



CORAL LINE

**"The show
must go on"
with MecVel
screw jacks**

**The charm of the theatre
meets the high technology,
giving shape to a virtual tour
of the most spectacular
places where to admire the
most amazing shows, but
also MecVel linear motions**



Since 1987 MecVel is specialized in designing and manufacturing screw jacks, mechanical devices able to transform the rotatory motion of an electric motor into a linear movement to lift, position, push or pull loads up to 20 tons. An important customization service allows to configure each product in its technical features, with the purpose to meet the linear automation requests of any application. Also thanks to this "plus", the company has gained and offers to its customers a deep know-how regarding the theatre field, providing different solutions to automate all the possible handlings. MecVel screw jacks range in fact has a load capacity that goes from 5 to 200 kN, with two different kinds of construction:

- HR models are characterized by a trapezoidal screw rotating integrally with the gearbox (also in terms of speed). The linear motion is performed by the nut travelling along the screw. This nut must be fixed in order to avoid the rotation together with the screw
- HT models are characterized by a trapezoidal acme screw travelling through the body of the screw jack, which performs the linear motion. In this case, it is required free space around the screw jack in order to perform the movement

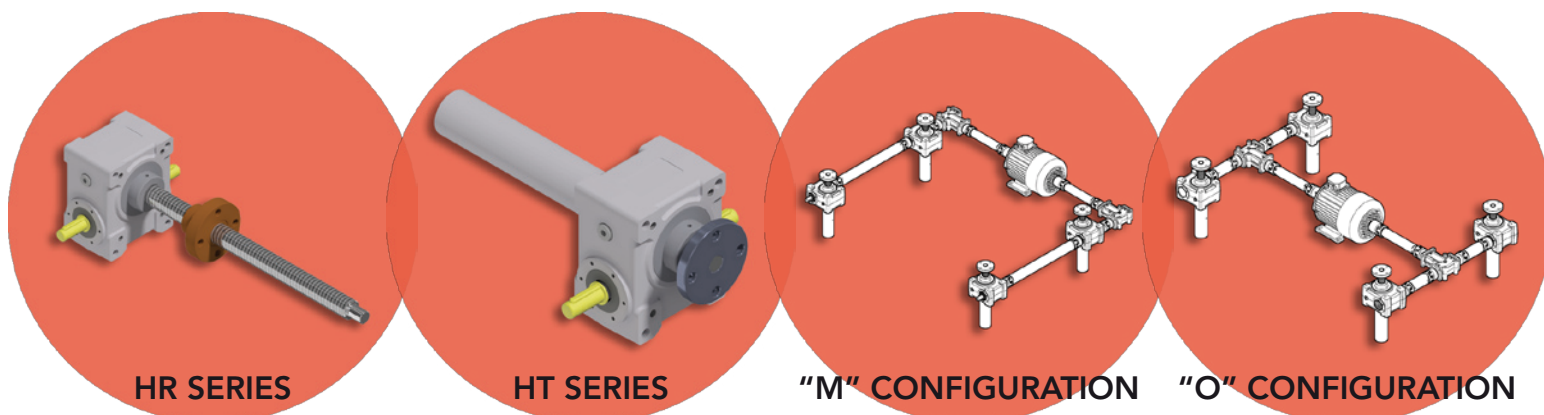
The bigger sizes (HR and HT 50, 100 and 200, for 50, 100 and 200 kN respectively) are the most suitable to raise and lower the stage, when required by the show, or platforms used during the loading/unloading of the material needed to create the scenography.

An example of a deep customization is the one that MecVel has realized on the occasion of the opening ceremony of the Swimming World Championships 2015 in Russia, for the 16th FINA World Championships at the Tatneft Arena Sports Palace in Kazan. The request has been to handle a platform placed on the bottom of a swimming pool, to allow the swimmer Nikita Korolev to emerge from that water and start the opening ceremony, as well as make possible from the dances close to the water's surface up to the even more spectacular ones in immersion. The solution developed by the company to transform a swimming pool into a completely emerged stage, and keep the position according to the effect desired, has involved four HR50 screw jacks with increased stems and watertight cases for gearboxes, due to the presence of water.

These products find an optimal setup in a "four corner" configuration, where screw jacks are connected each other with shafts, couplings and bevel gears, allowing a motion transmission perfectly synchronized also in case of a not balanced load on the surface. In addition, the choice of extra-long screws with long pitch ensures high power and speed, together with low noise level. Moreover the use of limit switches, encoder or potentiometer allows to have a constant control of the stroke performed.

Moving the attention from the stage to the parterre, the smallest sizes of screw jacks can be used to control the seats appearing/disappearing system. The screw jack, in fact, acts as "tie rod" and, connected to a lever, allows to simultaneously handle rows of seats mechanically connected each other, which in this way are available only when required, while when the system is closed, they "disappear" under the parterre.

The flexibility of MecVel range leads to a perfect match also with the charm of the theatre, offering innovative, performing and tailored linear automation solution.



For further information or to setup your product contact us at: MecVel Srl - Via Due Portoni 23, Bologna, Italy - 051 4143711 - www.mecvel.com - info@mecvel.com - marketing@mecvel.com