ELECTRIC TUNNEL EXCAVATOR

TE 210 E

- Emission-free electric drive
- Cable reel on undercarriage
- For heading in soft ground
- Excavation boom with swivel dipper stick

- Optimal cross section approx. 25-60 m²
- Electric drive 132 kW
- Operating weight approx. 28 t
The new Schaefl TE 210 Tunnel Excavator follows in the successful footsteps of its predecessor model, the robust TE 200, and is the result of steadily upgrading its tunnelling equipment. Many years of experience gained in successful applications all over the world and the particularly high demands from underground and tunnel construction have gone into the TE 210. A service-friendly design fitting job-site requirements was a prime consideration throughout the development process.

Featuring a compact and robust design, the TE 210 is predestined for use in small and medium-sized tunnel cross sections. The compact superstructure with its short tail swing radius allows for a large superstructure swing range in wide as well as narrow tunnels. The kinematics of the work equipment in combination with its high breakout forces permits advance in low-profile tunnels higher than approx. 4,700 mm, while operating heights of up to approx. 8,500 mm are easily mastered.

The machine is equipped as standard with a water-cooled Deutz turbocharged diesel engine featuring charge-air cooling (with emission EEC Euro COM III) standard and may be optionally fitted with an exhaust soot particle filter system made by Engelhard / Puritech.

At customer’s request, the TE 210 Tunnel Excavator may be equipped with an emission-free electric drive instead of the conventional diesel engine. The cable is routed directly onto the superstructure or, alternatively, through a cable drum directly installed on the superstructure or, alternatively, an undercarriage-mounted cable drum. A special slip-ring assembly with electrical sliding contact ring installed on the excavator superstructure ensures that the swing range remains equally excellent.

Operating data
- Maximal vertical reach: 8’500 mm
- Maximal digging depth: 3’900 mm
- Minimal operating height: 4’700 mm
- Minimal overhead clearance: 3’300 mm
- Machine width lower carriage: 2’500 mm
- Machine width upper carriage: 2’700 mm
- Machine height over cab: 3’100 mm
- Machine height for transport: 3’300 mm
- Rear swing radius: 2’250 mm
- Minimal swing radius: 3’670 mm
- Operating weight, acc. to equipment: 28 t

Diesel engine
- Water-cooled turbocharged diesel engine. Deutz TCD 2013 L06 2V
- Power rating at 2,000 r.p.m: 165 kW
- Diesel engine complies with emission standard: EEC Euro COM III
- Fuel tank capacity: 410 l

An alternative to the standard Diesel drive is the 132 kW electric drive for increased machine versatility and operation in environments where compressed-air heading method is applied.

Certification for tunnel construction
The machine meets the current CE-requirements and is certified for tunnel construction according to EN12111, Dec. 2002.
Hydraulic system
Output controlled dual axial piston pump with «load-sense» control and electronic power limit control
Pump capacity 520 + 90 l/min
Hammer / TCU control circuit 280 l/min
Max. hydraulic operating pressure 350 bar
Hydraulic capacity (incl. system) 450 l
Hydraulic oil tank capacity 370 l
Hydraulic oil filter: Full-flow return filter with contamination indicator
Filter fineness: 10 µm

Crawler-type undercarriage
Undercarriage with dozer blade 2’700 mm
Hydrostatic travel drive via 3-stage planetary gear
Travel speed 0 - 1,7 / 4,5 km/h
Crawler chain type D6
Length 3’450 mm
Width of triple grouser shoes 400 mm (in option 500 mm)
Crawler chain drawbar pull 280 kN
Gradeability max. 100%

Boom Equipment
Monobloc tunnel boom equipment for excavation of soft ground or blasted material, composed of:
• a basic jib with double lift rams
• a tunnel swivel console 2x45°
• a dipper stick with double lift rams and integrated bucket ram
Length of the standard dipper stick 3’780 mm
Dipper stick crowd distance (in 4,7m height) 2’400 mm
Width of standard ripper bucket with 2 teeth Esc V51 660 mm
Bucket radius 1’175 mm
Ripping force 100 kN
Breakout force 140 kN

Optional Equipments
There is the possibility for the attachment of a range of ancillary equipment such as emission control with soot filter, quick hitch for tools, cylinder protection on dozer blade, additional rear dozer blade, hydr. TCU (max. 90kW), hydr. rock breaker (max. 1200 kg), different bucket sizes, ripper tooth, transverse cutting unit (max. 90 kW), Electric drive (110/132 kW) instead of Diesel drive, dipper sticks for longer or shorter reach, etc.

Further details accessories available upon request.
Subject to modification without prior notice.
Technical Main Data

- Maximal vertical reach: mm 8,500
- Maximal digging depth: mm 3,900
- Minimal operating height: mm 4,700
- Machine width: mm 2,700
- Machine height over cab: mm 3,100
- Power electric drive: kW 135
- Electric connection: A 250
- Travel speed: km/h 0-1.7 / 4.5
- Crawler chain drawbar pull: kN 280
- Operating weight, acc. too equipment: t 28

ALPINE
ALPINECUTTERS.COM

INFO@alpine-aec.com
PH: +1.814-466-7134
Fax: +1 814-355-0046
PO Box 681
State College PA16804 USA