

PROTEC 11N/13N

Heavy Duty Semi-CNC Lathes

HANKOOK MACHINE TOOLS





H | A | N | K | O | O | K | M | A | C | H | I | N | E | T | O | O | L | S |

PROTEC 11N/13N

Heavy Duty Semi-CNC Lathes

Combine advantages of full CNC lathe and manual lathe

High precision and accuracy comparable to full CNC lathe
Simple, convenient and versatile operation of manual lathe
Most effective machine at most competitive price
For your satisfaction with various machining need

Features

- Suitable for large diameter workpiece ($\varnothing 1100/1300\text{mm}$)
- Up to 8,000mm (315") shaft turning length
- Large 8 tons (17,600lbs) load capacity between centers (with two steady rests 12tons)
- Big bore spindle $\varnothing 330$, 381 and $\varnothing 440\text{mm}$
- Extra wide one-piece cast iron bed
- Induction-hardened and precision-ground guide ways
- High precision ball screws for both axes
- Digital servo motor for both axes
- Square tool post featuring Curvic coupling
- Powerful 37kW(50HP) spindle motor
- Built-in live tailstock spindle ($\varnothing 200\text{mm}$ quill dia.)
- Rapid feed device for tailstock body
- Guidance hand-wheel (simultaneous 2 axes control)
- X/Z axes electronic hand-wheels (MPG)
- Full automatic lubrication to all critical areas

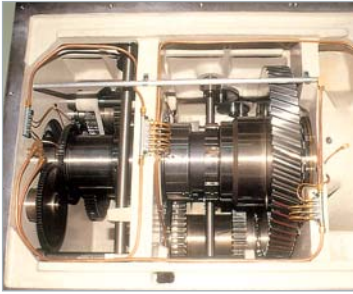
Bed

- The bed is a heavy one-piece casting with thick ribbing to prevent twisting and deformation.
- High-quality cast iron is used for its excellent dampening characteristics.
- The flat bed design is suitable for heavy weight of work-piece directly downward onto the bed ways.
- Width of bed is 800mm(31.5")

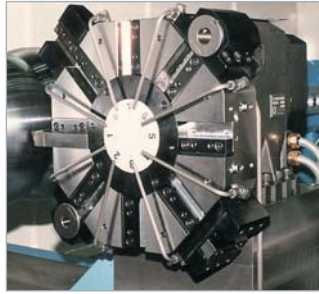
Headstock

- Three points support system for main spindle, double-row cylindrical roller bearing with angular ball bearing in front, and double-row cylindrical roller bearing at rear.
- Automatic 4 steps gear change for high torque driving with low speeds.
- All spindle bearings are precision class and permanently grease lubricated to minimize thermal growth
- Spindle bore, $\varnothing 105\text{mm}$ (4.13"), 330mm(13"), 381mm(15") and 440mm(17.3")
- Main spindle gears and other bearings are forced-lubricated.

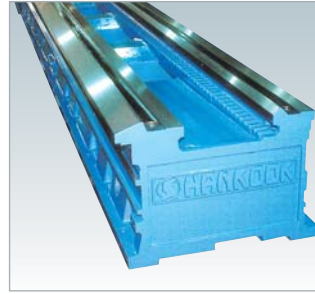




Headstock



Auto. V-8 Turret (Option)



Bed



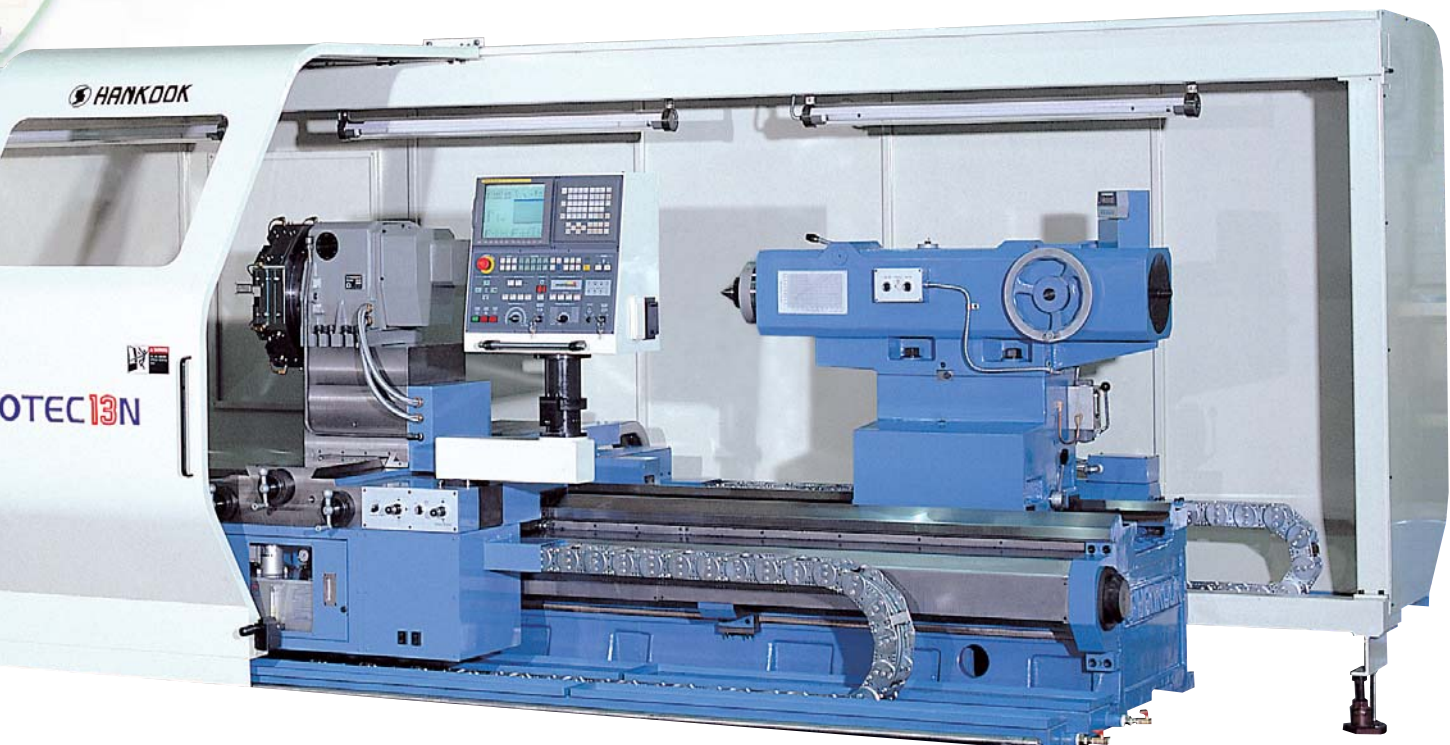
Operation Panel

Carriage

- The extremely rigid extended H-style saddle wide and cross slide allow heavy and interrupted cutting with ultimate stability and high accuracy.
- Even the operators accustomed to manual lathes can operate this machine very easily by operating portable handles.
- HANKOOK's own designed Guidance Handwheel can achieve a manual feed, auto mechanical feed, circular turning (simultaneous 2 axes control).
- High precision ball screw for longitudinal and cross feed to obtain high accurate turning with servo motors. Longitudinal and cross handles have pulse generators, not connected directly with ball screw.
- The fluorine-plastic resin combined way lubrication provides a low friction on surface and prevent guide-way from wearing.
- The manually indexed square tool post features Curvic coupling. It can be positioned per every 15 degree increments. Index repeatability is guaranteed within ± 5 seconds.

Tailstock

- The heavy duty tailstock has a M.T#6 center and quill diameter 200mm to load heavy shafts up to 8tons (17,600lbs).
- The quill stroke of 300mm and speed reduction gear box(ratio 1:1/4) for drilling operation.
- Rotary type tailstock spindle.
- Rapid feed device for tailstock body



※ Optional accessories included

