

**Our references include:**

**Germany:** Mobiel, Kreisbahn Siegen-Wittgenstein, Audi

**Austria:** ÖBB



Germany

**www.vossloh.com**

## Flexidrive-3H 3-bar point machine

"Driving set for Vignole rail points and crossings..."

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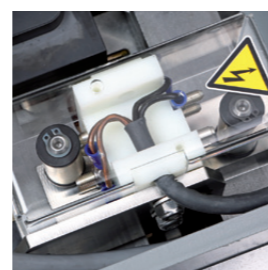


## 'Setting technology for Vignole rail points and crossings.'

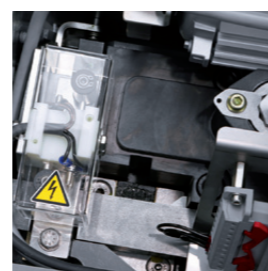
The Flexidrive-3H is a new generation of point machine of the "Flexidrive" family. This point machine with maximum availability, high safety integrity and low maintenance requirement enables railway operators to provide safe and efficient transportation. The requirements jointly defined by ÖBB and DB played a decisive role when developing the new Vossloh Flexidrive-3H.

The application range of this innovative setting system stretches from heavy rail networks, urban and suburban networks and freight transportation to industrial and harbour networks. The trend-setting Flexidrive-3H can be integrated into all kinds of Vignole points with various gauges. Together with an external locking device, it ensures safe performance with regard to route setting, securing point tongues in the end position and permanent tongue detection.

Implementation of the required safety functions and the resulting operational safety of Flexidrive-3H fulfil the highest requirements according to CENELEC SIL4. Point machines in existing points can easily be replaced by the Flexidrive-3H as both the mechanical and electrical interfaces are compatible.



End-position detection



The lock is visible

### Description of the Flexidrive-3H

The Flexidrive-3H consists in the following modules:

- A hydraulic drive unit
- Tubeless connected hydraulic cylinders
- An actuating lever
- A setting rod
- Both detector rods
- A manual emergency command with crank

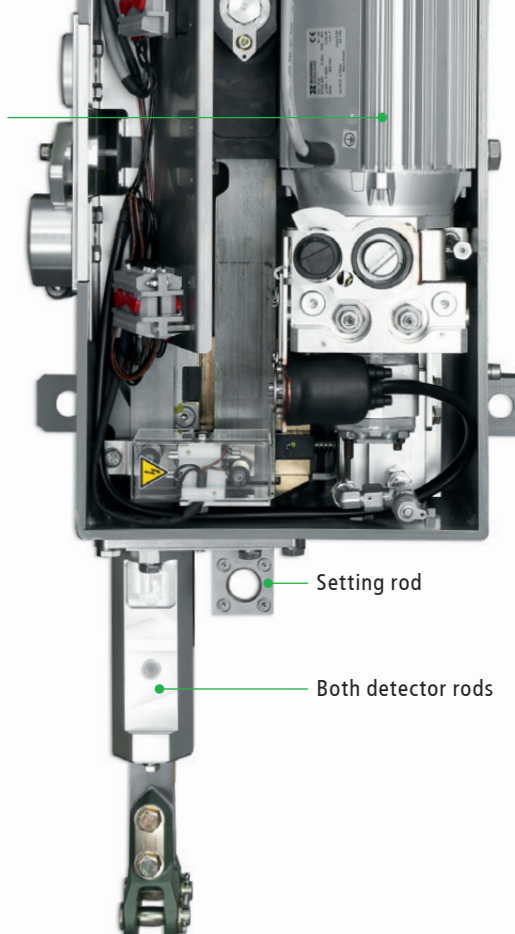
Manual emergency command with crank



### Technical characteristics of the Flexidrive-3H

- Housing protection: IP 54, optional IP67
- Weight: 128 Kg
- Setting stroke: 120 to 240 mm
- Setting force: 300 to 900 daN
- Holding force: 650 to 1 000 daN
- Setting time: 2 to 6 s
- Operating temperature: -33° to +70°C
- Nominal voltage: AC 400 V / AC 230 V

Hydraulic drive unit



Setting rod

Both detector rods

### Overview of the Flexidrive-3H

- Universally modular configuration of point-setting mechanism (with / without lock and tongue detector)
- Manual setting by a crank
- Trailable and non trailable version are available; point machine can be made non-trailable by changing the trailing package with a metal sleeve
- No need for lubrication of movable parts
- All components are corrosion-protected with galvanic coating technology
- Both installation sides (right or left) are possible without any requirements for changing parts
- The point machine is failsafe-designed and fulfils the highest requirements according to CENELEC SIL4
- Low-maintenance user-friendly checking and setting of all function thanks to modular structure
- Visual control of lock engagement and detection organs
- Open electric interface, simple adaption to all control requirements
- Plug assembly enables fast and error-free installation / replacement of the point machine / individual modules
- The hydraulic drive system supplies virtually constant setting force over the entire service life and can be quickly adapted as requirements change
- Locking and signalling function remain intact even when drive unit is removed
- Hydraulic drive unit with less than half a litre of hydraulic oil

### Functional description of the Flexidrive-3H

The point machine is a compact drive unit which drives an external lock and performs safe examination of the end position of the point tongue at the same time.

With the flexible design of the electric interface it is possible to connect the point machine to almost every type of interlocking. When a setting command is issued, the motor of the electro-hydraulic drive unit is activated. Depending on the setting command, the tubeless connected hydraulic cylinders move in the required setting direction. A robust actuating lever forwards the setting movement via a coupling housing to the setting rod which via corresponding movement activate the external lock and brings it into the desired end position. Thus the tongues are also brought into the desired end position. Two independent detectors are coupled to the tongues, and transfer the movements of the tongues independently of each other into the interior of the point machine. Only when both detector rods and the setting rod are in correct position can the lock engage (with positive locking for the detector and spring-actuated locking for the setting rod).

When the lock has engaged, the forcibly-actuated mechanical end position switches are activated and forward a safe end-position signal to the interlocking. Here, too, adaption to almost every interlocking evaluation is possible. Should a failure in power supply make manual setting necessary, this can be performed safely with a crank.