

SL Series Tube Squaring Machines

Cold Machining

Clamping collets enable a perfect concentric clamping without any deformation of the tubes. Short collets for fittings and micro fittings available.

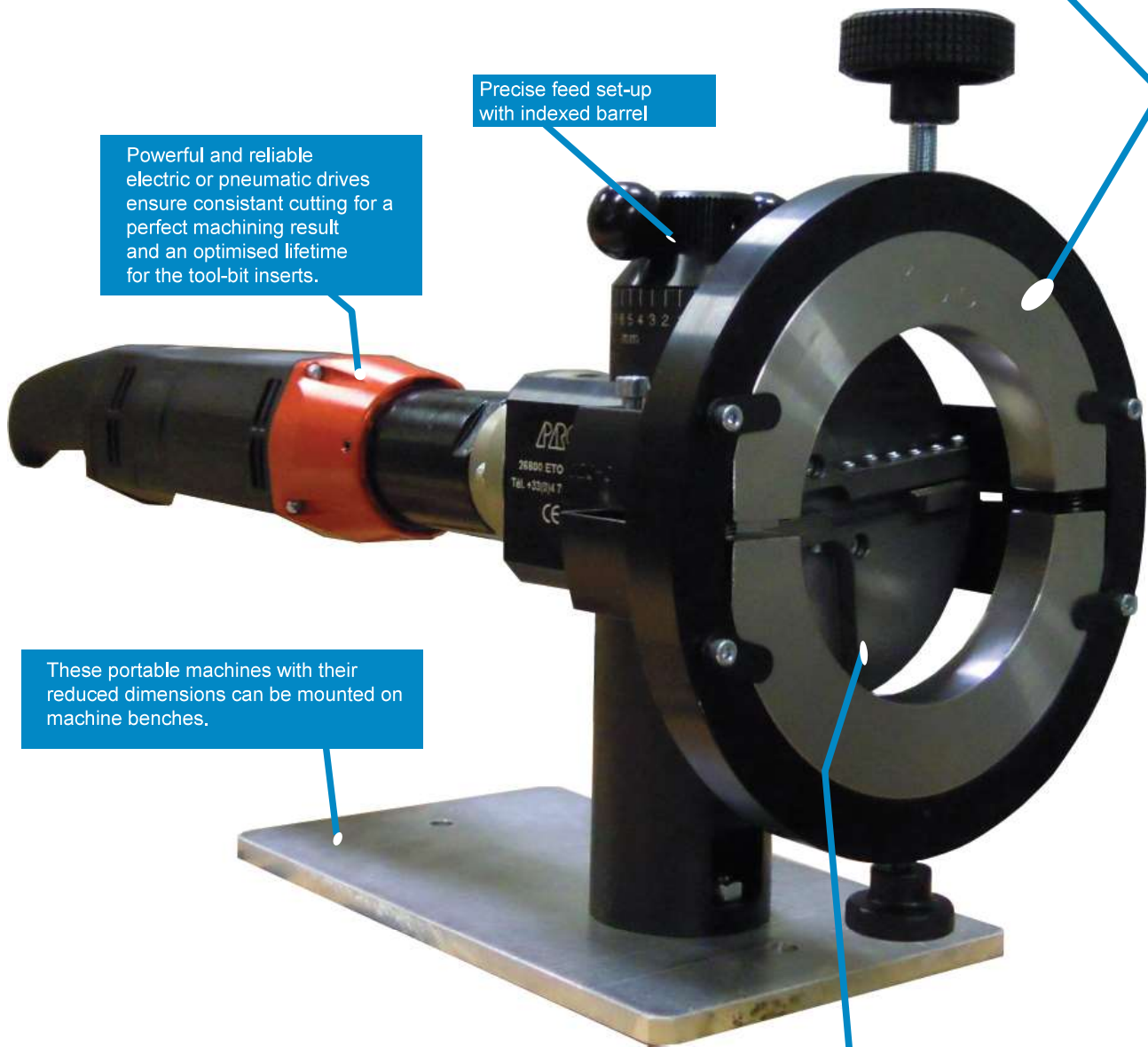
Precise feed set-up with indexed barrel

Powerful and reliable electric or pneumatic drives ensure constant cutting for a perfect machining result and an optimised lifetime for the tool-bit inserts.

These portable machines with their reduced dimensions can be mounted on machine benches.

Tool-holder plates enable the facing and beveling of tubes, fittings, micro fittings and tee fittings. Machining can be performed on all types of materials (mild steels, stainless steels, alloys). Chips are contained and easily collected in order to avoid altering the integrity of the tube.

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SL30 Tube and Pipe Beveling Machine

Standard Capacity: 3mm - 30mm (0.118"-1.181")



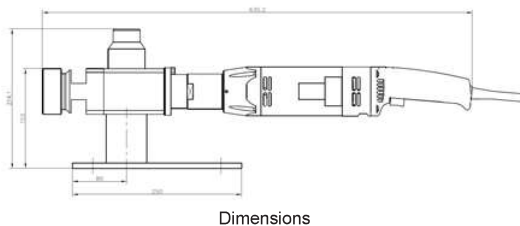
The tube end squaring machine PROTEM SL30 is designed to square tubes, fittings, micro-fittings and tees (short clamping head available) on all metal tubes with \varnothing 0.118"-1.181" (3mm-30mm) including mild, stainless steel, exotic alloys such as inconel, P91, hastelloy, copper etc.. Its clearance, capacities and design have been engineered along with the end users. This machine is ideal for applications within the high-purity field: food and beverage industry, semiconductors, cleanrooms, pharmaceuticals etc. It minimises the risk of contamination since it produces collectible ribbon-like chips and no particulates. Its small dimension allows it to be portable or bench mounted.

Beveling	Squaring	Counter-boring	Cut to length	Weld Joint Removal	Coating Removal	Saddles	Surfacing
✓	✓	✗	✓	✗	✗	✗	✗

Advantages:

- Portable
- Powerful Machining Equipment
- Easy and Safe use for the Operators
- No Heat Affected Zone
- High Accuracy
- Fast and easy mounting
- Perfect and repeatable welding preparation
- Adapted for works in tight spaces
- The machine can be used in all positions: vertical, horizontal, over head
- The Tool-Inserts can be changed and adjusted very quickly
- Smooth and Burr-Free Surface Finish
- No vibration during the machining process

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SL30 Tube and Pipe Beveling Machine

Technical Features:

Specific shapes & angles	I, V, Other on Requests
Clamping	Clamping heads and collets long or short
Feed stroke	10 mm (0.394")
Gear drive	95 tr/min to 280 tr/min
Pneumatic drive	730 W, 6 bar (87 psi), 1400 l/min (49 cfm)
Electrical drive	110 V (1500 W) or 220 V (1050 W)
<i>Pneumatically driven machines have to be used with a lubricating filter. Recommended option: regulation valve.</i>	

Order No.	Description
SL30-1000	Tube & Pipe Beveling and Facing Machine PROTEM SL30 for Ø 0.118"-1.181" (3mm-30mm) with pneumatic drive
SL30-1002	Tube & Pipe Beveling and Facing Machine PROTEM SL30 for Ø 0.118"-1.181" (3mm-30mm) version with short clamping head for microfittings, with pneumatic drive
SL30-1004	Tube & Pipe Beveling and Facing Machine PROTEM SL30 for Ø 0.118"-1.181" (3mm-30mm) with pneumatic drive and automatic clamping device
SL30-1020	Tube & Pipe Beveling and Facing Machine PROTEM SL30 for Ø 0.118"-1.181" (3mm-30mm) with electric drive 220V.
SL30-1022	Tube & Pipe Beveling and Facing Machine PROTEM SL30 for Ø 0.118"-1.181" (3mm-30mm) version with short clamping head for microfittings, with electric drive 220V.
SL30-1040	Tube & Pipe Beveling and Facing Machine PROTEM SL30 for Ø 0.118"-1.181" (3mm-30mm) with electric drive 110V MS10.
SL30-1042	Tube & Pipe Beveling and Facing Machine PROTEM SL30 for Ø 0.118"-1.181" (3mm-30mm) with electric drive 220.

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Applications:



SL60 Tube and Pipe Facing Machine

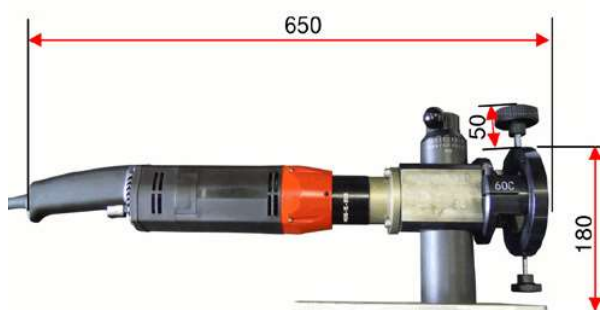
Standard Capacity: 10mm - 60,3mm (0.393"-2.374")



The tube end squaring machine PROTEM SL60 is designed to square tubes, fittings, micro-fittings and tees (short clamping head available) on all metal tubes with \varnothing 0.393"-2.374" (10mm-60,3mm) including mild, stainless steel, exotic alloys such as inconel, P91, hastelloy, copper etc..

Its clearance, capacities and design have been engineered along with the end users. This machine is ideal for applications within the high-purity field: food and beverage industry, semiconductors, cleanrooms, pharmaceuticals etc. It minimises the risk of contamination since it produces collectible ribbon-like chips and no particulates. Its small dimension allows it to be portable or bench mounted.

Beveling	Squaring	Counter-boring	Cut to length	Weld Joint Removal	Coating Removal	Saddles	Surfacing
✓	✓	✗	✓	✗	✗	✗	✗



Dimensions

Technical Features:

Specific shapes & angles	I, V, Other on Requests
Clamping	Clamping heads and collets long or short
Feed stroke	10 mm (0.394")
Gear drive	120 rpm to 360 rpm
Pneumatic drive	730 W, 6 bar (87 psi), 1400 l/min (49 cfm)
Electrical drive	110 V (1500 W) or 220 V (1050 W)
<i>Pneumatically driven machines have to be used with a lubricating filter.</i>	
<i>Recommended option: regulation valve.</i>	

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Order No.	Description
SL60-1000	Tube & Pipe Beveling and Facing Machine PROTEM SL60 for \varnothing 0.393"-2.374" (10mm-60,3mm) with pneumatic drive
SL60-1002	Tube & Pipe Beveling and Facing Machine PROTEM SL60 for \varnothing 0.393"-2.374" (10mm-60,3mm) version with short clamping head for microfittings, with pneumatic drive
SL60-1004	Tube & Pipe Beveling and Facing Machine PROTEM SL60 for \varnothing 0.393"-2.374" (10mm-60,3mm) with pneumatic drive and automatic clamping device
SL60-1020	Tube & Pipe Beveling and Facing Machine PROTEM SL60 for \varnothing 0.393"-2.374" (10mm-60,3mm) with electric drive 220V.

Order No.	Description
SL60-1022	Tube & Pipe Beveling and Facing Machine PROTEM SL60 for \varnothing 0.393"-2.374" (10mm-60,3mm) version with short clamping head for microfittings, with electric drive 220V.
SL60-1040	Tube & Pipe Beveling and Facing Machine PROTEM SL60 for \varnothing 0.393"-2.374" (10mm-60,3mm) with electric drive 110V MS10.
SL60-1042	Tube & Pipe Beveling and Facing Machine PROTEM SL60 for \varnothing 0.393"-2.374" (10mm-60,3mm) with electric drive 220.

SL120 Tube Squaring Machine

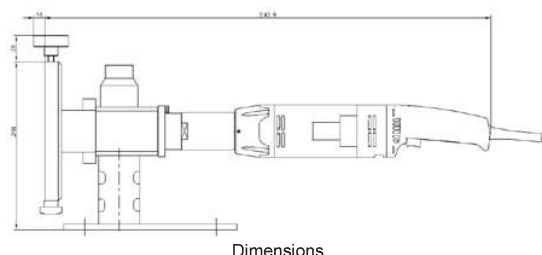
Standard Capacity: 50mm - 120mm (1.968"-4.724")



The tube end squaring machine PROTEM SL120 is designed to square tubes, fittings, micro-fittings and tees (short clamping head available) on all metal tubes with Ø 1.968"-4.724" (50mm-120mm) including mild, stainless steel, exotic alloys such as inconel, P91, hastelloy, copper etc.. Its clearance, capacities and design have been engineered along with the end users. This machine is ideal for applications within the high-purity field: food and beverage industry, semiconductors, cleanrooms, pharmaceuticals etc. It minimises the risk of contamination since it produces collectible ribbon-like chips and no particulates. Its small dimension allows it to be portable or bench mounted.

Beveling	Squaring	Counter-boring	Cut to length	Weld Joint Removal	Coating Removal	Saddles	Surfacing
✓	✓	✗	✓	✗	✗	✗	✗

OD Mounted



Technical Features:

Specific shapes & angles	I, V, Other on Requests
Clamping	Clamping heads and collets long or short
Feed stroke	10 mm (0.394")
Gear drive	20 tr/min to 60 tr/min
Pneumatic drive	730 W, 6 bar (87 psi), 1400 l/min (49 cfm)
Electrical drive	110 V (1500 W) or 220 V (1050 W)
Pneumatically driven machines have to be used with a lubricating filter.	
Recommended option: regulation valve.	

Order No.	Description
SL120-1000	Tube & Pipe Beveling and Facing Machine PROTEM SL120 for 1.968"-4.724" (50-120mm) with pneumatic drive
SL120-1002	Tube & Pipe Beveling and Facing Machine PROTEM SL120 for 1.968"-4.724" (50-120mm) version with short clamping head for microfittings, with pneumatic drive
SL120-1004	Tube & Pipe Beveling and Facing Machine PROTEM SL120 for 1.968"-4.724" (50-120mm) with pneumatic drive and automatic clamping device
SL120-1020	Tube & Pipe Beveling and Facing Machine PROTEM SL120 for 1.968"-4.724" (50-120mm) with electric drive 220V.

Order No.	Description
SL120-1022	Tube & Pipe Beveling and Facing Machine PROTEM SL120 for 1.968"-4.724" (50-120mm) version with short clamping head for microfittings, with electric drive 220V.
SL120-1040	Tube & Pipe Beveling and Facing Machine PROTEM SL120 for 1.968"-4.724" (50-120mm) with electric drive 110V MS10.
SL120-1042	Tube & Pipe Beveling and Facing Machine PROTEM SL120 for 1.968"-4.724" (50-120mm) with electric drive 220.

SL Tube Squaring Machines Options & Accessories

SL Crates:

Order No.	Description
SL30-K01	Transport box for SL30 pneumatic or electric
SL60-K01	Transport box for SL60 pneumatic or electric
SL120-K01	Transport box for SL120 pneumatic or electric
SL120-K02	Transport box for SL120 electric + RA

SL Insert Holders:

Order No.	Description
SL-1300	Machine support suitable for SL30, SL60, SL120
SL1410	Insert-holder 90° to be ordered with item ref. SL-1810, suitable for SL30, SL60, SL120
SL-1411	Insert-holder 30° to be ordered with item 1810, suitable for SL30, SL60, SL120
SL-1412	Insert holder 37°30 to be ordered with item ref. 1810, suitable for SL30, SL60, SL120
SL-1414	Insert-holder 45° to be ordered with item 1810, suitable for SL30, SL60, SL120
SL-1810	Insert-holder for SL30
SL-2310	Insert-holder for SL60
SL-3310	Insert-holder for SL120

SL Collets:

Order No.	Description
SL-1900-(Please specify the required Ø)	Clamping collet for SL30 with standard clamping head (Please specify the required Ø)
SL-2100-(Please specify the required Ø)	Clamping collet, short version for SL30 with short clamping head (Please specify the required Ø)
SL-2400-(Please specify the required Ø)	Clamping collet for SL60 with standard clamping head (Please specify the required Ø)





Order No.	Description
SL-2610-(Please specify the required Ø)	Clamping collet, short version for SL60 with short clamping head (Please specify the required Ø)
SL-3410-(Please specify the required Ø)	Clamping collet for SL120 with standard clamping head (Please specify the required Ø)
SL-3610-(Please specify the required Ø)	Clamping collet, short version for SL120 with short clamping head (Please specify the required Ø)

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SL Tube Squaring Machines

Tool-Inserts

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Order No.	Description	Picture
O-SE-P2-3.-H-T-25	Insert, right, material HSSE with TiN coating	
O-SE-P2-3.-H-F-25	Insert, right, material HSSE with TiALN coating	
O-SE-P3-3.-H-T-25A		
O-SE-P3-3.-H-F-25A	Insert right for J-prep with radius 1.5, material HSSE with TiALN coating	
O-SE-P3-3.-H-T-25C	Insert, right for J-prep with radius 2	
O-SE-P4-3.-H-T-26		
O-SE-P4-3.-H-F-26	Insert, left, material HSSE with TiALN coating	
O-SE-P5-3.-H-T-26A	Insert, left for J-prep with radius 1.5, material HSSE with TiN coating	
O-SE-P5-3.-H-F-26A	Insert, left, for J-prep with radius 1.5, material HSSE with TiALN coating	