

HIGH SPEED / MEDIUM PRECISION LATHE

CH / CHD series



SUPREME ACCURACY. EXCELLENT QUALITY.



HIGH SPEED PRECISION LATHE

With circular shaped design, KINWA CH series high speed lathe features extremely stable and rigid machine structure. This leads to an unmatched stability in machining.

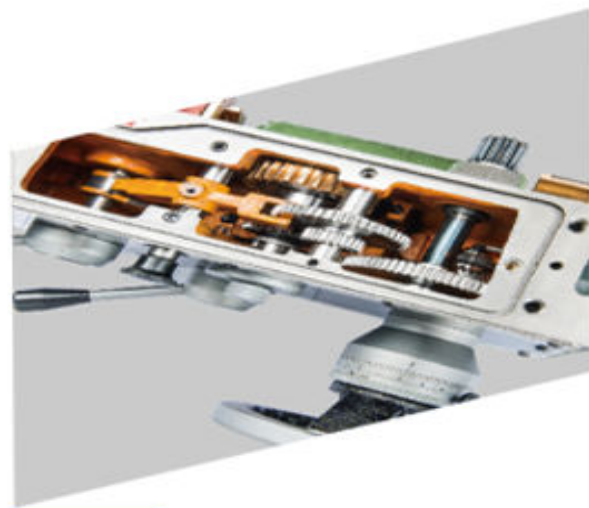
- Swing over bed: 406 / 432 / 532 mm.
- Distance between centers:
767 / 1067 / 1667 mm.
- Spindle bore: Ø51 / Ø58 / Ø78 mm.
- Spindle speeds:
70~1800 r.p.m. (Ø51 mm spindle bore)
35~2000 r.p.m. (Ø58 mm spindle bore)
29~1650 r.p.m. (Ø78 mm spindle bore)





SPINDLE

- The spindle runs in P class taper roller bearing that exhibits outstanding stability in heavy cutting.
- Class P5 spindle bearings are optional.
- Various types of spindle noses to select.
- The spindle structure shown as above is for reference only. Each model has its own spindle type.



APRON

- The foolproof feed lock function makes it possible to engage the power feed simultaneously with thread cutting.
- Oil bath lubrication.
- Equipped with a manual, automatic combined lubrication pump for lubricating across slideways and bedways.
- Equipped with an overload protection device for safety.
- Feed is adjustable

GEAR BOX

- Metric and inch threads combination gearbox.
- Equipped with a shear pin for overload protection.
- Oil bath lubrication

H4 TOOL POST

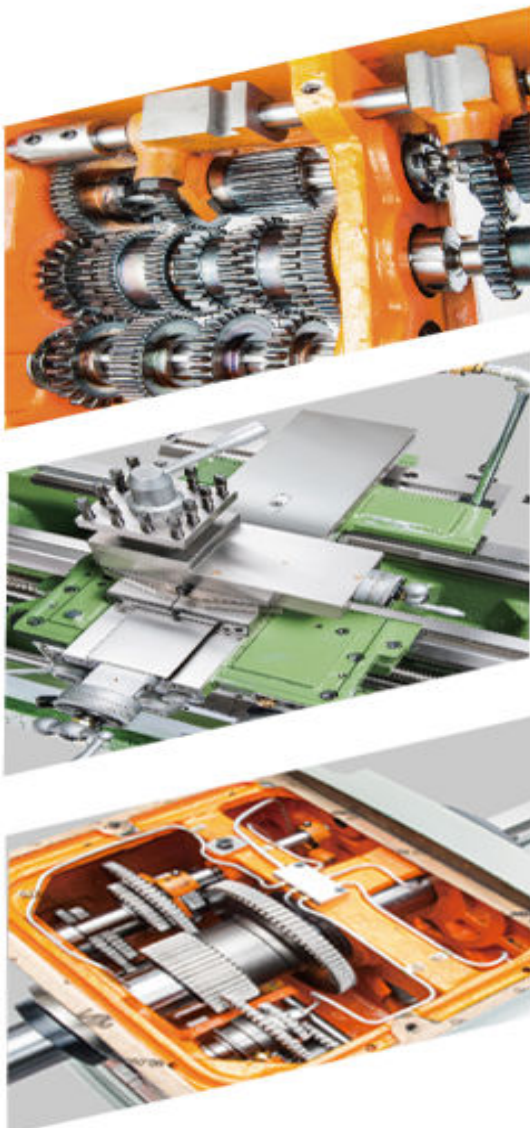
- The H4 turret accommodates O.D. tool, I.D. tool, grooving tool and threading tool.
- Square tool shank sizes: 20 x 20 mm (CH-400)
25 x 25 mm (CH-430 / 530)

HEADSTOCK

- The highly rigid headstock construction features maximum stability in high speed machining.
- The use of JIS class-1 gears assures smooth running.
- Headstock lubrication employs an oil bath and forced lubrication system.

TAILSTOCK

- The tailstock quill is carburized and precision ground with graduation in inch and metric scales.





MEDIUM PRECISION LATHE

KINWA CHD series medium precision lathe is built with a massive bed with 400 mm of bed width. The series of lathe is designed with an extra large spindle bore of Ø86 mm or Ø104 mm, making it the first choice in medium-sized part machining.

- Swing over bed: 560 / 660 / 760 mm.
- Distance between centers: 808~3983 mm.
- Spindle bore: Ø86 / Ø104 mm.
- Spindle speeds: 13~1200 r.p.m. (4P)

GEAR BOX

- Metric and inch threads combination gearbox.
- Equipped with a shear pin for overload protection.
- Oil bath lubrication.

SPINDLE

- The spindle is supported at 3 points.
- The spindle runs P class taper roller bearings that exhibit outstanding stability in heavy cutting.
- Various types of spindle noses to select.



HEADSTOCK

- All gears in the headstock are manufacturing from alloy steel, carburized and precision ground.
- The use of JIS class 1 gears assures smooth running.
- Headstock lubrication employs an oil bath and forced lubrication system.

TAILSTOCK

- Manual feed of tailstock quill is transmitted through 1:1 or 1/4:1 speed reduction, making drilling effortless.
- Ø80 mm oversized tailstock quill effectively increases workpiece supporting capacity and stability.
- The tailstock quill is carburized and precision ground with graduation in inch and metric scales.
- Easy to move the tailstock by turning a handle.

APRON

- The foolproof feed lock function makes it impossible to engage the power feed simultaneously with thread cutting.
- Oil bath lubrication.
- Equipped with an automatic lubrication pump for lubricating across slideways and bedways.
- In case the apron is equipped with a rapid traverse device, manual lubrication will be used.
- Power feed is equipped with a torque adjustment device.

OPTIONAL ACCESSORIES FOR LATHE

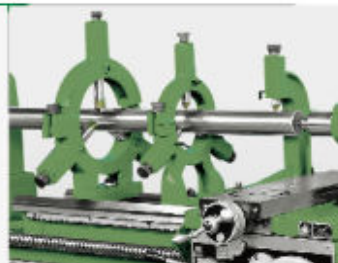


BED

- The bed is manufactured from high quality cast iron, and stress relieved for deformation-free performance year after year.
- Bed slideways are hardened (hardness HS70°) and precision ground, featuring outstanding wear-resistance.



Quick change toolpost



Steady rest / Follow rest



3-Jaw scroll chuck



3-Jaw strong scroll chuck



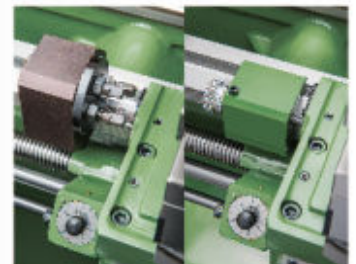
4-Jaw independent chuck



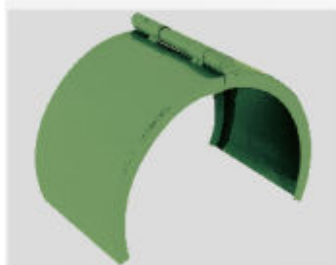
Face plate



Stop block



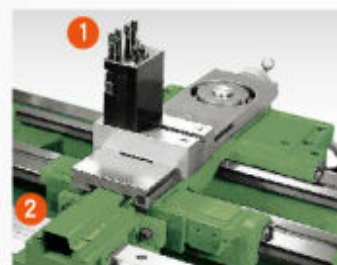
4-position carriage stop /
Micro carriage stop



Chuck guard



Drill attachment



1. Rear toolpost
2. Taper turning attachment

SPECIFICATIONS

CH series

| ITEM | CH-400 | CH-430 | CH-530 | |
|--------------------------------------|---------------------------------------|--|---|-------------------------|
| Capacity | Swing over bed | 406 mm | 432 mm | 532 mm |
| | Swing over carriage | 238 mm | 268 mm | 368 mm |
| | Swing over gap | 580 mm | 610 mm | 710 mm |
| | Max. turning diameter | 385 mm | 385 mm | 385 mm |
| | Width of gap in front of face plate | 150 mm | | |
| | Distance between centers (A1-6, A2-6) | 767, 1067, 1667 mm | | |
| | Width of bed | 300 mm | | |
| | Stroke of tool post | 145 mm | | |
| Headstock | Stroke of cross slide | 265 mm | | |
| | Spindle bore | 51 mm | 58 mm (78 mm 選配 opt.) | |
| | Taper of spindle bore & center | MT6 x MT4 | | |
| | Spindle nose | A1-6, D1-6 (A2-6, D2-6, D1-8 選配 opt.) | | |
| | Number of spindle speeds | 8 | 12 | |
| | Spindle speed (60 Hz) | 70, 110, 180, 290, 430, 690, 1125, 1800 r.p.m. | Ø58 mm: 35, 52, 75, 110, 160, 230, 330, 490, 650, 950, 1350, 2000 r.p.m. | |
| | | | Ø78 mm: 29, 43, 62, 90 130, 190, 275, 405, 540, 790, 1120, 1650 r.p.m. | |
| | Threading & feeds | Number of feeds | 36 | |
| Range of longitudinal feeds (metric) | | 0.07~0.50 mm/rev | 0.037~1.04 mm/rev (P=6 mm) 0.035~0.98 mm/rev (4 TPI) | |
| Range of cross feeds | | 1/2 縱向進給 Half of longitudinal feeds | | |
| Leadscrew diameter | | 35 mm | | |
| Leadscrew pitch | | 4 TPI, P=6 mm | | |
| Range of inch pitches | | 4~42 TPI (36 kinds) | 2~72 TPI (44 kinds) | |
| Range of metric pitches | | 0.4~7.0 mm (36 kinds) | 0.2~14 mm (39 kinds) | |
| Tailstock | Quill stroke | 170 mm | | |
| | Quill diameter | 60 mm | | |
| | Quill taper | MT#4 | | |
| Motor | Main motor (30 min.) | 5 HP (7.5 HP 選配 opt.) | | |
| | Coolant pump motor | 1/8 HP | | |
| Machine dimension | Height | 1400 mm | | |
| | Floor space | 2000, 2300, 2900 x 1000 mm | | |
| | Weight | 1450, 1550 kgs | 1500, 1600, 1800 kgs | 1600, 1700, 1900 kgs |

Specification are subject to change without notice.

STANDARD ACCESSORIES

- 9" 3-jaw chuck with back plate
- Leveling screws
- Service kits & tool box
- Main motor 5 HP / 4 P
- Steady rest
- Coolant system
- Multi-position length stop
- Work light

OPTIONAL ACCESSORIES

- Follow rest
- Face plate (350 mm)
- 4-position carriage stop
- Taper turning attachment
- 3-jaw chuck
- 4-jaw independent chuck
- Rear toolpost
- Main motor 7.5 HP / 4 P
- Full length splash guard
- Drill attachment
- Spindle bore 78 mm with 10" 3-jaw chuck & back plate (for CH-430 / CH-530)
- Digital read out
- Center sleeve MT6 x MT4
- Dead center (MT4) 2 pcs

CHD series

| ITEM | CHD-560 | CHD-660 | CHD-760 | |
|-----------------------|---------------------------------------|--|-------------------------------------|-------------------------------|
| Capacity | Swing over bed | 560 mm | 660 mm | 760 mm |
| | Swing over carriage | 340 mm | 445 mm | 548 mm |
| | Swing over gap | 797 mm | 892 mm | 990 mm |
| | Max. turning diameter | 622 mm | 622 mm | 592 mm |
| | Width of gap in front of face plate | 270 mm | | |
| | Distance between centers (A1-6, A2-6) | 808, 1443, 2218, 2968, 3983 mm | | |
| | Width of bed | 400 mm | | |
| | Stroke of tool post | 242 mm | | |
| Stroke of cross slide | 400 mm | | | |
| Headstock | Spindle bore | 86 mm (104 mm 選配 opt.) | 104 mm | |
| | Taper of spindle bore & center | MT7 x MT5 | | |
| | Spindle nose | A1-8, D1-8 (A2-8, D2-8, D1-11 選配 opt.) | A2-8, D2-8, D1-11 | |
| | Number of spindle speeds | 12 | | |
| | Spindle speed (60 Hz) | 4P: 13, 20, 30, 47, 70, 105, 150, 230, 340, 530, 800, 1200 rpm 6P: 8, 13, 20, 31, 47, 70, 100, 150, 230, 350, 530, 800 r.p.m. | | |
| Threading & feeds | Number of feeds | 36 | | |
| | Range of longitudinal feeds (metric) | 0.037~1.04 mm/rev (P=6 mm, 12 mm) 0.035~0.98 mm/rev (4 TPI, 2 TPI) | | |
| | Range of cross feeds | 1/2 縱向進給 Half of longitudinal feeds | | |
| | Leadscrew diameter | 45 mm | | |
| | Leadscrew pitch | 4 TPI, P=6 mm (2 TPI, P=12 mm) | | |
| | Range of inch pitches | 2~72 TPI / 44 kinds (1~42 TPI / 48 kinds) | | |
| | Range of metric pitches | 0.2~14 mm / 39 kinds (0.4~28 mm / 44 kinds) | | |
| Tailstock | Quill stroke | 250 mm | | |
| | Quill diameter | 80 mm | | |
| | Quill taper | MT#5 | | |
| Motor | Main motor (30 min.) | 10 HP / 4HP | | 7.5 HP / 6P |
| | coolant pump motor | 1/8 HP | | |
| Machine dimension | Height | 1500 mm | | |
| | Floor space | 2300, 2900, 3700, 4500, 5500 x 1200 mm | | |
| | Weight | 2300, 2400, 2900, 3100, 3600 kgs | 2400, 2500, 3000, 3200, 3700 kgs | 2600, 2700, 3200, 3400 kgs |

Specification are subject to change without notice.

STANDARD ACCESSORIES

- 10" 3-jaw chuck with back plate for Ø86 mm
- 12" 3-jaw chuck with back plate for Ø104 mm
- Leveling screws
- Service kits & tool box
- Main motor 10 HP / 4 P
- Main motor 7.5 HP / 6 P for CHD-760
- Steady rest 40~255 mm
- Coolant system
- Multi-position length stop
- Rapid traverse for 2300, 3000, 4000
- Work light

OPTIONAL ACCESSORIES

- Follow rest
- Face plate (500 mm)
- 4-position carriage stop
- Taper turning attachment
- 4-jaw independent chuck
- Steady rest 190~405 mm
- Digital read out
- Full length splash guard
- Center sleeve MT7 x MT5
- Dead center (MT5) 2 pcs