



HYDRAULIC IMPACT HAMMERS PRODUCT RANGE

DIESEKO GROUP



PILING & VIBRO EQUIPMENT

AN INTRODUCTION TO **DIESEKO GROUP** FOUNDATION EQUIPMENT

Established in 1974, Dieseko Group represents several brands in the foundation equipment industry, in four product lines: Piling Equipment, Piling & Drilling Rigs, Ground Improvement and Power packs. In our markets the company is represented by three brands: PVE Piling & Vibro Equipment, ICE International Construction Equipment and Woltman Piling & Drilling Rigs.

Dieseko Group engineers develop foundation equipment in accordance with the latest regulations. The experienced engineers in the sales and rental department have a profound knowledge of the equipment and are always standing by to advise clients on their specific needs. Spare parts are in stock for all machines, which can be shipped quickly to dealers and clients worldwide, to avoid downtime on projects. Service engineers are available 24/7 to support clients on site. With over 60 dealers and branches worldwide, Dieseko Group is a reliable partner for all foundation contractors for consultation, sales, rental and financing.

DIESEKO GROUP PILING EQUIPMENT



VIBRATING



PRESSING



RESONATING



PILE DRIVING



DRILLING





HYDRAULIC IMPACT HAMMERS FLEXIBLE AND VERSATILE

PVE recognizes the importance to adapt to changing circumstances during pile driving operations, especially when it comes to soil. For this reason the PVE hydraulic impact hammers are designed in a modular configuration. For every hammer type it is possible to adjust the impact energy by adjusting the drop height. This can also be accomplished by adding or removing drop weights.

PVE impact hammers are excellent for lots of applications. The most common application is the installation of precast concrete piles. PVE impact hammers are also very suitable for driving steel casing piles, sheet piles and cast-in-situ concrete piles. The larger PVE impact hammers, starting from the PVE 10 NL, are very suitable for heavy piling works. Examples are driving large steel casing piles for bridge foundations, wind farm foundations or industrial projects for jetties, harbour quays and cable landing projects.



URBAN



RURAL



HARBOR



INDUSTRIAL



OFFSHORE



MAXIMUM PERFORMANCE WITH MINIMUM GROUND VIBRATIONS

PILE SLEEVES & DRIVE CAPS

For every type of pile PVE offers a wide range of drive caps and pile sleeves. In case of special projects PVE has the possibility to develop custom made pile sleeves.

PVE drive caps and sleeves are suitable for the following applications:

- Precast concrete piles
- Timber piles
- Steel casing piles
- Steel profiles (H and U beams)
- Steel and concrete sheet piles
- Combined sheet pile walls
- Cast-in-situ concrete piles

ACCELERATED

PVE NL series impact hammers are accelerated to guarantee high performance. The accelerated PVE impact hammers ensure efficient pile driving operations and high production rates. The impact energy is adjustable for an optimal setting in relation to pile type, pile diameter and soil stiffness. The PVE NL series impact hammers are manufactured according high quality standards and with A-brand components. The PVE NL series impact hammers are well known for their long lifetime and high efficiency.

SOUNDPROOF

Especially in urban areas several challenges need to be taken into consideration when it comes to pile driving. PVE recognizes the importance of the continuity of pile driving while taking the surrounding area and neighbours into account. PVE offers a very sophisticated insulating system for the PVE NL impact hammer range. With the sound insulating system sound reductions up to 10 dB are possible compared to a standard impact hammer. PVE NL impact hammers are continuously subject to further developments for sound proofing and efficiency.

MEASURESTRIKE SYSTEM

Quality and accuracy of your pile driving operation, PVE clearly understands the wishes of the client, their principals and engineers. For this reason we are offering the MeasureStrike system. The MeasureStrike system registers and reports for each pile number pile tip depths, the pile blow energy, pile driving time and blow count. The integrated WiFi application assists the operator in transferring data from the piling operations fast and easy to another device for information exchange. Piling data therefore is available anytime and can be shared within seconds.

Suitable cranes for normal applications



Crawler crane



Boom crane



Piling rig



PDS rig



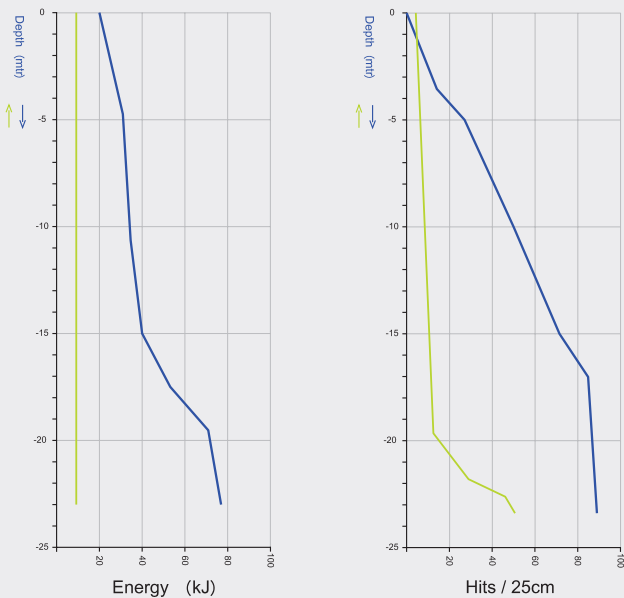
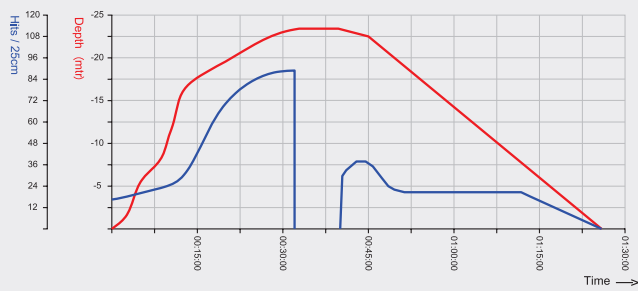
Excavator

EXAMPLE OF A TYPICAL READ-OUT OF THE PVE MEASURESTRIKE SYSTEM

These details are based upon the installation of cast-in-situ driven piles as per mentioned data.

Project name	Everdenberg	End time	11:32:58
Location	Oosterhout (NL)	Total duration	01:24:42
Contractor	VVT Piling	Pile length	23,2 mtr
Piling by	VVT	Pile diameter	508 mm
Piling Rig	PV80-112-5021	Plate diameter	610 mm
Start time	10.08:16	Piling system	Cast-in-situ

Timediagram



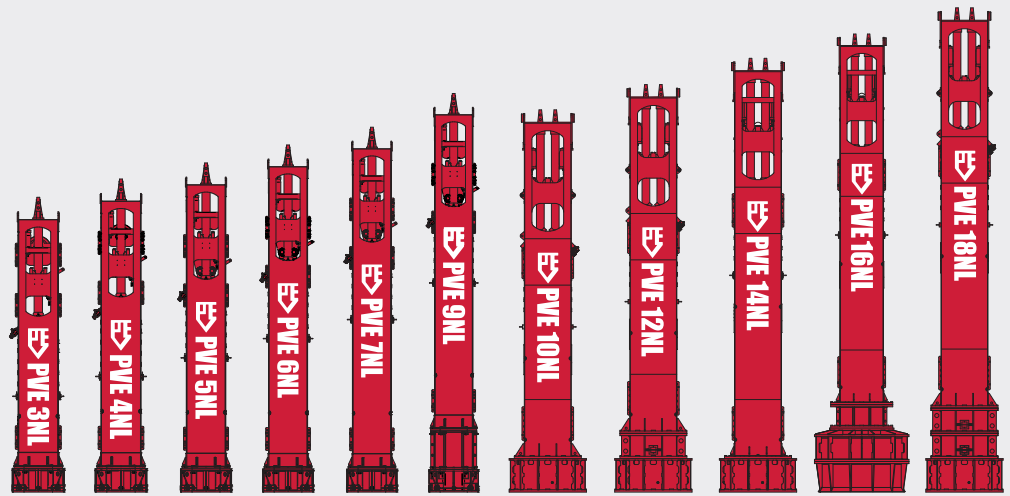
HYDRAULIC IMPACT HAMMERS



MODULAR

PVE offers a wide range of hydraulic impact hammers. Because the required capacity of the hammers varies as a result of different pile types, sizes and soil conditions the possibility of adjusting the blow energy is a main advantage. Therefore the PVE hydraulic impact hammers are built in a modular configuration. The PVE impact hammer therefore is easily adjusted by adding drop weights as is required. For example a transformation of a PVE 4 NL impact hammer into a PVE 6 NL impact hammer is possible within only a few hours. The modular system is applicable on the complete range of PVE impact hammers.

HYDRAULIC IMPACT HAMMERS



		3 NL	4 NL	5 NL	6 NL	7 NL	9 NL	10 NL	12 NL	14 NL	16 NL	18 NL
Maximum potential energy	kJ	43	57	72	86	101	127	155	212	247	282	318
Maximum net. energy	kJ	36	48	60	72	84	106	129	177	206	235	265
Maximum stroke	mm	1200	1200	1200	1200	1200	1200	1500	1500	1500	1500	1500
Minimum stroke	mm	100	100	100	100	100	100	200	200	200	200	200
Blowrate at max. stroke	bl/min	40	40	40	40	40	40	30	30	30	30	30
Ram weight	ton	3	4	5	6	7	9	10	12	14	16	18
Hammer weight incl. drive cap *)	ton	6	7,2	8,4	9,6	10,8	13,9	16,9	18,9	21,2	24,6	28
Maximum pressure	bar	140	155	165	175	185	235	150	170	200	230	260
Required oilflow	l/min	390	390	390	390	390	390	650	650	650	650	650
Length indication	mm	5020	5390	5760	6130	6500	6870	6800	7200	7700	8200	8700
Max. width indication	mm	940	940	940	940	940	940	1500	1500	1500	1500	1500
Max. height indication	mm	940	940	940	940	940	940	1500	1500	1500	1500	1500
Recommended power pack		250 NL	250 NL	250 NL	250 NL	250 NL	250 NL	500 NL	500 NL	500 NL	500 NL	500 NL

*)10 NL - 18 NL are excl. sleeve



RELIABLE POWER FROM PILING RIG OR POWER PACK

PVE hydraulic power packs are the best solution when piling rigs need additional power to drive a hydraulic impact hammer or other auxiliaries.

PVE HYDRAULIC POWER PACKS

PVE benefits from more than 40 years of experience in developing and manufacturing hydraulic power packs for the foundation industry. The PVE hydraulic power packs are the most suitable power packs for driving the PVE NL series of impact hammers. Besides that the PVE hydraulic power packs are suitable to drive the most common hydraulic impact hammers from other brands. No need to say that our company group's Woltman piling rigs operate without power packs as the machines drive the hammer directly. The following characteristics are applicable for our impact hammers.

- Available in multiple sizes and various configurations
- Equipped with Tier 4 and Tier 3 engines
- Delivered with normal or biodegradable oil
- Controlled by electronic iQan system for easy operation
- Excellent quality by using A-brand components



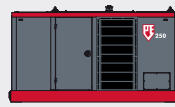
HYDRAULIC POWER PACKS



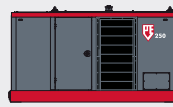
POWER PACK RANGE

For the PVE NL series impact hammers PVE recommends the 250 NL and 500 NL hydraulic power pack. Besides these two types PVE offers a wide range of power packs suitable to drive vibratory hammers, vibroflots, offshore impact hammers, rotary heads, dredging pumps and other auxiliaries. For more information reference is made to the Dieseko Group website or additional brochures.

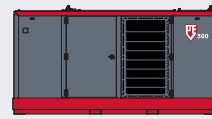
HYDRAULIC POWER PACKS



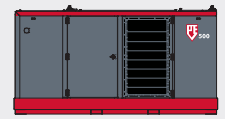
250 NL



250 NL



500 NL



500NL

Diesel engine		Volvo Penta TAD 753 GE	Volvo Penta TAD 872 VE	Volvo Penta TAD 1352 GE	Volvo Penta TAD 1374 VE
Emission standard		Stage 3A	Stage 4	Stage 3A	Stage 4
Max. power	kW/HP	212/288	210/286	363/494	375/510
Max. frequency	rpm	1800	2200	1800	1900
Max. working pressure	bar	250	250	250	250
Max. oil flow	l/min	390	390	750	750
Operational weight	kg	4700	4920	7100	7320
L x W x H	mm	3670 x 1600 x 2070	3670 x 1600 x 2070	4460 x 1750 x 2310	4460 x 1750 x 2310



YOUR BENEFITS

- High reliability and long life duration
- Cost efficient by fast and easy assembly on piling rig
- Fast and easy exchangeable drive caps and sleeves
- High efficiency by accelerated hammers with high blow rates
- Additional sound reduction systems available
- Professional monitoring and reporting by the Measure Strike System
- Adjustable drop weight due to the modular system of the impact hammers



PROFESSIONALS IN THE FIELD



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The modular system of the PVE NL series hydraulic impact hammers enables the modification from, for example, a PVE 4 NL hammer into a PVE 6 NL within only a few hours. By adding extra drop weight the standard PVE NL impact hammer is adjustable for various pile driving scenarios.

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The PVE NL series impact hammers are very suitable for every application of driven piles. Besides the most common application of driven precast concrete piles the PVE hydraulic impact hammers are also very suitable for driving cast-in-situ concrete piles. Temporary caissons can be driven by the PVE hydraulic impact hammer to the required depth and extracted by the piling rig with or without support from a ring vibrator. PVE is also manufacturer of high performance ring vibrators.

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PVE offers large PVE NL series impact hammers suitable for heavy pile driving. Large steel caisson piles, combined sheet pile walls and offshore mono piles can be driven efficient and fast by the larger impact hammers. Also large PVE impact hammers are built according the modular system which gives the opportunity to increase the impact hammer capacity when required.

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