

# Conventional Lathes

## V-Turn 410 PRO



### SKU : 300822

The newly designed PRO models of our bestseller V-Turn convince with improved ergonomics and more safety. Equipped with an inverter and a high-performance spindle motor, they can easily reach 3,000 revolutions per minute. Workpieces with a small diameter can thus be efficiently machined. However, the models also offer strength and stability for heavier machining. The built-in function of the constant cutting speed, which adapts the spindle speed to the diameter when facing, enables turning results that are comparable to CNC machines to be achieved.

- Ergonomic machine housing
- Improved apron with automated feed
- Constant cutting speed
- High spindle speed and motor power
- Roller bearings from world-leading manufacturer NSK

## TECHNICAL SPECS

### WORKING AREA

Center width	1000 mm
Center height	205 mm
Turning diameter over bed	380 mm
Turning diameter over gap bridge	580 mm
Turning-Ø over support	255 mm
Gap bridge length	250 mm
Bed width	250 mm

### TRAVELS

Travel X-axis	210 mm
Travel Z1-axis	140 mm
Swing range of top slide	± 45°

### HEADSTOCK

Speed range, high	550 1/min - 3000 1/min
Speed range, low	30 1/min - 550 1/min
Spindle bore	52 mm
Spindle mount	Camlock D1-6
Spindle taper	6 MT

### FEED

Feed X-axis	0.013 mm/R - 0.45 mm/R
Feed Z-axis	0.026 mm/R - 0.9 mm/R

### THREADING

Threading, metric	(39) 0,2-14 mm
Threading, diametric	(21) 8-44 DP
Threading, module	0.3 mm - 3.5 mm
Threading, whitworth	(45) 2-72 TPI

### TAILSTOCK

Tailstock quill diameter	50 mm
Tailstock taper	4 MT
Tailstock quill stroke	120 mm
Tailstock traverse adjustment	± 13 mm

### DRIVE CAPACITY

Motor rating main drive	5.5 kW
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### MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	1.94 m x 1 m x 1.6 m
Weight	1210 kg



*Extensive accessories, including quick-change tool holder system*



*Central lubrication is integrated into the support for easy maintenance and handling*



## CONTROLS & SOFTWARE

### 3-axis position indicator, X.pos 3.2 VC



*V-constant - during facing the spindle speed automatically adjusts according to the changing workpiece diameter*



- Incl. 3-axis position indicator with integrated spindle speed display, fully assembled
- The redesigned machine enclosure and added safety features make this machine even more ergonomic, complementing functionality and design
- Constant cutting speed: During face turning, the spindle speed automatically adapts to the changing workpiece diameter – the constant cutting speed at the cutting edge of the turning tool ensures superior turning results with quality comparable to CNC lathes
- A heavily ribbed machine bed, rigid headstock and a massive one-piece cast-iron stand form a solid machine base
- Wide, induction-hardened guideways ensure superior turning results and long life
- Facing and top slides feature adjustable guideways and spindle nuts
- High-precision pre-loaded spindle bearings ensure superior concentricity and load capacity
- A powerful 5.5 kW main spindle motor ensures rapid acceleration and powerful chip removal across the entire speed range
- Back-gearing ensures high torque for highly efficient machining
- Rugged feed switch at the support simplifies operation
- The extensive features of the X.Pos Position Indicator are complemented here with a digital speed indicator and an easy to program auxiliary function
- The electromagnetic brake on the main spindle is maintenance-free and slows the machine safely and reliably

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- It features a totally sealed enclosure made of high quality polyester film which protects it against hazardous environments in shop floors, such as dust or fumes and offers excellent chemical resistance to most commonly used industry solvents
- The optical scales provide 5 micron resolution (0.005 mm) with outside cover from aluminum for protection against oil, coolant and chips.

#### **Basic Functions**

- Resolution of 0,005 mm
- Spindle control ON/OFF
- Unit measurement conversion Inch / Metric
- Setting / Resetting current position
- Coordinate display switching ABS / INC
- Radius / Diameter display
- Z1/Z2 Axes summing
- Pocket calculator functions

#### **Extended Functions**

- Axis position is maintained when display is turned off
- Hole circle pattern calculation
- Radius / diameter toggle
- Reference function for tool gauging
- Taper turning function

#### **Constant cutting speed**

- Allows you to have constant cutting speed during - the spindle speed automatically adjusts based on the turning diameter

### **STANDARD EQUIPMENT**

3-axis position indicator, X.pos 3.2 VC  
 4-jaw face plate chuck Ø 250 mm  
 Face plate Ø 350 mm  
 Quick change tool holder head WB  
 Quick change tool holder WBD 25120  
 Coolant system  
 Steady rest  
 Chip tray  
 Fixed splash guard (wall)  
 Traveling cover for the toolpost  
 Follow rest  
 Turret stop  
 Micrometer stop  
 Foot brake pedal  
 Chuck guard  
 Work light  
 Toolbox with operating tools  
 Dead center  
 Reducing Sleeve  
 Operator instructions  
 Fixed stainless steel safety cover for tension and lead screw



## KNUTH on YouTube

### Information to the point

On our YouTube channel you can find videos for nearly all machines from our program. We show the machines from current deliveries and you get an impression of the handling, the processing quality and the machining performance.

**Are you interested in a machine for which you cannot find a current video?  
Please feel free to contact us!**