

CHF 50

SELF-ERECTING
HYDRAULIC PILING RIG FOR CFA



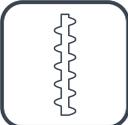
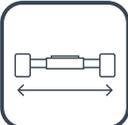
DEDICATED RIG FOR CFA DRILLING



The **CHF 50** is a dedicated (**CFA**) rig with an **operating weight of 46 tons** (101,500 lbs). It allows for the construction of CFA piles up to 27 m (89') depth and the ability to drill up to 1.000 mm (3' 3") diameter.

The **CHF 50** is **designed to be robust and reliable**, due to the use of special high-resistance steels that translates into lighter weight, **increased capacities and improved reliability**.

The **CHF 50** includes several design features developed to deliver the best possible performance:

	<p>EASY TRANSPORT & RIG-UP</p>	<ul style="list-style-type: none"> • Fully self-erecting system, to facilitate a fast rig-up and rig-down • Easy to transport in one piece • Mast support frame allowing for the mast to be easily erected to working position • Hydraulic operation of the folding top mast section and cathead, simplifying the rig-up and rig-down and reducing the possibility of damage to the mast
	<p>AUGER PLUS</p>	<ul style="list-style-type: none"> • Auger extension for drilling depth up to 27 m (89') • Star type or hydraulic roller type auger cleaner
	<p>UNDERCARRIAGE DIMENSIONS</p>	<ul style="list-style-type: none"> • Extended undercarriage and improved footprint for greater stability and extremely low ground pressure during operation

The **CHF 50** can be equipped with data logger systems that allows for the control and monitoring of the drilling and concreting parameters, recording the data for subsequent analysis. The safety features of the **CHF 50** are **fully compliant with EN16228 standards for drilling and foundation equipment**.

TECHNICAL DATA



UNDERCARRIAGE		m.s.	i.s.
Type	-	-	Variable gauge, telescoping side frames
Track shoe width	mm	ft-in	800 31" 1/2
Track shoe type	-	-	Triple grouser
Overall width (retracted side frames)	mm	ft-in	2.950 9' 8" 1/4
Overall width (extended side frames)	mm	ft-in	4.200 13' 9" 1/4
Overall length	mm	ft-in	5.300 17' 5"
Centre idler to centre sprocket	mm	ft-in	4.480 14' 8" 1/2

UPPERFRAME		m.s.	i.s.
Width	mm	ft-in	2.550 8' 4" 1/2
Operators' cabin	-	-	TOPS & FOPS-1 certified, 980 mm (3' 3") wide
Control system type	-	-	CAN-BUS
User interface	-	-	12" Touch Screen
Tail swing radius	mm	ft-in	3.865 12' 8"

DIESEL ENGINE		m.s.	i.s.	High Tech Line	
Make and model	-	-	-	Cummins B6.7	Cummins QSB6.7
Emission certification	-	-	-	EU stage V / US EPA Tier 4f	EU stage IIIA / US EPA Tier 3
Aspiration	-	-	-	Turbocharged and charge air cooled	
Power rating (2.000 rpm)	kW	hp	231	310	201 270
Displacement	cc	in ³	6.700	408	
Fuel tank	l	gal	500	135	
Sound pressure level in cabin (EN 16228-1, Annex B)	-	-	-	-	LP _A 82 dB (A)
Sound Power level (2000/14/EC - EN 16228-1, Annex B)	-	-	-	-	LW _A 108 dB (A)

HYDRAULIC SYSTEM		m.s.	i.s.
Main pumps flow	l/min	gal/min	2 x 214 2 x 56.5
Service pump flow	l/min	gal/min	142 37
Hydraulic oil tank capacity	l	gal	600 158

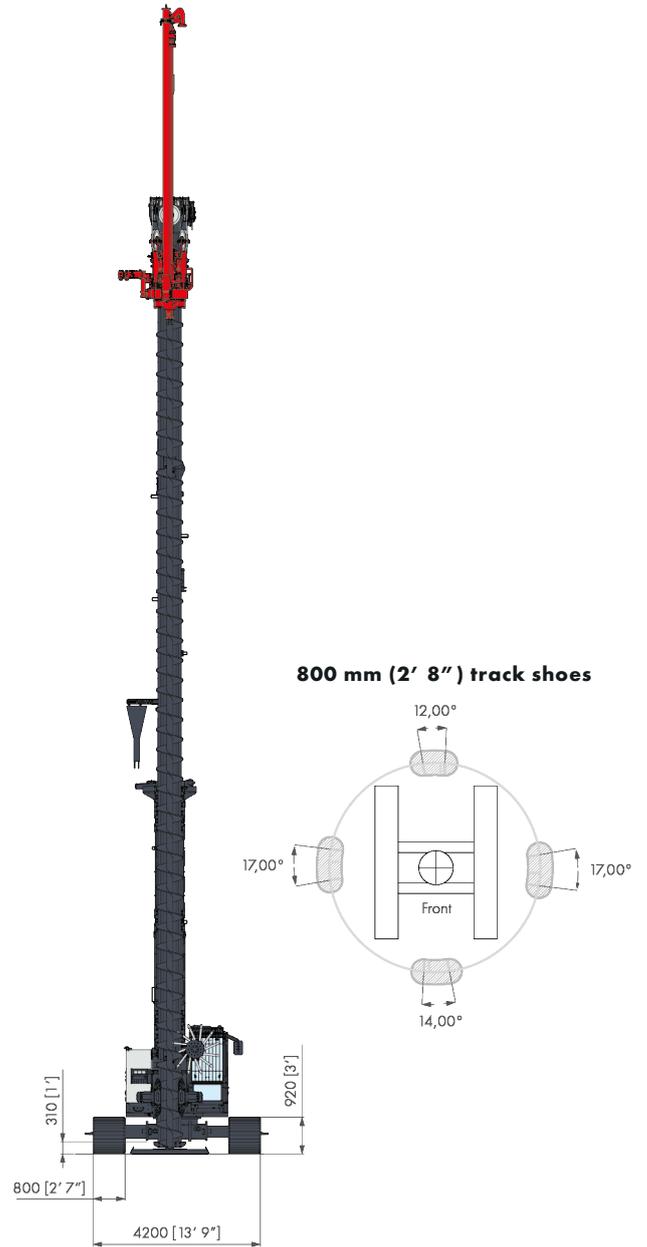
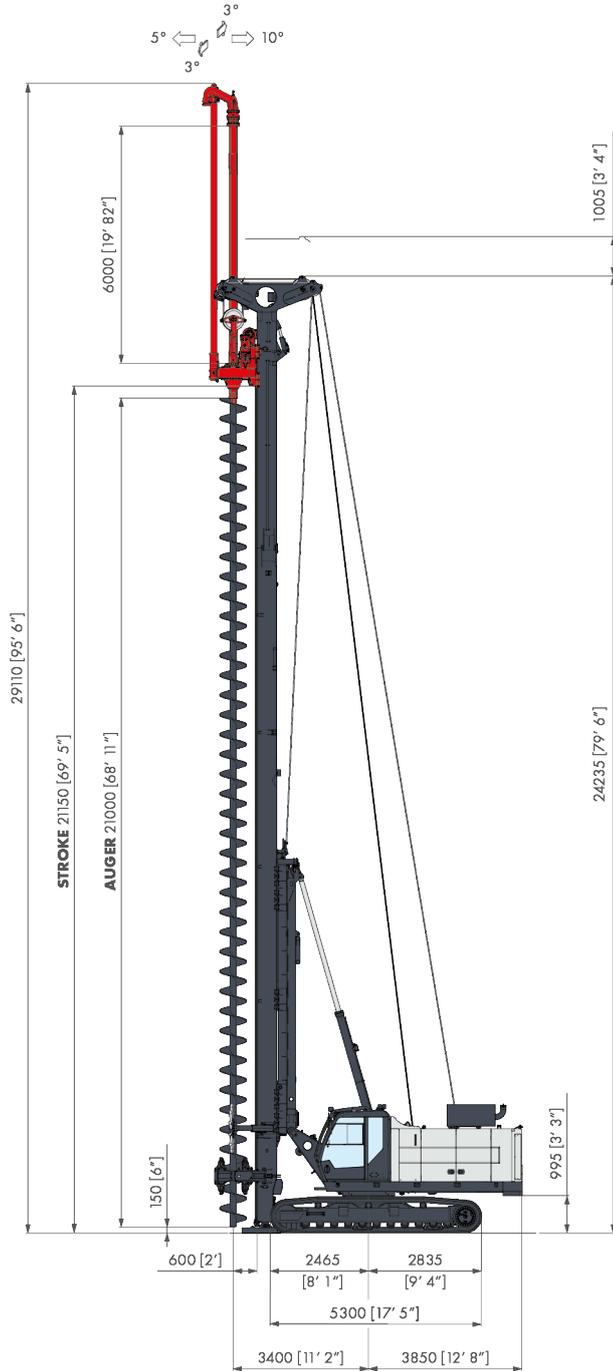
MAIN WINCH		m.s.	i.s.
Type	-	-	Controlled descent
1 st layer line pull	kN	lbs	135 30,350
1 st layer rope speed	mm/min	ft/min	74.000 243'
Rope diameter	mm	ft-in	22 7/8"
Rope layers	-	-	2
FEM classification	-	-	M5-L2-T5

SERVICE WINCH		m.s.	i.s.
Type	-	-	Controlled descent
1 st layer line pull	kN	lbs	72 16,200
1 st layer rope speed	mm/min	ft/min	55.000 180' 5"
Rope diameter	mm	ft-in	18 3/8"
Rope layers	-	-	3
FEM classification	-	-	M5-L2-T5

CHF 50



OVERALL DIMENSIONS



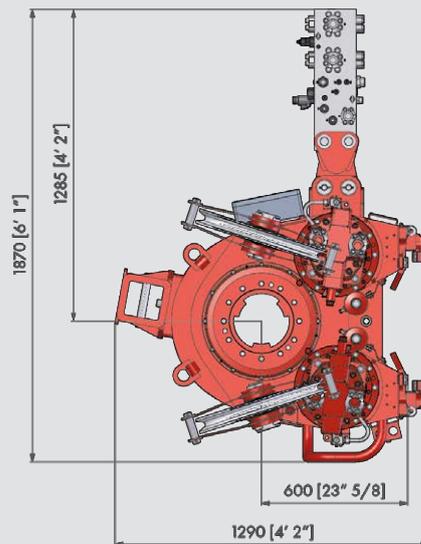
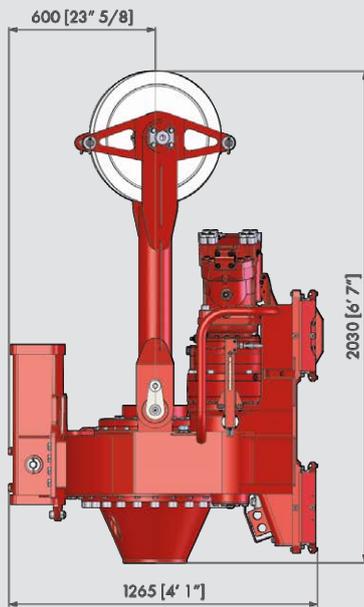
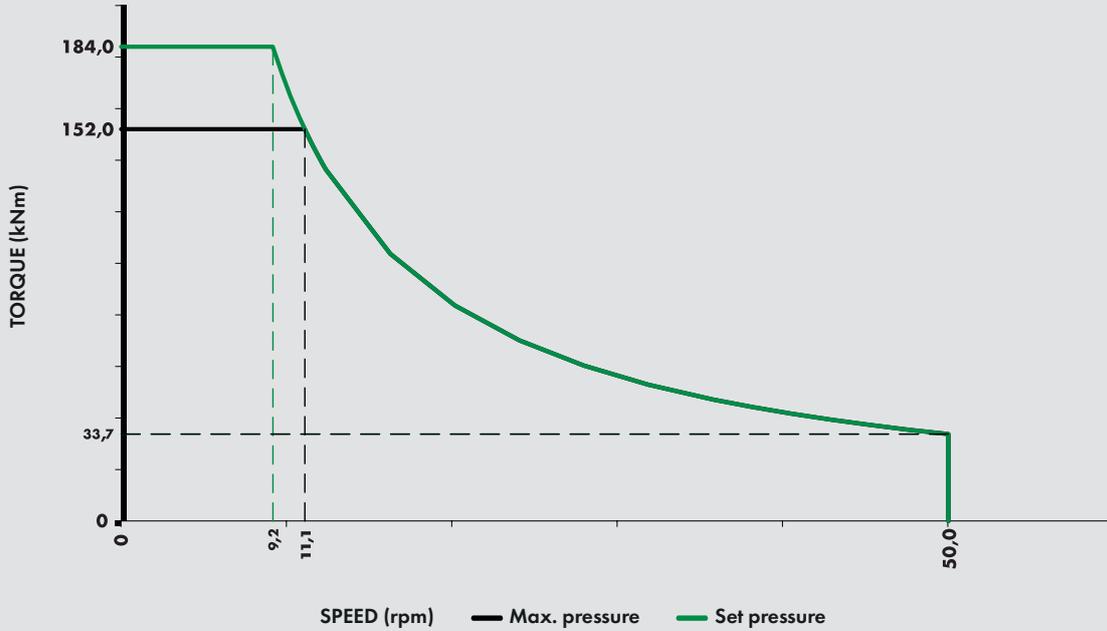
CFA (Continuous Flight Auger)	m.s.	i.s.		
Max. pile diameter	mm	ft-in	1.000	3' 3"
Max. length of augers	mm	ft-in	21.000	69'
Max. length of auger extension	mm	ft-in	6.000	19' 8"
Max. pile depth	mm	ft-in	21.000 + 6.000 = 27.000	69' + 19' 8" = 89'
Extraction force	kN	lbs	540	121,400
Crowd force on auger (optional)	kN	lbs	45 - 100	10,120 - 22,480
Operating weight	ton		46 ¹	

NOTE 1 - c/w 6.000 mm (19' 8") auger extension, auger guide & star cleaner, w/o auger

CR 15 ROTARY HEAD



TORQUE DIAGRAM

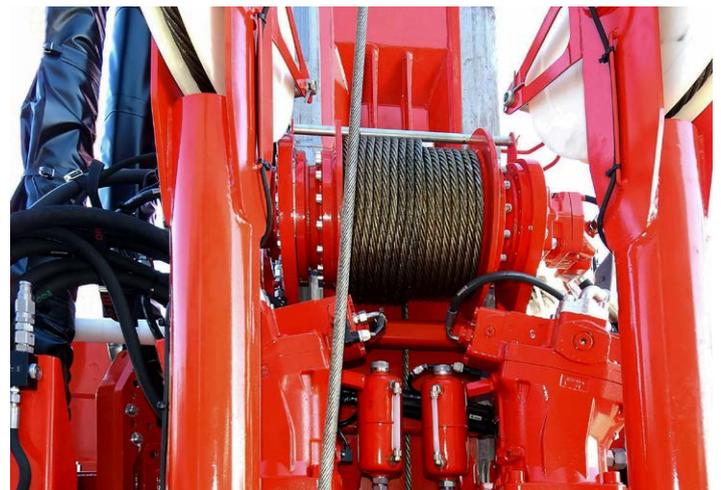
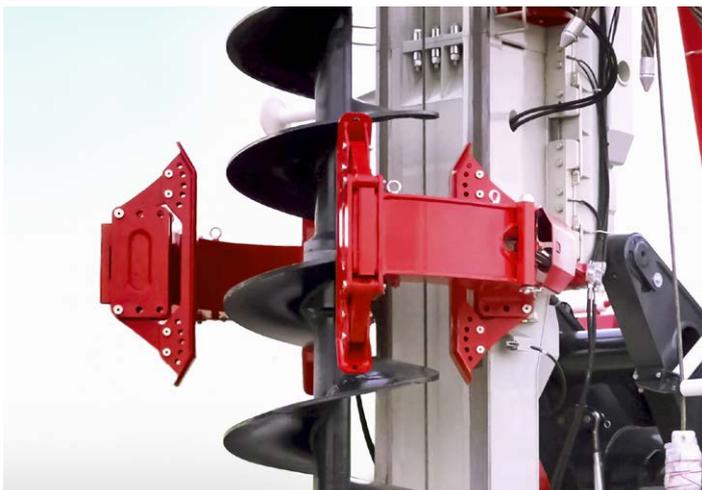


ROTARY HEAD	m.s.	i.s.	CR 15	
Nominal max. torque	kNm	lbf-ft	184 at 35 MPa	135,700 at 5,080 psi
Max. torque	kNm	lbf-ft	152 at 29 MPa	112,000 at 4,200 psi
Max. drilling speed	rpm		50	
Hydraulic power	kW	hp	177	237
Hex joint passage	-		4" or 5"	
Weight (as shown)	kg	lbs	2.200	4,850

OPTIONS AND ACCESSORIES



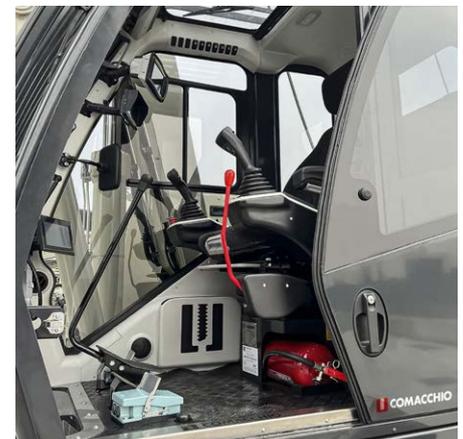
STANDARD EQUIPMENT	
Hoist and lowering limit switches on main and service ropes	Work lights
Service rope parking point	Electric refuelling pump and hydraulic oil refill system
Mast inclination measurement on X & Y axes (digital and analog display)	Diagnostic panel for hydraulic, engine, electrical and electronic functions
Automatic vertical mast alignment	Front and top cabin protective grate (FOPS-1 certified)
Depth measuring device on main winch	Swivel for service winch rope
Rpm measuring device on rotary	Radio player with bluetooth
Heating and air conditioning system	Phone charger
Main winch with special grooving	CCS Comacchio Controlling System - Touch Screen 12"
Automatic lubrication kit for rotary sliding guides	Rotary auto speed management & interactive multiple gear system
Transport securing lugs on crawler unit	Tool box
Video cameras set	Tool tray in front of cabin
Diesel engine diagnostics system	



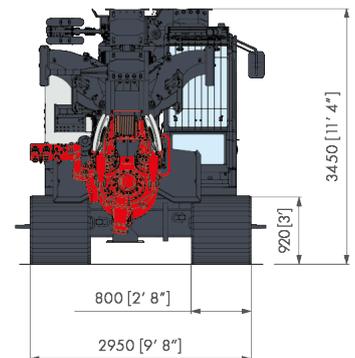
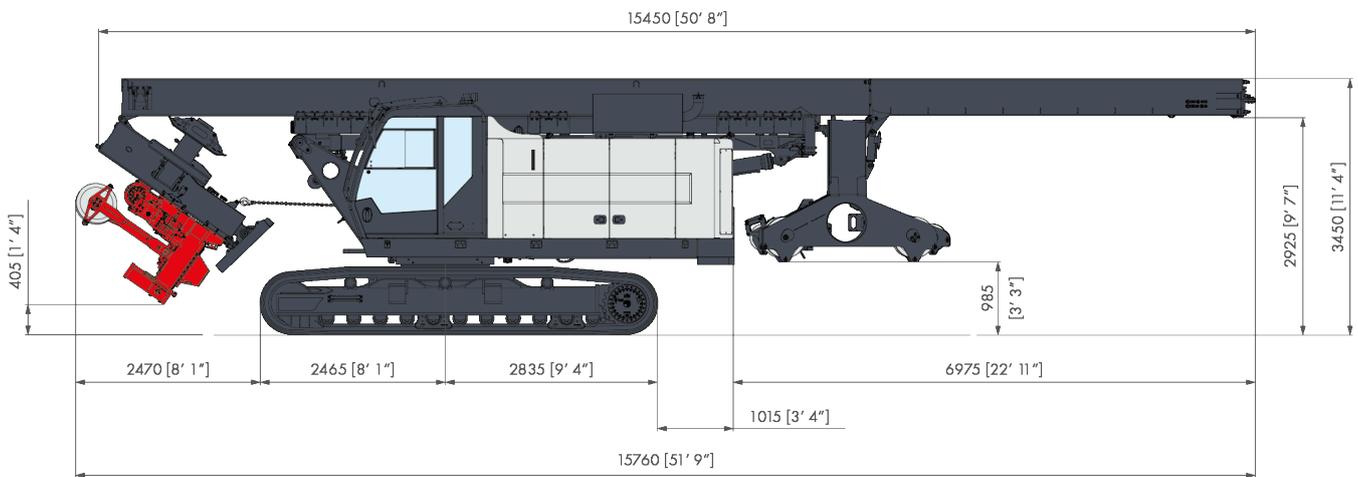
OPTIONAL EQUIPMENT	
Biodegradable oil	Vibrator for steel reinforcement cage
Pull down winch on rotary head (45 kN or 100 kN)	Washing kit
Central lubrication system	Air compressor kit
Main and aux winch load cells	Custom painting
CFA cleaner (star, hydraulic or brush type)	Data logger
Rubber strip on auger guide	ComNect System



CE CONFORMITY KIT	
Remote radio control for machine travel	CFA cleaner
Main and aux winch load cells	Rubber strip on auger guide
Side walkways with handrails	



TRANSPORT DIMENSIONS



	m.s.	
1 Transport weight	ton	43.7 ¹
2 Transport weight	ton	37.35 ²

NOTES	
1	w/o auger extension, star cleaner and auger guide
2	w/o auger extension, star cleaner, auger guide, rotary and counterweight





SELF-ERECTING HYDRAULIC PILING RIG FOR CFA



Comacchio S.p.A.
Via Callalta, 24/B
31039 Riese Pio X (Tv) Italy
T +39 0423 7585
F +39 0423 755592
sales@comacchio.com

comacchio.com



UNI EN ISO 9001:2015 / ISO 14001:2015