

SR-30

HYDRAULIC ROTARY RIG



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HYDRAULIC DRILLING RIG

The hydraulic drilling rig SR-30 is mounted on a SOILMEC base carrier and has been specially designed for suiting the following applications:

- **cased bore piles** with casing driven directly through rotary head or optionally by casing oscillator powered by the base carrier itself;
- **deep bored piles** stabilized by drilling fluid or dry hole;
- **CFA piles** by means of very long auger string;
- **soil-mixing**.

The SR-30 is equipped with the **DRILLING MATE SYSTEM (DMS)** on 12" touch screen for monitoring and control of the operating parameters.

The **standard DMS equipment** is composed of:

- PLC controller for all electrically actuated functions
- fault checking and reporting
- monitor unit designed to display:
- engine informations and diagnostic capability
- pump pressures
- mast verticality
- drilling depth
- rotary speed and pressure
- crowd pressure
- graphics drilling trends

Additional **DMS optional** features:

- recording of operating data into storage card
- DMS-PC software package to analyze and print production data and Job site daily reports
- automatic turret hole centering
- automatic mast verticality
- CFA kit for automatic auger lifting
- remote transmission of process and operating data
- tele assistance

LARGE DIAMETER BORED PILES (LDP)

* Emission certification:
EU stage III / US EPA Tier3

Main performances

Max pile diameter	mm	1500
Max pile depth	m	48

Undercarriage

Overall length	mm	4510
Track shoe width	mm	600
Overall width (extended side frames)	mm	3700
Overall width (retracted side frames)	mm	2550
Ground pressure	MPa	0,08
Travelling speed	km/h	2,2

Diesel engine

Model	type	CUMMINS QSB 6,7*
Rated power	kW (HP)	164 (220)

Hydraulic pumps

Main pumps	l/min	352
Auxiliary pumps	l/min	96, 37, 24
Max working pressure	MPa	30

Main winch

Controlled descent

1st layer nominal line pull	kN	135
1st layer nominal rope speed	m/min	78
Rope diameter	mm	22

Auxiliary winch

Controlled descent

1st layer nominal line pull	kN	65
1st layer nominal rope speed	m/min	58
Rope diameter	mm	18

Rotary without shifting gear box (Standard)

Maximum nominal torque	kNm	130
Max spin off speed	rpm	143
Maximum drilling speed	rpm	39

Rotary 3 shifting gear box high speed (Optional)

Maximum nominal torque	kNm	130	70	20
Max spin off speed	rpm	-	-	-
Maximum drilling speed	rpm	32	60	106

Crowd cylinder (Standard)

Crowd force (pull down/pull up)	kN	102 / 124
Pull down stroke	mm	3500

Winch crowd system (Optional)

Crowd force (pull down/pull up)	kN	200
Pull down stroke	mm	13000

CONTINUOUS FLIGHT AUGER (CFA)4th line pull**Main performances**

Max pile diameter (w. roller type auger cleaner)	mm	750 (750)
Max pile depth (w. roller type auger cleaner)	m	19,5 (18,5)
Max extraction force	kN	380
Crowd force on auger (option)	kN	37

CONTINUOUS FLIGHT AUGER (CFA)2th line pull**Main performances**

Max pile diameter (w. roller type auger cleaner)	mm	750 (750)
Max pile depth (w. roller type auger cleaner)	m	18,7 (17,5)
Max extraction force	kN	330
Crowd force on auger	kN	100

TURBOJET**Main performances**

Max pile diameter (2nd/4th line pull)	mm	900 / 900
Max pile depth (2nd/4th line pull)	m	18 / 18,3
Max extraction force (2nd/4th line pull)	kN	200 / 380
Crowd force on tool (2nd/4th line pull)	kN	200 / 380

WEIGHT & DIMENSIONS

* c/w kelly, w/o tool

		LDP version	CFA version	TJ version
Transport width	mm	2550	2550	2550
Transport height	mm	3330	3330	3330
Transport length	mm	12424	12424	12424
Operating weight	ton	36 *	36	35
Minimum transport weight	ton	36 *	32,5	32,5

KELLY BARS

Standard dimension of tool connection is 130x130 mm

H = kelly stub height from ground level

Mechanical locking kelly bar – Ø 355 mm	elements n°	length m	depth m	weight ton	H height m
	3x	9,0	25,0	3,1	4,4
	3x	11,0	28,3	3,5	2,8
	4x	7,5	25,4	2,9	6,8
	4x	9,0	34,1	3,3	5,2
	4x	11,0	38,5	3,9	3,6
	4x	12,5	45,2	4,4	1,9
Friction kelly bar – Ø 355 mm	elements n°	length m	depth m	weight ton	H height m
	4x	6,0	18,9	2,4	8,5
	4x	7,5	25,4	2,9	6,8
	4x	9,0	32,1	3,3	5,2
	4x	11,0	38,7	4,0	3,6
	4x	12,0	44,6	4,3	2,3
	5x	8,5	38,4	4,1	5,6
	5x	9,0	39,9	4,3	5,2
	5x	10,0	45,2	4,7	4,2
	5x	11,0	48,3	5,1	3,6

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MAIN FEATURES

- 1 - **Undercarriage** with expandable tracks from 2,55 to 3,7 m by means of hydraulic cylinders
- 2 - **Soilmec turret** CUMMINS QSB 6.7 engine and sound proofed canopy, mounted on a 360 degrees slew ring
- 3 - **Winch** assembly
- 4 - **Parallelogram system** which allows various working radius and always maintaining the mast in vertical position. C/w electronic device for automatic stop
- 5 - **Self-erecting mast** which can withstand the max torque over the whole length. It is composed by 12,3 m intermediate element and 3,5 m top element
- 6 - **Sheave cathead**
- 7 - **Crowd system** by 3,5 m hydraulic cylinder
- 8 - **Rotary head** with 3 hydraulically shifted drilling speeds and one high speed spin-off. On request a gear with 3 mechanical shifts is available
- 9 - **Telescopic kelly bar** with guide on mast either available friction or mechanical locking type
- 10 - **Touch screen display** 12". Drilling Mate System with drill data storage available

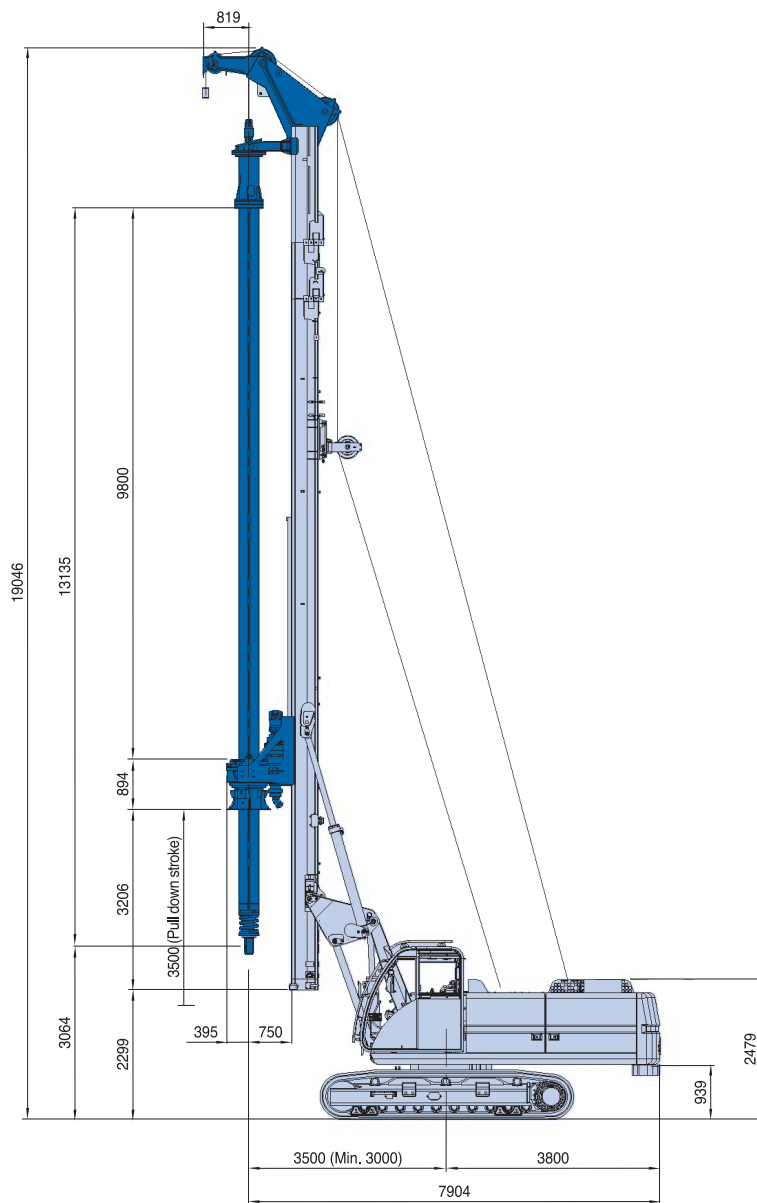
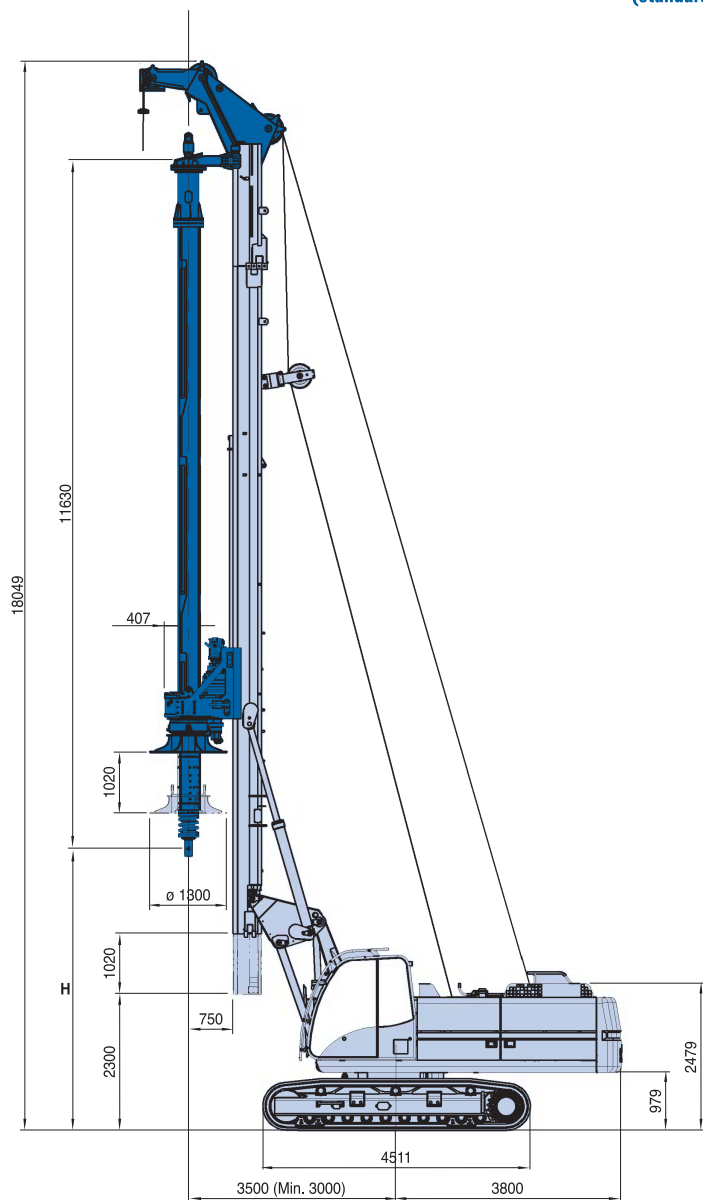


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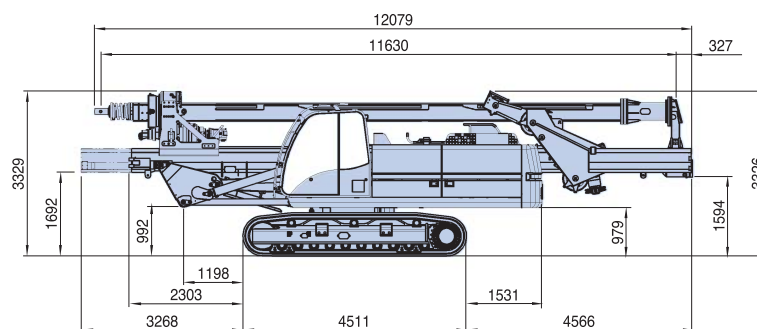
LARGE DIAMETER BORED PILES (LDP) VERSION

Crowd cylinder
(standard)

With 1m mast extension

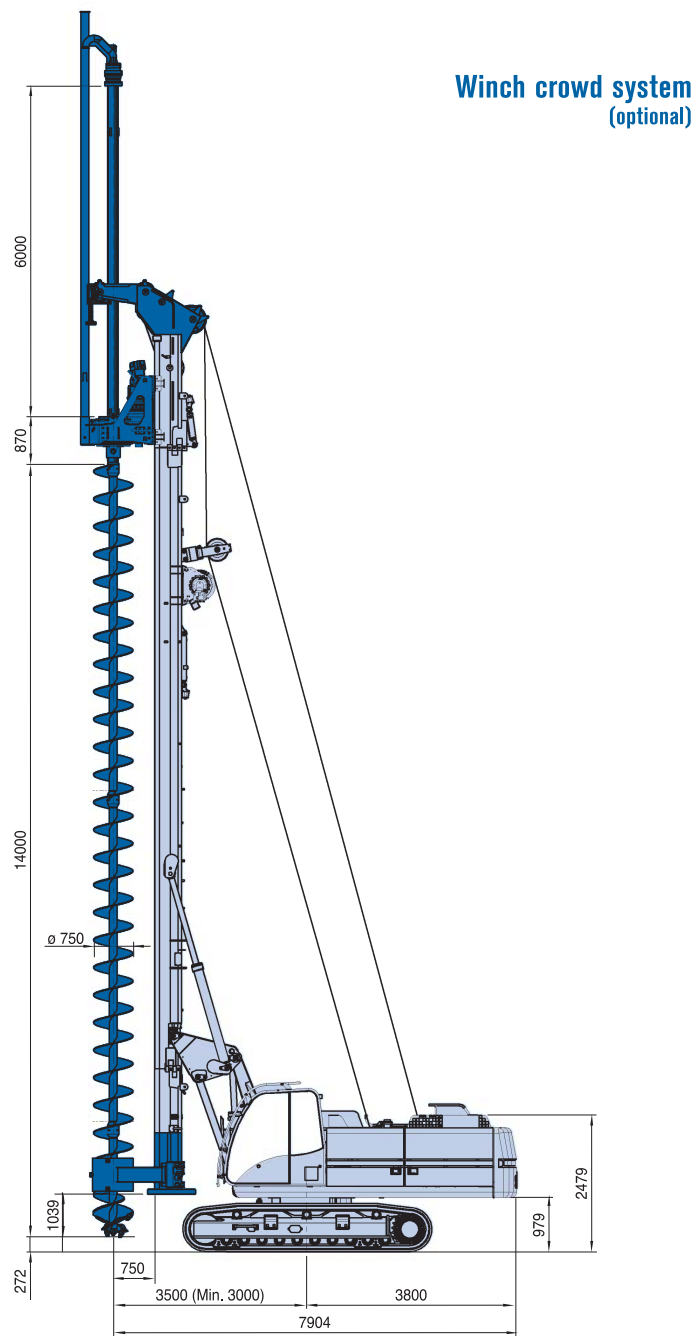


LDP Transport Condition



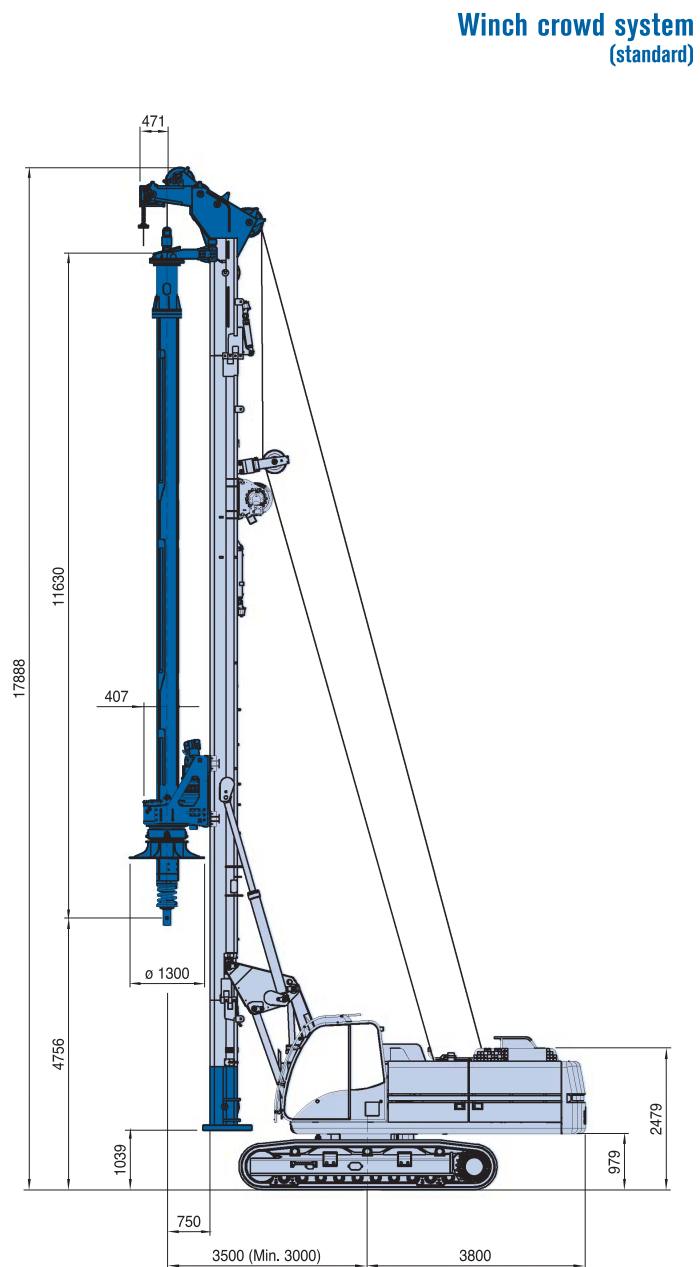
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CONTINUOUS FLIGHT AUGER (CFA) VERSION

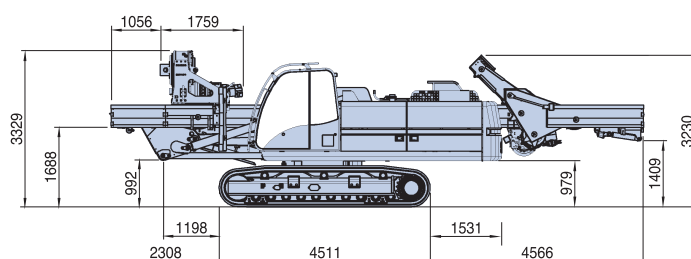


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LARGE DIAMETER BORED PILES (LDP) VERSION



CFA Transport Condition





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CERTIFIED QUALITY SYSTEM

In 1990 Soilmec was awarded with the certification of its Quality System complying with ISO 9001:2000 and ISO 14001:2004 standards.



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All technical data are purely indicative and subject to change without notice

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