

VIBRODRIVERS

For pile driving and deep foundations



For more than 80 years PTC has been mastering vibration technology and developing innovative pile driving solutions: **THE VIBRODRIVERS**

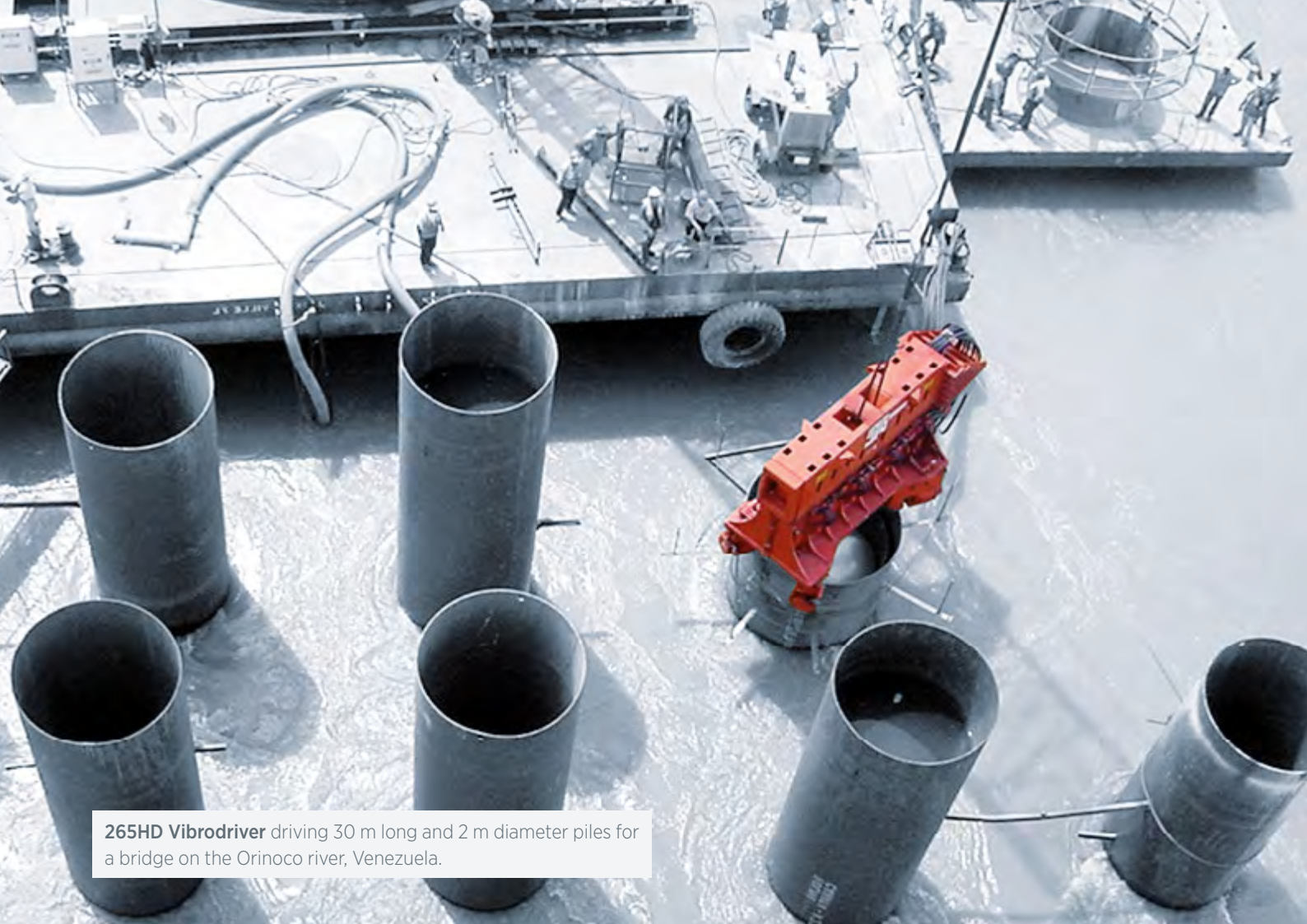
PTC Vibrodrivers are efficient hydraulic vibratory hammers that produce vertical vibrations to drive or extract a wide variety of profiles:

- Sheet piles
- H and I beams
- Casings and tubes
- Wooden piles

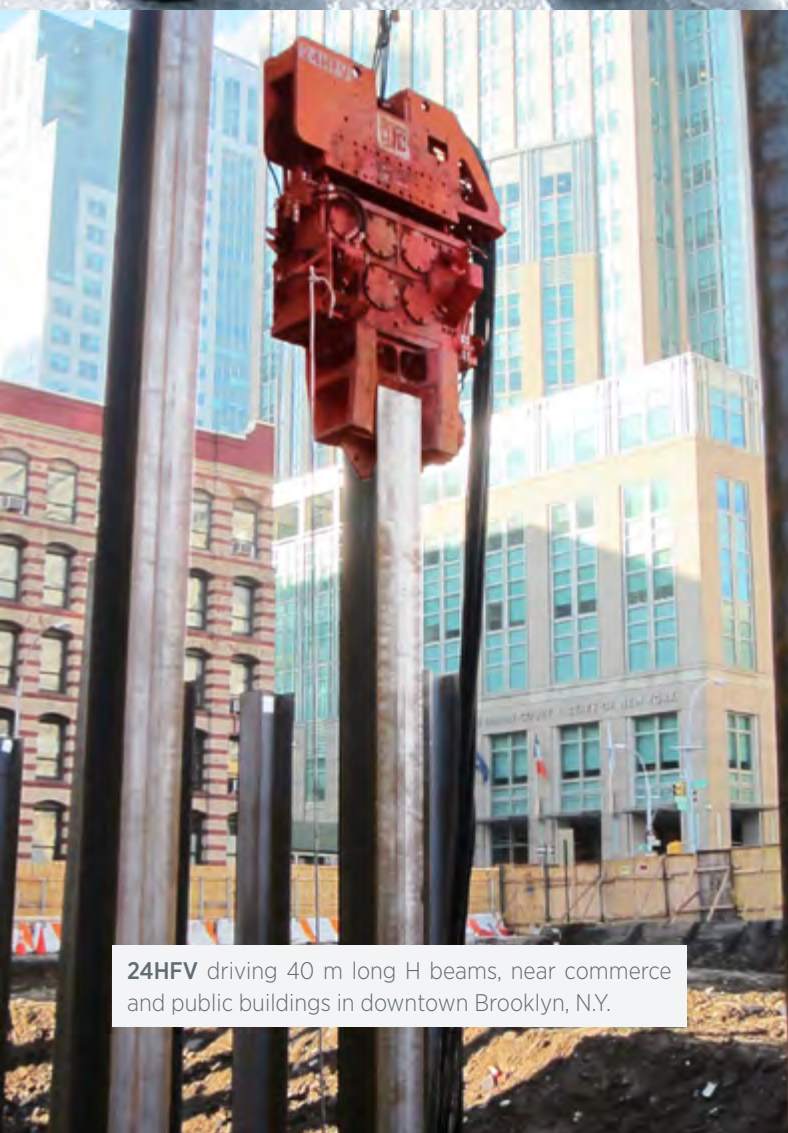
The Vibrodrivers work free hanging on crawler cranes and mobile cranes with telescopic booms.

65HD Vibrodriver building an anchor wall made of 16 m long AZ sheet piles, for the 3rd Quay of the port of Lomé, Togo.

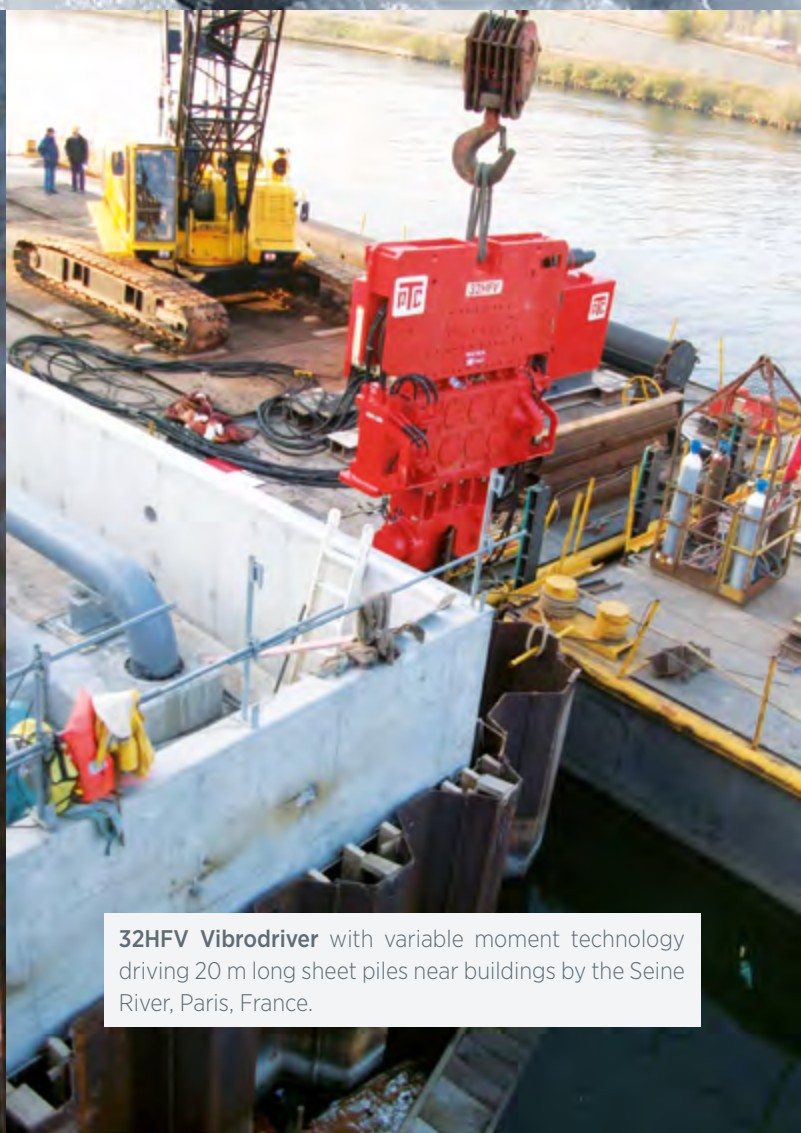




265HD Vibrodriver driving 30 m long and 2 m diameter piles for a bridge on the Orinoco river, Venezuela.



24HFV driving 40 m long H beams, near commerce and public buildings in downtown Brooklyn, N.Y.



32HFV Vibrodriver with variable moment technology driving 20 m long sheet piles near buildings by the Seine River, Paris, France.

APPLICATIONS

PTC pile driving technology is used worldwide for multiple applications.

BRIDGES



COFFERDAMS



VERTICAL DRAINS

RAILWAYS





CITY CENTERS



COMBINED WALL



UNDERWATER



HARBOURS

CAST IN-SITU



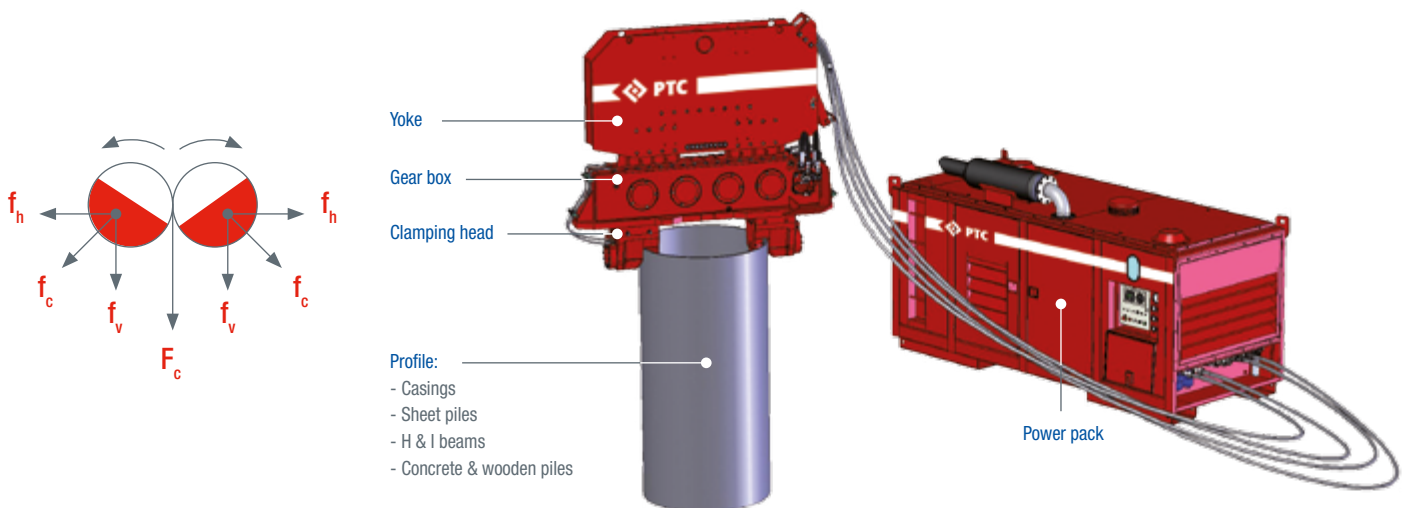
EXTREME WEATHER
CONDITIONS

VIBRODRIVER PRINCIPLE

Vibratory pile driving reduces the cohesion of the soil through vibration.

The vibration of a profile causes the adjacent ground to shift and reduces the friction, between the soil and the profile. Thus allowing to easily drive or extract the profile.

In the gearbox, each eccentric pair turns at the same angular velocity but in opposite directions, producing a vertical vibration. Each eccentric generates a centrifugal force f_c . The horizontal components f_h are offset at the same time that the vertical components f_v are added, resulting in a total centrifugal force F_c . The yoke located above the gearbox prevents the transmission of vibrations to the crane, thanks to specially designed shock absorbers.



TECHNICAL PARAMETERS

• ECCENTRIC MOMENT: M^t (m.kg)

$$M^t = \sum (m \times r)$$

(r : the distance between the eccentric's center of gravity and its rotational axis)

(m : the mass of the eccentric)

• CENTRIFUGAL FORCE: F_c (kN)

Each eccentric generates:

$$f_c = m \times r \times \omega^2 \quad (\omega \text{ is the angular velocity in radians/s})$$

$$F_c = 1.118 \times M^t \times n^2 \times 10^{-5} \quad (M^t \text{ in m.kg, } n \text{ in rpm})$$

Example: PTC 30H1A Vibrodriver ($M^t = 30$ m.kg, $n = 1\,680$ rpm)

$$F_c = 1.118 \times 30 \times 1\,680^2 \times 10^{-5} = 946 \text{ kN}$$

$$F_c = 946 \text{ kN}$$

• VIBRATING WEIGHT: m_v (t)

m_v = weight of the gearbox + weight of the clamping head + weight of the element to be driven

• AMPLITUDE: A (mm)

Is the vertical displacement of the vibrating elements during one complete revolution of the eccentrics.

$$A = \frac{2 \times M^t}{M_v}$$

Example: PTC 30H1A Vibrodriver

Eccentric Moment

$$M^t = 30 \text{ m.kg}$$

Vibrating weight m_v

$$\text{Vibrodriver} = 2.26 \text{ tons}$$

$$\text{Clamp} = 0.95 \text{ tons}$$

$$\text{Profile} = 13.37 \text{ tons } (\varnothing 1.4\text{m, } 26\text{m long, } 15\text{mm thick})$$

$$\text{Total } m_v = 16.55 \text{ tons}$$

$$\text{AMPLITUDE} = \frac{2 \times 30 \text{ m.kg}}{16.55 \text{ tons}} = 3.6 \text{ mm}$$

200HD Vibrodriver driving casings of
2.4 m diameter and 30 m long, France.



PTC VIBRODRIVER RANGES

For a perfect technological adaptation to the applications.

VIBRODRIVER RANGES

PTC pile driving know-how has produced innovative piling technologies, which have been integrated into the different ranges of PTC Vibrodrivers to offer the most performant pile driving solution for each application.

HFV: High Frequency Vibrodrivers
with PTC Patented Variable moment Technology

HV: Standard Frequency Vibrodrivers
with PTC Patented Variable moment Technology

H / HD: Standard Frequency Vibrodrivers
with Fixed eccentric moment

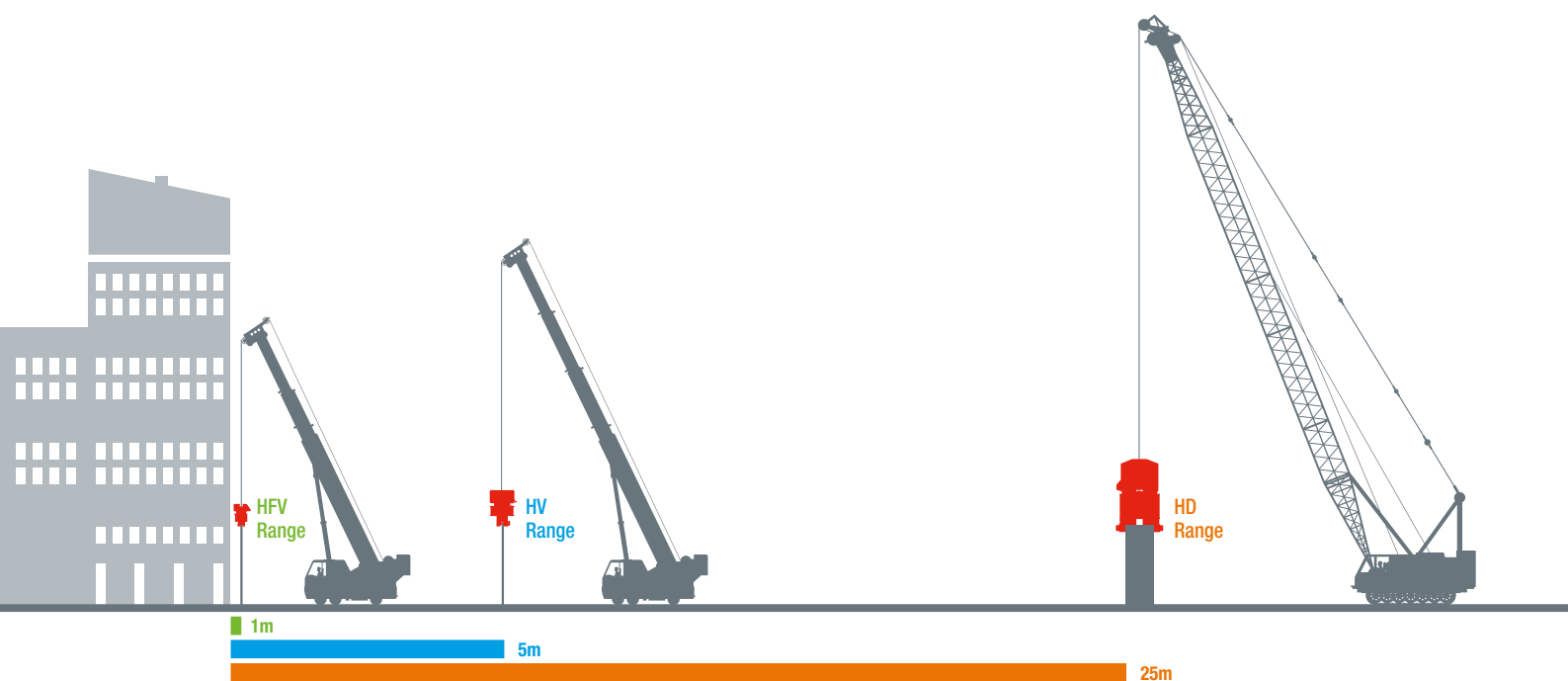
WHAT VIBRODRIVER RANGE ?

The Vibrodriver range that best fits your application depends on the proximity of the piling job to existing vibration-sensitive structures. If the piling works are done in a vibration-sensitive area (in a city center next to buildings), you will need to control your amplitude and the particle velocity, thus you need a Vibrodriver with Variable moment technology (PTC Patent).

If you are in an open area, far from other structures you may use a Vibrodriver with a fixed eccentric moment.

Once you know which Vibrodriver range is the most adapted for your application, the type of soil and the profile parameters (height, weight, type of profile) are key to determine within that range, what is the eccentric moment you require to drive the profile to the desired depth.

RECOMMENDED VIBRODRIVER RANGE ACCORDING TO THE PROXIMITY OF A VIBRATION-SENSITIVE STRUCTURE



To confirm the Vibrodriver choice please refer to your local distributor.

The distributor's expert advice is important in order to validate that the equipment fits the specificities of your application.

VARIABLE MOMENT TECHNOLOGY



This technology allows driving with adjustable amplitude thanks to the variation of the eccentric's relative positions.

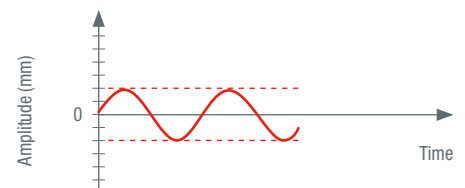
THE ADVANTAGES OF THE TECHNOLOGY

- Resonance-free start up and stop down.
- Suitable for telescopic booms.
- Amplitude adjustment at any time thanks to a variation of the moment.
- The variation of the moment facilitates the handling of the profile during driving operations:
 - **Better control of the profile verticality.**
 - **Helps to precisely attain the desired driving depth.**
 - **Possibility of adjusting driving speed.**

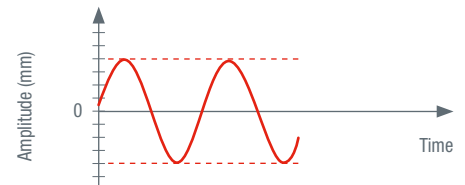
Start of vibration



Turned 60°

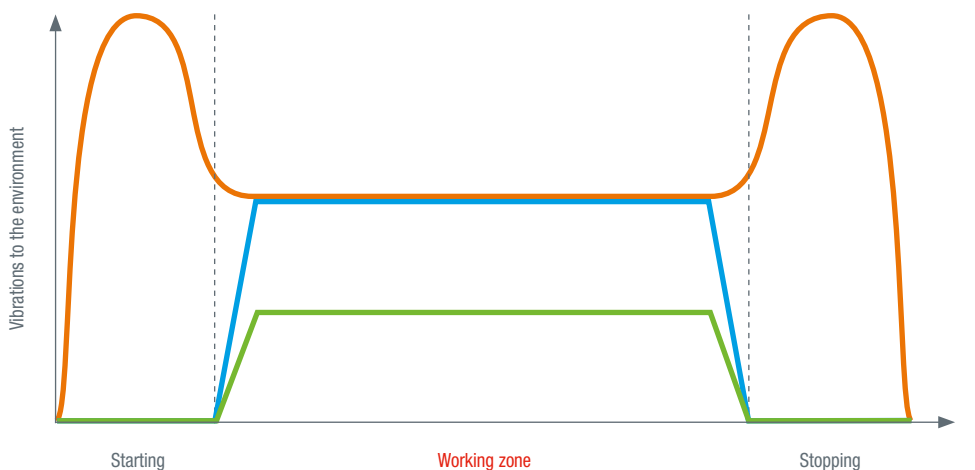


Turned 180°



VIBRATORY EMISSIONS TRANSMITTED TO THE ENVIRONMENT

This graph shows the vibrations emitted in the ground by the different Vibrodriver ranges. This is determined by the Vibrodriver's working frequency (High or Standard) and the use of the variable moment technology.



HFV range:

High Frequency Vibrodrivers with PTC Patented Variable moment Technology

HV range:

Standard Frequency Vibrodrivers with PTC Patented Variable moment Technology

H / HD range:

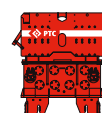
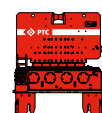
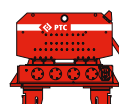
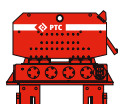
Standard Frequency Vibrodrivers with Fixed eccentric moment

H / HD RANGE

Standard Frequency and fixed eccentric moment.

The largest range of “Heavy Duty” Vibrodrivers in the world.

This robust range adapts to applications needing to drive sheet piles and casings with total weights up to 150 tons.



VIBRODRIVERS		25H1A	30H1A	50HD	65HD
ECCENTRIC MOMENT	m.kg	23	30	50	65
HYDRAULIC POWER	kW / HP	144 / 196	208 / 282	304 / 413	332 / 451
OIL FLOW	L/min	240	346	507	554
MAX. FREQUENCY	Hz / rpm	26 / 1560	28 / 1680	25 / 1500	26 / 1560
MAX. CENTRIFUGAL FORCE	kN	626	947	1258	1768
MAX. LINE PULL CAPACITY	kN	300	400	625	600
VIBRATING WEIGHT WITHOUT CLAMP	kg	2220	2260	3035	4700
TOTAL WEIGHT WITHOUT CLAMP	kg	3760	3800	5720	6800
MAX. AMPLITUDE	mm	20.7	26.5	32.9	27.7
LENGTH	m	2.500	2.500	2.900	2.300
MAX. WIDTH	m	0.730	0.730	0.910	0.851
CENTRE WIDTH	m	0.330	0.330	0.330	0.330
HEIGHT WITHOUT CLAMP	m	1.800	1.883	2.197	2.598

RECOMMENDED POWER PACK

TYPE	240	400	500 / 550	600
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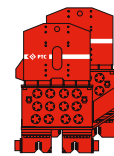
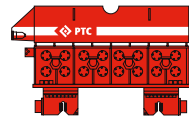
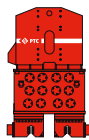
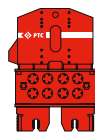
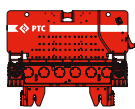
OPTIONS

COOLER (for continuous running)	-	-	-	Option	Option
RAKED VERSION	-	0° - 15°	0° - 15°	0° - 15° Option 45°	0° - 15° Option 45°
EXTRA POWER VERSION (Vibro + Powerpack)	-	-	-	50HDS + 650	65HDS + 650

RECOMMENDED CLAMPS

FOR SHEET PILES		Agriplex 85 t	Agriplex 120 t	Agriplex 170 t	Agriplex 240 t
CLAMPS TOTAL WEIGHT	kg	430 kg	750 kg	1250 kg	2150 kg
FOR CASINGS AND TUBES		Duplex 2 x 42 t	Duplex 2 x 55 t	Duplex 2 x 85 t	Duplex 2 x 120 t
CLAMPS TOTAL WEIGHT	kg	580 kg	950 kg	1250 kg	1630 kg
CASING DIAMETER (min. and max.)	mm	190 / 2350	250 / 2300	320 / 2186	580 / 1734
FOR LARGE SIZE CASINGS		-	-	-	-
CASING DIAMETER (min. and max.)	mm	-	-	-	-
FOR CONCRETE AND WOODEN PILES		Multigrip 120 t	Multigrip 120 t	Multigrip 180 t	-
	kg	1560 kg	1560 kg	2300 kg	-

PTC reserves the right to modify the technical data without notice



75HD	120HD	200HD	265HDS	2 x 200HD
75	120	200	265	400
389 / 528	481 / 654	709 / 964	1376 / 1871	1418 / 1927
648	802	1182	2294	2364
25 / 1500	23 / 1380	23 / 1380	25 / 1500	23 / 1380
1887	2555	4258	6666	8516
875	1200	1800	1800	3200
4795	8200	14200	19950	35180
10520	13300	20600	30930	49080
31.3	29.3	28.2	26.6	22.7
3.500	2.300	2.300	6.600	2.500
0.945	1.505	1.520	2.000	4.300
0.400	0.800	0.800	1.600	4.300
2.197	3.000	4.250	3.009	4.400
650	900	1200	2 x 1200	2 x 1200
Option	Option	Option	Option	Option
0° - 15° Option 45°	0° - 15° Option 45°	0° - 15° Option 45°	0° - 15°	Contact PTC
75HDS + 900	130HD + 1200	-	-	-
Agriplex 240 t	Agriplex 350 t	-	-	-
2150 kg	2730 kg	-	-	-
Duplex 2 x 120 t	Duplex 2 x 150 t	-	-	Contact PTC
1630 kg	3100 kg	-	-	Contact PTC
580 / 2835	650 / 1676	-	-	Contact PTC
-	Quadriplex 4 x 85 t*	Quadriplex 4 x 120 t*	Quadriplex 4 x 250 t	Contact PTC
-	5580 kg	6300 kg	10 500 kg	Contact PTC
-	740 / 2264	960 / 2080	1780 / 3600	Contact PTC
-	-	-	-	-
-	-	-	-	-

*With additional plate

HV RANGE

Standard Frequency and Variable Moment Technology*.



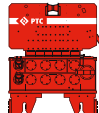
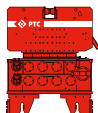
The HV range offers the comfort and the advantages of the variable moment technology while working at standard frequency. Therefore, it requires less powerful power packs than High Frequency Vibrodrivers. These Vibrodrivers are suitable for telescopic cranes thanks to their resonance-free start-up and shut down. The VIBMASTER® monitoring system is highly recommended.

* For more information on PTC patented variable moment technology, see page 8.



VIBRODRIVERS		30HV
ECCENTRIC MOMENT	m.kg	0 - 30
HYDRAULIC POWER	kW / HP	230 / 312
OIL FLOW	L/min	383
MAX. FREQUENCY	Hz / rpm	28 / 1680
MAX. CENTRIFUGAL FORCE	kN	947
MAX. LINE PULL CAPACITY	kN	250
VIBRATING WEIGHT WITHOUT CLAMP	kg	2600
TOTAL WEIGHT WITHOUT CLAMP	kg	3900
MAX. AMPLITUDE	mm	23.1
LENGTH	m	1.976
MAX. WIDTH	m	0.775
CENTRE WIDTH	m	0.384
HEIGHT WITHOUT CLAMP	m	1.993
RECOMMENDED POWER PACK		400
TYPE		
OPTIONS		
COOLER (for continuous running)	-	Option
RAKED VERSION	-	0° - 15° Option 45°
EXTRA POWER VERSION (Vibro + Powerpack)		-
RECOMMENDED CLAMPS		
FOR SHEET PILES		Agriplex 120 t
CLAMPS TOTAL WEIGHT	kg	750 kg
FOR CASINGS AND TUBES		Duplex 2 x 55 t
CLAMPS TOTAL WEIGHT	kg	950 kg
CASING DIAMETER (min. and max.)	mm	250 / 1150
FOR CONCRETE AND WOODEN PILES		Multigrip 120 t
	kg	1560 kg

PTC reserves the right to modify the technical data without notice.



52HV	60HV	120HV
0 - 52	0 - 60	0 - 120
333 / 453	359 / 488	481 / 654
555	598	802
28 / 1680	28 / 1680	23 / 1380
1641	1893	2555
625	625	1200
4270	4320	9500
7070	7170	14300
24.4	27.8	25.3
2.300	2.300	2.515
0.890	0.890	1.480
0.384	0.384	0.800
2.370	2.370	3.266
600	650	900
Option	Option	Option
0° - 15°	0° - 15°	0° - 15°
Option 45°	Option 45°	
-	60HVS + 900	130HV + 1200
Agriplex 240 t	Agriplex 240 t	Agriplex 350 t
2150 kg	2150 kg	2730 kg
Duplex 2 x 120 t	Duplex 2 x 120 t	Duplex 2 x 150 t
1630 kg	1630 kg	3100 kg
580 / 1725	580 / 1725	650 / 1675
Multigrip 180 t	-	-
2300 kg	-	-

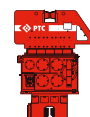
HFV RANGE

High Frequency and Variable Moment Technology*.



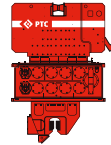
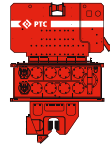
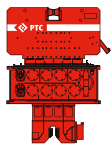
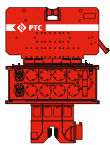
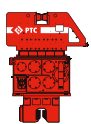
The HFV range allows to adjust the amplitude at anytime, thus it is highly recommended for “vibration-sensitive” applications: city centers, or near existing structures (bridges, highways, metro). The HFV Vibrodrivers are suitable for telescopic cranes thanks to their resonance-free start up and shut down. The VIBMASTER® monitoring system is highly recommended.

* For more information on PTC patented variable moment technology, see page 8.



VIBRODRIVERS		10HFV	16HFV	20HFV
ECCENTRIC MOMENT	m.kg	0 - 10	0 - 16	0 - 20
HYDRAULIC POWER	kW / HP	144 / 195	227 / 308	306 / 415
OIL FLOW	L/min	246	378	509
MAX. FREQUENCY	Hz / rpm	38.3 / 2300	38.3 / 2300	38.3 / 2300
MAX. CENTRIFUGAL FORCE	kN	591	946	1183
MAX. LINE PULL CAPACITY	kN	225	240	300
VIBRATING WEIGHT WITHOUT CLAMP	kg	1015	2400	2455
TOTAL WEIGHT WITHOUT CLAMP	kg	1990	3635	3710
MAX. AMPLITUDE	mm	19.7	13.3	16.3
LENGTH	m	1.390	1.976	1.976
MAX. WIDTH	m	0.623	0.775	0.775
CENTRE WIDTH	m	0.385	0.400	0.400
HEIGHT WITHOUT CLAMP	m	1.406	1.976	1.976
RECOMMENDED POWER PACK				
TYPE		240	400 L	500 L
OPTIONS				
COOLER (for continuous running)	-	-	Standard	Standard
RAKED VERSION	-	0 - 15°	0 - 15° Option 45°	0 - 15° Option 45°
RECOMMENDED CLAMPS				
FOR SHEET PILES		Agriplex 90 t	Agriplex 120 t	Agriplex 170 t
CLAMPS TOTAL WEIGHT	kg	330 kg	750 kg	1250 kg
FOR CASINGS AND TUBES		Duplex 2 x 42 t	Duplex 2 x 55 t	Duplex 2 x 85 t
CLAMPS TOTAL WEIGHT	kg	580 kg	950 kg	1250 kg
CASING DIAMETER (min. and max.)	mm	190 / 1000	250 / 1150	320 / 1080
FOR CONCRETE AND WOODEN PILES		-	Multigrip 120 t	Multigrip 180 t
	kg	-	1560 kg	2300 kg

PTC reserves the right to modify the technical data without notice.



24HFV	30HFV	32HFV	40HFV	48HFV
0 - 24	0 - 29	0 - 32	0 - 40	0 - 48
324 / 440	339 / 460	385 / 523	512 / 696	647 / 880
539	565	641	854	1079
38.3 / 2300	36.7 / 2200	38.3 / 2300	38.3 / 2300	38.3 / 2300
1419	1569	1893	2366	2839
300	600	600	750	750
2485	3930	4005	4125	4235
3745	6525	6615	6975	7085
19.3	14.8	16.0	19.4	22.7
1.976	2.300	2.300	2.300	2.300
0.775	0.921	0.921	0.921	0.921
0.400	0.400	0.400	0.400	0.400
1.976	2.327	2.327	2.397	2.397
600 L	600	650 L	900 L	1200 L
Standard	Standard	Standard	Standard	Standard
0 - 15°	0 - 15°	0 - 15°	0 - 15°	0 - 15°
Option 45°	Option 45°	Option 45°	Option 45°	Option 45°
Agriplex 170 t	Agriplex 240 t	Agriplex 240 t	Agriplex 350 t	Agriplex 350 t
1250 kg	2150 kg	2150 kg	2730 kg	2730 kg
Duplex 2 x 85 t	Duplex 2 x 120 t	Duplex 2 x 120 t	Duplex 2 x 150 t	On request
1250 kg	1630 kg	1630 kg	3100 kg	On request
320 / 1080	580 / 1634	580 / 1634	650 / 1578	On request
Multigrip 180 t	-	-	-	-
2300 kg	-	-	-	-

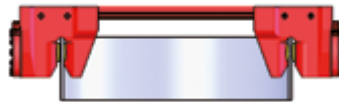
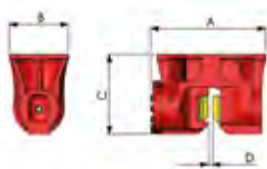
CLAMPING HEADS

A wide range of clamping heads to match the diversity of profile forms and sizes.



AGRIPLEX

A fixed clamp for single sheet piles or H beams.



DUPLEX

Two clamps for casings, caissons, and double sheet piles, which can slide on T-bars.



AGRIPLEX	A - Length (mm)	B - Width (mm)	C - Height (mm)	D - Opening (mm)	Weight (kg)	Clamping force (kN)
22 t	487	240	307	0-20	85	220
40 t	492	250	400	0-35	220	400
60 t	619	330	479	0-40	265	600
85 t	882	300	480	0-37	440	850
90 t	662	330	387	0-40	330	900
120 t	890	460	615	0-35	750	1200
170 t	1020	510	695	0-50	1250	1700
240 t	1273	530	975	0-51	2150	2400
350 t	1428	550	900	0-70	2730	3500
CLAMPS FOR DUPLEX						
42 t	407	300	400	0-37	207	420
55 t	490	300	450	0-40	350	550
85 t	549	325	574	0-50	506	850
120 t	700	400	560	0-52	700	1200
150 t	815	420	752	0-60	1300	1500
250 t	1230	510	840	0-60	2400	2500

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MULTIGRIP

A helmet clamp
for concrete or
wooden piles
(round or square).

60t

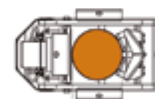
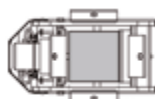


30HV Vibrodriver equipped with Multigrip clamp driving 350 mm square concrete piles in Russia.



30HFV Vibrodriver driving wooden piles at the entrance of the Marina, Hamburg-Germany.

120t



MULTIGRIP 60 t		Min. / Max.		Min. / Max.
		☑		⌀
STANDARD	mm	280	350	290 350
OPTION	mm	210	280	230 290
OPTION	mm	140	210	160 230

MULTIGRIP 120 t				
STANDARD	mm	430	500	440 500
OPTION	mm	360	430	370 440
OPTION	mm	290	360	300 370

MULTIGRIP 180 t				
STANDARD	mm	430	500	440 500
OPTION	mm	360	430	370 440
OPTION	mm	290	360	300 370

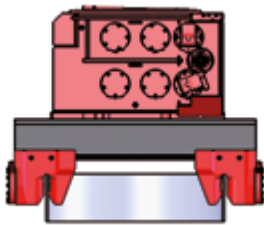
PTC reserves the right to modify the technical data without notice.

180t



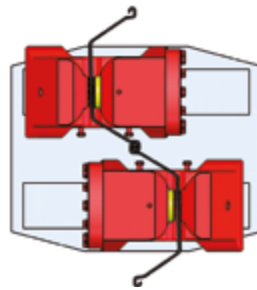
CUSTOMISED INTERMEDIATE PLATES

To adapt the clamping system to the specific needs of the job site.



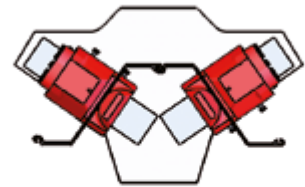
Duplex with straight beam

to drive large casings
(mostly used with Duplex clamp)



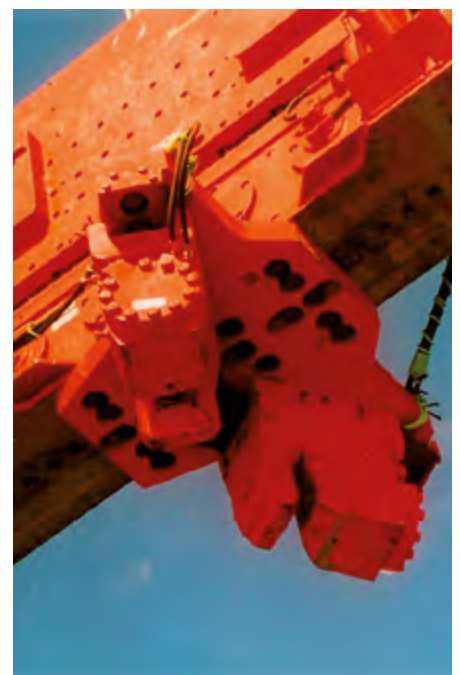
Duplex with intermediate plate

for double U sheet piles



Duplex with intermediate plate

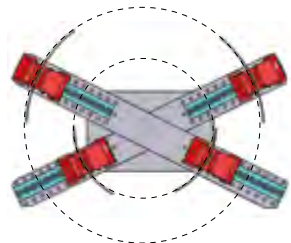
for Z double sheet piles





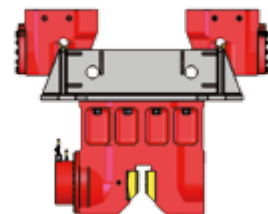
Quadriplex with intermediate square plate

for small and medium casings on large Vibrodrivers



Quadriplex with spreader beam

For large and heavy casings



Combined clamp system

For a fast switch of clamp (Agriplex - Duplex) when driving sheet piles and casings



POWER PACKS

A wide range of power packs complying to the most recent environmental regulations and emission standards: Stage IIIA, Stage IIIB and Stage IV.

To select a Powerpack, please check the emission standards required in your country.

You can also visit our website : www.ptc.fayat.com to verify what Power packs are available for your region.



POWER PACKS		240DO	400CO	400DO	500D	500VO
OPEN / CLOSED LOOP CIRCUIT		OPEN LOOP	OPEN LOOP	OPEN LOOP	CLOSED LOOP	OPEN LOOP
ENGINE MODEL (STAGE IV)		-	-	-	-	-
ENGINE MODEL (STAGE IIIB)		DEUTZ TCD 6.1	-	DEUTZ TCD 7.8 L6	-	-
ENGINE MODEL (STAGE IIIA)		DEUTZ TCD 2012 L6	CAT C9 ACERT	DEUTZ TCD 2013 L6 4V	DEUTZ TCD 2015 V6	VOLVO TAD 1353 VE
ENGINE MODEL (STAGE II)		-	-	-	-	-
ENGINE POWER	kW/HP	155 / 211	242 / 329	238 / 323	360 / 489	345 / 469
ROTATION SPEED	rpm	2400	2200	2200	2100	1900
MAX. OIL FLOW	L/min	280	500	500	-	510
NOMINAL OIL FLOW	L/min	240	380	380	530	510
MAX. PRESSURE	bar	350	350	350	385	350
HYDRAULIC OIL CAPACITY	L	460	700	700	500	1300
FUEL CAPACITY	L	470	650	650	840	1330
LENGTH	m	2.99	3.85	3.85	3.99	4.80
WIDTH	m	1.60	1.60	1.60	1.60	2.00
HEIGHT	m	1.96	2.02	1.95	2.03	2.43
WEIGHT (without fuel)	kg	3550	5000	4600	5800	7800
ECOMODE*		ECOMODE	ECOMODE	ECOMODE	OPTION	ECOMODE
QUICK COUPLINGS		STANDARD	STANDARD	STANDARD	STANDARD	STANDARD
CONNECTING HOSES	m	30	30	30	30	30
CONNECTING HOSES	kg	220	350	350	615	615

PTC reserves the right to modify the technical data without notice.

PTC offers various «Multi-purpose» powerpacks that feature an open loop circuit, which allows the power pack to supply power to multiple equipments:

Vibrodrivers, Hydraulic hammers, Vibrolances and more...



550CO	600D	600DO	650CO	650VO	900CO	900VO	1200C
OPEN LOOP	CLOSED LOOP	OPEN LOOP	OPEN LOOP	OPEN LOOP	OPEN LOOP	OPEN LOOP	CLOSED LOOP
-	-	-	-	TAD 1375 VE	-	-	-
-	-	DEUTZ TCD 12.0	-	-	-	-	-
CAT C15 ACERT	DEUTZ TCD 2015 V6	DEUTZ TCD 2015 V6	CAT C15 ACERT	-	-	-	2 X CAT C15 ACERT
-	-	-	-	-	CAT C18 ACERT	TAD 1643 VE	-
403 / 548	360 / 489	360 / 489	403 / 548	405 / 550	571 / 776	565 / 768	806 / 1095
2100	2100	2000	2100	1900	2100	1900	2100
535	600	680	750	700	1000	950	1200
530	570	580	650	650	900	900	1200
350	385	350	350	350	350	350	385
1340	500	1100	1340	1300	1485	1530	1140
1330	840	810	1330	1330	1330	1330	1980
4.80	3.99	3.97	4.80	4.80	4.80	4.80	5.00
2.00	1.60	1.80	2.00	2.00	2.00	2.00	2.19
2.31	2.03	2.04	2.31	2.23	2.38	2.43	2.23
8100	5800	6600	8200	7550	9000	8200	12900
ECOMODE	ECOMODE	ECOMODE	ECOMODE	ECOMODE	ECOMODE	ECOMODE	ECOMODE
STANDARD	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD
30	30	30	30	30	45	45	45
615	615	615	615	615	1050	1050	1670

Ecomode

The Ecomode is an electronic module included in most of PTC Power Packs, which reduces fuel consumption, polluting emissions and noise. This module automatically adjusts the speed of the diesel engine to only supply the power that is needed according to the soil conditions.

Ecomode

To reduce fuel consumption
from 10 - 35 %

The Ecomode allows the engine to permanently run at optimal speed without modifying the flow and the frequency of the Vibrodriver. Hence, obtaining the same Vibrodriver performance using less fuel.



With Ecomode

- Variable engine speed
- Variable displacement

- Up to 35% reduction in fuel consumption
- Up to 35% reduction in polluting gas
- Significant sound level reduction



Without Ecomode

- Maximum engine speed
- Fixed setting of the displacement

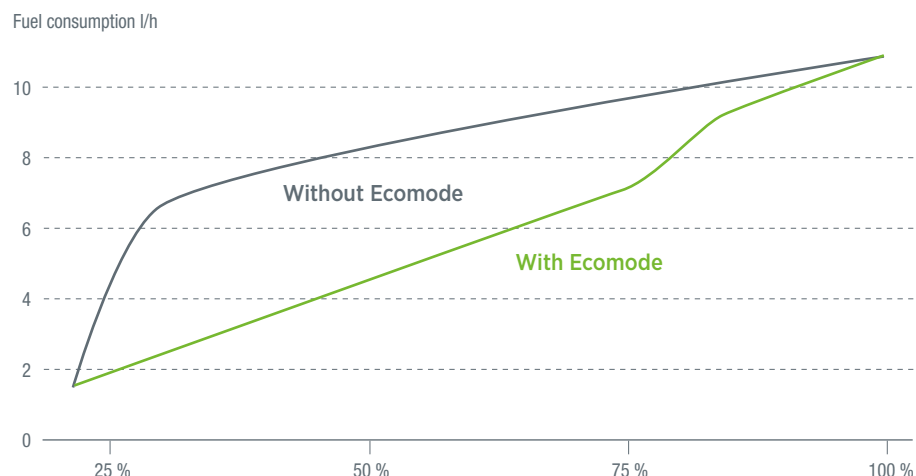
- High fuel consumption



CONSTANT
HYDRAULIC FLOW
SAME VIBRODRIVER
PERFORMANCE

The **Ecomode** is an electronic module included in **PTC Power packs**. This module automatically adapts the speed of the diesel engine to only supply the power that is needed according to the soil conditions.

Fuel consumption with/without Ecomode

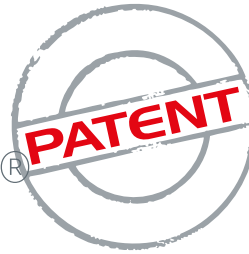


This information has been obtained from a job site in St Malo France, using a power pack 350D Ecomode.

Working pressure

MONITORING

Soil velocity Vibmaster®



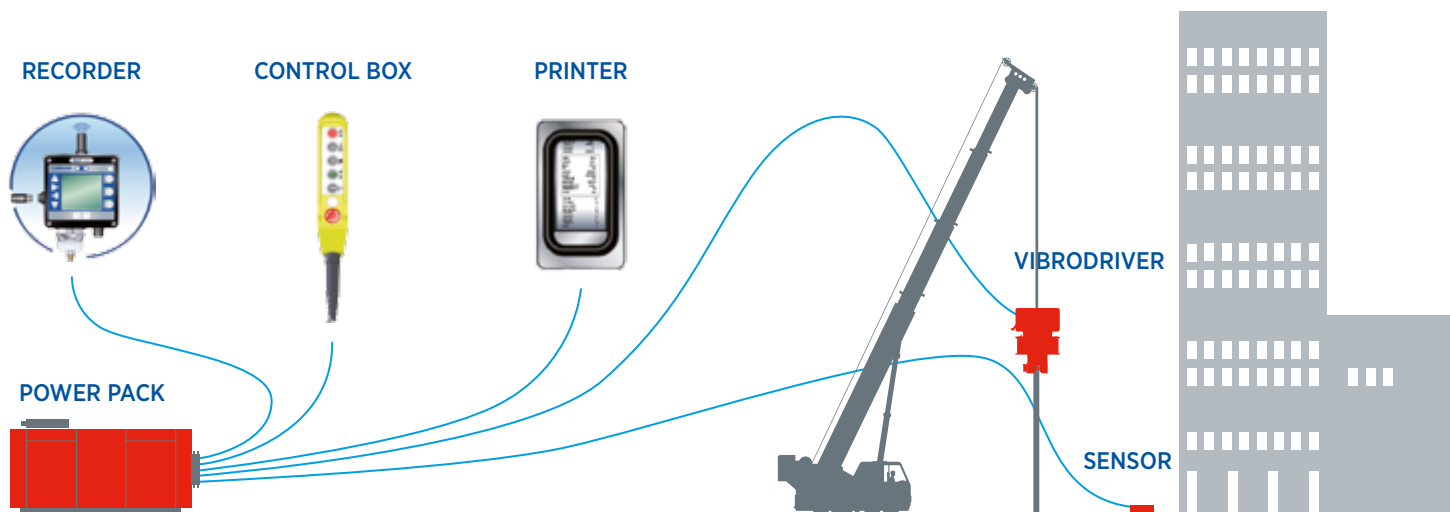
Vibmaster® is the monitoring system for **PTC Vibrodriver applications**. It allows to continuously control the driving of piles and sheet piles through the reading of the following parameters:

- The pressure of the Vibrodriver, to display the power supplied.
- The soil particle Velocity (in m/s), to control the vibration.

The following parameters are optional:

- Depth of penetration (in meters).
- Vibrodriver's vibration frequency and amplitude.
- Verticality.

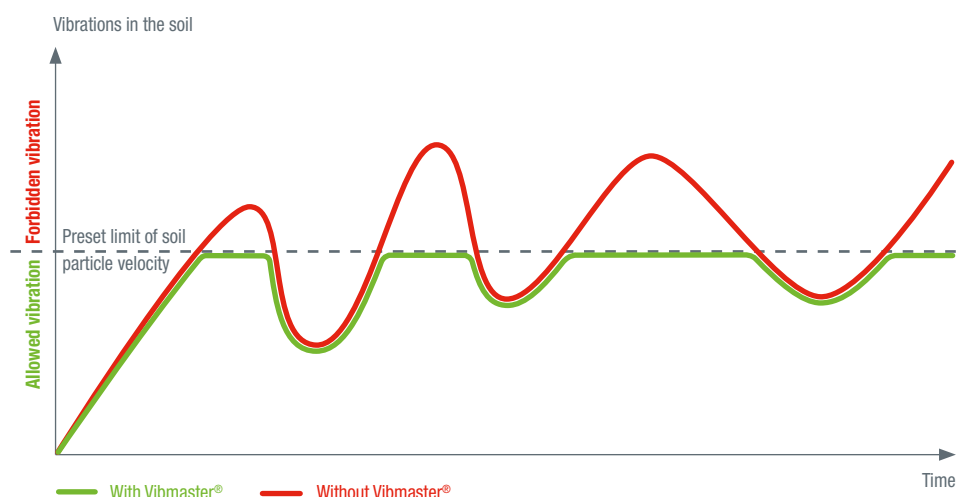
The **Vibmaster®** working with **HFV and HV Vibrodrivers** enables to set a limit to the soil particle velocity that will not be exceeded. This system is required in sensible and restricted areas such as, city centres, job sites near buildings, or job sites next to railways.



To connect the monitoring system to your **PTC power pack**, all you need is to install a junction box inside the power pack and then connect it to all the components: the remote control box, the sensors and the monitoring panel, which displays the measurements in real time.

Monitor in real time a variety of working parameters to be sure to comply with the job site requirements. In addition, you can get a copy of the data on a USB key or store the data on your computer, to analyse the work data and prepare better for the next jobsite or to show it to a certification body.

Comparison of soil vibrations with/without Vibmaster® monitoring system



WORLDWIDE NETWORK IN OVER 40 COUNTRIES



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