

# PAGANI®

## GEOTECHNICAL EQUIPMENT



# PAGANI



## SAMPLERS



# EVEN MORE DETAILED PENETROMETRIC TEST WITH PAGANI SAMPLERS

Soil and subsoil environmental survey **is aimed at the direct knowledge of their qualitative status** by analysing the collected samples.

The sample must represent its matrix so as to offer **A COMPLETE FRAME OF ITS QUALITATIVE STATUS.**

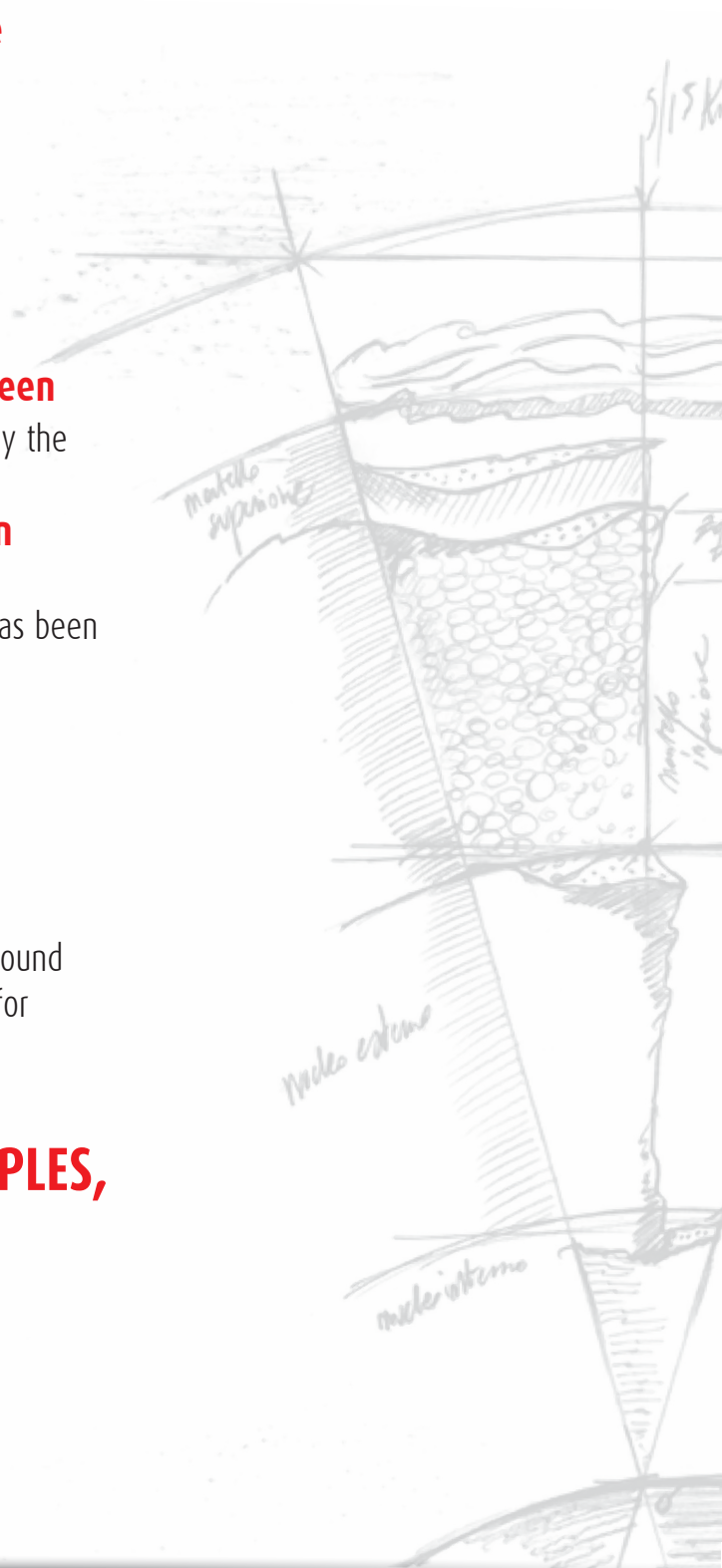
A soil sample to be analysed must guarantee:

- that the sample **chemical composition has not been modified** through heating, washing or contamination by the drilling tools;
- that the planimetric **position** and **depth have been accurately detected**;
- that up to the time of delivery to the lab the sample has been **preserved correctly.**

However, given the soil uneven nature, it is difficult to extend the characteristics of a single sample to a large portion.

**Each sample represents** exclusively **the soil portion** around the pick-up point whose size depends on many factors; for this reason, the SAMPLING EFFICACY DEPENDS ON THE QUANTITY OF SAMPLES:

**THE HIGHER THE NUMBER OF SAMPLES,  
THE HIGHER ITS ACCURACY.**



# GEOTECHNICAL SAMPLERS



## SHELBY SAMPLER FOR STATIC PENETROMETRIC TESTS

A Shelby sampler consists of a stainless steel cylinder whose external diameter is 88.9 mm (3.49 in) and internal diameter 85 mm (3.35 in). It has an overall length of 700 mm (27.56 in) and a working length of 450 mm (17.72 in).

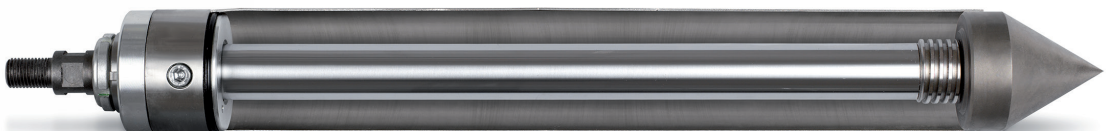


The end has a sharp profile. It is used to take samples of **UNDISTURBED SOIL**, in cohesive ground (silt and clay) for lab tests (including sophisticated tests). Single **PRESSURE DRIVING IS RECOMMENDED**, as percussion can disturb the samples. If sampling is performed at a certain depth, a pre-hole must be drilled having a suitable diameter (outside diameter 100 mm - 3.93 in) using an optional rotary head.

**For correct sampling, there must be no wall landslides or debris at the bottom of the hole.**



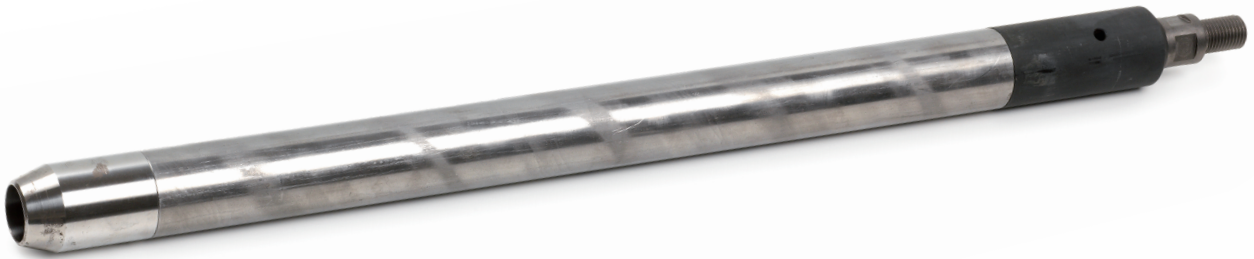
OPEN SAMPLER



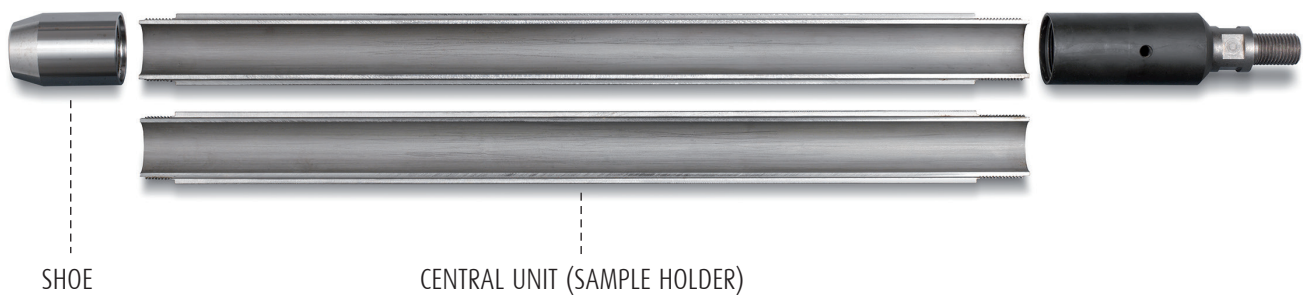
INTERNAL SECTION

# RAYMOND SAMPLER

The Raymond sampler has an inside diameter of 35 mm (1.38 in) and an outside diameter of 51 mm (2.01 in). Its overall length is about 750 mm (29.53 in) and it has a minimum working length of 600 mm (23.62 in), plus the length of the “shoe”.  
Standardized by ASTM (D-1586) and by ISO 22476-3:2002.



The test carried out, apart from giving a series of data related to the number of blows occurred, **ALLOWS TO VISUALLY TEST THE SAMPLE** thanks to the possibility of opening the central unit (sample holder) longitudinally by unscrewing the “shoe”.



As well as performing SPT tests, the sampler can also be used to take samples of the granulometric composition of non-coarse soils by applying pressure or percussion to the bottom of a hole. Drilling can be performed in layers above the water table or ground with stable walls (e.g. clayish soils). The screwed-on shoe can be replaced with a conical bit when gravel or pebbles are encountered during the SPT test.



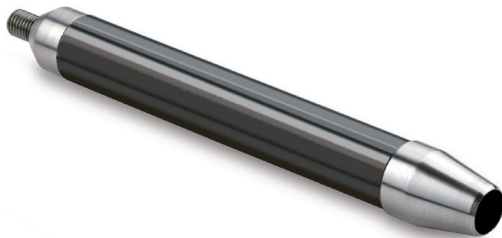
# GEOTECHNICAL SAMPLERS



## DS-33 SAMPLER

A DS-33 sampler consists of a steel cylinder whose external diameter is 33 mm (1.30 in) and internal diameter 26 mm (1.02 in). It has an overall length of 293 mm (11.53 in) and a working length of 200 mm (7.87 in).

Used on fine soil, thanks to its reduced size, it is ideal for sampling in small spaces.



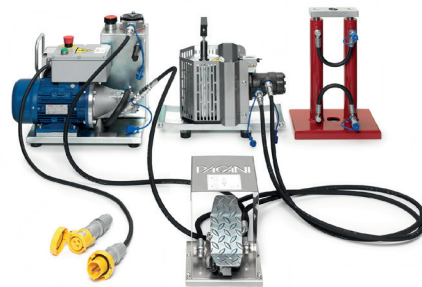
INTERNAL SECTION

## Small size and GREAT flexibility of movement

Given its size, the DS-33 only uses 20 mm rods and can be equipped on the following penetrometers:  
DPM 30-20 and TG 30-20.



TG 30-20



DPM 30-20



# DS-44 SAMPLER

Pagani DS-44 kit is used with a dynamic penetrometer and is ideal for almost all **ENVIRONMENTAL SURVEYS** (up to over 15 meters of depth). Pagani DS-44 is a large wall sampler with piston with pressure driving. The piston guarantees the taking of soil at the desired depth.

**Pressure driving minimizes the undesired effect of the heat increase typical of rotative sampling.**



CLOSED SAMPLER

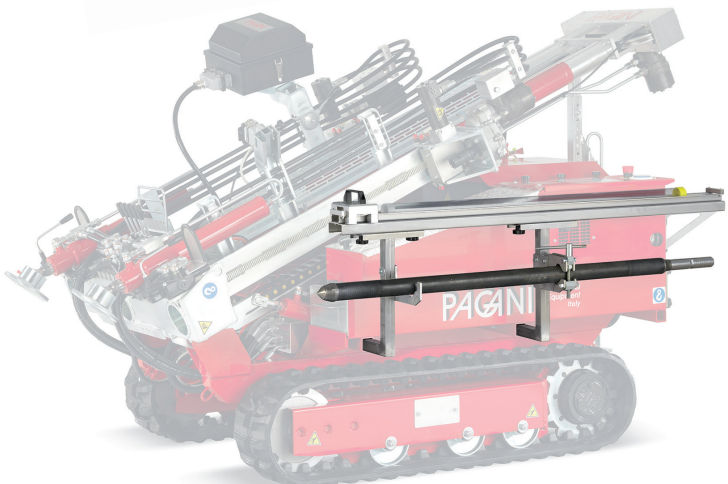


SAMPLER SECTION

The sampler is equipped with an inner clear **PVC SAMPLE HOLDER LINER** that can be **SEALED ON BOTH ENDS**, **guaranteeing soil pick-up and lab delivery with liquids and dissolved gases for chemical testing.**



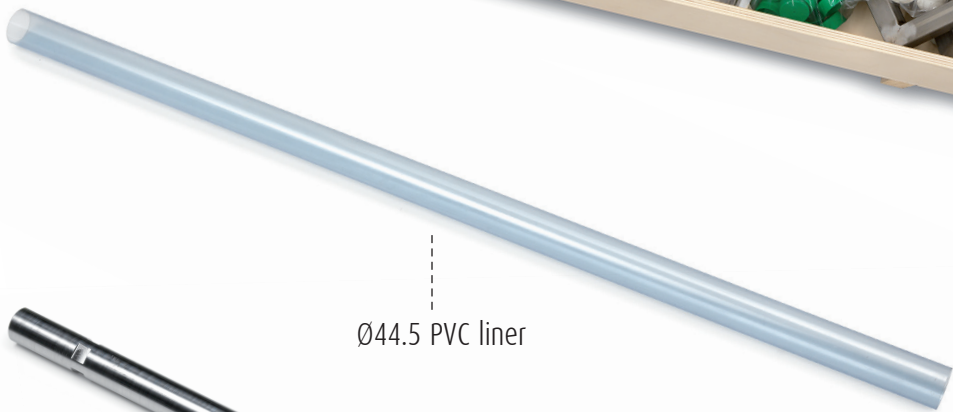
SAMPLE HOLDER LINER



The liner can be cut to analyse the samples at intermediate depths, directly on site, thanks to the stainless steel disassembly and cutting bench, supplied with the kit, that can be mounted onto your Pagani penetrometer.

# ENVIRONMENTAL SAMPLER

## DS-44 PAGANI KIT



Ø44.5 PVC liner



Ø36 X 1000mm rod



PVC SEPARATOR to prevent the sample from exiting during the sampler extraction



Ø44.5 PVC liner cap "UNDER"



Ø44.5 PVC liner cap "OVER"



[www.pagani-geotechnical.com](http://www.pagani-geotechnical.com)

Pagani Geotechnical Equipment Srl  
Loc. Campogrande 26, 29010 Calendasco (Piacenza) Italy  
Tel: +39 0523 771535 - Fax: +39 0523 773449  
[info@pagani-geotechnical.com](mailto:info@pagani-geotechnical.com)

Non-binding data,  
with right to make changes.  
The diagrams may differ  
from the standard version.  
The equipment may differ depending  
on which country it is being shipped to.

