



NORMAL FREQUENCY PRODUCT RANGE

DIESEKO GROUP

ICE
INTERNATIONAL CONSTRUCTION EQUIPMENT

FOUNDATION EQUIPMENT FROM DIESEKO GROUP

The Dieseko Group, which was established in 1974, is a manufacturer of a wide range of products for the foundation industry. The range is divided into five product lines: vibratory hammers and impact hammers, piling and drilling rigs, soil improvement equipment, dredging equipment and hydraulic power units.

Dieseko Group is owner of the brands PVE Piling & Vibro Equipment, ICE International Construction Equipment and Woltman Piling & Drilling Rigs. Dieseko Group also supplies Bell Dredging equipment.

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

NORMAL FREQUENCY



PRESSING

VARIABLE MOMENT



RESONATING

OFFSHORE



PILE DRIVING

EXCAVATOR MOUNTED



DRILLING





DESIGNED FOR YOUR PROJECTS

APPLICATIONS

- General driving and extraction of steel piles and casings
- Suitable for compaction
- Suitable for most soil types

ADVANTAGES

- Excellent quality
- Easy maintenance
- Forced lubrication system
- Additional gearbox cooling system
- Open loop hydraulic system
- Wide range of clamping solutions
- Silent power packs
- Advanced iQan operating system
- Tier/Stage 2 to 4-final compliant
- Power pack suitable for other hydraulic equipment

DIESEKO GROUP

- Known for robust and reliable equipment
- Over 40 years experience with a proven track record
- 24/7 worldwide support
- Large spare parts inventory
- World's largest rental fleet
- Consultancy and financing
- ISO 9001 certified



URBAN



RURAL



HARBOR



INDUSTRIAL



OFFSHORE



CHOOSE ICE VIBRATORY HAMMERS

ICE vibro technology is a proven method for fast and accurate pile driving.

The ICE NF standard range covers centrifugal force from 14 kgm up to 300 kgm. ICE also provides bespoke solutions by offering design and engineering advice to manufacture tailor-made products to meet your specific requirements.

APPLICATIONS

A NF vibratory hammer can be used to drive or extract a variety of steel profiles, such as sheet piles, casings and tubes.

With a speed of 1400 - 1700 rpm and a fixed eccentric moment, the relatively high amplitude makes this type of hammer suitable for heavy soil conditions.

To determine the right vibratory hammer, you need to take into account soil conditions, resistance and the weight of steel foundations.

Amplitude during vibration of hammer and sheet pile:

$$\text{Amplitude} = \frac{2000 \times \text{Eccentric moment}}{\text{Dynamic weight incl. clamp} + \text{weight sheet pile}}$$

Example:

ICE 416L vibratory hammer + sheet pile (2000 kg)

$$\text{Amplitude} = \frac{2000 \times 23}{2840 + 2000} = 9,5 \text{ mm}$$

Centrifugal force:

$$\text{Centrifugal force} = 0.011 \times (\text{rpm})^2 \times \text{eccentric moment}$$

Example:

ICE 416L vibratory hammer working with a frequency of 1600 rpm:

$$\text{Centrifugal force} = 0.011 \times (1600)^2 \times 23 = 647680 \text{ N} = 647 \text{ KN}$$



EXTENDED RANGE

Not only have foundations become larger, caissons bigger in diameter, piles longer but a new line of sheet piles has been produced with greater sections, cross sectional areas and weights. The result of this is a change in demand for wider range of hammers. ICE responds to this demand by introducing innovative solutions and new additions to our range of high performance vibratory hammers.

MAXIMUM PERFORMANCE

ICE hammers are paired up with powerful power packs supplying a steady hydraulic flow that allows you to work at maximum working pressure - even in tough driving conditions. We ensure you are able to drive your steel to depth, according to our philosophy, with a surplus of driving power for maximum performance.

VIBRO PILE DRIVABILITY PREDICTION AND POST PILING ANALYSIS

Dieseko Group works with reputable third parties to undertake vibro pile drivability predictions. After piling, our measuring equipment, which can record amplitude, acceleration, centrifugal force and hydraulic pressure, is examined and a post piling report can be supplied upon request. This enables us, geotechnical experts and the industry in general, to benefit from our experience on numerous projects onshore and offshore.

CARBON FOOTPRINT

Sustainability is embedded in our R&D, processes and products. Vibration piling is an environmentally friendly foundation technique, as vibrations cause minimal noise and ground disturbance.

ICE equipment is developed and produced according to the latest regulations. Together we can minimise your carbon footprint.



PRODUCT RANGE NORMAL FREQUENCY




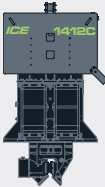
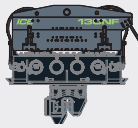
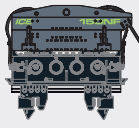
NORMAL FREQUENCY VIBRATORY HAMMERS

Due to their robust structure, ICE's wide range of normal frequency hammers can be used for onshore, harbour and offshore projects. The fixed eccentric moment makes this type of hammer a perfect fit for less sensitive, heavy duty jobs. ICE vibratory hammers are known for their reliability and power, especially when paired with an ICE power pack. These sets have been carefully attuned to each other to ensure optimal performance.

Our experts are available to help you find the most suitable vibratory hammer for your project.

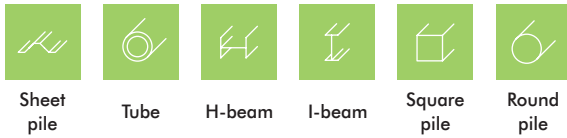
NORMAL FREQUENCY VIBRATORY HAMMERS

						
		1423C	416L	32NF	815D	55NF
Eccentric moment	kgm	14	23	32	45	54
Max. centrifugal force	kN	812	647	955	1250	1711
Max. frequency	rpm	2300	1600	1650	1592	1700
Max. amplitude *)	mm	16.5	19.6	27.2	23.7	30.1
Max. static line pull	kN	240	400	400	400	800
Max. oil flow	L/min	370	359	370	619	617
Dynamic weight *)	kg	1700	2350	2350	3800	3580
Total weight *)	kg	2750	3550	4600	5700	5700
L x W x H *)	mm	1890 x 76 x 1635	2548 x 486 x 1567	2548 x 566 x 1567	2651 x 813 x 2580	2642 x 678 x 1939
Recommended power pack		400 series	400 series	400 series	600 series	600 series
Recommended sheet pile clamp		100TU	100TU	130TU	160TU	200TU
Recommended tube clamp set		55TC	81TC	81TC	81TC	100TC
Recommended pile clamp		120TP	120TP	120TP	180TP	180TP

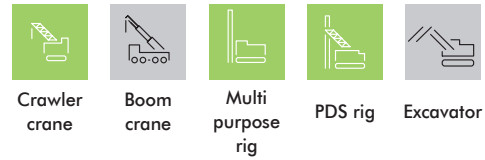
					
		82NF	1412C	130NF	150NF
Eccentric moment	kgm	81	110	130	150
Max. centrifugal force	kN	2567	2300	2794	3224
Max. frequency	rpm	1700	1380	1400	1400
Max. amplitude *)	mm	30.0	34.9	25.0	26.3
Max. static line pull	kN	800	800	1260	1260
Max. oil flow	L/min	888	830	1293	1293
Dynamic weight *)	kg	5400	6400	10420	11400
Total weight *)	kg	7900	10750	16900	17780
L x W x H *)	mm	2662 x 721 x 2427	2819 x 1108 x 3592	3862 x 1217 x 2425	3862 x 1217 x 2425
Recommended power pack		900 series	900 series	1400	1400
Recommended sheet pile clamp		320TU	320TU	350TU	-
Recommended tube clamp set		200TC	200TC (2X)	175TC	200TC
Recommended pile clamp		-	-	-	-

*) excluding clamp & hoses

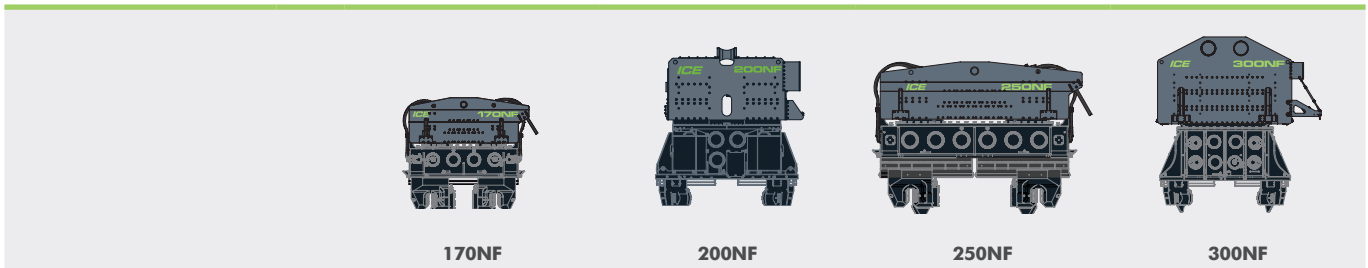
Suitable piling profiles



Suitable cranes for normal frequency applications



NORMAL FREQUENCY VIBRATORY HAMMERS



		170NF	200NF	250NF	300NF
Eccentric moment	kgm	170	200	250	300
Max. centrifugal force	kN	3654	4300	5374	6150
Max. frequency	rpm	1400	1400	1400	1400
Max. amplitude *)	mm	29.7	19.0	24.6	21.0
Max. static line pull	kN	1260	1800	3640	4000
Max. oil flow	L/min	1293	1680	1600	2800
Dynamic weight *)	kg	11455	21000	20330	27250
Total weight *)	kg	17850	29000	36500	47000
L x W x H *)	mm	3862 x 1217 x 2425	3860 x 1600 x 3405	5165 x 1270 x 3020	5035 x 1800 x 4395
Recommended power pack		1400	1600	1600	3200
Recommended sheet pile clamp		-	-	-	-
Recommended tube clamp set		350TC	150TC	350TC	210TC
Recommended pile clamp		-	-	-	-

*) = excluding clamp & hoses



PRODUCT RANGE POWER PACKS



ICE POWER PACKS: VERSATILE POWER





Our aim is to ensure you can always drive your steel – even in tough conditions. To that aim, our ICE vibratory hammers are paired up with powerful power packs with a surplus of driving power to perform. ICE power packs meet Stage - to durable Stage V regulations.




An ICE power pack can be adapted for extreme conditions such as freezing arctic environments or desert conditions with scorching heat. We can also customize your power pack to enable crane counter mounting or deck mounting. Our open loop hydraulic system and cooling system ensures a safe and reliable hydraulic operation and prevents overheating. The intelligent iQan management assures a reliable performance and the interface is available in most common languages.

We have developed the power packs to keep up with changing environmental legislation and can be built according to regulatory requirements. To avoid oil leaks the power packs are equipped with a fluid-sealed bottom. Noise and emissions have been reduced. Stop-start intelligence and AdBlue technology can be adopted.

Other hydraulic equipment such as the PVE impact hammers, winches and pumps can also be driven using the ICE power packs.

POWER PACKS

					
		400	400	600	600
Diesel engine		Volvo TAD 884 VE	Caterpillar C9	Volvo TAD 1385 VE	Caterpillar C15
Emission standard		Stage V / Tier 4F	Stage IIIA / Tier 3	Stage V / Tier 4F	Stage IIIA / Tier 3
Max. power	kW/HP	250/340	242/329	405/551	403/540
Max. frequency	rpm	2200	2200	1900	2100
Working pressure	bar	350	350	350	350
Max. oil flow	l/min	396	396	644	672
Weight	kg	5150	6000	7600	7600
L x W x H	mm	3672 x 1600 x 2055	4000 x 1650 x 2065	4330 x 1750 x 2290	4500 x 1740 x 2250

				
		900	900	900
Diesel engine		Volvo TWD 1683 VE	Caterpillar C18	Volvo TAD 1643 VE-B
Emission standard		Stage V / Tier 4F	Stage V / Tier 4F	Stage - / Tier 2
Max. power	kW/HP	585/796	563/755	565/768
Max. frequency	rpm	1900	1800	1900
Working pressure	bar	350	350	350
Max. oil flow	l/min	972	972	972
Weight	kg	10400	10650	10000
L x W x H	mm	5062 x 1900 x 2330	5320 x 1950 x 2420	5060 x 1900 x 2345



STAGE V POWER PACKS



POWER PACKS



1400



1600



1600

Diesel engine		Volvo TAD 1353GE (2x)	Volvo TWD 1683 VE (2x)	Caterpillar C18 (2x)
Emission standard		Stage - / Tier 3	Stage V / Tier 4F	Stage V / Tier 4F
Max. power	kW/HP	820/1116	1170/1592	1126/1510
Max. frequency	rpm	1800	1900	1800
Working pressure	bar	350	350	350
Max. oil flow	l/min	1476	1620	1620
Weight	kg	13870	18000	18000
L x W x H	mm	5370 x 2480 x 2430	8075 x 2200 x 2540	8075 x 2200 x 2540



1600 short



1600



3200

Diesel engine		Volvo TWD 1683 VE (2x)	Volvo TAD 1643 VE (2x)	Volvo TAD 1643 VE (4x)
Emission standard		Stage V / Tier 4F	Stage - / Tier 2	Stage - / Tier 2
Max. power	kW/HP	1170/1592	1130/1536	2260/3072
Max. frequency	rpm	1900	1850	1850
Working pressure	bar	350	350	350
Max. oil flow	l/min	1710	1665	3330
Weight	kg	18900	15000	31000
L x W x H	mm	5875 x 2900 x 2510	5470 x 2480 x 2520	9075 x 2500 x 2695



PRODUCT RANGE HYDRAULIC CLAMPS




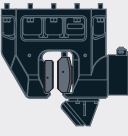

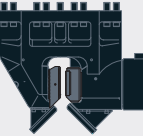
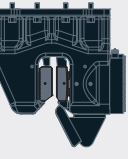


CLAMPS







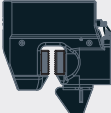
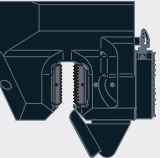
ICE has developed a wide range of heavy duty clamping systems, beams and cross beams for driving sheet piles, tubular piles of varying dimensions, concrete piles and even wooden piles. Talk to our experts for advice on the best clamping solution.

- **TU series:** sheets pile clamps for single or double sheets and H beams
- **TC series:** tube clamps for tubes, box piles or multiple sheets
- **TP series:** pile clamps for concrete, wooden and steel tubes or piles
- **CP series:** concrete sheet pile clamps on request.

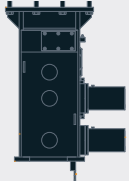

SHEET PILE CLAMPS

		100TU	130TU	160TU	200TU	200TUP	320TU	350TU
								
Clamping force	kN	1000	1300	1600	2000	2000	3200	3500
Working pressure	bar	320	320	320	320	300	320	320
Weight	kg	490	610	1100	1300	2000	2500	2600
L x W x H	mm	686 x 340 x 706	731 x 340 x 730	1138 x 340 x 894	1143 x 360 x 1046	1130 x 530 x 1175	1363 x 460 x 1102	1242 x 540 x 1233

TUBE CLAMP SETS

		55TC	81TC	100TC	150TC	175TC	200TC	210TC	350TC
									
Clamping force	kN	550	800	1000	1500	1750	2000	2000	3500
Working pressure	bar	300	320	300	300	300	320	320	320
Weight	kg	310	480	690	1300	1400	1350	1600	2980
L x W x H	mm	500 x 320 x 450	611 x 300 x 775	642 x 395 x 858	797 x 420 x 1040	797 x 420 x 1040	915 x 430 x 1092	975 x 430 x 1102	1228 x 600 x 1240
Min. inside tube ø	mm	294	417	480	638	638	725	848	1097

PILE CLAMPS

		120TP	180TP
			
Clamping force	kN	1200	1800
Working pressure	bar	300	320
Weight	kg	1650	2820
L x W x H	mm	1180 x 617 x 1470	1270 x 717 x 2275

PROFESSIONALS IN THE FIELD





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