

CHF 900

SELF-ERECTING HYDRAULIC PILING RIG





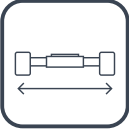
DEDICATED RIG FOR CFA DRILLING



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:

	<p>EASY TRANSPORT & RIG-UP</p>	<ul style="list-style-type: none"> • 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
	<p>AUGER PLUS</p>	<ul style="list-style-type: none"> • Auger extension for drilling depth up to 32.5 m (107') • Star type, roller type or brush type auger cleaner
	<p>UNDERCARRIAGE DIMENSIONS</p>	<ul style="list-style-type: none"> • 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.

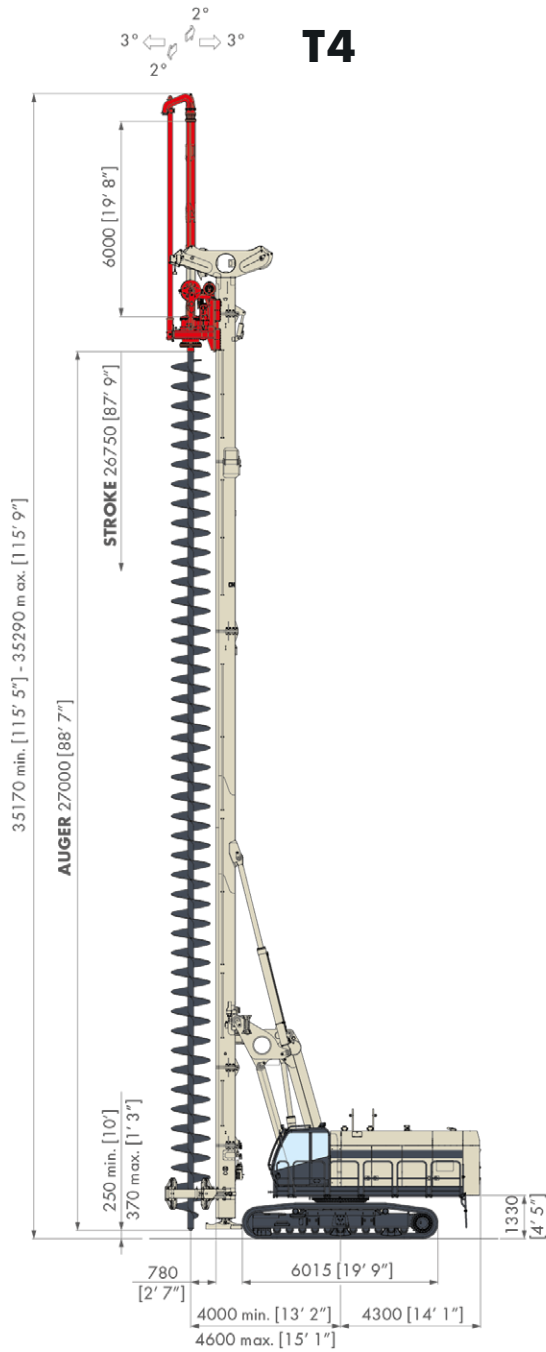
TECHNICAL DATA

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' 1"	
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		m.s.	i.s.				
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		m.s.	i.s.	High Tech Line			
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 (1.700 rpm)	kW	hp	345 - 405	462 - 543	405	543	
Displacement	cc	in ³			12.780	780	
Fuel tank	l	gal			735	194	
Sound pressure level in cabin (EN 16228-1, Annex B)	-	-	LPA 82 dB (A)				
Sound Power level (2000/14/EC - EN 16228-1, Annex B)	-	-	LWA 108 dB (A)				
HYDRAULIC SYSTEM		m.s.	i.s.				
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		m.s.	i.s.				
Type	-	-	Controlled descent				
1 st layer line pull	kN	lbs			280	63,000	
1 st layer rope speed	mm/min	ft/min			85.000	279'	
Rope diameter	mm	in			30	1 3/16	
Rope layers	-	-	2				
FEM classification	-	-	M6-L3-T5				
SERVICE WINCH		m.s.	i.s.				
Type	-	-	Controlled descent				
1 st layer line pull	kN	lbs			133	29,900	
1 st layer rope speed	mm/min	ft/min			64.000	210'	
Rope diameter	mm	in			20	13/16"	
Rope layers	-	-	3				
FEM classification	-	-	M5-L2-T5				

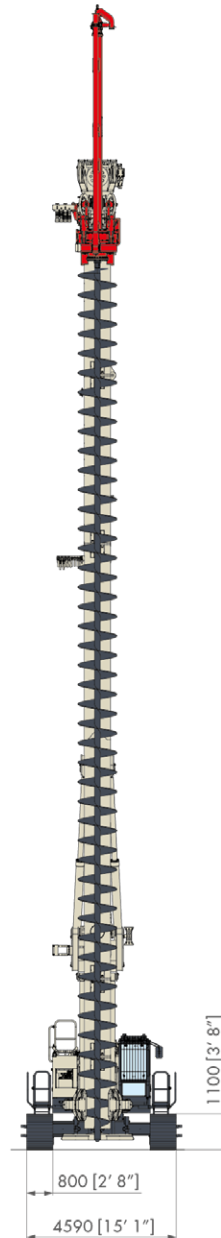
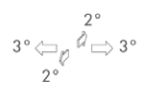
CHF 900



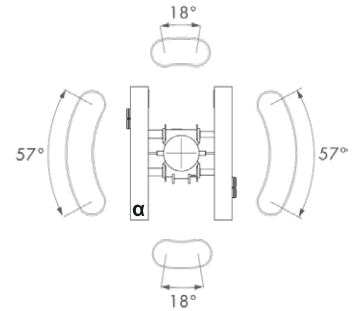
OVERALL DIMENSIONS



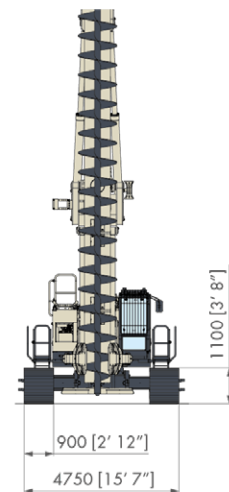
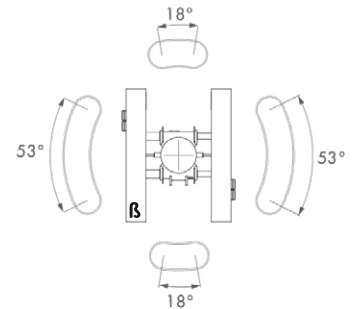
T4



800 mm (2' 8") track shoes (α)



900 mm (2' 12") track shoes (β)



OPTION: 900 mm (2' 12") TRACK SHOES

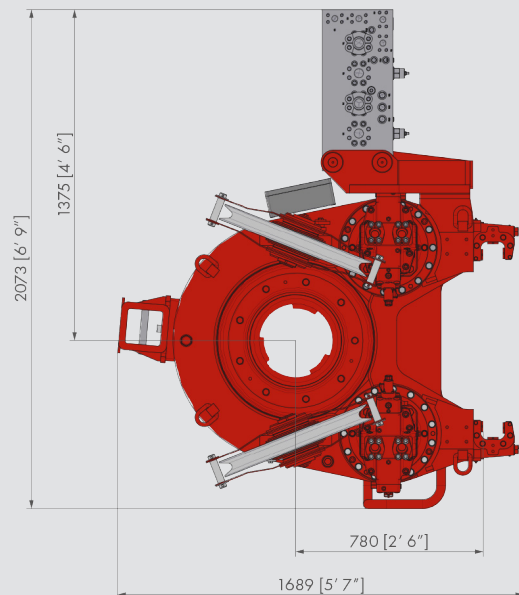
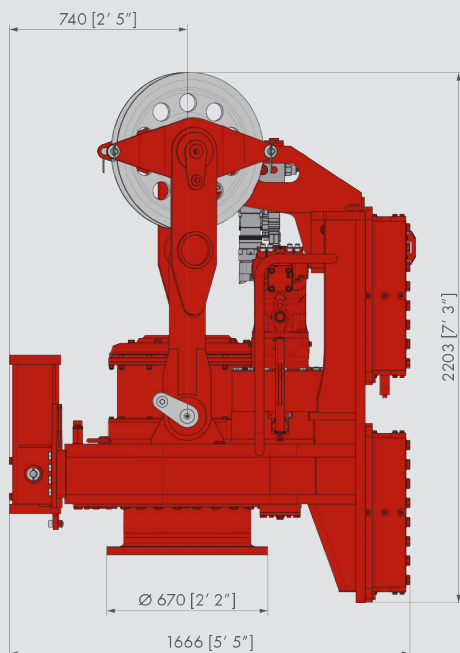
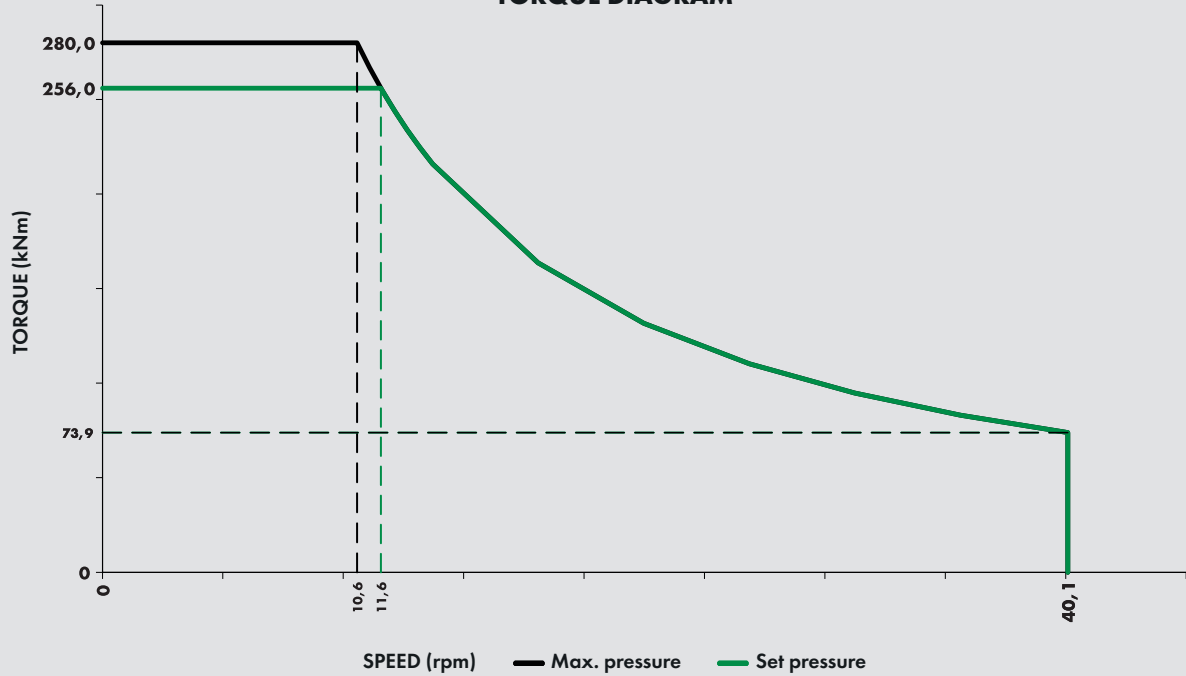
CFA (Continuous Flight Auger)	m.s.	i.s.	T4	
Max. pile diameter	mm	ft-in	1.200	3' 11"
Max. length of augers	mm	ft-in	27.000	88' 7"
Max. length of auger extension	mm	ft-in	6.000	19' 8"
Max. pile depth	mm	ft-in	26.500 + 6.000 = 32.500	87' + 19' 8" = 106' 8"
Extraction force	kN	lbs	1.120	251,800
Crowd force on auger (optional)	kN	lbs	150	33,700
Operating weight w/o tool¹	ton		86,1	

NOTE 1 - c/w 6.000 mm auger extension, bottom opening gate and star type auger cleaner

CR 28 ROTARY HEAD



TORQUE DIAGRAM

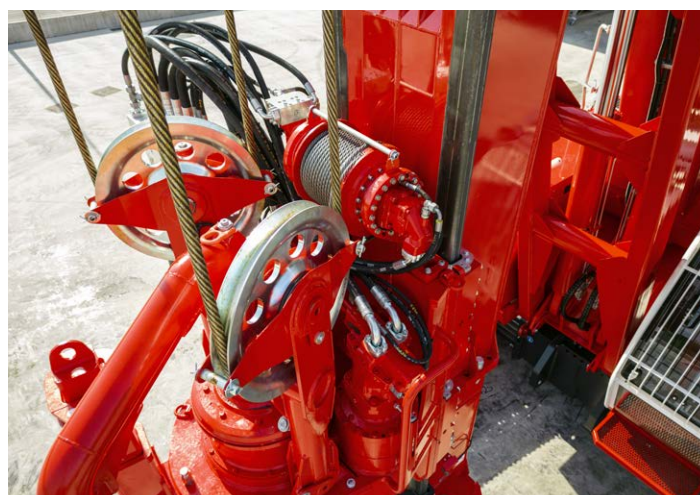
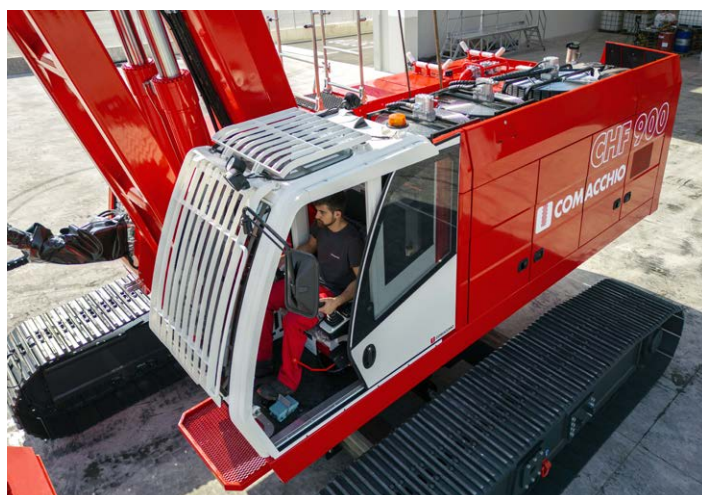


ROTARY HEAD	m.s.	i.s.	CR 28	
Nominal max. torque	kNm	lbf-ft	280 at 35 MPa	206,500 at 5080 psi
Max. torque	kNm	lbf-ft	256 at 32 MPa	188,800 at 4640 psi
Max. drilling speed	rpm		40	
Hydraulic power	kW	hp	310	415
Replaceable drive sleeve	-		Yes	
Hex joint passage i.d.	-		4" or 5"	
Weight (as shown)	kg	lbs	4.500	9,921

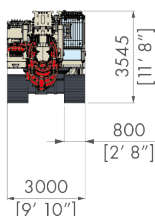
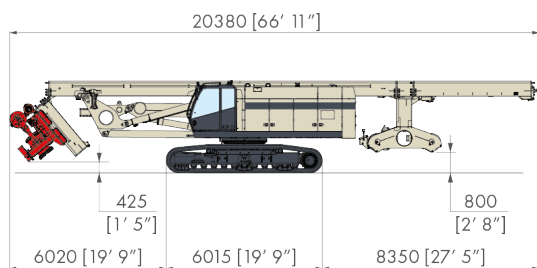
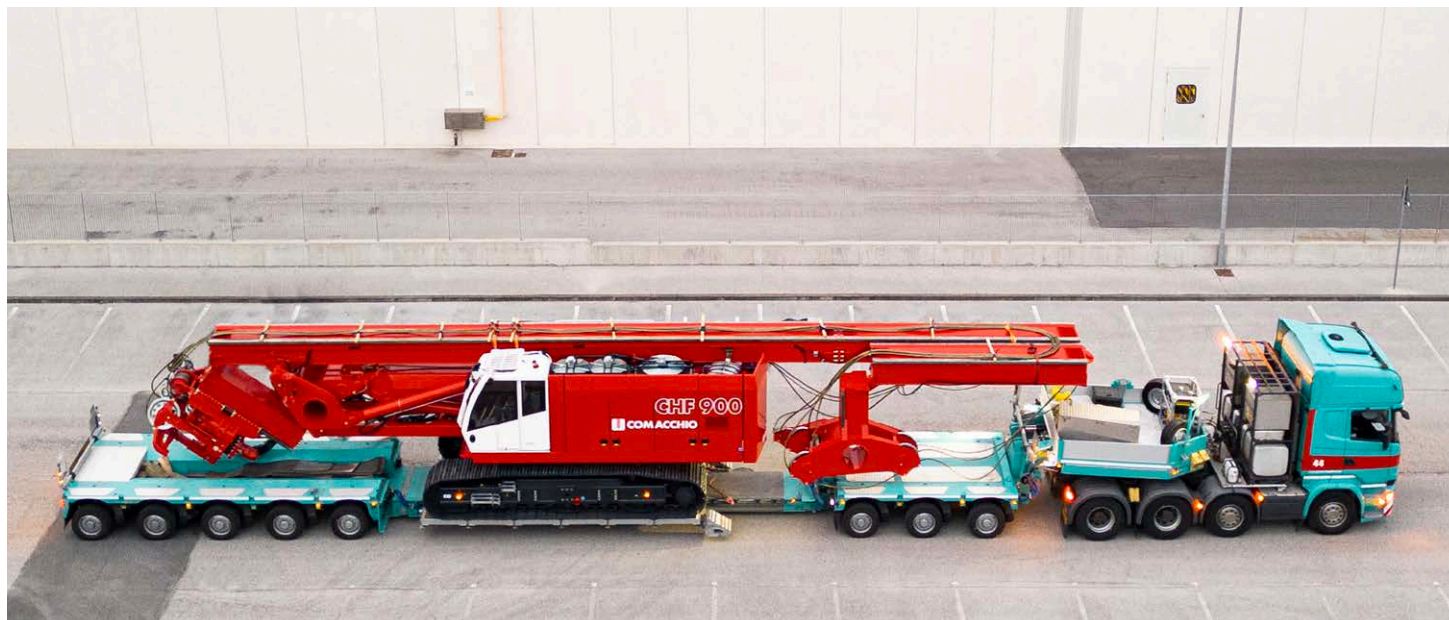
OPTIONS AND ACCESSORIES



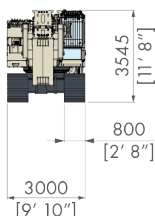
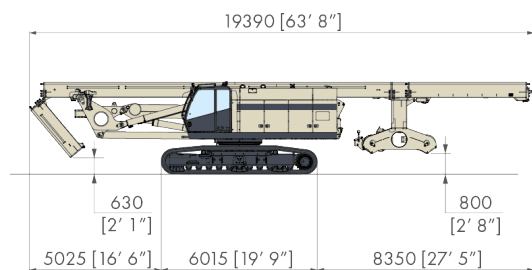
STANDARD EQUIPMENT	
Main winch with special grooving	Diagnostic panel for hydraulic, engine, electrical and electronic functions
Hoist and lowering limit switches on main and service ropes	
Service rope parking point	Work lights
Mast inclination measurement on X & Y axes (digital and analog display)	Hydraulic device for counterweight easy installation & removal 10.5 ton 4-part counterweight (3.5 + 2.5 + 2.5 + 2)
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
Automatic proportional control of cooling fans speed	CCS Comacchio Controlling System
Safety ladder & walkway to access centre of machine	Rotary auto speed management & interactive multiple gear
Transport securing lugs on crawler unit	Tool box
Automatic lubrication kit for rotary sliding guides	Videocamera set
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	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	Custom painting
CE CONFORMITY KIT	
Machine travel remote radio control	CFA cleaner
Main and aux winch load cells	Rubber skirt on auger guide
Side walkways w/handrails	



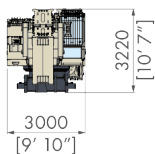
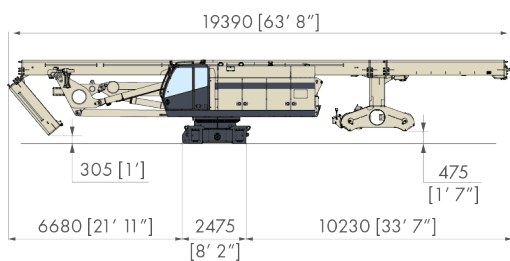
TRANSPORT DIMENSIONS



	m.s.	CFA T4
Transport weight	ton	80,85



	m.s.	CFA T4 w/o rotary head w/o counterweight
Transport weight	ton	65,5



	m.s.	CFA T4 w/o rotary head w/o counterweight w/o crawlers
Transport weight	ton	45,75



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