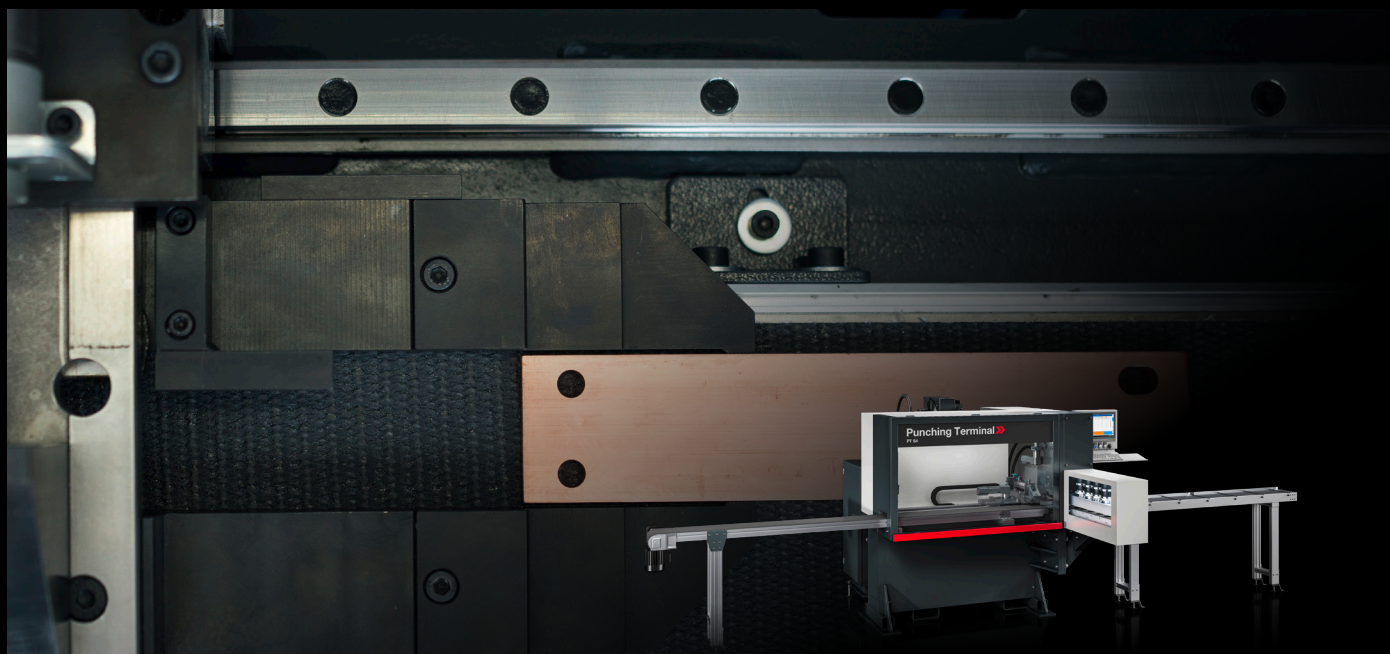


Rittal – The System.

Faster – better – everywhere.

Punching Terminal PT S4

Your Entry to Automated Busbar Machining



Bringing busbar punching in-house has never been easier. The Punching Terminal PT S4 is a compact, automated solution designed for smaller switchgear manufacturers looking to boost precision, cut lead times, and reduce reliance on external vendors. With intuitive touchscreen programming, rapid tool changes, and seamless data integration, this machine tackles the common challenges of manual punching, like long setup times, inconsistent quality, and costly rework, so you can focus on scaling your business.

What Can the Punching Terminal Provide for You?

- **Reduced costs** thanks to the elimination of external subcontracting and rework
- **Accelerated production** with quick-change tooling and fast setup speeds
- **Consistent, burr-free punchings** every time via three CNC-controlled axes and powerful tool springs
- **Maximized flexibility** with four tool stations to support punching, cutting, and custom tooling
- **Simplified programming** that supports imported data from DXF, Eplan, or RiPower to program complex workpieces directly from the touchscreen or your desk

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Punching Terminal PT S4 - Technical Data

Numbers in square brackets refer to notes below the table.

Dimensions and Weight'	
Weight, standard version	2,100 kg / 4,629.7 lbs
Length (incl. 4 m infeed roller table and belt conveyor)	7,635 mm / 300.6 inch
Width	2,480 mm / 97.6 inch
Height	1,800 mm / 70.9 inch
Environmental Conditions	
Temperature	15 – 35°C / 59° – 95°F (without air condition)
Max. relative humidity	60%
Max. elevation	1,000 m / 3,280 ft above sea level
Tool Specifications	
Number of tool stations	4
Tools	SingleTool
Processable material [2]	Copper, aluminum, and certain steels without scale
Shank diameter [2]	32 mm / 1.26 inch
Length of separating punch	
Max. number of punches	4 (3 x SingleTool + sep. punch)
Punch drive	Hydraulic
Hydraulic oil	100 l
Max. punch force**	350 kN
Max. punch pressure	280 bar
Hydraulic oil temperature switch-off threshold [3]	60°C
Axis Speed	
X (Gripper)	400 mm/sec / 15.7 inch/sec
Y (Tool station)	
Z (Hydraulic cylinder)	
Work Piece Dimensions [2]	
Thickness	3 – 16 mm / 0.12 – 0.63 inch
Width	15 – 125 mm / 0.59 – 4.9 inch
Min. material length	140 mm / 5.5 inch (Stop in the tool bar)
Min. part length	20 mm / 0.79 inch
Min. rest piece length	50 mm / 1.97 inch
Machine Control [4]	
Control	Beckhoff TwinCAT
Machine PC	Beckhoff CP-2716
Processor	Intel Atom E3930, 1,3 GHz
Memory	RAM: 4 GB DDR3, HDD: 40 GB CFAST FLASH
Interfaces	2 x RJ45 10/100/1000 Mbit/s, 2 x USB 2.0, 2 x USB 3.0, 1 x DVI-D
Operating system	Windows 10 IoT Enterprise
Operating software	PowerCut
User interface	Touchscreen, keyboard, and buttons

* Weight and dimensions vary depending on the machine (for example, length and type of conveyor). The specified weight is without hydraulic oil.

** To determine the effective available force, the retraction force of the punching tool used must be considered. This counteracts the punching force.

Punching Terminal PT S4 - Technical Data

Numbers in square brackets refer to notes below the table.

Electrical Connection	IEC	UL
Voltage	400 V AC \pm 10%	460 V AC \pm 10%
Frequency	50 Hz \pm 1%	60 Hz \pm 1%
Electrical Fuse Protection	25 A	25 A
Electrical Supply	3 phases, GND	
Pneumatic Connection		
Operating pressure	6 bar / 87.03 PSI	
Min. compressed air requirement	120 l/min / 4.24 CFM	
Quality class (ISO 8573-1)	class 5	
Connecting hose	¼ inch	
Operation		
Max. noise emission	79.6 dB(A) (during copper punching)	
Intended daily usage time	Max. 10 hours	

Notes:

[1] The punching machine's hydraulic power unit is designed for use at altitudes up to approximately 1,000 m / 3,280 ft above sea level. At higher altitudes, the hydraulic power unit's performance is reduced. Furthermore, the formation of steam bubbles can damage pumps and valves, in particular. Therefore, special hydraulic power units are used for higher locations.

[2] The machines were primarily developed for processing copper and aluminum bars, which are used as conductors in the electrical industry. They can also be used, to a limited extent, for certain non-scaling steels. Processing coated materials is possible but may need to be reviewed on a case-by-case basis. For some applications, machine modifications and specific tools are required.

The dimensions of the workpieces as well as the punching holes indicate the basic capabilities of the machine. In case of harder as well as thicker material, the power of the machine limits the maximum size of the punching holes.

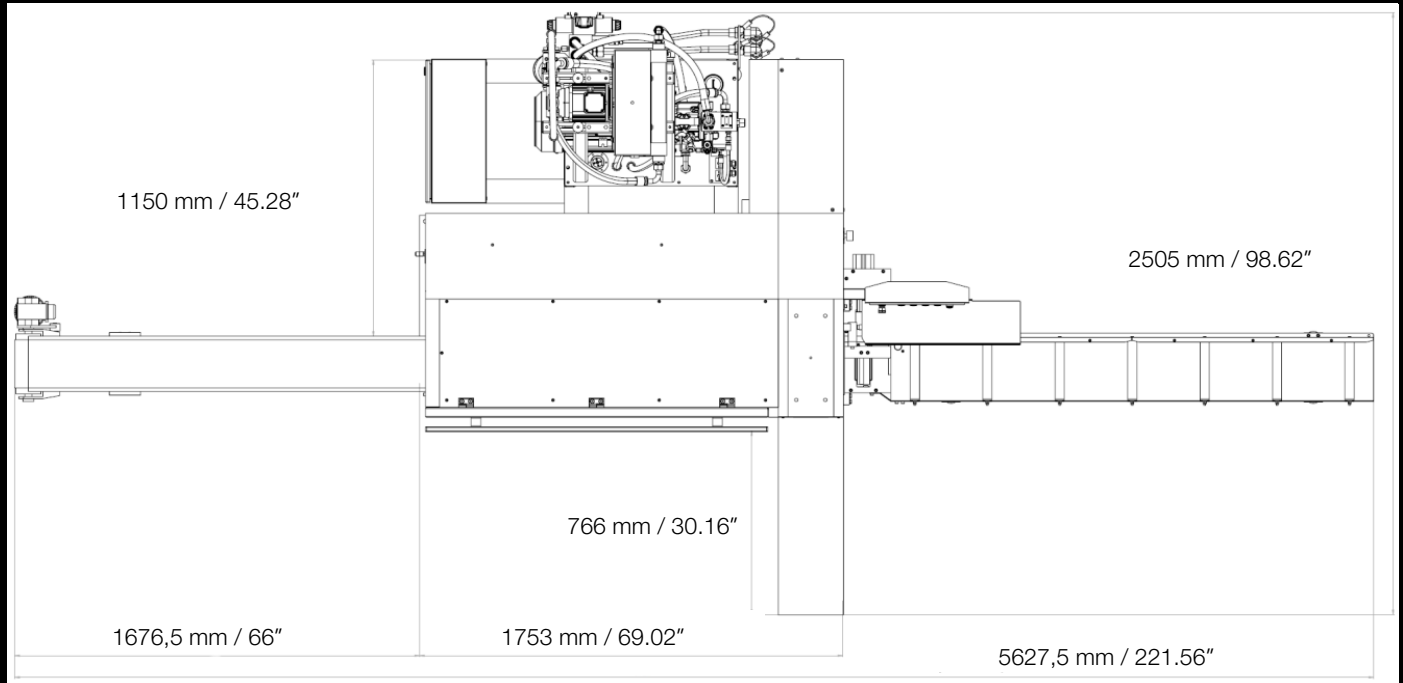
Depending on the type of material, material dimensions, punch hole geometries, and other factors, suitable tools as well as machine parameters must be selected in order to achieve a satisfactory result.

[3] The temperature development of the hydraulic oil during production depends on the type of hydraulic power unit, oil quantity, punching frequency, required punching force, ambient temperature, location of the hydraulic power unit (including soundproof cabin), and other factors.

[4] The machine PC used may differ from the above model depending on availability. In this case, a system of equal or higher quality will be used.

[5] The main sources of noise are the hydraulic power unit and the punching process. Noise emissions during punching depend primarily on the punching speed and the material being processed. Harder materials generate more noise.

Punching Terminal PT S4 - Top View



Ready to bring precision busbar punching into your shop?
Contact Rittal today to get started!



**Pair this machine with
Eplan ProPanel for the
fastest results!**



You can find the contact details of all
Rittal companies throughout the world here.



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