



C8^{XP-2}

HYDRAULIC CRAWLER DRILL
FOR GROUND ENGINEERING



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The Casagrande C8 XP-2 is a hydraulic drill rig designed for foundation projects, particularly suited for the execution of anchors, micropiles and jet grouting treatments. Powerful and versatile, it offers the performance required to operate efficiently in a wide range of ground engineering applications.

Designed and built using state-of-the-art technology, the C8 XP-2 combines advanced engineering solutions with a robust structure to ensure reliable performance in the most demanding jobsite conditions. The machine has been engineered with particular emphasis on performance, efficiency, reliability and operational economy, allowing contractors to achieve high productivity while maintaining optimized operating cost.

1. "EP" ROTARY HEAD WITH ELECTRO-PROPORTIONAL CONTROL OF DISPLACEMENT

Different settings can be defined according to jobsite requirements or operator preferences.

2. HEAVY DUTY MODULAR MAST

Extraction force 100 kN, stroke of single rotary head 10 m

3. FRONT THE WALL JOINT

Continuous movements $\pm 93^\circ$ without stops and without manual operation

4. CLAMP UNIT TYPE M42-M42S

Clamping force 283 kN - diameter 60÷424 mm

5. HD UNDERCARRIAGE WITH 360° SLEWRING

Long and wide tracks for low bearing pressure and high stability

6. POWERFUL DIESEL ENGINE

Power 209 kW at 2200 rpm

7. SPM - SMART POWER MANAGEMENT SYSTEM

Full load sensing hydraulic



209 kW
Diesel engine power



70 kNm
Max. torque



10000 mm
Rotary head stroke

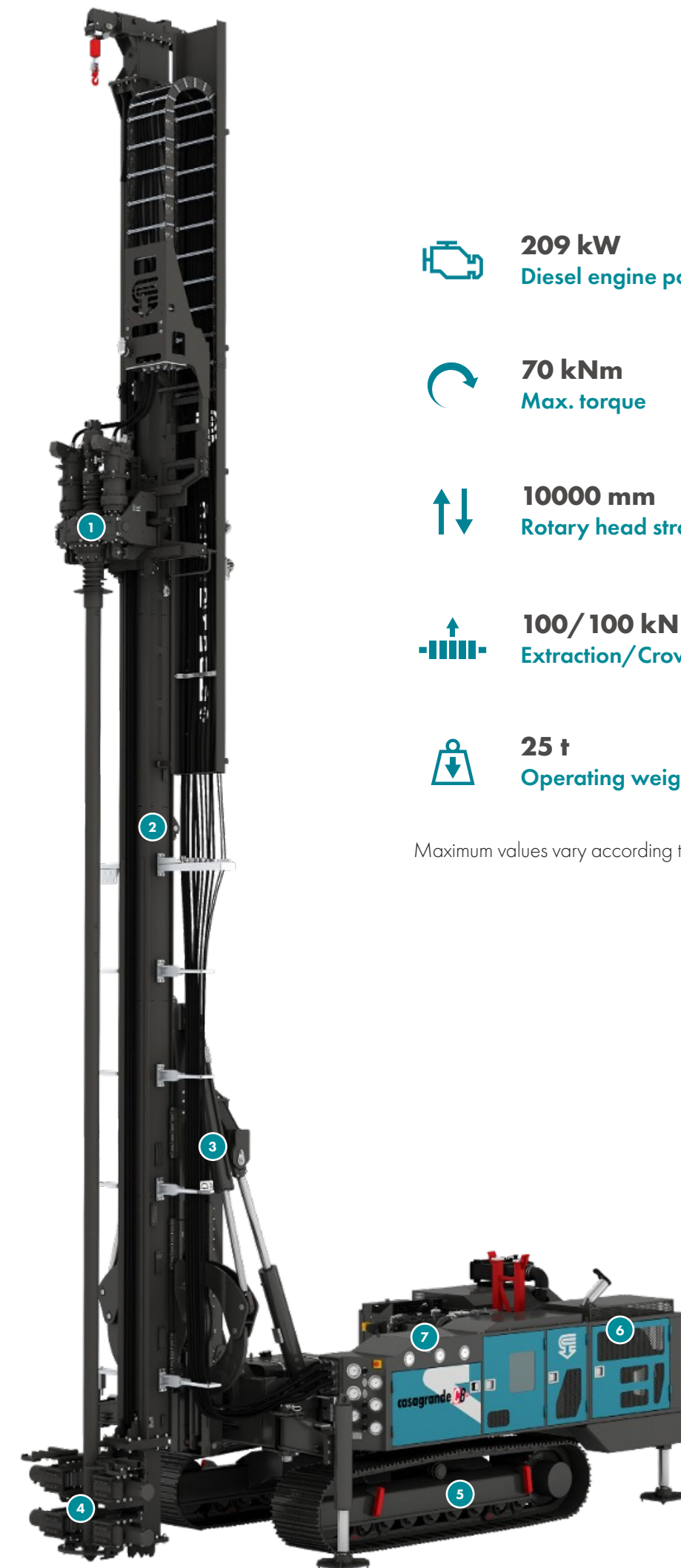


100/100 kN
Extraction/Crowd force



25 t
Operating weight

Maximum values vary according to the set-up.



KEYPOINTS



SPM - SMART POWER MANAGEMENT

The ability to intelligently manage engine power according to each specific function translates into greater efficiency and productivity. A dedicated system continuously detects the required power, increasing it to its maximum level only when necessary.



CFM - FLEET MASTER

The CFM system, developed and refined in collaboration with Vodafone, instantly detects any alarms or malfunctions through an online platform accessible from PCs, tablets, and smartphones. Thanks to the standard integration of Vodafone Business connectivity, real-time monitoring enables immediate intervention in case of failures, significantly reducing downtime and optimizing rig productivity.



CDR - DATA RECORDER (OPTIONAL)

The CDR monitoring system of the drilling process allows for the detection and recording of the working parameters. These data can be analyzed and processed to generate detailed jobsite reports.



ENVIRONMENT AWARENESS

The latest-generation Stage V diesel engines reduce pollutant emissions and allow operation with both low-sulfur fuels and HVO (Hydrotreated Vegetable Oil)—a high-performance, low CO₂ emission fuel taken from waste animal fats and used vegetable oils.



EASIER AND SAFER MAINTENANCE

The machine layout and the wide canopy openings ensure easy and comfortable access for inspection and maintenance operations. Designed in compliance with the latest international standards, the machine guarantees maximum safety for operators during all working phases.



OPTIMAL OPERATION IN EXTREME ENVIRONMENTS (OPTIONAL)

The rig can be equipped with a kit that ensures optimal machine performance and maximum efficiency even in particularly cold environments. This includes a hydraulic oil preheating device, hydraulic oil with stable viscosity and thermal properties.



ENHANCED SAFETY SYSTEMS

The machine is equipped with safety devices in compliance with UNI EN 16228 standards. These systems have been specifically engineered to ensure maximum maneuverability and rapid opening/closing during rod loading and unloading operations. As an alternative to fixed guards, electrosensitive protection systems (radar-based) are available; these prevent access to hazardous working areas unless the dedicated operating mode (R.O.M.) is activated.



TECHNICAL SPECIFICATIONS

BASE CARRIER

ENGINE		STAGE V-TIER 4	UN/ECE R96 *
Diesel engine model		CUMMINS B 6.7	CUMMINS QSB 6.7
Rated output @ 2200 rpm	kW	209	194
Diesel tank capacity	l	400	400
Urea tank capacity	l	57	-

* Exhaust emission equivalent Stage III A/Tier 3.

HYDRAULIC SYSTEM		
Hydraulic power	kW	170
Hydraulic pressure	bar	350
Main pump flow rate	l/min	1x424
Option main pump flow rate	l/min	1x134
Hydraulic oil tank capacity	l	640

UNDERCARRIAGE		B2
Undercarriage width	mm	2500
Width of triple grouser track shoes	mm	600
Overall tracks length	mm	3560
Travel speed	km/h	0÷2,2
Traction force nominal	kN	270

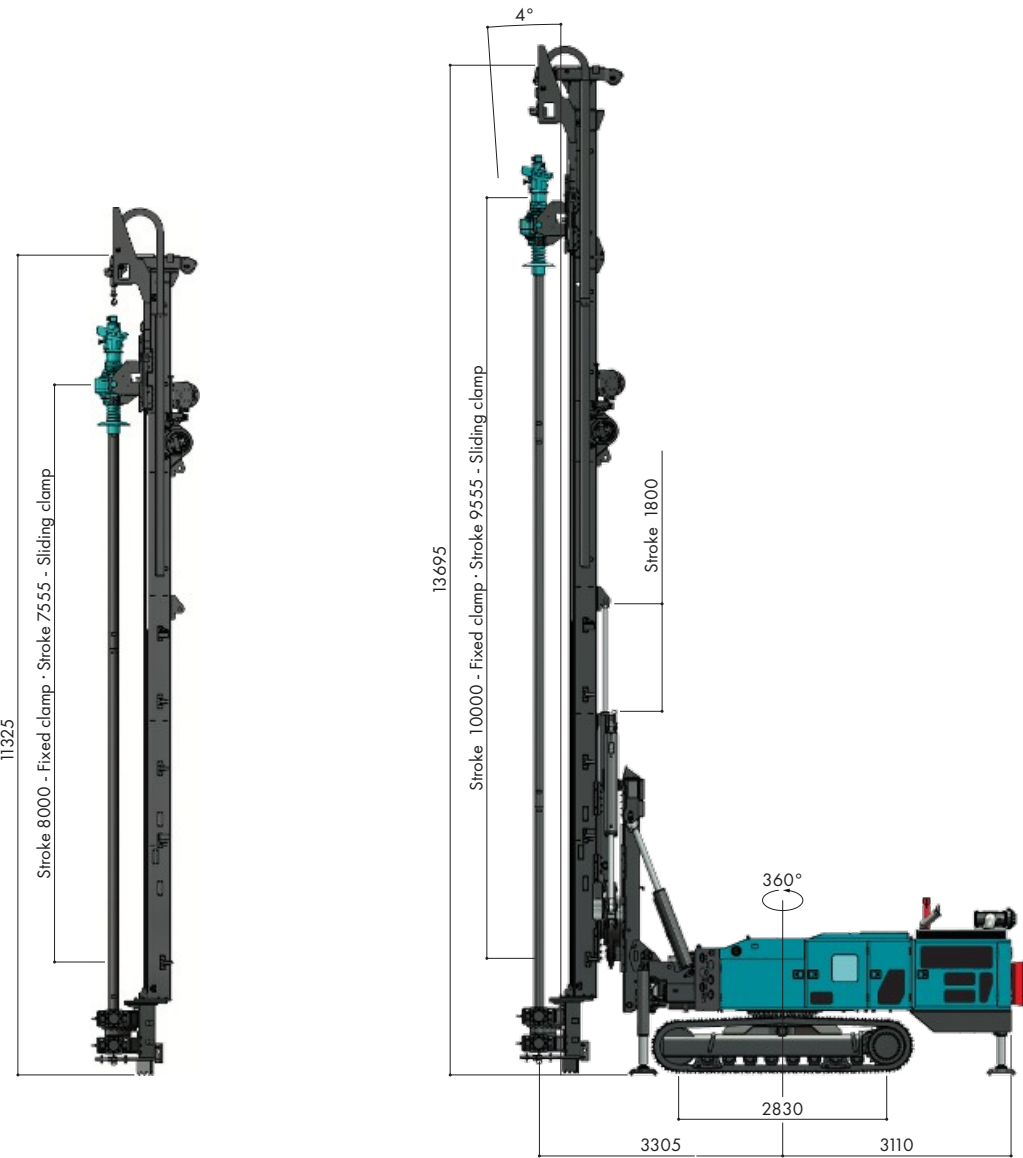
MAST		12000 MR	10000 MR
Mast length	mm	12000	10000
Rotary head stroke	mm	10000	8000
Extraction/Crowd force	kN	87 (100)*	87 (100)*
Extraction/Crowd speed	m/min	56 (81)*	56 (81)*

CLAMPS		M32 M32S	M42 M42S	M6 M6S	M7 M7S
Diameter	mm	32÷324	60÷424	101÷508	76÷610
Clamping force	kN	240	283	283	283

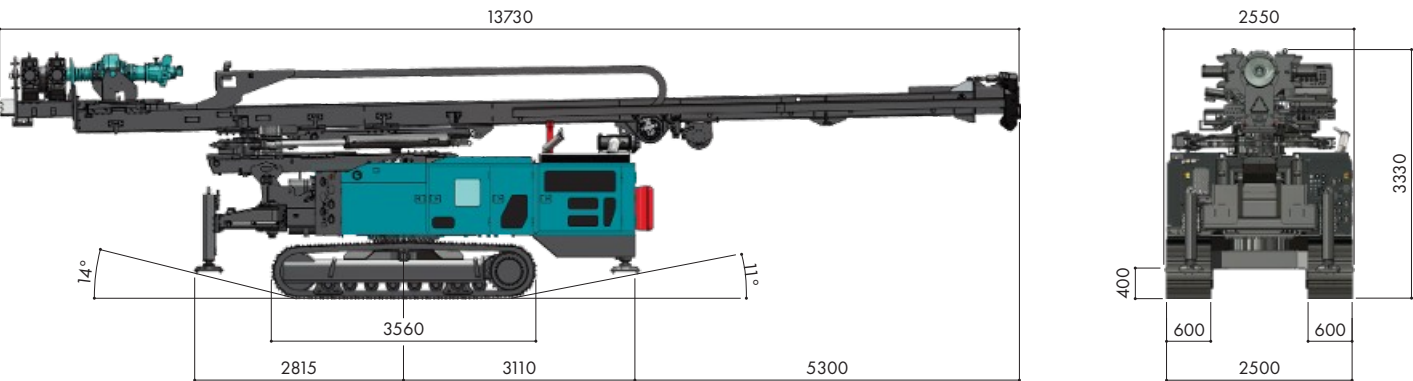
ROTARY HEAD		T14 EP	T20 EP	T2500 EP	T3000 EP	T7000 EP
Max. torque	kNm	12,2	15,2	22,2	30	70
Max. speed	rpm	500	400	226	160	50

* Option

DIMENSIONS

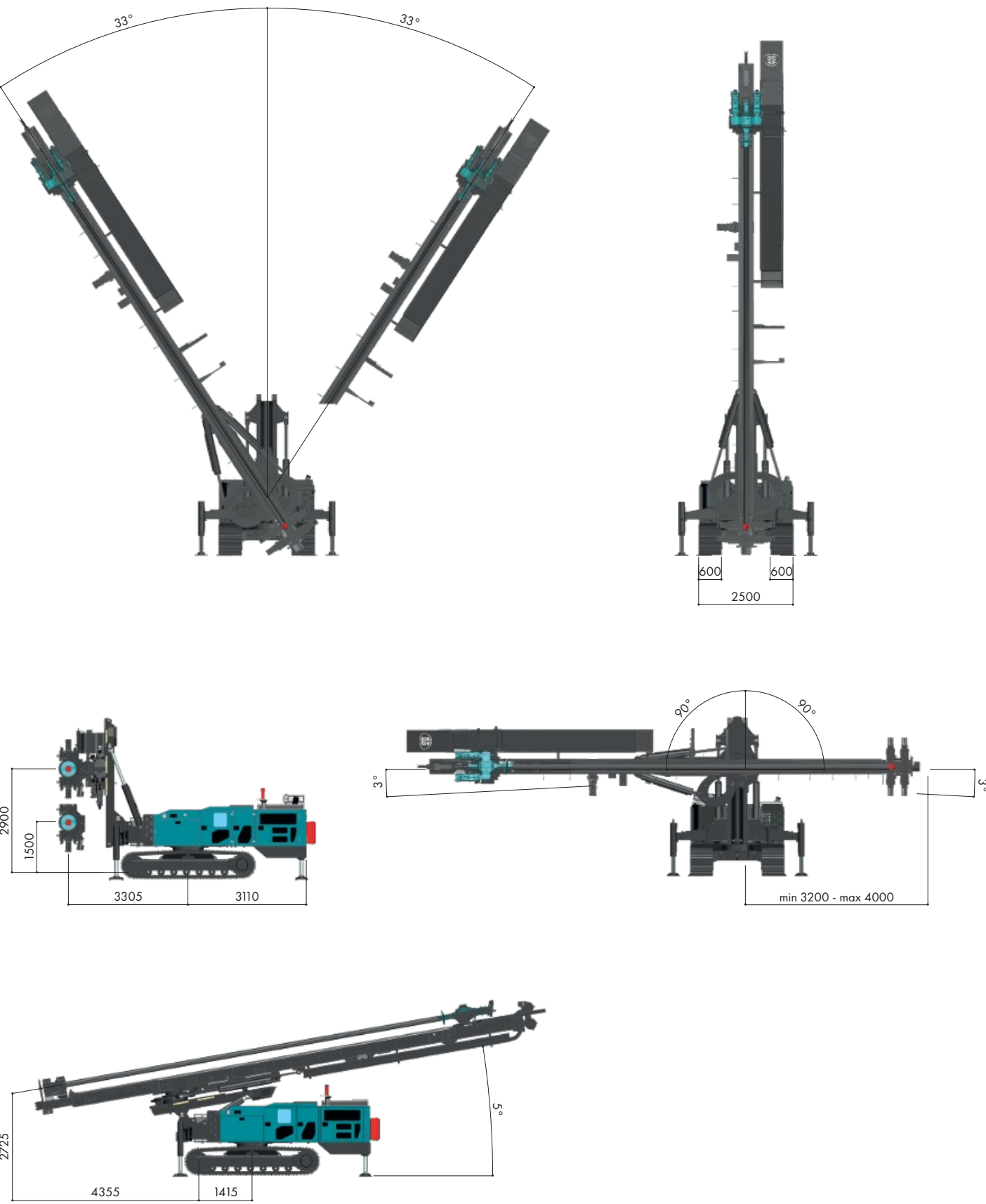


TRANSPORT DATA



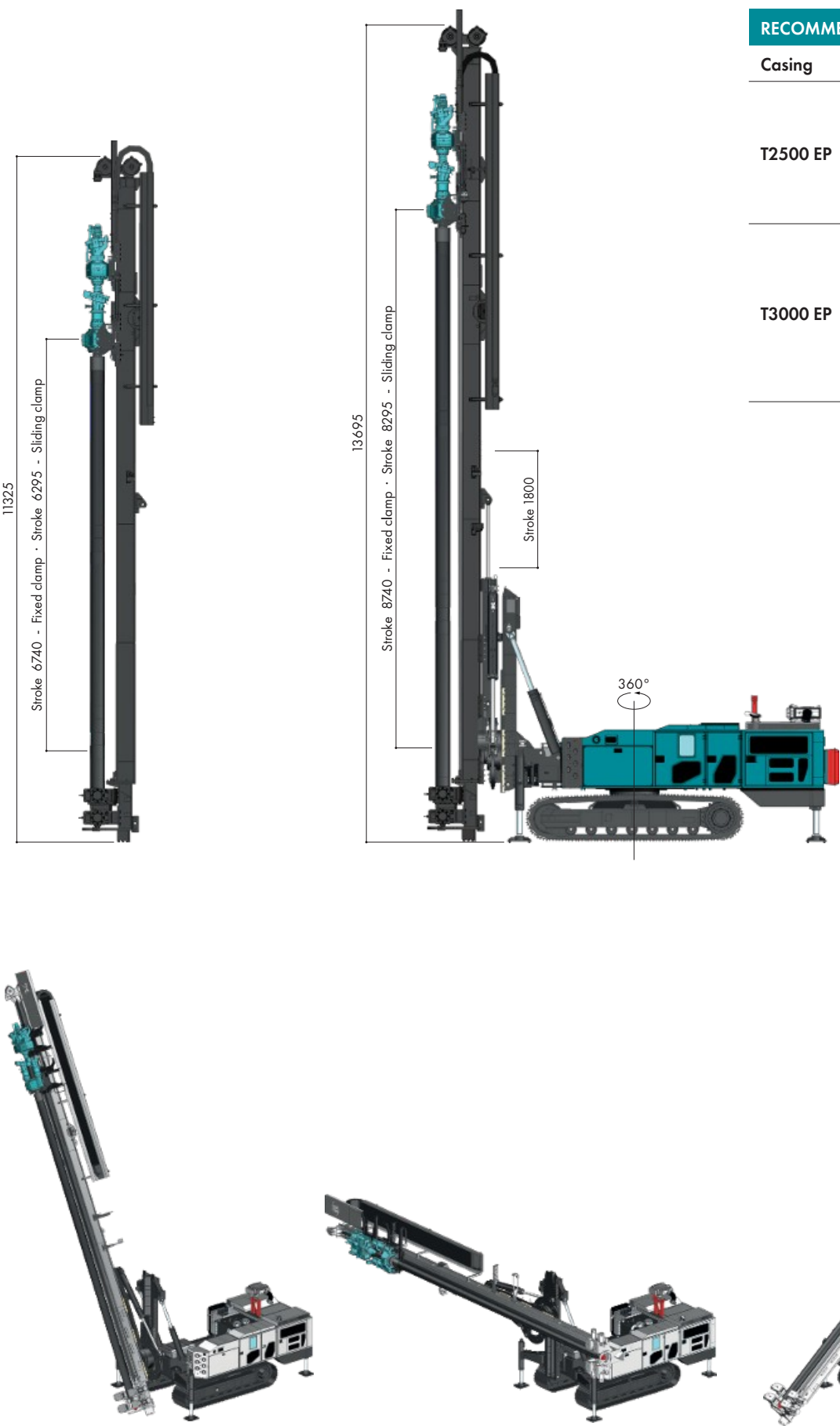
Weight of rig (depending on mounted equipment)
~25000 kg

MAST MOVEMENTS



Rig movements are the maximum allowable. Any additional equipment on the rig may limit these movements.

DOUBLE ROTARY HEAD
ARRANGEMENT



RECOMMENDED DOUBLE ROTARY HEAD	
Casing	Rods
T2500 EP	T14 EP
	T20 EP
	T16X
	T24X
T3000 EP	T20 EP
	T16X
	T2500 EP
	T24X
	T32X

JET GROUTING

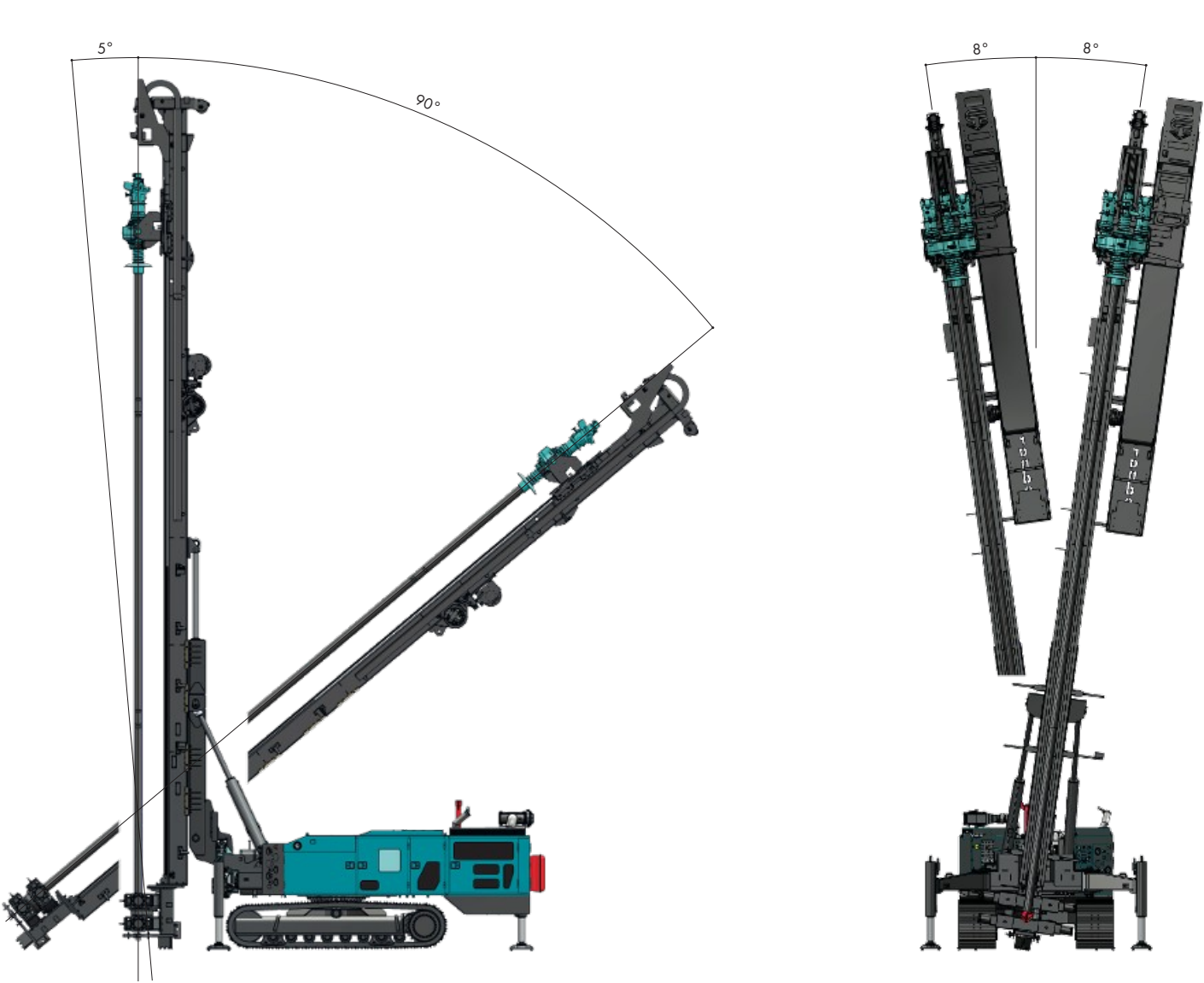
ARRANGEMENT



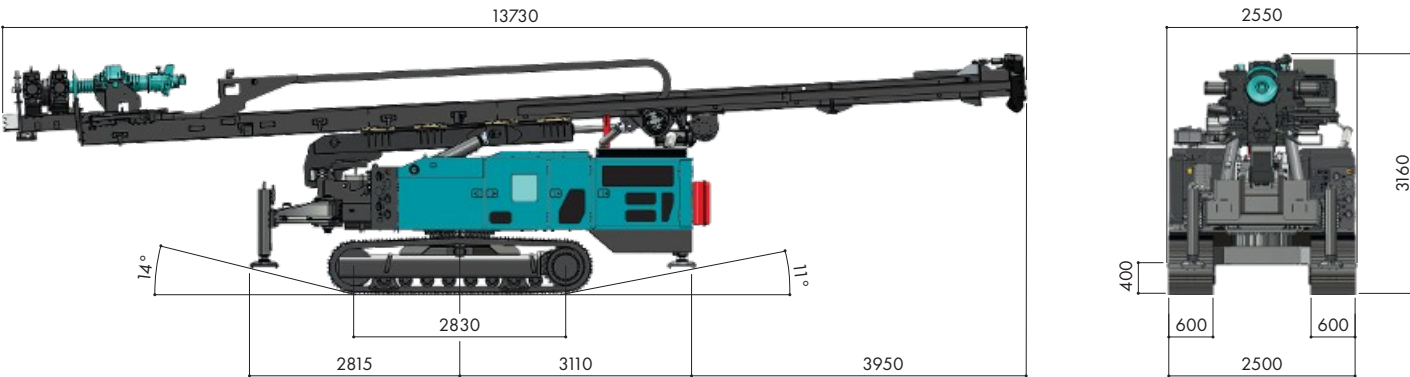
Additional counterweight required 2200 kg

C8V VERTICAL KINEMATICS

ARRANGEMENT



TRANSPORT DATA



OPTIONS

BASIC MACHINE
Electric motor 132 kW
Other rotary heads available
Drifter type T40 for T14 EP and T20 EP
Drifter type T50 for T2500 EP
Rotopercussion unit T16X - T24X - T32X
Auxiliary winch with rope - Max. line pull 2000 kg - 3000 kg
Cathead for auxiliary winch
Self-pivot pulley cathead with self-pivoting pulley for auxiliary winch
Telescopic and swinging cathead
Auxiliary crane
Jet grouting system
Super jet grouting arrangement
Hydraulic chuck type P114 - P200 for jet grouting rods
Lubricator for down-the-hole hammer 8,5 l - 20 l
Manual/Automatic centralized greasing system
Wired control or radio remote control for tracking
Safeguards according to EN 16228
CDR - Casagrande Data Recording system for working parameters and recording
Casagrande Fleet Master remote rig control and monitoring via internet
Flushing pump - Water pump GAMMA 62 (60 l/min Max. - 50 bar Max.) GAMMA 202 (200 l/min Max. - 60 bar Max.)
Pump CC30/20S Foam: (30 l/min Max. - 50 bar Max.) High pressure: (30 l/min Max. - 200 bar Max.)
Mud pump NG530 L (215 l/min - 24 bar) NG600 L (310 l/min - 24 bar) NG800 L (480 l/min - 20 bar) NG1200 L (960 l/min - 14 bar)
Mud and slurry pump: Triplex 90 (90 l/min Max. - 45 bar Max.) Triplex 200 (200 l/min Max. - 45 bar Max.) Triplex 300 (300 l/min Max. - 35 bar Max.)
Water, mud and cement pump STA T60 (600 l/min Max. - 40 bar Max.)



OPTIONS

RC7 LOADER FOR RODS AND CASINGS* *		BRC133	BRC152	BRC178	BRC219
Diameter of casings	mm	133	152,4*	177,8*	219,1*
Diameter of rods	mm	88,9	101,6*	114,3*	133*
Length of casings and rods	mm	3000	3000	3000	3000
Number of rods and casings	nr.	7 + 7	7 + 7	6 + 6	5 + 5
Length of rods only	mm	4500	4500	4500	4500
Number of rods	nr.	7	7	6	5
Max. diameter of rods	mm	133	152,4	177,8	219,1
Weight of loader	kg	1070	1070	1070	1070
Max. weight of rods and casings	kg	1150	1150	1150	1150

* With special inserts kit
* * With additional counterweight

R10 CAROUSEL		RODS WITH BLOCK TEETH		WITH LOCKING CLAMP	
Max. rods length	mm	6000	6000	7000	8000
Capacity	Rods	10	5	6	6
	Ø mm	76÷114	114÷140	76÷140	76÷140
Weight of rods loader	kg	1150	1150	1150	1150
Max. weight of rods	kg	1270	1270	1270	1270
Max. depth (mast 10000)	m	68 (60+8)	38 (30+8)	50 (42+8)	-
Max. depth (mast 12000)*	m	70 (60+10)	40 (30+10)	52 (42+10)	58 (48+10)

* With additional counterweight

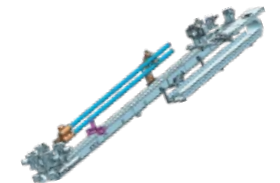
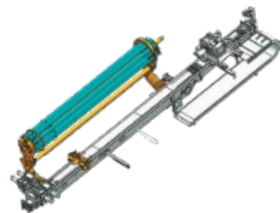
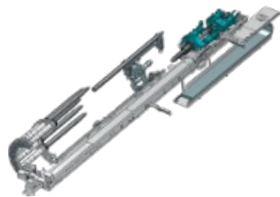
R8 CAROUSEL						
Max. rods length	mm	6000	6000	6000	6000	6000
Capacity	Rods	8	10	12	14	16
	Ø mm	140÷152,4	114÷133	101,6	88,9	76,1
Weight of rods loader	kg	1200	1200	1200	1200	1200
Max. weight of rods	kg	1200	1200	1200	1200	1200
Max. depth (mast 10000)	m	56 (48+8)	68 (60+8)	80 (72+8)	92 (84+8)	104 (96+8)
Max. depth (mast 12000)*	m	58 (48+10)	70 (60+10)	82 (72+10)	94 (84+10)	106 (96+10)

* With additional counterweight

2 RODS LOADER		MAST 10000	MAST 12000*
Max. rods length	mm	6500	8500
Capacity 2 rods	Ø mm	76÷168	76÷168
Capacity 1 rod	Ø mm	168÷219	168÷219
Weight of rods loader	kg	630	630
Max. weight of rods	kg	760	760
Max. depth	m	21 (13+8)	27 (17+10)
Option: trolley for anchoring operation			

SLIDING CLAMP		M32-M32S/C	M42-M42S/C	M6-M6S/C
Diameter	mm	32÷324	60÷424	76÷508
Clamping force	kN	240	283	283
Torque	kNm	30	46	70
Extraction stroke	mm	600 (1000)*	600 (1000)*	1000
Extraction force	kN	110	200	250
Weight	kg	870	1350	1780

* Option



OPTIONAL



SMARTCARE - CASAGRANDE PREMIUM SUPPORT AND WARRANTY PACKAGE

Choosing Casagrande means investing in a machine designed for durability, precision, and maximum performance in special foundation works.

To preserve these values over time, SMARTCARE provides complete support throughout the entire lifecycle of your equipment — ensuring efficiency, reliability, and peace of mind.

SMARTCARE is offered as a separate package; availability and details may vary according to our sales conditions.

- **3-YEAR WARRANTY**
Up to 3 years or 4,500 operating hours of coverage to protect your investment and guarantee long-term reliability. Casagrande stands by your side even after delivery, ensuring lasting performance and operational confidence.
- **TECHNICAL ASSISTANCE & ORIGINAL SPARE PARTS**
Casagrande ensures on-site service with qualified technicians and genuine components specifically designed for your machine.
Each intervention extends equipment life, maintains optimal performance, and ensures operational continuity on every jobsite.
- **SMART SUPPORT**
Through advanced monitoring systems, Casagrande anticipates maintenance needs and recommends spare parts in advance. This proactive approach reduces downtime and keeps your rig operating at maximum efficiency.

OFFICIAL SPARE PARTS — PLANNED IN ADVANCE

Prearranged original spare parts kits are available for each scheduled maintenance phase:

- Ready-to-install solutions ensuring full compatibility
- Simplified logistics and optimized stock management
- Extended component life and minimized downtime

ON-SITE TECHNICIAN EVERY 250 HOURS

Every 250 operating hours, a certified Casagrande technician can perform:

- Preventive inspections and complete check-ups
- Routine maintenance and necessary adjustments
- On-site operator guidance and technical support

DEDICATED TEAM — MONITORING & SUPPORT

The SMARTCARE Team continuously monitors machine hours and performance via Casagrande Fleet Master.

This system enables:

- Scheduled service interventions
- Early identification of spare parts needs
- Optimized maintenance planning and reduced downtime





CASAGRANDE S.P.A.

Via A. Malignani, 1
33074 Fontanafredda – Pordenone (Italy)
Tel. +39 0434 9941
info@casagrandegroup.com

SMARTCARE OFFICE

Tel. +39 0434 994377
smartcare@casagrandegroup.com

AFTER SALES SERVICE

Tel. +39 0434 994345
service@casagrandegroup.com



**TECHNICAL
ASSISTANCE**



**TRAINING
COURSES**



**REMOTE ASSISTANT
SERVICE**



**SERVICE
BOXES**



**OFFICIAL
SPARE PARTS**

