

# TUNNEL EXCAVATORS AND SPECIAL MACHINERY





Tunnel excavators



Volvo compact 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.

## OUR PRODUCT RANGE



Customized solutions



Tunnel loading machines



# 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 7 thru 47 tons as well as a wheeled tunnel excavator with an operating weight of 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					WHEELED EXCAVATOR
	ECR 58-T	ECR 88-T	ECR 145-T	ECR 235-T	ECR 355-T	EWR 170-T
Operating weight	7 - 7.5 t	10 - 11 t	18 - 20 t	31 - 35 t	43 - 45 t	19 - 21 t
Diesel engine output	35 kW	43 kW	90 kW	128 kW	179 kW	115 kW
Electric engine output (alternatively)	30 kW	37 kW	75 kW	110 kW	160 kW	90 kW
TwinDrive (diesel & electric)	35 / 30 kW	43 / 37 kW	-	-	-	-
Tunnel height	3 - 4.2 m	3.5 - 5.3 m	4.2 - 7.7 m	4.7 - 8.7 m	5.5 - 9.8 m	4.5 - 7.7 m
Tear-out force	25 kN	42 kN	80 kN	133 kN	207 kN	88 kN
Breakout force	48 kN	60 kN	112 kN	190 kN	317 kN	112 kN

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



# 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)



## OUR ELECTRIC EXCAVATORS



ECR50F with electric drive and radio remote control



ECR58 tunnel excavator with TwinDrive



ECR58F with TwinDrive



# 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 1.6 thru 10 tons as well as wheel loaders with a bucket capacity of 1.0 thru 1.6 m<sup>3</sup>.

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



Tilttable cab and straight boom

# CUSTOMIZED MACHINES

# THE IDEAL SOLUTION FOR YOU



Hydraulically detachable rear counterweight



Telescopic tracked undercarriage

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.



Heavy-duty ram protection



Laterally adjustable offset-boom





## 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 18 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	20 - 25 t	35 - 40 t	40 - 45 t	50 - 55 t
Diesel drive	80 kW	180 kW	180 kW	180 kW
Electric drive	75 kW	110 kW	132 kW	132 kW
Tunnel height	3.0 - 6.5 m	4.3 - 8.0 m	4.3 - 8.0 m	4.5 - 8.0 m
Min. tunnel cross-section	ca. 9 m <sup>2</sup>	ca. 16 m <sup>2</sup>	ca. 18 m <sup>2</sup>	ca. 18 m <sup>2</sup>





# 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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