

CHF 900

Self-Erecting Hydraulic Piling Rig



CHF 900

CFA DEDICATED DRILLING RIG

The CHF 900 is a dedicated CFA rig with an operating weight of 90 tons (198,400 lbs). The CHF 900 has a robust and reliable design, the use of special high-resistance steels ensures lighter weight, increased capacities and improved reliability. The rig provides 280 kNm (206,500 lbf-ft) nominal torque and 1.120 kN (251,786 lbs) extraction force. It allows for the construction of CFA piles up to 32.5 m (107 ') depth and the ability to drill up to 1.200 mm (3' 11") in diameter.

The CHF 900 includes several design features developed to deliver the best possible performance:

- Self-erecting system, to facilitate a fast rig-up and rig-down;
- Easy to transport with minor disassembly;
- 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;
- Auger extension for drilling depth up to 32.5 m (107 ');
- Star type, roller type or brush type auger cleaner;
- Extended undercarriage and improved footprint for greater stability and low ground pressure during operation.

Like all Comacchio CH rigs, the CHF 900 is designed to improve energy efficiency and environmental sustainability. The combination of fuel-efficient engines and advanced hydraulic system considerably reduces emissions and fuel consumption, also reducing noise levels on site. The cabin provides maximum operator comfort to ensure smooth and easy operation. All machine functions are managed via a touch screen display thanks to the CCS system: a user-friendly control software developed by Comacchio technicians, which controls the working parameters and allows for the complete management of the machine, including fault diagnostics. Additionally, the CHF 900 can be equipped with data logger systems for monitoring of the drilling and concreting parameters together with recording the data. The safety features of the CHF 900 are fully compliant with the strictest European regulations for drilling and foundation equipment.

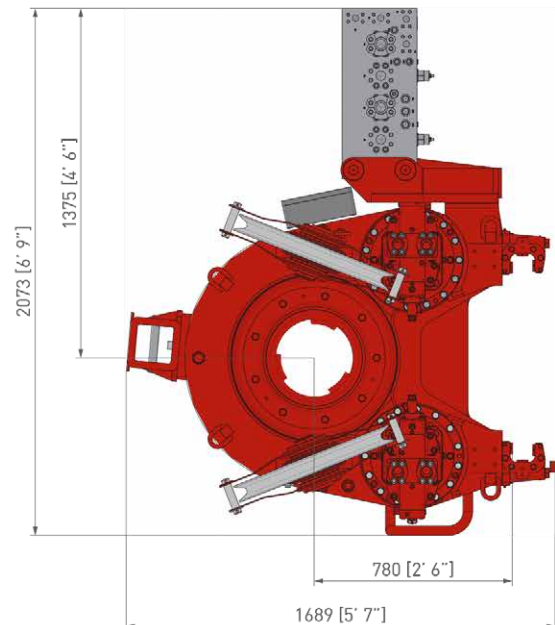
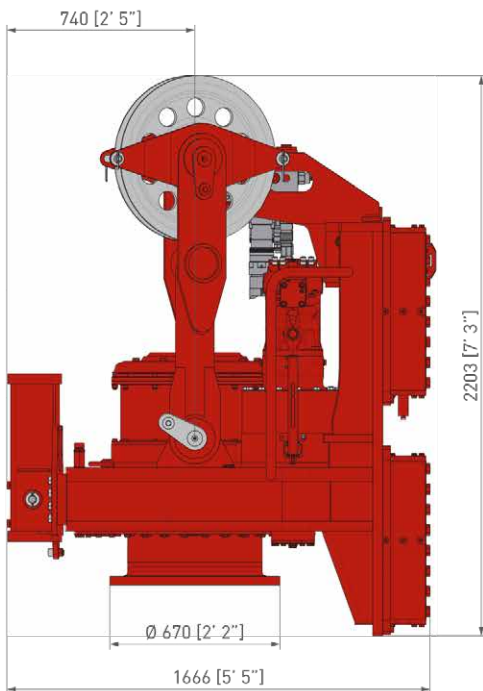
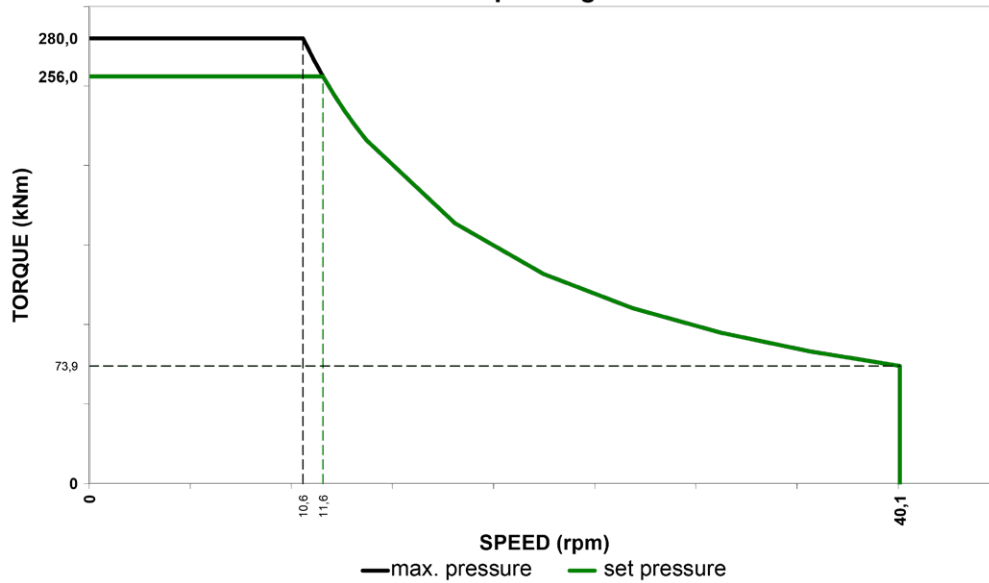


Undercarriage		m.s.	i.s.				
Type	-	Variable gauge, telescoping side frames					
Removable tracks	-	Yes					
Track shoe width	mm	ft-in	800	2' 8"	900	2' 11"	
Track shoe type	-	Triple grouser					
Overall width (retracted side frames)	mm	ft-in	2.990	9' 10"	3.150	10' 4"	
Overall width (extended side frames)	mm	ft-in	4.590	15' 1"	4.750	15' 7"	
Overall length	mm	ft-in	6.015		19' 9"		
Centre idler to centre sprocket	mm	ft-in	5.050		16' 7"		
Upperframe							
Width	mm	ft-in	3.000		9' 10"		
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	4.310		14' 2"		
Diesel Engine		<i>High Tech Line</i>					
Make and model	-	Volvo D13					
Emission certification	-	EU stage V / US EPA Tier 4f		EU stage IIIA / US EPA Tier 3			
Aspiration	-	Turbocharged and charge air cooled					
Power rating (1700 rpm)	kW	hp	345/ 405	462/ 543	345	462	
Displacement	cc	in ³	12.780		780		
Fuel tank	l	gal	735		194		
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							
Main pumps flow	l/min	gal/min	2 x 345		2 x 91		
Service pump flow	l/min	gal/min	180		48		
Hydraulic oil tank capacity	l	gal	960		254		
Main Winch							
Type	-	Controlled descent					
1 st layer line pull	kN	lbs	280		63,000		
1 st layer rope speed	m/min	ft/min	85		279'		
Rope diameter	mm	in	30		1" 3/16		
Rope layers	-	2					
FEM classification	-	M6-L3-T5					
Service Winch							
Type	-	Controlled descent					
1 st layer line pull	kN	lbs	133		29,900		
1 st layer rope speed	m/min	ft/min	64		210'		
Rope diameter	mm	in	20		25/32"		
Rope layers	-	3					
FEM classification	-	M5-L2-T5					

CHF 900

Rotary Head

Torque Diagram



Rotary Head	m.s.	i.s.	CR 28	
Nominal max. torque	kNm	lbf-ft	280 at 35 MPa	206,500 at 5080 psi
Max. torque	kNm	lbf-ft	256 at 32 MPa	188,800 at 4640 psi
Max. drilling speed	rpm		40	
Hydraulic power	kW	HP	310	415
Replaceable drive sleeve			Yes	
Hex joint passage i.d.			4" or 5"	

Standard equipment

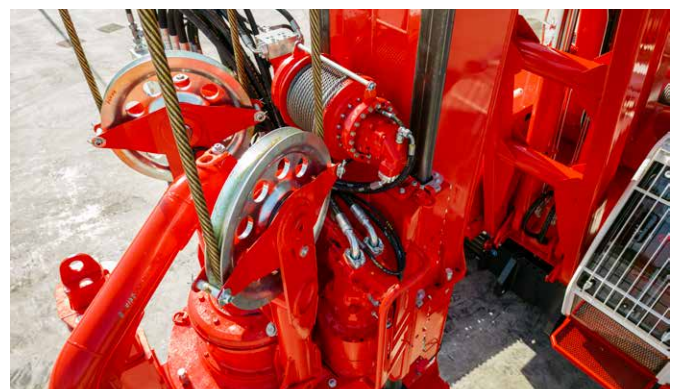
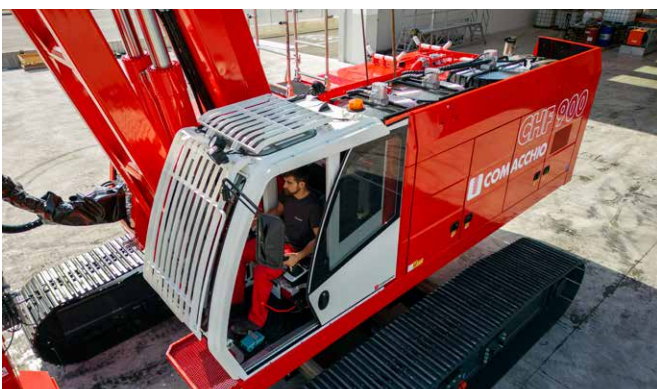
Main winch with special grooving	Transport securing lugs on crawler unit
Hoist and lowering limit switches on main and service ropes	Hydraulic device for counterweight easy installation & removal 10.5 ton 4-part counterweight (3.5 + 2.5 + 2.5 + 2)
Service rope parking point	Work lights
Mast inclination measurement on X & Y axes (digital and analog display)	Diagnostic panel for hydraulic, electrical and electronic functions
Automatic vertical mast alignment	Electric refuelling pump and hydraulic oil refilling
Depth measuring device on main winch	Front and top cabin protective grate (FOPS-1 certified)
Rpm measuring device on rotary	TOPS certified cabin
Air conditioning system	Radio and music player c/w bluetooth
Emergency mode of operation for engine	Phone charger
Engine diagnostic panel	CCS Comacchio Controlling System
Automatic proportional control of cooling fans speed	Rotary auto speed management & interactive multiple gear
Safety ladder & walkway to access centre of machine	Tool box

Optional equipment

Biodegradable oil	Welding equipment & generator
Pull down winch on rotary (50 kN or 100 kN)	Air compressor
Central lubrication system	Washing kit
Automatic lubrication kit for cathead pulleys	Videocamera set
Automatic lubrication kit for rotary sliding guides	Vibratory equipment for steel cage
Swivel for auxiliary rope	CE conformity kit
Main and aux winch load cells	Sliding retractable side walkways c/w guardrails
CFA cleaner (star, brush or roller type)	Travelling radio remote control
Rubber skirt on auger guide	Data logger
Hydraulic jack-up system for crawler tracks easy installation & removal	ComNect system
2 ton additional counterweight for special applications	

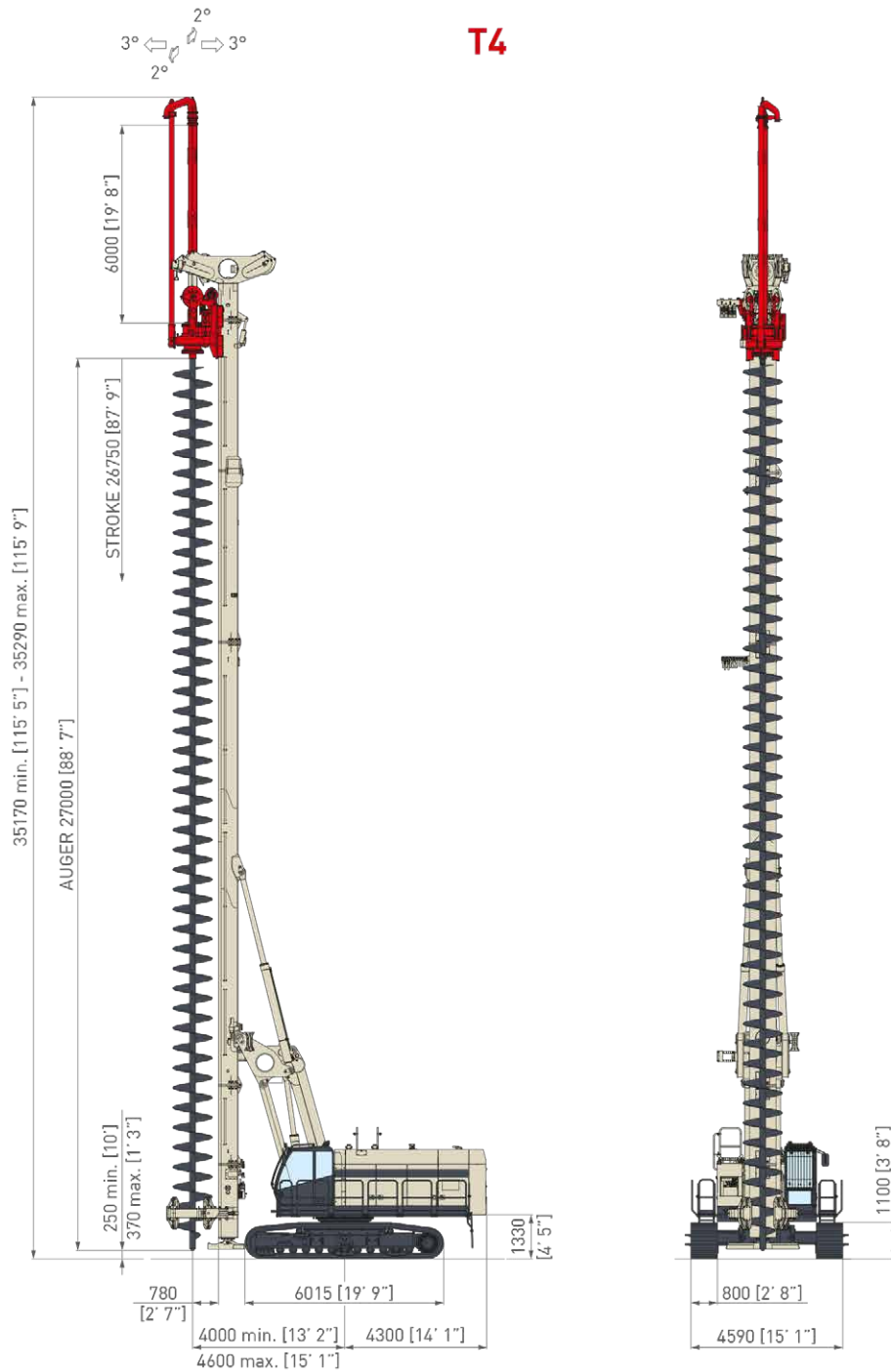
CE conformity kit

Machine travel remote radio control	Video cameras set
Main and aux winch load cells	CFA cleaner
Side walkways w/handrails	Rubber skirt on auger guide



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Overall dimensions



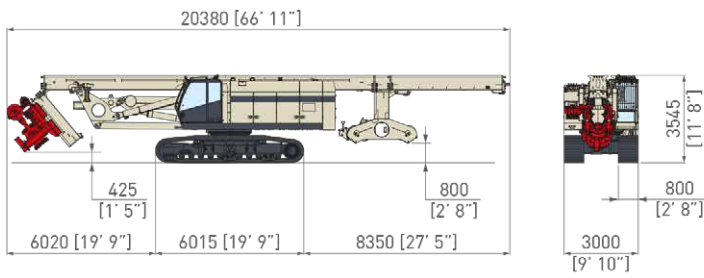
CFA	m.s.	i.s.	T4
Max. pile diameter	mm	ft-in	1.200 3' 11"
Max. length of augers	m	ft-in	27 88' 7"
Max. length of auger extension	m	ft-in	6 19' 8"
Max. pile depth	m	ft-in	26,5 + 6,0 = 32,5 87' + 19' 8" = 106' 8"
Extraction force	kN	lbs	1.120 251,800
Crowd force on auger (optional)	kN	lbs	150 33,700
Operating weight w/o tool ⁽¹⁾	kg	lbs	86.100 189,800

Note

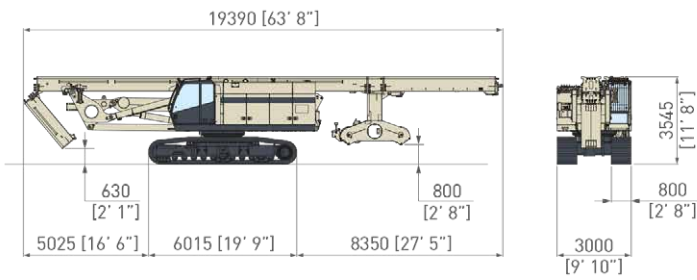
(1) c/w 6 m auger extension, bottom opening gate and star type auger cleaner.

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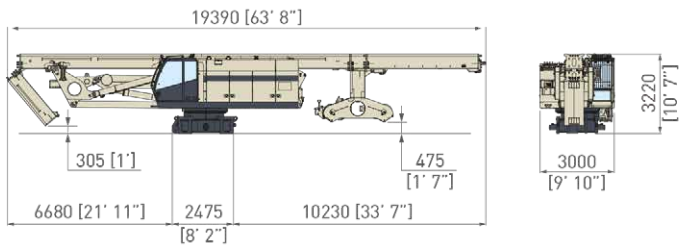
Transport dimensions



	m.s.	i.s.	CFA T4	
Transport weight	kg	lbs	80.850	178,200



	m.s.	i.s.	CFA T4 w/o rotary head w/o counterweight	
Transport weight	kg	lbs	65.500	144,400



	m.s.	i.s.	CFA T4 w/o rotary head w/o counterweight w/o crawlers	
Transport weight	kg	lbs	45,750	100,900



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