

Technical Data		Commodor	Commodor AC	Commodor 230	Commodor 230 AC
Working Range					
▶ Distance between centres	mm	1,000	1,000	1,000	1,000
▶ Centre height	mm	180	180	230	230
▶ Swing over bed	mm	380	380	475	475
▶ Swing over cross slide	mm	190	190	270	270
Main Spindle					
▶ Spindle nose according to DIN 55027	size	6	6	6	6
▶ Spindle diameter in front bearing	mm	90	90	90	90
▶ Spindle bore	mm	56	56	56	56
▶ Taper in spindle nose	MT	6	6	6	6
Main Drive					
▶ Drive power at 100 % ED	kW	4	5.5	7.5	11
▶ Speed range	rpm	25-2,000	25-2,000	13-2,000	25-2,000
▶ Number of gear steps		9	4	12	4
▶ Power shift gear		–	–	two-step	–
▶ Number of spindle speed		18	inf. variable	24	inf. variable
Feed Range					
▶ Number of feeds		200	200	320	320
▶ Longitudinal	mm/rev.	0.022-0.8	0.022-0.8	0.028-8.2	0.028-8.2
▶ Transverse	mm/rev.	0.011-0.4	0.011-0.4	0.014-4.1	0.014-4.1
Thread Cutting Range					
▶ Metric threads	mm	0.3-10	0.3-10	0.3-80	0.3-80
▶ Inch threads	TPI	80-2.75	80-2.75	80-0.375	80-0.375
Tailstock					
▶ Quill travel	mm	150	150	150	150
▶ Quill diameter	mm	60	60	70	70
▶ Quill taper to DIN 228	MT	4	4	4	4
Weight (without packing and optional accessories)	kg	1,600	1,700	1,900	1,800

Standard Equipment Commodor and Commodor 230

- Roller protection for leadscrew and feed rod
- Tailstock with pressure relief
- Brake device for main drive
- Socket for machine lighting 230 V
- Taper bush MT6 / MT4
- Male centre MT4
- Multisuisse quick-change toolpost size B
- Toolholder BD 25140
- Chip tray
- Chuck guard with limit switch monitoring
- Rear splash guard (Commodor)
- Partial machine guarding (Commodor 230)
- Chip deflector
- Bed stop
- Set of change gears 33-56-88-120
- Coolant attachment
- 5 Shear pins for leadscrew and change gears
- Central lubrication
- Set of wrenches
- Instruction manual with spare parts list
- Machine card
- NCS enamel

Standard Equipment

Commodor AC and Commodor 230 AC

- Roller protection for leadscrew and feed rod
- As mentioned however including partial machine guarding and spindle speed display

Optional Accessories

Commodor, Commodor AC and Commodor 230, Commodor 230 AC

- Rotating centres
- Follower rests with sliding jaws
- Steady rests with roller or sliding jaws
- I.D. back stops
- Three and four jaw chucks
- Independent four jaw chucks
- Collet clamping attachments
- Limit switch device for thread cutting
- Machine lightings
- Digital readouts
- Constant cutting speed (only AC)
- Further accessories on request

Electrical Equipment

Commodor and Commodor 230

- Working voltage 400 V AC 3 PH N/PE/50 Hz
- Control voltage 230 V AC
- Magnetic disk brake for main spindle stop
- Contactor control in lockable switch cabinet
- All safety relevant components are electrically interlocked
- Restart protection in case of voltage loss or emergency stop
- Two-speed main motor IP 54 with overload protection and temperature sensor
- Emergency stop at headstock and subbase
- Socket for machine lighting 230 V AC

Electrical Equipment

Commodor AC and Commodor 230 AC

- As mentioned however AC drive with force-ventilated main motor, frequency converter, magnetic disk brake and spindle speed potentiometer for infinitely variable speed adjustment and speed display

Technical variations reserved · 04/10 · 5.0915.01.07.02.02



Model Commodor AC

Conventional Precision Lathes
Commodor, Commodor AC
and Commodor 230,
Commodor 230 AC

 **WEILER**
www.weiler.de

WEILER Werkzeugmaschinen GmbH
Mausdorf 46 • D-91448 Emskirchen
Telephone +49 (0)9101-705-0
Fax +49 (0)9101-705-122
info@weiler.de • service@weiler.de

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www.weiler.de

Commodor, Commodor AC and Commodor 230, Commodor 230 AC

The advantages of the conventional range are ultimate precision and operating convenience as well as refined technology



Model Commodor 230 AC

Standard Design

Main Spindle

The extremely sturdy, case-hardened main spindle has been designed to ensure high dynamic rigidity. The high precision double taper roller bearing at the front and the adjustable double-row cylinder roller bearing at the rear guarantee high quality surfaces, quiet running and excellent turning performance.

Apron

The apron is fully enclosed and also serves as the central lubrication system reservoir for the carriage, cross slide and half nuts. A central selection lever activates longitudinal and transverse movements as well as closing the half nuts. A trip worm interrupts feed movement when turning against the stop. The trip force is adjustable in 3 stages.

Feed Gearbox

Three rotary knobs and a lever allow 200 different feeds to be selected. A fourth rotary knob activates the reversing gear. With few exceptions, any of a wide range of standardized metric or imperial thread pitches can be selected without even changing gears.

Reversing Gearbox

The Commodor 230 has a constant speed motor with two flange-mounted power shift stages. The motor continues running whilst the main spindle is brought to a standstill through the clutch and brake. Mechanically switched clutches are built into the reversing gearbox as standard to enable smooth spindle start-up.

Carriage, Cross and Top Slide

The carriage guides are plastic-coated. The primary advantages of this are stick-slip-free start-up, smooth running and high surface quality. The cross and top slide have dovetail guides, play is adjusted through vee-strips. The pump in the apron centrally supplies oil to the hardened cross feed screw and its adjustable bronze nut as well as the guides for the carriage and cross slide.

Tailstock

With pressure relief through rollers for easy movement along the bed.

Optional Equipment

*Pictures may deviate from the standard version.

Digital Readout

3 axes for carriage, cross and top slide (Z, X and ZO), tool storage for 16 tools, counter with 1 reference point per axis, sum button for Z and Zo, metric/inch switchable, cross travel as diameter or radius display, Delta button for distance-to-go display, resolution up to 0.001 mm, hold position and taper calculator.

Digital Readout WEILER DZ-V for AC Machines with Constant Cutting Speed

3 axes, for carriage, cross and top slide (Z, X and Zo), 2 displays for X and Z, absolute and incremental position display, distance-to-go display to zero, 9 reference points, metric/inch switchable, cross travel as diameter or radius display, resolution up to 0.005 mm, with speed display, constant cutting speed, direct spindle speed input, direct selection of cutting speed and automatic recognition of the selected gear step.

Mounting of the Digital Readout

The scales and feed lines for the digital readout (option) are optimally protected against damage in the working area of the machine through covers and a cable chain.

Lever Operated Collet Chuck for Stationary Collets

Taper Turning Attachment

for turning tapers of up to 400 mm in length with a max. taper angle of 20°.

Precision and Efficiency

The "Commodor" lathe range proves that quality, safety, versatility and straightforward operation can be optimally combined. Regardless of whether one-off or small batch production is required in a handcraft or industrial environment or whether tools, jigs or fixtures are to be manufactured, the Commodor proves itself as ideal choice for countless applications. It has an inherent versatility that can be expanded through an extensive range of accessories.

Attention to detail is the best guarantee for operator safety:

- ▶ Automatic handwheel release
- ▶ Spindle brake

- ▶ Securing of pinch points
- ▶ Safety functions extended to include numerous accessories

The tolerances remain well within final inspection tolerances defined in DIN 8605 – proof of the high quality of the machine. A wide variety of options improve the efficiency of the machine for the production of small and medium-sized batches.

Drive

The machine is either supplied with a two-speed motor with fixed spindle speeds or a powerful infinitely variable main drive (AC). A speed potentiometer allows the speed to be finely and

infinitely optimized during the processing cycle. This, in conjunction with the WEILER DZ-V digital readout, simplifies operation when working with constant cutting speed. The advantages for the tool maker are obvious:

- ▶ Increased productivity through fast speed selection and fast and straightforward operation
- ▶ High precision and extremely high quality surfaces through optimal cutting conditions
- ▶ Longer tool life

Headstock

The casing is thick-walled and manufactured from high-quality grey cast iron. This provides the basis for low-vibration running and exceptional dynamic rigidity. High precision, case hardened and ground gears running in an oil bath enable high gear speeds and exceptional turning quality. The gear stages can be easily selected through two levers.

Tailstock

To enable fine tapers to be turned, the top of the tailstock can be moved on a guideway in front or behind the centre line. The hardened and ground tailstock quill is provided with a depth scale which enables exact infeed using a graduated collar. The pressure relief through rollers enables easy movement along the bed.

Bed and Subbase

The bed is manufactured from high-quality grey cast iron. Strong transverse ribbing and continuous guides ensure resistance to bending and torsional forces. The separate double-

vee and flat guides for the carriage and tailstock are flame-hardened and ground. The bed is supported by robust cast iron feet. In between there is a large coolant tank (100 l)

with settling tray and submergible pump. Above the tank there is a chip tray on four rollers that can be pulled out to the front.