



EXCAVATOR MOUNTED PRODUCT RANGE

DIESEKO GROUP

G **GÁNDARA**
SU EQUIPO EN CIMENTACIÓN

ICE
INTERNATIONAL CONSTRUCTION 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 standby 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 consultancy, sales, rental and financing.



DIESEKO GROUP PILING EQUIPMENT



VIBRATING

NORMAL FREQUENCY



PRESSING

VARIABLE MOMENT



RESONATING

OFFSHORE



PILE DRIVING

EXCAVATOR MOUNTED



DRILLING



EXCAVATOR MOUNTED VIBRATORY HAMMERS

APPLICATIONS

- Highly efficient for general driving, extracting and soil compaction work
- Compact and light-weight for difficult access projects
- Low noise for urban area use
- Variable moment series for resonance free operating in vibration sensitive locations

ADVANTAGES

- Excellent quality
- Easy maintenance
- Easy to mount to almost all types of excavator
- High push/pull forces increase driving performance
- Goose neck for increasing working height and driving longer piles
- Swivel head series for single-operator use
- Hoses and clamps safety facilities
- Improves the profitability of the excavator
- Wide range of clamping solutions

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



ICE MULTIPURPOSE USAGE

MAXIMUM VARIETY, MINIMUM DISTURBANCE

An ICE excavator mounted vibratory hammer is used to drive or extract a variety of steel profiles; sheet piles, 'H' beams, and 'I' beams and with the larger excavator mounted vibrators fitted with double clamps, casings and tubular piles can be driven. Another application is soil compaction work. Our vibrators have a very narrow throatwidth that allows you to carry out staggered sheet piling, and with a wide range of hammers and clamps we have the solution for all types of steel, wood and concrete piles and soil conditions.

The ICE excavator mounted series causes minimal ground vibrations due to its high rotational speed of approximately 2300 rpm. An additional range of resonance free models allows you to drive steel piles without disturbance on vibration-sensitive projects.

Their extreme flexibility, due to the excavator powering, makes this kind of vibratory hammer our most agile piece of equipment- especially in compact spaces.

EXCAVATOR MOUNTED SERIES

ICE offers a range of four different models:

- B series: standard excavator mounted vibratory hammers
- RFB series: resonance-free excavator mounted hammers
- SH series: vibratory hammer with swivel head
- RF/SH: resonance-free swivel head

SELECTING THE RIGHT EXCAVATOR

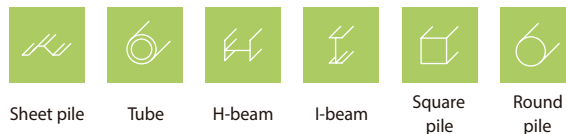
To determine the correct excavator to use, as a guide, calculate that only 60 to 70 per cent of the installed power in the excavator will be available to drive the vibratory hammer. This percentage can be compared with the required hammer power.

When the maximum oil pressure and maximum oil flow are unknown or not available, please use the following table as a guide to match the excavator mounted vibratory hammer with the correct excavator.*

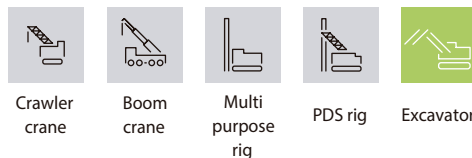
Weight excavator	Type vibratory hammer
< 20t	3B, 3BEE / 4B, 4SH
- 25t	4B, 4SH
- 30t	4B, 4SH / 6B, 6SH, 6RFB, 6RFSH
> 30t	6B, 6BEE, 6RFB, 6RFSH / 8SH, 8RFB, 8RFSH / 12B, / 20RFB 23B, 23RFB

* Please consult our expert for specific information

Suitable piling profiles



Suitable cranes



POWER AND FORCE

An excavator can easily be turned into a sheet pile driver by connecting a vibratory hammer. The excavator supplies the oil flow for the hammer and the force of the excavator boom is used to raise the penetration rate of the steel. Occasionally these joint forces means a smaller hammer can be used.





CHOOSING THE RIGHT MODEL

Choosing the right vibrator for a job depends on soil conditions, the type of pile and the driving depth. The vibratory hammer also has to be matched to the excavator. ICE can supply you with the right attachment for the excavator's boom.

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 in accordance with the latest regulations. Together we can minimise your carbon footprint.

The vibrator is connected to the boom's hydraulic connections by two hoses. A third hose is the drain oil line. The vibratory hammer is simply controlled by the excavator operator with one lever. All excavator mounted hammers in the resonance free series are equipped with an electrical remote control unit.

The ICE swivel head vibratory hammer can be tilted to a 90 degree angle. The operator can grab sheet piles stored on the ground and drive them directly without any other handling operations.

The combination of high frequencies, oil flow and working pressure makes this hammer suitable for mounting on practically any excavator with a sufficient oil flow, at a maximum operating pressure of 350 bar. The hammer can be attached to an excavator using two different types of forks or a head plate. An additional goose neck can increase working height by approximately 2 m for handling and driving longer steel profiles.



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PRODUCT RANGE HIGH FREQUENCY








COMPACT AND POWERFUL VIBRATORY HAMMERS

Mounted on hydraulic excavators for optimised mobility and agility, this high frequency range is ideal for projects in compact spaces and urban areas.

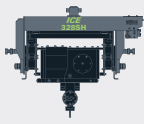



SWIVEL HEAD VIBRATORY HAMMERS

Using the swivel head option enables you to directly lift the piles from a horizontal to a vertical position and immediately start driving.

HIGH FREQUENCY VIBRATORY HAMMERS

						
		328B	428B	625B	823B	1223B
Eccentric moment	kgm	3.2	4.6	6.0	8.0	11.5
Max. centrifugal force	kN	275	395	411	464	670
Max. frequency	rpm	2800	2800	2500	2300	2300
Max. amplitude *)	mm	8.6	10.2	13.2	17.0	12.2
Max. static line pull	kN	120	120	120	120	180
Max. oil flow	L/min	112	167	201	185	326
Hydraulic power	kW/HP	65/89	97/133	117/160	108/147	190/259
Dynamic weight *)	kg	740	900	910	940	1890
Total weight *)	kg	1090	1280	1290	1310	2380
L x W x H *)	mm	1128 x 520 x 1416	1128 x 646 x 1502	1128 x 646 x 1502	1128 x 646 x 1502	1540 x 435 x 1870
Recommended sheet pile clamp		40TU	60TU	60TU	60TU	60TU
Recommended tube clamp		-	-	-	-	55TC
Recommended pile clamp		60TP	60TP	60TP	60TP	120PT

HIGH FREQUENCY VIBRATORY HAMMERS WITH SWIVEL HEAD

					
		328SH	428SH	625SH	823SH
Eccentric moment	kgm	3.2	4.0	6.0	8.0
Max. centrifugal force	kN	275	345	410	465
Max. frequency	rpm	2800	2800	2500	2300
Max. amplitude *)	mm	8.6	8.9	12.9	17.0
Max. static line pull	kN	100	120	120	120
Max. oil flow	L/min	110	170	201	185
Hydraulic power	kW/HP	64/87	97/133	117/160	108/147
Dynamic weight *)	kg	740	900	930	940
Total weight *)	kg	1445	1460	1480	1490
L x W x H *)	mm	1844 x 859 x 1794	1600 x 848 x 1604	1600 x 848 x 1604	1600 x 848 x 1604
Recommended sheet pile clamp		40TU	60TU	60TU	60TU
Recommended tube clamp		-	-	-	-
Recommended pile clamp		60TP	60TP	60TP	60TP

*) including clamp






PRODUCT RANGE RESONANCE FREE



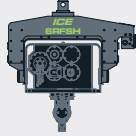
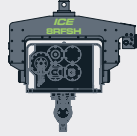
START AND STOP WITHOUT VIBRATIONS

This range is perfectly suited to drive piles in vibration-sensitive areas or locations with limited space.

RESONANCE FREE HIGH FREQUENCY VIBRATORY HAMMERS

						
		6RFB	8RFB	12RFB	20RFB	23RFB
Eccentric moment	kgm	0 - 6.5	0 - 7.5	0 - 12.0	0 - 19.0	0 - 23
Max. centrifugal force	kN	0 - 377	0 - 435	0 - 700	0 - 1100	0 - 1350
Max. frequency	rpm	2300	2300	2300	2300	2300
Max. amplitude *)	mm	0 - 10.7	0 - 12.1	0 - 12.4	0 - 916	0 - 12.7
Max. static line pull	kN	120	120	200	300	300
Max. oil flow	L/min	138	185	261	499	561
Hydraulic power	kW/HP	81/110	108/147	152/207	291/396	327/446
Dynamic weight *)	kg	1210	1235	1940	3285	3450
Total weight *)	kg	1490	1515	2225	3810	4500
L x W x H *)	mm	1158 x 595 x 1711	1158 x 595 x 1711	1519 x 674 x 2302	1560 x 722 x 2440	1620 x 788 x 2704
Recommended sheet pile clamp		60TU	60TU	100TU	130TU	160TU
Recommended tube clamp		-	-	55TC	80TC	80TC
Recommended pile clamp		60TP	60TP	120PT	120PT	120PT

RESONANCE FREE HIGH FREQUENCY VIBRATORY HAMMERS WITH SWIVEL HEAD

			
		6RFSH	8RFSH
Eccentric moment	kgm	0 - 6.5	0 - 7.5
Max. centrifugal force	kN	0 - 377	0 - 435
Max. frequency	rpm	2300	2300
Max. amplitude *)	mm	0 - 10.6	0 - 12.1
Max. static line pull	kN	120	120
Max. oil flow	L/min	138	185
Hydraulic power	kW/HP	81/110	108/147
Dynamic weight *)	kg	1225	1235
Total weight *)	kg	1900	1930
L x W x H *)	mm	1750 x 595 x 1711	1750 x 595 x 1711
Recommended sheet pile clamp		60TU	60TU
Recommended tube clamp		-	-
Recommended pile clamp		60TP	60TP

*) including clamp

PRODUCT RANGE HYDRAULIC CLAMPS

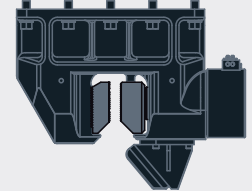
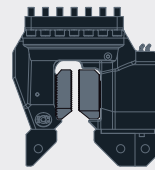
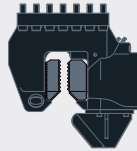
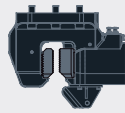
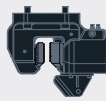
CLAMPS & TOOLS

There are a variety of clamps and other tools that can be connected to the excavator mounted vibratory hammer. ICE has developed a wide range of clamping systems and beams for driving sheet piles, tubular piles of varying dimensions, concrete piles and even wooden and plastic piles.

- **TU series:** sheets pile clamps for single or double sheets and H-beams
- **TC series:** tube clamps for tubes or multiple sheets
- **TP series:** pile clamps for concrete, wooden and steel tubes or piles
- **CS series:** concrete sheet pile clamps on request
- **Goose neck:** to drive longer piles
- **Mounting bracket:** connection between excavator and hammer, can be turned through 360°
- **Hydraulic rotator:** to rotate the hammer up to 360°

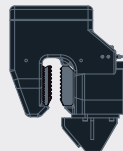


SHEET PILE CLAMPS



		40TU	60TU	100TU	130TU	160TU
Clamping force	kN	400	600	1000	1300	1600
Working pressure	bar	320	320	320	320	320
Weight	kg	165	250	490	610	1100
L x W x H	mm	537 x 260 x 437	615 x 310 x 497	686 x 340 x 706	731 x 340 x 730	1138 x 340 x 894

TUBE CLAMPS



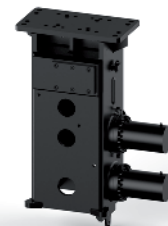
		55TC	81TC
Clamping force	kN	550	800
Working pressure	bar	300	320
Weight	kg	310	480
L x W x H	mm	500 x 320 x 450	611 x 300 x 775



PILE CLAMPS



		60TP	120TP
Clamping force	kN	600	1200
Working pressure	bar	300	300
Weight	kg	1240	1650
L x W x H	mm	1180 x 617 x 1130	1180 x 617 x 1470





**PROFESSIONALS
IN THE FIELD**





GLOBAL SERVICE NETWORK

Dieseko Group B.V.
 (headquarters)
 Lelystraat 49
 3364 AH Sliedrecht, the Netherlands
 Tel: (+31) 184 410 333
 info@diesekogroup.com
 www.diesekogroup.com

Woltman Piling & Drilling Rigs
 (service & manufacturing)
 Ambachtsweg 16
 3381 LN Giessenburg, the Netherlands
 Tel: (+31) 184-652044
 info@woltmanrigs.com
 www.woltmanrigs.com

Woltman Piling & Drilling Rigs
 (sales & manufacturing)
 Everdenberg 17
 4902 TT Oosterhout, the Netherlands
 Tel: (+31) 184-430900
 info@woltmanrigs.com
 www.woltmanrigs.com

PVE Equipment USA Inc.
 5011 Vernon Road
 Jacksonville, FL 32209, USA
 Tel: (+1) 904 765 66 86
 info@pve-equipment.com
 www.pve-equipment.com

ICE-PVE Asia Ltd.
 28 Benoi Road
 Singapore 629899
 Tel: (+65) 689 899 91
 enquiry@ice-pveasia.com
 www.ice-pveasia.com

Dieseko Brasil
 Rua Cicero Dantas,
 42 - CEP 06713-230 - Cotia - SP Brasil
 Tel: (+55) 11 996 545 097
 info@diesekogroup.com
 www.diesekogroup.com

Shanghai ICE Construction Equipment Trading Company
 No. B8, Building 31,
 ChuanSha International Industrial Garden,
 6999 ChuanSha Road, PuDong District,
 201202 Shanghai, P.R. China
 Tel: (+86) 21 3468 8990
 info@icevibro.com
 www.icevibro.com

Dieseko Group certified dealer:

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