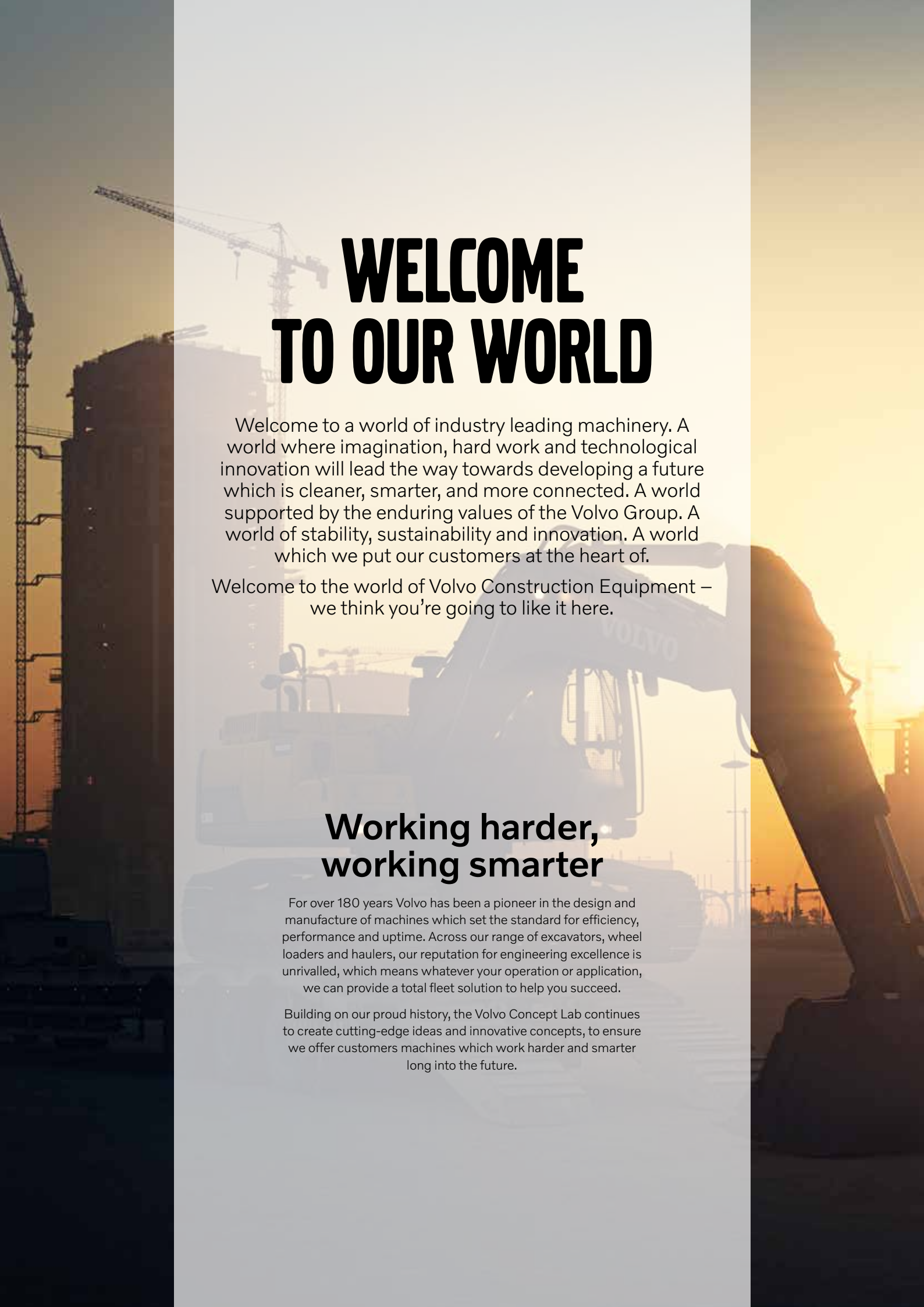
Volvo Construction Equipment
Building Tomorrow

EC950F

Volvo Excavators 91.3-94.8 t 611 hp



WELCOME TO OUR WORLD

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Welcome to the world of Volvo Construction Equipment – we think you're going to like it here.

Working harder, working smarter

For over 180 years Volvo has been a pioneer in the design and manufacture of machines which set the standard for efficiency, performance and uptime. Across our range of excavators, wheel loaders and haulers, our reputation for engineering excellence is unrivalled, which means whatever your operation or application, we can provide a total fleet solution to help you succeed.

Building on our proud history, the Volvo Concept Lab continues to create cutting-edge ideas and innovative concepts, to ensure we offer customers machines which work harder and smarter long into the future.

Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.

BUILDING TOMORROW

Big, powerful and productive

Do the big jobs better, stronger and faster with the EC950F. The 90 tonne crawler excavator offers the perfect combination of power and stability to handle a higher capacity in the toughest applications.

Solid stability

The outstanding stability of the EC950F means operators can work with confidence in the most challenging environments. The well-balanced and solid machine features a wide track gauge, long track length, retractable undercarriage and an optimized counterweight.

Powered by Volvo

Rely on a superior performance from the EC950F, featuring a powerful 450kW Volvo D16 engine, which delivers high torque at low rpm. The machine utilizes advanced technology built on decades of experience to ensure a highly productive operation.

Comfortably productive

For operator convenience, all machine interfaces – including the joysticks, keypad and LCD monitor – are ergonomically positioned and designed for optimum control. The low-noise and spacious cab further enhances operator comfort and performance.

Buckets to match

Maximize productivity with Volvo buckets, perfectly matched to your machine for ultimate digging results in all working conditions. Our range includes General Purpose, Heavy-Duty and Extreme-Duty buckets, and when your application requires something more unique, we offer Custom-Built Attachments to develop the right solution for you.

BIGGER MACHINE, BIGGER RESULTS

Gain more profitability in the EC950F, Volvo's largest crawler excavator. The 90 tonne excavator delivers a high bucket capacity for more tons per hour, achieving a fast and efficient on-site production.

SUPERIOR DIGGING FORCE

Even in the harshest applications, the EC950F is up to the challenge. Experience superior digging force, particularly when working with hard and heavy materials, thanks to constant high hydraulic pressure delivering power to the machine when you need it.

Peak performance

Job done. With the big and powerful EC950F, no task is too tough. Increase profitability with superior digging force, quick cycle times and outstanding fuel efficiency for a maximum return on investment.

Fast cycle times

Cut cycle times to a minimum with the fully electro-hydraulic system. The optimized hydraulics system increases pump power for a fast and smooth operation.

Complete control

For a more efficient operation, the electro-hydraulic system puts superior control in the operator's hands. Utilizing intelligent technology, the easy-to-use system controls on-demand flow and reduces internal losses in the hydraulic circuit. What's more, the EC950F comes with a boom-swing priority valve.

Outstanding fuel efficiency

Achieve outstanding fuel efficiency with Volvo's unique ECO Mode and electro-hydraulic system. ECO Mode optimizes the hydraulic system to reduce loss of flow and pressure, while the integrated work mode allows operators to choose the best work mode for the task at hand: select from I (Idle), F (Fine), G (General), H (Heavy) and P (Power max).

Do more

Take on a range of tasks in the hard-working EC950F. The attachment management system enhances machine versatility by storing settings for up to 20 different attachments, enabling the operator to pre-set hydraulic flow and pressure through the in-cab monitor.

Always-on

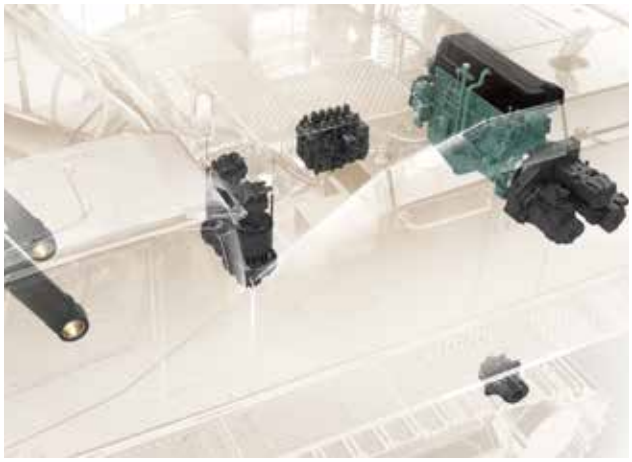
Rely on maximum uptime with the big and durable EC950F – always ready to work. The machine's heavy-duty design, reliable and wear-resistant components, and easy service access ensure you will get the job done safely and without delay.

Durable by design

Achieve non-stop production with the reliable EC950F, built with protected components to deliver maximum longevity in demanding applications. Outstanding machine protection is provided by features including a heavy-duty boom and arm, strong frame structure, heavy-duty underside plate and optional full-length track guard.

Proven reliability

Count on a solid EC950F with Volvo's high-quality components, designed to work in perfect harmony with the machine. Volvo's commitment to rigorous testing in its development process ensures the production of well-engineered components, purpose-built for the job, and proven to be reliable in the toughest applications.

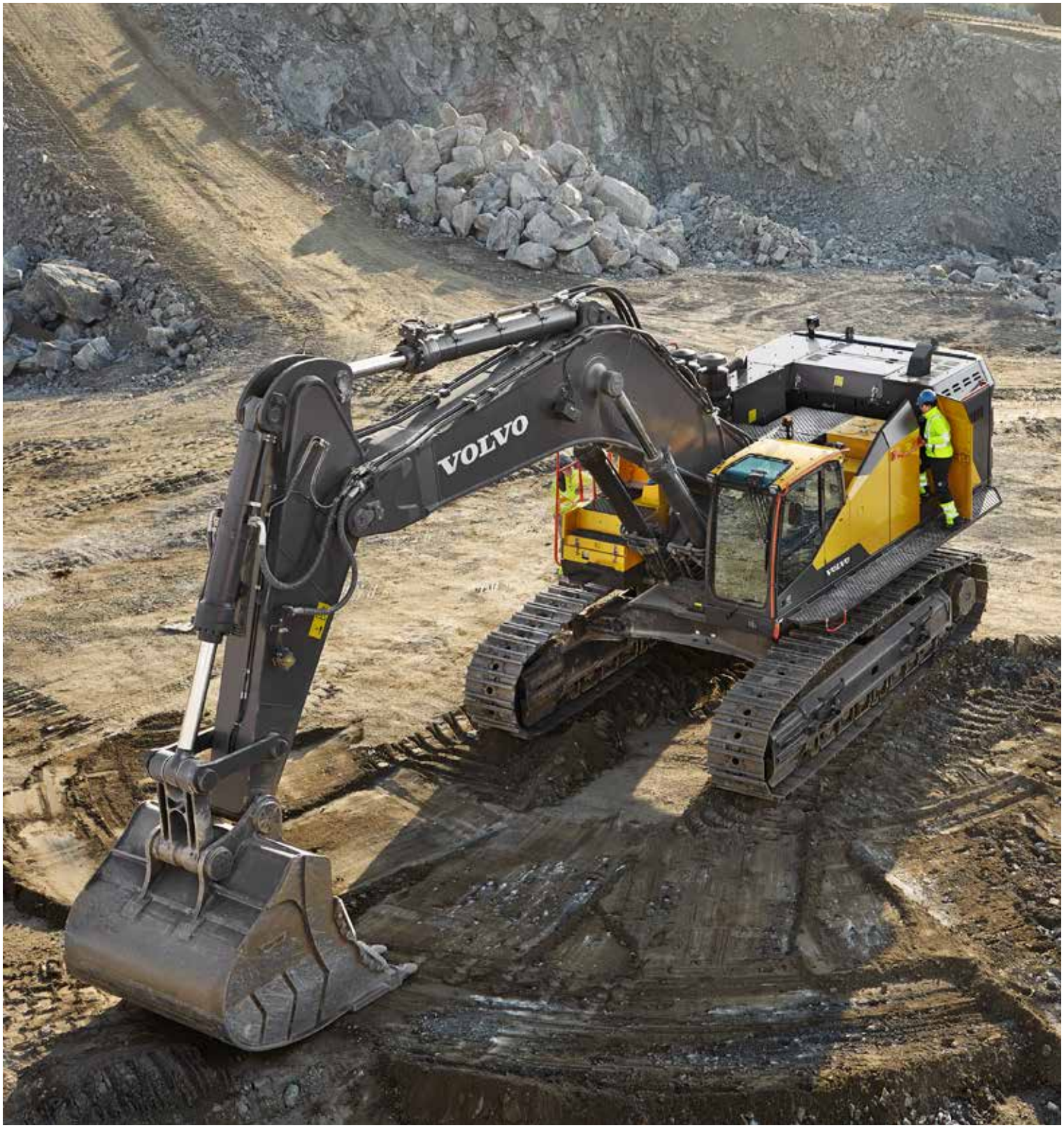


Wear-resistant digging

For a prolonged bucket lifespan, Volvo offers a range of wear parts including segments, side cutters, shrouds and teeth. When working with heavily compacted material the Pick Point tooth provides maximum penetration, and the new Volvo Tooth System enables teeth changes in minutes: simply place, push and click – it's that easy to install.

Safety first

Safety is built in to the machine thanks to a large entrance, including high visibility handrails and conveniently positioned steps, as well as anti-slip plates. The optional FOG (Falling Object Guard) and FOPS (Falling Object Protective Structure) provide further peace-of-mind when working in tough applications. For added visibility, the EC950F can be equipped with rear view and side cameras, or Volvo Smart View which provides 360° vision.



EASY SERVICE ACCESS

Maximize uptime with quick and safe servicing. Essential maintenance points are easily accessed via the wide-opening and conveniently located compartment doors using central and surrounding walkways.

EASY MACHINE MONITORING

Maximize machine uptime and reduce repair costs with Volvo ACTIVE CARE. Utilizing CareTrack data, the intelligent service provides round the clock machine monitoring and tailored customer reports, helping you to keep track of your fleet and take preventive maintenance actions.

Keeping costs down

Engineering machines which deliver outstanding results is just the start of how we can support your operation. As your partner we are here to help with every aspect of your Volvo machinery. Our portfolio of services is designed to complement your machine's performance and boost your profitability.

Volvo dealer network

Volvo has the right solution for you. By listening to your requirements, we can reduce your total cost of ownership and increase your revenue. With our extensive infrastructure of technicians, workshops and dealers, Volvo has a comprehensive network to fully support you using local knowledge and global experience.

Machine diagnosis

Analyze machine usage, reduce maintenance costs and increase service life with Volvo's diagnostic analysis software. MATRIS analyses the machine's operational data and functions, which can be adjusted accordingly.

Customer Support Agreements

The range of Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services. Volvo uses the latest technology to monitor machine operation and status, giving you advice to increase your profitability. By having a Customer Support Agreement you are in control of your service costs.

Genuine Volvo Parts

Every part is vital for optimized uptime and performance of your machine. Genuine Volvo Parts are extensively tested and approved to ensure the highest quality. Talk to your local Volvo dealer to discover parts availability and quick and easy delivery via our global parts distribution network.

Go big

THE OPERATOR'S CHOICE

- Spacious and quiet cab, ergonomic controls
- Boom-swing priority function
- Dig Assist, powered by Volvo Co-Pilot (Option)

ROBUST PROTECTION

- Heavy-duty boom and arm
- Additional underside plate
- Floating pins on the bucket connection

VERSATILITY

- General Purpose, Heavy-Duty and Extreme-Duty buckets
- Range of wear parts: teeth, side cutters, segments and wear shrouds
- Custom-Built Attachments for specific applications
- Attachment Management System: pre-set hydraulic flow and pressure

EFFICIENTLY PRODUCTIVE

- Powerful 450kW Volvo D16 engine: high torque at low RPM
- Fully electro-hydraulic system
- Constant high hydraulic pressure for superior digging force
- ECO mode, Work modes

KEEP ON DIGGING

- Easy service access, wide-opening compartment doors
- Volvo Tooth System: quick, easy and safe installation
- Volvo ACTIVE CARE: round-the-clock machine monitoring
- Genuine Volvo Parts

SAFETY FIRST

- High-visibility handrails
- Anti-slip plates
- Central and surrounding walkways
- Rear and side view cameras, Volvo Smart View (Options)

SOLID STABILITY

- Wide track gauge
- Long track length
- Retractable undercarriage
- Optimized counterweight

Volvo EC950F in detail

Engine

The engine is a low emission, turbocharged air-to-air cooling, 4-stroke diesel engine with water cooling, direct injection controlled electronically, that meets EU Stage V requirements. The engine has been developed especially for excavator use, providing good fuel efficiency, low sound level and a long service life.
Air Filter : 3-stage
Automatic Idling System : Reduces the engine speed to idle / when levers and pedals are not activated / resulting in less fuel consumption and low cab noise level.

Engine	Volvo	D16J
Max power at	r/min	1 650
Net, ISO 9249/SAE J1349	kW	449
	hp	611
Gross, ISO 14396/SAE J1995	kW	450
	hp	612
Max torque	Nm	2 700
at engine speed	r/min	1 400
No. of cylinders		6
Displacement	l	16.1
Bore	mm	144
Stroke	mm	165

Electrical system

Contronics, provides advanced monitoring of machine function and important diagnostic information.
High capacity and well protected electrical system.
Centrally located fuse and relay box using clearly arranged printed circuit board mounted, for easy access, behind the cab.
A master switch is standard.

Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	210
Alternator	V/A	28/80

Undercarriage

The undercarriage has a robust X-shaped frame. Greased and sealed track chains are standard.

Track shoes		51 x 2
Link pitch	mm	260.4
Shoe width, double grouser	mm	650/750/900
Bottom rollers		9 x 2
Top rollers		3 x 2

Cab

The operator's cab has easy access via a wide door opening.
The cab is supported on hydraulic dampening mounts to reduce shock and vibration levels.
These along with a sound absorbing lining provide low noise levels.
The cab has excellent all-round visibility.
The front windshield can easily slide up into the ceiling, and the lower front glass can be removed and stored in the door.
Integrated air conditioning and heating system: The pressurized and filtered cab air is supplied by automatically controlled fan. The air is distributed via 13 vents.
Ergonomic operator's seat: The adjustable seat and joystick consoles move independently to accommodate the operator. The seat has nine different adjustments and a seat belt to meet any operator's comfort and safety.

Swing system

The superstructure is slewed by two units of hydraulic piston motors with 2 stage planetary gear reduction box. Automatic swing holding brake and anti-rebound valve are equipped.

Max. slew speed	r/min	6.9
Max. slew torque	kNm	343

Travel System

Drive device: 2 step Hydraulic motor with 2 stage planetary reduction gears on each track.
Framework: All-welded robust torsion box frame.
Track Gauge: Retractable.

Max. drawbar pull	kN	565
Max. travel speed (low)	km/h	2.8
Max. travel speed (high)	km/h	4.4
Gradeability	°	33

Sound Level

Sound pressure level in cab according to ISO 6396

L_{pA}	dB	72

External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC

L_{WA}	dB	109

Hydraulic system

The hydraulic system, also known as the "Automatic Sensing Work Mode", is designed for high-productivity, high-digging capacity, high-maneuvering precision and good fuel economy. The summation system, boom priority, arm priority, swing priority along with boom and arm regeneration provides optimum performance.
The following important functions are included in the system:
Summation system: Combines the flow of both hydraulic pumps to ensure quick cycle times and high productivity
Boom priority: Gives priority to the boom operation, for fast raising when loading or performing deep excavation.
Arm priority: Gives priority to the arm operation, for faster cycle times in leveling and for increased bucket filling when digging.
Swing priority: Gives priority to swing functions for faster
Regeneration system: Prevents cavitation and provides flow to other movements curing simultaneous operations for maximum productivity
Holding valves: Boom and arm holding valves prevent the digging equipment from creeping

Main pump. Type: 3 x variable displacement axial piston pumps		
Maximum flow	l/min	2 x 515; 1 x 147
Pilot pump. Type: Gear pump		
Maximum flow	l/min	1 x 37.8
Relief value setting pressure		
Implement	MPa	34.3
Travel circuit	MPa	34.3
Slew circuit	MPa	28.4
Pilot circuit	MPa	3.9

Hydraulic Motors

Travel: Variable displacement axial piston motors
Slew: Fixed displacement axial piston motor with mechanical brake

Hydraulic Cylinders

Mono boom		2
Bore x Stroke	ø x mm	215 x 1 930
Arm		1
Bore x Stroke	ø x mm	240 x 2 180
Bucket		1
Bore x Stroke	ø x mm	200 x 1 500
ME Bucket		1
Bore x Stroke	ø x mm	230 x 1 500

Service Refill

Fuel tank	l	1 265
Hydraulic system, total	l	890
Hydraulic tank	l	460
Engine oil	l	52
Engine coolant	l	74
Slew reduction unit	l	2 x 6.5
Travel reduction unit	l	2 x 25
PTO gear box	l	1 x 9.2
Urea	l	95

Specifications

GROUND PRESSURE

Description	Shoe width	EC950F					
		Boom 7.25 m, Arm 2.95m, Bucket 4 515kg(4.7m³)			Boom 8.4 m, Arm 3.7m, Bucket 4 190kg(3.9m³)		
		Counterweight 16 200kg			Counterweight 16 200kg		
		Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width
	mm	kg	kPa	mm	kg	kPa	mm
Double grouser	650	91 275	123.8	4 298	92 850	125.9	4 298
	750	92 115	108.3	4 300	93 690	110.1	4 300
	900	93 235	91.3	4 450	94 810	92.9	4 450

BUCKET SELECTION GUIDE

Bucket type			Capacity	Cutting width	Tip radius	Weight	Teeth	Recommended maximum material density (kg/m³)		
								EC950F		
								7.25m ME Boom	8.4m GP Boom	
			m³	mm	mm	kg	EA	M2.95m Arm	M2.95m Arm	G3.7m Arm
Direct fit Buckets without quick coupler	V4	GP	3 900	1 970	2 221	4 321	5	1 800	1 800	1 800
			4 700	2 000	2 348	4 648	5	1 800	1 800	1 800
			5 400	2 280	2 348	4 992	5	1 800	1 800	1 700
			6 000	2 350	2 446	5 233	5	1 800	1 700	1 500
			6 500	2 300	2 566	5 277	5	1 800	1 500	1 300
			7 000	2 450	2 566	5 583	6	1 800	1 400	1 200
		HD	3 900	1 970	2 279	5 299	5	2 100	1 800	1 800
			4 700	2 000	2 404	5 722	5	2 100	1 800	1 800
			5 200	2 200	2 404	5 999	5	2 100	1 800	1 500
			5 400	2 280	2 404	6 137	5	2 100	1 700	1 500
			5 600	2 350	2 404	6 261	5	2 100	1 600	1 400
			6 000	2 350	2 505	6 198	5	2 100	1 500	1 300
			6 500	2 300	2 620	6 264	5	2 000	1 400	1 200
	V6	EDX	6 500	2 750	2 803	6 986	5	1 800	1 300	-

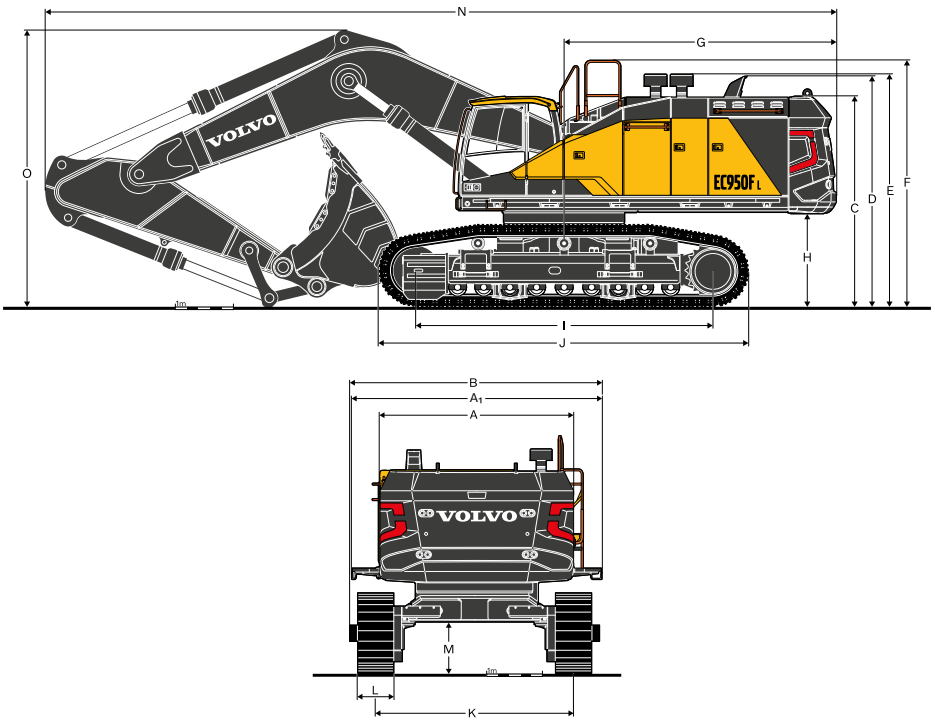
Please consult with your Volvo dealer for the proper match of buckets and attachments to suit the application.
(In case of using bigger bucket than regional standard MRS, consultation with R&D is highly recommended)
The recommendations are given as a guide only, based on typical operation conditions.
Bucket capacity based on ISO 7451, heaped material with a 1:1 angle of repose.

Maximum materal density	
1 200~1 300 kg/m³	Coal, Caliche, Shale
1 400~1 600 kg/m³	Wet earth and clay, Limestone, Sandstone
1 700~1 800 kg/m³	Granite, Wet sand, Well blasted rock
1 900 kg/m³ ~	Wet mud, Iron ore

X : Not recommended

Specifications

DIMENSIONS



Description		Unit	EC950F		
Boom		**m**	**7.25**	**8.4**	
Arm		**m**	**2.95**	**2.95**	**3.7**
A	Overall width of superstructure	mm	3 485	3 485	3 485
A_1	Overall width of superstructure (incl. walkway)	mm	4 505	4 505	4 505
B	Overall width (step to walkway)				
	650mm shoe	mm	4 515	4 515	4 515
	750mm shoe	mm	4 515	4 515	4 515
	900mm shoe	mm	4 520	4 520	4 520
C	Overall height of cab	mm	3 655	3 655	3 655
D	Overall height of tail pipe	mm	3 990	3 990	3 990
E	Overall height of precleaner	mm	4 025	4 025	4 025
	Overall height of oil bath	mm	4 180	4 180	4 180
F	Overall height of guardrail	mm	4 265	4 265	4 265
G	Tail swing radius	mm	4 700	4 700	4 700
H	Counterweight clearance *	mm	1 620	1 620	1 620
I	Tumbler length	mm	5 120	5 120	5 120
J	Track length	mm	6 380	6 380	6 380
K	Track gauge(extended)	mm	3 550	3 550	3 550
	Track gauge (retracted)	mm	2 980	2 980	2 980
L	Shoe width	mm	650	650	650
M	Min. ground clearance *	mm	915	915	915
N	Overall length	mm	13 615	14 765	14 600
O	Overall height of boom	mm	4 950	4 875	4 905
P	Width of Track (retracted)				
	650mm shoe	mm	3 630	3 630	3 630
	750mm shoe	mm	3 920	3 920	3 920
	900mm shoe	mm	4 070	4 070	4 070
	Width of Track (extended)				
	650mm shoe	mm	4 200	4 200	4 200
	750mm shoe	mm	4 300	4 300	4 300
	900mm shoe	mm	4 450	4 450	4 450

* With shoe grouser

Boom cylinder

Length	Height	Width	Weight
mm	mm	mm	kg
3 000	600	480	1 800

Hose of Boom cylinder

Length	Weight	Q'ty
mm	kg	EA
1 250	5	2
1 170	4	2

Counterweight

Length	Height	Width	Weight
mm	mm	mm	kg
3 485	2 150	830	16 100

Shoes

Shoe width	Length	Height	Overall width	Weight / unit
mm	mm	mm	mm	kg
650	6 380	1 445	1 085	12 930
750	6 380	1 445	1 085	13 300
900	6 380	1 445	1 160	13 860

Superstructure

Length	Height of tail pipe	Width*	Weight
mm	mm	mm	kg
6 600	3 077	3 475	45 000

*Upper structure rotated by 90deg (across)

Basic machine (without counterweight)

Shoe width	Length	Height of tail pipe	Overall width (retracted)	Weight
mm	mm	mm	mm	kg
650	7 475	3 990	3 685	52 520
750	7 475	3 990	3 685	53 270
900	7 475	3 990	3 690	54 390

Superstructure, including UC and Boom, excluding CWT

Boom	Shoe width	Length	Weight
7.25	650	11 332	65 655
	750	113 32	66 490
	900	11 332	67 610
8.4	650	12 555	66 120
	750	12 555	66 960
	900	12 555	68 080

Walkway

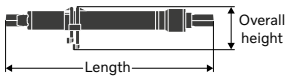
Location	Length	Width	Height	Weight
LH front	1 310	480	65	21
LH rear	1 545	480	65	25
RH front	1 020	480	65	17
RH rear	1 115	480	65	18
Middle	1 210	480	65	21

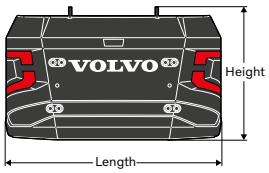
Lower frame with swing ring

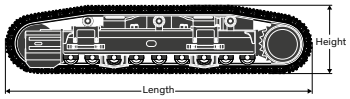
Length (A)	Width (B)	Height	Weight
mm	mm	mm	kg
3 500	2 520	1 095	7 925

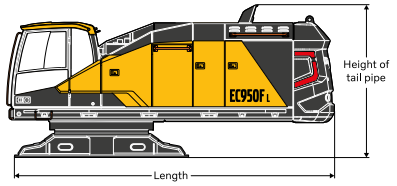
Superstructure w/o swing ring

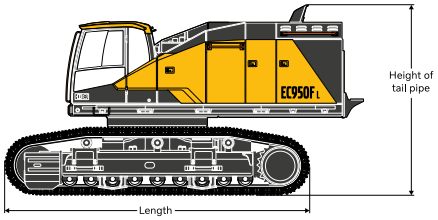
Length (A)	Height of tail pipe(B)	Width	Weight
mm	mm	mm	kg
6 195	2 508	3 475	20 880

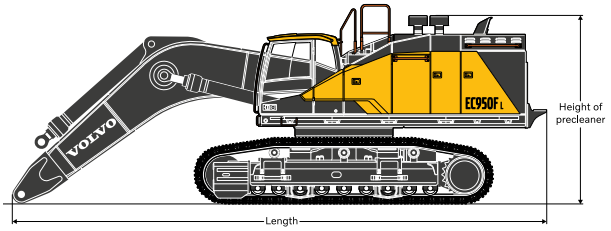


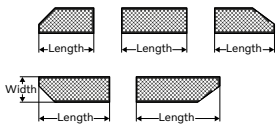








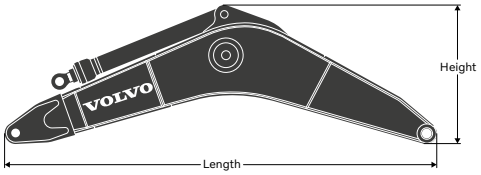




Specifications

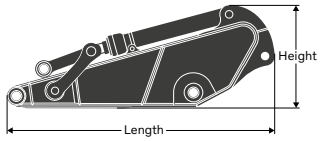
Description		Unit	EC950F	
Boom		**m**	**7.25**	**8.4**
A	Length	mm	7 620	8 770
B	Height	mm	2 430	2 200
Width		mm	1 100	1 100
Weight		kg	9 455	9 925

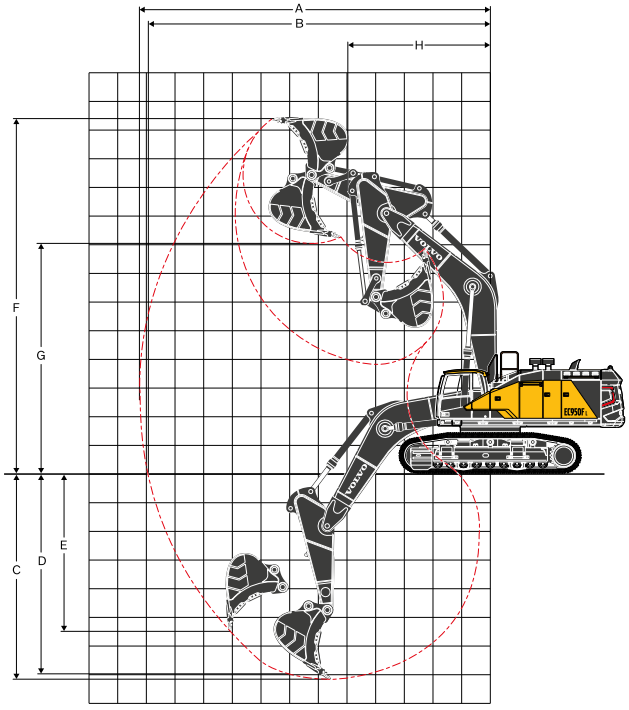
* Includes cylinder, piping and pin



Description		Unit	EC950F	
Arm		**m**	**2.95**	**3.7**
A	Length	mm	4 470	5 210
B	Height	mm	1 675	1 485
Width		mm	740	740
Weight		kg	5 480	5 205

* Includes bucket cylinder, linkage and pin





WORKING RANGES					
Description		**Unit**	**EC950F**		
Boom		**m**	**7.25**	**8.4**	
Arm		**m**	**2.95**	**2.95**	**3.7**
A	Max. digging reach	mm	12 270	13 480	14 020
B	Max. digging reach on ground	mm	11 950	13 190	13 750
C	Max. digging depth	mm	7 120	8 330	8 950
D	Max. digging depth (I = 2.44 m level)	mm	6 980	8 180	8 820
E	Max. vertical wall digging depth	mm	5 390	6 450	7 300
F	Max. cutting height	mm	12 410	13 100	13 280
G	Max. dumping height	mm	8 090	8 790	9 200
H	Min. front swing radius	mm	4 970	6 010	5 910
DIGGING FORCES WITH DIRECT FIT BUCKET					
Bucket radius		mm	2 348	2 348	2 221
Breakout force - bucket	ISO 6015	kN	478	478	388
	SAE J1179	kN	424	424	341
Tearout force - dipper arm	ISO 6015	kN	420	420	359
	SAE J1179	kN	408	408	350
Rotation angle, bucket		kN	170	170	170

LIFTING CAPACITY EC950F

Lifting capacity at the arm end without bucket. For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

		Lifting hook related to ground level		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. reach		
				Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Max. m
Boom:	7.25 m ME	9.0 m	kg							*23 410	*23 410					*20 920	*20 920	7.70
Arm:	2.95 m ME	7.5 m	kg							*23 470	*23 470					*20 070	*20 070	8.71
Shoe:	650 mm	6.0 m	kg			*37 080	*37 080	*29 020	*29 020	*24 780	*24 780	*22 380	20 830			*19 970	19 430	9.37
CWT:	16 100 kg	4.5 m	kg					*32 710	*32 710	*26 610	*26 610	*23 110	20 330			*20 420	17 840	9.77
		3.0 m	kg					*35 880	*35 880	*28 340	25 870	*23 900	19 770			*21 470	17 080	9.92
		1.5 m	kg					*37 410	34 720	*29 400	25 060	*24 320	19 310			*22 040	17 010	9.84
		0 m	kg			*36 060	*36 060	*37 060	34 160	*29 360	24 600	*23 890	19 050			*22 100	17 660	9.52
		-1.5 m	kg	*31 400	*31 400	*43 770	*43 770	*34 900	34 100	*27 850	24 500					*21 980	19 270	8.95
		-3.0 m	kg	*43 890	*43 890	*37 740	*37 740	*30 610	*30 610	*24 000	*24 000					*21 280	*21 280	8.05
		-4.5 m	kg			*28 200	*28 200	*22 570	*22 570							*18 960	*18 960	6.71
Boom:	8.4 m GP	10.5 m	kg													*20 930	*20 930	7.98
Arm:	2.95 m ME	9.0 m	kg							*20 980	*20 980	*19 710	*19 710			*19 670	*19 670	9.21
Shoe:	650 mm	7.5 m	kg							*22 100	*22 100	*19 870	*19 870			*19 040	17 190	10.07
CWT:	16 100 kg	6.0 m	kg					*29 430	*29 430	*23 880	*23 880	*20 700	20 270	*18 820	15 760	*18 710	15 370	10.65
		4.5 m	kg							*25 850	25 550	*21 740	19 530	*19 180	15 420	*18 560	14 300	11.00
		3.0 m	kg							*27 440	24 390	*22 660	18 840	*19 550	15 040	*18 510	13 770	11.13
		1.5 m	kg							*28 220	23 610	*23 170	18 300	*19 660	14 730	*18 490	13 690	11.06
		0 m	kg					*34 670	32 350	*28 010	23 220	*23 050	17 990	*19 190	14 580	*18 440	14 090	10.78
		-1.5 m	kg					*32 520	32 470	*26 770	23 160	*22 030	17 930			*18 250	15 080	10.28
		-3.0 m	kg			*33 510	*33 510	*29 220	*29 220	*24 290	23 400	*19 590	18 180			*17 720	16 990	9.51
		-4.5 m	kg			*27 570	*27 570	*24 190	*24 190	*19 820	*19 820					*16 380	*16 380	8.41
		-6.0 m	kg					*15 720	*15 720									6.81
Boom:	8.4 m GP	10.5 m	kg													*14 500	*14 500	8.90
Arm:	3.7 m GP	9.0 m	kg									*18 180	*18 180			*13 720	*13 720	10.02
Shoe:	650 mm	7.5 m	kg									*18 690	*18 690	*17 500	16 360	*13 390	*13 390	10.81
CWT:	16 100 kg	6.0 m	kg					*27 360	*27 360	*22 580	*22 580	*19 710	*19 710	*17 890	16 070	*13 400	*13 400	11.36
		4.5 m	kg					*31 370	*31 370	*24 760	*24 760	*20 940	19 880	*18 500	15 640	*13 660	13 110	11.68
		3.0 m	kg					*34 530	34 330	*26 690	24 900	*22 100	19 120	*19 110	15 190	*14 230	12 640	11.81
		1.5 m	kg					*35 920	33 030	*27 920	23 950	*22 900	18 490	*19 500	14 810	*15 110	12 550	11.74
		0 m	kg					*35 660	32 480	*28 230	23 380	*23 140	18 070	*19 460	14 550	*16 480	12 850	11.48
		-1.5 m	kg			*28 820	*28 820	*34 160	32 390	*27 540	23 160	*22 620	17 880	*18 670	14 470	*17 270	13 610	11.01
		-3.0 m	kg	*29 970	*29 970	*38 250	*38 250	*31 480	*31 480	*25 720	23 230	*21 020	17 940			*17 040	15 050	10.29
		-4.5 m	kg	*37 450	*37 450	*32 640	*32 640	*27 300	*27 300	*22 370	*22 370	*17 490	*17 490			*16 330	*16 330	9.29
		-6.0 m	kg			*24 420	*24 420	*20 710	*20 710	*16 030	*16 030					*14 450	*14 450	7.87

Notes: 1. Machine in “Fine Mode-F” (Power Boost) for lifting capacities.
2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards.
3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

Specifications

LIFTING CAPACITY EC950F

Lifting capacity at the arm end without bucket. For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

		Lifting hook related to ground level		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. reach		
				Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Max. m
Boom:	7.25 m ME	9.0 m	kg							*23 410	*23 410					*20 920	*20 920	7.70
Arm:	2.95 m ME	7.5 m	kg							*23 470	*23 470					*20 070	*20 070	8.71
Shoe:	750 mm	6.0 m	kg			*37 080	*37 080	*29 020	*29 020	*24 780	*24 780	*22 380	21 000			*19 970	19 590	9.37
CWT:	16 100 kg	4.5 m	kg					*32 710	*32 710	*26 610	*26 610	*23 110	20 500			*20 420	17 990	9.77
		3.0 m	kg					*35 880	*35 880	*28 340	26 080	*23 900	19 940			*21 470	17 230	9.92
		1.5 m	kg					*37 410	35 010	*29 400	25 280	*24 320	19 480			*22 040	17 160	9.84
		0 m	kg			*36 060	*36 060	*37 060	34 450	*29 360	24 810	*23 890	19 220			*22 100	17 810	9.52
		-1.5 m	kg	*31 400	*31 400	*43 770	*43 770	*34 900	34 400	*27 850	24 720					*21 980	19 450	8.95
		-3.0 m	kg	*43 890	*43 890	*37 740	*37 740	*30 610	*30 610	*24 000	*24 000					*21 280	*21 280	8.05
		-4.5 m	kg			*28 200	*28 200	*22 570	*22 570							*18 960	*18 960	6.71
Boom:	8.4 m GP	10.5 m	kg													*20 930	*20 930	7.98
Arm:	2.95 m ME	9.0 m	kg							*20 980	*20 980	*19 710	*19 710			*19 670	*19 670	9.21
Shoe:	750 mm	7.5 m	kg							*22 100	*22 100	*19 870	*19 870			*19 040	17 340	10.07
CWT:	16 100 kg	6.0 m	kg					*29 430	*29 430	*23 880	*23 880	*20 700	20 440	*18 820	15 900	*18 710	15 510	10.65
		4.5 m	kg							*25 850	25 760	*21 740	19 700	*19 180	15 560	*18 560	14 440	11.00
		3.0 m	kg							*27 440	24 610	*22 660	19 010	*19 550	15 180	*18 510	13 900	11.13
		1.5 m	kg							*28 220	23 830	*23 170	18 470	*19 660	14 880	*18 490	13 830	11.06
		0 m	kg					*34 670	32 640	*28 010	23 430	*23 050	18 160	*19 190	14 720	*18 440	14 230	10.78
		-1.5 m	kg					*32 520	*32 520	*26 770	23 370	*22 030	18 100			*18 250	15 230	10.28
		-3.0 m	kg			*33 510	*33 510	*29 220	*29 220	*24 290	23 610	*19 590	18 350			*17 720	17 140	9.51
		-4.5 m	kg			*27 570	*27 570	*24 190	*24 190	*19 820	*19 820					*16 380	*16 380	8.41
		-6.0 m	kg					*15 720	*15 720									6.81
Boom:	8.4 m GP	10.5 m	kg													*14 500	*14 500	8.90
Arm:	3.7 m GP	9.0 m	kg									*18 180	*18 180			*13 720	*13 720	10.02
Shoe:	750 mm	7.5 m	kg									*18 690	*18 690	*17 500	16 500	*13 390	*13 390	10.81
CWT:	16 100 kg	6.0 m	kg					*27 360	*27 360	*22 580	*22 580	*19 710	*19 710	*17 890	16 210	*13 400	*13 400	11.36
		4.5 m	kg					*31 370	*31 370	*24 760	*24 760	*20 940	20 050	*18 500	15 780	*13 660	13 230	11.68
		3.0 m	kg					*34 530	*34 530	*26 690	25 120	*22 100	19 290	*19 110	15 330	*14 230	12 770	11.81
		1.5 m	kg					*35 920	33 320	*27 920	24 170	*22 900	18 660	*19 500	14 950	*15 110	12 680	11.74
		0 m	kg					*35 660	32 770	*28 230	23 600	*23 140	18 240	*19 460	14 690	*16 480	12 970	11.48
		-1.5 m	kg			*28 820	*28 820	*34 160	32 680	*27 540	23 370	*22 620	18 050	*18 670	14 610	*17 270	13 740	11.01
		-3.0 m	kg	*29 970	*29 970	*38 250	*38 250	*31 480	*31 480	*25 720	23 450	*21 020	18 110			*17 040	15 190	10.29
		-4.5 m	kg	*37 450	*37 450	*32 640	*32 640	*27 300	*27 300	*22 370	*22 370	*17 490	*17 490			*16 330	*16 330	9.29
		-6.0 m	kg			*24 420	*24 420	*20 710	*20 710	*16 030	*16 030					*14 450	*14 450	7.87

Notes: 1. Machine in “Fine Mode-F” (Power Boost) for lifting capacities.
2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards.
3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

LIFTING CAPACITY EC950F

Lifting capacity at the arm end without bucket. For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

		Lifting hook related to ground level		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. reach		
				Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Max. m
Boom:	7.25 m ME	9.0 m	kg							*23 410	*23 410					*20 920	*20 920	7.70
Arm:	2.95 m ME	7.5 m	kg							*23 470	*23 470					*20 070	*20 070	8.71
Shoe:	900 mm	6.0 m	kg			*37 080	*37 080	*29 020	*29 020	*24 780	*24 780	*22 380	21 230			*19 970	19 810	9.37
CWT:	16 100 kg	4.5 m	kg					*32 710	*32 710	*26 610	*26 610	*23 110	20 730			*20 420	18 200	9.77
		3.0 m	kg					*35 880	*35 880	*28 340	26 370	*23 900	20 170			*21 470	17 430	9.92
		1.5 m	kg					*37 410	35 410	*29 400	25 570	*24 320	19 710			*22 040	17 370	9.84
		0 m	kg			*36 060	*36 060	*37 060	34 840	*29 360	25 100	*23 890	19 450			*22 100	18 030	9.52
		-1.5 m	kg	*31 400	*31 400	*43 770	*43 770	*34 900	34 790	*27 850	25 000					*21 980	19 670	8.95
		-3.0 m	kg	*43 890	*43 890	*37 740	*37 740	*30 610	*30 610	*24 000	*24 000					*21 280	*21 280	8.05
		-4.5 m	kg			*28 200	*28 200	*22 570	*22 570							*18 960	*18 960	6.71
Boom:	8.4 m GP	10.5 m	kg													*20 930	*20 930	7.98
Arm:	2.95 m ME	9.0 m	kg							*20 980	*20 980	*19 710	*19 710			*19 670	*19 670	9.21
Shoe:	900 mm	7.5 m	kg							*22 100	*22 100	*19 870	*19 870			*19 040	17 540	10.07
CWT:	16 100 kg	6.0 m	kg					*29 430	*29 430	*23 880	*23 880	*20 700	20 670	*18 820	16 090	*18 710	15 700	10.65
		4.5 m	kg							*25 850	*25 850	*21 740	19 930	*19 180	15 750	*18 560	14 610	11.00
		3.0 m	kg							*27 440	24 890	*22 660	19 230	*19 550	15 370	*18 510	14 080	11.13
		1.5 m	kg							*28 220	24 110	*23 170	18 700	*19 660	15 060	*18 490	14 000	11.06
		0 m	kg					*34 670	33 040	*28 010	23 720	*23 050	18 390	*19 190	14 910	*18 440	14 410	10.78
		-1.5 m	kg					*32 520	*32 520	*26 770	23 660	*22 030	18 330			*18 250	15 420	10.28
		-3.0 m	kg			*33 510	*33 510	*29 220	*29 220	*24 290	23 900	*19 590	18 580			*17 720	17 360	9.51
		-4.5 m	kg			*27 570	*27 570	*24 190	*24 190	*19 820	*19 820					*16 380	*16 380	8.41
		-6.0 m	kg					*15 720	*15 720									6.81
Boom:	8.4 m GP	10.5 m	kg													*14 500	*14 500	8.90
Arm:	3.7 m GP	9.0 m	kg									*18 180	*18 180			*13 720	*13 720	10.02
Shoe:	900 mm	7.5 m	kg									*18 690	*18 690	*17 500	16 690	*13 390	*13 390	10.81
CWT:	16 100 kg	6.0 m	kg					*27 360	*27 360	*22 580	*22 580	*19 710	*19 710	*17 890	16 400	*13 400	*13 400	11.36
		4.5 m	kg					*31 370	*31 370	*24 760	*24 760	*20 940	20 280	*18 500	15 970	*13 660	13 400	11.68
		3.0 m	kg					*34 530	*34 530	*26 690	25 410	*22 100	19 520	*19 110	15 520	*14 230	12 930	11.81
		1.5 m	kg					*35 920	33 720	*27 920	24 460	*22 900	18 890	*19 500	15 130	*15 110	12 840	11.74
		0 m	kg					*35 660	33 170	*28 230	23 890	*23 140	18 470	*19 460	14 870	*16 480	13 140	11.48
		-1.5 m	kg			*28 820	*28 820	*34 160	33 080	*27 540	23 660	*22 620	18 270	*18 670	14 800	*17 270	13 920	11.01
		-3.0 m	kg	*29 970	*29 970	*38 250	*38 250	*31 480	*31 480	*25 720	23 740	*21 020	18 340			*17 040	15 380	10.29
		-4.5 m	kg	*37 450	*37 450	*32 640	*32 640	*27 300	*27 300	*22 370	*22 370	*17 490	*17 490			*16 330	*16 330	9.29
		-6.0 m	kg			*24 420	*24 420	*20 710	*20 710	*16 030	*16 030					*14 450	*14 450	7.87

Notes: 1. Machine in “Fine Mode-F” (Power Boost) for lifting capacities.
2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards.
3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

Equipment

STANDARD EQUIPMENT
Engine
Turbocharged, 4 stroke diesel engine with water cooling, direct injection and charged air cooler
Air filter with indicator
Air intake heater
Cyclone pre-cleaner
Electric engine shut-off
Fuel filter and water separator
Alternator, 80 A
Electric / Electronic control system
Contronics
Advanced mode control system
Self-diagnostic system
Machine status indication
Engine speed sensing power control
Emergency engine stop switch
Automatic idling system
Short cut switch
Safety stop/start function
Adjustable 8inch LCD color monitor
Master electrical disconnect switch
Engine restart prevention circuit
High-capacity LED lights:
Cab-mounted 2
Frame-mounted 2
Boom-mounted 4
Batteries, 2 x 12 V / 210 Ah
Start motor, 28 V / 6.6 kW
Frame
Access way with handrail
Full height counterweight 16 100kg
Tool storage area
Side walk-way
Under cover (heavy duty 4.5mm)
Punched metal anti-slip plates
Undercarriage
Mechanically retractable track gauge
Hydraulic track adjusters
Greased and sealed track link
Track Guard
Under cover (10mm)
Hydraulic system
Automatic sensing hydraulic system
Summation system
Boom priority
Arm priority
Swing priority
Boom-swing priority
ECO mode fuel saving technology
Boom and arm regeneration valves
Swing anti-rebound valves
Boom and arm holding valves
Multi-stage filtering system
Cylinder cushioning
Cylinder contamination seals
Auxiliary hydraulic valve
Automatic two-speed travel motors
Hydraulic oil, ISO VG 46

STANDARD EQUIPMENT
Cab and interior
Silicon oil and rubber mounts with spring
Adjustable operator seat with heater and joystick control console
Control joysticks with semi-long
Heater & air-conditioner, automatic
Flexible antenna
Radio with CD player & MP3 player and USB
Hydraulic safety lock lever
Cab, all-weather sound suppressed, includes:
Cup holders
Door locks
Tinted glass
Floor mat
Horn
Large storage area
Pull-up type front window
Removable lower windshield
Seat belt
Safety glass
Sun screens, front, roof, rear
Windshield wiper with intermittent feature
Master key
Track shoes
Track shoes, 650 mm with double grouser
Digging equipment
Boom: ME 7.25 m
Arm: ME 2.95 m
Manual centralized lubrication

OPTIONAL EQUIPMENT
Engine
Block heater: 120 V, 240 V
Dual stage oil bath pre-cleaner
Diesel coolant heater, 10 Kw, 12 Kw
Water separator with heater
Extra water separator
Auto engine shutdown
Fuel filler pump, 100 l/min with automatic shut-off
Reversible cooling fan
Others
Auto fire suppression system
Electric
Extra lights :
Cab-mounted 3 (front 2, rear 1)
Boom-mounted 4
Frame-mounted 2
Counterweight-mounted 1
Travel alarm
Anti-theft system
Rotating warning beacon
Frame
Full height counterweight, removal type 16 100kg

OPTIONAL EQUIPMENT
Undercarriage
Full track guard
Hydraulic system
Hose rupture valve: boom, arm
Straight travel pedal
Boom float function with HRV
Boom float function without HRV
Hydraulic piping:
Work tool management system (up to 20 programmable memories)
Hammer & shear, 1 and 2 pump flow
Hammer & shear: variable flow and pressure pre-setting
Additional return filter
Slope & rotator
Grapple
Quick coupler piping
Hydraulic oil, ISO VG 32, 68
Hydraulic oil, biodegradable 46
Hydraulic oil, longlife oil 32, 46, 68
Hydraulic hose for Artic

OPTIONAL EQUIPMENT
Cab and interior
One-piece fixed front windshield
Fabric seat without heater
Fabric seat with heater and air suspension
Control joysticks with 4 switches each
Control joysticks with 3 switch & 1 propotional
Pilot control pattern change
Opening top hatch
Front rain shield
Falling object guard (FOG)
Frame-mounted
Cab-mounted
Cab-mounted falling object protective structure (FOPS)
Smoker kit (ashtray and lighter)
Safety net for front window
Sunlight protection, roof (steel)
Lower wiper with intermittent control
Cleaning air gun
Rear view camera
Side view camera
Volvo smart view
Dig assist
On board weighting system
Specific key
Track shoes
750/900mm track shoes with double grousers
Digging equipment
Boom: 8.4m
Arm: 3.7m
Service
Tool kit, daily maintenance
Tool kit, full scale
Special tool for retractable frame
Automatic lubrication system

SELECTION OF VOLVO OPTIONAL EQUIPMENT

X1/X3 quick fit auxiliary lines

HEPA cab air filter

Boom float

Volvo Smart View

Coolant heater

Dig Assist, powered by Volvo Co-Pilot

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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