

# Punching System ECO Technical Data Sheet



#### Design

The punching drive ECO consists of the Voith block cylinder and the directly mounted punching module. The result of this is a very compact and user-friendly design. Pipe-work is kept to a minimum as several valve components are integrated directly into the punch module. The dynamic movements using this valve technology can give a exact and precise control. Compared to other control systems, this special control design allows a reduced power requirement with increased performance. The control card (HS2) is the electronic link between the machine control and the punch unit. Control and monitoring of the complete punch process is handled by the HS2. Electronic boosting greatly reduces the valve switching time.

An optimised power pack will be included in our quotation.

## **Technical Data**

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

## Advantages

- Robust valve technology
- Simple functions
- High performance
- · Optimized punch force because of the differential valve
- · Short switching times via high speed pilot valves
- · Soft control process via pilot operated valve
- Selectable stoke end position through electronic limit switch
- Simple link to the machine control
- · Compact unit resulting in reduced pipe-work

#### Applications

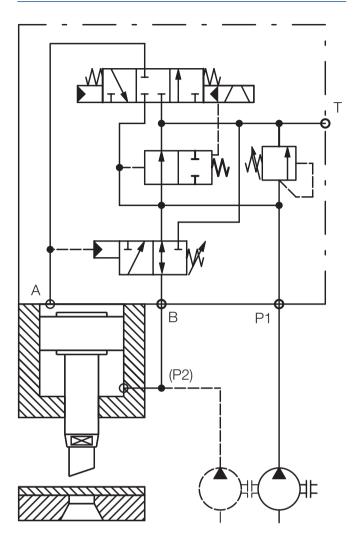
- Punch machines
- Nibbling machines

#### Options

- Further levels of punching power
- · Cylinder with alternative mounting methods
- · Hydraulic power packs as per the customers specification
- Programmable end of stroke positions ECO<sup>plus</sup>

## **Product Range**

- Punching System ECO
  - Optimised punching cylinder
  - Valve technology and damping elements
- Electronic HS2
  - Intelligent motion control
- Hydraulic power packs
  - Optimized layout for customer requirements
  - Integrated cooling and filtering circuit

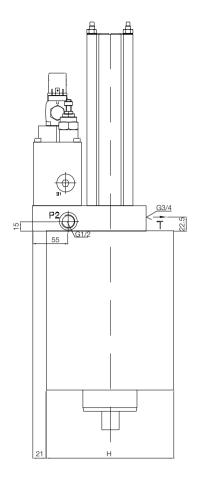


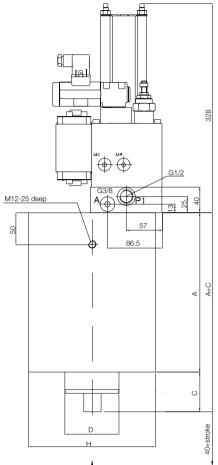
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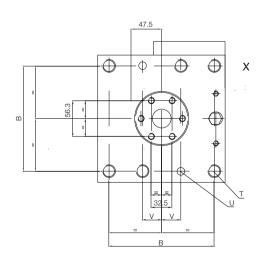
# Key Performance Figures - ECO 20to / 30to / 40to\*:

	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

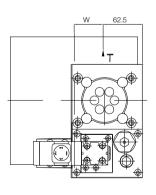
\*additional data according to dimensioning protocol





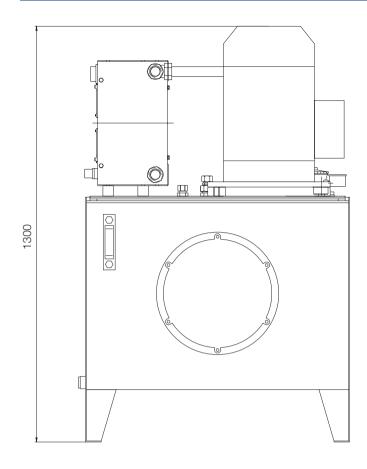


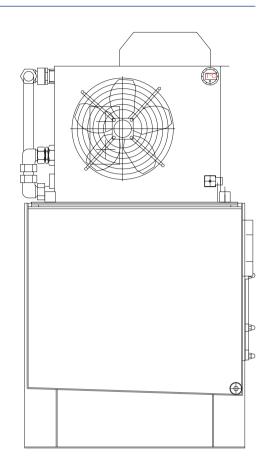


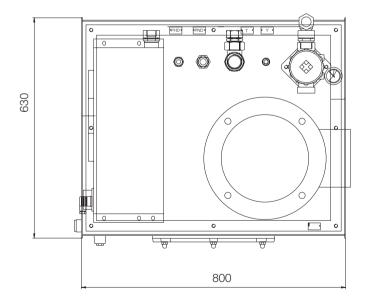


	A	В	С	D	Н	Т	U	V	W
ECO 20 to	240	145	62	70	180	6xM20	2xØ12	30	38
ECO 30 to	250	165	62	85	200	6xM20	2xØ12	30	48
ECO 40 to	260	170	62	100	210	8xM20	-	45	53

# Dimensional Drawing Power Pack







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