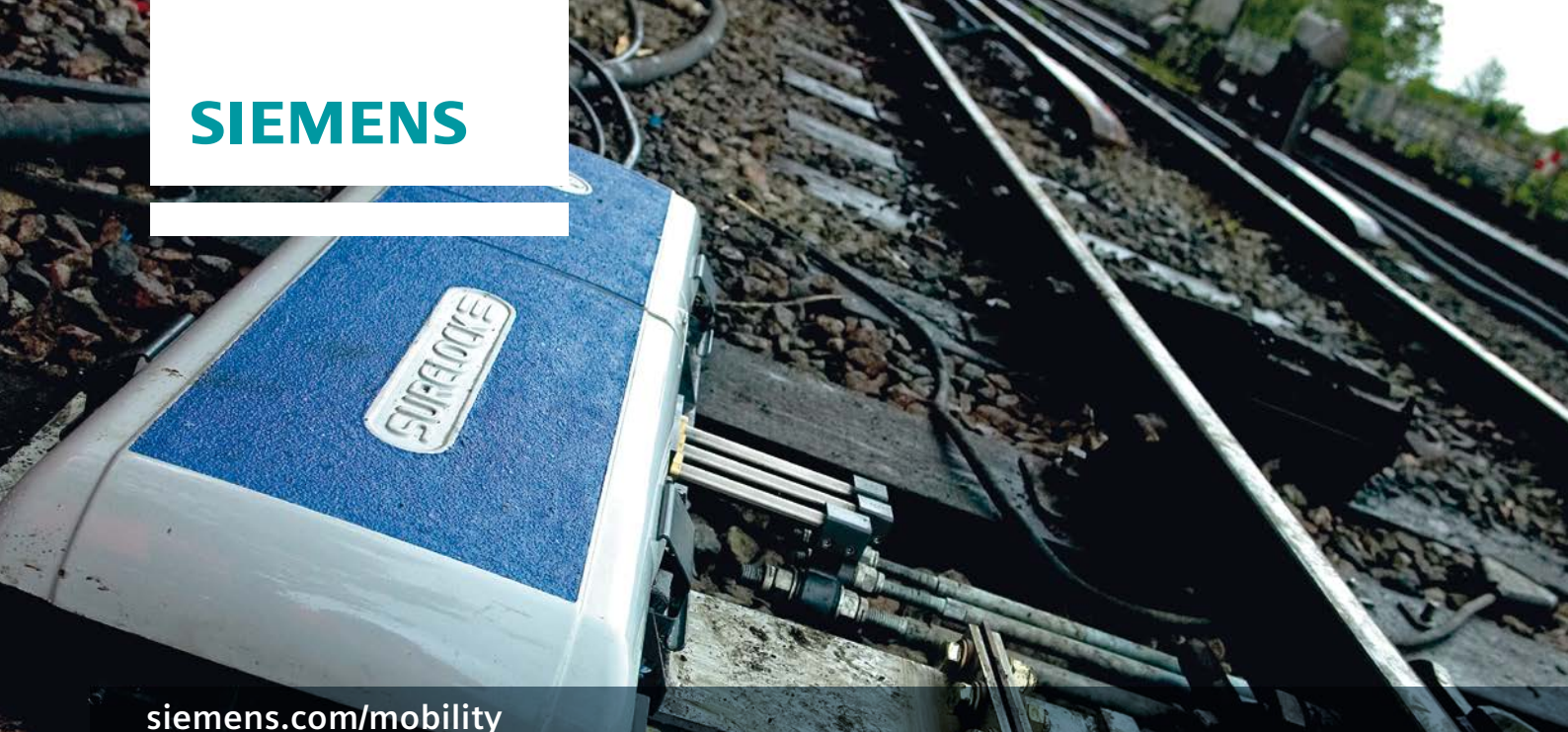




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Switchguard Surelock

Setting points reliably



Switchguard Surelock

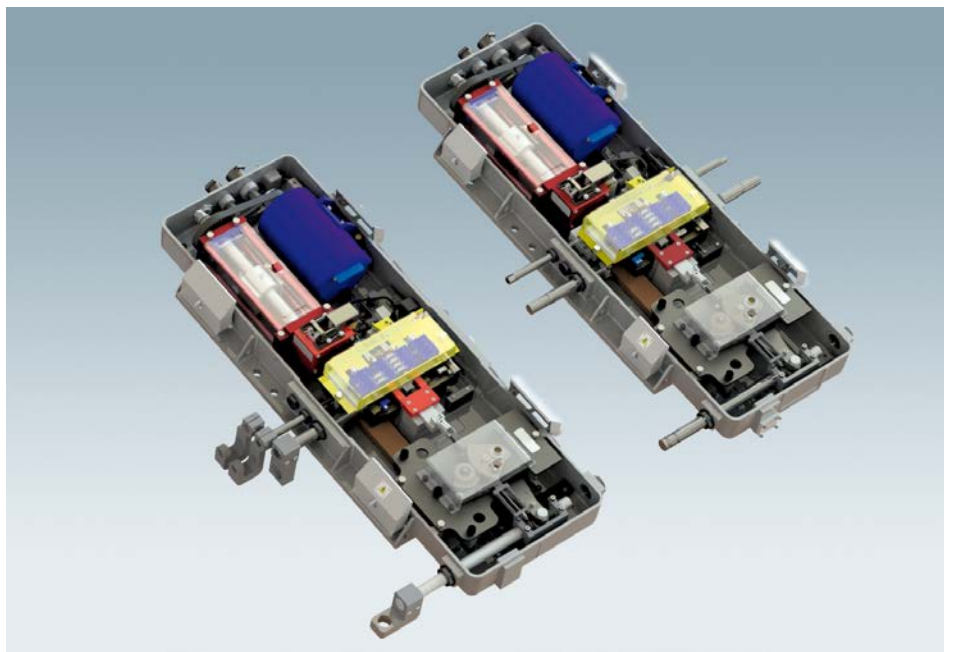
Switchguard Surelock is an efficient point machine system providing exceptional reliability and ease of maintenance.

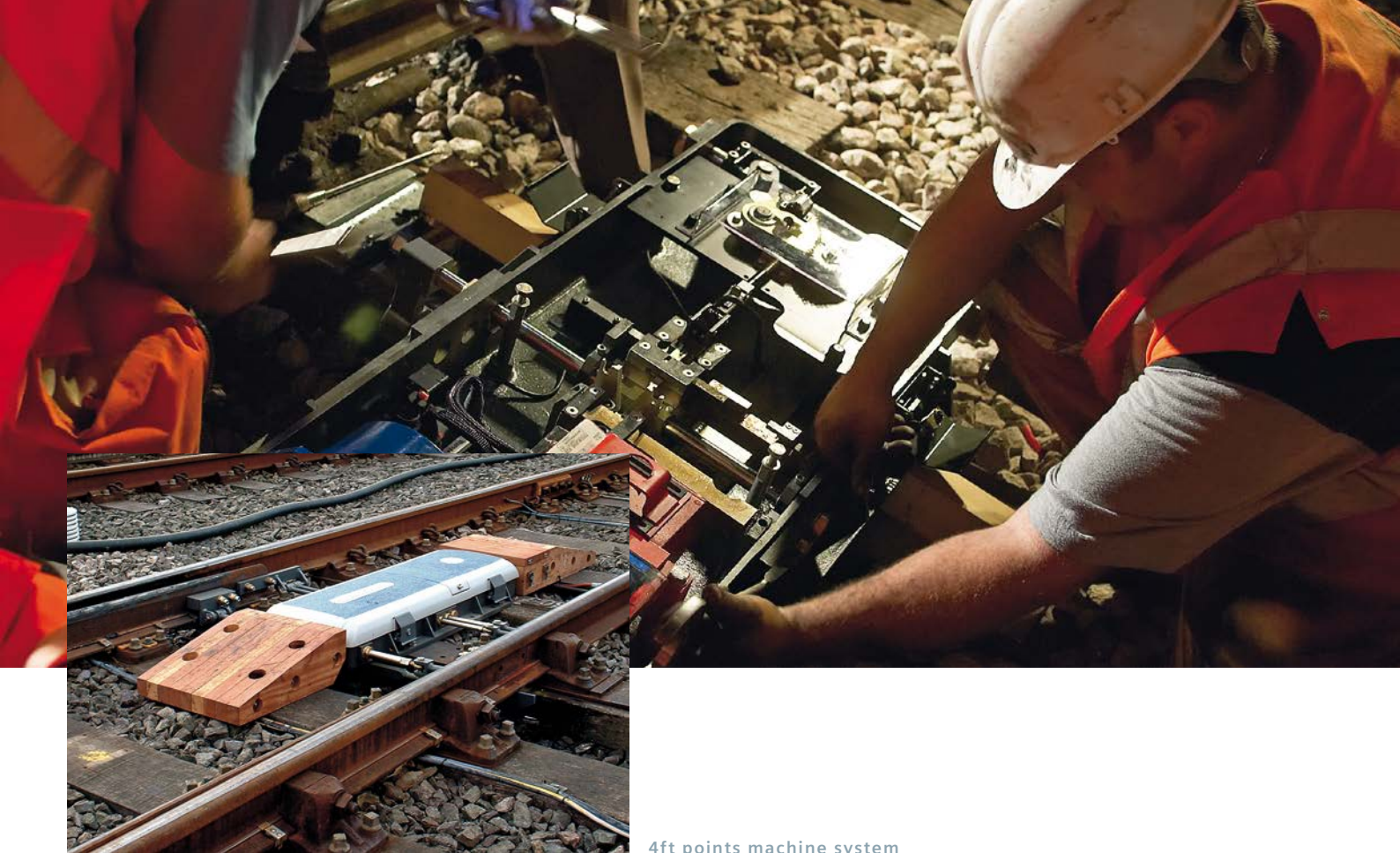
The Switchguard Surelock point machine system is suitable for use on both metro and mainline infrastructure and can be incorporated into 4 ft or 6 ft applications. The system is based on proven technology and uses modular construction principles throughout the design.

Electrical drive and detection settings are located in the casing of the machine. Tail cables are connected using a plug coupler system, which may be locked by means of a padlock. Ground connections and stretcher bars can be installed between the bearers to suit the set of points, providing a versatile point machine solution. Switchguard Surelock comprises cast iron

base module with a lockable flood-resistant moulded glass-reinforced cover, containing internal interlocking, motor, drive, escapement and control modules. Ground connection equipment (drive rod, lock rod, detector rods and stretcher bars) can be fully adjusted to provide the required movement to suit individual installations.

Throughout Switchguard Surelock's design, the emphasis has been on simplicity and strength





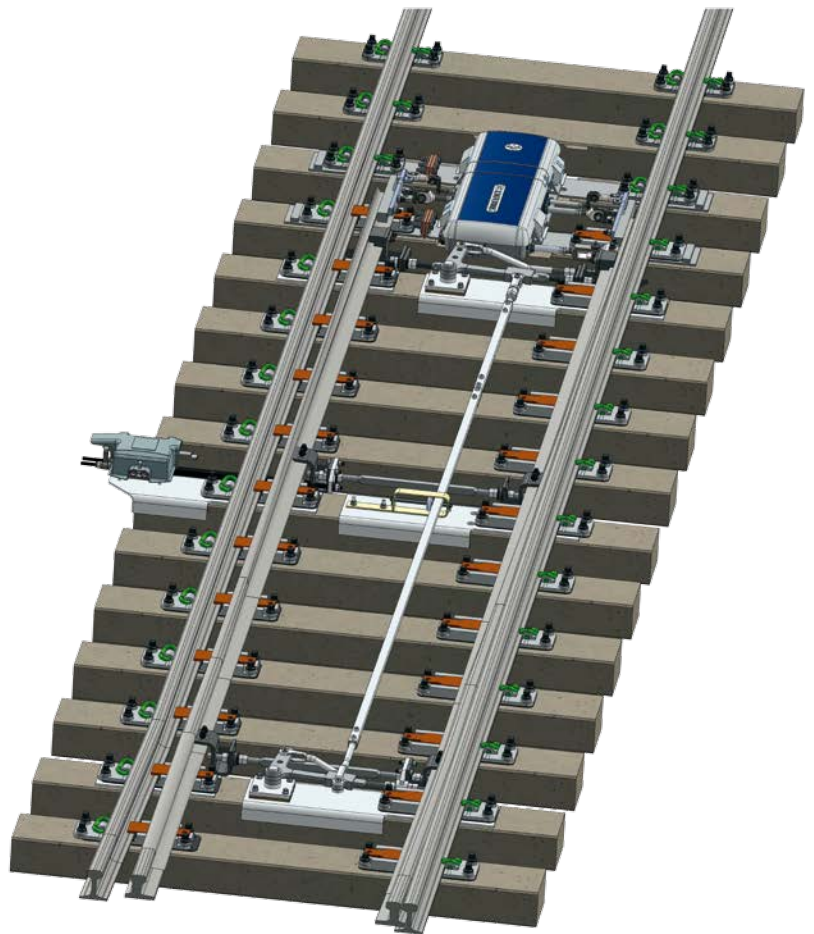
4ft points machine system

A universal machine

Switchguard Surelock is suitable for all current point types on mainlines and metro infrastructure, providing integrated electrical detection. Switchguard Surelock is suitable for bullhead, full-or-shallow-depth and RT60 layouts. Its low profile allows it to be mounted between the running rails for metro applications as well as conventional trackside mounting.

Designed for reliability

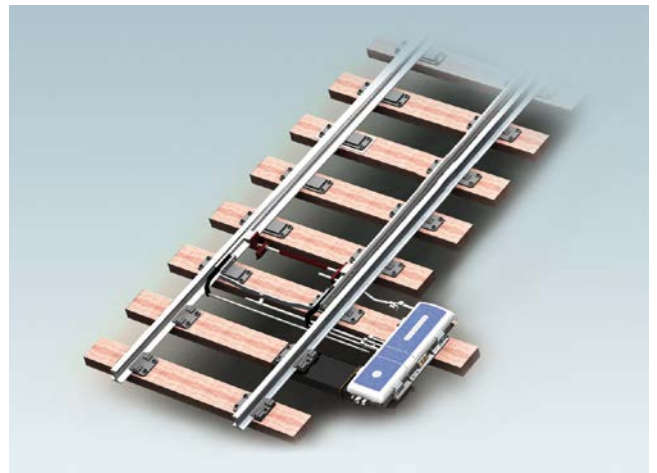
Switchguard Surelock has a mean time between failures of 17 years and a mean time to repair of only 15 minutes. Throughout Switchguard Surelock's design, the emphasis has been on simplicity, easy maintenance and strength. Its robust housing and lockable, flood-resistant enclosure contains four independently replaceable modules: motor, drive assembly, escapement and control. Although highly durable, the comparatively light weight of the modules means the total machine weighs only 170 kg, aiding maintenance and handling.





Simplicity and strength

The drive, lock and detector rods offer straightforward, stepless adjustment and the in-out locking mechanism is clearly visible for rapid inspection. The system has a designed-in tolerance of rail creep and vertical (point blade) movement, while the motor allows maintenance-free operation with simple, reliable mechanical motor snubbing, with no need for electric clutches. Lockable, vandal-proof plug-coupled cables are used throughout. An AC-immune machine is available, incorporating a permanent magnet motor.



6ft points machine system



Switchguard Surelock

For metro and mainline infrastructure

Backdrives

Switchguard Surelock is compatible with existing conventional supplementary backdrives. Under development is an efficient linear backdrive system compatible with both 6ft and 4ft Surelock, incorporating point blade detection, whether mounted inbetween rails (4ft) or outside the rails (6ft). This will avoid the need for separate supplementary detector units and keeps all equipment on the same side of the track (6ft application). The true linear motion of the connection rodding will allow positive lateral guidance thus eliminating rod buckling.

Primary functions

Switchguard Surelock's primary functions are:

- to throw the points to their desired end positions
- to mechanically lock the points on completion of the throwing operation
- to detect that the points are closed and locked in correspondence

Secondary functions

Switchguard Surelock's secondary functions are:

- to provide a safe method for hand cranking the machine during maintenance or power failure conditions
- to provide overload protection in the drive module (clutch)
- to provide snubbing of motor circuits (damper pads)
- to prevent ingress of moisture and dust
- to prevent damage occurring to the point machine in the event of flooding
- to provide attachment interfaces for a condition monitoring system

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The information in this document contains general descriptions of the technical options available. The required features should therefore be specified in each individual case at the time of closing the contract. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action and integrate each component into a holistic, state-of-the-art security concept. Third-party products that may be in use should also be considered.