

THE COMPLETE RANGE



**YOUR SUCCESS**  
is our objective

**WEILER**

[www.weiler.de](http://www.weiler.de)



There are good reasons for the proverbial WEILER virtues of precision, quality and reliability: a qualified and highly motivated workforce that are always fully aware of their responsibility towards their customers and a management team that ensures stability and continuity.

*To us responsibility means being the best possible partner to our customers in every respect.*

That is why when we design and develop our products we pay particular attention to long-term precision, extreme ease of operation and energy efficiency by using state of the art drive and control technology. That is why we are committed to providing competent technical advice to select the right product as well as top quality product training. And that is why we provide fast and professional assistance for repair and maintenance work through a comprehensive spare part supply service and well trained service technicians – throughout the complete lifetime of the machine.





# THE E-SERIES CYCLE-CONTROLLED PRECISION LATHES

## E30



Ideal for vocational training  
through to prototype production

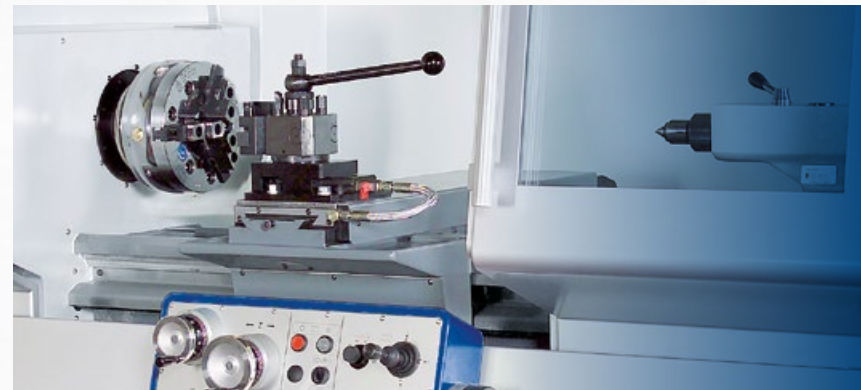
### Innovative Performance

Based upon the proven WEIPERT lathe concept, an installed base of over 5,000 E-Machines provide uninterrupted evidence of total customer satisfaction. An outstanding feature is the simple, job-oriented operation that at the same time, still allows fast adaptability to countless possible applications. This is achieved through a wide range of cycles, which can be run individually, or automatically as a sequence. This control concept ensures that one-offs and small batches can be quickly produced with extremely high accuracy.

## E40



The area of application for this  
robust machine ranges from tool  
making to small batch production



# THE E-SERIES CYCLE-CONTROLLED PRECISION LATHES

## E50HD



The universal machines for powerful turning with  
spindle bore 3.3 inch/5 inch/6.5 inch

### The Machines

- Digital drive technology and SIEMENS Control with user-oriented WEILER software
- Digital display of slide travel, main spindle speed and feed speed
- Variable, digital three-phase main drive with two mechanical gear stages and high drive power
- Variable three-phase axis drives with rigid precision bearings for the ballscrews enable high feed thrusts
- Cross switch with intuitive operating action for feed and rapid traverse
- Constant cutting speed with freely selectable speed limitation
- Longitudinal and transverse taper turning throughout the complete working area
- High rapid traverse speeds
- Thread cutting without changing the sense of rotation
- Cutting of taper threads
- Cutting of multiple threads
- Finishing of existing threads
- Orientated "main spindle stop"
- Drive power display for the main drive

- Override switch for feed rate and main spindle speed adjustment
- Automatic centralized lubrication of the longitudinal and transverse slides as well as ballscrew nuts
- Toolmakers accuracy according to  
DIN 8605 for E30 to E80  
DIN 8606 for E90 to E120  
DIN 8607 for E150 to E200

## E60





# THE E-SERIES CYCLE-CONTROLLED PRECISION LATHES

## E70HD/E80HD



High performance for spindle bore  
5 inch/6.5 inch/8.5 inch

### Automated Cycles-Control Manual Turning

- Constant cutting speed, oriented "main spindle stop"
- Turning against the stop on all axes
- Taper turning at any angle
- Radius turning
- Storable simple cycles

### Cutting Cycle

- Powerful contour calculator for the calculation of non-dimensioned points (of intersection)
- Simple modification of existing workpiece contours
- Free definition of raw contours for forged and cast parts
- Monitoring of the tool angle

### Thread Cutting Cycle

- Pitches: metric, inch, modular, DP
- Infeed types: flank infeed, API mode for oil and gas tight threads, Trapezoidal threads
- Thread finishing: definition through "Teach In" as well as through manual reworking

### Data Transfer Interfaces

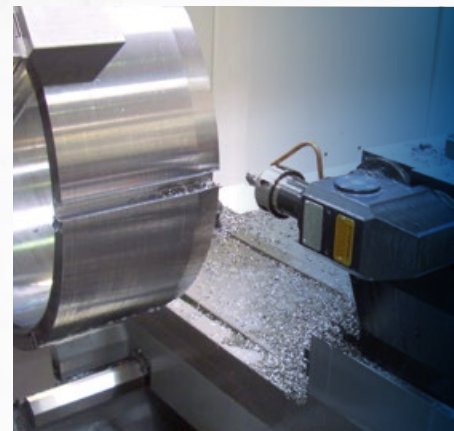
- USB
- Network interface

### DXF File Import (Optional)

- Workpiece contour extracted from fully imported drawings in the DXF format from a wide variety of CAD systems
- Free selection of layers and contour elements
- Mirroring and scaling of the workpiece contour

### DIN-ISO-Programming

- Creation, editing and processing of DIN-ISO programs



# THE E-SERIES CYCLE-CONTROLLED PRECISION LATHES

E90/E110/E120

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Precision giants for workpiece weights up to 22,000 lb and spindle bores between 5 inch and 14.3 inch for powerful turning

## Automated Cycles-Control

Even without programming knowledge, the smart WEILER Software will easily guide you through the program. The automated cycle feature means that you can operate your E-machine like a "conventional" manual lathe. Or you can use the geometry processor to program the workpiece contour right through to automatic calculation of the points of intersection. For further information, please refer to the WEILER Control brochure.

- Simple workpieces can be machined in the same way as on a conventional machine, except more comfortably.
- Complicated workpieces can be machined in the same way as on a conventional machine, except faster.
- Complex workpieces can be produced in the same way as on a CNC machine, except more easily.





# THE E-SERIES CYCLE-CONTROLLED PRECISION LATHES

E150/E175/E200

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Heavy-duty and robust for workpiece weights up to 26,400 lb and spindle bores from 6.5 inch to 17.4 inch for high-performance turning

## The Top End

The largest of WEILER E-Series precision lathes are characterized by being powerful and energy-efficient with optimum accessibility. The machine for large-size workpieces in high productivity applications with a swing over bed of up to 2 m. Smart optional extras offer a high level of cost-effectiveness and flexibility for a wide range of applications from turning to milling.

Intelligent equipment options offer maximum cost-effectiveness and flexibility from turning to milling.



Spindle bore on request: \*5, 6.5 inch \*\*6.5, 8.5 inch \*\*\*6.5, 10.3, 362 inch \*\*\*\*10.3, 14.3 inch \*\*\*\*\*10.3, 14.3, 17.7 inch



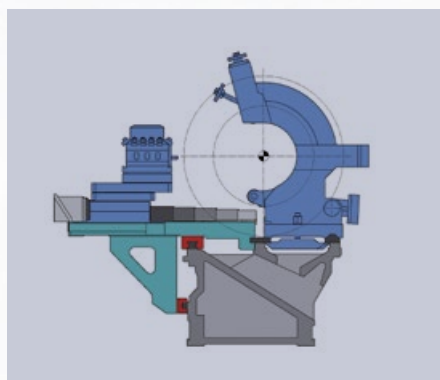
# THE V-SERIES 4-WAY PRECISION LATHES WITH AUTOMATED CYCLES

## V90/V110



### The first 4-way Precision Lathe with Automated Cycles

The V-Series has been developed for the economic machining of long workpieces. To enable this, the slides can overrun the steady rest and tailstock. Even without programming experience, the smart WEILER software easily guides you through the program. The automated cycle feature means that you can operate your E-machine like a "conventional" manual lathe. Or you can use the geometry processor to program the workpiece contour right through to automatic calculation of the points of intersection. For further information, please refer to the WEILER Control brochure.



- Simple workpieces can be processed in the same way as with a conventional machine, only more efficiently.

- Elaborate workpieces can be processed in the same way as with a conventional machine, only faster.
- Complex workpieces can be processed in the same way as with a CNC machine – only more simply.

Technical Data		V90	V110
<b>Working Range</b>			
Distance between centres	inch	3,000–12,000	3,000–12,000
Swing over bed	inch	37	45.7
Swing over cross slide	inch	23.2	31.9
Cross slide travel	inch	22.8	22.8
Width of bed	inch	35.4	35.4
<b>Main Spindle</b>			
Spindle nose size acc. to DIN ISO 702-3 (DIN 55027)	size	15	15
Spindle bore	inch	6.5*	6.5*
Spindle diameter in front bearing	inch	9.3	9.3
<b>Main Drive</b>			
Drive power at 60 %/100 % duty cycle	kW	60/49.6	60/49.6
Max. torque at spindle	ft lb	5,900	5,900
Speed range	rpm	1–900	1–900
<b>Feed Range</b>			
Feed force longitudinal	lb	4,500	4,500
Rapid traverse rate Z/X	inch/min	16/8	16/8
Feed range	inch/rev	0.001–50	0.00004–2
<b>Thread cutting range</b>			
Thread cutting range	mm	0,1–2,000	0,1–2,000
Inch threads	TPI	112–1/64	112–1/64
<b>Tailstock</b>			
Quill diameter	inch	5.5	5.5
Inside taper of quill	MT	6	6
<b>Weight</b>			
Machine weight	lb	33,069/59,525	35,274/61,729
<b>Machine Accuracy</b>			
Acceptance accuracy	DIN	8606	8606

Spindle bore on request: \*10.3, 14.3 inch

# THE C-SERIES C35HD/C50HD

## SERVO-CONVENTIONAL PRECISION LATHES

### C35HD/C50HD



#### Precision

- High surface quality through constant cutting speeds with variable speed limitation and override switch for feed and main spindle speed
- Machine accuracy to DIN 8605 (toolmaker's accuracy)
- Positioning in  $\mu$ -range, also through electronic handwheels
- Radius and taper turning
- Thread cutting
- Grooving
- Simple data input in predefined screen forms for the corresponding simple cycles.
- USB-interface
  - DIN/ISO programming
  - USB-interface
  - Network interface

#### User-Friendliness

- No psychological barrier for the operator as data input is plain language, i.e. graphically supported and dialog-guided
- Predefined screen forms for taper and radius turning without the need to use additional tools
- Direct selection of simple cycles
  - Longitudinal and transverse machining

#### Cost-Effectiveness

- Short set-up times
- Easy operation of the control
- Fast adaptability to job changes

Technical Data		C35HD	C50HD
<b>Working Range</b>			
Distance between centres	inch	31.5	39.4/78.7
Swing over bed	inch	14.2	22.4
Swing over cross slide	inch	7.1	13.4
Cross slide travel	inch	7.9	13.4
Width of bed	inch	10.2	13.8
Tool cross section (height x width)	inch	1 x 1	1 x 1
<b>Main Spindle</b>			
Spindle nose size acc. to DIN ISO 702-3 (DIN 55027)	size	6	8
Spindle diameter in front bearing	inch	3.5	4.7
Spindle bore	inch	2.2	3.3
Inner taper of main spindle		MK 6	metr. 90
<b>Main Drive</b>			
AC Drive			
Drive power at 60 %/100 % duty cycle	hp	12/9	20/16
Speed range	rpm	1–4,500	1–2,500
<b>Feed Range</b>			
Three-phase servo drive			
Feed force longitudinal	lbf	1,574	2,698
Feed force transverse	lbf	674	1,798
Feed range longitudinal and transverse	inch/rev	0.00004–0.4	0.00004–2
Rapid traverse rate Z/X	inch/min	315/157	275/157
<b>Thread cutting range</b>			
Metric threads	mm	0,1–400	0,1–1,000
Inch threads	TPI	56–1/4	56–1/32
Modular threads	mm	0,125–28	508–0,45
DP threads	DP	99	180
Number of thread starts			
<b>Tailstock</b>			
Quill diameter	inch	2	3.1
Quill travel	inch	4.3	7.9
Inside taper of quill	MT	3	5
<b>Weight</b>	<b>lbs</b>	<b>4,850</b>	<b>7,720/8,820</b>



# THE CONVENTIONAL MULTI-PURPOSE PRECISION LATHES

## Primus VCPlus



### Mechanical System

- High precision and excellent surface quality through vibration-damping, robust machine base
- Large spindle bore
- Thread cutting without change gears
- Removable chip tray

### Operator GUI

- User-friendly and future orientated
- Large, easy-to-read 9" colour screen
- Constant cutting speed with speed limitation
- Speed and feed override through potentiometer
- Electronic turning against the stop
- Electronic end stop device for thread cutting



## Praktikant VCPlus



### e-TIM

- **T**imer-controlled standby mode: automatic shut-down after predetermined time period
- **I**ntelligent drive management: recovery of braking energy
- **M**achine-status energy management: automatic shut-down of all ancillary devices that are not required

### e-LISSY

- **L**earner Identification System assigns individual access authorization through coded chips to enable optimum adaption to the individual progress in training



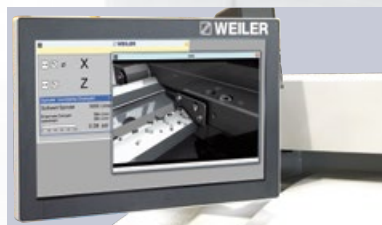
# THE CONVENTIONAL MULTI-PURPOSE PRECISION LATHES

## Condor VCPlus



### Options for Primus VCPlus, Praktikant VCPlus and Condor VCPlus: WEILER WTS

- First 15" touchscreen on a conventional lathe
- Operate in the same way as a smartphone or tablet PC
- Superimpose technical drawings
- Videos about maintenance and operation



Technical Data		Primus VCPlus	Praktikant VCPlus	Condor VCPlus
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#### Working Range

Distance between centres	inch	19.7	25.6	31.5
Centre height	inch	5.5	6.3	7.1
Swing over bed	inch	11	12.6	14.2
Swing over cross slide	inch	5.9	7.5	7.5

#### Main Spindle

Spindle nose acc. to DIN 55027 (DIN ISO 702-3)	size	5	5	6
Spindle diameter in front bearing	inch	2.8	2.8	3.5
Spindle bore	inch	1.7	1.7	2.2
Inside taper (similar to DIN 228)		metr. 50	metr. 50	MK 6

#### Main Drive

Drive power	hp	7.4	10.7	14.1
Speed range	rpm	25–5,000	25–5,000	25–4,000
Number of speeds		stepless	stepless	stepless

#### Feeds

Number		stepless	stepless	stepless
Longitudinal	inch/rev	0.0004–0.24	0.0004–0.24	0.0004–0.24
Transverse	inch/rev	0.0001–0.08	0.0001–0.08	0.0001–0.08

#### Thread Cutting Range

Metric threads	mm	0.10–20	0.1–20	0.1–20
Inch threads	TPI	80–2	80–2	80–2

#### Tailstock

Quill travel	inch	3.3	3.3	4.3
Quill diameter	inch	1.6	1.6	2
Inside taper of quill DIN 228	MK	3	3	3
~ Weight (without packaging and accessories)	lb	2.315	2.425	3.307



# THE CONVENTIONAL MULTI-PURPOSE LATHES

## DA 210/DA 260



### Safety

- EMERGENCY OFF buttons on the headstock and apron
- Lead screw and feed rod cover
- Chuck guard monitored through limit switch
- Change gear door monitored through limit switch
- Automatic braking of the main spindle
- Restart protector in case of a power cut

### Productivity

- Precision consistently ensured
- Easy to operate
- High drive performance

### Intrinsic value

- Long lifetime, high resale value
- Solid quality

Technical Data		DA 210	DA 260
<b>Working Range</b>			
Distance between centres	inch	39.4/59.1	39.4/59.1/78.7
Centre height	inch	8.3	10.2
Swing over bed	inch	17.1	21.1
Swing in bed recess	inch	18.5	22
Swing over cross slide	inch	9.6	13.6
Bed width	inch	13	13
Travel of cross slide	inch	13	13
Travel of top slide	inch	5.1	5.1
Tool cross section (height x width)	inch	1 x 1	1 x 1
<b>Main Drive</b>			
Drive power 100 % ED	hp	7.4	10.1
Max. torque at main spindle	ft lb	664	885
<b>Main Spindle</b>			
Spindle nose acc. to DIN 55027 (DIN ISO 702-3)	size	6	6
Spindle diameter in front bearing	inch	3.3	3.9
Spindle bore	inch	2	2.8
Inner taper of main spindle	metr.	57	76
Speed range	rpm	44–2,000	33–1,500
Number of speeds		12	12
<b>Feeds</b>			
Longitudinal feeds	inch/rev	0.0028–0.2	0.0028–0.2
Transverse feeds	inch/rev	0.0014–0.1	0.0014–0.1
<b>Tailstock</b>			
Quill diameter	inch	2.6	2.6
Quill travel	inch	4.7	4.7
Inside taper of quill	MK	4	4
<b>Thread Cutting Range</b>			
Metric threads	mm	0.5–28	0.5–28
Inch threads	TPI	56–1	56–1
<b>Weights</b>	<b>lbs</b>	<b>2,866/3,420</b>	<b>3,329/3,880/4,520</b>

# THE CONVENTIONAL MULTI-PURPOSE LATHES

## DA 210 AC/DA 260 AC



### Ease of Use and Dependability

- Infinitely variable main drive in conjunction with two-speed gearbox
- Digital display of main spindle speed
- EMERGENCY OFF buttons on the headstock and apron
- Lead screw and feed rod cover
- Chuck guard monitored through limit switch
- Change gear door monitored through limit switch
- Automatic braking of the main spindle
- Restart protector in case of a power cut
- Precision consistently ensured
- Easy to operate
- High drive performance
- Intrinsic value
- Long life, high resale value

Technical Data		DA 210 AC	DA 260 AC
<b>Working Range</b>			
Distance between centres	inch	39.4/59.1	39.4/59.1/78.7
Centre height	inch	8.3	10.2
Swing over bed	inch	17.1	21.1
Swing in bed recess	inch	18.5	22
Swing over cross slide	inch	9.6	13.6
Bed width	inch	13	13
Travel of cross slide	inch	13	13
Travel of top slide	inch	5.1	5.1
Tool cross section (height x width)	inch	1 x 1	1 x 1
<b>Main Drive</b>			
Drive power 100 % ED	hp	14.1	14.1
<b>Main Spindle</b>			
Spindle nose acc. to DIN 55027 (DIN ISO 702-3)	size	6	6
Spindle diameter in front bearing	inch	3.3	3.9
Spindle bore	inch	2	2.8
Inner taper of main spindle	metr.	57	76
Speed range	rpm	44–2,000	33–1,500
Number of speeds		12	12
<b>Feeds</b>			
Longitudinal feeds	inch/rev	0.0028–0.1	0.0028–0.1
Transverse feeds	inch/rev	0.0014–0.079	0.0014–0.079
<b>Tailstock</b>			
Quill diameter	inch	2.6	2.6
Quill travel	inch	4.7	4.7
Inside taper of quill	MK	4	4
<b>Thread Cutting Range</b>			
Metric threads	mm	0,5–14	0,5–14
Inch threads	TPI	56–2	56–2
<b>Weights</b>	<b>lbs</b>	<b>3,200/3,750</b>	<b>3,640/4,190/4,850</b>



# THE PORTABLE DRILLING MACHINE

VOM50



Our portable radial drilling machine takes the machine to the workpiece. This guarantees high productivity and minimizes standstill periods.

This makes it the machine of choice for your drilling jobs, even in places that are hard to reach. The flexibility of seven axes means that drilling jobs can be executed in any position.

The ergonomic placement of the control elements and simple operation ensure stress-free work.

Technical Data		VOM50
<b>Working Range</b>		
Max. drilling diameter in steel, strength up to 87.02 ksi	inch	1.95
Max. drilling diameter in grey cast iron, strength up to 36.26 ksi	inch	2.54
Max. thread cutting in steel, strength up to 87.02 ksi	metr.	48
Vertical arm travel, max.	inch	49.21
Horizontal arm travel, max.	inch	35.43
Spindle reach, min./max.	inch	46.06/81.50
Distance from spindle nose to base plate, min./max.	inch	12.01/61.22
Swivelling range of arm and drilling head	°	360
<b>Drilling Spindle/Feed Range</b>		
Taper in spindle	MT	5
Spindle travel, max.	inch	13.77
Number of spindle speeds	n	15
Spindle speed range	rpm	16–800
Number of feed rates	n	6
Feed range	inch/rev	0.002–0.02
<b>Power of Main Drive</b>	<b>hp</b>	<b>5.44</b>
<b>Total Connected Load</b>	<b>kVA</b>	<b>7.5</b>
<b>Bed Dimensions</b>		
Length	inch	102.76
Width	inch	41.34
<b>Dimensions of the Machine</b>		
Length	inch	135.04
Width	inch	52.17
Height	inch	133.86
<b>Machine weight incl. standard accessories</b>	<b>lbs</b>	<b>14,500</b>

# THE RADIAL DRILLING MACHINES

VO75/VO100/VO104



Straightforward handling, extreme stability, powerful drilling performance, heavy-duty build quality and large traversing range are the predominant features of WEILER radial drilling machines. The VO range of radial drilling machines has been designed for the drilling, boring, reaming and thread cutting of large-sized workpieces. They are used for one-off as well as batch production and are also suitable for integration into production lines.

Technical Data		VO75	VO100	VO104
<b>Working Range</b>				
Max. drilling diameter in steel, strength up to 87.02 ksi	inch	2.95	3.94	3.94
Max. thread cutting in steel, strength up to 87.02 ksi	mm	75x4	76x6	76x6
Vertical arm travel	inch	37.40	45.47	60.43
Drilling head travel on radial arm	inch	63.54	78.15	136.61
<b>Drilling Spindle/Feed Range</b>				
Spindle reach, min./max.	inch	15.20/ 78.74	22.83/ 100.98	20.87/ 157.48
Distance from spindle nose to base plate min./max.	inch	26.36/ 78.74	22.44/ 86.61	27.95/ 107.09
Drilling spindle outer diameter	inch	2.83	4.33	4.33
Taper in spindle	MT	5	6	6
Spindle travel, max.	inch	14.96	18.70	18.70
Number of spindle speeds		16	32	32
Spindle speed range	rpm	11.2–2,000	9–2,800	9–2,800
Number of feed rates		16	16	16
Feed range	inch/ rev	0.0013– 0.11	0.0013– 0.11	0.0013– 0.11
<b>Power of Spindle Motor</b>	hp	10.2	15	15
<b>Total Connected Load</b>	kVA	9.3	13	13
<b>Dimensions of the Machine</b>				
Length	inch	145.66	177.16	244.49
Width	inch	54.13	57.32	70.87
Height	inch	161.02	181.10	201.96
<b>Machine weight incl. standard accessories</b>	lbs	<b>15,200</b>	<b>26,750</b>	<b>43,000</b>



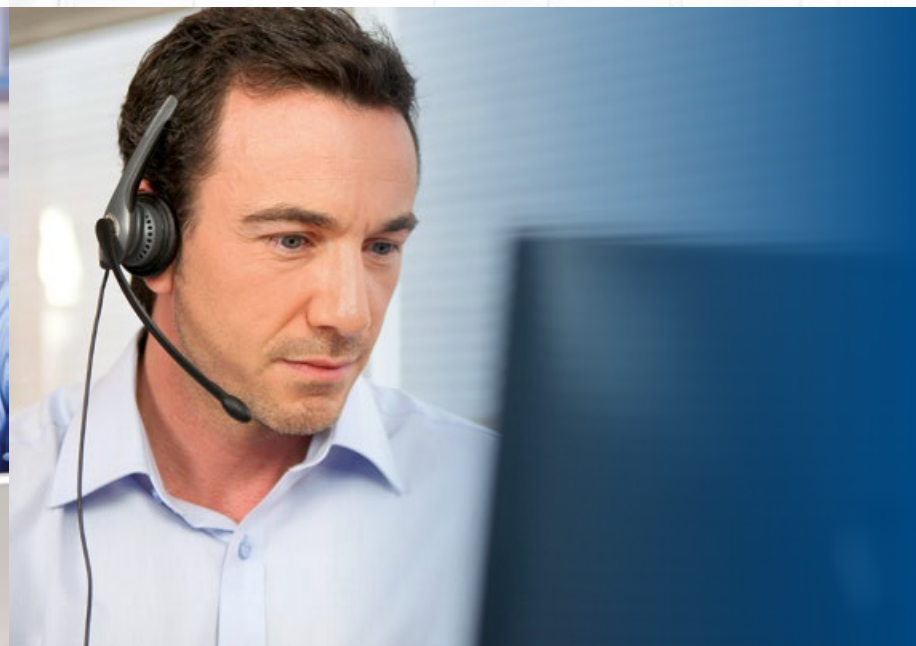
## WEILER TRAINING SOFTWARE FOR THE E-SERIES

## WEILER TELESERVICE

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Programming and  
Learning on a PC



### WEILER PC-Version

- The graphical user interface (GUI) on the PC is identical with the machine GUI
- Simple creation of programs for turned parts with contours of any complexity
- Offline training software
- Programs can consist of any number of WEILER cycles and DIN (ISO) blocks
- Simulation either as wire model or solid model
- Import workpiece contours from DXF files (CAD drawings)
- The ready-to-run program is transferred to the machine control via USB or Ethernet interface

### Teleservice

- Teleservice is a hotline service for fast support to issues relating to your machine
- You are directly linked to the WEILER Service Hotline
- The GUI of your machine is transmitted to the WEILER Service Centre
- This, for example, enables us to provide you support when you are writing programs
- We can diagnose the operating condition of your machine online
- We supply the machine with modem and software. You only need to provide a telephone connection

# WEILER COMMITTED TO SUSTAINABILITY AND ENERGY EFFICIENCY!

Environmental pollution, climate change, rapidly increasing raw material and energy prices: Buzzwords and issues that have been with us a long time. But the global interdependencies and effects on everyone concerned have never been more intensively researched, analyzed and felt than they have been in the past few years. As one of Europe's leading lathe manufacturers we take our responsibility towards sustainability and resource conservation for our customers and ourselves extremely seriously.

## WEILER

- conserves resources during production and
- supplies products that conserve resources



## WEILER Conserves Resources During Production:

- Program to reduce energy demand in all areas of the production plant
- Utilization of alternative sources of energy (photovoltaic) and waste heat

- Program to reduce CO<sub>2</sub> emissions (savings of approx. 30 % compared to 2005!)
- "Made in Germany" high degree of vertical integration as well as sourcing of parts from regional suppliers not only ensures quality – it also prevents global parts tourism.
- Finite element based module design for optimum module rigidity and at the same time reduction of the moving mass
- The quality relevant machine components are designed and dimensioned to ensure long-term accuracy and retention of value
- Machines conceived for ease of set-up and maintenance
- Use of re-usable materials

## During Operation of the Products

- Energy efficiency with e-TIM:
  - Timer-controlled standby mode
  - Intelligent drive management
  - Machine mode specific energy management
- Intelligent, sensor-controlled heat compensation to avoid machine warm-up times
- Reduction of unscheduled downtime through the proverbial reliability of WEILER machines

# RETROFIT & CO.: YOUR WEILER – AS GOOD AS NEW

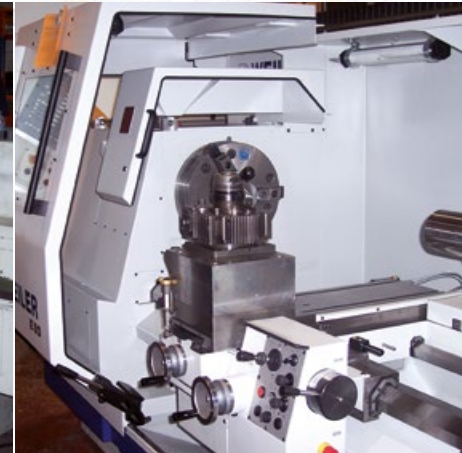
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... following years of added value and age-related wear ...

... your Weiler also deserves a second life



before



after

## Services

- Training of your operating personnel
- Long lifetimes and long-term precision through WEILER original spare parts and specially trained service personnel
- Increased productivity through high availability of spare parts and fast reaction times

## General Overhauls

- Specialist refurbishment in the original WEILER production process
- Geometric acceptance according to DIN 8605/8606
- 6 months warranty from WEILER

Please feel free to contact us if you have any further questions:  
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E-Mail: [service@weiler.de](mailto:service@weiler.de)



[www.weiler.de](http://www.weiler.de)

User videos are available on  
the WEILER Channel at



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