TECHNICAL DATA

Working range		C35HD	C50HD
Turning length/centre distance	mm	800	1,000/2,000
Swing over bed	mm	360	570
Swing over cross slide	mm	180	340
Displacement path of the cross slide	mm	200	340
Bed width	mm	260	350
Lathe tool cross-section (W x H)	mm	25 x 25	32 x 25
Lathe spindle			
Spindle head according to DIN ISO 702-3 (DIN 55027)	Size	6	8
Spindle diameter in front bearing	mm	90	120
Spindle bore	mm	57	83
Inner cone of the main spindle		MK6	metric 90
Main drive			
Drive power 60 %/100 % duty cycle	kW	9/7	15/12
Overall speed range	$1/min^{-1}$	1 – 4,500	1 – 2,500
Max. torque on the spindle	Nm	90	900
Gear stages		1	2
Feed range/Three-phase servo-drives			
Longitudinal feed force	N	7,000	12,000
Plane feed force	N	3,000	8,000
Feed range longitudinal and plane	mm/U	0.001 – 10	0.001 – 10
Max. fast-motion speed longitudinal/plane	m/min	8/4	8/4
Thread cutting range			
Metric threads	mm	0.1 – 400	0.1 – 400
Imperial threads	G/inch	56 – 1/4	56 – 1/4
Module thread	mm	0.125 – 28	0.125 – 28
DP thread	DP	224 – 1	224 – 1
Max. number of threads		99	99
Tailstock			
Quill diameter	mm	50	80
Quill stroke	mm	110	200
Inner cone of the quill	MK	3	5
Dimensions			
Length	mm	2,200	2,850/3,850
Width	mm	1,780	2,350
Height	mm	1,750	1,900
Weight	kg	2,200	3,500/4,000

We reserve the right to make technical changes I 11/2022 5.0915.12.90.06.02

User videos can be found on the WEILER channel on YouTube

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TURNING THE EASY WAY

The figure includes options

BLUECOMPETENCE Alliance Member
Partner der Nachhaltigkeitsinitiative des Maschinen- und Anlagenbaus

The servo-conventional

C35HD/C50HD

WEILER
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SERVICE
RADIAL DRILLING MACHINES
CNC LATHES
CYCLE-CONTROLLED LATHES
CONVENTIONAL/SERVO-CONVENTIONAL LATHES

THE SERVO-CONVENTIONAL C35HD/C50HD

The user can focus on the essentials when using the servo-conventional lathe. The tedious setting of a speed on the gearbox or exchanging change gears to cut threads are outdated. This eliminates sources of error and increases productivity.

Completing simple turning operations with conventional lathes has long been a proven method. Especially because of the easy handling of the machine.

The C35HD/C50HD machines have inherited everything simple, practical and profitable that characterises conventional lathes but also gained significantly in import-ance thanks to modern drive and control technology and the WEILER knowledge and experience.

The figure includes options

User habits with swiping and tapping on a 15" touchscreen

Ease of use

- No fear of contact for the operator because the data is entered in plain text with graphical and dialogue support
- Ready-made input masks for turning tapers and radii without the need for additional equipment
- Direct selection of single cycles
  - Longitudinal and plane cutting
  - Radius and taper turning
  - Thread cutting
  - Grooving
- Easiest input using a predefined input mask for each single cycle
- Data transfer over USB or network connection

Efficiency

- Shorter set-up times and improved ease of use thanks to the oriented main spindle stop where the spindle or the chuck comes to a standstill at the preselected chuck key position
- Rapid adaptation to the machining requirements and shorter processing times thanks to:
  - Constant cutting speed
  - Thread cutting of all thread types with a continuously running main spindle
  - Easy recutting of existing threads
  - Grooving cycle for a variety of grooving geometries
- Radius and taper turning
- Saving option for tool data and machining cycles
- Cutting radius compensation ensures maximum contour accuracy
- Cutting cycle for turning against the strop in both axes without mechanical adjustments
- Automatic central lubrication of the guideways and the ground ball-screw spindles

Bed and base for C50HD

- The bed is made of high-quality grey cast iron. Strong transverse ribbing and continuous guides ensure high bending and torsional rigidity. The prism and flat guides separated for bed slide and tailstock are flame hardened and ground.
- Sturdy cast iron feet support the bed. Between them are a spacious coolant tank with a drip pan and submersible pump. A large chip tray that can be pulled out to the front stands on four rollers above the coolant tank.

Accuracy

- High surface quality due to constant cutting speed with selectable speed limitation and override switch for feed and work spindle speed
- Machine accuracy according to DIN 8605 (toolmaker accuracy)
- Positioning in the µ range also by using electronic handwheels

The figure includes options

C4 performance characteristics

- **Intuitive and straightforward operation**
- **Accommodation of latest user features such as swiping or tapping a 15" touch screen**
- **All essential input fields can be directly selected**
- **Few control buttons**
- **Control system and drive units from a single source (Siemens Sinumerik ONE)**
- **The teach-in function facilitates working quickly and efficiently**
- **Tool measurement by means of workpiece measurement and tool measurement or direct input**
- **Manual turning functions just like on conventional lathes**
- **Predefined cycles, DIN/ISO programming up to CAM data transfer**
- **Data transfer via USB port or network connection**