Dynamic penetration tests are performed to determine the soil and rock in-situ resistance to a dynamic cone penetration.

The Light Dynamic Penetrometer (DPL) with manual driving is the one allowing dynamic penetration tests with the lightest hammer (10 kg) in the whole range of dynamic penetrometers.

The equipment is made of:

1. Non slotted lifting head (up) MxM for 22 rod
2. 22 mm ø rods hammer guide
3. 10 kg hammer
4. Slotted or non slotted anvil ø 22 mm
5. Non slotted driving head for 22 rod
6. 22 mm ø rods- 1.00 m long
7. 10 cm² lost cone connector
8. 10 cm² lost cone
9. Complete leaver device for 22 rods extraction
10. Clamping and pulling wrenches for 22 rods
11. 10 cm² fixed cone for 22 rod

The apparatus, hold by its handles, is maintained vertically. The constant falling height of its hammer (50 cm) drive the rods - fitted with a standard cone - into the soil.
Penetration depth for a given drop number can be then measured thanks to rod graduations (every 10 centimeters).
Soil failure resistance under the penetrometer cone is calculated with Dutch formula.