

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

Tunnel excavator TE 210

The new **Schaeff 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 slipping assembly with electrical sliding contact ring installed on the excavator superstructure ensures that the swing range remains equally excellent.

Technical data / Area of application

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 3
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



Tunnel excavator



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

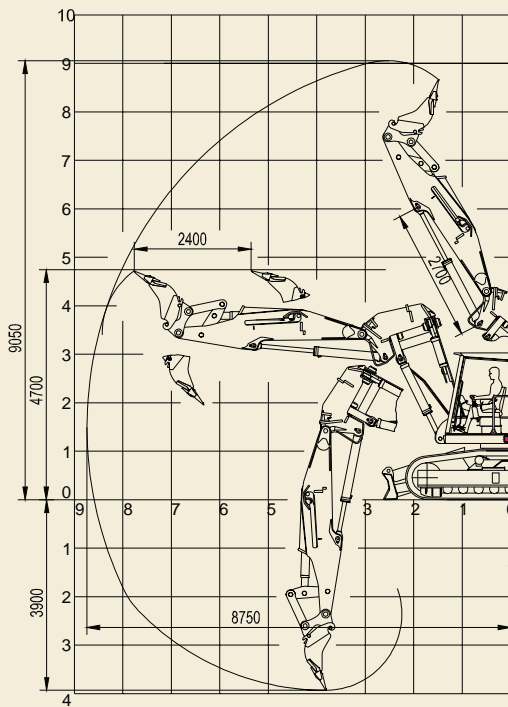
There is the possibility for the attachment of a range of ancillary equipment such as emission control with soot filter, quick hitch for tools, cylinder protection on dozer blade, additional rear dozer blade, hydr. TCU (max. 90kW), hydr. rock breaker (max. 1200 kg), different bucket sizes, ripper tooth, 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.

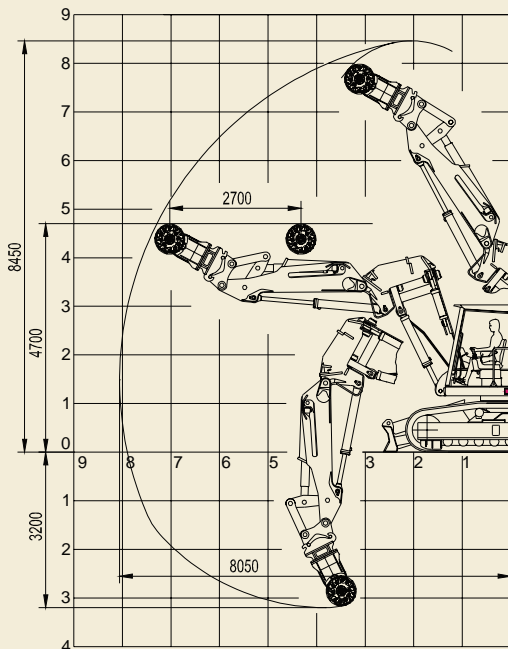
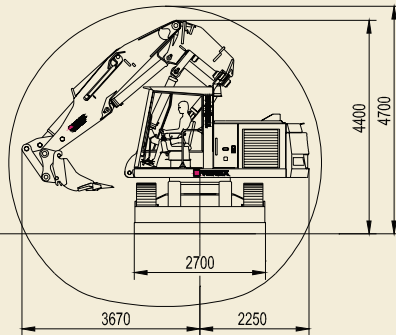


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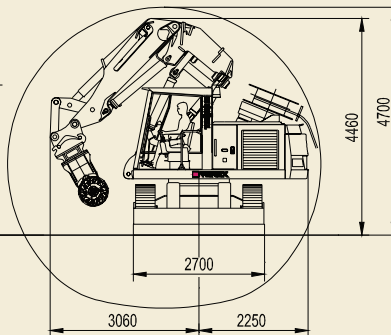




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Technical Main Data

Maximal vertical reach	mm	8.500	Power electric drive	kW	135
Maximal digging depth	mm	3.900	Electric connection	A	250
Minimal operating height	mm	4.700	Travel speed	km/h	0-1.7 / 4,5
Machine width	mm	2.700	Crawler chain drawbar pull	kN	280
Machine height over cab	mm	3.100	Operating weight, acc. too equipment	t	28



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