The Complete Range

A Symbol for Success

WEILER

www.weiler.de

Service

Radial Drilling Machines

CNC Lathes

Cycle-Controlled Lathes

Tool Room Lathes / Semi-Cycle Controlled Lathes

WEILER is Precision

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.

As can be expected from one of the best partners!

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

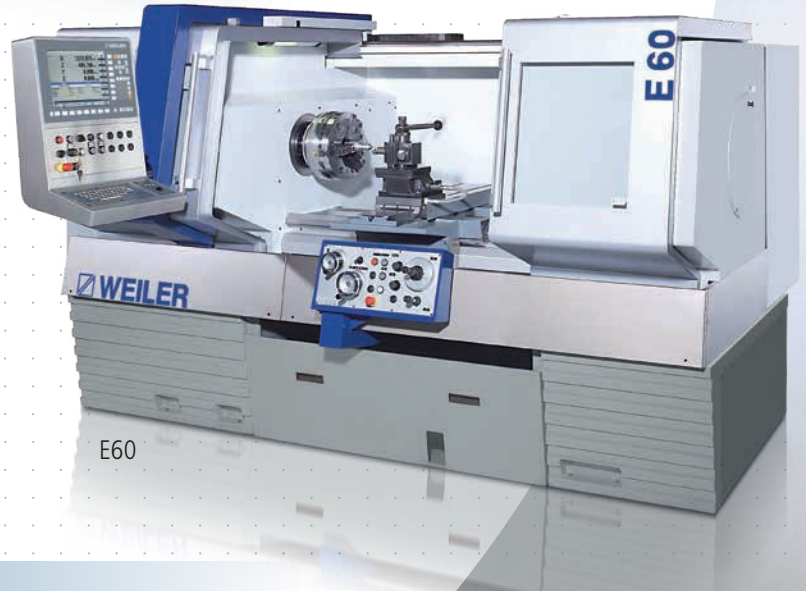
E50^{HD}

The multi-purpose machine for high-performance turning

- Toolmakers accuracy according to
  DIN 8605 for E30 to E80
  DIN 8606 for E90 to E120
  DIN 8607 for E150 to E200

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



E60

The E-Series

Cycle-Controlled Precision Lathes

E70^{HD} / E80^{HD}

High performance for spindle bores from 5.04 inch to 8.5 inch

Automated Cycles / Control Manual Turning

- Constant cutting speed, orientated "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

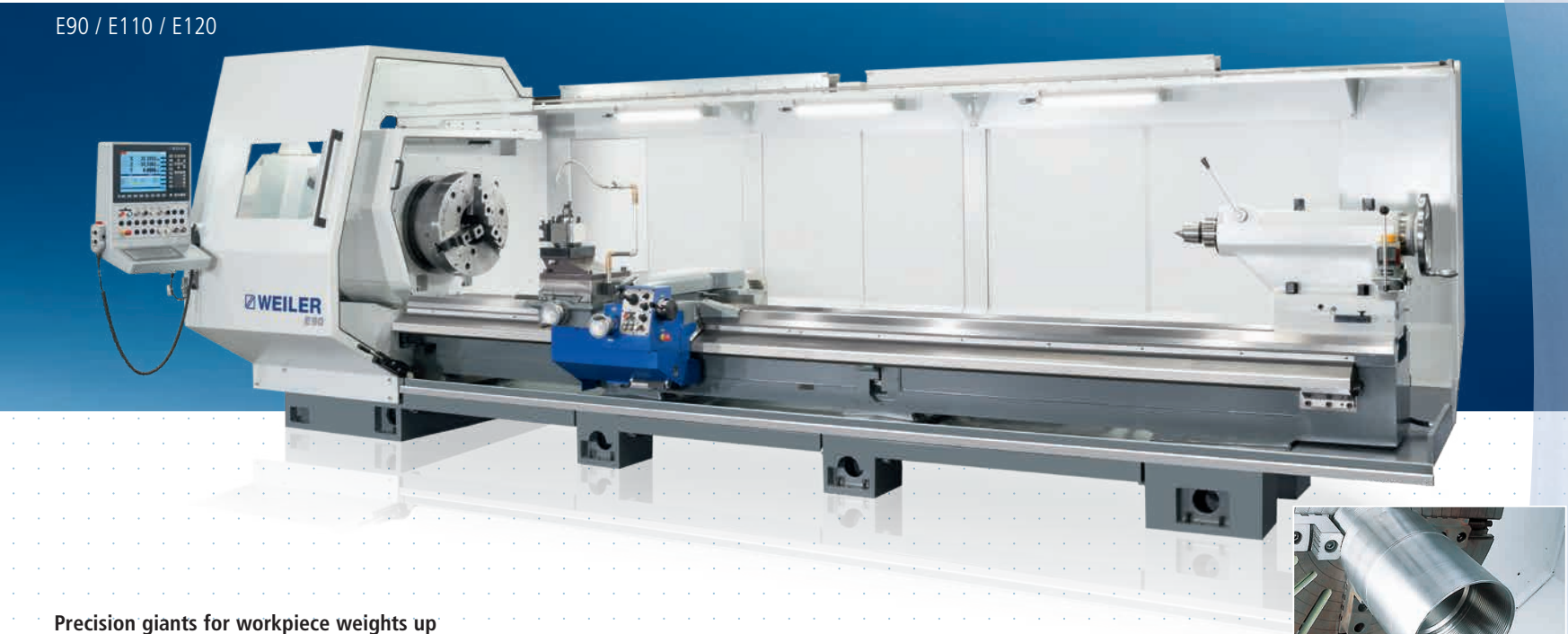
DIN-ISO-Programming

- Creation, editing and processing of DIN-ISO programs

The E-Series

Cycle-Controlled Precision Lathes

E90 / E110 / E120



Precision giants for workpiece weights up to 22,000 lb and Spindle bores between 5.04 inch and 14.25 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, just more comfortably.
- Complicated workpieces can be machined in the same way as on a conventional machine, just faster.
- Complex workpieces can be produced in the same way as on a CNC machine, just more easily.

The E-Series

Cycle-Controlled Precision Lathes

E150 / E175 / E200

Heavy-duty and robust for workpiece weights up to 26,500 lb and Spindle bores from 6.49 inch to 22.83 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.

The E-Series

Cycle-Controlled Precision Lathes

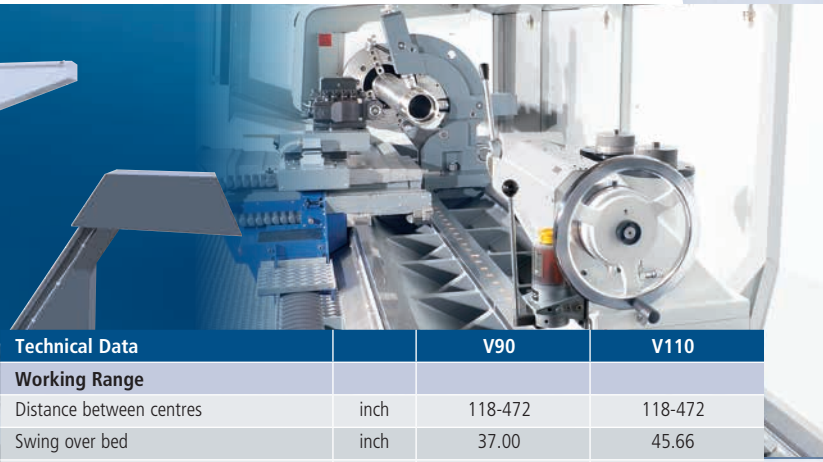
Technical Data		E30	E40	E50HD	E60	E70HD	E80HD	E90	E110	E120	E150	E175	E200
Working Range													
Distance between centres	inch	29	39	39/78	39/78	39-236	39-236	78-590	78-590	78-590	78-590	78-590	78-590
Swing over bed	inch	12.99	17.13	22.43	25.59	28.35	31.50	35.43	43.31	47.24	59.06	68.90	78.74
Swing over cross slide	inch	6.29	7.87	13.38	15.74	16.93	20.08	20.87	28.74	32.68	40.55	50.39	60.24
Travel of cross slide	inch	7.09	10.24	13.38	14.96	16.14	16.14	23.23	23.23	23.23	31.10	31.10	31.10
Bed width	inch	9.45	12.99	13.77	14.96	18.90	18.90	23.62	23.62	23.62	32.68	32.68	32.68
Main Spindle													
Spindle nose acc. to DIN 55027 (DIN ISO 702-3)	size	5	6	8	8	11	11	11	11	15	15	15	15
Spindle bore	inch	1.69	2.59	3.26*	3.26	5.03**	5.03**	5.03***	5.03***	6.49****	6.49*****	6.49*****	6.49*****
Spindle diameter in front bearing	inch	2.76	4.33	4.72	4.72	7.08	7.08	7.01	7.01	9.25	9.25	9.25	9.25
Main Drive													
Drive power 60% / 100% duty cycle	hp	15/12	27/23	27/23	33/26	49/40	49/40	60/50	60/50	60/50	87/68	87/68	87/68
Max. torque at the spindle	ft lb	120	330	950	1,300	2,000	2,000	4,400	4,400	5,900	7,400	7,400	7,400
Speed range	rpm	1-4,500	1-3,500	1-2,500	1-2,500	1-1,800	1-1,800	1-1,120	1-1,120	1-900	1-900	1-900	1-900
Feed Range													
Feed force longitudinal	lb	1,350	2,250	2,700	2,700	4,500	4,500	4,500	4,500	4,500	6,750	6,750	6,750
Rapid traverse speed longitudinal/transverse	inch/min	315/157	315/157	394/197	394/197 276/197	394/197 276/197	394/197	394/197 276/197	394/197 276/197	394/197 276/197	394/197	394/197	394/197
Feed range	inch /rev	0.00004-1.96	0.00004-1.96	0.00004-1.96	0.00004-1.96	0.00004-1.96	0.00004-1.96	0.00004-1.96	0.00004-1.96	0.00004-1.96	0.00004-1.96	0.00004-1.96	0.00004-1.96
Thread Cutting Range													
Metric threads	mm	0.1-2,000	0.1-2,000	0.1-2,000	0.1-2,000	0.1-2,000	0.1-2,000	0.1-2,000	0.1-2,000	0.1-2,000	0.1-2,000	0.1-2,000	0.1-2,000
Inch threads	TPI	112-1/64	112-1/64	112 - 1/64	112-1/64	112-1/64	112-1/64	112-1/64	112-1/64	112-1/64	112-1/64	112-1/64	112 - 1/64
Tailstock													
Quill diameter	inch	1.97	2.56	3.15	3.93	4.53	4.53 (5.51)	5.51	5.51 (7.09)	5.51 (7.09)	7.09	7.09	7.09
Inside taper of quill	MT	3	4	5	5	6	6	6	6	6	metr. 100	metr. 100	metr. 100
Machine Accuracy													
Acceptance Accuracy	DIN	8605	8605	8605	8605	8605	8605	8606	8606	8606	8607	8607	8607

*Spindle bore 5.03; 6.49 inch on request **Spindle bore 6.49, 8.5 inch on request ***Spindle bore 6.49, 10.31, 14.25 inch on request ****Spindle bore 10.31, 14.25 inch on request *****Spindle bore 10.31, 14.25, 17.72, 22.83 inch on request

The V-Series

4-Way Precision Lathe with Automated Cycles

V90 / V110



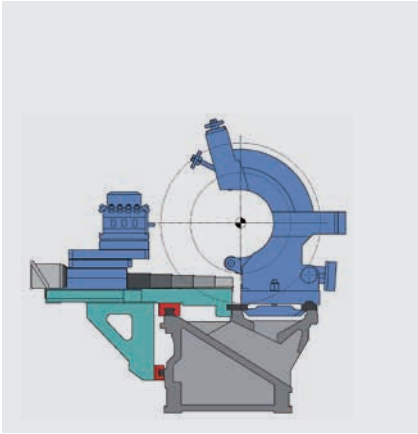
New Product:
The first 4-way Precision Lathe with Automated Cycles

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

Technical Data		V90	V110
Working Range			
Distance between centres	inch	118-472	118-472
Swing over bed	inch	37.00	45.66
Swing over cross slide	inch	23.22	31.88
Travel of cross slide	inch	22.83	22.83
Bed width	inch	35.43	35.43
Main Spindle			
Spindle nose acc. to DIN 55027 (26) (DIN ISO 702-3)	size	15	15
Spindle bore	inch	6.49*	6.49*
Spindle diameter in front bearing	inch	9.25	9.25
Main Drive			
Drive power 60% / 100% duty cycle	hp	60/50	60/50
Max. torque at the spindle	ft lb	5,900	5,900
Speed range	rpm	1-900	1-900
Feed Range			
Feed force longitudinal	lb	4,500	4,500
Rapid traverse speed longitudinal/transverse	inch/min	394/197	394/197
Feed range	inch/rev	0.00004-1.96	0.00004-1.96
Thread Cutting Range			
Metric threads	mm	0.1-2,000	0.1-2,000
Inch threads	TPI	112-1/64	112-1/64
Tailstock			
Quill diameter	inch	5.51	5.51 (7.09)
Inside taper of quill	MT	6	6 (metr. 100)
Weight			
Machine weight	lbs	33,000/60,000	35,500/62,000
Machine Accuracy			
Acceptance Accuracy	DIN	8606/8607	8606/8607
*Spindle bore 10.31, 14.25 inch on request			

Turning with “Green” Technology

Praktikant VCplus

Technical Data		Praktikant VC^{plus}	Condor VC^{plus}
Working Range			
Distance between centres	inch	25.59	31.50
Centre height	inch	6.30	7.09
Swing over bed	inch	12.60	14.17
Swing over cross slide	inch	7.48	7.48
Main Spindle			
Spindle nose acc. to DIN 55027 (DIN ISO 702-3)	size	5	6
Spindle diameter in front bearing	inch	2.76	3.54
Spindle bore	inch	1.69	2.20
Inside taper (similar to DIN 228)	MT	metr. 50	6
Main Drive			
Drive power	hp	10.88	14.28
Speed range	rpm	25-5,000	30-4,000
Number of speeds		Stepless	Stepless
Feeds			
Number		Stepless	Stepless
Longitudinal	inch/rev	0.0004-0.24	0.0004-0.24
Transverse	inch/rev	0.0001-0.08	0.0001-0.08
Thread Cutting Range			
Metric threads	mm	0.1-20	0.1-20
Inch threads	TPI	80-2	80-2
Tailstock			
Quill travel	inch	3.35	4.33
Quill diameter	inch	1.57	1.95
Inside taper of quill	MT	3	3
~ Weight (without packaging and accessories)	lbs	2,400	3,300

Condor 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

e-LISSY

- **L**earner **I**dentification **S**ystem assigns individual access authorization through coded chips to enable optimum adaption to the individual progress in training.

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

Options for Praktikant VC^{Plus} and Condor VC^{Plus}: WEILER WTS

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

The Conventional Multi-Purpose Lathes

DA 210 / DA 260

Safety

- EMERGENCY OFF buttons on the head-stock 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
Working Range			
Distance between centres	inch	39/59	39/59/78
Centre height	inch	8.27	10.24
Swing over bed	inch	17.13	21.06
Swing in bed recess	inch	18.50	22.05
Swing over cross slide	inch	9.65	13.58
Bed width	inch	12.99	12.99
Travel of cross slide	inch	12.99	12.99
Travel of top slide	inch	5.12	5.12
Main Spindle			
Spindle nose acc. to DIN 55027 (DIN ISO 702-3)	size	6	6
Spindle diameter in front bearing	inch	3.27	3.94
Spindle bore	inch	2.05	2.80
Inside taper of main spindle	inch	metr. 57	metr. 76
Main Drive			
Drive power 100 % ED	hp	7.5	10.2
Max. torque at main spindle	ft lb	664	885
Speed range	rpm	44-2,000	33-1,500
Number of speeds		12	12
Feeds			
Longitudinal feeds	inch/rev	0.0028-0.157	0.0028-0.157
Transverse feeds	inch/rev	0.0014-0.079	0.0014-0.079
Tailstock			
Quill travel	inch	4.72	4.72
Quill diameter	inch	2.56	2.56
Inside taper of quill	MT	4	4
Thread Cutting Range			
Metric threads	mm	0.5-28	0.5-28
Inch threads	TPI	56-1	56-1
Permissible Workpiece Weights			
With chuck max.	lbs	330	440
With tailstock max.	lbs	1,100	1,800
With steady rest max.	lbs	1,500	2,200
Weights	lbs	2,900/3,400	3,400/3,900/4,600

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 head-stock 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
Working Range			
Distance between centres	inch	39/59	39/59/78
Centre height	inch	8.27	10.24
Swing over bed	inch	17.13	21.06
Swing in bed recess	inch	18.50	22.05
Swing over cross slide	inch	9.65	13.58
Bed width	inch	12.99	12.99
Travel of cross slide	inch	12.99	12.99
Travel of top slide	inch	5.12	5.12
Main spindle			
Spindle nose acc. to DIN 55027 (DIN ISO 702-3)	size	6	6
Spindle diameter in front bearing	inch	3.27	3.94
Spindle bore	inch	2.05	2.80
Inside taper of main spindle	inch	metr. 57	metr. 76
Main Drive			
Drive power 100 % ED	hp	7.5	7.5
Speed range	rpm	20-2,500	20-2,500
Number of speeds		2	2
Feeds			
Longitudinal feeds	inch/rev	0.0028-0.079	0.0028-0.079
Transverse feeds	inch/rev	0.0014-0.039	0.0014-0.039
Tailstock			
Quill travel	inch	4.72	4.72
Quill diameter	inch	2.56	2.56
Inside taper of quill	MT	4	4
Thread Cutting Range			
Metric threads	mm	0.5-14	0.5-14
Inch threads	TPI	56-2	56-2
Permissible Workpiece Weights			
With chuck max.	lbs	330	440
With tailstock max.	lbs	1,100	1,800
With steady rest max.	lbs	1,500	2,200
Weights	lbs	3,200/3,800	3,600/4,200/4,900

The Portable Drilling Machines

VOM50

Technical Data		VOM50
Working Range		
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
Drilling Spindle / Feed Range		
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
Power of Main Drive	hp	5.44
Total Connected Load	kVA	7.5
Bed Dimensions		
Length	inch	102.76
Width	inch	41.34
Dimensions of the Machine		
Length	inch	135.04
Width	inch	52.17
Height	inch	133.86
Machine weight incl. standard accessories	lbs	14,500

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.

The Radial Drilling Machines

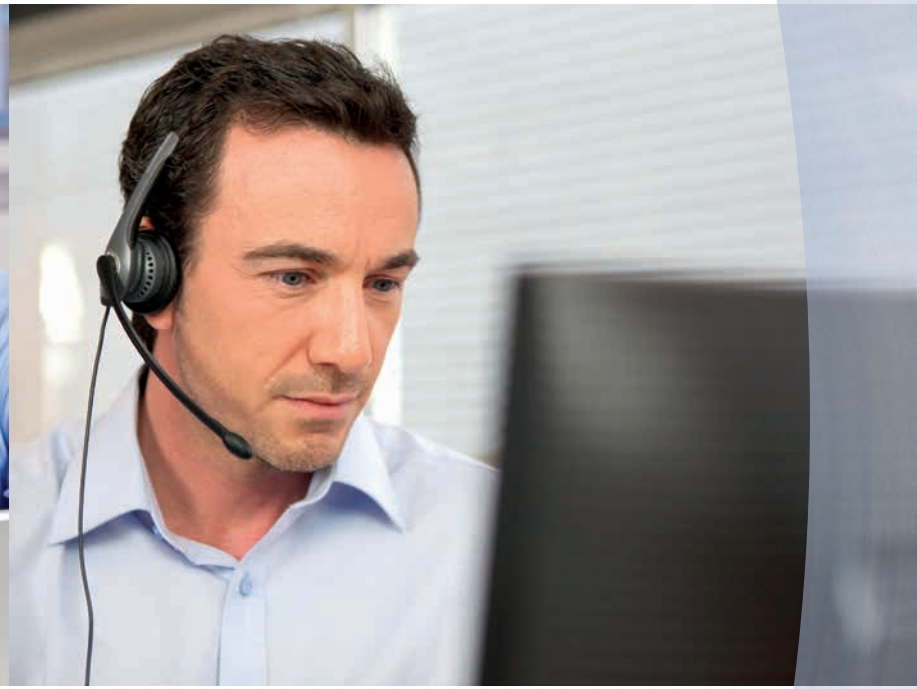
VO75 / VO100 / VO104

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
Working Range				
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
Drilling Spindle / Feed Range				
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
Power of Spindle Motor	hp	10.2	15	15
Total Connected Load	kVA	9.3	13	13
Dimensions of the Machine				
Length	inch	145.66	177.16	244.49
Width	inch	54.13	57.32	70.87
Height	inch	161.02	181.10	201.96
Machine weight incl. standard accessories	lbs	15,200	26,750	43,000

WEILER Training Software for the E-Series

WEILER Teleservice



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 CO2 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

before

after

Service

- 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

Please feel free to contact us if you have any further questions:
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General Overhauls

- Specialist refurbishment in the original WEILER production process
- Geometric acceptance according to DIN 8605 / 8606 / 8607
- 6 months warranty from WEILER

WEILER

www.weiler.de

User videos are available
on the WEILER Channel at

YouTube

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