

Punching System ECO^{plus} Technical Data Sheet



Design

The ECO^{plus} punching system with integrated stroke end position programming is the evolution of the long term proven in practice ECO punching system.

The drive design is compact and user friendly. The valve technology is proven and robust. All valve components are compatible with the ECO punch drive.

The stroke end positions can be programmed by the integrated digital measuring system and the optimized control electronics HS4. Strokes can be optimally set.

The standardized mounting interface to the machine is the same for all Voith punching systems. All Voith punching systems can be installed without structural adjustments to the machine frame.

Technical Data

Ambient temperature	-5°C to +40°C
Mounting system	any
Max work load	400 kN
Stroke length	40 mm
Pressure range	190 bar / 280 bar
Standard retraction forces	30% of work load
Control voltage	24 V DC
Valve switching time	< 10 ms

Advantages

- Robust valve technology
- Simple functions
- High performance
- Optimized punch forces
- Short switching times via high speed pilot valves
- Soft control process via pilot operated valve
- Integrated linear measuring system
- Programmable stroke end positions
- Compact unit resulting in reduced pipe-work

Applications

- Punching machines
- Nibbling machines

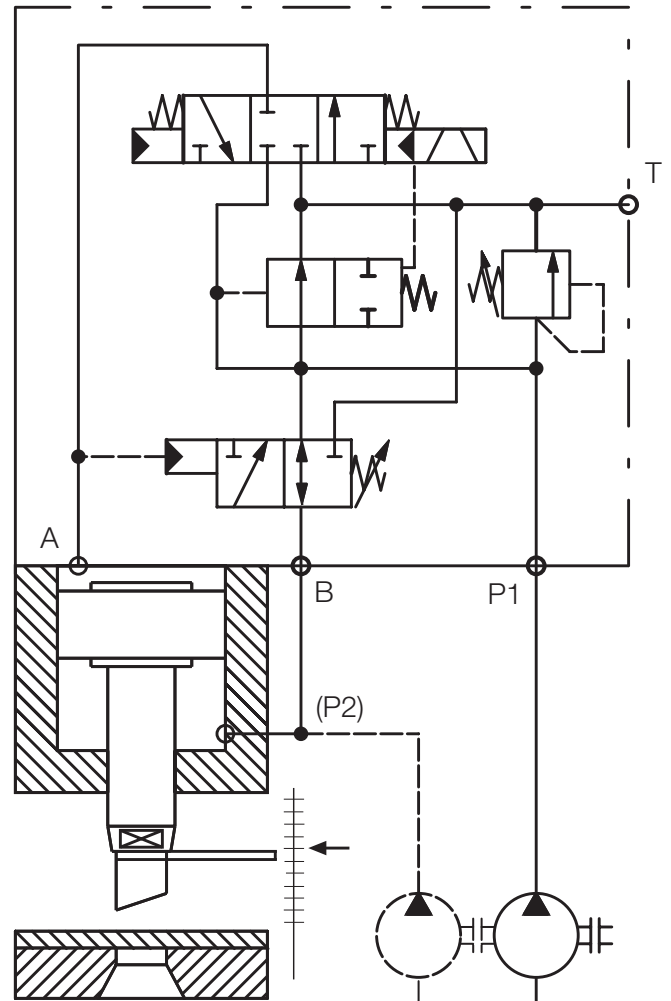
Options

- Further levels of punching power
- Programmable end of stroke positions through control system
- Hydraulic power packs as per the customers specification
- Cylinder with alternative mounting methods

Product Range

- Punching system ECO^{plus}
 - Optimized punching cylinder
 - Valve technology and damping elements
 - Digital measuring device
- Electronic HS4
 - Intelligent motion control
- Hydraulic power pack
 - Optimized layout for customer requirements
 - Integrated cooling and filtering circuit

System Circuit

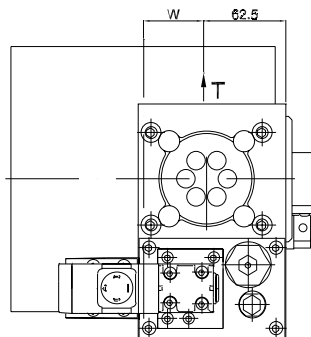
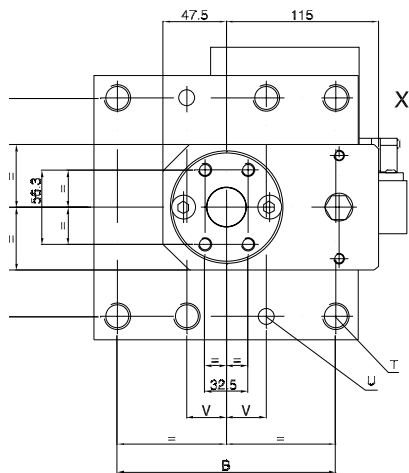
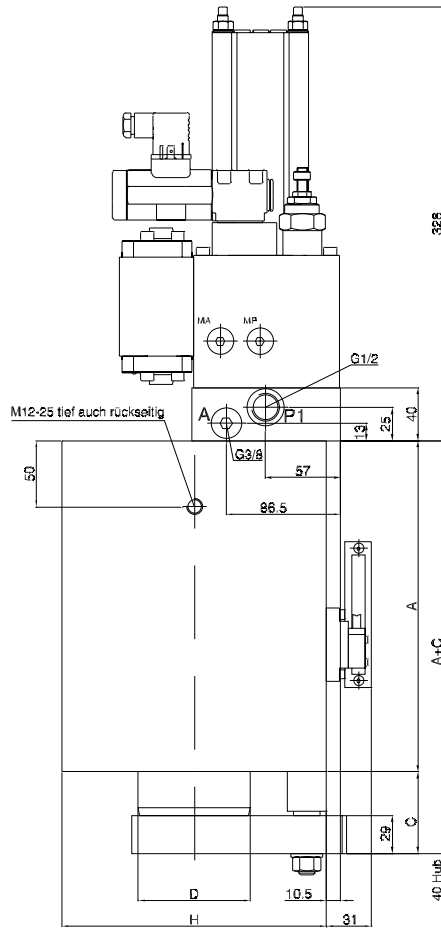
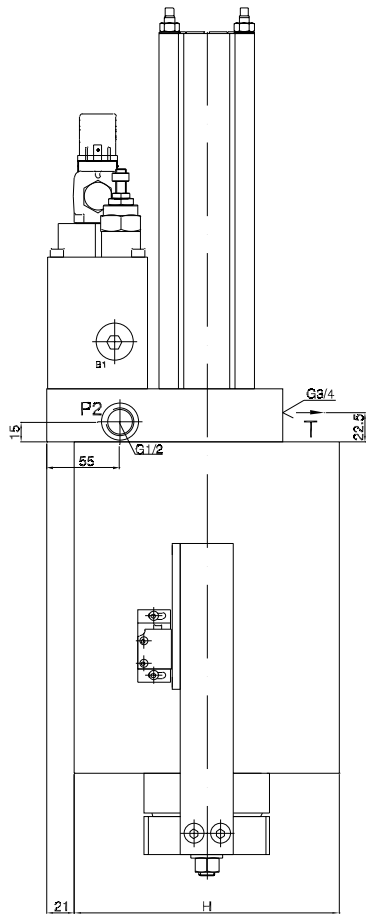


Key Performance Figures - ECO 20to / 30to / 40to*:

	ECO 20 to	ECO 30 to	ECO 40 to
working pressure max.	280 bar	280 bar	280 bar
work force max.	220 kN	317 kN	431 kN
punching force under partial load	73 kN	108 kN	149 kN
cylinder stroke	40 mm	40 mm	40 mm
standard electric power	11 kW	11 kW	11 kW
cycle time punch stroke 6 mm	105 ms	130 ms	160 ms
cycle time punch stroke 8 mm	125 ms	160 ms	205 ms
cycle time punch stroke 10 mm	165 ms	220 ms	280 ms

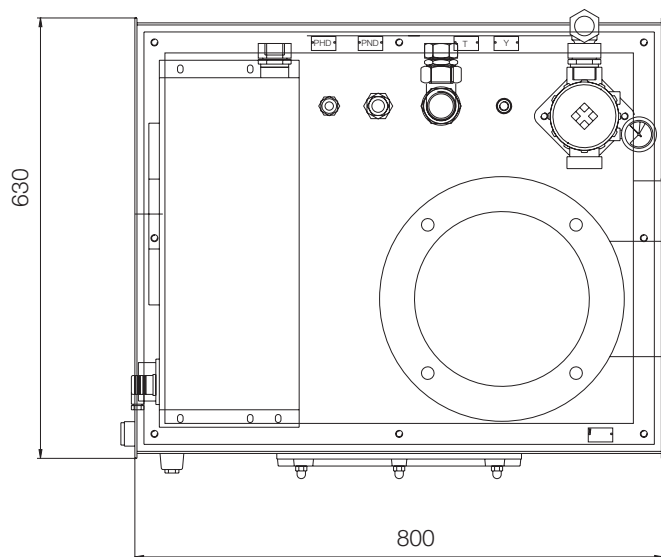
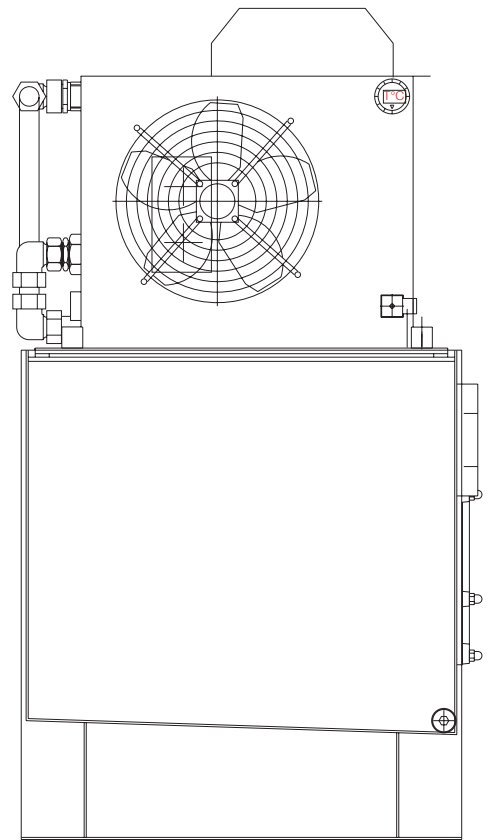
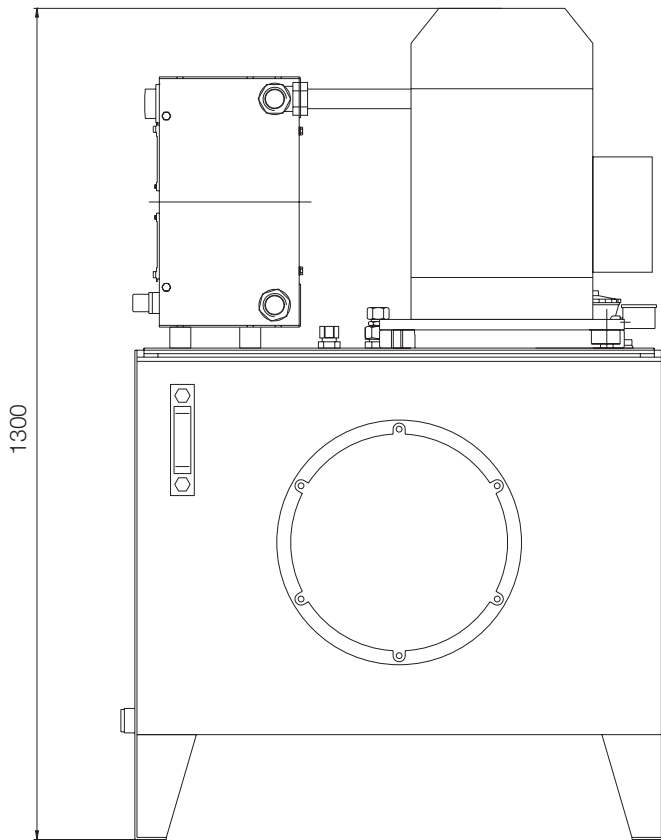
*additional data according to dimensioning protocol

Dimensional drawing



	A	B	C	D	H	T	U	V	W
ECOplus 20 to	240	145	62	70	180	6xM20	2xØ12	30	38
ECOplus 30 to	250	165	62	85	200	6xM20	2xØ12	30	48
ECOplus 40 to	260	170	62	100	210	8xM20	-	45	53

Dimensional Drawing Power Pack



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