



# E88.1

The green all-rounder

**POWERED  
BY LIMACH**



# We are Limach!

Limach started developing electric excavators back in 2017. There was initial skepticism in the market about the feasibility of electric excavators, but Limach's drive to improve pushed us forward.

Better for all of us. At Limach, we believe in sustainable technology that we apply smartly and creatively to existing concepts. From day one, Limach chose to work with the quality of Volvo machines, producing a first-class product fueled by Limach's ambition and creativity. It's no wonder our slogan is: **Powered by Limach!**

At Limach, we think carefully about our concepts. Unbound by existing ideas, our engineers develop the best and most accessible solutions. Since our machines weigh 6 tons and above, we've introduced a battery exchange system. All mini excavators are available with various battery packs tailored to your specific tasks.





# Member of the Volvo Group

Since 2022, Volvo Construction Equipment has held a majority stake in Limach. This partnership has injected new energy into the collaboration between the two manufacturers, with a focus on efficiency and sustainability. Volvo builds the base machine without any diesel components, and the machine is delivered as a semi-finished product to the Limach factory, where it is fully converted to electric. This process eliminates unnecessary time and material waste. A jointly developed concept is now available for you, built on a Volvo foundation and powered by Limach!

# Battery pack

Equipped with two interchangeable battery packs of 90 kWh each, the E88.1 delivers a total capacity of 180 kWh—enough for up to 8 hours of non-stop operation. The smart swap system allows the operator to easily exchange the battery packs, ensuring the machine remains continuously operational. Despite their power and capacity, each battery pack weighs approximately 1,000 kg, making transport straightforward.







# Safety & quality

Naturally, we pay great attention to the safety of our electric machines. A major benefit of Limach machines is that we use a low-voltage system, ensuring safety for both you and us.

Limach is committed to quality, ensuring minimal downtime for your machine. We only use standardized components and follow the latest regulations. During regular maintenance, we inspect vital mechanical and electrical parts of your machines.

# The E88.1 in detail

The Limach E88.1 is a powerhouse within our excavator range, delivering impressive performance. Designed with the future in mind, this machine is ready for sustainable hydrogen technology—ensuring long service life and environmentally friendly operation.



# Features and benefits

## **CO<sub>2</sub>-neutral operation**

Charge using renewable energy sources and work completely CO<sub>2</sub>-neutral on-site.

## **Low operating costs**

Thanks to the electric motor and efficient battery packs, you save on both maintenance and running costs.

## **Advanced hydraulic system**

Perfectly matched to the electric motor for fast, smooth, and efficient performance.

## **Spacious, comfortable cab**

The E60.1 features a cab that is 10% larger, offering more comfort and freedom of movement during long working hours.

## **Powerful climate control**

With seven ventilation outlets for rapid heating or cooling, the system boosts operator comfort and productivity.

## **Easy battery swap**

Thanks to the integrated swap system, operators can easily replace a depleted battery without additional equipment or extra costs.

## **Work while charging**

Continue working while the next battery pack charges—no need for high-power fast charging on-site.

## **Low transport weight**

Choose where you want to charge the battery thanks to the low weight of the battery packs, making transport flexible and easy..

## **Smart and flexible charging**

Avoid peak loads and charge at the most cost-effective times. Choose the charging method that best suits your worksite: mains connection, charging container, or public charging station.

# No more CO2 emissions

Clean, quiet, and usable everywhere. Fully emission-free, higher efficiency from the electric motor, and a low noise level). Usable for demolition and renovation work in buildings, urban areas with environmental zones, nighttime repairs, and more. Limach offers endless possibilities.

## Hydraulic system

The proven Volvo hydraulic system combined with Limach's electrical engineering ensures efficiency and working comfort. The rear-positioned lift cylinder reduces the risk of damage and downtime.

## Superior operating environment

The ergonomic, spacious, and safe cabin is characterized by excellent all-around visibility, intuitive controls, and comfort.





# Low maintenance costs

With no need to change oil, filters, or other parts related to the diesel engine, maintenance costs are reduced.



# Chargeable everywhere

Thanks to the flexibility of the battery packs, it is possible to work with one battery pack while the other is charging. The battery packs can also be charged at any public or private car charging station.

# Undercarriage

The durable and robust X-shaped undercarriage provides superior stability and extends the machine's lifespan.

# Service

The Limach service network consists of specialists with years of experience in earthmoving equipment. Your local dealer or distributor has the expertise to maintain and repair your machine when needed. The Limach team supports your local service partner with specialist knowledge if necessary, ensuring you receive the right service on-site.





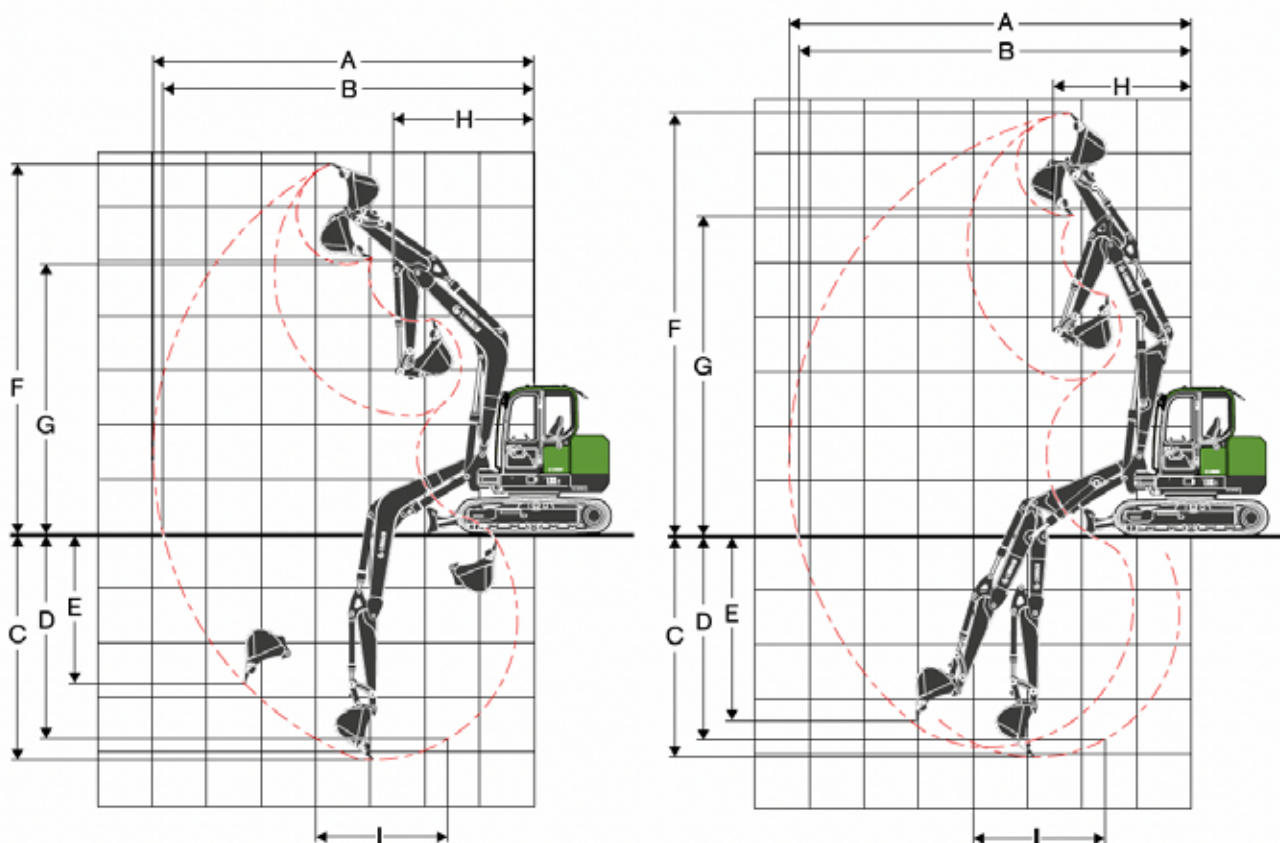
# connect & support

Limach is always connected to your machine. Although the electric mini excavator has far fewer moving parts, you want to be sure your machine is up and running. With Limach Connect & support, your machine is monitored by Limach specialists. If something happens that could lead to a breakdown, Limach proactively contacts you to discuss and decide on the actions needed to avoid downtime.



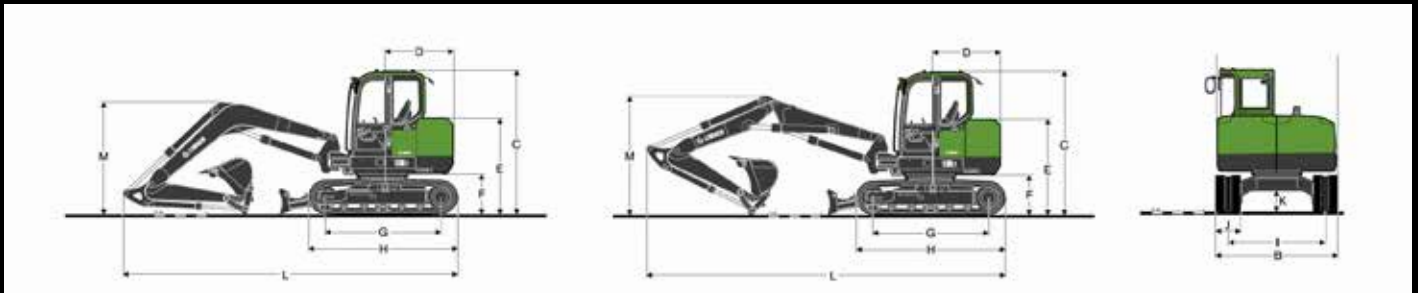
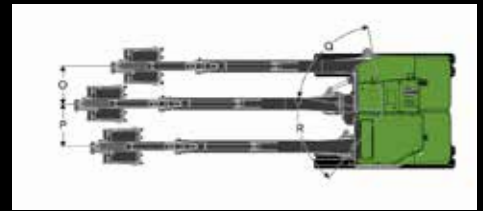
# Specifications

## Dimensions E88.1

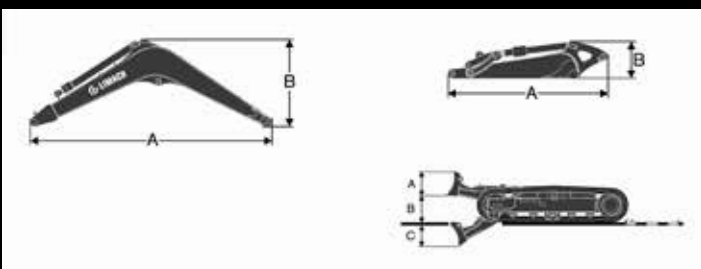


### Working range

Boom		m	3.55 (mono)		3.85 (2 pcs)	
Arm		m	1.7	2.1	1.7	2.1
A	Maximum digging reach	mm	6.970	7.350	7.380	7.790
B	Maximum digging reach at ground level	mm	6.800	7.180	7.220	7.640
C	Maximum digging depth	mm	4.130	4.530	4.090	4.480
D	Maximum digging depth (L=2440mm level)	mm	3.750	4.200	3.790	4.220
E	Maximum vertical wall digging depth	mm	2.820	3.200	3.430	3.870
F	Maximum cutting height	mm	6.790	7.050	7.720	8.240
G	Maximum dumping height	mm	4.960	5.220	5.840	6.380
H	Minimum swing radius, front	mm	2.560	2.640	2.530	2.700



Dimension						
Boom		m	3.55 (mono)		3.85 (2 pcs)	
Arm		m	1.7	2.1	1.7	2.1
B	Overall width	mm	2.300	2.300	2.300	2.300
C	Overall height including cab	mm	2.715	2.715	2.715	2.715
D	Rear swing radius	mm	1.487	1.487	1.487	1.487
E	Overall engine hood height	mm	1.180	1.180	1.180	1.180
F	Ground clearance to upperstructure	mm	760	760	760	760
G	Undercarriage length (center to center)	mm	2.200	2.200	2.200	2.200
H	Undercarriage length	mm	2.830	2.830	2.830	2.830
I	Track gauge	mm	1.850	1.850	1.850	1.850
J	Track shoe width	mm	450	450	450	450
K	Minimum ground clearance	mm	405	405	405	405
L	Overall length	mm	6.370	6.420	6.810	6.860
M	Overall boom height	mm	2.115	2.230	2.247	2.455
O	Maximum boom offset	mm	760	760	756	756
P	Maximum boom offset	mm	860	860	863	863
Q	Maximum boom swing angle (R)	gr	70	70	70	70
R	Maximum boom swing angle (L)	gr	60	60	60	60



Dozer blade			
A	Height	mm	470
	Width	mm	2.300
B	Lift height	mm	518
C	Digging depth	mm	433

Boom and Arm					
Boom Including cylinder, hoses, and pin		m	Boom		Arm
Arm Including cylinder, hoses, and pin		m	3.55 (mono)	3.85 (2pcs)	3.55 (mono) 3.85 (2pcs)
A	Length	mm	3.690	4.030	2.283 2.684
B	Height	mm	1.244	983	518 562
	Width	mm	335	340	305 305
	Weight	kg	530	774	280 340

<b>Electric System</b>		
Battery type		Lithium-ion
Battery voltage	V	104
Battery capacity	kWh	180
Auxiliary battery voltage	V	12
Operating time	uur	tot 8

<b>Charging time</b>		
With 400V AC	uur	tot 9

<b>Electric motor</b>		
Motor type		Permanent magneet
Motor power (peak)	kW	64
Motor power (continuous)	kW	45
Operating mode max./standard	r/min	2000
Operating mode max./boost	r/min	n/a

<b>Swing System</b>		
Max. swing speed	r/min	8,2
Max. swing torque	kNm	22,9

<b>Travel System</b>		
Max. drawbar pull	kN	65
Max. travel speed – low	km/h	2,9
Max. travel speed – high	km/h	5,3

<b>Digging Performance</b>					
<b>Boom</b>	m	3.55 (mono)		3.85 (2pcs)	
<b>Arm</b>	m	1.7	2.1	1.7	2.1
Bucket breakout force (ISO)	kN	57.2	56.8	57.2	56.8
Arm breakout force (ISO)	kN	39.8	34.4	39.8	34.4
Bucket rotation angle	°	190		190	

<b>Hydraulic System</b>		
Max. flow rate (main pump)	l/min	2x68+54
Max. flow rate (gear pump)	l/min	13
Max. flow rate for 2nd accessory circuit (optional)	l/min	24,6
Max. working pressure	Mpa	29,4

<b>Fluid Capacities</b>		
Hydraulic system, total	l	140
Hydraulic tank	l	84

<b>Undercarriage</b>		
Lower rollers		2x5
Carrier rollers		2x1
Track pads		2x39



### Weight and Ground Pressure

	Breedte	Gewicht	Gronddruk	Breedt	Gewicht	Gronddruk
	mm	kg	kPa	mm	kg	kPa
	Mono boom 3.55 m, arm 1.7 m			Mono boom 3.55 m, arm 2.1 m		
Steel track	450	9788	44,4	450	9868	44,8
	600	9938	33,8	600	10018	34,1
Rubber track	450	9588	43,5	450	9668	43,9
Rubber crawler track	450	9808	44,5	450	9888	44,9
	Mono boom 3.55 m, arm 1.7 m			Mono boom 3.55 m, arm 2.1 m		
Steel track	450	10158	46,1	450	10238	46,6
	600	10308	35,1	600	10388	35,4
Rubber track	450	9958	45,2	450	10038	45,6
Rubber crawler track	450	10178	46,2	450	10258	46,6





Curious about this and other machines in our range?  
Visit our website or get in touch with us!

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