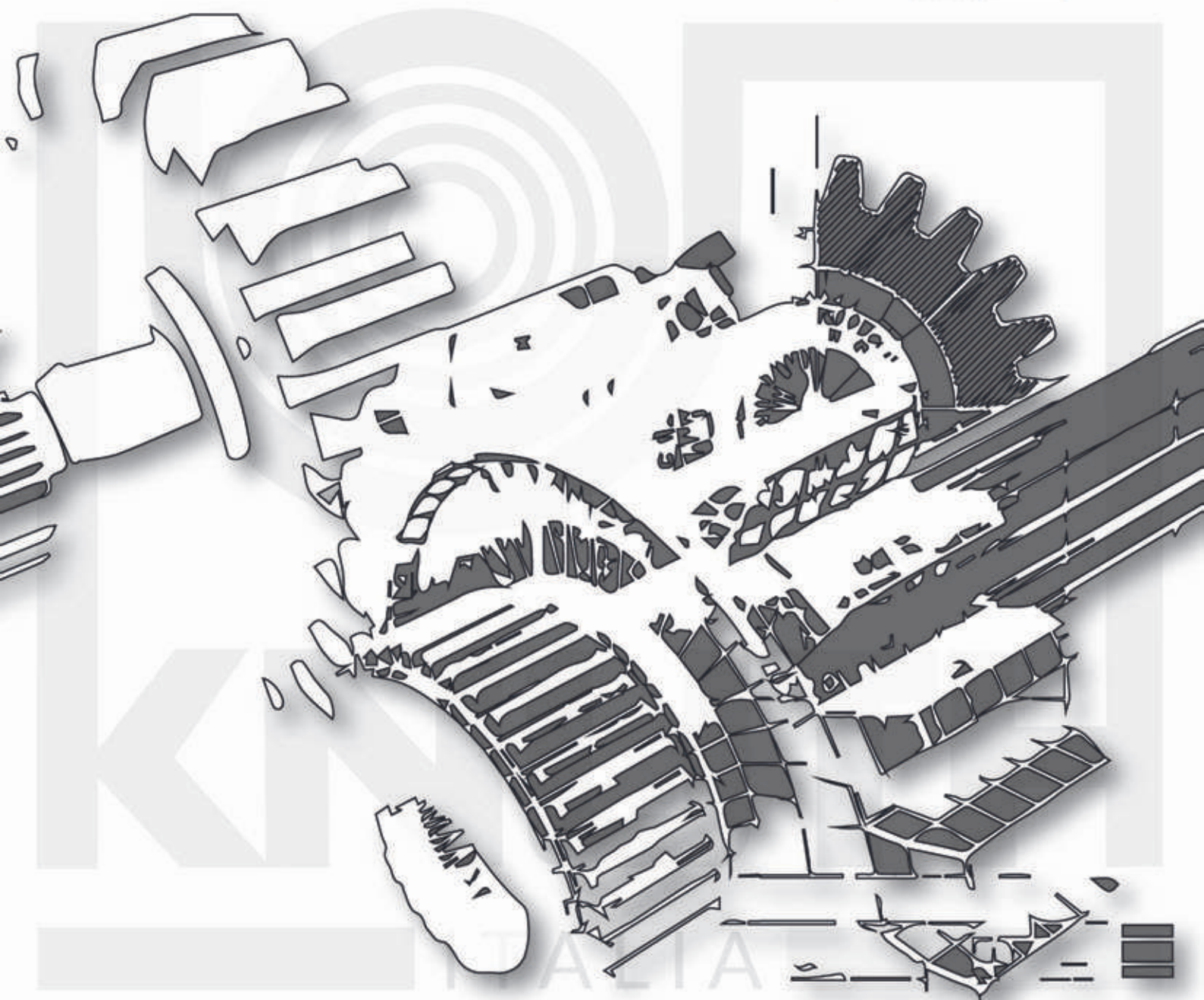




CATALOGO 2020



Hands-on learning on KNUTH machines with Siemens controls for state certified and practical vocational training

Depending on requirements and training objective, KNUTH CNC machine tools can be used to implement the dual training concept that teaches theoretical content and deepens this knowledge with hands-on practical experience. This principle has been successfully used in continuous vocational training and employee training programs.

The programming instructions with the simulation software of the Siemens 808 control are ideal for CNC beginners, students and apprentices who have completed their training on conventional lathes and milling machines and have a basic knowledge of CNC machining. KNUTH machine tools have a proven track record of decades of successful use at schools and universities worldwide.

KNUTH offers an extensive portfolio for the basic turning and milling training package. The servo-conventional machines, Servoturn and Servomill, represent the new generation of conventional machining.

The Siemens SINUMERIK CNC Controls provide the perfect control solution for each of these machine designs. Compact and user-friendly, the 808D and 828D are ideally suited for basic turning and milling applications as well as standardized machine designs with high CNC performance.

Theoretical and practical training - Be convinced

Take the first step and make yourself familiar with our new training concept. Don't hesitate to ask about a live meeting to learn about the machines, documentation and software.

A visit to our German headquarters in Wasbek provides you an ideal opportunity to gain insight and a complete picture of all aspects of the KNUTH Werkzeugmaschinen training initiative.

While you are there, don't miss the chance to visit the largest machine tool display in Northern Germany.
Make your appointment today - we are looking forward to your visit.

Your KNUTH sales representative

SMARTLAB Package

- **CNC Inclined-Bed Lathe**
with automatic 4-station tool holder and tailstock
- **Vertical Machining Center**
with automatic 4-station tool changer
- Siemens SINUMERIK 808D
- Detailed programming instructions



THE MACHINES - Ideal for vocational training and continuous employee training

- The mobile CNC machines provide the full range of functionality
- Include automatic tool changers for a productive real-world training environment.

THE CONTROL - SINUMERIK 808D

The ideal entry-level CNC System

- Easy, intuitive user guidance, ideal for basic turning and milling applications.
- High performance and precision.

LabTurn 2028 - CNC Inclined-Bed Lathe

- Turning diameter over bed 200 mm
- Z-axis travel 155 mm
- 4-station tool turret
- Machine frame features a solid cast-iron inclined-bed construction ensuring excellent rigidity and chip removal
- High-precision linear guides guarantee high rigidity and accuracy
- Central lubrication
- 4-station tool turret with 4 tools for inside and outside machining
- 3-jaw chuck (100 mm) and rigid tailstock are included

LabCenter 260 - CNC Milling Machine

- Travels (X / Y / Z) – 251 x 152 x 168 mm
- Main spindle drive motor 1 kW
- 4-station tool changer
- Carefully machined frame with premium cast-iron construction
- Dovetail guides and preloaded ball screws with servo drives on all axes
- Max. spindle speeds up to 5000 rpm
- Electronic hand-wheel for efficient, professional set-up operations

Siemens Sinumerik 808D

- Self-explanatory, powerful control with a small footprint
- MDynamics for perfect milling operation
- Sinumerik 808D – included with standard equipment

Compact and robust with panel-based CNC design requiring minimal interfaces, and a resistant IP65 control panel make the SINUMERIK 808D the perfect control for dirty and harsh workshop environments. Additional features of the SINUMERIK 808D are low-profile chicklet key caps for effortless operation and the familiar SINUMERIK soft-key touch and feel.

The SINUMERIK 808D is optimized for turning and milling functions and its technology-specific features make it the perfect control for lathes and machining centers. The range of applications extends from basic standardized milling machines or simple machining centers to cycle lathes and full CNC lathes. Its MDynamics motion control ensures first class turning and milling results.



- The LabTurn is an ideal lathe for CNC training and small batch production of high precision workpieces
- Rigid cast-iron inclined bed design ensures good stability and efficient chip removal
- Precision linear guides ensure high stability and accuracy
- Central lubrication for reduced maintenance



Inclined bed design optimizes work space and chip removal

Price on request



Rigid stainless steel guideway covers

Specifications

LabTurn 2028

Working area		
Workpiece length (max.)	mm	280
Turning diameter over bed	mm	200
Turning-Ø over support	mm	90
Travels		
Travel X-axis	mm	86
Travel Z-axis	mm	155
Headstock		
Speed range	1/min	100 - 3.000
Spindle mount		MK 3
Spindle bore	mm	20
Lathe chuck diameter	mm	100
Feed		
Velocity X / Z axis	mm/min	1.000
Torque X / Z axis	Nm	2,2
Tooling		
Number of tool stations	Pieces	4
Tool shank dimensions	mm	8x8
Boring bar mount diameter	mm	12
Accuracies		
Positioning accuracy X / Z axis	mm	0,022
Repeatability X / Z axis	mm	0,01
Rapid feed		
Rapid feed X-/Z-axis	mm/min	2.000
Tailstock		
Tailstock quill diameter / stroke	mm	20 / 30
Tailstock taper		MK 2
Drive capacity		
Motor rating main drive	kW	1
Supply voltage	V	400
Measures and weights		
Overall dimensions (length x width x height)	m	1,4x0,9x1,85
Weight	kg	360
Part No.		181625



8-station tool turret with 4 tools per station for inside and outside turning

- enclosed workspace protects and a large sliding door provides easy access
- Production control technology with superior reliability
- 8-station tool turret with 4 tools per station for inside and outside turning

Standard Equipment

Siemens 808D Advance control, electronic hand-wheel, 8-station turret, mobile base, tailstock, 3-jaw chuck Ø 100 mm, central lubrication, work lamp, operating tools, operating manual and programming instructions

Options	Part No.
• Turning Tool Set with 8 x 8 mm shank dimensions	251477
• Set of indexable inserts	251478
• E-Labturn 2028 spare parts package for 181625	259122



Max. spindle speeds up to 5000 rpm

- Precisely machined frame made of high-quality cast iron
- Dovetail guides and preloaded ball screws with servo drives on all axes
- Electronic hand-wheel for efficient and professional set-up
- 4-station tool changer ensures flexibility and optimum productivity
- Mobile base with storage room for tools and materials

Price on request





4-station tool changer



Pneumatic tool clamping

Specifications

LabCenter 260

Working area		
Table dimensions	mm	400x145
Table load capacity	kg	20
T-slots (number/width/spacing)	mm	3x12x40
Spindle nose-to-table surface distance	mm	60 - 240
Throat	mm	180
Travels		
X / Y / Z axis travel	mm	251 / 152 / 168
Headstock		
Spindle speed	1/min	5.000
Spindle mount		ISO 20
Feed		
Rapid feed X / Y / Z axis	mm/min	2.000
Work feed X / Y / Z axis	mm/min	1.000
Torque X / Y / Z axis	Nm	2,2
Tooling		
Number of tool stations	Pieces	4
Tool size Ø x L (max.)	mm	10x110
Tool weight max.	kg	0,5
Tool-change time tool/tool	sec	10
Accuracies		
Positioning accuracy X / Y / Z axis	mm	± 0,015
Repeatability X / Y / Z axis	mm	± 0,01
Drive capacity		
Motor rating main drive	kW	1
Supply voltage	V	400
Measures and weights		
Overall dimensions (length x width x height)	m	1,4x0,9x1,85
Weight	kg	430
Part No.		181615

Standard Equipment

Siemens 808D Advance control, electronic hand-wheel, 4-station tool changer, pneumatic door, mobile base, central lubrication, work lamp, operating tools, operating manual and programming instructions

Options	Part No.
• Collet chucks ISO 20 / ER16	251480
• Collet set ER 16 with collet sizes of 3, 4, 5, 6, 7, 8, 9, and 10 mm	251481
• Engraving tool set	251482
• E-LabCenter 260 spare parts package for 181615	259121

Nel mondo della macchine utensili la **Mekhan Group** ha l'obiettivo di fornire un servizio migliore e attento alle esigenze dei clienti italiani della Knuth. Essa è costituita da due realtà: la **Mekhan srl**, distributore unico ed esclusivo della Knuth in Italia, alla quale si affianca la **Mekhan Service** con l'obiettivo di fornire il migliore servizio di assistenza ai propri clienti.

La Mekhan nasce con l'intento di offrire un servizio d'eccellenza al cliente italiano mantenendo un filo diretto con la casa made Knuth in Germania, la nostra presenza sarà in grado di garantire un servizio plasmato sulle necessità del mercato italiano associato alla solidità della tradizione tedesca.

La nostra azienda mira a soddisfare i diversi bisogni dei nostri clienti.

Attraverso la **Mekhan srl** si garantiscono

■ *Supporto e affiancamento durante la vendita*

Un team di esperti sempre a disposizione per rispondere alle richieste più svariate e per consigliare la soluzione ideale per ogni tipo di esigenza.

Se ve ne fosse la necessità si offre anche la possibilità di provare i macchinari prima dell'acquisto.

■ *Fornitura pezzi di ricambio*

All'occorrenza verranno forniti pezzi di ricambio originali Knuth. La gestione diretta delle operazioni in Italia effettuata dalla Mekhan ridurrà notevolmente tempi e costi di approvvigionamento.

Attraverso la **Mekhan Service** si garantisce

■ *Supporto tecnico*

Lo staff Mekhan Service è specializzato per garantire e assicurare supporto tecnico continuo nella risoluzione di eventuali problemi che dovessero intervenire. Si garantisce in special modo:

- Assistenza per avviamento e settaggio macchina
- Corsi di formazione o aggiornamento
- Assistenza continua
- Interventi di manutenzione preventiva

Fra le varie offerte vi è anche la possibilità di poter scegliere fra diversi pacchetti di assistenza. Così come sarà possibile stabilire con il cliente le modalità e la frequenza degli interventi da effettuare presso le proprie officine al fine di garantire un perfetto e continuo funzionamento dei macchinari acquistati e installati. La corretta manutenzione periodica consente di prevenire malfunzionamenti e rotture gravi che comporterebbero lo stop della macchina.

Sicuri che quanto proposto e sinteticamente illustrato porterà ad un perfezionamento di quanto già fatto in precedenza, siamo pronti a scommettere che il nostro rapporto commerciale ne gioverà ampiamente.

