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HYDRAULIC IMPACT HAMMERS

Juntan



Trusted Partner on High Demands

Junttan has worked together with construction professionals for over 45 years and has experience in developing and manufacturing the industry's leading piling equipment. By helping our customers to make the most of their pile driving investment, we help them to do their job in the best possible way, no matter where in the world their next site may be.

Paying close attention to the evolving needs of the construction industry, as well as sustainable development, we provide the deepest foundations, with as light a footprint on the environment as possible.

Hydraulic Impact Hammers & Power Packs

By gaining a comprehensive understanding to achieve the evolving, ambitious goals of modern construction business, we have tested and developed our impact hammers to provide the best possible performance under all conditions. Our versatile selection of equipment ensures that for every construction challenge, the ideal solution can be found.

Want to get more out of your hammer? The Junttan power packs are ready for use quickly, and the low noise level further enhances their user-friendliness. They are compact yet powerful pieces of equipment that can conveniently be transported from one construction site to another.

Taking Care

Even the most durable, reliable and tough hammer wears down if it is not properly taken care of – or used in a wrong way or task. That's where our comprehensive customer care steps in. Not only do we maintain and service your precious piling equipment for increased lifetime and performance, we also train your personnel to use it in the right way. This way, you will always make the most of your Junttan machinery, and get the best return for your investment in the world's most advanced piling technology.

Pile Smarter

Utilizing industry-leading technology and know-how, the Junttan hydraulic impact hammers will perform the best possible way at every construction site. With Junttan intelligent solutions – not only optimized energy and high productivity is gained but also less noise, vibration and emissions is created than with conventional hammers.

High Versatility

Wide variety of piling solutions whether projects take place on land or offshore, or whatever piling type materials is required.

Customized Solutions

Providing full concept – from driveablity analyses, optimized equipment, operational support and service, to quality and bearing verification.

Junttan Intelligence

Exact online data to support your piling process, remote access where ever your project is located, automated functions to ensure a safe and efficient operation.

More Power

Providing most efficient performance and power control combined with optimized energy transfer to the pile.

Noise Reduction

Control the noise pollution to minimize the impact on the environment by Junttan customized noise reduction solutions.

Environmental Focus

All Junttan hammers are manufactured with a keen eye on sustainable development. As a result, they create less noise and vibration and fewer emissions than conventional hammers.



Solutions to Match Your Projects

During our long history, Junttan has established a solid position in a wide variety of piling projects around the world. With a strong experience of demanding projects Junttan provides solutions for a wide variety of pile foundations and soil improvement.



Bridges

Building bridges requires very precise work positioning with high performance and customized tools – especially for raked piles.





Retaining Walls

Tools and options for retaining walls such as combi-walls, sheet piles, and king piles.





Marine Works – Harbors

Wide range of ideal options for harbor and marine works and development projects fulfilling environmental requirements.





Energy

Increasing need of energy generates high demand for foundation equipment with a variety of tools and options e.g. LNG terminals for the oil/gas industry, wind and solar farms.





Civil & Infrastructure

Most efficient and proven solutions for steel, timber and pre-cast pile foundations. Increase your productivity with purpose build piling rigs and integrated hydraulic impact hammers.





Dynamic Compaction

Excavator integrated hydraulic hammer solution is fast and efficient method for soil improvement projects.







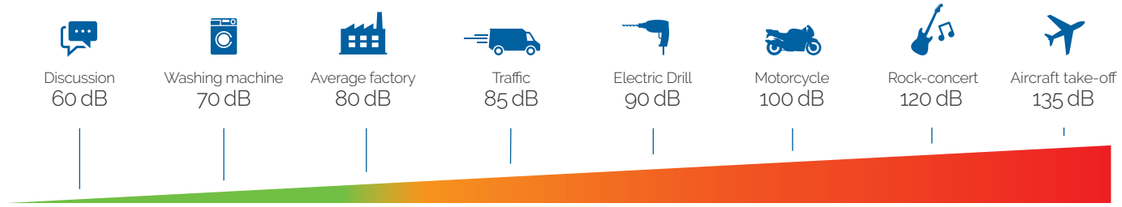
Noise Control

As a result of continuous development for a safer and more efficient solution to noise reduction demands, Junttan has improved structural solutions and accessories to significantly reduce noise pollution. For different types of applications, we can provide noise control solutions including special drive caps, guide tubes and insulation jackets.



System factors affecting noise are e.g. pile length, pile diameter, pile material and it's thickness, soil composition, hammer and pile aligning, ramblock mass and ram block drop height.

Noise Comparison (dB)



Power Control

Junttan accurate and adjustable energy control ensures pile integrity to reach requested and designed result safely and efficiently. A smooth installation process helps ensure that everything takes place with as little impact on the environment as possible. User friendly and easy operational control system enables to complete projects in time with intelligent solutions to monitor and record the piling information.













Key Features

- Superior blow rate
- Optimized structure to ensure productivity & durability
- Automated functions for easy, safe & efficient operation
  - Dial-up mode (energy or drop height)
  - Pile cruise (minimum fuel consumption)
  - Hammer pilot
  - PDA mode
  - Peak energy mode
- Especially designed for steel piles



HHX
New Generation Hydraulic Hammers

Designed for Steel

Junttan HHx series, the new generation hydraulic hammers for tough conditions provides an adjustable stroke with blow rates up to 60 blows per minute with max energy. The new level of total efficiency of the HHx hammer combined with intelligent x-series solutions leads to a high level of piling project productivity, reliability and user-friendliness, as well as easy on-site service. The robust, totally new structural design of the HHx series hammers ensure that the hammer can be operated with full capacity at all times in the toughest conditions.

The Junttan HHx hammers are ideal solution for driving steel piles. The hammers are operated with the new generation Junttan xCU power packs which fulfil the latest environmental requirements and can be supplied with Tier 3, Tier 4 and Tier 5 final engines.



HHK-Series
With Superior Performance

Impact Hammers for All Pile Types

HHK impact hammers are suitable for driving all types of piles: precast concrete, steel tube, sheet, and timber piles. The design of the hammer frame and drive cap makes for low impact noise and less vibration while piling. All impact energy is concentrated in the center of the pile. The construction of the hammer makes it possible to use biodegradable hydraulic oils. The hammer is easy to connect to different hydraulic systems and can be operated either by the hydraulic system of the rig or by a separate power pack. Furthermore, it can be mounted on all kinds of leaders or be freely suspended.











Key Features

- Versatility
- Proven reliability
- Flexibility
- Minimum downtime
- Economical and safe
- Low life time costs



Structure and Operating Principle

Junttan's solution is ingeniously functional. Our close co-operation with piling contractors is evident through the functionality of our equipment and well-planned details. Being environmentally friendly is rarely associated with heavy construction, but we take it as a priority. Low noise about big innovation. The innovative drive cap design allows superb efficiency and low impact noise. All impact energy is concentrated to the center of the pile, allowing a measured efficiency ratio of more than 95% to be achieved.

Highlights

1. RUGGED AND RELIABLE. Robust and simple frame design is the basis for a long working lifetime. Reduced vibration and noise levels are achieved through an innovative frame design. Optimized frame weight and balance guarantee high performance of the hammer.

2. HANG IT AS YOU WISH. Junttan hammers can also be crane suspended. Different accessories make crane suspension an easy process.

3. OPERATION IN FULL CONTROL. The ingenious hydraulic and electrical system design allows the impact energy, blow rate and frequency to be easily adjusted according to soil conditions and pile type.

4. STRONG BUT GENTLE. Accurate strokes and balanced hammer block acceleration prevent pile head damage and guarantee a long working lifetime of the hammer.

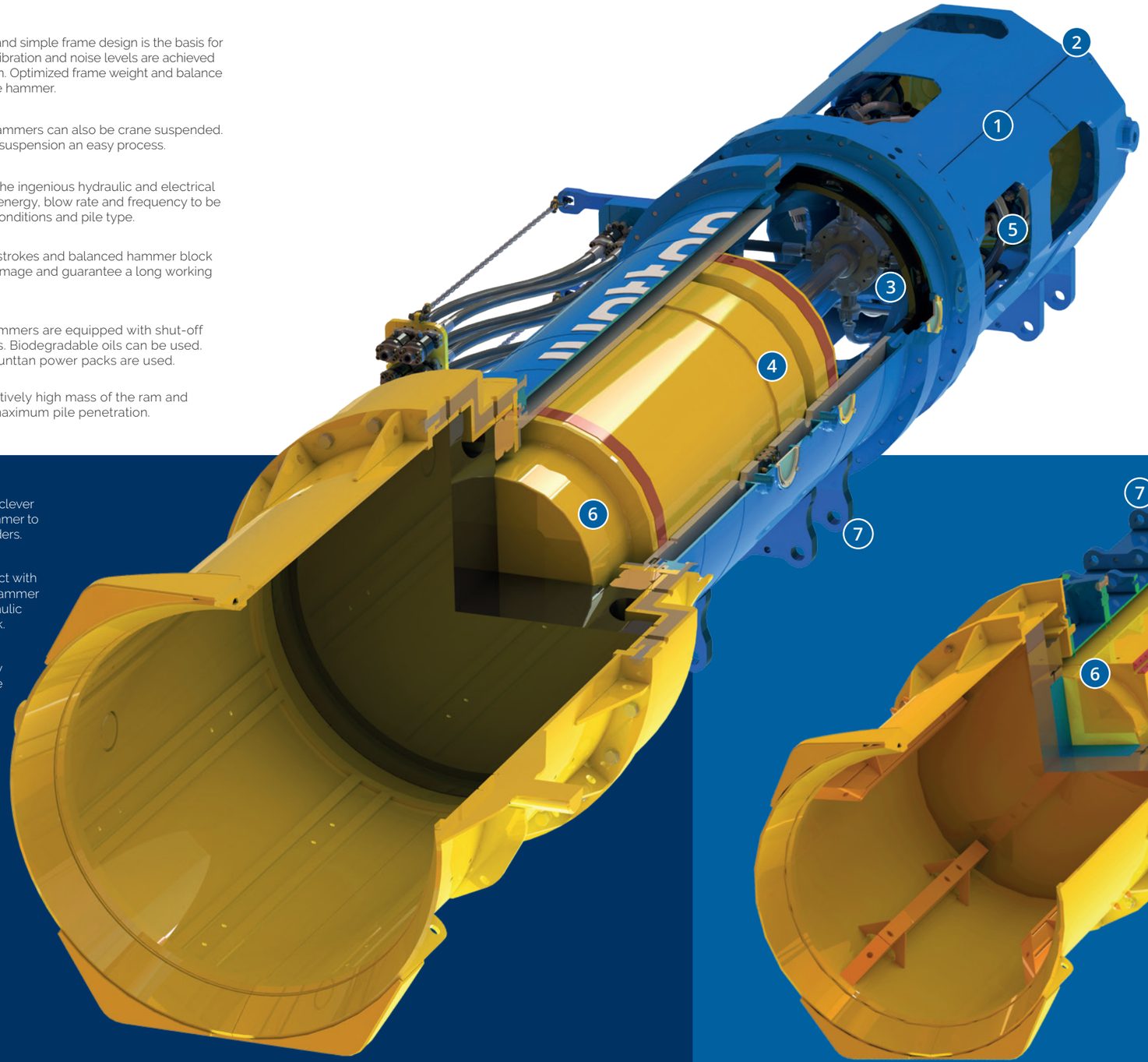
5. BLUE HAMMERS ARE GREEN. Hammers are equipped with shut-off valves which prevent oil leakages. Biodegradable oils can be used. All exhaust gas is filtered when Junttan power packs are used.

6. PENETRATION COUNTS. The relatively high mass of the ram and optimal impact velocity ensure maximum pile penetration.

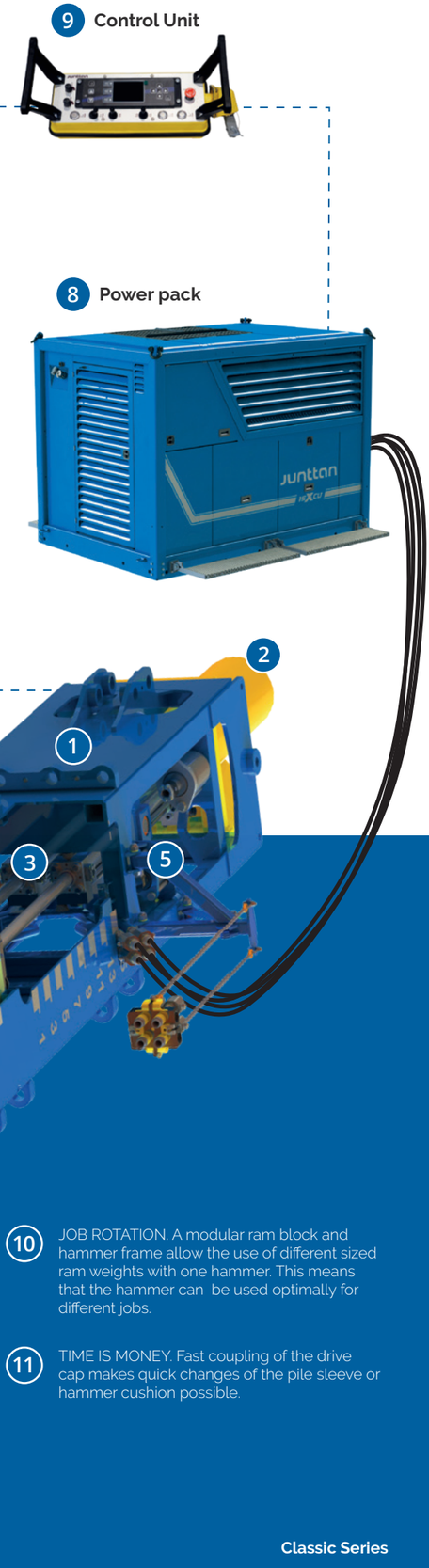
7. NOT TIED TO ONE PARTNER. The clever mounting system enables the hammer to be used with different kinds of leaders.

8. HIGH VERSATILITY. Easy to connect with different hydraulic systems. The hammer can be operated by the rig's hydraulic system or by separate power pack.

9. HAMMER CONTROL. User-friendly control unit to monitor and operate piling proces.



X-Series



10. JOB ROTATION. A modular ram block and hammer frame allow the use of different sized ram weights with one hammer. This means that the hammer can be used optimally for different jobs.

11. TIME IS MONEY. Fast coupling of the drive cap makes quick changes of the pile sleeve or hammer cushion possible.

Classic Series

Technical Data



X-Series | MODEL	HHX160	HHX210	HHX250
RAM BLOCK WEIGHT	9 910 kg (21 850 lb)	14 140 kg (31 200 lb)	16 260 kg (35 850 lb)
MAXIMUM ENERGY	160 kNm (118 000 ft-lb)	210 kNm (154 888 ft-lb)	250 kNm (184 390 ft-lb)
STROKE	1 000 mm (3 ft)	1 000 mm (3 ft)	1 000 mm (3 ft)
BLOW RATE	60–180	60–180	50–150
OPERATING PRESSURE	200 bar (2 900 psi)	280 bar (4 061 psi)	220 bar (3 191 psi)
OIL FLOW (NOMINAL / MAX)	700 l/min (185 gpm)	700 l/min (185 gpm)	880 l/min (233 gpm)
HAMMER LENGTH *	5 869 mm (231,1 in)	6 779 mm (266,9 in)	7 234 mm (284,8 in)
HAMMER WEIGHT *	19 400 kg (42 750 lb)	25 600 kg (56 450 lb)	28 800 kg (63 500 lb)

X-Series | MODEL	HHX300	HHX350	HHX500
RAM BLOCK WEIGHT	20 510 kg (45 200 lb)	22 610 kg (49 850 lb)	28 860 kg (63 625 lb)
MAXIMUM ENERGY	300 kNm (221 268 ft-lb)	350 kNm (258 147 ft-lb)	500 kNm (368 781 ft-lb)
STROKE	1 000 mm (3 ft)	1 000 mm (3 ft)	1200 mm (4 ft)
BLOW RATE	50–150	50–150	40/50–150
OPERATING PRESSURE	280 bar (4 061 psi)	290 bar (4 061 psi)	320 bar (4641 psi)
OIL FLOW (NOMINAL / MAX)	880 l/min (233 gpm)	880 l/min (233 gpm)	860 l/min (227 gpm)
HAMMER LENGTH *	8 144 mm (320,6 in)	8 599 mm (338,5 in)	10 418 mm (410.2 in)
HAMMER WEIGHT *	34 800 kg (76 700 lb)	37 600 kg (82 900 lb)	46 700 kg (102 956 lb)

X-Series | MODEL	SHK3	SHK5	SHK7	SHK9
RAM BLOCK WEIGHT	3 000 kg (6 614 lb)	5 000 kg (11 000 lb)	7 000 kg (15 400 lb)	9 000 kg (19 800 lb)
MAXIMUM ENERGY	36 kNm (29 607 ft-lb)	61 kNm (44 845 ft-lb)	89 kNm (65 621 ft-lb)	119 kNm (87 740 ft-lb)
STROKE	1 200 mm (3.94 ft)	1 200 mm (3.94 ft)	1 200 mm (3.94 ft)	1 200 mm (3.94 ft)
BLOW RATE	50–140+	50–140+	50–140+	50–140+
OPERATING PRESSURE	134 bar (1 945 psi)	134 bar (1 945 psi)	211 bar (3 060 psi)	271 bar (3 931 psi)
OIL FLOW (NOMINAL / MAX)	231/294 l/min (61/66 gpm)	231/294 l/min (61/66 gpm)	299/431 l/min (70/87 gpm)	299/431 l/min (70/87 gpm)
DRIVE CAPS	470 x 470 mm Ø 770 mm	470 x 470 mm Ø 770 mm	550 x 550 mm Ø 850 mm	550 x 550 mm Ø 850 mm
	18 x 18 in Ø 30 in	18 x 18 in Ø 30 in	21 x 21 in 33 in	21 x 21 in Ø 33 in
EXTENSIONS	1 / 2t (2 200 / 4 400 lb)	1 / 2t (2 200 / 4 400 lb)	1 / 2t (2 200 / 4 400 lb)	1 / 2t (2 200 / 4 400 lb)
HAMMER LENGTH	5 432 mm (214 in)	6 172 mm (243 in)	6 935 mm (273 in)	7 675 mm (302 in)
HAMMER WEIGHT	6 920 kg (15 256 lb)	9 250 kg (20 393 lb)	11 730 kg (25 860 lb)	14 800 kg (32 560 lb)

Classic Series | MODEL	HHK3A	HHK5A	HHK7A	HHK9A
RAM BLOCK WEIGHT	3 000 kg (6 614 lb)	5 000 kg (11 000 lb)	7 000 kg (15 400 lb)	9 000 kg (19 800 lb)
MAXIMUM ENERGY	35 kNm (26 070 ft-lb)	59 kNm (43 398 ft-lb)	82 kNm (60 757 ft-lb)	106 kNm (78 116 lb)
STROKE	1 200 mm (3.94 ft)	1 200 mm (3.94 ft)	1 200 mm (3.94 ft)	1 200 mm (3.94 ft)
BLOW RATE	40–100	40–100	40–100	40–100
OPERATING PRESSURE	106 bar (1 537 psi)	176 bar (2 552 psi)	183 bar (2 654 psi)	235 bar (3 408 psi)
OIL FLOW (NOMINAL / MAX)	231/304 l/min (61/80 gpm)	231/304 l/min (61/80 gpm)	293/398 l/min (77/105 gpm)	293/398 l/min (77/105 gpm)
DRIVE CAPS	470 x 470 mm Ø 770 mm	470 x 470 mm Ø 770 mm	550 x 550 mm Ø 850 mm	550 x 550 mm Ø 850 mm
	18 x 18 in Ø 30 in	18 x 18 in Ø 30 in	21 x 21 in Ø 33 in	21 x 21 in Ø 33 in
EXTENSIONS	1 / 2t (2 200 / 4 400 lb)	1t (2 200 lb)	1 / 2t (2 200 / 4 400 lb)	–
HAMMER LENGTH	5 160 mm (203 in)	5 900 mm (232 in)	6 640 mm (264 in)	7 380 mm (291 in)
HAMMER WEIGHT	6 000 kg (13 228 lb)	8 400 kg (18 519 lb)	11 000 kg (24 251 lb)	13 500 kg (29 762 lb)

Classic Series | MODEL	HHK3S	HHK5S	HHK5/7S	HHK5/7/9S
RAM BLOCK WEIGHT	3 000 kg (6 614 lb)	5 000 kg (11 000 lb)	7 000 kg (15 450 lb)	9 000 kg (19 850 lb)
MAXIMUM ENERGY	44 kNm (43 500 ft-lb)	74 kNm (54 266 ft-lb)	103 kNm (75 971 ft-lb)	132 kNm (97 679 ft-lb)
STROKE	1 500 mm (4.92 ft)	1 500 mm (5 ft)	1 500 mm (5 ft)	1 500 mm (5 ft)
BLOW RATE	30–100	30–100	30–100	30–100
OPERATING PRESSURE	134 bar (1 945 psi)	150 bar (2 176 psi)	211 bar (3 060 psi)	271 bar (3 931 psi)
OIL FLOW (NOMINAL / MAX)	188/227 l/min (50/60 gpm)	280 l/min (74 gpm)	280 l/min (74 gpm)	280 l/min (74 gpm)
HAMMER LENGTH *	6 580 mm (259 in)	7 320 mm (288,2 in)	8 060 mm (317,3 in)	8 800 mm (346,5 in)
HAMMER WEIGHT *	5 650 kg (12 456 lb)	7 900 kg (17 500 lb)	10 400 kg (23 000 lb)	12 900 kg (28 500 kg)

Classic Series | MODEL	HHK10S	HHK10/12S	HHK10/12/14S	HHK10/12/14/16S
RAM BLOCK WEIGHT	10 000 kg (22 050 lb)	12 000 kg (26 450 lb)	14 000 kg (30 850 lb)	16 000 kg (35 250 lb)
MAXIMUM ENERGY	147 kNm (87 032 ft-lb)	177 kNm (130 914 ft-lb)	206 kNm (151 893 ft-lb)	235 kNm (173 592 ft-lb)
STROKE	1 500 mm (5 ft)	1 500 mm (5 ft)	1 500 mm (5 ft)	1 500 mm (5 ft)
BLOW RATE	30–120	30–100	30–100	30–100
OPERATING PRESSURE	150 bar (2 176 psi)	181 bar (2 625 psi)	211 bar (3 060 psi)	241 bar (3 350 psi)
OIL FLOW (NOMINAL / MAX)	565 l/min (149 gpm)	565 l/min (149 gpm)	565 l/min (149 gpm)	565 l/min (149 gpm)
HAMMER LENGTH *	7 264 mm (286 in)	7 764 mm (306 in)	8 264 mm (325 in)	9 636 mm (379,4 in)
HAMMER WEIGHT *	16 200 kg (35 700 lb)	19 000 kg (41 900 lb)	21 800 kg (48 100 lb)	24 400 kg (53 800 lb)

Classic Series | MODEL	HHK16S	HHK16/18S	HHK16/20S	HHK16/18/20/22S
RAM BLOCK WEIGHT	16 000 kg (35 250 lb)	18 000 kg (39 700 lb)	20 000 kg (44 100 lb)	22 000 kg (48 500 lb)
MAXIMUM ENERGY	235 kNm (173 592 ft-lb)	265 kNm (195 454 ft-lb)	294 kNm (216 990 ft-lb)	320kNm (236 020 ft-lb)
MAX. ENERGY WITH SB HYDRAULICS	262 kNm (193 241 ft-lb)	–	320 kNm (236 019 ft-lb)	350 kNm (236 020 ft-lb)
STROKE	1 500 mm (5 ft)	1 500 mm (5 ft)	1 500 mm (5 ft)	1 500 mm (5 ft)
BLOW RATE	30–100	30–100	30–100	30–100
OPERATING PRESSURE	241 bar (3 350 psi)	271 bar (3 931 psi)	290 bar (4 206 psi)	300 bar (4 351 psi)
OIL FLOW (NOMINAL / MAX)	565 l/min (149 gpm)	565 l/min (149 gpm)	565 l/min (149 gpm)	565 l/min (149 gpm)
HAMMER LENGTH *	8 170 mm (321,7 in)	8 490 mm (334,3 in)	8 810 mm (346,9 in)	9 130 mm (359,4 in)
HAMMER WEIGHT *	23 200 kg (51 200 lb)	26 100kg (57 600 lb)	28 300 kg (62 400 lb)	40 700 kg (90 000 lb)

Classic Series | MODEL	HHK25S	HHK25/28S	HHK25/30S
RAM BLOCK WEIGHT	25 000 kg (55 100 lb)	28 000 kg (61 750 lb)	30 000 kg (66 150 lb)
MAXIMUM ENERGY	368 kNm (271 238 ft-lb)	400 kNm (295 025 ft-lb)	441 kNm (325 265 ft-lb)
MAX. ENERGY WITH SB HYDRAULICS	400 kNm (295 025 ft-lb)	450 kNm (331 903 ft-lb)	500 kNm (368 781 ft-lb)
STROKE	1 500 mm (5 ft)	1 500 mm (5 ft)	1 500 mm (5 ft)
BLOW RATE	30–100	30–100	30–100
OPERATING PRESSURE	244 bar (3 539 psi)	273 bar (3 960 psi)	290 bar (4 206 psi)
OIL FLOW (NOMINAL / MAX)	860 l/min (227 gpm)	860 l/min (227 gpm)	860 l/min (227 gpm)
HAMMER LENGTH *	7 995 mm (314,8 in)	8 235 mm (324,2 in)	8 375 mm (329,7 in)
HAMMER WEIGHT *	40 700 kg (90 000 lb)	45 400 kg (100 000 lb)	48 000 kg (106 000 lb)

* Excluding cap and sleeve

Power Packs

The Junttan Power packs are ready for use quickly, and the low noise level further enhances their user-friendliness. They are compact, yet powerful pieces of equipment that can conveniently be transported from one construction site to another.

The Junttan Power packs are designed to be used with hammers, rotary heads, and vibrators. The compact structure and remote control possibility enable them to be used ranging from simple to highly demanding situations, and you to get the most out of your hammer.

By efficiently combining the sheer power with the ability to perform, Power packs are able to ensure the most effective, reliable, and flawless flow throughout the piling process. Thanks to their easy handling, excellent durability, and first-class fuel economy, the Junttan Power packs enable optimal functionality even in the most demanding conditions.

Hydraulic Power Packs for Impact Hammers

X-Series | MODEL	15XCU	20XCU
ENGINE POWER (US TIER 4F/EU STAGE V)	321 kW (430 hp)	503 kW (675 hp)
MAX OPERATING PRESSURE	350 bar (5 076 PSI)	350 bar (5 076 PSI)
HYDRAULIC OIL TANK	1 000 l (264 gal)	1 500 l (396 gal)
FUEL TANK	660 l (174 gal)	900 l (238 gal)
OIL FLOW MAX	760 l/min (200 gpm)	1040 l/min (275 gpm)
CONTROL SYSTEM	X-control / pile cruise	X-control / pile cruise
WEIGHT	5 900 kg (12 980 lb)	8 700 kg (19 140 lbs)

Key Features

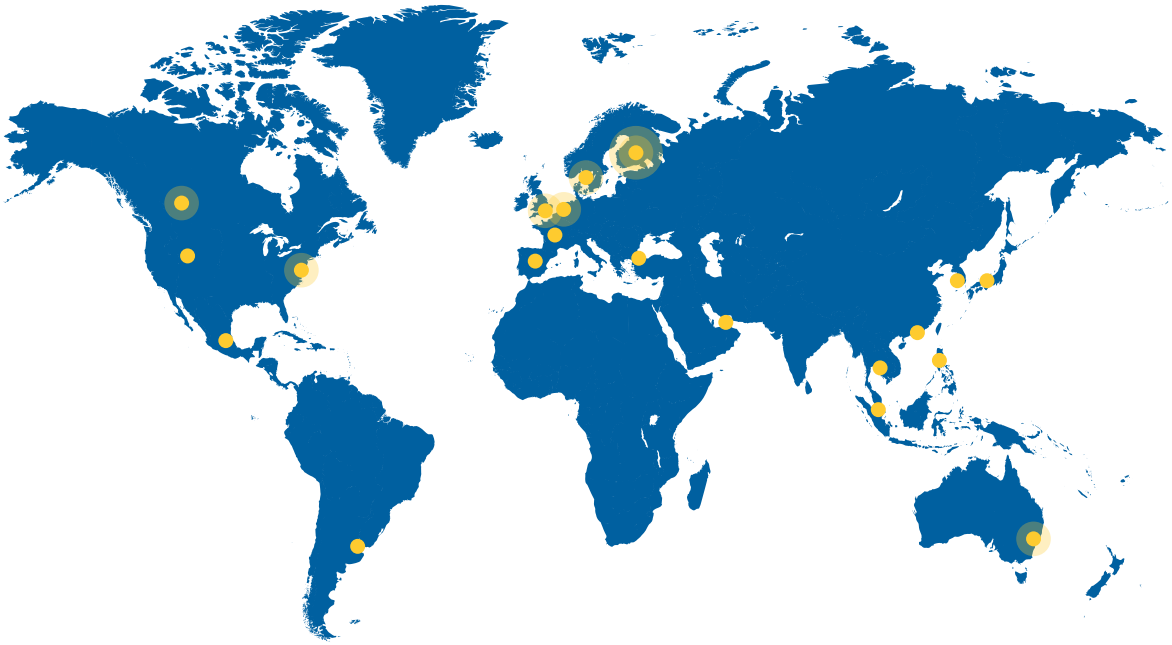
- Fuel economy
- Excellent durability
- Easy handling





At Your Service

Combining state-of-the-art piling machinery with uncontested customer service and sheer determination to do everything there is to do to help customers succeed, Junttan can improve also your operational efficiency.



FIND YOUR NEAREST JUNTTAN PROFESSIONAL HERE:
junttan.com/contact-us

FOR FURTHER INFORMATION, PLEASE CONTACT:
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