



# Steel plants and mining industries



A range of  
actuators to  
make the  
heaviest  
handlings  
lighter

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## MECVEL ELECTRIC SYSTEM'S ADVANTAGES

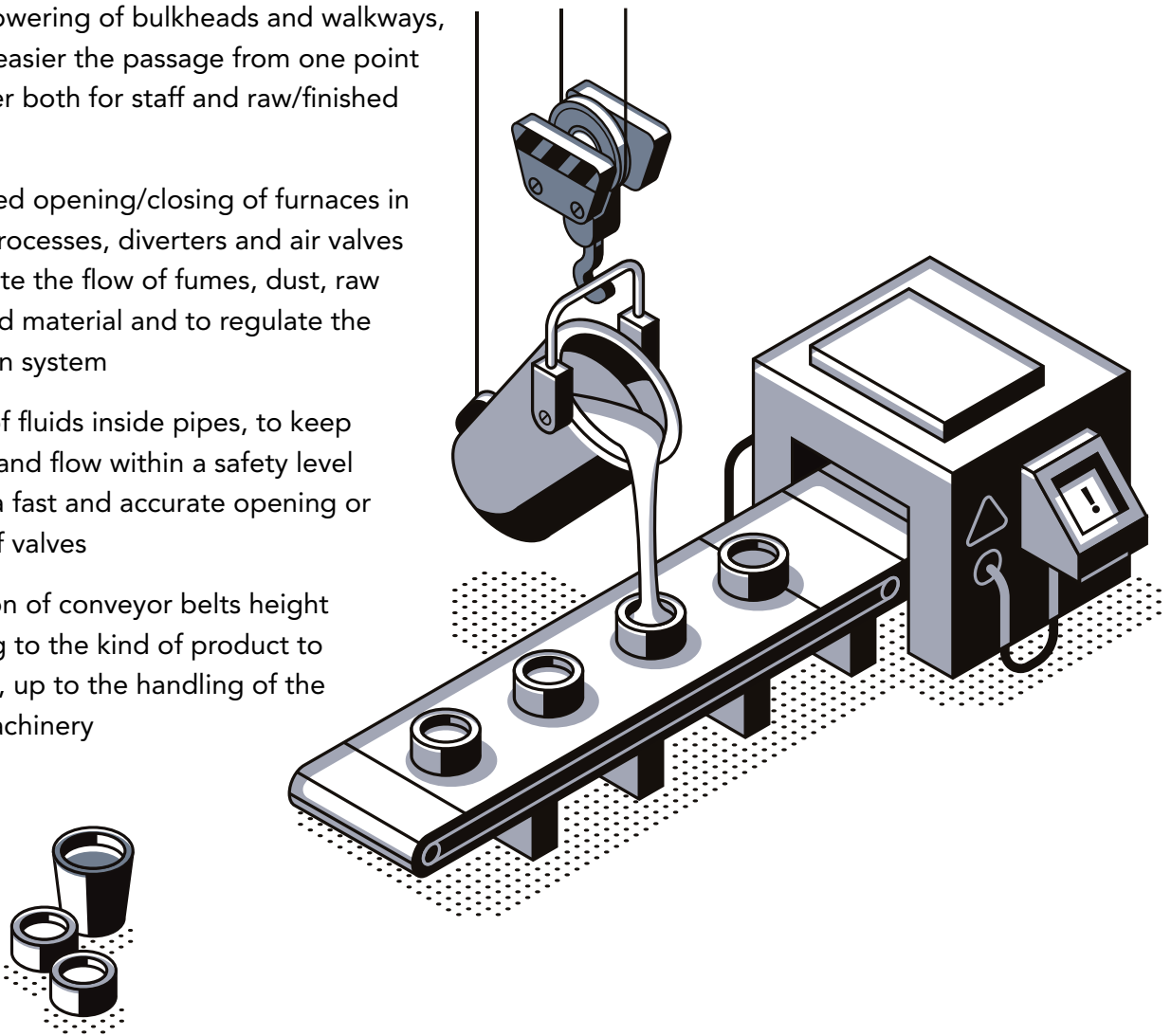
Since 1987 MecVel designs and manufactures electric linear actuators and screw jacks, constantly updated according to market requests, also thanks to a customization service able to offer tailored solutions according to handlings required by any application. These devices transform the rotatory motion of a motor into a linear movement, allowing to lift, position, push or pull any load up to 200.000 N (20 tons). Moreover the electric system used leads to several benefits:

- Connections are minimal and very easy, power is supplied only when required, with a highly reliable control (stop allowed also in intermediate positions of the stroke)
- It offers the possibility to work with high temperatures, dusts and vibrations with no noise, minimum wear and low maintenance
- No need of components as compressors, pumps, tubes and valves, excluding the risk of contamination due to oil leaks, and there are no variations in pressure and flow, that affect pneumatic and hydraulic systems instead

## FOCUS ON THE STEEL AND MINING INDUSTRY

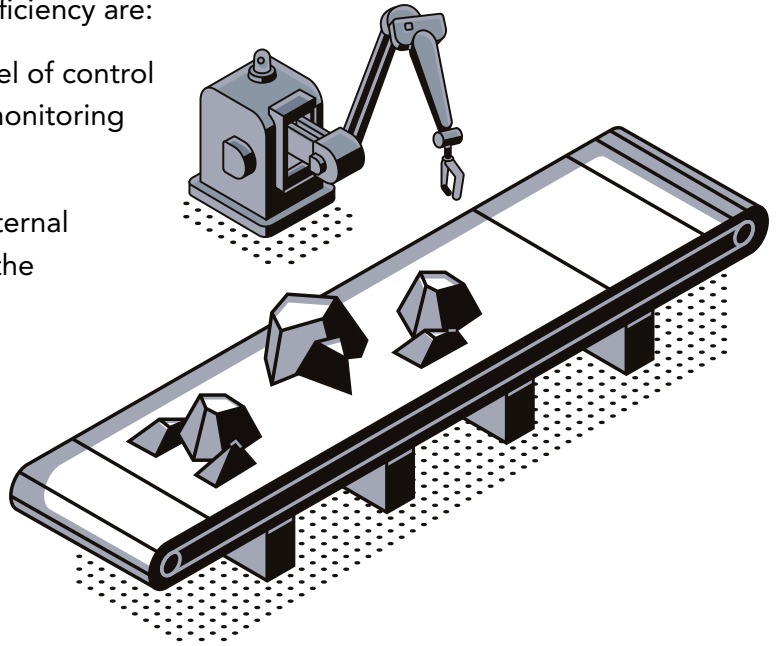
MecVel configures its range to offer high-performing products suitable for the heavy industry and in particular steel and mining plants. The main handlings supplied by electric linear actuators in these fields are:

- Raising/lowering of bulkheads and walkways, to make easier the passage from one point to another both for staff and raw/finished material
- Automated opening/closing of furnaces in casting processes, diverters and air valves to separate the flow of fumes, dust, raw or finished material and to regulate the ventilation system
- Control of fluids inside pipes, to keep pressure and flow within a safety level through a fast and accurate opening or closing of valves
- Regulation of conveyor belts height according to the kind of product to transport, up to the handling of the whole machinery



Beside the IP65 and AT-EX certificates, that ensure the working conditions, the protections used to avoid damages and preserve the whole application efficiency are:

- Larger limit switches box to increase the level of control through devices dedicated to the constant monitoring of the stroke
- Bellows boot to preserve the screw from external agents and protective paintings to prevent the surfaces corrosion
- Brass gears and cams
- Metal connectors and Viton seals
- Mechanical limiter with warning sensor
- Front end with shock absorber

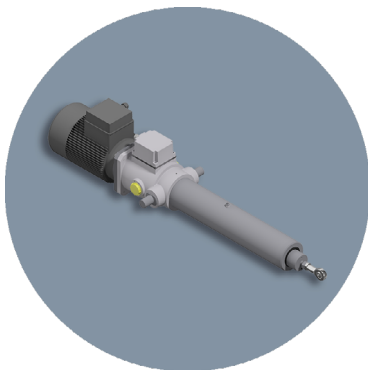


## MECVEL PRODUCTS FOR STEEL AND MINING INDUSTRY

To meet the heavy industry needs, MecVel has developed the new HRS range, in parallel to the well-known EC series, which combines the load capacity of screw jacks with the high level in terms of efficiency and safety of electric linear actuators.

MecVel **HRS** series is the perfect solution to be used in critical environments and harsh applications, as it is characterized by great resistance, providing at the same time low friction and minimum wear, for a long life of the whole system. The standard **structure of a screw jack** is matched with typical **electric linear actuator components**, as a series of mechanisms and internal guides and an external cover tube made of steel in order to protect the screw from dust, water and other external agents. This allows also the mounting of limit switches, and offers a better support in case of buckling. Moreover, thanks to the choice of high-efficiency gear boxes, performances of the most powerful screw jacks are furtherly increased, reaching 200.000 N (20 tons) of load capacity. The flexibility of MecVel range allows to find always the best solution for each application, offering the linear motion desired and the duty cycle optimization through perfectly balanced products, able to combine reliability, efficiency and strength.

EC AC



HRS AC

