HRV-T

TELESCOPIC LEADER MAST

SPM
SMART POWER MANAGEMENT

HÜTTE
BOHRTECHNIK

12 VALUABLE REASONS TO CHOOSE HRV-T

3-YEAR WARRANTY 4,500 HOURS OF GUARANTEED OPERATION

The peace of mind of owning equipment designed for long-lasting durability, covered by a 36-month warranty and guaranteed to deliver at least 4.500 hours of flawless operation. This is one of the many ways we ensure that those who choose us can always rely on our unwavering support.

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. This ensures a more responsible and sustainable use of energy.

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 the rig productivity.

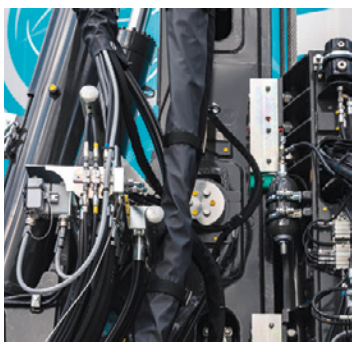
CDR DATA RECORDER

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 CO_2 emission fuel taken from waste animal fats and used vegetable oils. Like many other rigs, the HRV-T is also available in full-electric and hybrid versions.



ERGONOMIC CABIN WITH HIGH VISIBILITY AND ACOUSTIC COMFORT

The cabin is designed to enhance operator comfort, reducing fatigue and increasing productivity while ensuring excellent visibility. It is also soundproofed to ensure optimal acoustic comfort and equipped with a new climate control system, which is quieter, more powerful, and specifically directed at the most exposed body areas. Additionally, the rig's intelligent heat exchangers significantly reduce the noise generated by the cooling system.

EASIER AND SAFER MAINTENANCE

The hydraulically lifting cover panels provide easy access to components for inspection and maintenance. Additionally, the optional platforms and safety railings further enhance operator safety during these tasks. Optional cameras offer a detailed view of the work area, improving visibility and facilitating maintenance operations.

AUTOMATED DRILLING WITH REAL-TIME PROGRESS VERIFICATION

The automated drilling functions available on the rig, in addition to simplifying its operation, allow the operator to stay updated in real-time on the drilling process progress through an in-cabin display. The process is continuously monitored through precise data on depth, torque, pressure, and verticality.

SIMPLIFIED AND CUSTOMIZED USABILITY

The controls, in addition to being characterized by simple and intuitive functionality, are customizable. Thanks to this, each operator can create their preferred control system, avoiding potential operational errors and enhancing the safety of the operations.

AUTOMATIC GREASING SYSTEM

The automatic greasing system continuously ensures optimal lubrication of all moving mechanical parts, helping them function perfectly and extending their life.

REMOTE CONTROL

The remote control, which allows to perfectly manage all rig movements, enhances the operator's safety during loading and unloading operations from transport vehicles and during the setup phases for work.

OPTIMAL OPERATION IN COLD ENVIRONMENTS

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

TECHNICAL INFORMATION

The new Hütte HRV-T range, part of the HRV Series, is a versatile line of multi-purpose pile drivers designed for deep foundation and ground improvement projects. The telescopic mast allows for various configurations, including sheet piling, hydraulic hammer, CFA, soil mixing, Cased CFA drilling VdW, and cutter soil mixing. These machines feature a modular telescopic mast built to support heavy loads, along with a pantograph that ensures efficient load positioning and precise verticality control. Their unique articulation allows for front-the-wall operations, making them ideal for work in confined spaces. The HRV-T models combine high performance and stability, offering reliable results across a wide range of operating conditions.

INFORMAZIONI TECNICHE

Le nuove Hütte HRV-T sono parte di una innovativa gamma di macchine multifunzionali progettate per la realizzazione di fondazioni profonde e di miglioramento del terreno. La soluzione con mast telescopico supporta molteplici allestimenti, tra cui infissione di palancole con vibratore e di pali con martello idraulico, CFA, CFA intubato VDW, soil mixing e cutter soil mixing. Le macchine sono dotate un mast telescopico modulare progettato per supportare carichi rilevanti, di un pantografo per un posizionamento efficiente del carico e un controllo preciso della verticalità. La peculiare articolazione consente un utilizzo "front-the-wall", ideale per operare in spazi ristretti. I modelli della serie HRV-T sono attrezzature versatili che garantiscono prestazioni elevate e stabilità, in un'ampia gamma di condizioni operative.

1 HYDRAULIC VIBRATOR
Other attachments are available for multipurpose piling rig

2 ADJUSTABLE JIB (optional)
Equipped with auxiliary winch with line pull of 60 kN

3 UNIVERSAL COUPILG
Rapid equipment mounting system

4 HEAVY DUTY TELESCOPIC MAST
with hydraulic ram and reeving system for high crowd and extraction force

5 MAST SUPPORT WITH STURDY STRUCTURE
Complete with +/- 90° front the wall kinematic

6 OPERATOR'S CABIN
Comfortable and ergonomic cabin with 12" and 7" monitors

7 POWERFUL DIESEL ENGINE
Power 563 kW

8 HD UNDERCARRIAGE
Extendable triple grouser track shoes

1 VIBRATORE IDRAULICO
Disponibili vari allestimenti per palificazione

2 FALCHETTO REGOLABILE (optional)
Dotato di un argano ausiliario con tiro di 60 kN

3 AGGANCIO UNIVERSALE
Sistema di montaggio rapido attrezzature

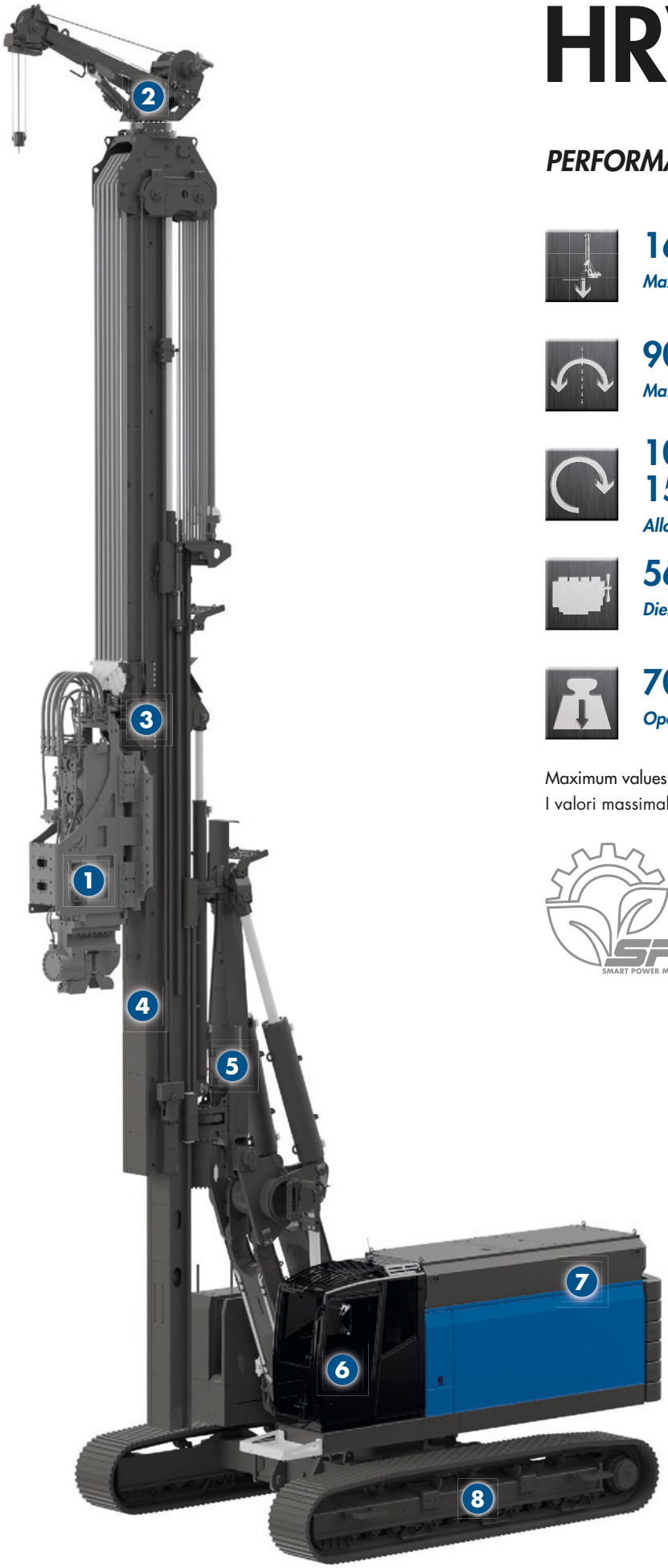
4 MAST HD TELESCOPICO
Con sfilo idraulico e sistema di rinvio con elevata forza di estrazione e spinta

5 ROBUSTO SUPPORTO MAST
Completo di cinematismo front the wall +/-90°

6 CABINA OPERATORE
Cabina confortevole ed ergonomica con monitor da 12" e 7"

7 POTENTE MOTORE DIESEL
Potenza di 563 kW

8 SOTTOCARRO RINFORZATO
Cingoli estendibili con pattini a tre barre



HRV-T

PERFORMANCE - PRESTAZIONI

16 / 19 / 21 m
Max. sheet pile length / Lunghezza max. palancola

90° / 90°
Mast turning angle dx-sx/ Angolo rotazione mast dx-sx

100 kNm (HRV16-T / HRV19-T)
150 kNm (HRV21-T)
Allowable torque / Coppia ammissibile

563 kW
Diesel engine power / Potenza motore

70 / 76 / 80 t
Operating weight / Peso attrezzatura

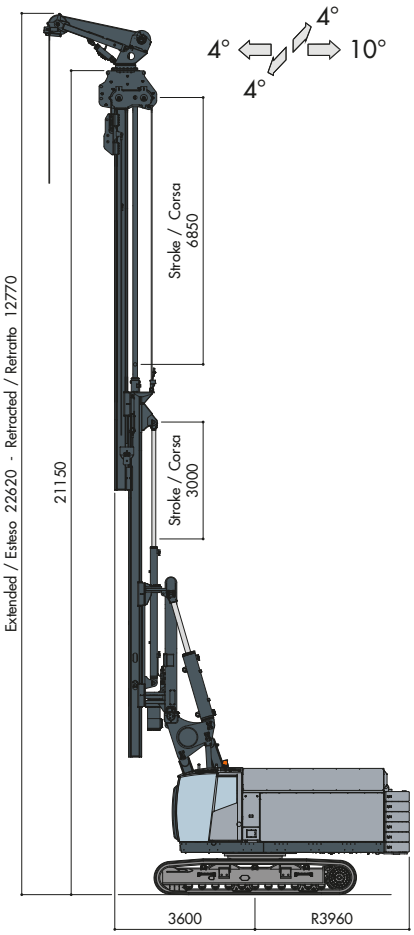
Maximum values vary according to the set-up
I valori massimali variano in funzione dell'allestimento

SPM
SMART POWER MANAGEMENT

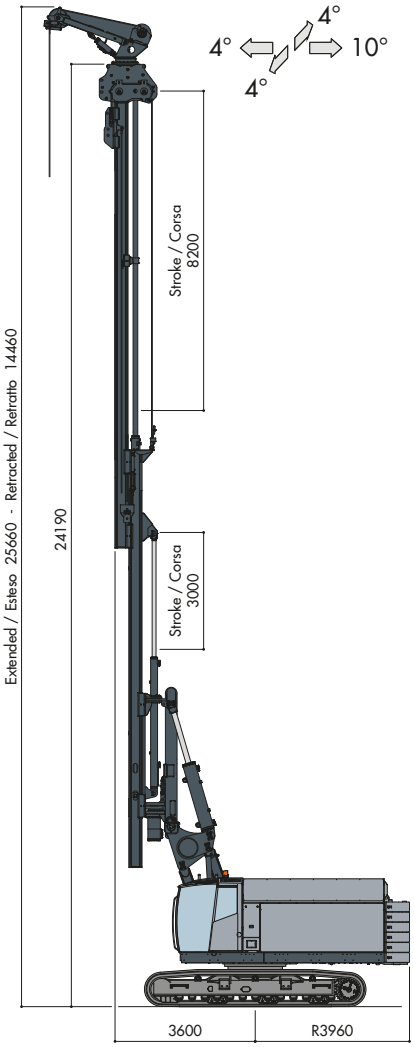
PERFORMANCE
PRESTAZIONI

ATTACHMENTS	*ALLESTIMENTO*		*HRV16-T*	*HRV19-T*	*HRV21-T*
SHEET PILING	**PALANCOLE**				
Max. pile length	Lunghezza max. palancola	m	16	19	21
HYDRAULIC HAMMER	**MARTELLO IDRAULICO**				
Max. pile length	Lunghezza max. palo	m	12	15	17
CASED CFA VdW	**CFA INTUBATI VdW**				
Max. depth	Profondità max.	m	16	18,7	20,7
SOILMIXING	**SOILMIXING**				
Max. depth	Profondità max.	m	15,9	18,6	20,6
CUTTER SOIL MIXING	**CUTTER SOIL MIXING**				
Max. depth	Profondità max.	m	15,9	18,6	20,6
CFA PILES	**PALI CFA**				
Max. depth	Profondità max.	m	16	18,7	20,7

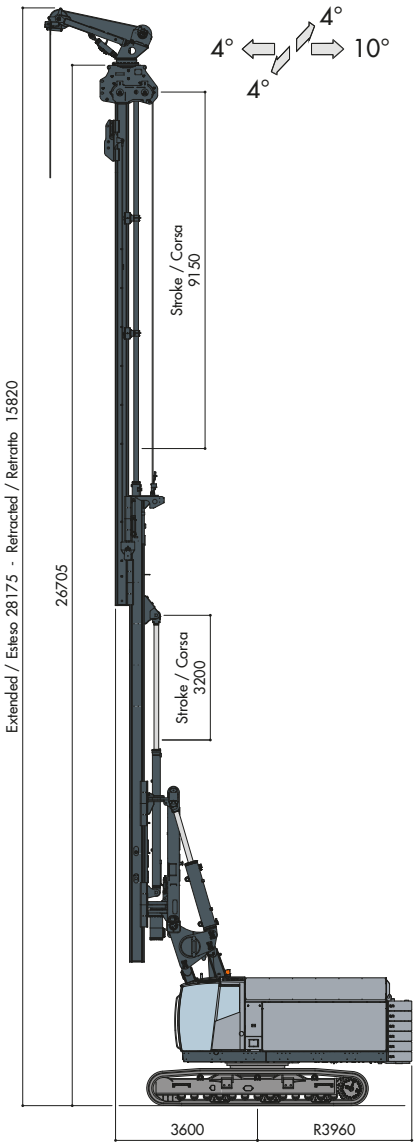
ARRANGEMENTS
ALLESTIMENTI



HRV16-T

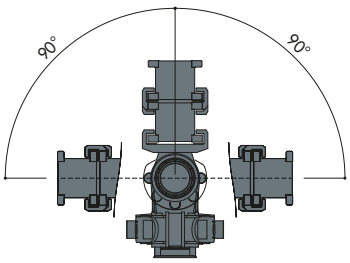


HRV19-T

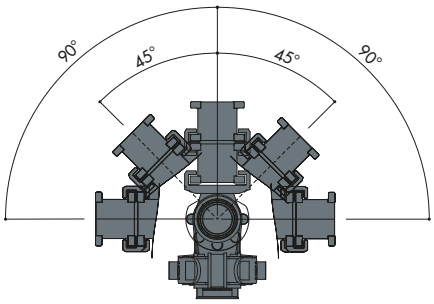


HRV21-T

MAST ROTATION ANGLES
ANGOLI ROTAZIONE MAST



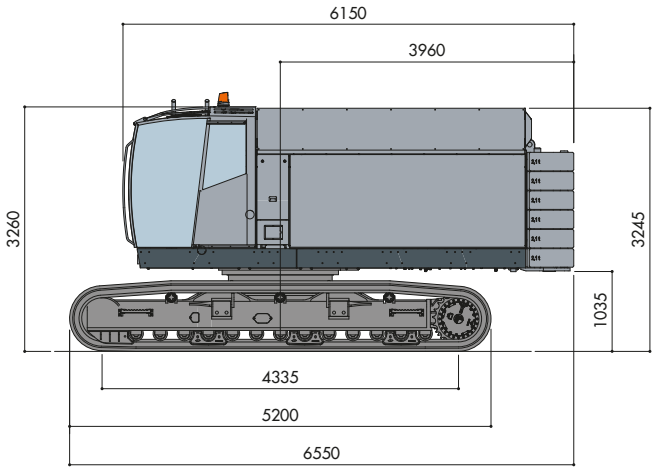
FREE TURNING ANGLE
ROTAZIONE LIBERA

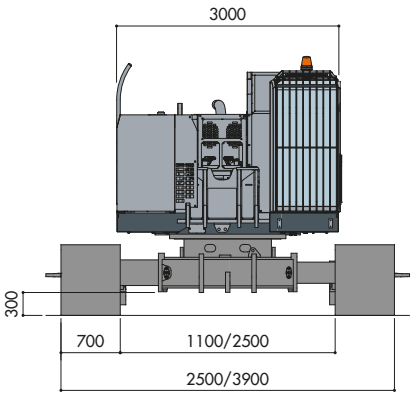


FIXED TURNING ANGLE
ROTAZIONE BLOCCATA

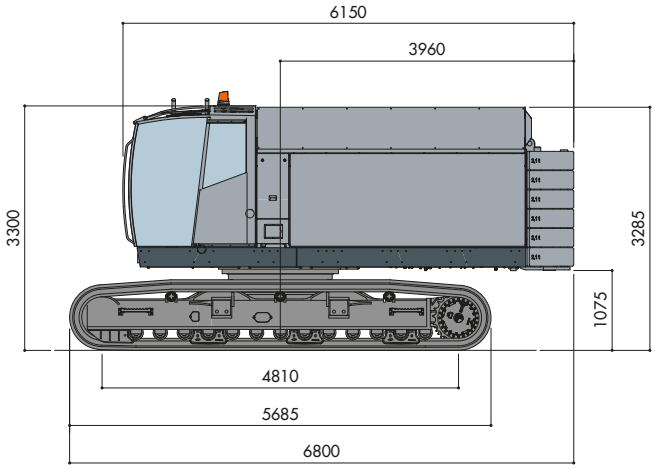
CRAWLER DIMENSIONS
DIMENSIONI CARRO

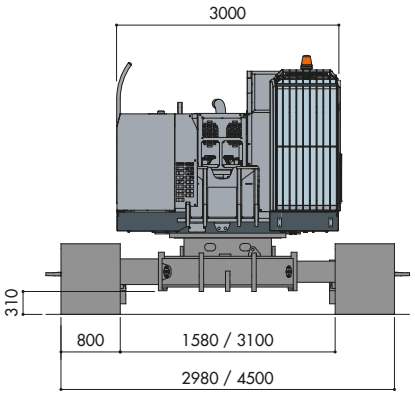
HRV16-T BASE CARRIER
HRV16-T CARRO BASE





HRV19-T / HRV21-T BASE CARRIER
HRV19-T / HRV21-T CARRO BASE





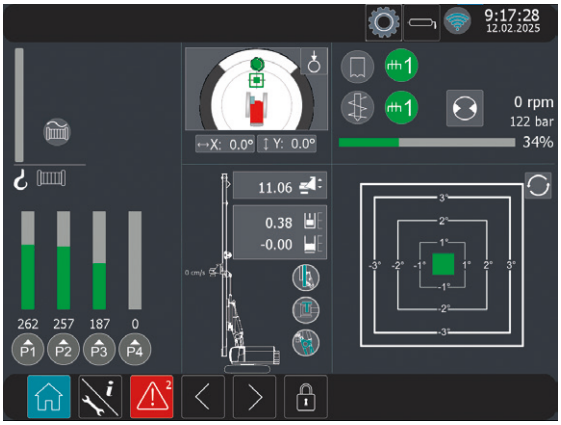
TECHNICAL SPECIFICATIONS
DATI TECNICI

BASE CARRIER	CARRO BASE		
Diesel engine Stage V - Tier 4	Motore diesel Stage V - Tier 4	CAT C18	
Power @ 1800 rpm	Potenza @ 1800 rpm	563 kW	
Diesel tank capacity	Capacità serbatoio gasolio	825 l	
Diesel engine Stage IIIA - Tier 3 equivalent	Motore diesel Stage IIIA - Tier 3 equivalente	optional	
HYDRAULIC SYSTEM	**IMPIANTO IDRAULICO**		
Hydraulic power	Potenza idraulica	500 kW	
Hydraulic pressure	Pressione idraulica	350 bar	
Main pumps flow rate	Pompe principali portata	2x405 + 2x309 l/min	
Hydraulic oil tank capacity	Capacità serbatoio olio idraulico	930 l	
UNDERCARRIAGE	**SOTTOCARRO**	**HRV16-T**	**HRV19/21-T**
Class	Classe	D5	D5+
Travel speed	Velocità traslazione	0 ÷ 1,6 km/h	0 ÷ 3 km/h
Traction force - Nominal / Effective	Forza di trazione - Nominale / Effettiva	515 / 410 kN	530 / 420 kN
Weight of basic machine without attachment	Peso macchina base senza attrezzatura	~47700 kg	~51900/54300 kg
AUXILIARY WINCH (optional)	**ARGANO AUSILIARIO (optional)**		
Line pull on 1st layer nominal / effective	Tiro sul 1° strato nominale / effettivo	60 / 50 kN	
Max. line speed	Velocità max.	53 m/min	
Rope diameter	Diametro fune	16 mm	

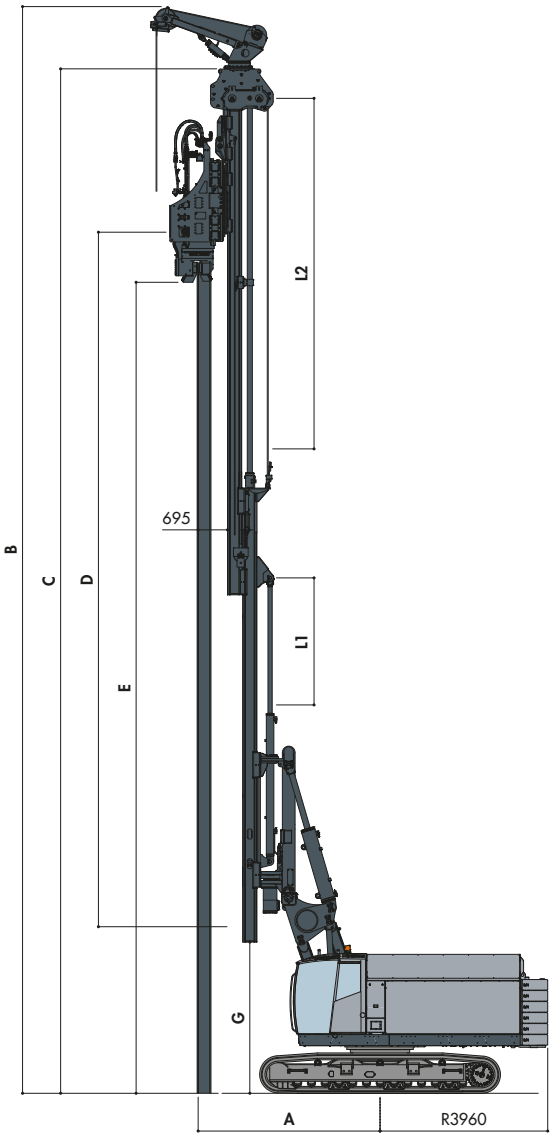
ELECTRONICS
CONTROLLI ELETTRONICI

The machine is equipped with a PLC network wich controls engine and all the hydraulics. A color touch screen display allows settings and provides information about the machine condition, allows and assists in fault diagnostics.
The SPM control system – Smart Power Management - monitors the instantaneous power flows in real time and allocates the full available power to the job duties.

La macchina è dotata di una rete di PLC che governano il motore e tutte le funzioni idrauliche. Un display touch screen consente l'impostazione dei parametri macchina e fornisce le informazioni sulle condizioni di lavoro e assiste la diagnostica dei guasti.
Il sistema di gestione SPM – Smart Power Management – sorveglia i flussi di potenza istantanei e destina in tempo reale la piena potenza disponibile alle funzioni di lavoro.



SHEET PILING
ALLESTIMENTO PER PALANCOLE

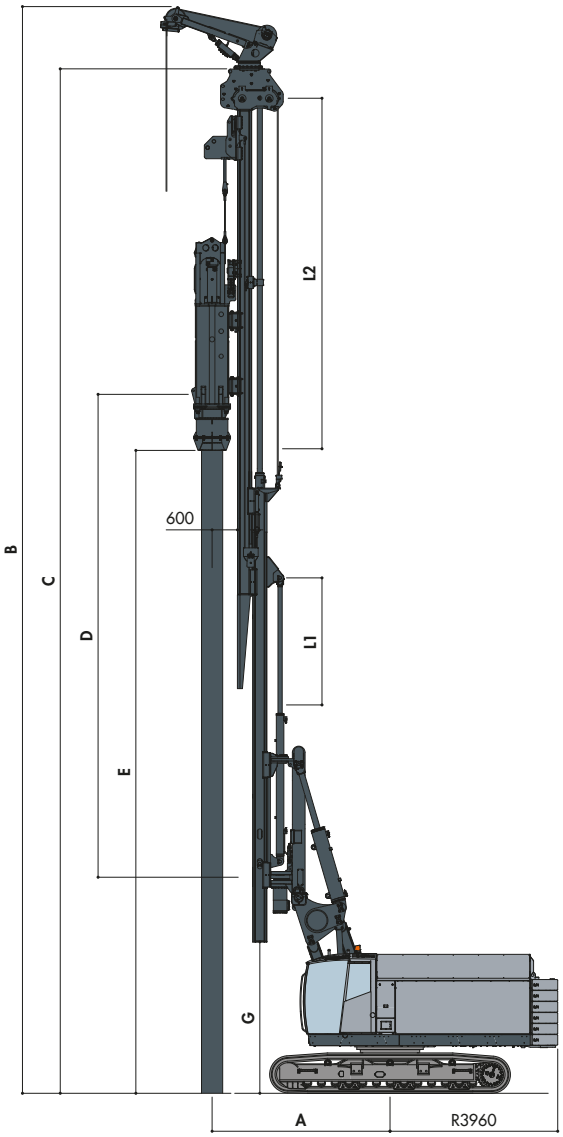


Hydraulic Vibrator *Vibratore idraulico*		*MS-30 HFMV*
Centrifugal force Forza centrifuga	kN	1535
Eccentric moment Momento eccentrico	kgm	0 - 30
Hydraulic power Potenza idraulica	kW	454

			HRV16-T	*HRV19-T*	*HRV21-T*
A	Working radius Interasse di lavoro	mm	4300-5300	4300-5300	4350-5350
B	Max. height from ground Altezza max. da terra	m	22,6	25,7	28,2
C	Max. height from ground without jib Altezza max da terra senza falchetto	m	21,2	24,2	26,7
D	Max. vibrator stroke Corsa max. vibratore	m	13,7	16,4	18,3
E	Max. sheet pile length Lunghezza max. palancola	m	16,1	19,1	21,6
G	Distance of ground Distanza da terra	m	3,5	3,5	3,6
L1	Max cylinder stroke Corsa max. martinetto	m	3	3	3,2
L2	Max cylinder stroke Corsa max. martinetto	m	6,85	8,2	9,15
Extraction force at sledge Forza di estrazione alla slitta		kN	200	200	260
Crowd force at sledge Forza di spinta alla slitta		kN	140	140	140
Max. weight of vibrator Peso max. vibratore		kg	6000	6000	6000
Operating weight without sheet pile Peso attrezzatura senza pallancola		kg	~67900	~73500	~77500

HYDRAULIC HAMMER
BATTIPALO IDRAULICO

Hydraulic hammer *Martello idraulico*		*CX50*
Drop height Altezza di caduta	mm	1200
Energy Energia	kNm	50
Dropweight mass Massa movimentata	kg	4000

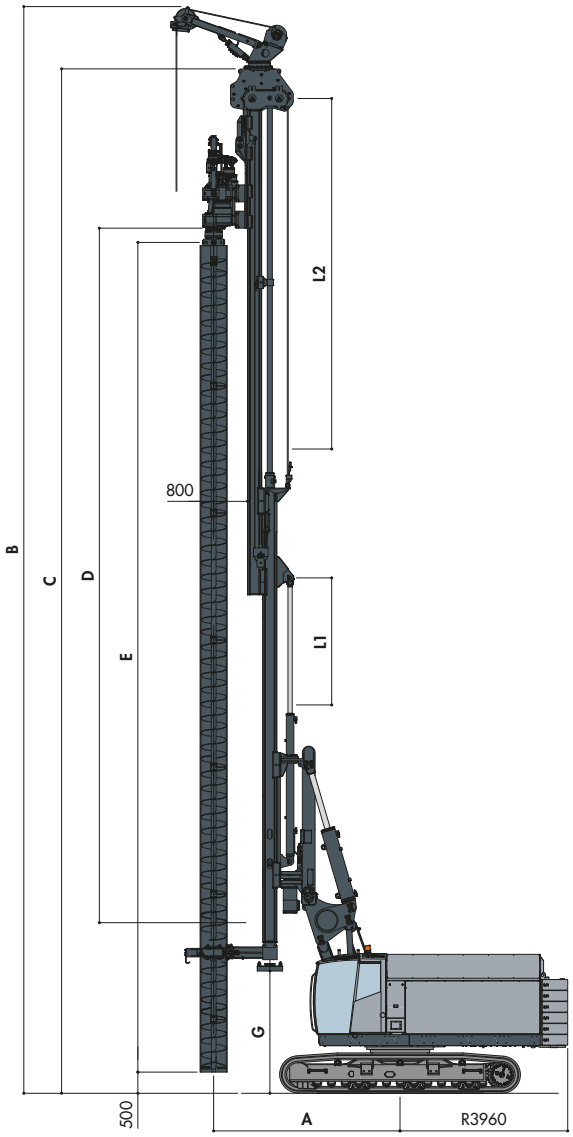


			HRV16-T	*HRV19-T*	*HRV21-T*
A	Working radius Interasse di lavoro	mm	4200-5200	4200-5200	4250-5250
B	Max. height from ground Altezza max. da terra	m	22,6	25,7	28,2
C	Max. height from ground without jib Altezza max da terra senza falchetto	m	21,2	24,2	26,7
D	Max. hammer stroke Corsa max. martello	m	9,4	12,4	14,4
E	Max. pole length Lunghezza max. palo	m	12,1	15,1	17,3
G	Distance of ground Distanza da terra	m	3,5	3,5	3,6
L1	Max cylinder stroke Corsa max. martinetto	m	3	3	3,2
L2	Max c ylinder stroke Corsa max. martinetto	m	6,85	8,2	9,15
Extraction force at sledge Forza di estrazione alla slitta		kN	200	200	260
Crowd force at sledge Forza di spinta alla slitta		kN	140	140	140
Max. weight of hammer Peso max. martello		kg	8000	8000	8000
Operating weight Peso attrezzatura		kg	~70000	~75200	~79100

CASED CFA VdW

CFA INTUBATI VdW

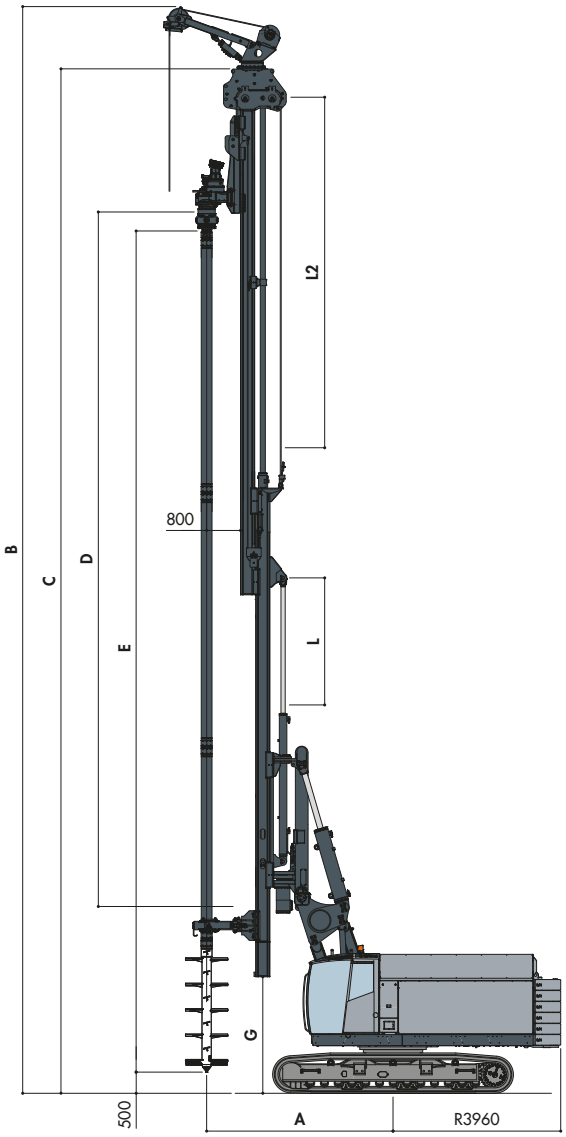
Rotary head Testa di rotazione			VDW 1005
Casing Tubo	Max. torque / Coppia max. Max. speed / Velocità max.	kNm rpm	100 41
Auger Elica	Max. torque / Coppia max. Max. speed / Velocità max.	kNm rpm	50 69



			HRV16-T	HRV19-T	HRV21-T
A	Working radius Interasse di lavoro	mm	4400-5400	4400-5400	4450-5450
B	Max. height from ground Altezza max. da terra	m	22,6	25,7	28,2
C	Max. height from ground without jib Altezza max da terra senza falchetto	m	21,2	24,2	26,7
D	Max. rotary head stroke Corsa max. rotary	m	13,7	16,4	18,3
E	Max. tool length Lunghezza max. utensile	m	16,5	19,6	21,8
G	Distance of ground Distanza da terra	m	2,8	2,8	2,9
L1	Max cylinder stroke Corsa max. martinetto	m	3	3	3,2
L2	Max Cylinder stroke Corsa max. martinetto	m	6,85	8,2	9,15
Max. depth Profondità max.		m	16	18,7	20,7
Extraction force at sledge Forza di estrazione alla slitta		kN	200	200	260
Crowd force at sledge Forza di spinta alla slitta		kN	140	140	140
Operating weight without sheet pile Peso attrezzatura senza pallancola		kg	~66500	~71800	~75600

SOILMIXING
SOILMIXING

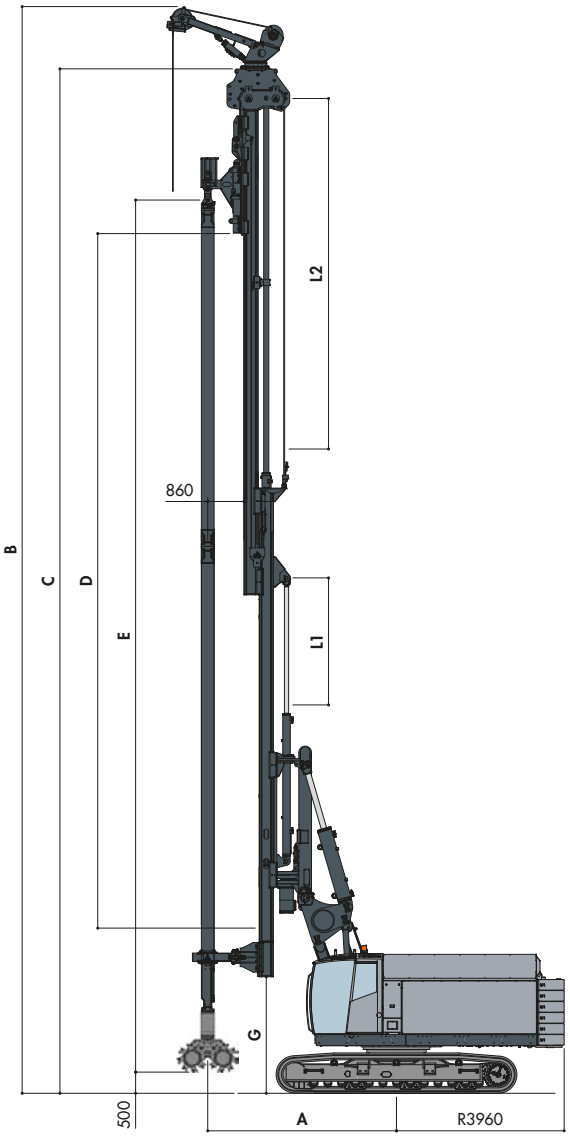
Rotary head Testa di perforazione		RHP 10
Max. torque Coppia max	kNm	100
Max. speed Velocità max.	rpm	69



			HRV16-T	HRV19-T	HRV21-T
A	Working radius Interasse di lavoro	mm	4400-5400	4400-5400	4450-5450
B	Max. height from ground Altezza max. da terra	m	22,6	25,7	28,2
C	Max. height from ground without jib Altezza max da terra senza falchetto	m	21,2	24,2	26,7
D	Max. rotary head stroke Corsa max. rotary	m	13,7	16,4	18,3
E	Max. tool length Lunghezza max. utensile	m	16,8	19,8	22
G	Distance of ground Distanza da terra	m	2,7	2,7	2,8
L1	Max Cylinder stroke Corsa max. martinetto	m	3	3	3,2
L2	Max Cylinder stroke Corsa max. martinetto	m	6,85	8,2	9,15
Max. depth Profondità max.		m	15,9	18,6	20,6
Extraction force at sledge Forza di estrazione alla slitta		kN	200	200	260
Crowd force at sledge Forza di spinta alla slitta		kN	140	140	140
Operating weight without sheet pile Peso attrezzatura senza pallancola		kg	~65000	~70150	~74000

CUTTER SOIL MIXING

CUTTER SOIL MIXING

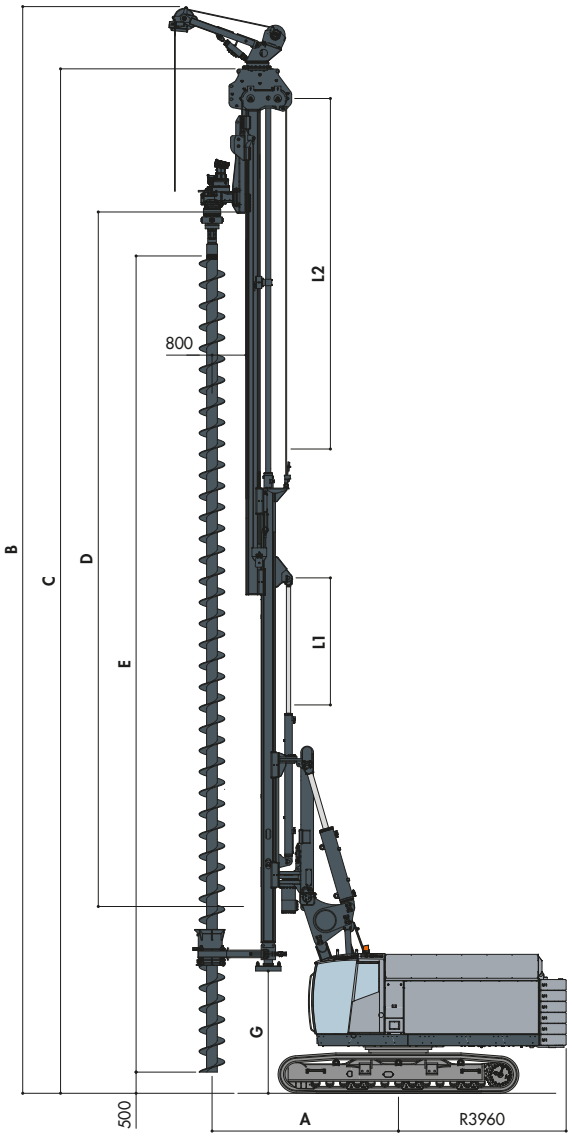


Cutter Soil Mixing Cutter Soil Mixing		
Panel length Lunghezza pannello	mm	2400
Panel width Larghezza pannello	mm	5600 / 600 / 800

			HRV16-T	HRV19-T	HRV21-T
A	Working radius Interasse di lavoro	mm	4460-5460	4460-5460	4510-5510
B	Max. height from ground Altezza max. da terra	m	22,6	25,7	28,2
C	Max. height from ground without jib Altezza max da terra senza falchetto	m	21,2	24,2	26,7
D	Max. Vibrator stroke Corsa max. vibratore	m	13,7	16,4	18,3
E	Max. tool length Lunghezza max. utensile	m	16,5	20,5	22,8
G	Distance of ground Distanza da terra	m	2,7	2,7	2,8
L1	Max Cylinder stroke Corsa max. martinetto	m	3	3	3,2
L2	Max Cylinder stroke Corsa max. martinetto	m	6,85	8,2	9,15
Max. depth Profondità max.		m	15,9	18,6	20,6
Extraction force at sledge Forza di estrazione alla slitta		kN	200	200	260
Crowd force at sledge Forza di spinta alla slitta		kN	140	140	140
Operating weight Peso attrezzatura		kg	~72500	~78300	~82200

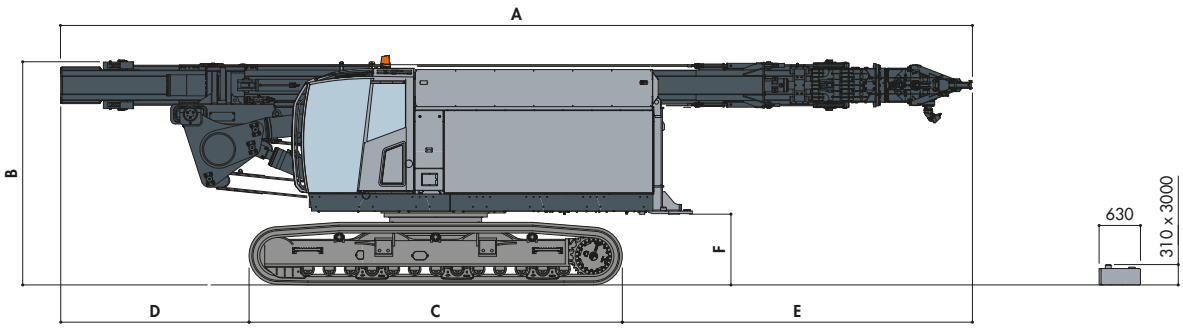
CFA BORED PILING
ALLESTIMENTO PALI CFA

Rotary head Testa di perforazione		RHP 10 HRV16/19	RHP 15 HRV21
Max. torque Coppia max	kNm	100	150
Max. speed Velocità max.	rpm	69	69

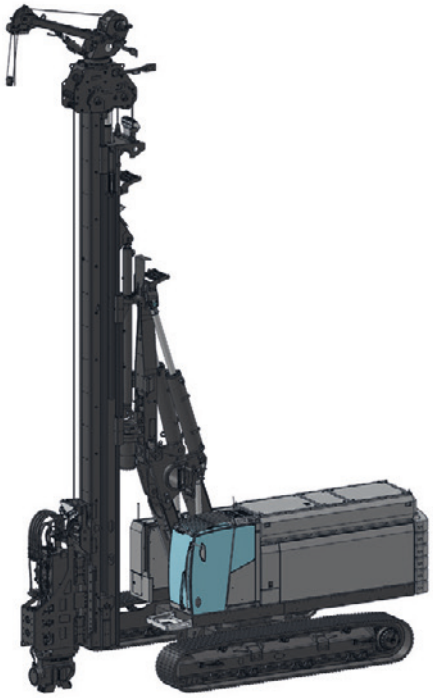


			HRV16-T	HRV19-T	HRV21-T
A	Working radius Interasse di lavoro	mm	4400-5400	4400-5400	4450-5550
B	Max. height from ground Altezza max. da terra	m	22,6	25,7	28,2
C	Max. height from ground without jib Altezza max da terra senza falchetto	m	21,2	24,2	26,7
D	Max. rotary head stroke Corsa max. rotary	m	13,7	16,4	18,3
E	Max. tool length Lunghezza max. utensile	m	16,2	19,2	21,5
G	Distance of ground Distanza da terra	m	2,8	2,8	2,9
L1	Max Cylinder stroke Corsa max. martinetto	m	3	3	3,2
L2	Max Cylinder stroke Corsa max. martinetto	m	6,85	8,2	9,15
Max. depth Profondità max.		kN	16	18,7	20,7
Extraction force at sledge Forza di estrazione alla slitta		kN	200	200	260
Crowd force at sledge Forza di spinta alla slitta		kg	140	140	140
Operating weight Peso attrezzatura		kg	~65000	~70150	~75100

TRANSPORT DATA
DATI DI TRASPORTO



			HRV16-T	HRV19-T	HRV21-T
A	Transport length Transport length	mm	12240	13895	15345
B	Transport height Altezza di trasporto	mm	3360	3400	3400
C	Overall length / width of crawlers Lunghezza / Larghezza cingoli	mm	5197 / 2500	5685 / 2980	5685 / 2980
D	Front overhang Sbalzo anteriore	mm	2010	2875	3100
E	Rear overhang Sbalzo posteriore	mm	5035	5335	6555
F	Clearance under counterweight Altezza sotto contrappeso	mm	1035	1075	1075
Mass of equipment in trasport (without auxiliary winch/jib, without counterweight and without attachment) Massa attrezzatura in trasporto (senza falchetto, senza zavorre e allestimento)		kg	51500	55000	57000
Counterweight standard Zavorra standard		kg	8500 (5x1700)	10200 (6x1700)	12600 (6x2100)
Auxiliary winch/jib (optional) Falchetto / Argano ausiliario (optional)		kg	1120	1120	1120



STANDARD EQUIPMENT
DISPOSITIVI DI SERIE

BASIC MACHINE	*MACCHINA BASE*
SPM control system - Smart Power Management	Sistema SPM di controllo e gestione della potenza
12″ touch screen display for visualization and setting of drilling parameters	Monitor touch-screen da 12" per visualizzazione e settaggio dei parametri di lavoro
7″ display for engine management, and video units	Display da 7″ per la gestione motore e delle telecamere di sorveglianza
Mast lifting and lowering aid	Sistema di sollevamento e abbassamento automatico del mast
Drilling depth measurement and automatic mast verticality control	Misura profondità perforazione e controllo automatico verticalità mast
Load cells to monitoring extraction and pull forces	Celle di carico per la misura di estrazione e spinta
Hook on auxiliary line	Gancio sulla fune dell'argano ausiliario
Protective roof guard (FOPS compliant)	Protezione FOPS su cabina operatore
Air condition system	Aria condizionata in cabina operatore
Cab front and side catwalk	Pedana anteriore e laterale sulla cabina operatore
Tool box	Cassetta attrezzi
Electric refueling pump	Pompa elettrica per riempimento gasolio
Automatic idling mode with engine for fuel saving	Auto-idling del motore diesel per risparmio di carburante
Start/stop system for fuel saving	Sistema start/stop per risparmio carburante

Devices which reduce the enviromental impact of rig / Dispositivi che riducono l'impatto ambientale dell'attrezzatura

OPTIONAL EQUIPMENT
DISPOSITIVI OPZIONALI

BASIC MACHINE	MACCHINA BASE
Lateral catwalks and handrails	Pedane laterali e ringhiere anticaduta
Railings on upperstructure	Ringhiere anticaduta sulla parte superiore del carro
Front cab protective guard	Griglia frontale cabina
Automatic centralized greasing system	Sistema automatico di ingrassaggio centralizzato
Radio remote control for rigging, derigging, tracking and positioning	Radiocomando per montaggio, smontaggio, traslazione e posizionamento
Video unit with two cameras and one 7" monitor to control winches and the rear of the machine	Telecamere di controllo e monitor da 7" in cabina per sorvegliare argani e zona posteriore macchina
Camera for panoramic view of the area around the machine	Telecamera per visualizzazione panoramica area intorno alla macchina
Load cells on auxiliary winch to monitoring the lifted load	Celle di carico sull'argano ausiliario per il controllo del carico di sollevamento
CFM - FleetMaster remote rig control and monitoring via internet	CFM - FleetMaster monitoraggio e controllo delle macchine via internet
CDR - Data Recorder System for monitoring and recording working parameters. Available for every foundation technique	CDR - Data Recorder Sistema monitoraggio e registrazione dei parametri di lavoro. Disponibile per ogni tecnica di fondazione
Transport kit according to required transport configuration	Kit di trasporto in funzione della modalità di trasporto

CFA EQUIPMENT	ALLESTIMENTO CFA
Measurement and visualization of extraction force	Misurazione e visualizzazione della forza di estrazione
Star CFA cleaner	Pulitore elica a stella
CFA lower guide with hydraulic opening	Centratore elica con apertura idraulica
Hydraulic vibrator for cages	Vibratore idraulico per gabbie
CFA control and adjustment of feed speed	Controllo e regolazione della velocità di avanzamento in CFA
Instrument for measuring, displaying and recording of drilling parameters. Complete with software for processing data on a PC	Strumentazione di misura, visualizzazione e registrazione dei parametri di lavoro. Software per post trattamento dati registrati
Instrument for continuous extraction of CFA	Strumentazione per estrazione CFA continua

HÜTTE

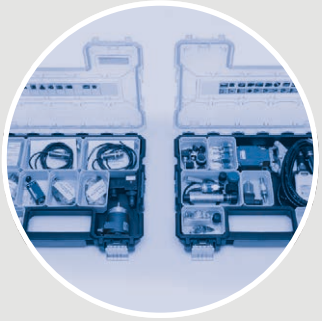
AFTER-SALES SERVICE

TECHNICAL ASSISTANCE

WARRANTY & SERVICING

TRAINING COURSES

FLEET MASTER



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