



Servo-Torq® Mini Slider Standard rotary cutter machine

Compact in-line rotary cutter & caterpillar in-feeder/puller

The Servo-Torq® Mini Slider Standard combines advanced servo rotary cutting and feeding with a very compact design. It is ideal for users looking for a compact in-line extrusion cutting system.

The main benefits to the user are:

- Lenze AC servo control for better cut length accuracy & speed.
- A faster blade speed for an improved cut quality.
- Full colour 178 mm (7") touch-screen panel with easy-to-use screens.
- High cut rates possible; up to 2,000 pieces per minute.
- Slide-away cutter head makes in-line start-up much easier.
- Very compact design; ideal for medical clean-room use.
- Built-in blade lubrication system with medical options available.

Mode of Operation

Servo-Torq® Mini Slider Standard rotary cutter and caterpillar in-feeder

The Servo-Torq® Mini uses a rotary 'flying knife' method to cut through the extrudate. The ultra-thin knife blade is rotated at high speed through 360°. During part of this rotation the blade slices through the extrudate. Inlet & outlet bushes guide the blade & the extrudate during the cutting operation.

The signal to activate the cut comes from the integral length counter. This is linked to the encoder which measures the amount of extrudate that passes through the caterpillar in-feeder.

The integral Accra-Feed™ 2000AS twin belt caterpillar in-feeder is also driven by a servo motor. The motor power is transmitted to the poly-vee belts via two spiral-bevel gearboxes. These are in constant mesh, thus avoiding back-lash problems.

Both belts move simultaneously around the centre-line of the product. A single hand-wheel controls this movement.

Inlet guide rollers are provided to direct the extrudate onto the belts at the correct point. The belts themselves can be coated in either heavy-duty neoprene or cellular polyurethane.



Servo-Torq® Mini Slider Standard rotary cutter system:				
	Capacity (mm):	Motor size (Nm):	Drive rating (Amp):	Maximum speeds:
Servo-Torq® Slider Standard Model ST-M/30A-SB:	30 max. Ø	4.5	9.5	450 - 2000 cuts/minute*
Accra-Feed™ Caterpillar in-feeder Model 2000AS:	50 wide x 250 long belts	1.5	3.0	70 m/min** linespeed

* Figures quoted refer to maximum in on-demand & SpeedCut™ cutting modes with one blade fitted.

** Maximum selectable linespeed. Other maximum linespeeds are 10, 15, 20, 30 or 50 m/min.

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for more information on our product range.

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Accra-Feed™ is a trademark of Peter Gillard & Co. Limited



Servo-Torq® Mini Slider Standard rotary cutter

Compact rotary cutter & caterpillar infeeder



Mechanical specification ¹ :	<ul style="list-style-type: none"> Floor-standing base fitted with castors & floor locks. Right-to-left product feed. Left-to-right <u>not</u> available. Cast aluminium cutter block with stainless steel clam-shell cutter lid. Robust knife shaft assembly with aluminium blade holder fitted with hardened steel pins. Slide-away cutter head designed for in-line cutting. Poly-vee caterpillar belts covered in heavy-duty foamed polyurethane. Single handwheel adjustment of both belts around the centre-line. Robust fabricated steel base fitted with four plastic swivel castors. Four pad feet floor locks; one on each corner. Base frame & electrical cabinet painted RAL 7035 light grey semi-gloss (other colours available).
Blade & belt infeeder AC servo technology ¹ :	<ul style="list-style-type: none"> Lenze brushless AC servo motors with integral high resolution encoder feedback control. Very high torque even at high speeds. Low inertia/fast acceleration for dynamic performance. Rugged construction with encoders decoupled from the motor shaft. IP65 protected motor casing. Temperature sensors fitted into motor windings for protection against over-heating. Quick release connectors on motors. Caterpillar belts driven by single AC servo motor driving through a worm reduction gearbox, vertical shaft & twin right-angle spiral-bevel gearboxes. Note: twin direct drive motors available with Plus specification.
Cutting speed & modes ¹ :	<ul style="list-style-type: none"> Selectable cutting modes from 1 - 2000 cuts/min. Blade rotation speed adjustable up to 2,000 RPM.
Operator control panel ¹ :	<ul style="list-style-type: none"> Lenze 178 mm (7") colour touch-screen panel. Robust IP65 protected front panel. AMD Cortex A8 chip running at 800 MHz. TFT screen - 800 x 480 pixel resolution. Front panel size 210 mm x 155 mm. Emergency stop push button. Safety guards okay indicator lamp (blue). Safety relay re-set button (via touch-screen).
Software, PLC & motion control ¹ :	<ul style="list-style-type: none"> Microsoft Windows Embedded Compact 7 touch-screen operating software. Lenze servo motion control software. Embedded PLC functions in Lenze servo drives. Integrated twin-axis servo motion controller.
Communications ¹ :	<ul style="list-style-type: none"> EtherCAT, CAN & USB SD card slot for program back-ups. Ethernet (integrated switch).
Safety ¹ :	<ul style="list-style-type: none"> PILZ coded magnet interlocks on cutter lid, exit cutter bush, slide-away cutter head & caterpillar access door/. Inlet guard with 2 vertical & 1 horizontal rollers. Internal safety relay with re-set push button. Two emergency stop push buttons. Guards painted RAL 2004 bright orange. In compliance with EN ISO Standards. CE Certificate of Conformity or Incorporation².
Tooling & blades:	<ul style="list-style-type: none"> Pair stainless steel cutter guide bushes - pilot bore. Light-weight aluminium RAZOR blade holder. 50 off 0.25 mm thick stainless steel RAZOR blades.
Blade lubrication system:	<ul style="list-style-type: none"> Cast aluminium lubrication reservoir. Lubrication level indicator to front & drain tap to rear. Lubrication improves cut quality & extends blade life.

Physical specification ¹ :	<ul style="list-style-type: none"> Approx. 825 mm long x 600 mm wide x 1400mm high. Approx. 170 Kgs net weight without options fitted.
Power:	<ul style="list-style-type: none"> 400V 3 phase 50/60 Hz supply, with neutral & earth. Alternative supplies available.
Support:	<ul style="list-style-type: none"> One years parts warranty with express delivery during warranty period. Consumables excluded.

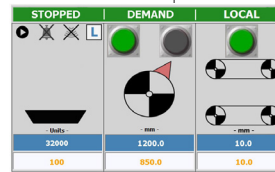
Colour touch-screen interface:

The Start Screen:



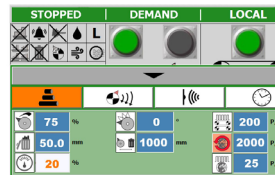
- The touch-screen panel controls all normal machine operations.

The Control Screen:



- Enter the cut length, linespeed & batch quantity. Lengths from 10.0 to 999,999.9 mm can be entered.

The Setup Screen:



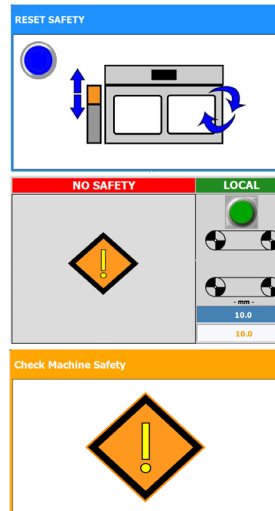
- Blade speed adjustment from 50% to 100% of full speed.
- Cutting mode selection.

The Tools Screen:



- To set the control panel language.
- To adjust other machine parameters.
- To enter the password protected zone.

The Safety Screens:



- To re-set the machine safety guards.



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¹ Specifications are subject to change without notice. Please ask for details of any changes.
² CE Certificate will depend upon the exact configuration of the machine and the way it is installed.

