

TUNNEL EXCAVATORS AND SPECIAL MACHINERY





Tunnel excavators



Volvo compact machines

OUR PRODUCT RANGE



Customized solutions



Tunnel loading machines

SSM – YOUR LEADING PARTNER

Schöller Special Machines (SSM) is one of the leading manufacturers worldwide of tunnel excavators and special machinery that we modify to customer requirements for their specific application.

Our product range comprises tunnel excavators with diesel or electric drive, tunnel heading and loading machines, Volvo excavators with electric drive or TwinDrive, Volvo compact construction machines, and customized Volvo construction machines for extraordinary applications. We also provide special machines for tunnel construction and mining.

Thanks to the proficient, innovative and highly motivated team here at SSM, we manufacture tunnel excavators and

provide creative special solutions for extraordinary applications. Our machines are renowned for their robust and reliable construction.

In order to meet our customers' requirements, we are continuously working on improving our products, on innovations, on opportunities for new products, and on expanding our product range.

Our ambition at Schöller Special Machines is to improve our customers' and partners' efficiency and productivity with our machines and services.



STRONG PARTNER FOR TUNNELLING



ALWAYS THE BEST FIT

Together with their partners, SSM and Volvo offer an almost full range of machines for conventional tunnelling: tunnel excavators, wheel loaders and dumpers are used in tunnel heading and for loading and transporting material in tunnels.

The powerful, reliable and efficient machines along with excellent service ensure a plannable construction process around the globe. We have been working with Volvo and other partners on a trustworthy and constructive basis for decades. Our machines are designed to meet customer requirements for the particular application and are widely appreciated within the industry for their robust and reliable workmanship.







OUR TUNNEL EXCAVATORS



RELIABLE, EFFICIENT & FLEXIBLE

The current product range comprises five crawler tunnel excavators with an operating weight of 16,500 thru 101,400 lb (7 thru 47 tons) as well as a wheeled tunnel excavator with an operating weight of 46,000 lb (20 tons).

All tunnel excavator models are based on the well-established and reliable Volvo basic machines and are equipped with diesel drive as standard; optionally, they are also available with an emission free electric drive. The smaller models are also available with TwinDrive (diesel & electric) for maximum flexibility in use.

The compact excavators with a short tail-swing operate with high efficiency; therefore, they are ideally suited for small to large tunnel cross-sections. Due to the modular build of the boom equipment, they can be adapted to different tunnel heights, giving them maximum flexibility.

The tremendous hydraulic output of the Volvo machines allows operation of powerful attachment tools, like hydraulic hammers, rock cutters, demolition shears, to name only a few, which can be easily changed via quick coupling systems.



	CRAWLER EXCAVATORS					MOBILE EXCAVATOR
	ECR 58-T	ECR 88-T	ECR 145-T	ECR 235-T	ECR 355-T	EWR 170-T
Operating weight	14,300 - 16,500 lb (6.5 - 7.5 t)	22,000 - 24,200 lb (10 - 11 t)	39,700 - 44,100 lb (18 - 20 t)	68,300 - 77,100 lb (31 - 35 t)	94,800 - 101,400 lb (43 - 46 t)	41,900 - 46,300 lb (19 - 21 t)
Diesel engine output	47 hp (35 kW)	57 hp (43 kW)	120 hp (90 kW)	173 hp (129 kW)	240 hp (179 kW)	154 hp (115 kW)
Electric engine output (alternatively)	40 hp (30 kW)	49 hp (37 kW)	100 hp (75 kW)	147 hp (110 kW)	214 hp (160 kW)	120 hp (90 kW)
TwinDrive (diesel & electric)	47 / 40 hp (35 / 30 kW)	57 / 49 hp (43 / 37 kW)	-	-	-	-
Tunnel height	9.8 - 14.4 ft (3 - 4.4 m)	11.5 - 17.4 ft (3.5 - 5.3 m)	13.8 - 24.3 ft (4.2 - 7.4 m)	15.4 - 27.5 ft (4.7 - 8.5 m)	18.0 - 31.1 ft (5.5 - 9.8 m)	14.7 - 24.3 ft (4.5 - 7.4 m)
Bucket breakout force	10,800 lb (48 kN)	13,500 lb (60 kN)	25,200 lb (112 kN)	42,700 lb (190 kN)	71,050 lb (316 kN)	25,200 lb (112 kN)
Boom ripping force	5,600 lb (25 kN)	9,450 lb (42 kN)	19,550 lb (87 kN)	29,900 lb (133 kN)	46,500 lb (207 kN)	19,550 lb (87 kN)

ECR145E with electric drive and radio remote control
(power feed on the upper carriage)



OUR ELECTRIC EXCAVATORS



ECR50F with electric drive and radio remote control



ECR58 tunnel excavator with TwinDrive



ECR50F with TwinDrive

ECO-FRIENDLY ON SITE

Based on four decades of experience in electrically powered machines, SSM also equips a selection of Volvo construction machines with cable-connected electric drive for emission-free continuous operation on the construction site.

SSM closely cooperates with its partners within the Volvo SAS network (Special Application Solutions) to support its customers by providing additional excavator models with electric or TwinDrive – always as Volvo machines, with CE certification and manufacturer's warranty.

In order to save resources and protect the health of the fellow workers on site, we also offer a range of electrically powered tunnel excavators and wheel loaders that allow for interruption-free operation.

EC250E with dual drive
(cable reel on the upper carriage)



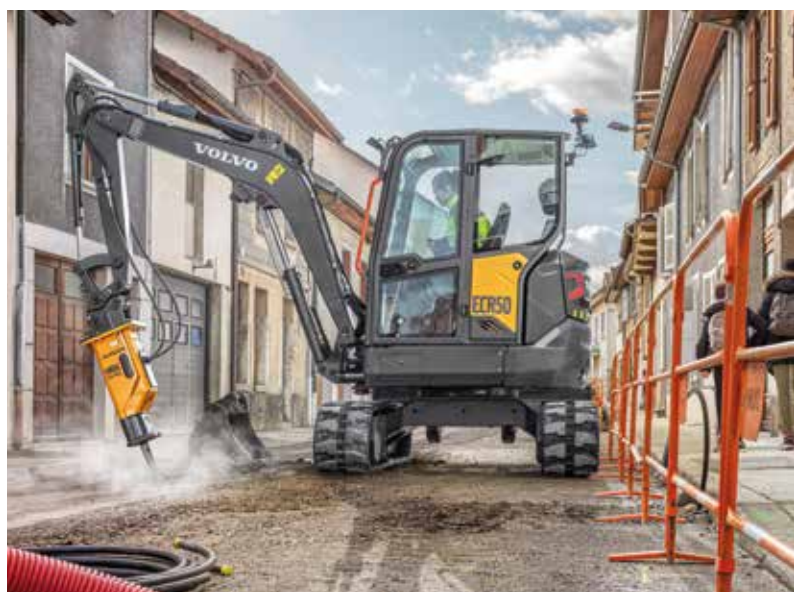
CE | ENGINEERING
SOLUTIONS

EC300E with dual drive
(cable reel at the undercarriage)





VOLVO COMPACT MACHINES





WOULD YOU RATHER OPT FOR STANDARD?

Schöller Special Machines is a regional dealer for Volvo CE compact construction machines and offers their line of compact excavators with an operating weight of 3,500 thru 22,000 lb (1.6 thru 10 tons) as well as wheel loaders with a bucket capacity of 35 thru 57 yd³ (1.0 thru 1.6 m³).

The larger excavators, wheel loaders and dumpers from Volvo's construction machinery range are available as well. Here, SSM closely collaborates with Volvo's partner dealers.





Long boom for underwater use

CUSTOMIZED MACHINES



Hydraulically detachable rear counterweight



Telescopic tracked undercarriage



Heavy-duty ram protection



Laterally adjustable offset-boom



Tiltable cab and straight boom

THE IDEAL SOLUTION FOR YOU

Schöller Special Machines is a certified Volvo SAS Partner (Special Application Solutions). With our innovative and experienced team, we specialize on Volvo-based customized machinery for extraordinary applications. This includes design, manufacture and assembly as well as documentation and CE certification.

In addition, SSM provides retrofitted machines – customized and specific to the application – and special solutions for construction machinery from other brands as well. Special applications require specific equipment. For this purpose, we also develop individual solutions and build customized machines and system components, e.g. for tunnel construction and mining, the forestry sector, as well as ramming machines, shaft sinking equipment, etc.





TUNNEL LOADING MACHINES



PROVEN, POWERFUL & VERSATILE

The Swiss company ITC and Schöller Special Machines have been working as partners for more than forty-five years, whereby SSM designs and manufactures tunneling and loading machines and ensures their global service. These special machines are exclusively distributed via ITC SA in Switzerland as well as their international dealers.

The current line of ITC series products comprises four machine sizes with an operating weight of 44,000 thru 121,000 lb (20 thru 55 tons).

They are perfectly suited for smaller and medium-sized tunnel cross-sections and efficiently work on soft to medium-hard rock as well as the removal of loosened material.

The integrated conveyor system directly transports the loosened aggregate material to the back – in a line through the “belly” of the machine – onto the downstream conveyance of excavated material, e.g. dump trucks or conveyor belts.

As standard, the ITC-SSM machines are equipped with two powerful drive units – diesel and electric drive: electric drive for emission-free operation on-site as well as diesel drive for travel and operation.

Thanks to the modular design of the base units and work equipment, the machines can be optimally adapted to varying cross-sections and geologies, and ensure maximum flexibility.



	ITC 125	ITC 315 N	ITC 315 SL	ITC 320
Operating weight	44,000 - 55,000 lb (20 - 25 t)	77,000 - 88,000 lb (35 - 40 t)	88,000 - 99,000 lb (40 - 45 t)	110,000 - 121,000 lb (50 - 55 t)
Diesel drive	107 hp (80 kW)	241 hp (180 kW)	241 hp (180 kW)	241 hp (180 kW)
Electric drive	100 hp (75 kW)	147 hp (110 kW)	177 hp (132 kW)	177 hp (132 kW)
Min. tunnel cross-section	11 yd ² (9 m ²)	19 yd ² (16 m ²)	21 yd ² (18 m ²)	21 yd ² (18 m ²)
Tunnel height	9.8 - 21.0 ft (3.0 - 6.5 m)	14.1 - 26.2 ft (4.3 - 8.0 m)	14.1 - 26.2 ft (4.3 - 8.0 m)	14.1 - 26.2 ft (4.5 - 8.0 m)



ALWAYS CLOSE AT HAND

Service is our top priority: Our experienced employees and the excellent international network of Volvo dealers ensure on-site service as well as spare parts supply around the world.

In the event of urgent emergencies, our competent service team is always at your disposal also after business hours.

Service hotline (24/7): +49 152 26235138



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