Junttan

X-SERIES Junttan

MULTIPURPOSE PILING RIG

MPx90

DATA SHEET

GENERAL INFORMATION

Junttan MPx90 is the largest member of the Junttan product family, a multipurpose drilling rig for heavy-duty working. This versatile deep foundation machine can be equipped with several working methods such as displacement, CFA or driven pile. The MPx90 is optimal with Junttan JD45 rotary head, delivering a max torque of 450 kNm. With wide range of options, optimized working set-up for every need can be easily achieved. Main advantages of the MPx90 are easy transportation, exceptional stability, operational safety, environmental focus, and above all, high productivity. The Junttan-designed, purpose-built undercarriage ensures upmost stability for the rig. Special attention has been paid to the mobilisation and easiness of transportation of the MPx rigs. The rigs can be transported with a leader, which can be folded to diminish the transport length. Additional drilling depth up to 7 meters can be achieve by using optional clamping device and tool extension.

TECHNICAL DATA

LEADER			
Type		Fixed MPx90	
Length	Leader sections:	0.6 + 3.7 + 3.7+ 18 + 5 + 6 m	2 + 12 + 12.+ 59.1 + 16.4 + 19,7 ft
	Total length:	37 m	122 ft
Maximum capacity		42 000 kg	92 600 lb
Movements	Vertical:	7 650 mm	301 in
	Horizontal	1 500 mm	59 in
Inclinations	According to separate capacity tables		

JIB HOIST		
	Capacity	
Single rope	100 kN	17 985 lbf
Turning radius	270 °	
Working radius	2,6 m	8.53 ft

UPPERCARRIAGE			
Winches	Single line pull, 1. layer		
	Main winch 1:	300 kN	67 443 lbf
	Main winch 2:	200 kN	44 961 lbf
	3rd winch	100 kN	17 985 lbf
	4th winch	50 kN	11 240 lbf
Engine	Type:	Cummins QSX15, Stage V	Tier 4F
	Max power:	503 kW	675 hp
	Fuel tank:	1 250 liters	330 gal
Hydraulic system	Max flow:	2 x 598 l/min @ 2 300 rpm	2 x 158 gpm @ 2 300 rpm
	Max pressure:	350 bar	5 076 psi
	Oil tank:	1 200 liters	317 gal
Counterweight	Extendable:	12 000 kg	26 455 lb

UNDERCARRIAGE			
Crawler length		6 325 mm	249 in
Width (900 shoes)	Min:	3 470 mm	11.4 ft
	Max:	5 010 mm	16.4 ft
Triple grouser type track shoes	Width:	900 mm	2.9 ft
Traction force		800 kN	179 847 lbf
Drive gear moment		160 kNm	118 000 lb-ft

OPTIONS

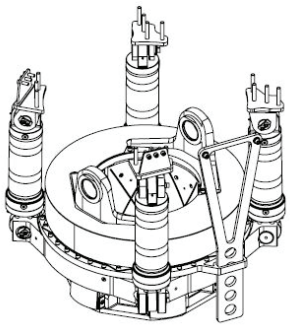
RIG OPTIONS*

	CFA	Displacement	Driven Pile
Jean Lutz measuring device	x	x	
Extraction cathead	x	x	
Double side cathead			x
Personnel working platform	x	x	
Jlb winch	x	x	
Flat track shoes	x	x	x
Junttan measuring device			x
Auger cleaner	x		
Concrete piping for upper carriage and leader	x	x	
Arctic kit	x	x	x
Automatic greasing system	x	x	x

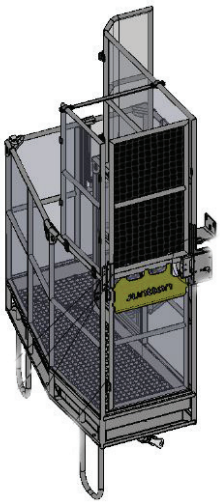
JD45 ROTARY HEAD OPTIONS*

Crossjoint
Hexagon adapter
Clamp device
Tool extension (used together with clamp device)
Concreting swanneck and swivel
Working platforms
Load pin torque measuring

Clamp device

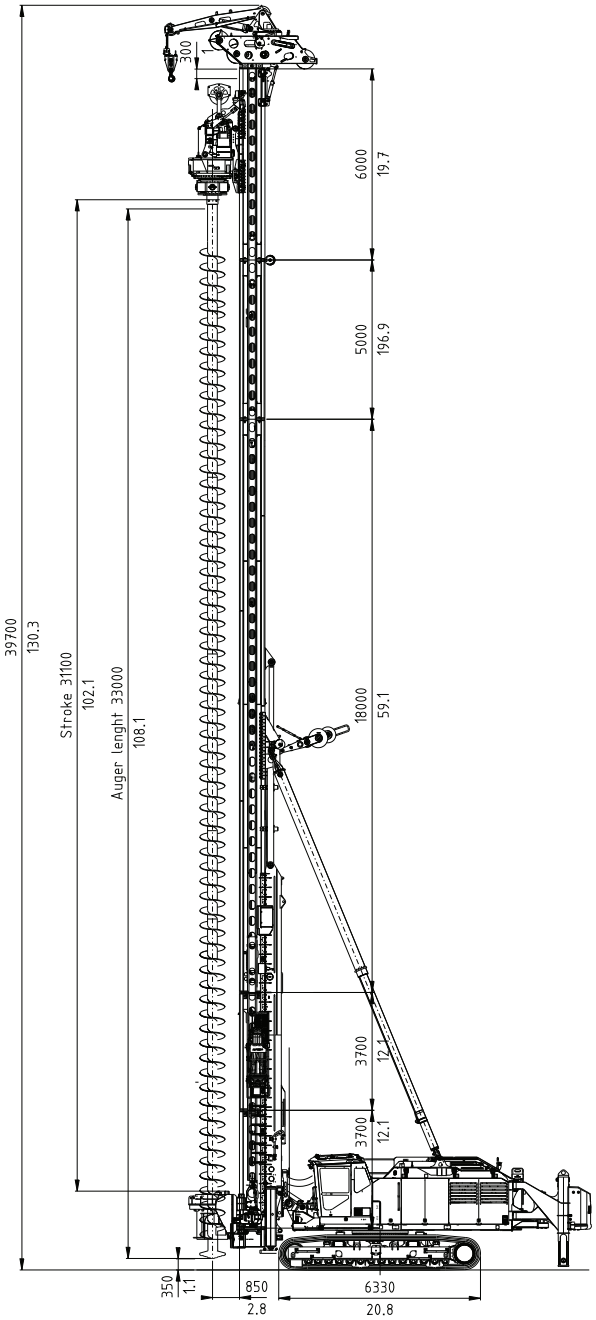


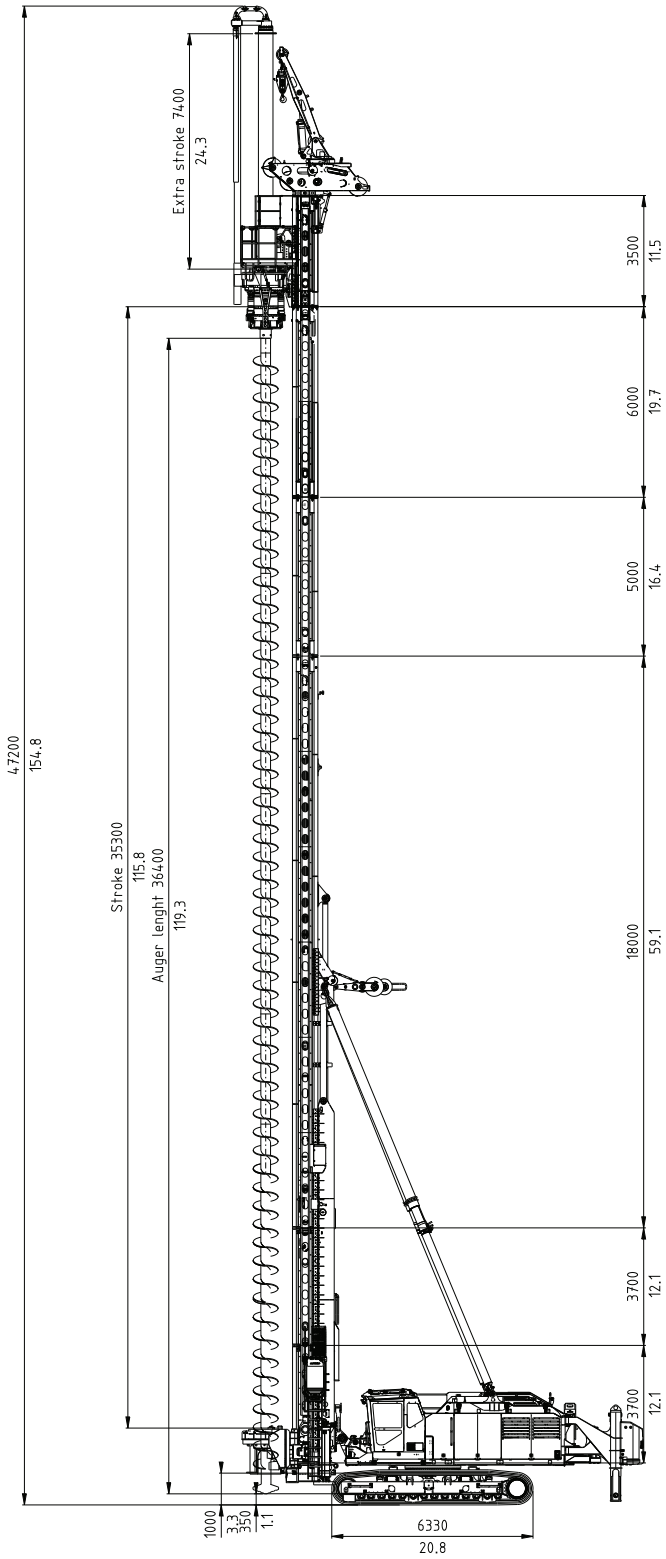
Working platform



* Contact Junttan sales for all available options and accessories

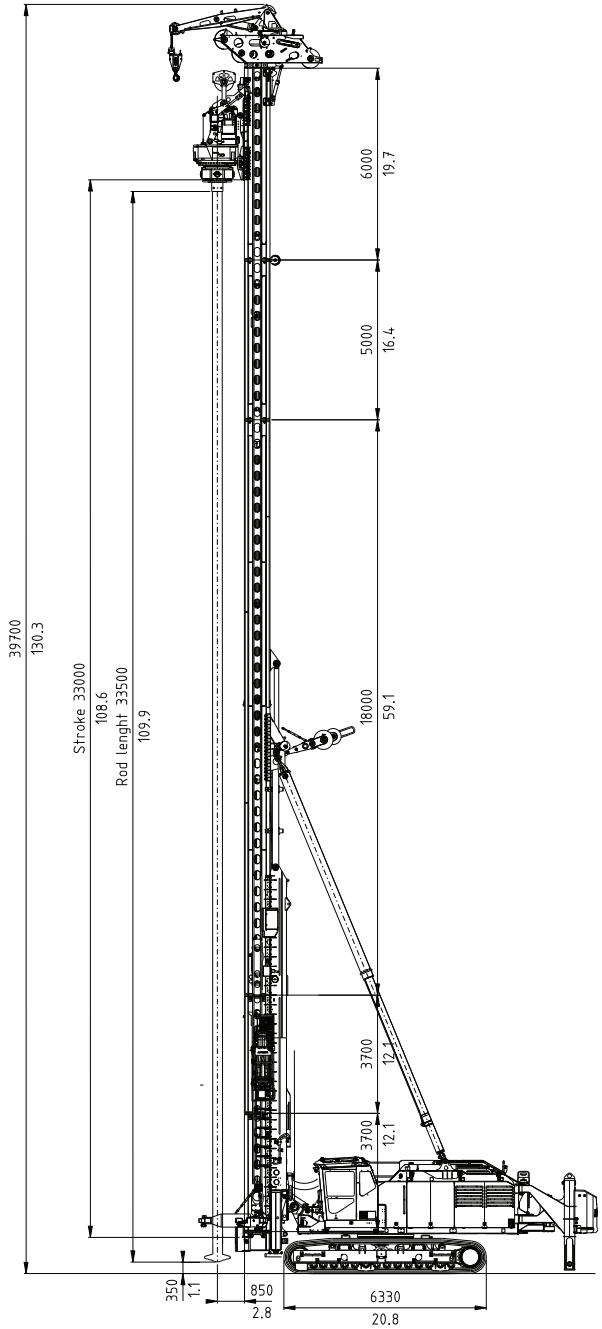
APPLICATION - CFA

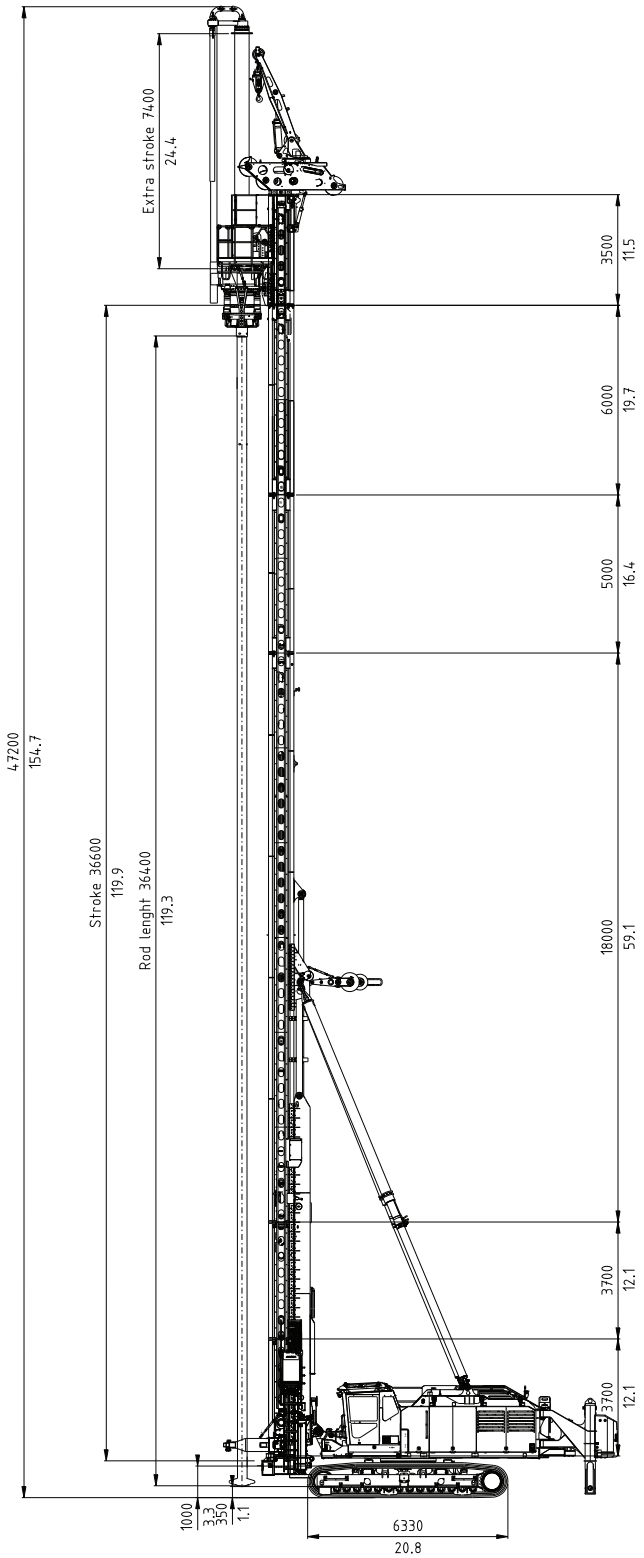




	Standard	Upgraded
Tool extension	without	7.0 m (23 ft)
Max. drilling depth (with auger cleaner)	31 m (102 ft)	38 m (125 ft)
Max. drilling diameter	1200 mm (47 in)	1200 mm (47 in)
Max. extraction force	1200 kN (269 770 lbf)	1200 kN (269 770 lbf)
Max. pull down force	600 kN (134 800 lbf)	600 kN (134 800 lbf)
Mast extension		3.5m (ft)
Approx. operating weight	125 000 kg (275 578 lb)	130 000 kg (286 601 lb)

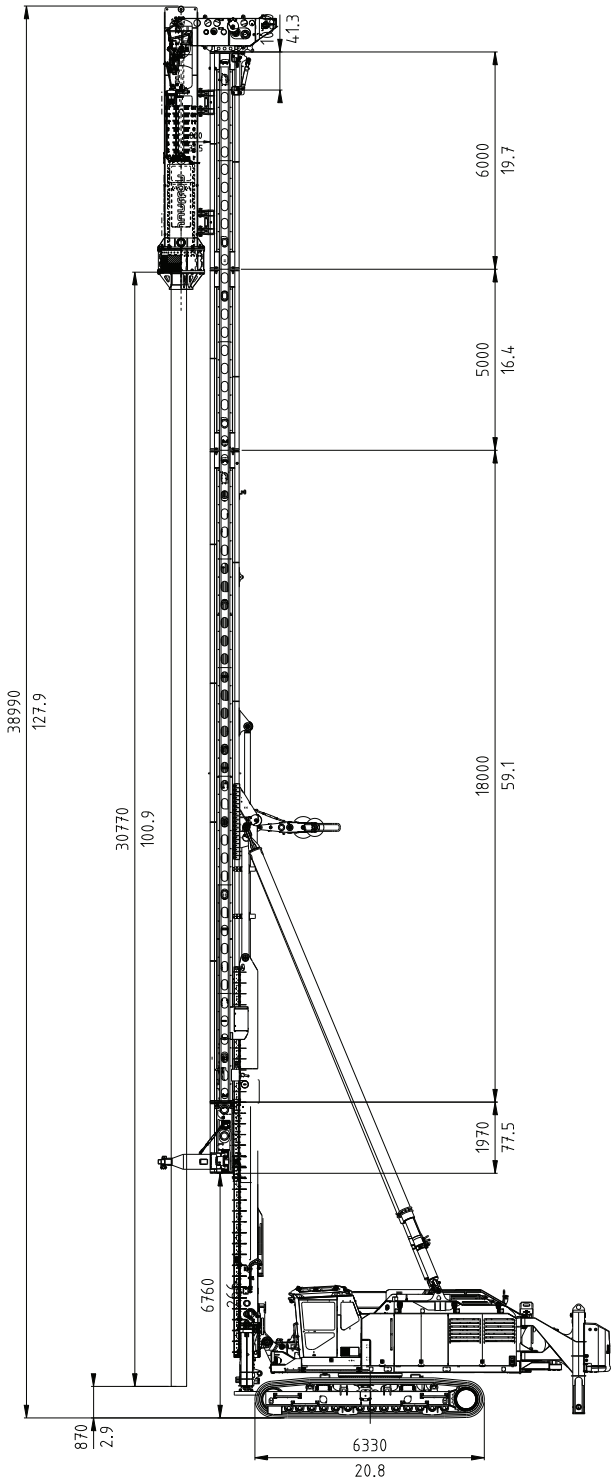
APPLICATION - FDP

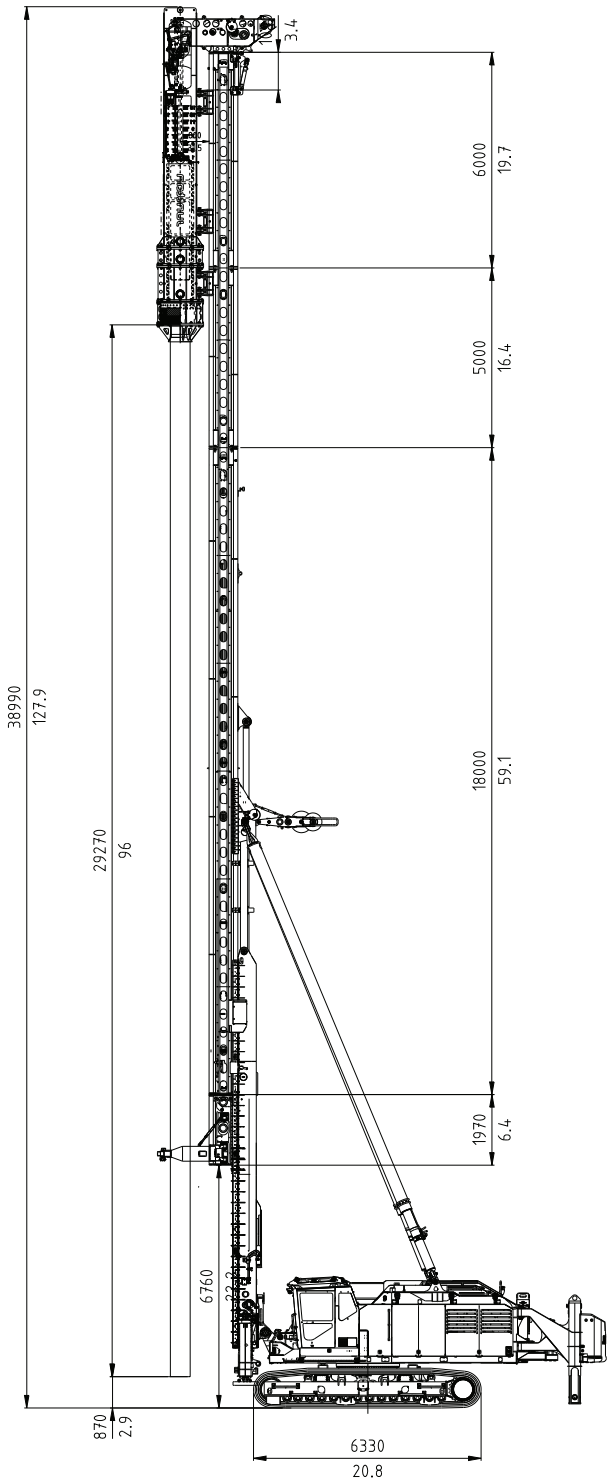




	Standard	Upgraded
Tool extension	without	7.0 m (23 ft)
Max. drilling depth	33 m (108 ft)	40 m (131 ft)
Max. drilling diameter	610 mm (24 in)	610 mm (24 in)
Max. extraction force	1200 kN (269 770 lbf)	1200 kN (269 770 lbf)
Max. pull down force	600 kN (134 800 lbf)	600 kN (134 800 lbf)
Mast extension		3.5m (ft)
Approx. operating weight	125 000 kg (275 578 lb)	130 000 kg (286 601 lb)

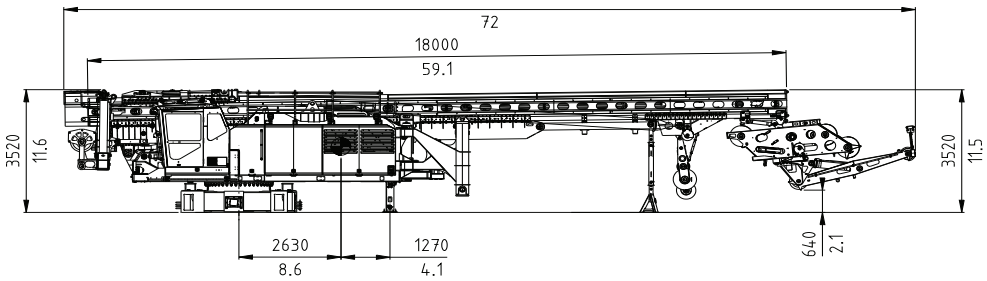
APPLICATION - DRIVEN PILE

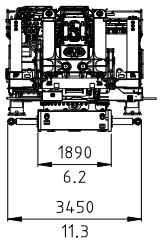




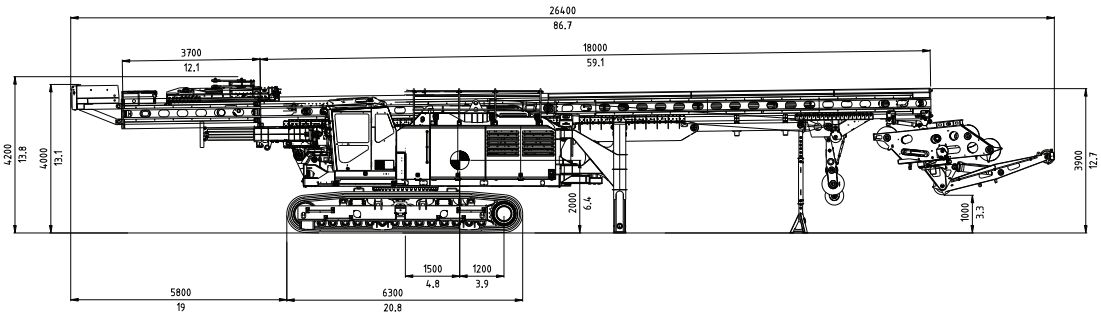
	HHK10S	HHK16S
Max. pile length	31 m (102 ft)	29 m (95 ft)
Max. pile weight	20 000 kg (44 000 lb)	13 000 kg (28 660 lb)
Leader capacity	42 000 kg (92 600 lb)	42 000 kg (92 600 lb)
Hammer winch	300 kN (67 443 lbf)	300 kN (67 443 lbf)
Pile winch	200 kN (44 961 lbf)	200 kN (44 961 lbf)
Aux. winch	100 kN (lbf)	100 kN (lbf)
Approx. operating weight	130 000 kg (295 419 lb)	140 000 kg (313 056 lb)

TRANSPORT DIMENSIONS



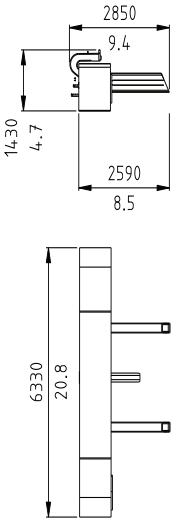


Transport weight
74 000 kg (163 142 lb)

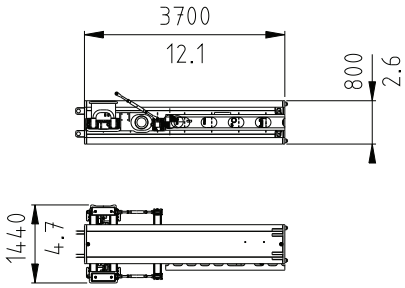


Transport weight
94 000 kg (lb)

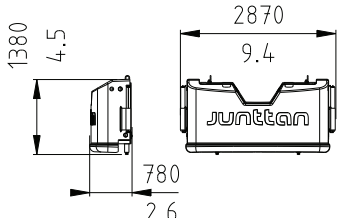
Detachable track beams
2 x 10 000 kg (22 046 lb)



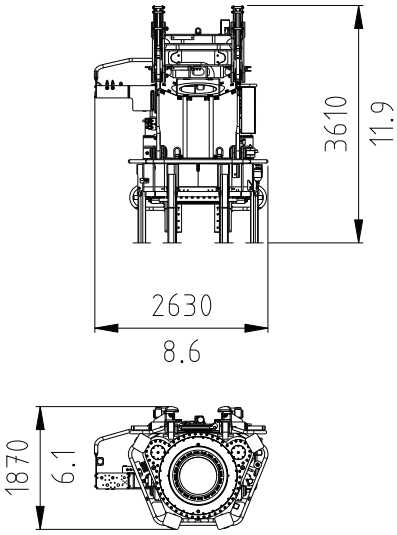
Lower leader extensions
2 000 kg (4 409 lb)



Counterweight
12 000 (26 455 lb)



JD45 Rotary head
9 000 kg (19 800 lb)



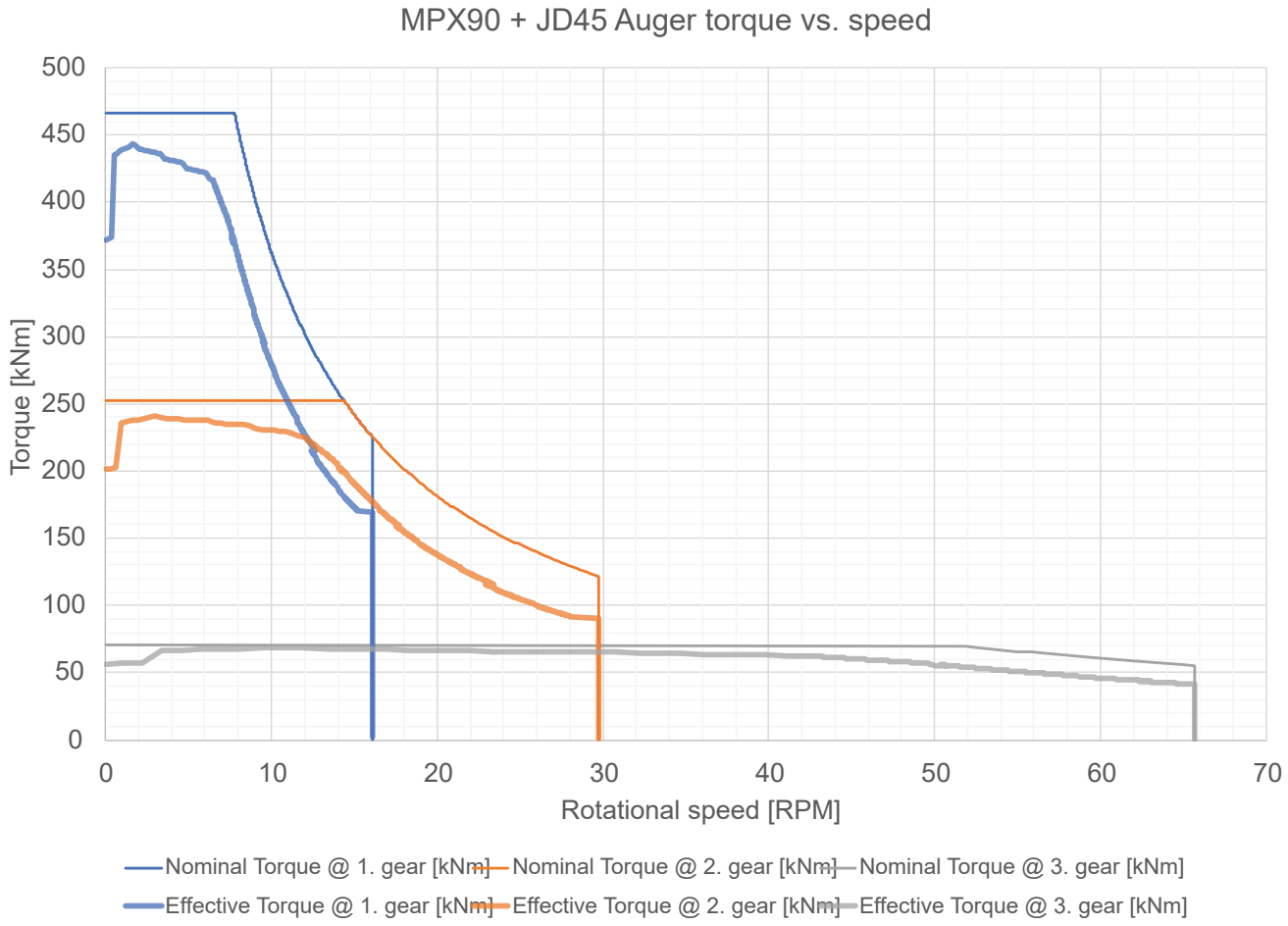
ROTARY HEAD - JD45

BASIC FEATURES

Weight (basic rotary head)	9 000 kg	19 800 lb
Weight (incl. clamp, drilling adapter, crossjoint and working platform)	15 000 kg	33 100 lb
Height	2 990 mm	118 in
Width	2 600 mm	102 in
Length	1 600 - 1 800 mm	63 - 71 in
Max oil preassure	350 bar	5 076 psi
Max oil flow	675 l/min	178 gpm
Hydraulic motor	2 x 215 cm³	

PERFORMANCE

	Gear 1	Gear 2	Gear 3
Torque (max)	450 kNm @ 6 rpm	250 kNm @ 12.5 rpm	70 kNm @ 38 rpm
Speed (max)	17 rpm @ 150 kNm	32 rpm @ 75 kNm	71 rpm @ 37 kNm



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