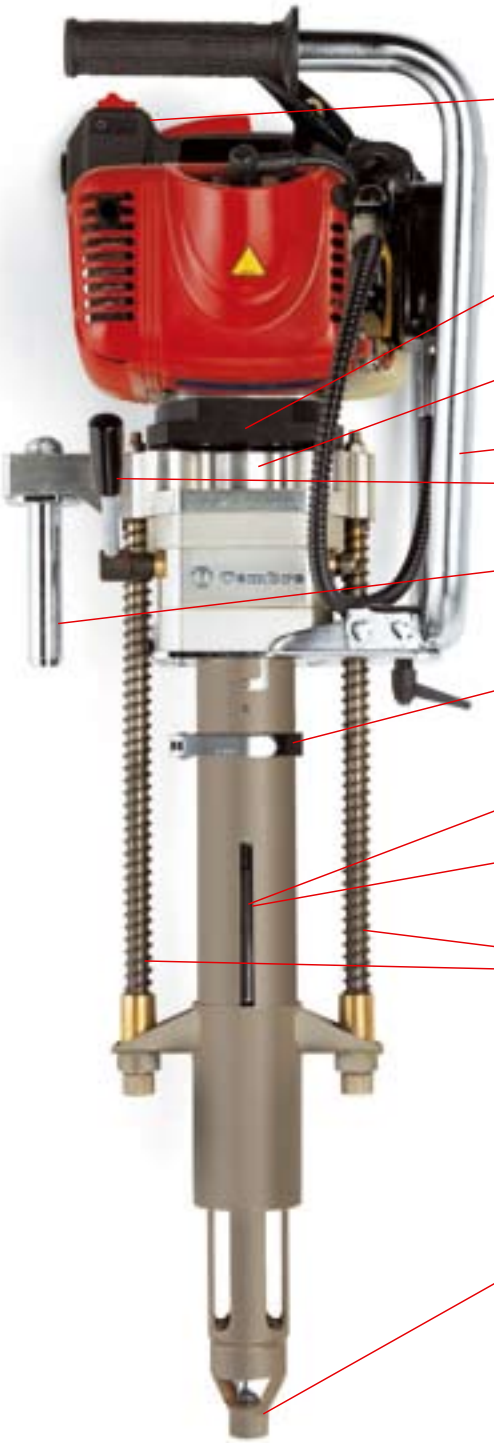
CE

PATENTED

SD-9P



- Accelerator lever fitted with safety switch, to prevent accidental operation.
- Fitted with a centrifugal clutch; with the engine running at 'tick over' speed the drill bit is stationary. The accelerator controls the rotation of the drill bit.
- Shock absorbers fitted between the drive shaft and spindle, reduce the transmission of machine vibrations to the operator.
- Handle will rotate through 90° for operator comfort.
- Emergency lever for the immediate release of the drill bit.
- Carrying handle. Also used for locating the drilling machine into the CS-SD trolley.
- Depth Gauge; easy to operate using the graduated scale, for adjusting the depth of drilled hole.
- MND spindle, for automatically securing drill bits, with a 14 mm diameter shank.
- MND1 interchangeable spindle: Available as an optional accessory. For automatically securing drill bits, with a 16 mm diameter shank.
- Safety guard: providing effective, total protection of the drill bit (325 mm). Spring loaded to guarantee the retraction of the drill bit from the sleeper on completion of the drilling operation, thereby minimising operator effort.
- Interchangeable, Guard Nozzle TPM200-26, for locating into chairs and base plates, as commonly used on existing tracks.

- ***Drilling range:*** *up to 20 mm diameter, with the Guard Nozzle supplied as standard. Drilling up to 25 mm diameter holes can be achieved by using the interchangeable Guard Nozzle TPM.... available as an optional accessory.*
- ***Max drilling thickness****: 200 mm*
- ***Weight****: 19 kg*

Two stroke engine:

- ***Displacement****: 48.6 cc*
- ***Power****: 1,4 kW*
- ***Fuel****: 2% mixture (1:50)*
- ***Starting****: rope pull with automatic rewind.*

• Portable drilling machine SD-9P

Two stroke petrol engine machine, purpose built for use with the support trolley CS-SD.

*Example of use on **double crossovers**.*

*This **new**, patented unit has been designed and developed by Cembre, to provide **optimum safety**, both when using the drilling machine independently and with the machine fitted onto the trolley.*
***Compact and lightweight**, the unit can be positioned and operated by a single person.*

*The unit is easily assembled and can **comfortably be carried** by a single operator.*

*The **SD-9PCS** unit enables vertical holes to be drilled **quickly and efficiently**. If required, the angle of the Spindle Axis can be adjusted up to 5°. The unit can quickly and easily be removed from the track.*

PORTABLE DRILLING MACHINES FOR WOODEN SLEEPERS

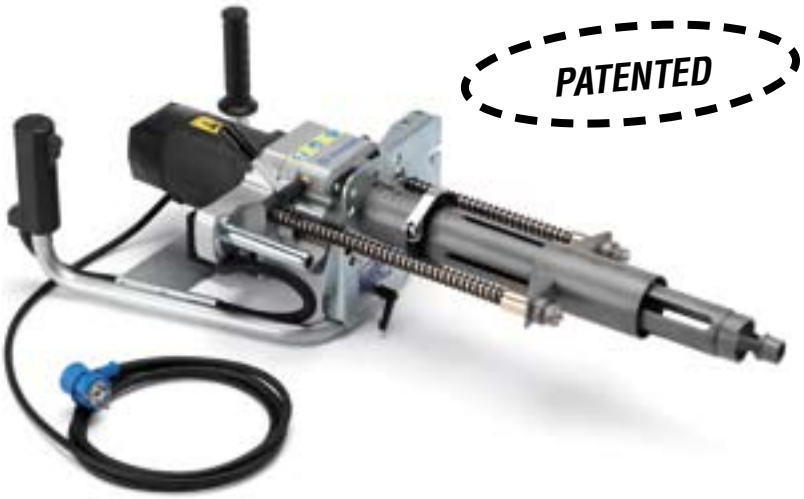
SD-10E

Technical characteristics:
***Engine**: single phase electric motor*
***Supply voltage**: 220/230 V / 50 Hz*
***Power rating**: 1800 W*
***Bit diameter range**: up to Ø 20 mm**
Drilling up to 25 mm diameter holes can be achieved by using the interchangeable Guard Nozzle TPM.... available as an optional accessory.
***Max. drilling thickness**: 200 mm*
***Welght**: 18 kg*

**Depending on the type of wood it is also possible to drill larger holes*

The SD-10E drilling machine is suitable for use with the CS-SD support trolley.

*Also available in 110 V - 50/60 Hz (**SD-10E-110**)*



OPTIONAL ACCESSORIES FOR SLEEPER DRILLS

TPM...

Guard Nozzle for the moveable guard, interchangeable with the standard nozzle.

TPM 100-18: for centering on base plates with 18 mm diam. holes, (using a 10 mm diameter max drill bit)
TPM 170-24: for centering on base plates with 24 mm diam. holes, (using a 17 mm diameter max drill bit)
TPM 190-24: for centering on base plates with 24 mm diam. holes, (using a 19 mm diameter max drill bit)
TPM 190-26: for centering on base plates with 26 mm diam. holes, (using a 19 mm diameter max drill bit)
TPM 200-26: for centering on base plates with 26 mm diam. holes, (using a 20 mm diameter max drill bit)
TPM 220-26: for centering on base plates with 26 mm diam. holes, (using a 22 mm diameter max drill bit)
TPM 250-31: for centering on base plates with 31 mm diam. holes, (using a 25 mm diameter max drill bit)

VAL P 6

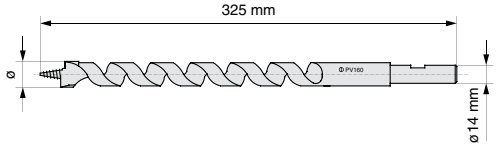
Plastic case for storing the drill bits and standard accessories supplied with the machine.
This case can be stored inside the drilling machine case.

VAL SD

Robust steel case for storing the drilling machine and VAL P6 accessory case.

Drill bits having a 14 mm diameter shank suitable for MND standard spindle:

Ref:	*Ø mm*
PV 140	14
PV 160	16
PV 170	17
PV 180	18
PV 190 (3/4")	19,05
PV 200	20
PV 210	21
PV 220	22
PV 250	25



NOISE

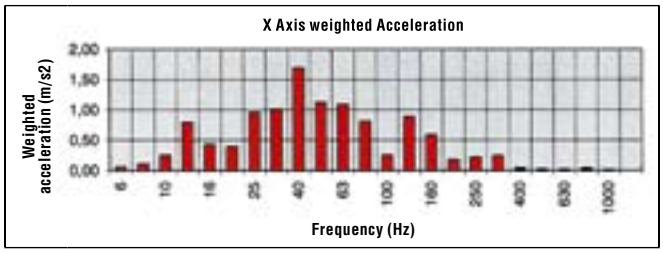
Protection of workers against risks of exposure to noise during work.
The Cembre drills, models **SD-9P** and **SD-10E**, have been designed and constructed according to **EEC directives 80/1107 and 86/188** relating to the protection of workers against risks arising from exposure to chemical, physical and biological agents during work, with particular regard to the risk of exposure to noise.
This has enabled the drilling machines to be manufactured for drilling wooden sleepers at reduced noise levels.
The exposure of workers to noise produced from this equipment depends on the duration of the loading times and the intervals between exposures, and on the number of holes made within one working day.
It is also indicated, by way of example, that for a worker who uses the **SD-9P** drill properly for making holes of Ø 18 mm with a drill bit on a 16 cm thick wooden sleeper producing up to **141 holes/day**, the daily personal exposure to noise, due solely to the use of the drill is less than **80 dB (A)**. Under these conditions, producing **300 holes/day** the daily exposure to noise is **83 dB (A)** and producing **480 holes/day** the daily exposure to noise is **85 dB (A)**.
Similary, using the **SD-10E** drill, for a worker producing **450 holes/days** on a 15 cm thick wooden sleeper, the daily personal exposure to noise, due solely to the use of the drill, is less than **77.1 dB (A)**. Under these conditions, producing **900 holes/day** the daily exposure to noise is **79.7 dB (A)**.

RISK DUE TO VIBRATION **(Directive 2006/42/EC, annexe 1, point 2.2.1.1)**.

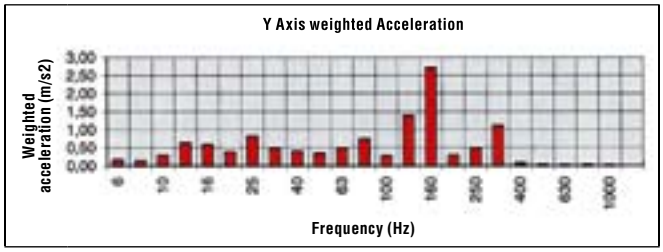
Tests carried out in compliance with **UNI ENV 25349** and **UNI EN 28662 Part 1 Standards** and under operating conditions much more severe than those normally found, certify that **the weighted root mean square in frequency of the acceleration to which the upper limbs are exposed for each biodynamic reference axis is respectively**:

SD-9P

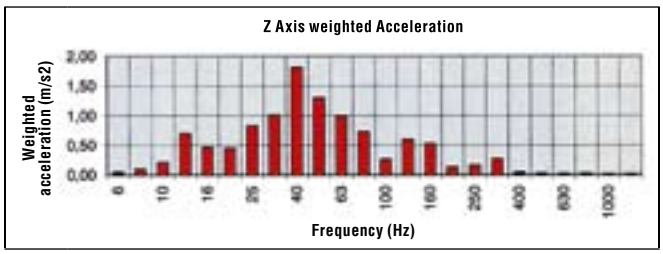
3,17 m/sec2 on the X axis
3,70 m/sec2 on the Y axis
3,12 m/sec2 on the Z axis



ACCELERATION (weighted root mean square value) X AXIS (m/s2)	3,17



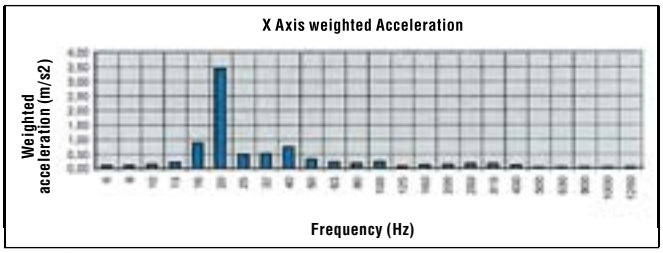
ACCELERATION (weighted root mean square value) Y AXIS (m/s2)	3,70



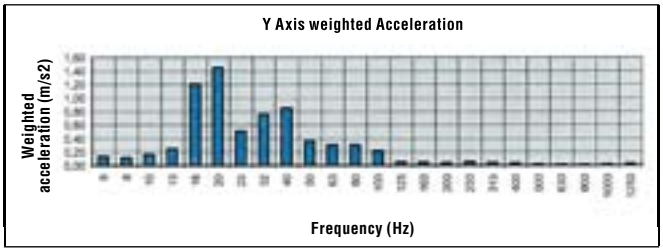
ACCELERATION (weighted root mean square value) Z AXIS (m/s2)	3,12

SD-10E

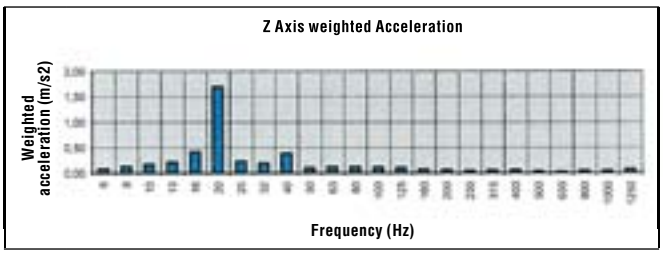
3,72 m/sec2 on the X axis
2,35 m/sec2 on the Y axis
1,84 m/sec2 on the Z axis



ACCELERATION (weighted root mean square value) X AXIS (m/s2)	3,72



ACCELERATION (weighted root mean square value) Y AXIS (m/s2)	2,35



ACCELERATION (weighted root mean square value) Z AXIS (m/s2)	1,84