

# R-210

HYDRAULIC ROTARY RIG









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## HYDRAULIC ROTARY RIG

### A new model

Several jobsites require equipment suitable to have short rig up time and easy to operate in narrow locations. SOILMEC meets these requirements marketing the new R-210, a solid machine completely self-erecting with high performances and minimum operating costs.

#### The main characteristics of R-210 are the following:

- New powerful diesel engine: 156 HP.
- New powerful hydraulic pumps and new Load Sensing system.
- Higher torque on rotary table: 96 kNm.
- Higher drilling speed: 43 rpm.
- Touch screen monitor handling rig performances.
- Self-erecting rig; Kelly bar does not need to be removed.
- No special road permits required.

#### Touch-screen monitor features:

- One display controls all parameters and alarms of the rig of diesel engine and all machine alarms.
- Machine operated by two electro-proportional controls only.
- Automatic positioning and control of the mast verticality.
- Real displaying of the different turret positions.
- Automatic repositioning of the turret inside the hole (servo-controlled).
- Displaying of the rotary speed, depth, inclination, etc.
- Easy determination of the damages (trouble shooting) for the necessary interventions and controls. On appearance of the alarm, the display will show a window with relevant suggestions.
- Help on line thanks to the displaying of manual pages with suggestions to the operator of the controls to be set and performed.
- Scheduled maintenance: the system will inform the operator about the maintenance operations to be carried out. The system will record the information time, the operator and the time at which the information has been recognized.

#### Large diameter bored pile

Max pile diameter	mm	1200
Max pile depth	m	32 (with 4x9 kelly bar)
	m	40 (with 5x9 kelly bar)
Max nominal torque	kNm	100
Max drilling speed	rpm	43
Spin off speed	rpm	147
Main winch nominal line pull	kN	103
Auxiliary winch nominal line pull	kN	41
Engine	type	CUMMINS QSB5.9-30-T
Power	BHP	116 (156) @ 2200 rpm
Crowd system	kN	124 / 68
Operating weight	tons	27
Transport weight (c/w kelly bar)	tons	26

The nominal values are referred to 100% total efficiency.

#### Continuous Flight Auger (CFA)

		line pull 2 <sup>nd</sup> layer	line pull 4 <sup>th</sup> layer
Max pile diameter	mm	750	750
Max pile depth (w/o auger cleaner)	m	10.5	15.3
Max nominal extraction force	kN	140	280
Transport weight	tons	24.3	26

#### Friction kelly bar – Ø 324 mm

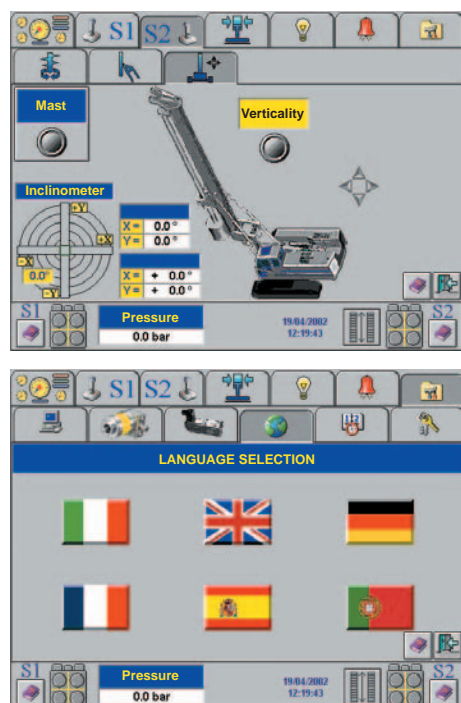
elements no	length m	depth m	weight tonn	H height m
4x	8,0	28,5	2,7	4,3
4x	9,0	32,5	3,0	3,3

#### Mechanical locking kelly bar – Ø 324 mm

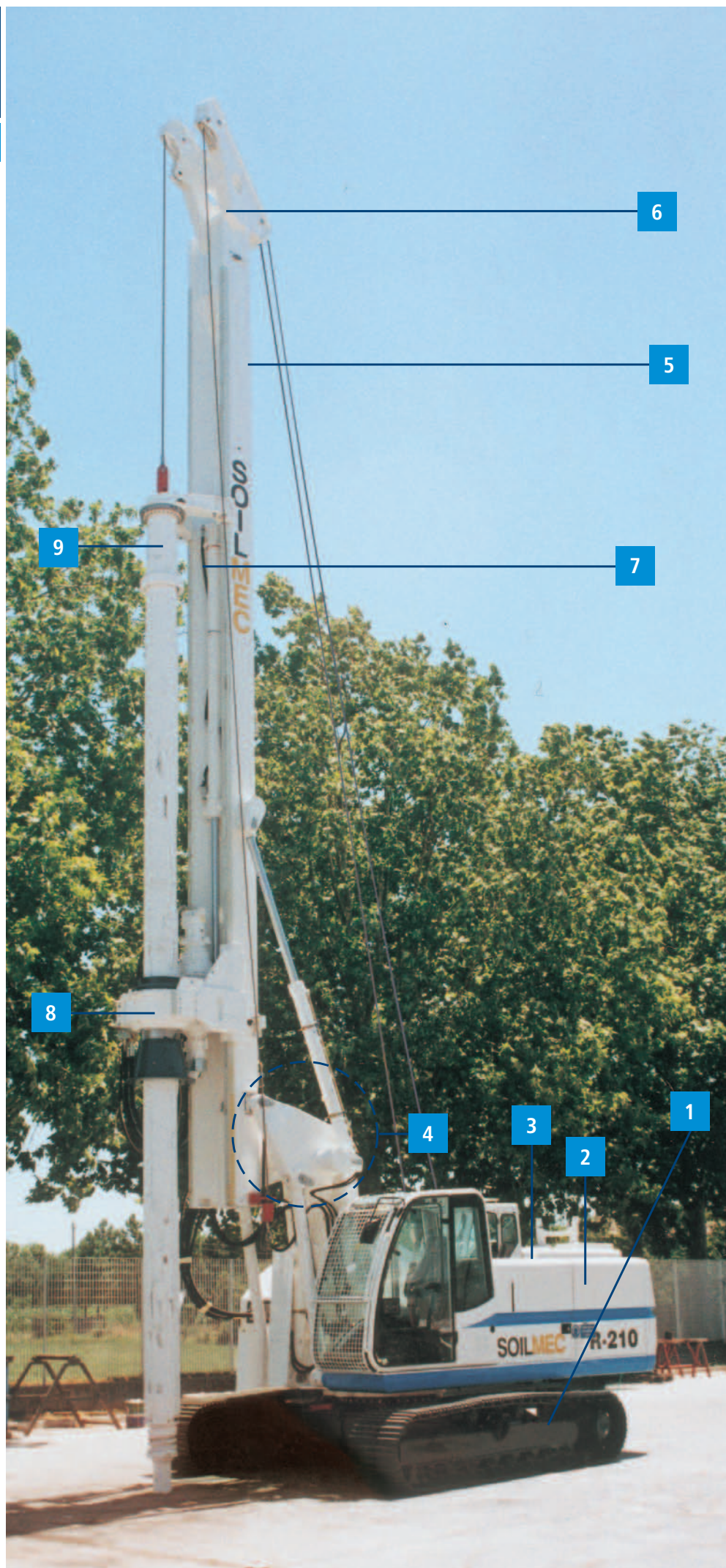
elements no	length m	depth m	weight tonn	H height m
4x	6,5	21,0	2,3	4,7
4x	9,0	32,5	3,0	3,3

Standard dimension of tool connection is 130x130 mm / H= kelly stub height from ground level

- 1 - Undercarriage class FL6 with expandable tracks from 2,5 to 3,4 m. by means of hydraulic cylinders.
- 2 - Turret c/w CUMMINS diesel engine and soundproofed canopy, mounted on a 360 degrees slew ring.
- 3 - Winch assembly.
- 4 - Parallelogram system allowing working radius adjustment always maintaining the mast in vertical position. Complete with electronic device for automatic stop.
- 5 - Self-erecting mast which can withstand the max torque over the whole length. Is composed by main mast plus separate sheave cathead kelly type or CFA type.
- 6 - Cathead.
- 7 - Crowd system by 3 m stroke hydraulic cylinder.
- 8 - 100 kNm torque rotary table c/w two hydraulic motors and reducers.
- 9 - Telescopic kelly bar with guide. Available with friction or mechanical locking type.



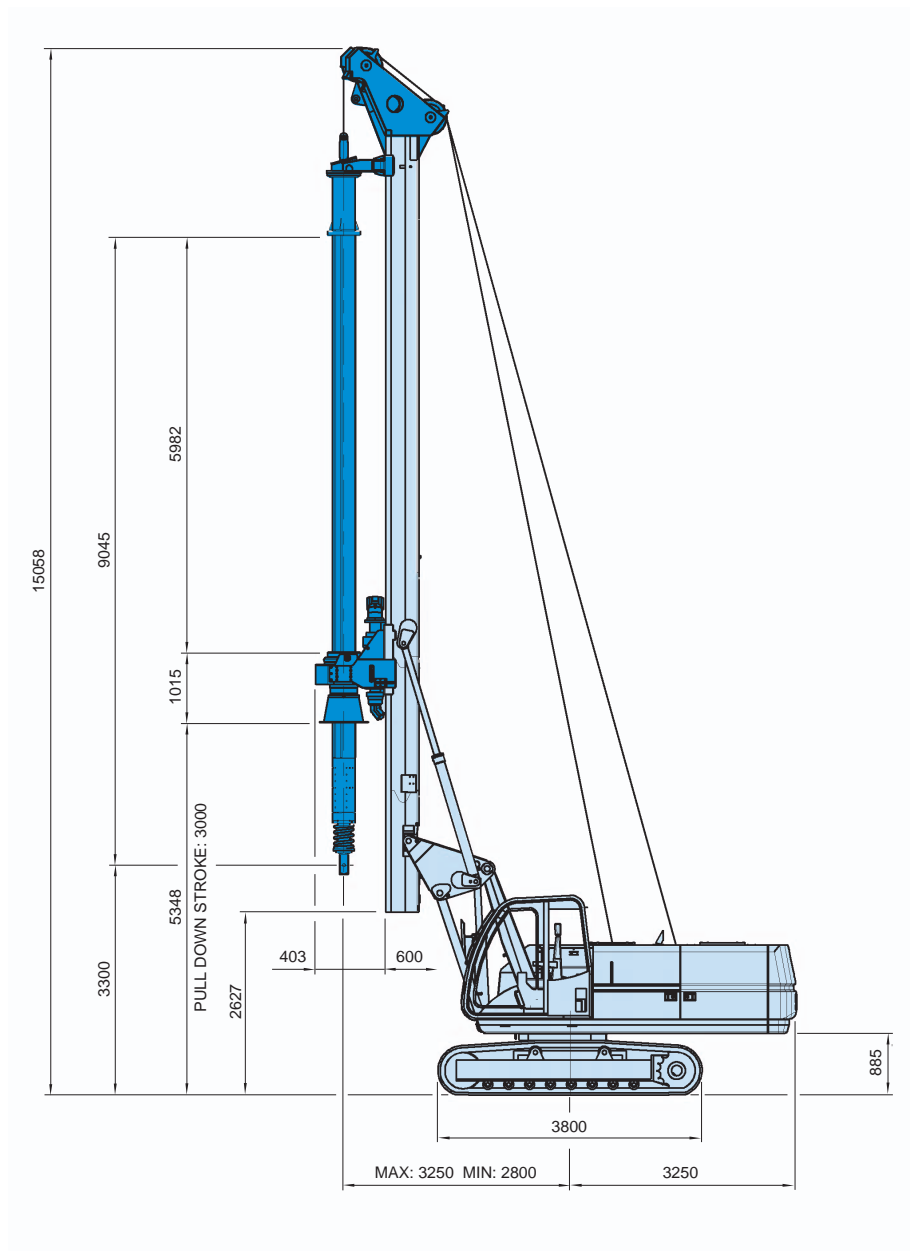
Touch screen monitor



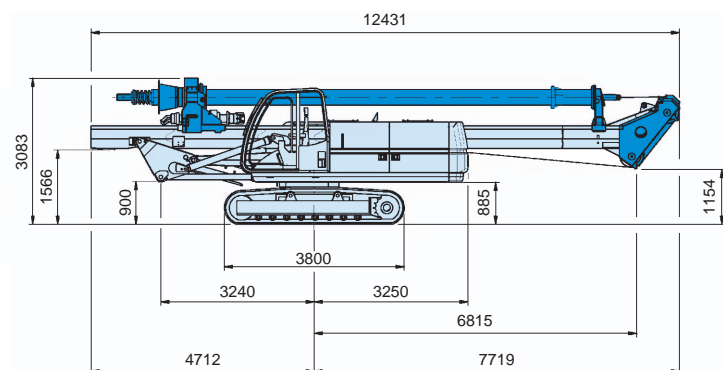
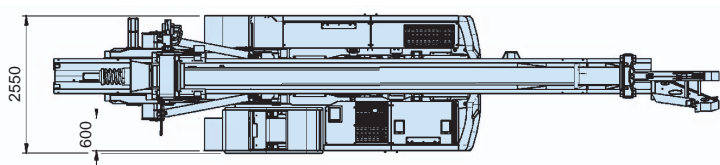
# R-210

## LARGE DIAMETER BORED PILE

### Working Condition



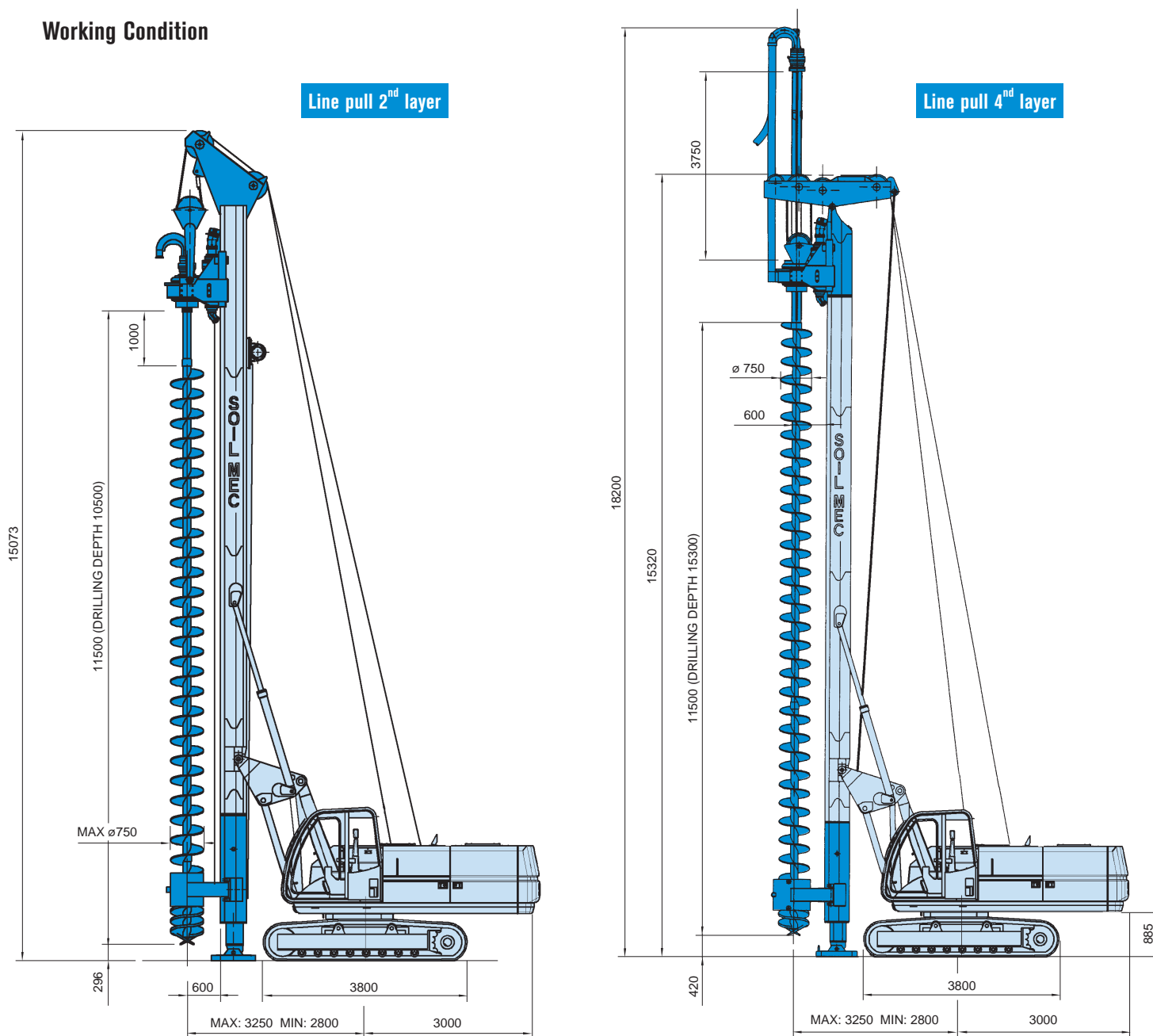
### Transport Condition



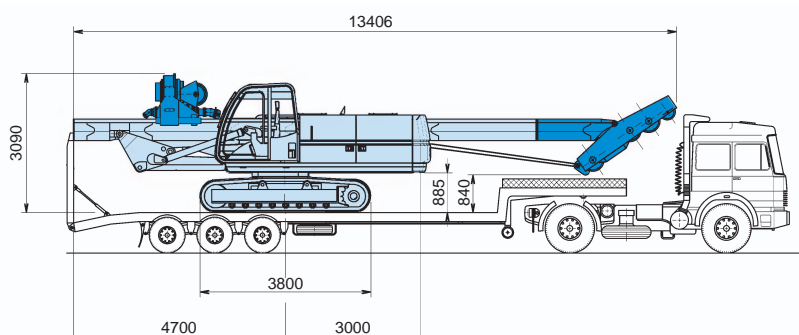
# R-210

## CONTINUOUS FLIGHT AUGER

### Working Condition



### Transport Condition (line pull 4<sup>th</sup> layer)





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## CERTIFIED QUALITY SYSTEM

In 1990 Soilmec was awarded the certification of its own Quality System to ISO 9001/UNI 29001 series standards.



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