



# COSON

continuous static cone penetrometer



## features

- higher CPT production rates
- ergonomic design
- easy to operate

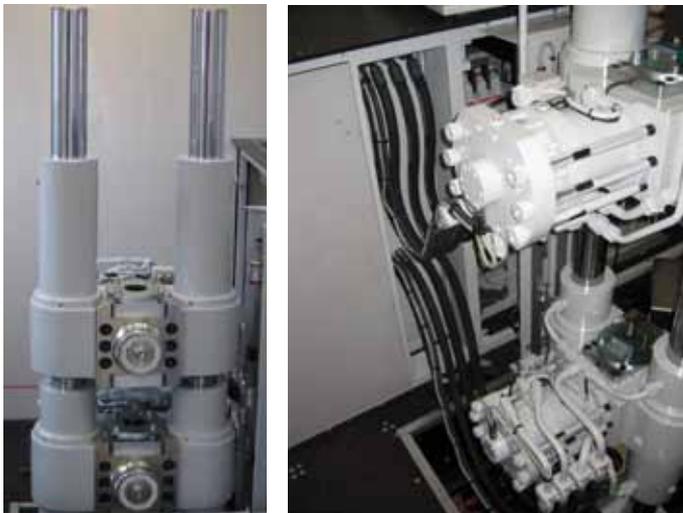
# COSON, continuous static cone penetrometer

## introduction

A.P. van den Berg has managed to design and build soil testing equipment with a continuous downward movement. The equipment has the same features and technical perfection that is typical of all A.P. van den Berg equipment: reliability, safety and ergonomic construction. We call it: COSON ("CONTinuous SONdeerapparaat or continuous static cone penetrometer").

COSON rigs have some important advantages compared to the traditional CPT units:

- gain of production time by not having to wait for the cylinders to resume their upper position in order to push down again
- no loss of data at one meter intervals
- elimination of the slip-stick effect at the one meter intervals
- no dissipation effects interfering with pore-water pressure measurements



## working principle

COSON works according to a take-over principle. The penetrometer consists of two sets of cylinders. When the upper set has finished its downward stroke, the lower set takes over the movement at the same speed, resulting in a continuous downward movement of the CPT rods. The time saved is about 7 sec/m.

Technical specifications		
	Nominal	Maximum
Pushing capacity	200 kN (22 US tons)	250 kN (27,5 US tons)
Pulling capacity	260 kN (28,7 US tons)	290 kN (32 US tons)
Pushing speed	2.0 cm/sec	20 cm/sec
Pulling speed	1.6 cm/sec	16 cm/sec

## A.P. van den Berg

Komeet 34, 8448 CG Heerenveen  
P.O. Box 68, 8440 AB Heerenveen  
The Netherlands

Tel : +31 (0)513 63 13 55  
info@apvandenber.com  
www.apvandenber.com

## unique clamping system

A special feature of COSON is the hydraulic clamping system which is essential to the testing cycle. Both hydraulic cylinder sets are fitted with a hydraulic clamp. The upper clamp automatically clamps the CPT rod when it is added during downward movement. Upon completion of the stroke of the upper hydraulic cylinders, the upper clamp automatically releases the rod and the clamping function is taken over by the lower hydraulic clamp. The CPT operator only needs to add on new CPT rods. The hydraulic clamps have a variable diameter capacity.

Pulling is still done discontinuously, leaving enough time to take off the CPT rods and put them back in storage.

COSON is suitable for installation on almost any kind of CPT vehicle.



We reserve the right to change specifications without prior notice.  
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