THE NEW COMACCHIO TUNNEL II MULTIPURPOSE DRILLING RIG

The MC 30 TX is the new COMACCHIO Tunnel Drilling Rig. Featuring advanced design, it can be converted into a standard drilling rig as well.

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Convertible design and radio controlled technology

The MC 30 TX is the new COMACCHIO tunneling machine, designed to perform sub-horizontal consolidation works in tunnels in loose ground conditions using techniques such as forepoling, jet grouting, cement grout injection etc. The machine has a work radius ranging from 2250 mm up to 5650 mm (with 5° mast inclination) and can reach a max. height of 6950 mm. The innovative design of this machine allows for it to be converted into a standard hydraulic drilling rig suitable for various kinds of ground engineering works such as the installation of micropiles, anchors and jet grouting up to 21000 mm with a single pass.

The MC 30 TX also includes as a standard feature the innovative COMACCHIO radio control system, which electronically manages all machine functions such as movement of the tracks, set up, and drilling, offering enhanced security and increasing production. The machine also features a touch screen PLC unit for the control and safety limitations of the mast positions. The PLC unit utilizes unique software capable of storing information regarding the location of holes on the tunnel crown and automatically re-positioning the mast on the borehole.

THE NEW COMACCHIO TUNNEL I MULTIPURPOSE DRILLING RIG



Articulations

The MC30TX features an integrated mast rotation and positioning system, consisting of 2 slewing rings located at the front and rear of the machine, a telescopic front boom using hydraulic cylinders and a rear pantograph articulation. The rear support of the mast has a cross joint that allows for +/-15° displacement between the front and rear slewing rings.

Track undercarriage

Equipped with a heavy duty 2500 mm wide undercarriage, the MC30TX offers maximum stability in every work condition, due also to the hydraulically pivoting stabilizers, interfaced on the PLC control.

Mast

The modular construction of the mast allows to reach 13.000 mm feed stroke in "tunneling configuration" and 7.000 mm in "multipurpose configuration", with 8.000 daNm pull up/feed force provided by a bi-directional hydraulic winch feeding system. The mast is equipped with an hydraulically operated intermediate centralizer to guide the drilling string while performing tunnel consolidation and can feature a laser pointer available as an option. The mast construction also incorporates the possibility to fold the rear part of the mast to facilitate transportation.

Engine

The MC 30 TX features a 147 kW Deutz engine and is also available with double motorization (diesel + 90 kW electric engine).

Rotary Head

Thanks to the use of advanced modular hydraulic circuits, the machine can accommodate a wide of drilling range accessories and is suitable for all rotary and rotary-percussive drilling techniques (both with top hammer and downthe-hole hammer).

Weight/Dimensions

Easy to manoeuvre due to compact size, the MC30TX weighs 32 tons in "tunneling configuration" and 28 tons in "multipurpose configuration"







