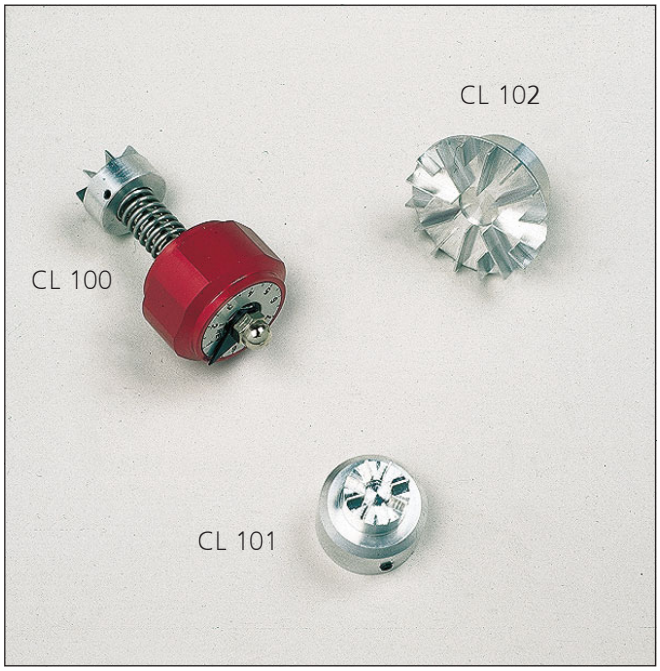
OPERATING INSTRUCTIONS

14.10 POCKET VANE TESTER

Description

A scientifically designed soil testing instrument for the rapid determination of shear strength of cohesive soils, either in the field or in the laboratory.
It permits the determination of a large number of strength values with different orientation of failure planes. The tester is simple to use and sample trimming is eliminated. All that is required is a reasonably flat surface 25 mm in diameter.



Field applications

Suggested applications for evaluations of shear strength are:
- ❒ Samples in shelly tubes
- ❒ Standard penetration samples
- ❒ Split spoon samples

Accuracy

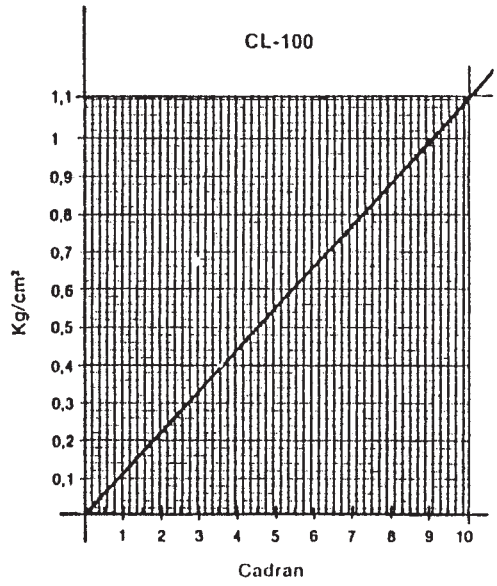
The shear strength of a cohesive soil is dependent upon many factors, including rate of loading, progressive failure, orientation of the failure plane and pore water migration during testing.
The vane shear tester does not eliminate the effects of any of these variables. However, it does give repeatable values in a homogeneous clay and extensive laboratory testing indicates excellent agreement between the unconfined compression test and the shear tester.
The smallest division on the dial is 0.05 kg/cm^2, permitting visual interpretation to the nearest 0.01 kg/m^2.

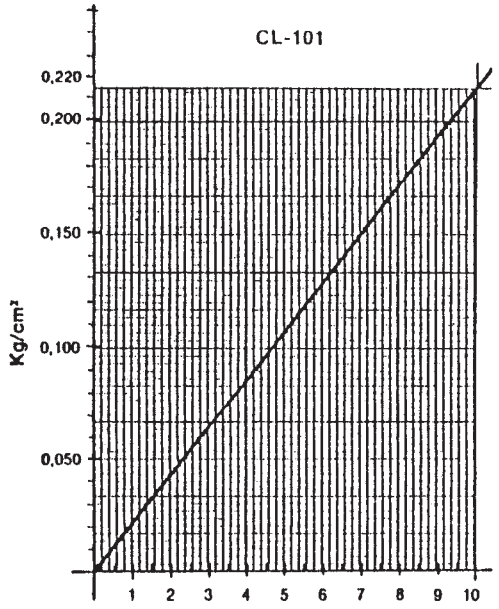
Measuring range (in kg/cm^2) of the 3 vanes:
0 - 0.2
0 - 1
0 - 2.5

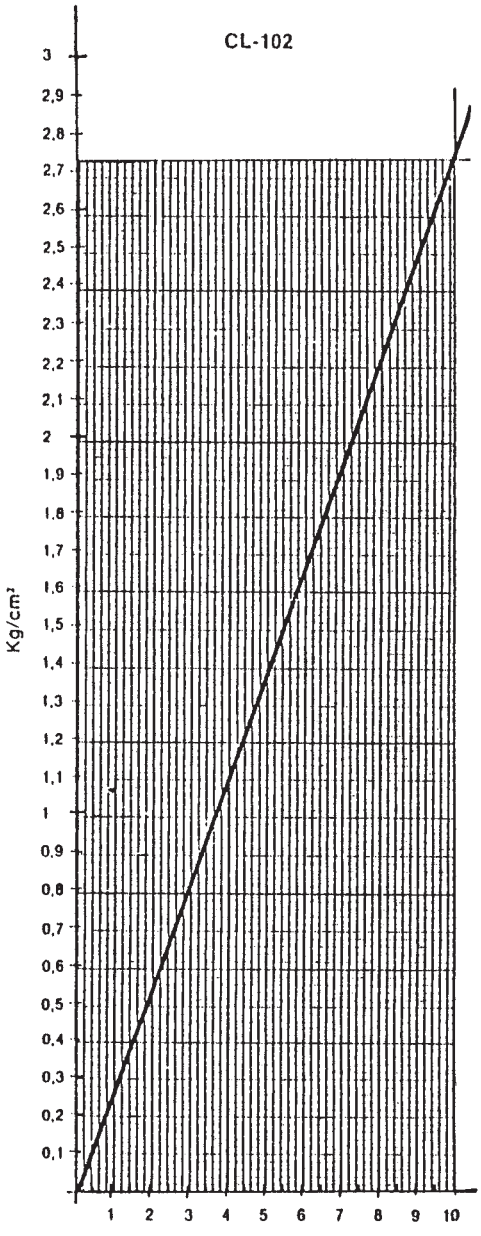
Conversion charts giving shear strength in kg/cm^2 depending on the adapter used are printed on the backside of this leaflet. Total measuring range 0 - 250 kPa.

P.O. Box 4, 6987 ZG Giesbeek, NL
T +31 313 880200
F +31 313 632167
E eijkelkamp@eijkelkamp.com
www.eijkelkamp.com

Resistance in kg/cm² according to the adaptor used







Interpretation of conversion graphs

1 complete revolution:
CL102 = 2.734 kg/cm²
CL100 = 1.0936 kg/cm²
CL101 = 0.2186 kg/cm²

Reading and calculating with the pocket vane tester

Movement per reading unit is 1/10 part of the complete revolution
For example CL102:

Value of complete revolution	=	2.734 kg/cm²		
1/10 part of value of complete revolution	=	0.2734 kg/cm²		
Reading value	=	3		
Calculation of shear strength: 0.2734 kg/cm² x 3	=	0.8202 kg/cm²	=	82.02 kPa

Conversion of the values: 1 kg/cm² = 10000 kg/cm² = 100 kPa (= 100 kN/m²)