

Voith Turbo

**VOITH**

**PSH Hydraulic Press Drive –  
Transforming Your Press into a Servo Press**



 **hydraulic**

# Drive Your Press with Innovation – Save up to 50 % on Your Energy Costs



*The PSH does not use conventional valve control technology*



*Servo pump*

## **Innovation**

The PSH hydraulic press drive is true innovation.

Thanks to this drive system, you can significantly reduce the life-cycle costs (LCC) of your press, while at the same time boosting the productivity of your production process and increasing the quality of your products.

The PSH is suitable for new systems but can also be retrofitted to modernize existing presses.

## **Functionality**

The PSH system uses a servo pump instead of conventional valve control technology. This concept simplifies the design of the press drive, while still providing an excellent level of functionality and performance.

Design:

- Servo pump
- Pressure fluid tank
- All hardware and software required to monitor, control and regulate the drive
- Safety technology in accordance with DIN EN 693

## **Engineering**

We supply not only products, but ideas too. You can benefit from our many years of expertise with regard to managing complete drive systems.

Our system specialists are on hand to support you when it comes to starting the calculation and design process, moving onto the installation and commissioning phase, and in the event of any questions about cost-effective operation and maintenance concepts.

### PSH technical data

<b>Maximum power</b>	Up to 5 000 kN
<b>Maximum rapid motion speed (up/down)</b>	400 mm/s
<b>Maximum speed (load profile)</b>	40 mm/s

### Features of the PSH system

- Conventional valve control technology not required
- Active servo pump control

- Modular design
- Few components

- Power/speed/position regulated by the servo pump

- Improved thermal efficiency

- Sensors for parameter monitoring

### The advantages for press operation

- Excellent energy efficiency
- Optimum efficiency

- Simple drive system with excellent functionality

- Less valve technology required

- Power and speed precisely adapted to the pressing process
- Accurate reproducibility in terms of speed, power and cycle number

- Smaller oil tank

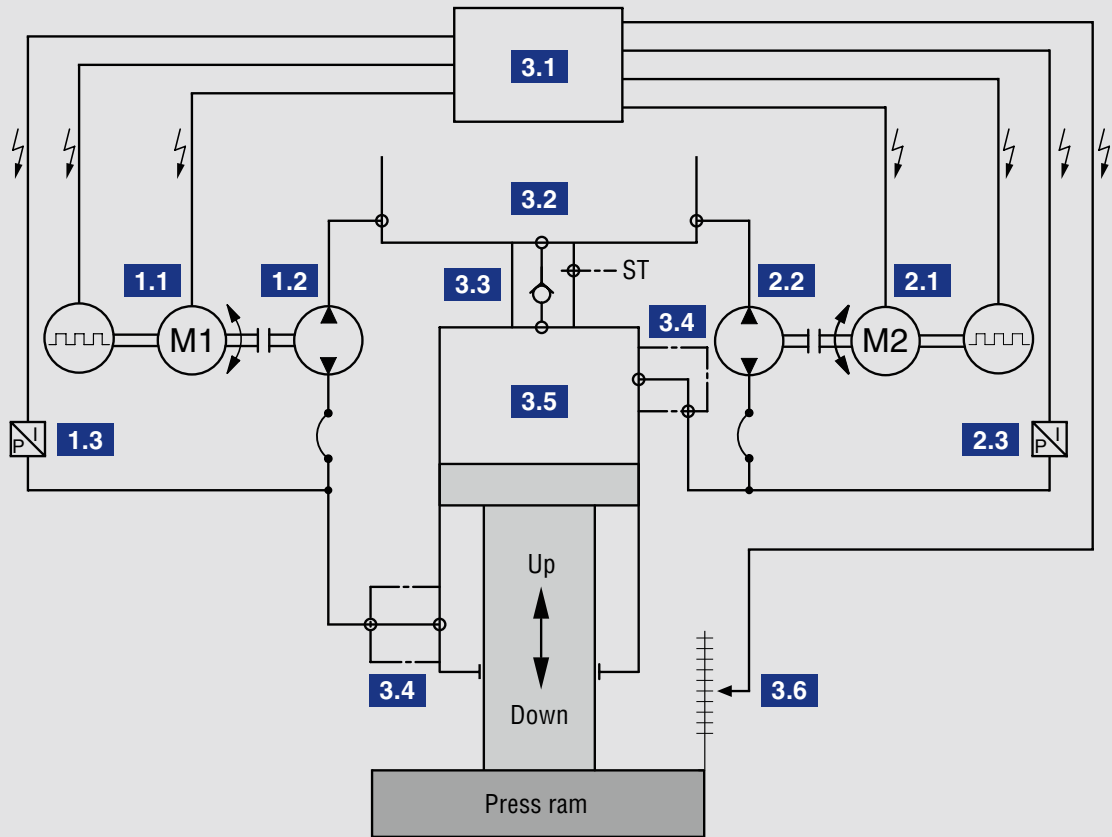
- Established diagnostic functionality



### The benefits for your company

- Energy cost reductions of up to 50 %
- Reduced CO<sub>2</sub> emissions
- Easy system integration
- Suitable for new systems and as a retrofit
- Minimal costs for commissioning, training and maintenance
- Less complex
- Excellent flexibility and productivity for the press
- High quality products
- Easy system integration
- Resource conservation
- Simple preventative maintenance procedures

# Schematic diagram



## Ring area:

- 1.1** Servo motor
- 1.2** Internal gear pump
- 1.1 + 1.2** Servo pump
- 1.3** Pressure sensor

## Piston area:

- 2.1** Servo motor
- 2.2** Internal gear pump
- 2.1 + 2.2** Servo pump
- 2.3** Pressure sensor

- 3.1** Electronic control system
- 3.2** Oil reservoir
- 3.3** Inlet valve with ST control cable
- 3.4** Press safety control
- 3.5** Operating cylinder
- 3.6** Position sensor

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