

# Conventional Lathes

## V-Turn 410/1000



**SKU : 300820**

Our bestseller V-Turn is a precision lathe that is also suitable for production. Equipped with an inverter and a high-performance motor, it achieves spindle speeds of up to 3,000 1/min and processes workpieces with small diameters efficiently and of the best quality. The models also offer strength and stability for heavier machining. When facing, the "constant cutting speed" function integrated in the X-Pos adapts the spindle speed to the turning diameter and thus delivers quality that is comparable to the results of a CNC machine.

- Constant cutting speed
- High spindle speed and motor power
- Extensive standard equipment
- Roller bearing from world-leading manufacturer NSK

### TECHNICAL SPECS

#### WORKING AREA

|                                  |          |
|----------------------------------|----------|
| Center width                     | 39.37 in |
| Center height                    | 8 in     |
| Turning diameter over bed        | 15 in    |
| Turning diameter over gap bridge | 23 in    |
| Turning-Ø over support           | 10 in    |
| Gap bridge length                | 10 in    |
| Bed width                        | 10 in    |

#### TRAVELS

|                          |        |
|--------------------------|--------|
| Travel X-axis            | 8.3 in |
| Travel Z1-axis           | 6 in   |
| Swing range of top slide | ± 45°  |

#### HEADSTOCK

|                   |                    |
|-------------------|--------------------|
| Speed range, high | 550 rpm - 3000 rpm |
| Speed range, low  | 30 rpm - 550 rpm   |
| Spindle bore      | 2 in               |
| Spindle mount     | Camlock D1-6       |
| Spindle taper     | 6 MT               |

#### FEED

|             |                             |
|-------------|-----------------------------|
| Feed X-axis | 0.00098 in/R - 0.03346 in/R |
| Feed Z-axis | 0.00197 in/R - 0.06693 in/R |

#### THREADING

|                      |                 |
|----------------------|-----------------|
| Threading, metric    | (39) 02-14 mm   |
| Threading, diametric | (21) 8-44 DP    |
| Threading, module    | 0.3 mm - 3.5 mm |
| Threading, whitworth | (45) 2-72 TPI   |

#### TAILSTOCK

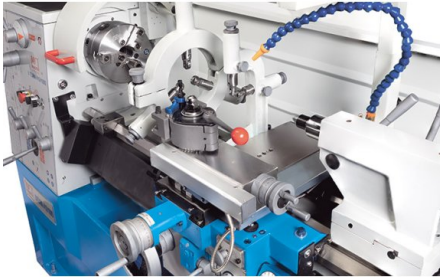
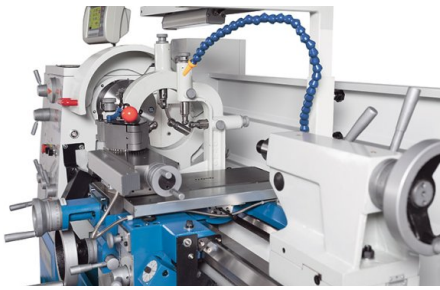
|                               |          |
|-------------------------------|----------|
| Tailstock quill diameter      | 2 in     |
| Tailstock taper               | 4 MT     |
| Tailstock quill stroke        | 5 in     |
| Tailstock traverse adjustment | ± 0,5 in |

#### DRIVE CAPACITY

|                         |        |
|-------------------------|--------|
| Motor rating main drive | 7.4 Hp |
|-------------------------|--------|

#### MEASURES AND WEIGHTS

|  |                       |
|--|-----------------------|
| Overall dimensions (length x width x height) | 77 in x 40 in x 52 in |
| Weight                                       | 2640 lbs              |



*High-quality quick-change tool holder with 0.0004" repeatability*



*Model is equipped with integrated central lubrication at the support for low maintenance*



## PRODUCT DETAILS

- 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 heavy ribbed machine bed and a massive one-piece cast-iron frame provide the solid basis for this machine
- Wide, hardened and ground guideways ensure superior turning results and long life
- Large spindle bearings and high-precision headstock ensure excellent concentricity
- Headstock gears and shafts are hardened and ground for quiet operation und constant speed
- 7 Hp headstock motor ensures powerful machining
- Spindle speeds are infinitely variable from 30 to 550 and 550 to 3000 rpm
- Micrometer and turret stop are included
- Integrated central lubrication at the support for low maintenance
- The extensive features of the X.Pos Position Indicator are complemented here with a digital speed indicator and an easy to program auxiliary function
- Incl. 3-axis position indicator with integrated spindle speed display, fully assembled
- The electromagnetic brake on the main spindle is maintenance-free and slows the machine safely and reliably

## CONTROLS & SOFTWARE

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

- Integrating multiple functions, this new generation of 3 axis digital readouts significantly offer a much better control over the machining processes, greatly decreasing down-times and error rates
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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
- Optical Scales: 5 µm resolution (0.000197") with outside cover from aluminum for protection against oil, coolant and chips

#### **Basic Functions**

- Resolution of 0.000197"
- 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**

Follow rest  
 Reducing Sleeve  
 Dead center  
 3-axis position indicator, X.pos 3.2 VC  
 4-jaw face plate chuck Ø 10 inch  
 Face plate (13" diam.)  
 Quick-change tool holder head WB  
 Quick change tool holder WBD 25120  
 Coolant system  
 Steady rest  
 Turret stop  
 Micrometer stop  
 Chip tray  
 Fixed splash guard (wall)  
 Protective shield for the toolpost  
 Chuck guard  
 Foot brake pedal  
 Work light  
 Thread gauge  
 Toolbox with operating tools  
 Operator instructions