



Precision at work Purpose-built Piling Rigs

Junttan
respecting ground

An aerial photograph of a city skyline, likely New York City, viewed from across a body of water. The skyline is dominated by several tall, modern skyscrapers with various architectural styles, including glass facades and grid patterns. In the foreground, a harbor area is visible with several piers, docks, and a large white building with a blue roof. The water is a deep blue, and the sky is filled with soft, white clouds. The overall scene is a mix of urban development and waterfront activity.

Where would you like to build your next success story?

Success comes in many shapes, but the ones standing on the most solid foundations consist of a wide variety of carefully planned, skillfully executed and seamlessly combined details. By being able to utilize the available ground as effectively, professionally and intelligently as possible, even more can be made of available resources. By turning challenges into opportunities, construction projects can be carried out efficiently, resulting into successful business operations and sustainable development.

That's where Junttan comes in. We specialize in laying reliable foundations for construction projects, enabling both the constructor and the wider society to succeed and flourish. Our versatile range of piling solutions guarantee

the best possible solution for every need and situation, so that even those pieces of land that might seem unapproachable at first, can be turned into areas that add value to the environment.

Our products represent the best in the business, providing purpose-built solutions, uncompromised operational safety and uncontested reliability. But that is only the beginning. Add the Finnish determination, prompt customer care and a keen eye on sustainable development to the package and you know you are talking about a genuine Junttan way to take care of piling challenges. We put our heart and soul into every project. Because we know that together, we can handle even the most demanding ones.

Juttan Pile Driving Applications

In pile driving technology, a prefabricated, cut-to-size pile (precast concrete, steel or wood) is lifted up and installed into ground by hitting the upper end with a hydraulic hammer. While making progress into the ground, the lower end of the pile displaces soil from around it.

Pile driving technology is known for being environmentally friendly. Thanks to minimal hidden effects on the pile processing chain, the ecological footprint remains as light as possible. Prompt driving process without soil removal and minor need for assisting machinery further ensure both cost-efficiency and sustainability.



Juttan PMx20 (PM20L)



Juttan PMx22 (20LC)



Juttan PMx24 (20HLC)

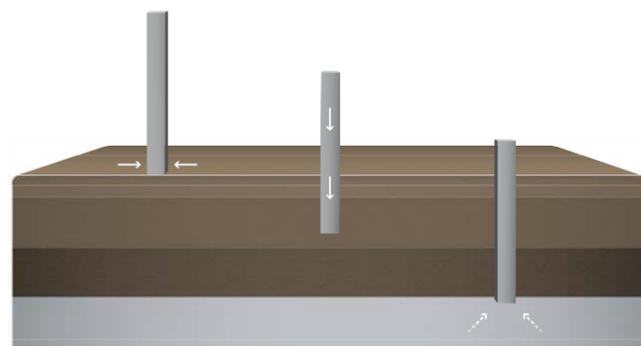


Juttan PMx25 (25LC)



Prefabricated Driven Pile

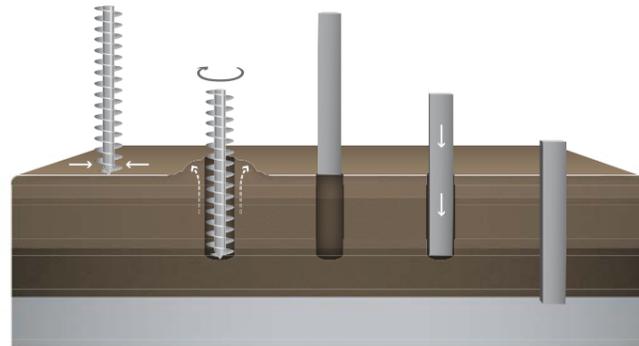
PM16 PMx20 PMx22 PM23 PMx24 PMx25 PM25H PM26 PM28 PM30



01 Spotting 02 Driving 03 Finished pile

Predrilled Driven Pile

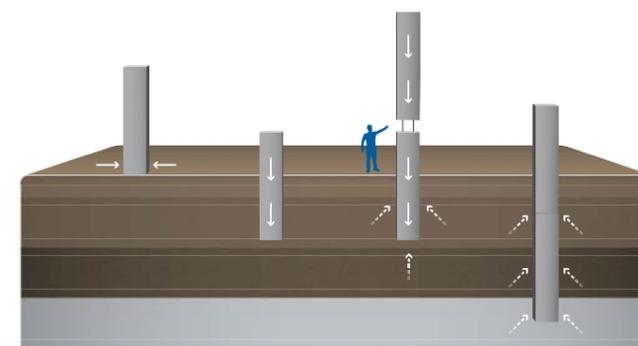
PM16 PMx20 PMx22 PM23 PMx24 PMx25 PM25H PM26 PM28 PM30



01 Spotting 02 Predrilling / Cutting Soil 03 Pile placing 04 Driving 05 Finished pile

Driven Pile with joint

PM16 PMx20 PMx22 PM23 PMx24 PMx25 PM25H PM26 PM28 PM30



01 Spotting 02 Driving 03 Joint 04 Finished pile





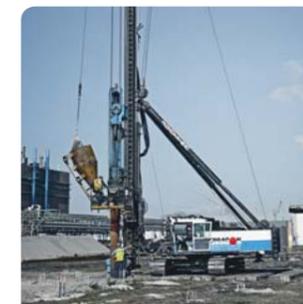
Junttan Driven Cast-in-situ Applications

A tube equipped with extraction collar and removable tip is installed into the ground with a hydraulic hammer. Once the target depth has been reached, the necessary reinforcement is installed. Then fresh concrete is laid into the tube, which is then extracted with a specific extraction device. By utilizing the tapping feature of the hammer, the concrete is compressed.

Junttan's high-quality cast-in-situ machines are able to provide outstanding stability. As the extraction strength needs to be substantial, a reliable load control system is required. With Junttan paying close attention to productivity and reliability of the machines as well as to safety at work, these features have been comprehensively taken care of.



Junttan PM26



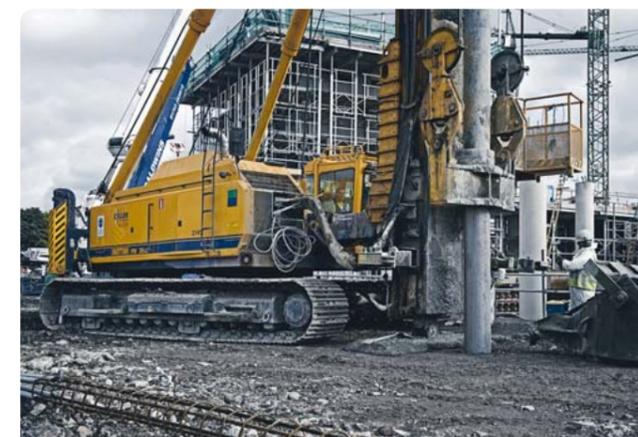
Junttan PM26



Junttan PM26

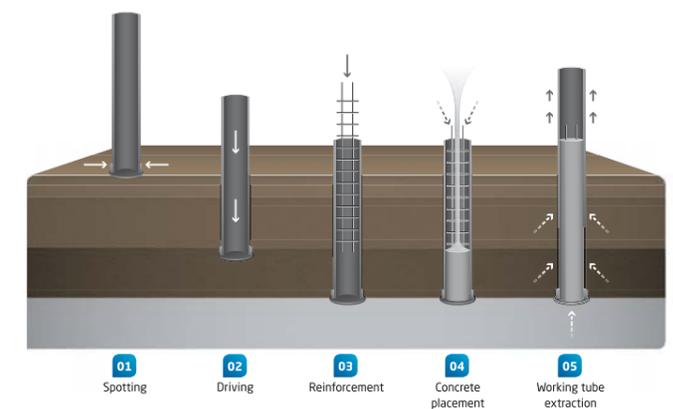


Junttan PM26



DCIS – Driven Cast-in-situ

PM25H PM26 PM28





Junttan PM28



Junttan PM28



Junttan PM28



Junttan PM28

Junttan Drilling Applications

The world's most efficient pile driving machinery is also able to utilize drilling technologies without any compromises in production efficiency. Junttan's multipurpose piling machines support the most common drilling technologies, such as CFA, Kelly and Displacement. Used in conjunction with a JD rotary head, Junttan's PM26 and PM28 machines are able to meet even the most demanding challenges in drilling technology.

Powerful rotary heads and hydraulic impact hammers, together with sophisticated applications and purpose-built basic rigs, provide uncontested reliability and productivity in a versatile package. As one machine is able to handle several piling technologies, the machine utilization degree rises substantially.

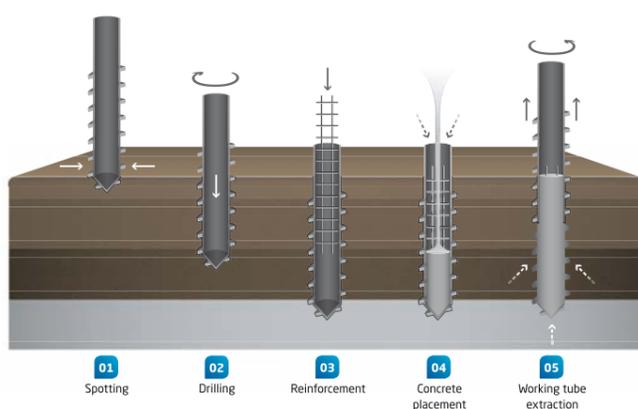
Junttan Displacement Bored Pile Technology

In displacement bored pile technology, the working tube is put into the ground by rotating it. While entering the ground, the tube displaces soil from its way. As the tip of the pile reaches the target depth, the needed reinforcement is installed in the tube. Next fresh concrete is laid into the tube. At the same time,

the tube is gradually extracted. Concrete is added into the excavation so that it remains full. The reinforcement can be also pressed into the freshly laid concrete utilizing a hydraulic or electric vibrator.

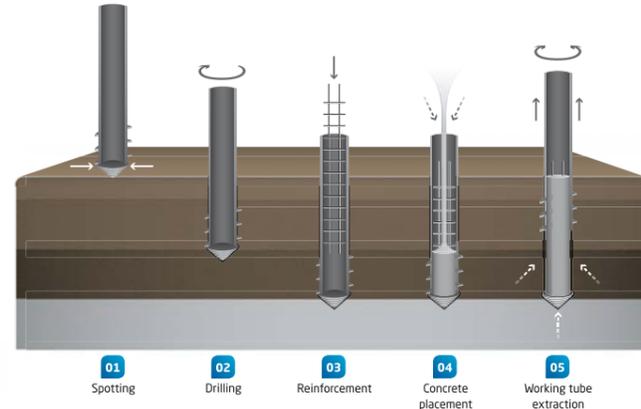
Screw Pile

PM26 PM28



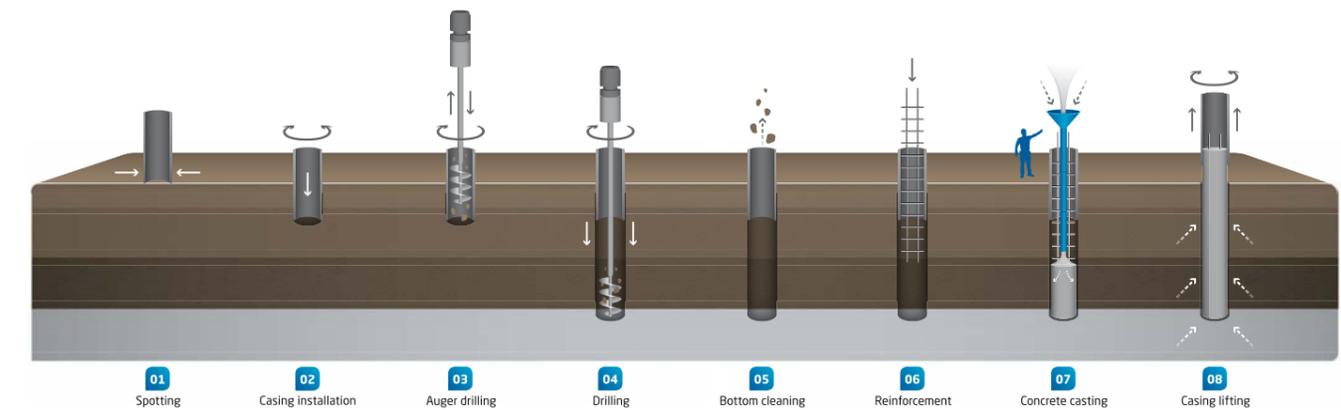
Displacement Bored Pile

PM26 PM28



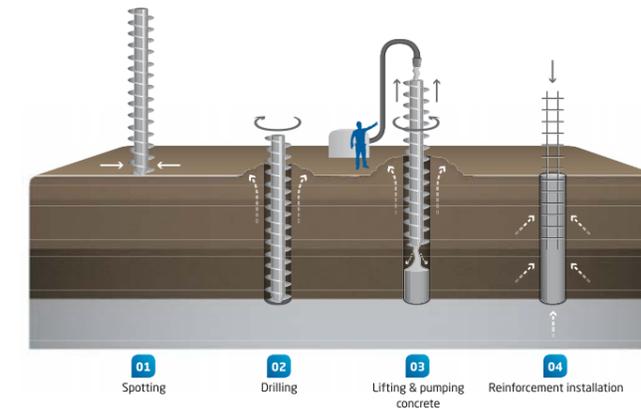
Large diameter Bored Pile (Kelly)

PM26 PM28



CFA – Continuous Flight Auger

PM26 PM28





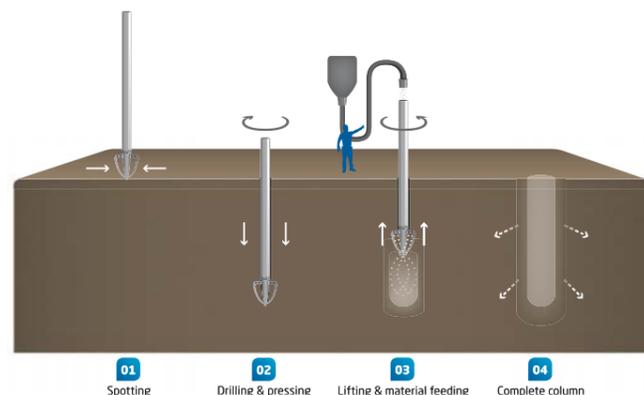
Junttan Deep Stabilization Applications

In deep stabilization technology, highly stable ground mass is produced from the previously unstable and wet soil mass. Columns, groups of columns or walls are formed at the desired depth by mixing in-situ material with one or several binding agents and fillers. Lime, fly ash, gypsum and cement can all be used as binding agents, depending on the soil type and application method.

Junttan has manufactured purpose-built deep stabilization rigs for over 20 years. They achieve great productivity by combining the most important features required for maximum efficiency in deep stabilization work: lightweight construction, extremely fast and controlled column creation, great agility as well as simultaneous operation and refilling of containers. The unsurpassed features of Junttan DSx rigs also include all benefits of Junttan's unique X control system.

Deep Stabilization (Dry method)

DSx15 DSx18



Junttan DSx15



Junttan DSx18

Junttan X-series – the New Piling Generation

Junttan X-series efficiently incorporates modern manufacturing technologies and materials for extended reliability and improved performance. It is yet another proof of our continuous development work for the benefit of our customers, as well as of our efforts to take the entire piling industry further.

Junttan X control system helps you make the most of our superior piling technology. It is a unique, purpose-built system that controls all the vital rig functions, providing various useful features for adjustments, operation and maintenance.

iPiler – increasing our lead in Piling Technology

iPiler is a system for optimising pile driving processes and data management. Completely designed and developed by Junttan, it considerably improves the operability of our machinery, making the process faster, safer and more efficient than ever before.

concentrate on the work at hand. Furthermore, as the control device – among other features – counts the strokes and measures the penetration, making the crucial final blows now takes place in a safer and faster manner.

The sophisticated piling management software enables various phases of the piling preparations to be completed already at the office. Clear instructions can be sent to the pile driver, and while the monitoring system is able to closely monitor the actual piling process, the driver has better opportunities to

Based on the gathered pile driving data, the contractor is able to analyse the work done at the piling site and optimise upcoming jobs. The data also verifies the fact that the job was performed according to the order.

www.ipiler.com



Pile Driving Rigs

PM16, PMx20, PMx22 and PM23

High efficiency, a common-sense design and strict adherence to quality of construction mean top performance and reliability on the job. Product development has been enhanced by close cooperation with contractors and users, and many design details are a result of this practical experience.

Junttan self-erecting pile driving rigs can be transported without special arrangements in one piece, thanks to their small transport dimensions, and without having to remove the hammer. State-of-the-art technology is used in the design of Junttan's piling rigs. The low centre of gravity, expandable tracks and movable counterweight ensure excellent rig stability and this allows greater leader inclinations for raked piling. When

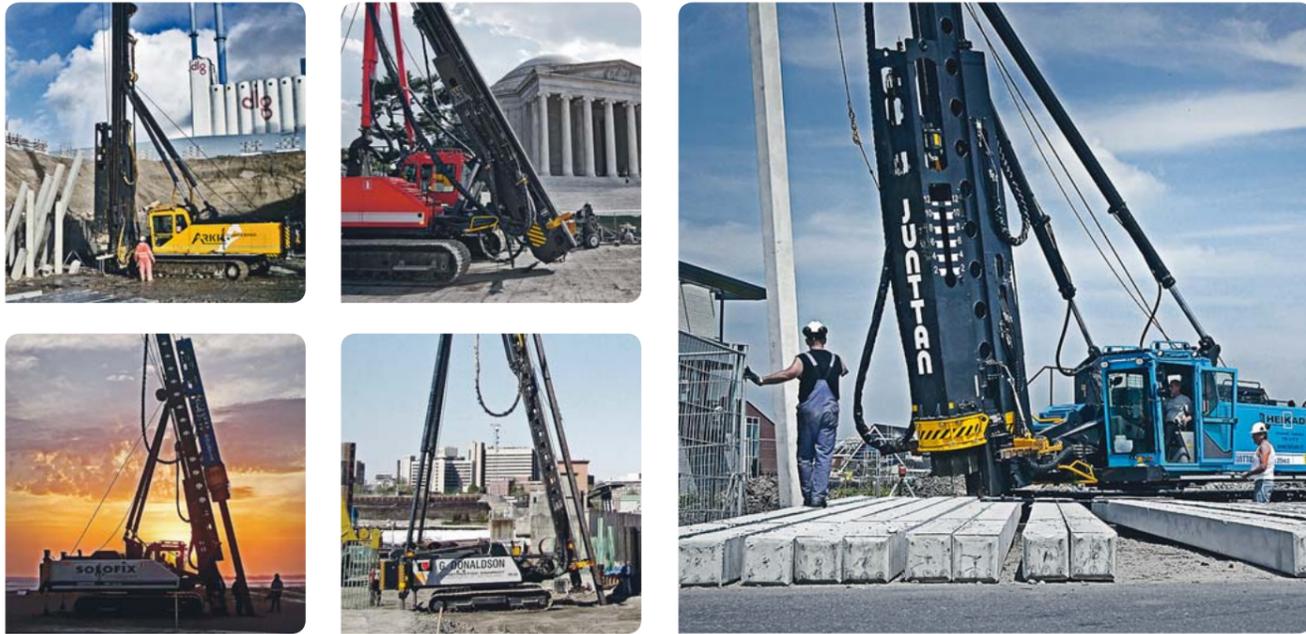
equipped with suitable accessories, Junttan pile driving rigs can also be used to install pre-drilled and driven as well as driven cast-in-situ piles from PM25H upwards.

Strict attention has been paid not only to the efficient operation of the rig, but also to the safety and comfort of the operator and to the ease of service and maintenance. Junttan pile driving rigs are friendlier to the environment and more practical than conventional diesel hammers and mechanical piling rigs, as they generate less noise and reduce vibration and harmful emissions. A further advantage is the possibility to use biodegradable oils in the hydraulic system.



Pile Driving Rigs

Model	PM16	PMx20	PMx22	PM23 (long reach boom)
Average working weight	37 000 kg (81 570 lb)	55 000 kg (120 000 lb)	64 000 kg (141 100 lb)	65 000 kg (143 300 lb)
Leader capacity	12 000 kg (26 400 lb)	13 000 kg (28 700 lb)	16 000 kg (35 300 lb)	14 000 kg (30 900 lb)
Recommended ram weight	3-4 tons (6 000 - 9 000 lb)	3-5 tons (6 000 - 11 000 lb)	3-6 tons (6 000 - 13 000 lb)	3-5 tons (6 000 - 11 000 lb)
Max. Pile length	16 m (52 ft)	20 m (66 ft)	20 m (66 ft)	20 m (66 ft)
Engine power	179 kW (240 hp)			
Winch capacity: Pile	5 000 kg (11 000 lb)	8 000 kg (17 600 lb)	10 000 kg (22 000 lb)	8 000 kg (17 600 lb)
Winch capacity: Hammer	8 000 kg (17 600 lb)	11 000 kg (24 300 lb)	11 000 kg (24 300 lb)	10 000 kg (22 000 lb)
Undercarriage: Length	4 460 mm (181 in)	4 700 mm (185 in)	5 100 mm (200 in)	5 700 mm (225 in)
Undercarriage: Width (900 shoes)	3 000 - 4 000 mm (118-157 in)	3 200 - 4 700 mm (126-185 in)	3 200 - 4 700 mm (126-185 in)	3 200 - 4 700 mm (126-185 in)



Pile Driving Rigs

PMx24, PMx25, PM25H and PM30



Model	PMx24	PMx25	PM25H	PM30
Average working weight	68 000 kg (149 900 lb)	70 000 kg (154 300 lb)	78 000 kg (172 000 lb)	110 000 kg (242 500 lb)
Leader capacity	18 000 kg (39 700 lb)	18 000 kg (39 700 lb)	20 000 kg (44 000 lb)	35 000 kg (77 200 lb)
Recommended ram weight	4-6 tons (9 000 - 13 000 lb)	5-7 tons (11 000 - 15 000 lb)	5-9 tons (11 000 - 15 000 lb)	9-12 tons (11 000 - 15 000 lb)
Max. Pile length	24 m (78 ft)	24 m (78 ft)	25 m (82 ft)	32 m (105 ft)
Engine power	179 kW (240 hp)	227 kW (304 hp)	280 kW (376 hp)	280 kW (376 hp)
Winch capacity: Pile	10 000 kg (22 000 lb)	10 000 kg (22 000 lb)	10 000 kg (22 000 lb)	12 000 kg (26 500 lb)
Winch capacity: Hammer	12 000 kg (26 500 lb)	12 000 kg (26 500 lb)	15 000 kg (33 100 lb)	20 000 kg (44 100 lb)
Undercarriage: Length	5 100 mm (200 in)	5 700 mm (225 in)	5 700 mm (225 in)	5 700 mm (225 in)
Undercarriage: Width (900 shoes)	3 200 - 4 700 mm (126-185 in)	3 200 - 4 700 mm (126-185 in)	3 380 - 4 880 mm (133-192 in)	3 500 - 5 000 mm (138-197 in)

Junttan Rotary Heads

The advanced Junttan rotary heads provide reliable and efficient operations for various drilling technologies. Top quality components, a sophisticated hydraulic system and excellent drilling performance are features that back up our promise of uncontested quality. All this, combined with an extremely strong structure and various speed zones, ensure a top class ability to function in all kinds of conditions regardless of the location or nature of the project.

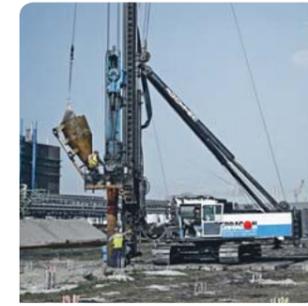


Hydraulic Impact Hammers

Utilizing industry-leading technology and know-how, the Junttan hammers help you to get the most out of your piling machine. As up to 95 per cent of the hammers energy is transferred to the pile and its progress, the pile installation can take place with optimal efficiency – both when it comes to energy,

time and costs. Utilizing the industry's leading know-how and a keen eye on sustainable development, the Junttan hammers create less noise, vibration and emissions than conventional hammers without making any compromises in productivity.



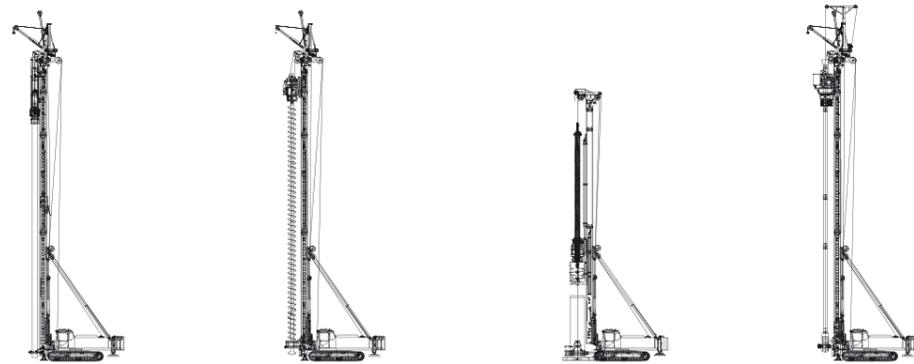


Multipurpose Piling Rigs

PM26 and PM28

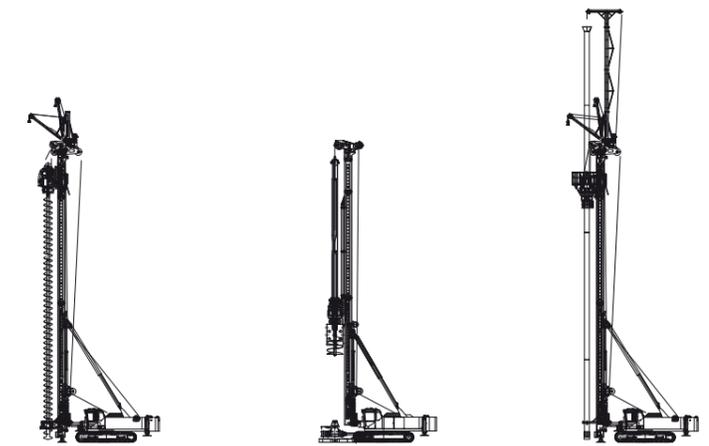
Junttan's multipurpose rigs are designed to operate in a wide variety of piling work – they can install driven as well as different types of bored piles. Each model's features and characteristics are individually designed to fit specific customer wishes and requirements.

Junttan multipurpose rigs have the same excellent features as the Junttan pile driving rigs. Easy transportability, exceptional stability, operational safety, sustainable development and excellent productivity are features to which we pay close attention with every product.



Multipurpose Piling Rigs

Model PM26	DCIS	CFA	Kelly	Displacement
Average working weight	95 000 kg (209 500 lb)	100 000 kg (220 500 lb)	100 000kg (220 500 lb)	100 000 kg (220 500 lb)
Leader capacity	30 000 kg (66 100 lb)			
Recommended Ram weight	5-7 tons (11 000 - 15 000 lb)			
Max. pile length	24 m (78 ft)	26 m (85 ft)	70 m (230 ft)	32 m (105 ft)
Max. Working tube length	25 m (82 ft)		6 m (casing) (20 ft)	35 m (115 ft)
Max. Pile diameter		1 200 mm (47 in)	2 000 mm (79 in)	810 mm (32 in)
Max.torque		400 kNm	400 kNm	400 kNm
Engine power	388 kw (520 hp)			
Winch capacity: Main	25 ton (55 100 lb)			
Max.extraction	100 ton (220 500 lb)			
Winch capacity: Aux. 1	12 ton (26 500 lb)			
Max pull down		36 ton (79 500 lb)	36 ton (79 500 lb)	36 ton (79 500 lb)
Undercarriage: Length	5 700 mm (225 in)			
Undercarriage: Width (900 shoes)	3 500 - 4 770 mm (138 - 188 in)	3 500 - 4 770 mm (138 - 188 in)	3 500 - 4 770 mm (138 - 188 in)	3 500 - 4 770 mm (138 - 188 in)



Multipurpose Piling Rigs

Model PM28	CFA	Kelly	Displacement
Average working weight	100 000 kg (220 500 lb)	100 000 kg (220 500 lb)	100 000 kg (220 500 lb)
Leader capacity	30 000 kg (66 100 lb)	30 000 kg (66 100 lb)	30 000 kg (66 100 lb)
Recommended Ram weight	5-7 tons (11 000 - 15 000 lb)		
Max. pile length	26 m (85 ft)	70 m (230 ft)	32 m (105 ft)
Max. Working tube length		6 m (casing) (20 ft)	35 m (115 ft)
Max. Pile diameter	1 200 mm (47 in)	2 000 mm (79 in)	810 mm (32 in)
Max.torque	400 kNm	400 kNm	400 kNm
Engine power	388 kw (520 hp)	388 kw (520 hp)	388 kw (520 hp)
Winch capacity: Main	25 ton (55 100 lb)	25 ton (55 100 lb)	25 ton (55 100 lb)
Max.extraction	100 ton (220 500 lb)	100 ton (220 500 lb)	100 ton (220 500 lb)
Winch capacity: Aux. 1	12 ton (26 500 lb)	12 ton (26 500 lb)	12 ton (26 500 lb)
Max pull down	36 ton (79 500 lb)	36 ton (79 500 lb)	36 ton (79 500 lb)
Undercarriage: Length	5 700 mm (225 in)	5 700 mm (225 in)	5 700 mm (225 in)
Undercarriage: Width (900 shoes)	3 500 - 4 770 mm (138 - 188 in)	3 500 - 4 770 mm (138 - 188 in)	3 500 - 4 770 mm (138 - 188 in)

At your service, around the world

Wherever your construction projects may take you, a Junttan representative is close by to help you find the best possible piling solution – just for that specific purpose at hand. Whether you want to ask about our newest machines or ensure that the existing fleet is being used efficiently, drop us a line or give us a call. We are never too far away to discuss about the opportunities to help you make the most of the services of the world's leading piling expert.

New machines and accessories

Our continuous efforts in research and development ensure that with Junttan, you are able to utilize the latest achievements of piling technology. Not to mention our superior experience and knowledge in the piling business, combined with the determination to work with our customer until – and beyond – the ideal solution has been discovered.

Service and support

For improved lifetime and efficiency, regular maintenance is essential even for piling machinery. By choosing a Junttan machine you receive uncontested reliability at work – backed by a full range of services that ensure the best possible return on your investment.

Training

As challenges evolve and machines develop, even the most seasoned piling professionals need updates about how everything works. Junttan's versatile training services ensure that both you and your employees stay on top of things – as well as competent to make the most of your machinery.

Original Junttan parts

For the best possible operational safety and reliability, make sure you use only original Junttan spare parts. They are carefully selected and tested to suit their intended purpose – furthermore, they are delivered to you promptly to help keep the project on schedule.



JUNTAN TECHNICAL FACTORY SUPPORT

Tel. +358 10 194 482

At your service every day from 06:00 to 22:00 (GMT+2)

service@junttan.com

for Junttan piling equipment



Going beyond the conventional to take your business further

Junttan Oy specializes in the design, manufacture, marketing and service of hydraulic piling equipment. Working closely with piling contractors, Junttan has actively developed new products and advanced the entire industry for over 35 years.

Today, Junttan machines and accessories are in use on every continent. The company's product range comprises the world's leading pile driving rigs, multipurpose piling rigs and deep stabilization rigs, as well as hydraulic impact hammers, rotary heads and powerpacks.

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Junttan
respecting ground