

Diaphragm Wall Equipment

SC-130 Tiger PLUS



soilmec 
Drilling and Foundation Equipment

SC-130 Tiger Plus Diaphragm Wall Equipment

FOCUS OVERVIEW



Multipurpose diaphragm wall equipment.

The SC-130 Tiger can be equipped in three different versions: Hydromill, Hydraulic Grab or Mechanical Grab

Hose chain system up to 120 m depth

Motorized swivel for module rotation system +/- 90°

Independent mobile flaps for accurate verticality – 6 upper (3 position) and 6 lower (2 position)

Filters on the main hydromill lines

Soilmec H-cab with outstanding volume (1050 mm wide), Air-suspended seat, TouchScreen & Adjustable monitor 12" for DMS and sliding door

New heat exchange design and control perform the greatest overall efficiency, power and noise emission performance

Two free fall winches of 350 kN with closed loop circuit

Compact layout for urban job sites, just 11,2 m from tail to centre of excavation

Min transport configuration under 48 tons

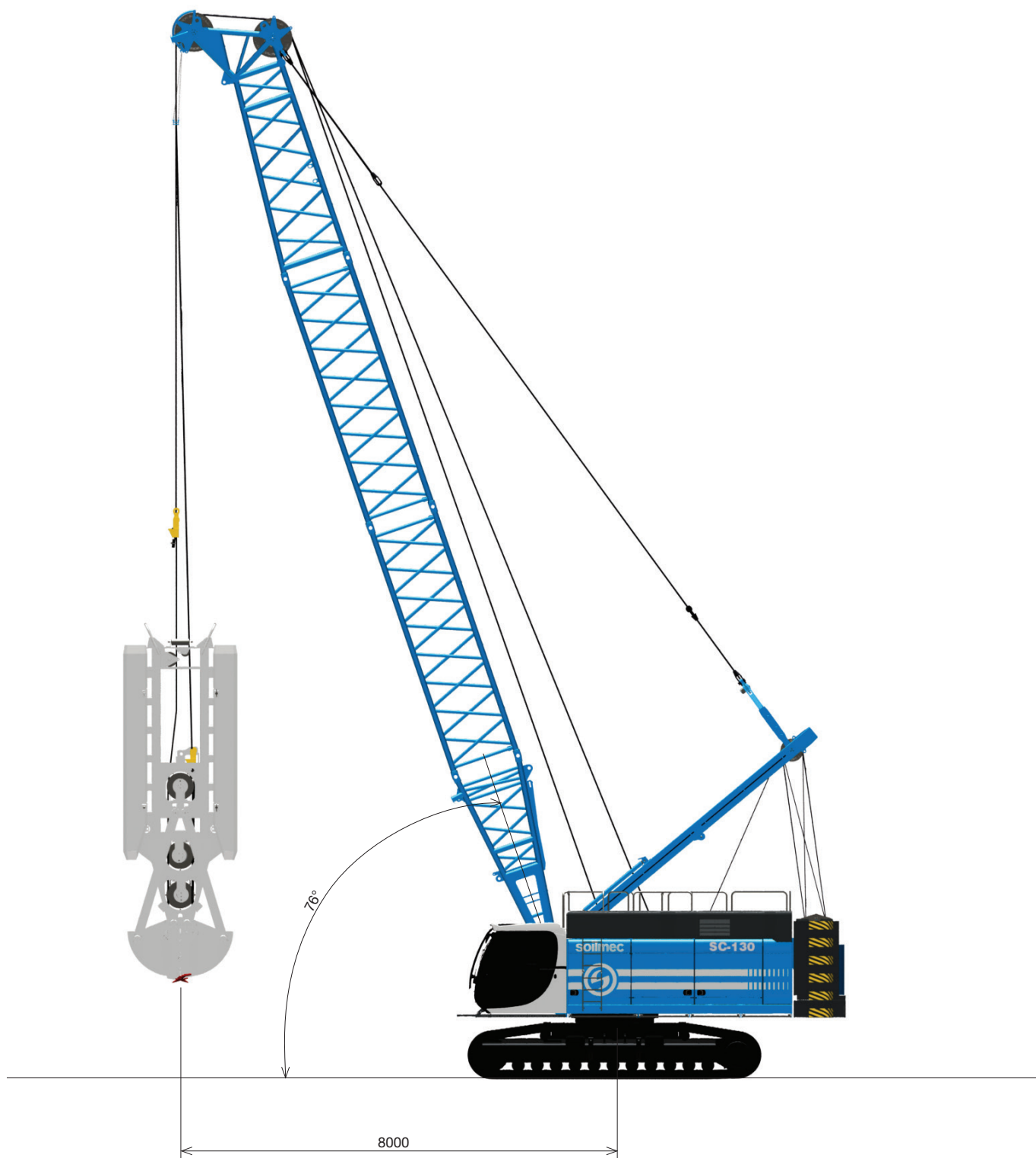
SC-130 Tiger Plus Diaphragm Wall Equipment



SC-130 Tiger PLUS

Operating weight	185000 kg	407855 lb
Operating height	24,5 m	80 ft
Max depth	120 m	394 ft
Milling unit	SH-30 / SH-40	SH-30 / SH-40

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SC-130 c/w mechanical grab		
Operating weight	120 t	132 US ton
Max grab weight	35 t	39 US ton
Winches	2 x 350 kN	78682 lbf

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TECHNICAL DATA SHEET

Diesel engine	CAT C18	<i>CAT C18</i>
Max Rated Power	563 kW @ 1800 rpm	<i>755 HP @ 1800 rpm</i>
- Engine conforms to exhaust emissions standard	EU Stage V / US EPA Tier 4f	<i>EU Stage V / US EPA Tier 4f</i>
- Fuel tank capacity	1100 l	<i>290.6 US gal</i>
- Hydraulic oil tank capacity	1250 l	<i>330.2 US gal</i>
Main pums max oil flow		
- Main pums max oil flow cutter	315 + 2x420 l/min	<i>83 + 2 x 111 US gal</i>
- Main auxiliary pums max oil flow (base machine)	2x 384 l/min	<i>2 x 101 US gal</i>
Main winches		
- Type	Free fall type	<i>Free fall type</i>
- 1st layer line pull (nominal load)	350 kN	<i>78682 lbf</i>
- Rope diameter	36 mm	<i>1.42 in</i>
- Rope speed (max)	77 m/min	<i>253 ft/min</i>
- Max rope length on winch	144 m	<i>472 ft</i>
Boom		
	Lattice type	<i>Lattice type</i>
- Length (Hydromill version)	22 m	<i>72 ft</i>
- Length (Grab version)	12 - 56 m	<i>39 - 184 ft</i>
Undercarriage		
	Variable gauge	<i>Variable gauge</i>
- Overall width	6000 mm	<i>236.22 in</i>
- Overall length of crawlers	6700 mm	<i>263.78 in</i>
- Track shoe width	1000 mm	<i>39.37 in</i>
- Track shoe style	Triple grouser	<i>Triple grouser</i>
- Travel speed	0,8 - 1,6 km/h	<i>0.5 - 1.0 mph</i>
- Traction force	722 kN	<i>162309 lbf</i>
Upper structure		
- Turret width	3500 mm	<i>137.79 in</i>
- Slewing speed	2,5 rpm	<i>2.5 rpm</i>
- Swing tail radius	5310 mm	<i>209.05 in</i>

STANDARD EQUIPMENT

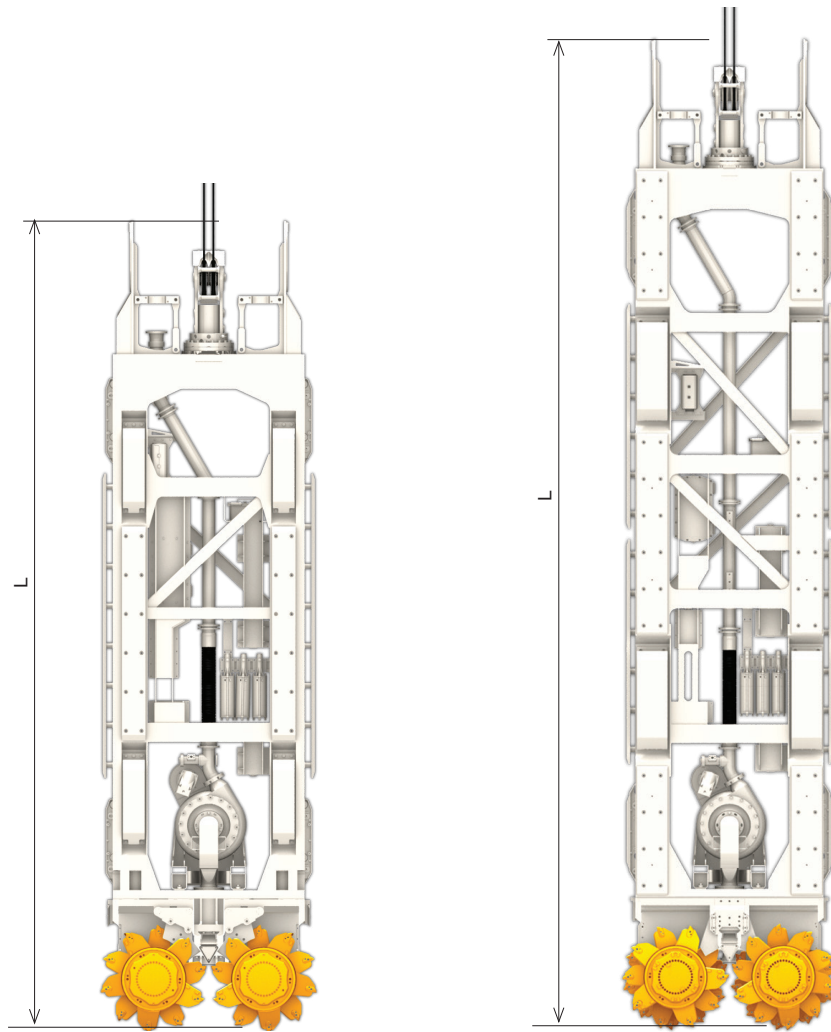
- Hydro-clean micro filtration with water separation
- In cab warning alarm in case of hydraulic oil contamination
- Electro-proportional control system
- High pressure filters on the main lines
- Drain tank c/w filters for drain oil lines
- Hydraulic hose set for 80 m depth complete with an extra spare hose
- Heavy Duty Mud Hose Assembly for 80 m depth
- DMS system for a total control over machine performance and excavation parameters
- DMS PC software for production data analysis and report
- 8 video-cameras
- Lashing Points on undercarriage for transport
- Assembly mode selector for safe rigging / de-rigging
- Remote Control Board for assembly disassembly and transport phase
- Remote control board for teeth changing
- Prearrangement for hydraulic and mechanical grab
- Heat control system (Noise reduction)
- High efficiency hydraulic layout for energy saving
- Refueling pump
- +/-90° swivel rotation system
- Platform catwalk handrails

OPTIONAL EQUIPMENT

- Hydraulic oil filtering external group complete with oil contamination indicator
- DMS PC 3D option for panels overlap control
- Diesel engine Tier 2 CAT C18 570 kW
- Prearrangement for casing oscillator
- Fixed gauge undercarriage with removable side frames
- Flat track shoes
- Access ladder and catwalks on the boom
- Safety Life Line on the boom
- Automatic greasing kit
- Complete safety equipments for CE request of EN16228
- Customer kit - impact wrench, greasing kit on base carrier, oil pump, water pump c/w winder and lance
- Hydraulic hose for 120 m depth c/w extra spare hose
- Heavy duty mud hose assembly for 120 m depth

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SH-30 / SH-40 MODULE DATA SHEET



ModuleType	SH-30	SH-30	SH-40	SH-40
Body length (L)	10,5 m	34.4 ft	13 m	42.7 ft
Weight class	30000 kg	66139 lb	40000 kg	88185 lb
Torque range	93 - 131 kNm	68593 - 96620 lbf*ft	93 - 153 kNm	68593 - 112847 lbf*ft
Drilling speed range	23 - 16 rpm	23 - 16 rpm	23 - 14 rpm	23 - 14 rpm
Trench length range	2600 / 3000 mm	102.4 / 118.1 in	2800 / 3200 mm	110.2 / 126 in
Trench width range	700 / 1200 mm	27.6 / 47.2 in	800 / 1500 mm	31.5 / 70.9 in

STANDARD EQUIPMENT

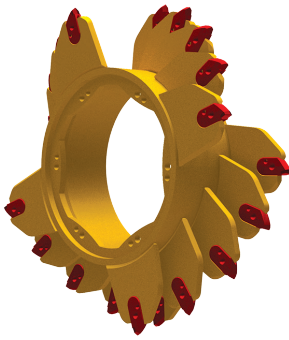
- Double axis inclinometer
- DMS verticality control system
- Scrapers folding system allows a fast drums assembly/disassembly
- Independent mobile flaps, 6 upper (3 position) and 6 lower (2 position)
- High performance mud pump (170 kW)
- Anti-wearing interchangeable flipper teeth cam
- Wide range of cutting drums for the various soil types
- Module rotation system ($\pm 90^\circ$)
- Motoreducer tungsten protection plate

OPTIONAL EQUIPMENT

- Simultaneous or independent tilting cutters
- Triple axis inclinometer
- High accuracy triple axis inclinometer (especially designed for depth excavation)

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CUTTING DRUMS CHART



Standard Teeth Drums

Coarse and cohesive soil, alluvial soil with small size of soft rocks boulders, medium-soft decompressed rocks (10 MPa UCS)



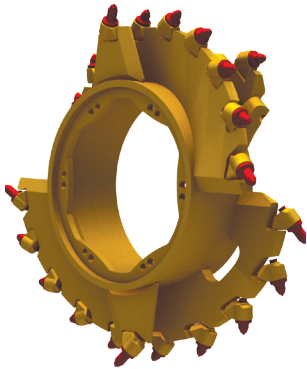
HD Teeth Drums

Mixed soils, fractured and medium decompressed rocks (20 Mpa UCS)



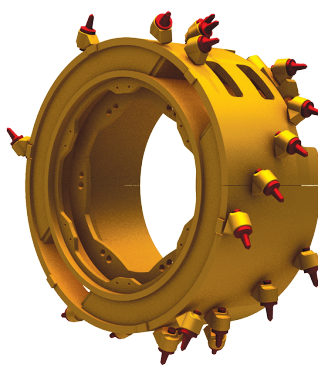
Standard Pick Drums

Mixed soils with boulders, fractured and medium-hard decompressed rocks (20-50 Mpa UCS)



Auger Pick Drums

Low fractured medium and hard rock formation (30-100 MPa UCS)



HD Pick Drums

Not fractured hard-extremely hard rock formation (50-300 MPa UCS)

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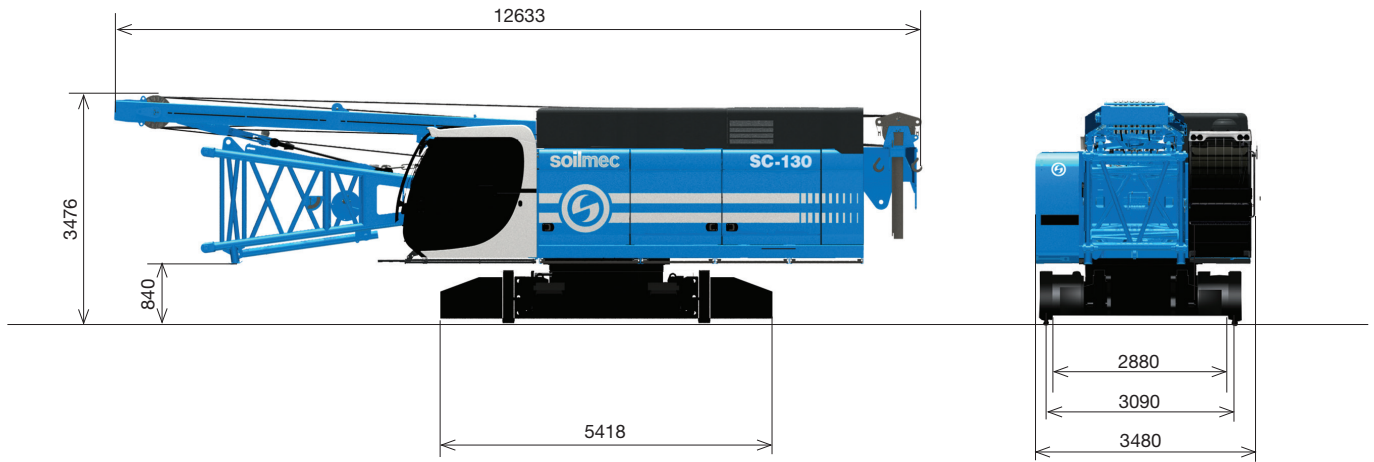
HYDROMILL CUTTING UNIT

Panel width	800 mm / 31.5 in	1000 mm / 39.4 in	1200 mm / 47.3 in	1500 mm / 59 in
H-9/11	■	■	■	
HH-11		■	■	■
HH-13/15				■

Cutting Unit	H-9	H-9	H-11/HH-11	H-11/HH-11	HH-13	HH-13	HH-15	HH-15
Rated torque	93 kNm	68593 lbf*ft	109 kNm	80394 lbf*ft	131 kNm	96620 lbf*ft	153 kNm	112847 lbf*ft
Drilling Speed	23 rpm	23 rpm	20 rpm	20 rpm	16 rpm	16 rpm	14 rpm	14 rpm

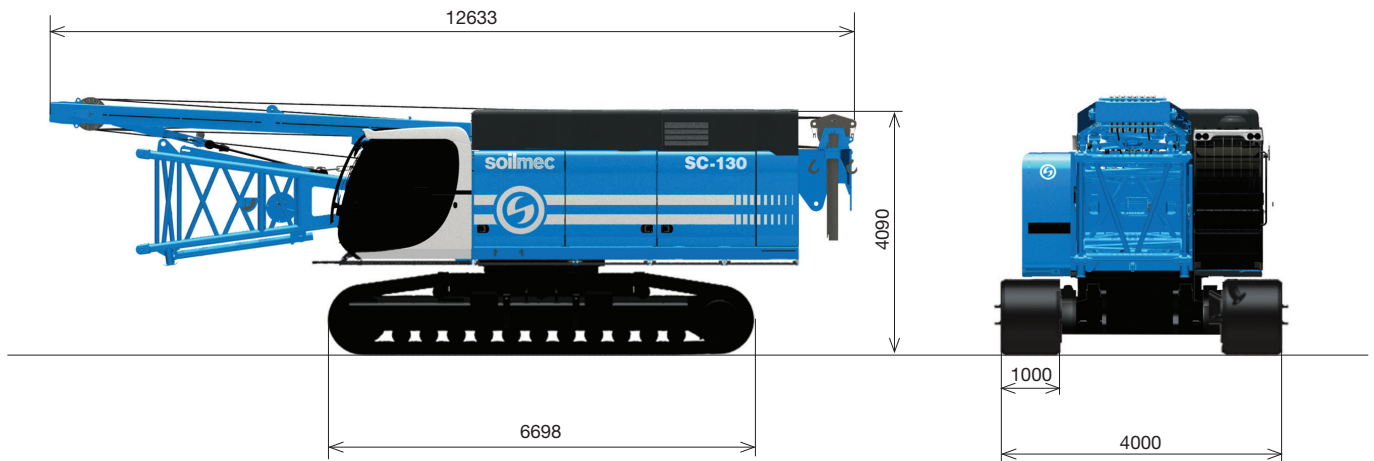
SC-130 HD Tiger Plus Diaphragm Wall Equipment

TRANSPORT, DIMENSIONS AND WEIGHTS



Main machine (SC37 FW undercarriage)

Width	3500 mm	137.8 in
Weight	49000 kg	108025 lb



Main machine (SC39 FW undercarriage)

Width	4000 mm	157.5 in
Weight	79500 kg	175268 lb

Counterweight (36t / 79366 lb)

Base width	1125 mm	44.3 in
Base weight	17000 kg	37480 lb
Block width	996 mm	39.2 in
Block weight	15500 kg	3420 lb

Sideframes

Width	1000 mm	39.4 in
Weight	14000 kg	30864.7 lb

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