology in all work spindles and the optimum selection of cutting data via the CNC program, were of course also carried over into the development of the MS40C. During machining, it is always possible to program the optimum speed, which can still be varied during cutting, for each spindle position and each cutting edge of the tool. The result is optimum chipping, maximum surface quality, short production times per piece, and extended tool life. Thus, you can also machine troublesome materials that up to now were hardly suitable for multi-spindle machines. It is also possible to make speed changes during the drum connection, thus avoiding any additional secondary processing times. The C-axes available in all spindle positions also permit complete machining of intricate workpieces in minimum time. The optionally available Y-axes expands the range of machinable workpieces even more.

Productivity meets flexibility

A main advantage of the new INDEX MS40C is its flexibility. The machine allows configuration of various tools on the cross-slides and, thus, integration of numerous machining technologies: Off-center drilling, thread cutting, inclined drilling, cross drilling, contour milling, hobbing, and multi-edge turning are only a few of the many possibilities. And the MS40C delivers impressive cost effectiveness not just for medium and large batch sizes; for component families, in particular, the MS40C plays to its strengths with its ease of re-equipping.

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Figure 1:
The large front-opening working area is optimally accessible and thus especially easy to set up

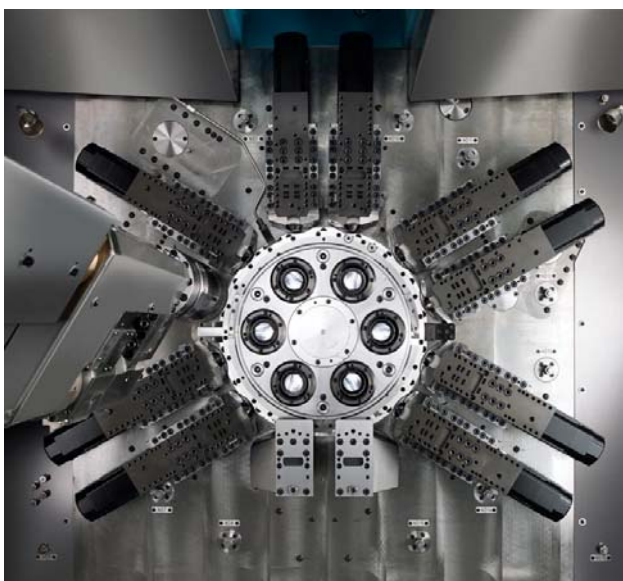


Figure 2:
INDEX CNC multi-spindle machines can be configured for specific customers in terms of the number of cross-slides, Y-axes, and synchronous spindles

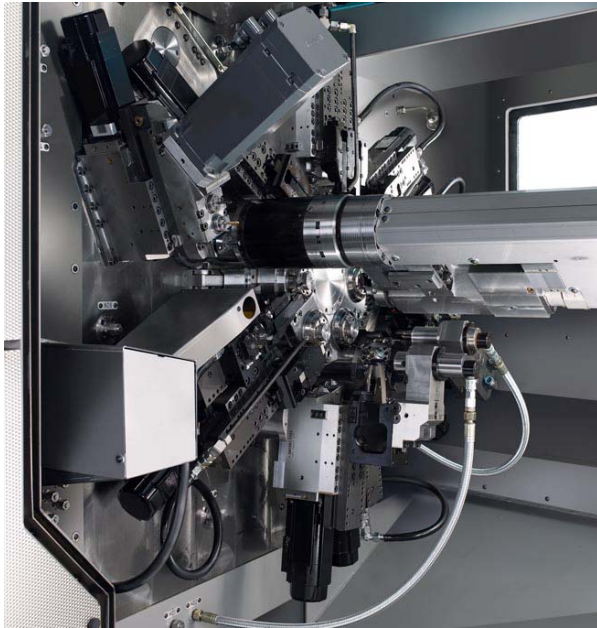


Figure 3:
Flexibility with system:
The cross-slides can be
set up with different
tools for a wide range of
machining operations
spindle position



Figure 4:
Spindle drum of the
INDEX MS40C with 6
fluid-cooled motor
spindles in synchronous
design

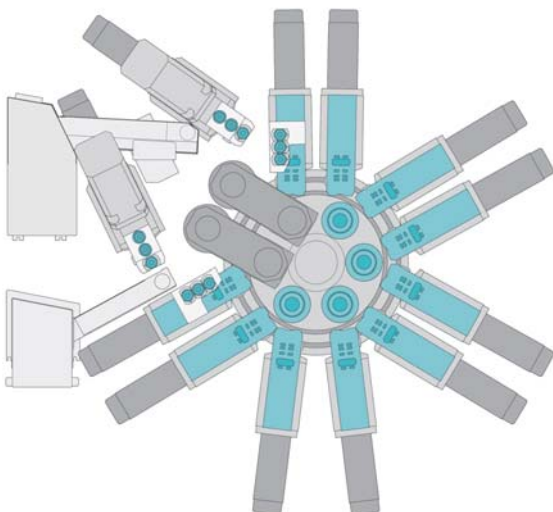


Figure 5:
Simultaneous cut-off-
side machining in two
spindle positions for
comprehensive reverse
side machining with 2
back-boring slides



Figure 6:
Not only high
productivity, but also
versatility in machining
options: milling, cross
drilling, tooth cutting,
thread cutting, multi-
edge turning, hobbing