

Quotation

**Your Request for Quote
INDEX MS40-6 Multi Spindle**

As requested we have prepared a quote for the INDEX MS40-6 multi spindle machine.

The particulars and technical specifications of the machine are described in detail on the following pages. We have quoted our standard delivery terms; special delivery requirements have not been considered.

If you have any questions, or would like to discuss any of the particulars in further detail, please do not hesitate to contact us using the contact details provided above. We are always happy to help.

We appreciate your interest and look forward to your order! We are pleased to present our proposed solution as follows:

Quantity

1	10901389 (38004)	Machine INDEX MS40-6, double NCU
1	10766203 (DC000006)	Electrical and mechanical attachment parts
1	10018656 (36072)	Index control C200-SL, MS40-6 double NCU
1	10198163 (29610)	Machine control panel, equipped with a flat screen for C200-4D, 47 cm. Touch-sensitive IP65 glass front, framed in metal front panel with capacitive touchscreen technology. Machine control panel according to INDEX layout with back-lit keys and switches for visual activation signaling.
1	11084517 (29404)	Display text default language ENGLISH when delivered
1	10815027 (36075)	Control cabinet MS40-6
1	10289061 (29619)	"Smartlight" signal lamp with LED
1	11084577 (29470)	Note: Machine designed for connection to TN system. Caution: Other types of supply require an isolating transformer!
1	10494305 (36702)	The machine will receive an EC declaration of conformity and a CE mark.
1	12042878	Our machines comply with product standard DIN EN ISO 23125 - Machine tools - Safety - Lathes - and all other standards and requirements referenced therein and are therefore safe. In addition, the (user, machine and safety) documentation fully covers the legal requirements of the Machinery Directive. <u>Note:</u> If customer-specific safety inspections are requested, we take the liberty of charging EUR 2000 per day, plus all changes requested by the customer. For (security) documents required in excess of the legal requirements, we reserve the right to check the delivery capability and to calculate the expenses.
1	10246264 (36705)	Electrical and mechanical preparation of the machine for installation of a fire extinguishing system
1	11084531 (29419)	Please note our information on fire protection on machines when using flammable cooling lubricants in Section "Detailed description".
1	11084723 (36706)	<u>User documentation</u> <ul style="list-style-type: none"> • 1x printed user documentation, supplied with machine • 1x CD/DVD. Delivery takes place within 4 weeks after date of commissioning

Quantity

1	10553225 (29331)	Documentation language: English
1	12016292	Safety-relevant labels on the machine in English
1	12016244	Non-safety-relevant labels on the machine in English
1	11084618 (29614)	INDEX multi-spindle lathes generally require cutting oil (based on mineral oil) as a cooling lubricant.
1	12001769	Only non-flammable materials with the use of coolant-lubricant may be machined.
1	11089736 (29675)	If components are provided by the customer, we need customer information/documentation as follows:

During the bidding phase:

- Detailed function description
- Interface description
- Customer delivery commitment for the provision, for timely processing of orders

With delivery of the customer's provision:

- User manual in German
- Declaration of conformity
- Installation/integration instructions

The technology/safety of the provisions must meet the current state of the art.

We reserve the right to reject any components provided with defects.

Failure to comply with above points may lead to postponements and additional costs for the processing of orders.

1	11084566 (29456)	NC option synchronous spindle/polygon turning, including electronic shaft
1	11084552 (29441)	24-month warranty on material and labor (basic configuration = nine gauging circuits)
34	11084559 (29447)	24-month warranty on material and labor as included in offer or delivery (additional gauging circuits)
1	11084726 (36709)	24 months warranty from date of commissioning for electrical, mechanical and hydraulic components.
1	11084580 (29495)	Please understand that we cannot guarantee a fast delivery of spare and wear parts for special designs (predominantly identifiable by the <i>italic font</i> in our part numbers) in any case. After finishing the construction works, we would be happy to

Quantity

prepare a proposal for a spare and wear parts package for you on request.

We recommend – in particular for special parts and assemblies but also for special tool carriers subject to natural wear, whose repair might take several workdays or weeks – to purchase complete replacement components and have them on stock.

1	11084727 (36710)	Commissioning of the INDEX-supplied scope at the customer's plant.
1	11165898 (29688)	Cabinet lock
1	11084587 (29537)	Machine packed for shipping, protected against dust and moisture with polyethylene film.

Slide units, no.1 headstock

1	10992408 (36113)	Slide unit 1.1 X-axis and Z-axis NC controlled
1	10614319 (36123)	Slide unit 1.2 X-axis and Z-axis NC controlled
1	10363984 (36213)	Slide unit 2.1 X-axis and Z-axis NC controlled
1	10803467 (36223)	Slide unit 2.2 X-axis and Z-axis NC controlled
1	10535763 (36315)	Slide unit 3.1 X-, Y- and Z-axis NC-controlled Y-axis adjustment range: +/- 21mm
1	10252304 (36323)	Slide unit 3.2 X-axis and Z-axis NC controlled
1	10497345 (36413)	Slide unit 4.1 X-axis and Z-axis NC controlled
1	10484595 (36423)	Slide unit 4.2 X-axis and Z-axis NC controlled
1	10400523 (36515)	Slide unit 5.1 X-, Y- and Z-axis NC-controlled Y-axis adjustment range: +/- 21mm
1	10016608 (36523)	Slide unit 5.2

Quantity

X-axis and Z-axis NC controlled

- 1 10068700 Slide unit 6.1
 (36618) Swivel axis and Z-axis NC-controlled
- 1 10210305 Slide unit 6.2
 (36623) X-axis and Z-axis NC controlled
- 1 10744011 Slide unit 6.3
 (36636) X-axis NC-controlled, Z-axis rigid

Clamping devices for main spindle:

- 1 10958426 1 set (6 pcs.) of collet mountings TOPlus MS40-6 for tension clamping in
 (36711) the main spindles, max. clamping dia. 40 mm
- 1 12059355 Mechanical device for replacing Hainbuch collet mounting for clamping
 head SK 40 BZI of increased clamping force.
 Including clamping element holder removal aid for dismantling the
 clamping element mounting in case of standard collet clamping and collet
 clamping with workpiece stop.

Bar supply feed

- 1 **12101102** SAFETY NOTE: In cases where oil is to be used as the cutting fluid,
 INDEX Corporation technicians will not operate the machines unless a
 fire suppression system is installed and active.
- 1 11084729 The IEMCA SIR MS40-6 side loader is an integrated loading magazine
 (36739) designed and built by IEMCA exclusively for MS40-6 machines and sold
 only by INDEX.
- 1 10208162 IEMCA SIR MS40-6/38/P
 (36753) • Rack loader 60Hz
 • D13-24-33-41
 • Bar length 3800 mm
 • with drilling unit and minimum quantity lubrication unit
 • Bar storage 500 mm bearing surface
 • with Profibus DP Slave interface.
- Notes:
 • Drill bits and collets for the drilling unit are not included and must
 be ordered separately.
 • The magazine is only partly suitable for the use of shaped
 material.
- 1 12001003 Warranty for IEMCA SIR bar feeder, region World 3.
 Includes installation check 14 days after machine commissioning.
- 1 **10658096** Drill for IEMCA drillstation

Quantity

	(YMS80088)	consists of: -1St. WP-drill Ø15 Komet V43 71504 -10St.WSP Komet W2910010.047930 -2St. VHM-drill Ø8 Titex A3985TFL-8
1	10789416 (36756)	1 set (6 pcs.) of bar stock pushers for bar diameters D19 mm-D23 mm, consisting of: • 6 bar stock pushers D18 • 6 rotating sleeves D18
1	10269941 (36760)	1 set (6 pcs.) of internal clamping sleeves D18 mm for bar diameters D19 mm – D23 mm, bore diameter D15 mm.
1	<u>10562031</u> (36764)	1 set (6 pcs.) of external stops D18 mm for bar diameters D19 mm – D23 mm, pre-machined.
1	10699338 (36757)	1 set (6 pcs.) of bar stock pushers for bar diameters D24 mm-D32 mm, consisting of: • 6 bar stock pushers D23 • 6 rotating sleeves D23
1	10193830 (36761)	1 set (6 pcs.) of internal clamping sleeves D23 mm for bar diameters D24 mm – D32 mm, bore diameter D15 mm.
1	<u>10393104</u> (36765)	1 set (6 pcs.) of external stops D23 mm for material diameter 24 mm - D32 mm, pre-machined.
1	<u>11063856</u> (36767)	1 set (6 pcs.) of two-piece spindle liner tubes diameter 20 mm
1	<u>11063856</u> (36767)	1 set (6 pcs.) of two-piece spindle liner tubes diameter 25 mm
1	<u>11063856</u> (36767)	1 set (6 pcs.) of two-piece spindle liner tubes diameter 27 mm
1	<u>11063856</u> (36767)	1 set (6 pcs.) of two-piece spindle liner tubes diameter 33 mm
1	10765869 (36768)	Mounting aid for the bushings of spindle liner tubes.
1	10421360 (36769)	UNIMAG - interface for connecting a bar loading magazine

Workpiece discharge unit

1	10764539 (36790)	Workpiece discharge via chute, in spindle position 6 Suitable for machines with Profibus.
1	10588398 (36798)	Workpiece conveyor belt in spindle position 6, machine-integrated. Suitable for machines with Profibus.
1	10455853	Conveyor belt outside machine, including cooling lubricant return, to

Quantity

(36886) remove workpieces from spindle position 6

Synchronizing devices

- 1 10715466 Synchronizing device position 6.1
(36909)
 - Workpiece ejector
 - Preparation for coolant supply through the synchronous spindle
- 1 **12064815** 2 jaw chuck manufactured by Rohm
KFD-HS, size Ø110mm for synchron spindle
Jaws are not included
- 4 **12118904** 1 set (2 pcs) of top jaws for 2 jaw chuck on synchron spindle
Blank jaws
- 1 **12118905** Turning fixture for 2 jaw chuck on the synchron spindle

Auxiliary drives

- 7 10733593 Tool drive unit, reinforced, VDI-25 (without converter).
(36817) Adequate number of electrical preparations required.
- 1 10138671 Rear machining unit on slide position 5.3 or 6.3 with 2 live tool mountings
(36832) ER16 to D10 and 1 mounting for a drill holding block for stationary tools.

Mounting bore closed with blind plug on delivery.

Adequate number of electrical preparations required.
- 1 10990075 Rear machining unit on slide position 6.2 for max. 3 drill holding blocks for
(36832) stationary tools.

Mounting bores closed with blind plug on delivery.
- 1 10468547 Oil/air lubrication for tool holder for one to max. six units.
(36840)

Note: Suitability must be confirmed by the manufacturer of the tool holder.
- 1 **12118731**
- 1 **12118842** Please refer to above number 12118731 Hob milling unit from BENZ
 - Speed ratio i=1:1
 - Angle adjustment range ± 15°
 - max. speed n_{max} = 6000 rpm
 - max. torque M_{max} = 30 Nm
 - milling arbor holder HSK 25
 - Without converter

Quantity

· Includes mounting plate
 Operation is only possible with oil mist lubrication.
 The drive motor 1FT7044 must be ordered separately

- 1 **12119429** 1FT7044 drive motor from Siemens without converter

- 2 10355798
 (36841) Electrical preparation for two additional drive units including electronic shaft, spindle positions 1,2,3 (position-synchronous mode for main and counter spindles).
 Can be used for all auxiliary drives with incremental encoder.
 Double module.

- 2 10878672
 (36843) Electrical preparation for two additional drive units including electronic shaft, spindle positions 4,5,6 (position-synchronous mode for main and counter spindles).
 Can be used for all auxiliary drives with incremental encoder.
 Double module.

- 1 11084586
 (29536) Commissioning and optimization of live third-party tooling or of a special tool on the machine at the customer's plant.

Machine equipment options

- 1 12007152 Cooling unit, air-cooled 400 V/ 60Hz
 - Cooling capacity 40kW at 38°C room temperature
 - Refrigerant R407c

- 1 10262770
 (36871) Büchel cooling lubricant mist extraction and filtration system, type SH 2000-PEV-T/TR.
 Two-stage design, one stage equipped.

- 1 10086959
 (29520) Additional filter element for coolant mist extraction and filter system, incl. installation.

- 1 **12102785** 35 lb IHP CO2 Firetrace System with Alarm

CO2 is designed to extinguish an oil-based fire. Additional Firetrace Detection Tubing will be used during installation to mount the cylinder near the bar feeder.

Firetrace components include: (1) 35 lb. cylinder, gauge, and mounting bracket, (35) lbs. CO2 extinguishing agent, Firetrace detection tubing, Hydraulic lines and fittings, total flooding nozzles, high-pressure tubing connectors, manual release with gauge, audible/strobe alarm, Firetrace Control Box (including pressure switch), Nitrogen, hardware fasteners, and tamper-proof device for valve. We are also including a 24V solenoid union, which will be used to connect to the Optical UV sensor that is currently pre-installed inside each machine. This will allow a third system activation method.

Each Firetrace system will be installed consistently from machine to