

# STEP-FOUR Milling Mechanisms

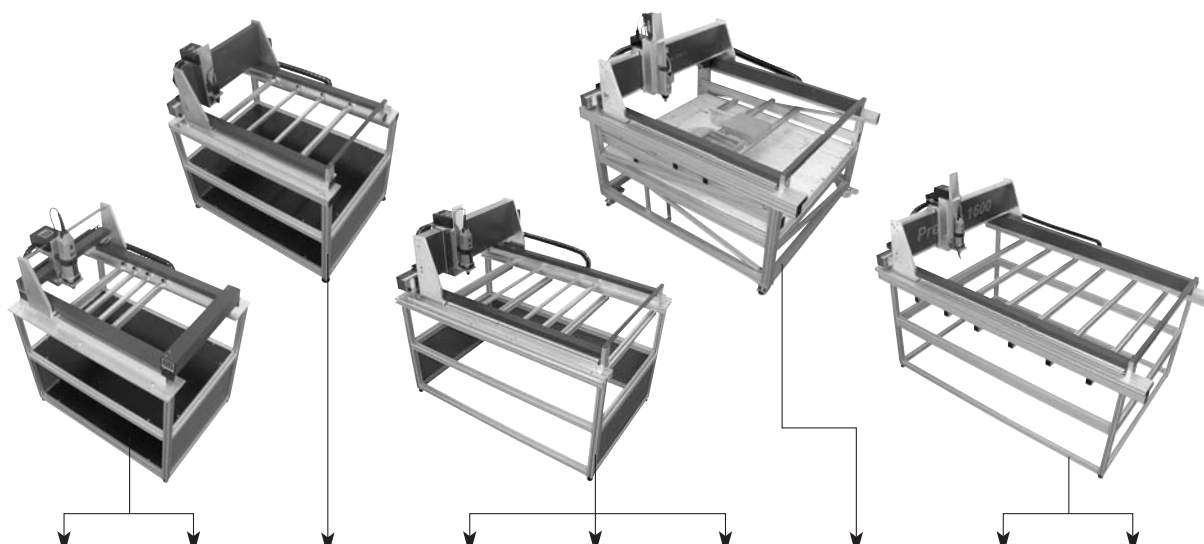
- Universal and flexible.
  - Milling, engraving, drilling, cutting films and transparencies, dispensing...
  - High precision and reliability in daily use, even under high loads.
  - Simple and low-cost maintenance.
  - Optimum price/performance ratio.

Having the flexibility to process virtually any material is what makes STEP FOUR milling systems ideal for advertising technology, in manufacturing, in skilled craftsmanship, in model and prototype building, as well as for training purposes.

Due to the robust, milled aluminium structure in combination with extruded profiles, no base plate is required. STEP-FOUR milling units are therefore open underneath, which enables large-sized workpieces (e.g. cabinets) to be handled easily. Depending on the

application, you can either use low-cost slide rails in combination with trapezoidal thread drives or linear ball bearings and ball-bearing drives. A variety of router spindle units and accessories are available for individual and customized applications. This makes sure you get the best bargain for your money no matter what application you choose.

STEP-FOUR milling units comply with the highest safety standards and are CE - certified.



	Basic 540	Basic 1000	Precise 760	Precise 1000	Precise 1000 U	Precise 1000 KU	Precise 1200 Servo	Precise 1600	Precise 1600 Servo
Positioning range (X/Y):	510 x 308mm	1024 x 420mm	750 x 458mm	1015 x 598mm	1015 x 600mm	1015 x 600mm	1150 x 998mm	1550 x 998mm	1550 x 998mm
Z axis lifting height:	70mm	70mm	100mm	100mm	160mm	160mm	195mm	195mm	195mm
Max. positioning speed:	2000mm/min	1250mm/min	1750mm/min	1350mm/min	3000mm	5000mm/min	10000mm/min	4000mm/min	10000mm/min
Repetition accuracy:	+/-0.025mm	+/-0.025mm	+/-0.025mm	+/-0.025mm	+/-0.025mm	+/-0.02mm	+/-0.01mm	+/-0.02mm	+/-0.01mm
Max. inversion error:	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Max. positioning error:	<0.1mm/100mm	<0.1mm/100mm	<0.1mm/100mm	<0.1mm/100mm	<0.1mm/100mm	<0.1mm/100mm	<0.1mm/100mm	<0.1mm/100mm	<0.1mm/100mm
X/Y axis spindles:	TG 12x3mm	TG 12x3mm	TG 12x3mm	TG 12x3mm	TG 12x3mm	TG 12x6mm	KU 16x10mm	KU 16x10mm	KU 16x10mm
Z axis spindles:	TG 12x3mm	TG 12x3mm	TG 12x3mm	TG 12x3mm	TG 12x3mm	KU 14x4mm	KU 16x5mm	KU 16x10mm	KU 16x5mm
X axis shaft:	16mm	20mm	20mm	20mm	supported guide	supported guide	supported guide	supported guide	supported guide
Y axis shaft:	16mm	16mm	20mm	20mm	supported guide	supported guide	supported guide	supported guide	supported guide
Z axis shaft:	16mm	16mm	16mm	16mm	20mm	supported guide	supported guide	supported guide	supported guide
Tool / reference switch*:	○/○	○/●	●/●	●/●	●/●	●/●	●/●	●/●	●/●
Applications:	Demanding model designs insulation material, drilling pc boards, engraving, prototyping.	Processing relatively soft materials, batch production in modelbuilding, milling contours on boards or plates.	Demanding model designs, prototyping, batch production, special applications electronics, systems and switch cabinet construction and engraving.	Processing relatively soft materials, batch production in model building.	Industrial modelbuilding, functional modelbuilding, 3D prototyping molding and special applications.	Industrial modelbuilding, functional modelbuilding, 3D prototyping molding and special applications.	Industrial modelbuilding, functional modelbuilding, 3D prototyping molding and special applications.	Industrial modelbuilding, functional modelbuilding, 3D prototyping molding and special applications.	Industrial modelbuilding, functional modelbuilding, 3D prototyping molding and special applications.
Advantages:	Highly stable and fast. Excellent price/performance ratio.	Extensive working range.	Capsules/covers for all guide rails. Can handle atomized spray. Wires for SF spindles and 230V included.	Extensive working range, Capsules/covers for all guide rails. Can handle atomized spray. Wires for SF spindles and 230V included.	High rigidity in all axles due to robust linear guide rail. High advance-feed speeds. Otherwise like Precise 1000.	High advance-feed speeds and precision due to ballbearing drives. Low maintenance. Otherwise like Precise 1000 U.	Very high advance feed speeds due to servo drive. Low maintenance. Otherwise like Precise 1000 KU.	High advance-feed speeds and precision due to ballbearing drives. Low maintenance. Otherwise like Precise 1000 U.	Very high advance feed speeds due to servo drive. Low maintenance. Otherwise like Precise 1000 KU.

\*) ○ = optional ● = series model