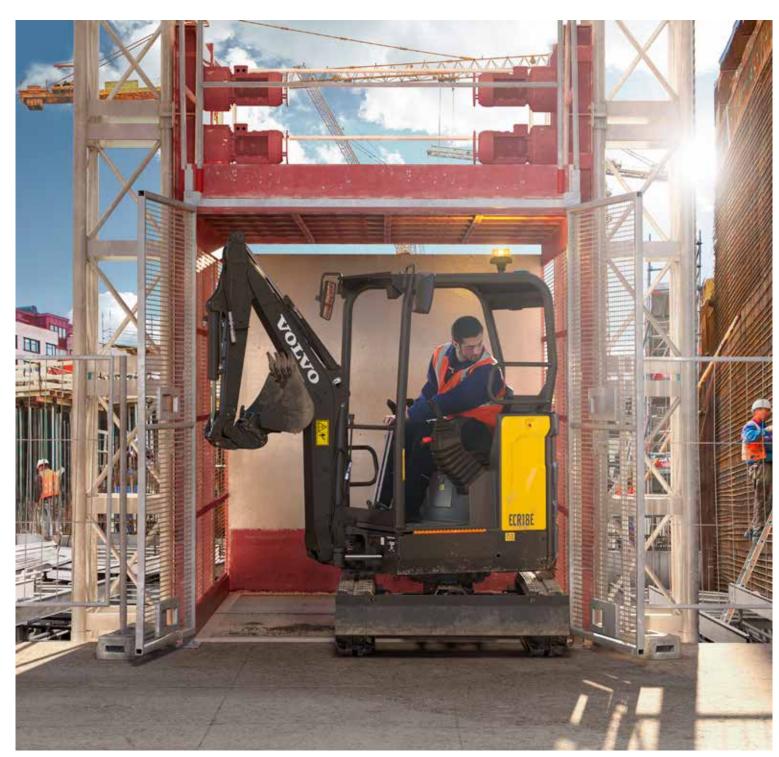


Volvo Construction Equipment Building Tomorrow



Volvo Compact Excavators 1.7-1.98 t 16.3 hp



Ready for work

The ultra-short swing radius ECR18E is the perfect choice for working in tight conditions. Easy to transport and easy to operate, this 1.8t excavator will make light work of tough jobs. With a robust design, combined with best-in-class service access, you can be sure this is a machine designed to promote low operating costs.

Small but tough

The unique high-profile counterweight design is made from three strong pieces of cast iron which wrap around the rear of the machine, protecting all vital components. All-around steel panels, recessed 10mm from the counterweight, offer further protection.



Safe and easy operation

The roomy and uncluttered operator environment of the machine is designed to keep you safe and focused while at work, including simple layout of the controls, fingertip controls and large travel pedals. Safety is built-in to the machine with a ROPS/TOPS/FOPS canopy, a large entrance including high visibility step, and an orange seatbelt as standard for easy checks by site managers.



Best-in-class serviceability

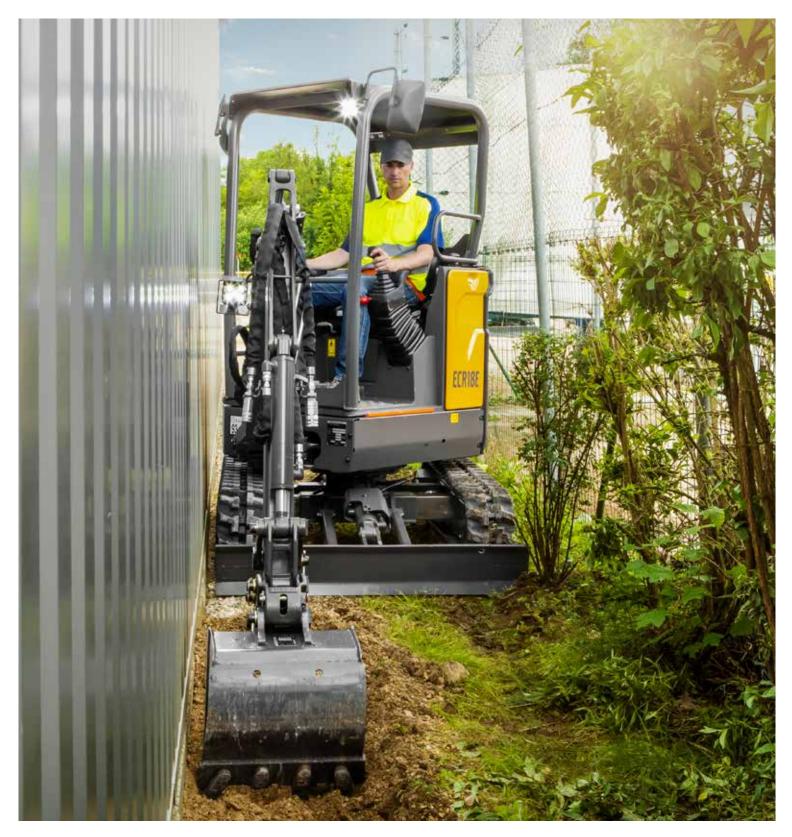
Complete maintenance tasks with speed thanks to the hinged fuel tank which enables an impressive ease of access to the engine compartment, and easy to locate daily check points. A 50-hour greasing interval further contributes towards the bestin-class serviceability of this machine.



Transport with ease

Transportation of the machine is safe and secure, thanks to its light weight and convenient design. With automatic slew lock and four easily accessed large tie-down points on the upper frame, the machine can be safely transported on a small trailer with up to three buckets and a hydraulic breaker, while maintaining a total transport weight of less than 2t.





COMPACT By Design

For superior versatility when working in confined spaces, the ECR18E features an ultra-short tail radius. The machine design ensures that the frame corner, swing post and cylinder stay within the tracks when digging alongside obstacles. The result is maximum visibility and a reduced risk of machine damage when working in tight conditions.

Short swing, big potential

SAFETY FIRST

- High visibility entry step, orange seatbelt A VOLVO EXCLUSIVE
- Controls lock options (switch, seat operator presence or buckled seatbelt sensor)
 A VOLVO EXCLUSIVE

VOLVO

- 4 large easily accessible tie-down points on the upper frame **NEW**
- Outstanding all-around stability
- ROPS/TOPS/FOPS certified 4-pillar canopy

SMALL BUT TOUGH

- All-around steel panels **NEW**
- High-profile cast counterweight A VOLVO EXCLUSIVE
- Boom cylinder on top
- Protected hoses, routed inside the boom

OPERATE WITH EASE

- Fingertip controls **A VOLVO EXCLUSIVE**
- Simple controls layout
- Uncluttered floor, large travel pedals
- Automatic 2-speed travel
- Smooth combined movements

COMPACT BY DESIGN

- Ultra-short swing radius **NEW**
- Variable undercarriage width, less than 1-meter wide
- In-track boom swing

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ECRI8E

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MAXIMIZE PROFITABILITY

- Best-in-class access to engine compartment
 thanks to hinged fuel tank
 A VOLVO EXCLUSIVE
- Auto engine shutdown and auto-idle (options)
- A VOLVO EXCLUSIVE
- 50-hour greasing intervals

THE COMPLETE PACKAGE

- Genuine Volvo Parts
- Full range of matched Volvo Attachments

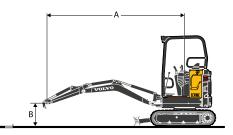
Volvo ECR18E in detail

Engine		
Engine		D0.9A
Max. power at	r/min	2 300
Gross	kW	12
	hp	16.3
According	to ISO 2	2534 / SAE J1995
Max. torque	Nm	52
at engine speed	r/min	1800
No. of cylinders		3
Displacement	cm ³	898
Bore	mm	72
Stroke	mm	73.6
Compression ratio		24
Electrical system		
Battery	V	1 x 12
Battery capacity	Ah	42 - 70
Alternator	V/Ah	12/40
Swing system		
Max, slew speed	r/min	9.5
Max, slew torque	daNm	243
Undercarriage		
Bottom/top rollers per side		3/0
Track tension		By grease piston
Blade (width x height)	mm	1 340 x 230
Digging Performances		
Standard bucket width (blade, W/O side cutter)	mm	450
Standard bucket mass	kg	33
Standard bucket rated capacity	1	36
Bucket rotation	0	196
Bucket breakout force (ISO)	daN	1290
Short arm tearout force (ISO)	daN	795
Long arm tearout force (ISO)	daN	695

Weight and Ground Pressure		
Operating weight according to ISO 6016	kg	1700
Ground pressure (canopy)	kPa	28.4
Transport weight	kg	1 6 2 5
With rubber tracks	mm	230
With short arm	mm	950
With fuel tank capacity	%	100
With long arm and heavy counterweight	+kg	42
With steel tracks	+kg	78
Hydraulic system		
Maximum system flow	l/min	34
Maximum flow for accessories	l/min	30
Maximum operating pressure	MPa	17
Travel System		
Max, drawbar pull	daN	1 3 0 0
Max. travel speed low	km/h	1.8
Max. travel speed high	km/h	3.5
Gradeability	0	30
Service Refill		
Fuel tank	I	21
Hydraulic system, total	I	21
Hydraulic tank	1	15
Sound Level		
Interior sound level according to ISO 6396		
LpA	dB(A)	78
External sound level according to ISO 6395	and EU Noise	Directive
(2000/14/EC) and 474-1:2006 +A1:200		
LwA	dB(A)	93

LIFTING CAPACITY ECR18E

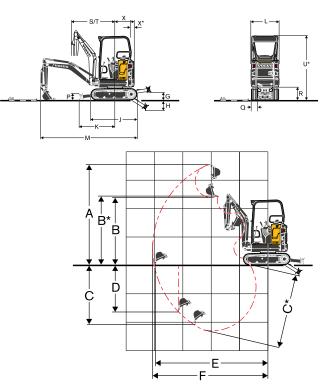
These capacities are given for a machine equipped with a canopy, rubber tracks and without a bucket or quick coupler. The below values are in compliance with ISO standard 10567. They do not exceed 75% of the tipping load or 87% of the hydraulic limit with the machine on firm level ground. Loads marked with an asterisk (*) are limited by machine's hydraulic lifting capacity rather than tipping load. Caution: In accordance with EN 474-5, the machine must be equipped to carry out handling operations. It is the operator's obligation to know and follow the applicable national and local safety regulations.



					Lif	ting point radius	(A)		
			2.	0 m		0 m		reach	Max. m
	Lifting point height (B) m							¢∏⊖	
	2	kg	-	-	-	259	-	251	3.06
Arm: 950mm + Dozer blade up	1	kg	484*	458	270*	254	265	209	3.44
	0	kg	469	434	269	248	220	210	3.40
	-1	kg	465*	440	262	-	221	243*	2.93
Arm: 950mm + Dozer blade down	2	kg	-	-	270*	259	274*	251	3.06
	1	kg	484*	458	300*	254	261*	209	3.44
	0	kg	593*	434	313*	248	248*	210	3.40
	-1	kg	465*	440	-	-	243*	243*	2.93
	2	kg	-	-	270*	271*	274*	266	3.06
Arm: 950mm	1	kg	484*	484	300*	270	261*	222	3.44
+ Dozer blade down	0	kg	593*	461	313*	264	248*	224	3.40
+ Heavy counterweight	-1	kg	465*	467*	-	-	243*	244*	2.93
1150	2	kg	-	-	228*	228*	244*	239	3.29
Arm: 1 150mm + Dozer blade up + Heavy counterweight	1	kg	390*	390*	280*	270	215	204	3.63
	0	kg	496	457	277	261	216	205	3.60
	-1	kg	497*	459	257*	257*	225*	225*	3.16
Arm: 1 150mm	2	kg	-	-	228*	228*	244*	239	3.29
	1	kg	390*	390*	280*	270	239*	204	3.63
+ Dozer blade down	0	kg	603*	457	314*	261	229*	205	3.60
+ Heavy counterweight	-1	kg	497*	459	257*	257*	225*	225*	3.16

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DIME	NSIONS					
Description				ECR18E		
Arm			mm	950	1 150	
А	Maximum cutting height		mm	3 4 4 2	3 582	
в	Maximum dump height		mm	2 4 4 4	2 588	
B*	Maximum bucket clearance		mm	2 482	2 6 2 5	
С	Digging depth		mm	2 2 3 4	2 4 3 4	
C*	Maximum digging depth		mm	2 528	2 727	
D	Maximum vertical wall digging depth		mm	1898	2 091	
E	Maximum digging reach at ground level		mm	3 921	4 113	
G	Highest position dozer blade	Short blade	mm	22	25	
		Long blade	mm	20	67	
н	Lowest position dozer blade	Short blade	mm	20	67	
		Long blade	mm	38	36	
J	Track length		mm	1 620		
к	Dozer blade, maximum reach at ground level Short blade		mm	1082		
		Long blade	mm	12	72	
L	Overall width with 230mm tracks Min		mm	995		
	Max		mm	1 3 5 2		
М	Overall length		mm	3 4 3 1	3 309	
M*	Transport length (arm lowered)	Short blade	mm	3 932	3 944	
		Long blade	mm	4 122	4 134	
Ρ	Dozer blade height		mm	2	31	
Q	Shoe width (rubber)		mm	23	30	
Q(1)	Shoe width (steel)		mm	23	30	
R	Ground clearance to superstructure		mm	4	56	
S	Front slew radius		mm	1 575	1568	
Т	Front slew radius with maximum offset		mm	1269	1 2 8 7	
U*	Overall height canopy		mm	2 2	98	
Х	Tail slew radius		mm	68	38	
X*	Rear overhang (across tracks)		mm	1	2	
β1	Maximum boom offset to the right		mm	5	16	
β2			mm	640		
(1) O	ntion					



(1)	Option

STANDARD EQUIP	
Engine	
	er-cooled, Volvo 3-cylinder diesel engine, meeting EPA Tier 4 and EU
Stage V environme	
	cted against ignition when engine is already running
	ut-off in case of overheating or low oil level
	ety device: the left console must be raised to operate the starter
Drivetrain	
	ed travel hydraulic motors with reduction gears
	rollers lubricated for life
Electric / Electroni	
Maintenance-free b	
	ctrical system and high quality connectors
Battery disconnect	
Working light on th	
	n cab with cellular phone storage
Swing system	
	ulic motor with integrated shockless valve
	sc spring applied hydraulic released slew brake
Superstructure	
	els all-around, recessed 10 to 15mm
	wn points on upper structure
Undercarriage	
Box welded fabrica	
	rigid dozer blade structure
Hydraulic system	
	Volvo Hydraulic System
	oad Sensing main control valve
	nioning at end stroke (up)
Patented filtering a	
	bil cooler and radiator
	aulic circuit for accessories
	ited inside the boom for increased protection
Canopy	
Robust 4-pillar stru	
Cushionned operat	
Highly visible orang	
	je seatbelt with warning indicator on display
	ated storage for operator's manual and lockable door
Digging equipmen	
	uctural parts on arm, pivot, undercarriage and upper structure noze
	Ided fabricated boom and arm
	nings & hardened, pre-lubricated and corrosion resistant pins
	on all grease points
Machine controls	
	device for pilot controls and travel levers when the left console is raised
	ljustable fingertip control for boom offset and auxiliary circuit
	tor to lower the equipment on the ground
Instrumentation ar	
	nour meter visible from outside cab
	e and fuel level gauges
Official approval	//
	g to European directive 2006/42/EC
	the environment conforming to directive 2000/14/EC
	ns - Whole Body Vibrations compliant with directive 2002/44/EC
	mpatibility (EMC) conforming to European directive 2004/108/EC and
its amendments	
	vice conforming to EN 474-1 and EN 474-5 standards
ROPS (Roll-Over F	rotective Structure) conforming to ISO 3471-1 and SAE J1040 standard

ROPS (Roll-Over Protective Structure) conforming to ISO 3471-1 and SAE J1040 standards TOPS (Tip-Over Protective Structure) conforming to ISO 12117 and EN 13531 standards OPG 1 (Operator Protective Guard on top) conforming to ISO 10262 standard (when equipped)

OPTIONAL EQUIPMENT
Engine
Auto idling system
Engine auto shut-down with time adjustment
Operator environment
Vinyl seat with mechanical suspension, low back and 2" orange seatbelt
Vinyl seat with mechanical suspension, extended back with lumbar adjustment and 2" orange
retractable seatbelt
Vinyl seat with mechanical suspension, extended back with lumbar adjustment and 3" retractable
seatbelt
Additional lockable storage box (behind the seat)
Electrical switch for ISO/SAE control pattern change
Travel alarm
Anti-theft, code lock
Anti-theft, coded key
Controls lock, switch
Controls lock, seat operator presence and switch
Controls lock, seatbelt sensor
Rear wind protection canopy
Tool kit
Machine exterior
Left/Right rearview mirror
One protected worklight on the boom
One rear worklight
Rotating beacon
One protected worklight on the boom LED
One rear worklight LED
LED worklights package
Warning beacon, flashing LED
Green beacon link to safety belt
Heavy counterweight
Several level of customisation (RAL specifications) to match with your corporate identity
Undercarriage
230mm rubber tracks
230mm steel tracks
Short dozer blade
Long dozer blade
Hydraulics
Relief valve for auxiliaries
Kit 2 flat face hydraulic couplings
Double acting circuit for hydraulic quick couplers
Boom and arm safety lifting valves
Boom, arm and dozer blade safety lifting valves
Several grades of mineral and bio hydraulic oil
Digging equipment
Short arm
Long arm with heavy counterweight
Machine controls
On/Off fingertip control for boom offset and auxiliary circuit
Attachments
Volvo mechanical quick coupler (pin-on)
Lehnhoff [®] mechanical quick coupler
Symmetrical type mechanical quick coupler (S30)
General Purpose buckets
Fixed Ditching buckets
Tiltable Ditching buckets
Hydraulic breaker HB02LN

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.



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