

APPARECCHIO EDOMETRICO

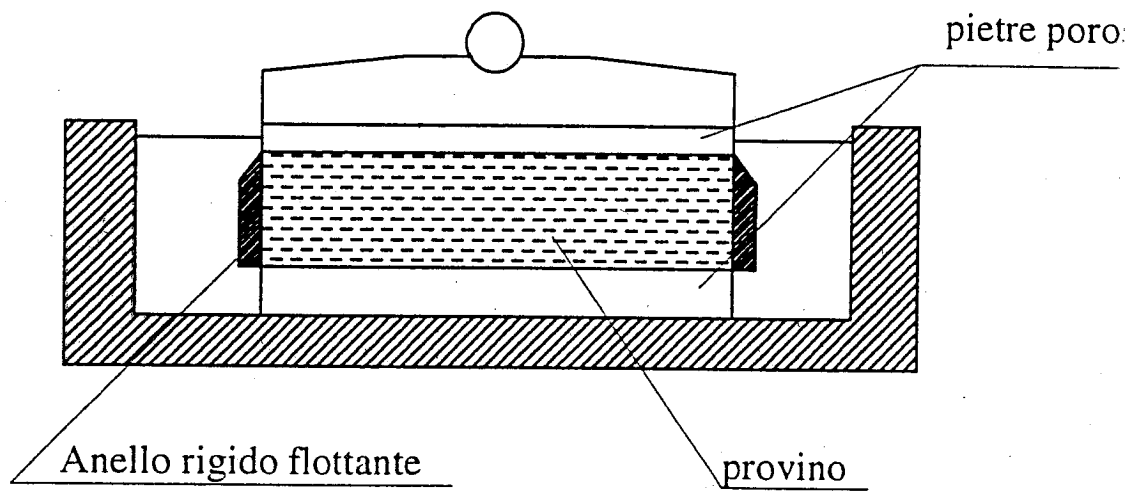
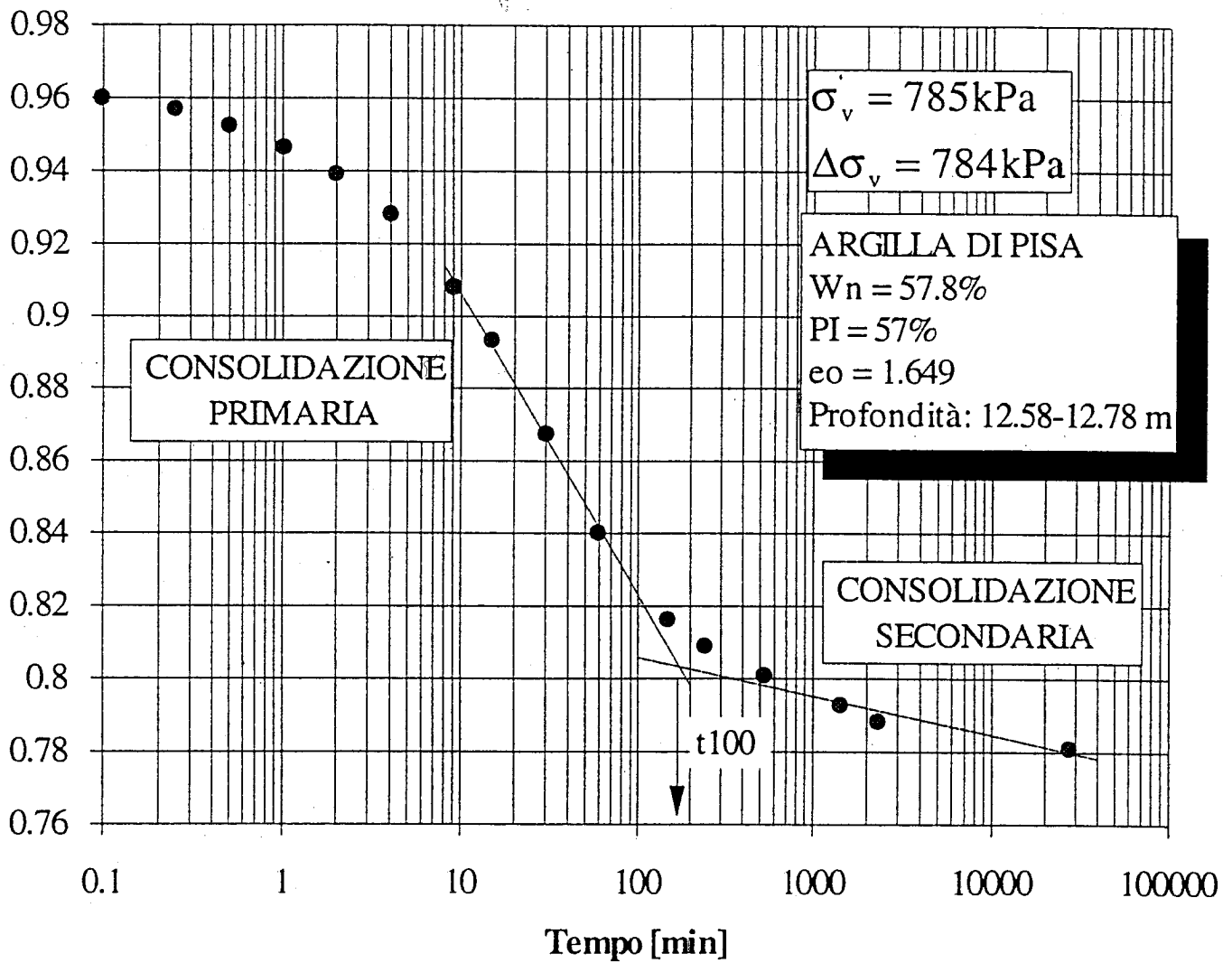
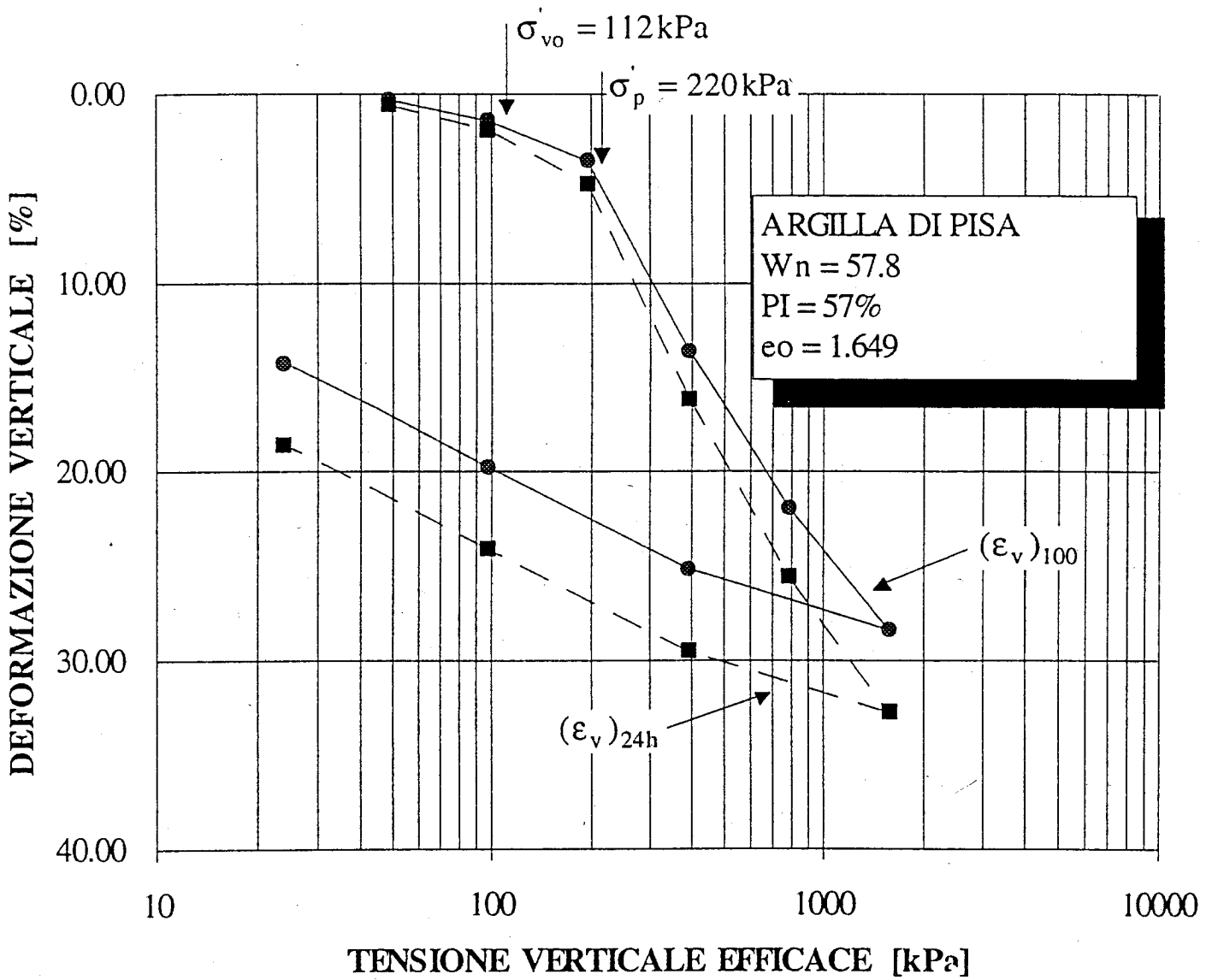


Figura 7 Apparecchio edometrico.

INDICE DEI VUOTI





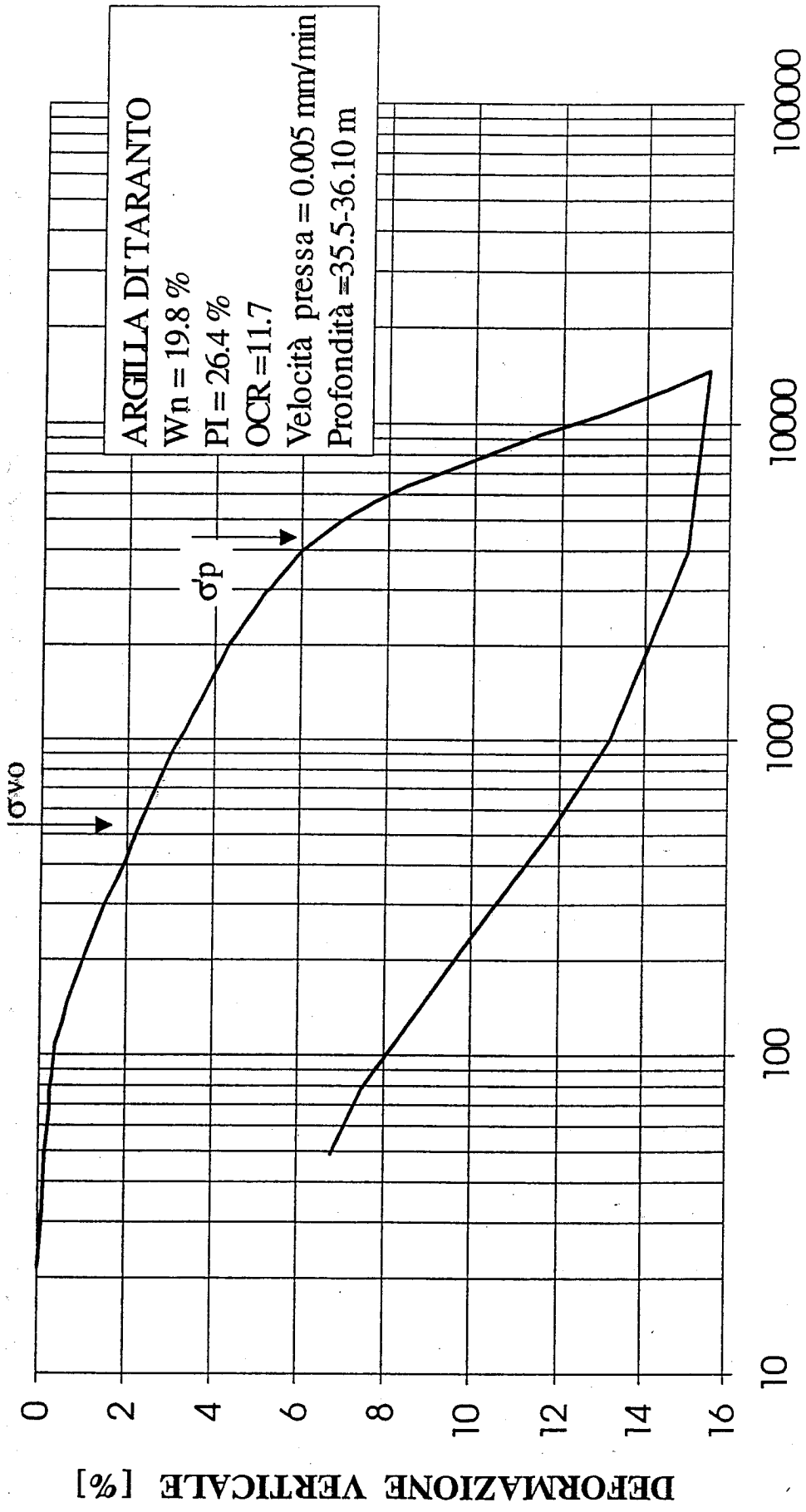


Figura 10 Esempio di edometro continuo (cortesia SGI - Milano).

Effective overburden and preconsolidation stresses σ'_{v0} , σ'_p (kPa)

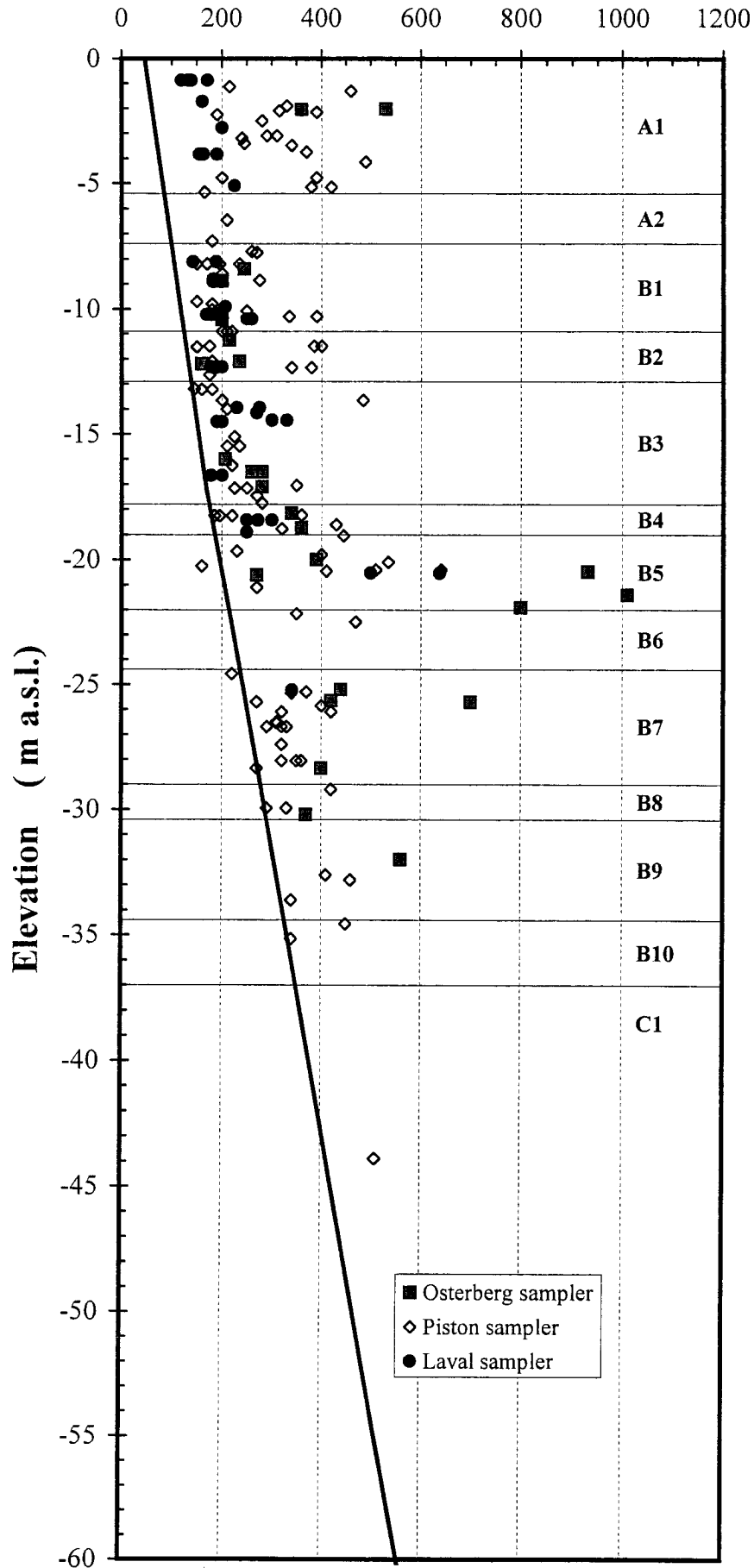


Fig. 11a: Effective stress profile

Overconsolidation ratio OCR (-)

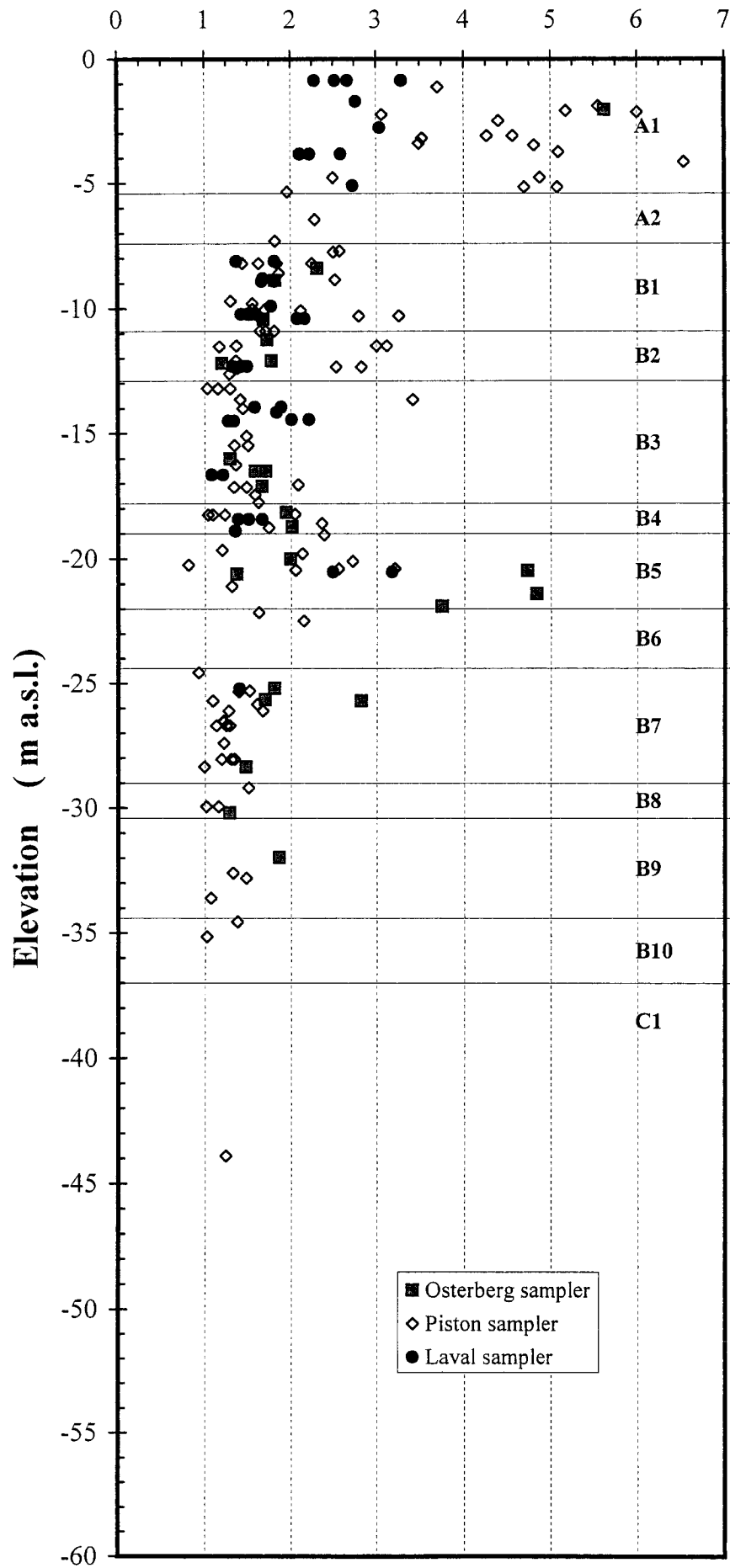


Fig. 11b: OCR versus elevation

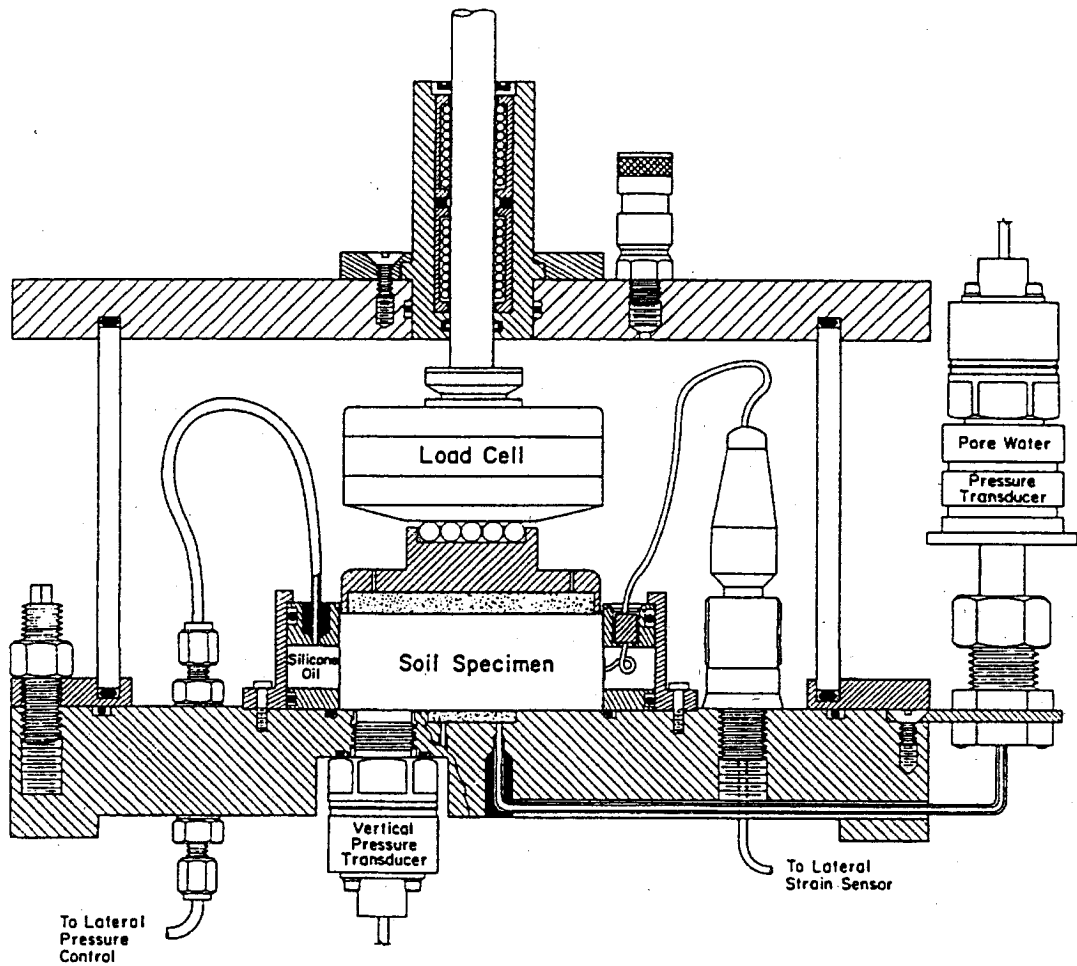
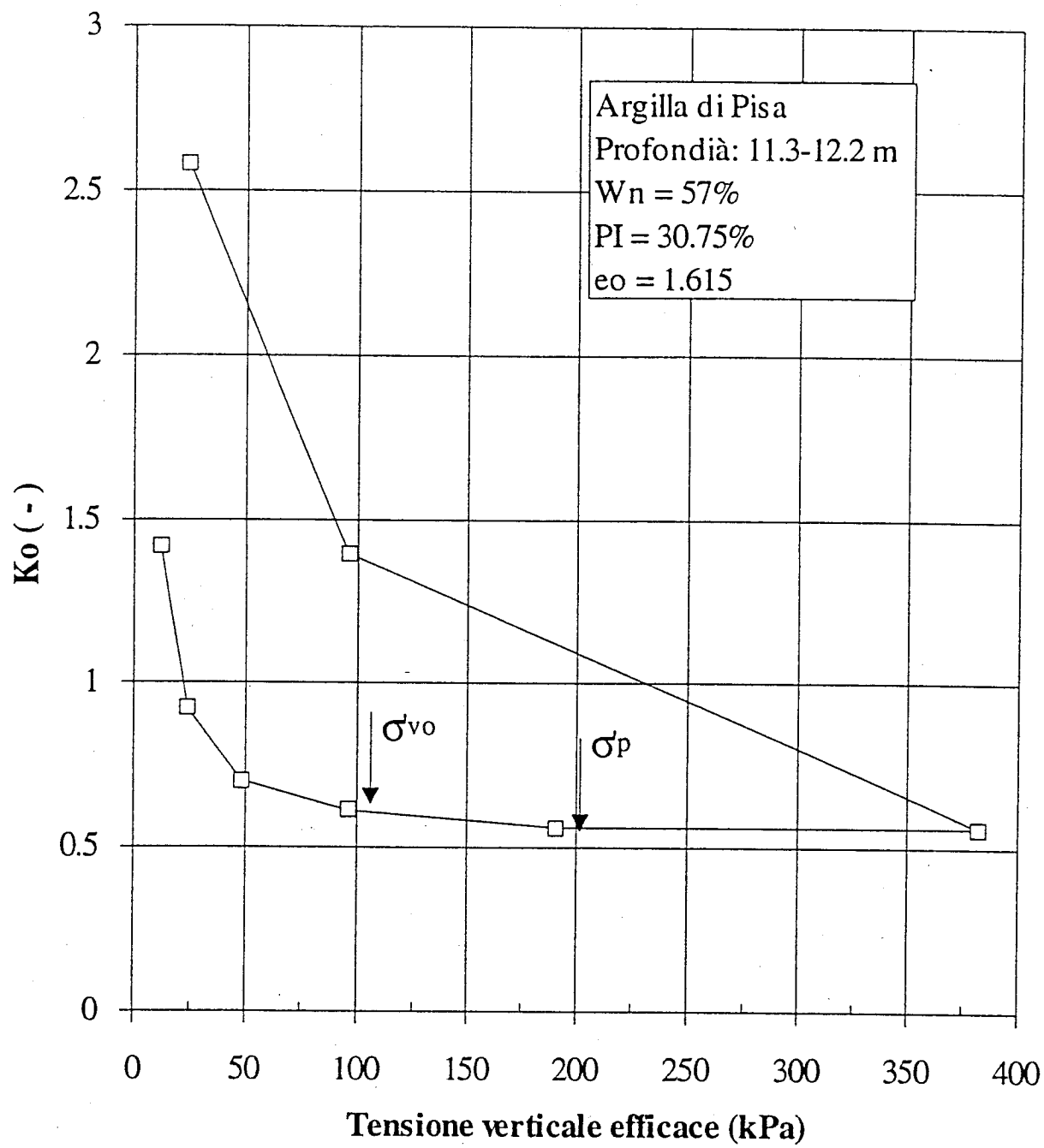


Figura 11 Edometro speciale che permette la misura della pressione orizzontale, della pressione verticale alla base e al top del provino e della pressione nei pori alla base. (Mesri e Hayat, 1993)



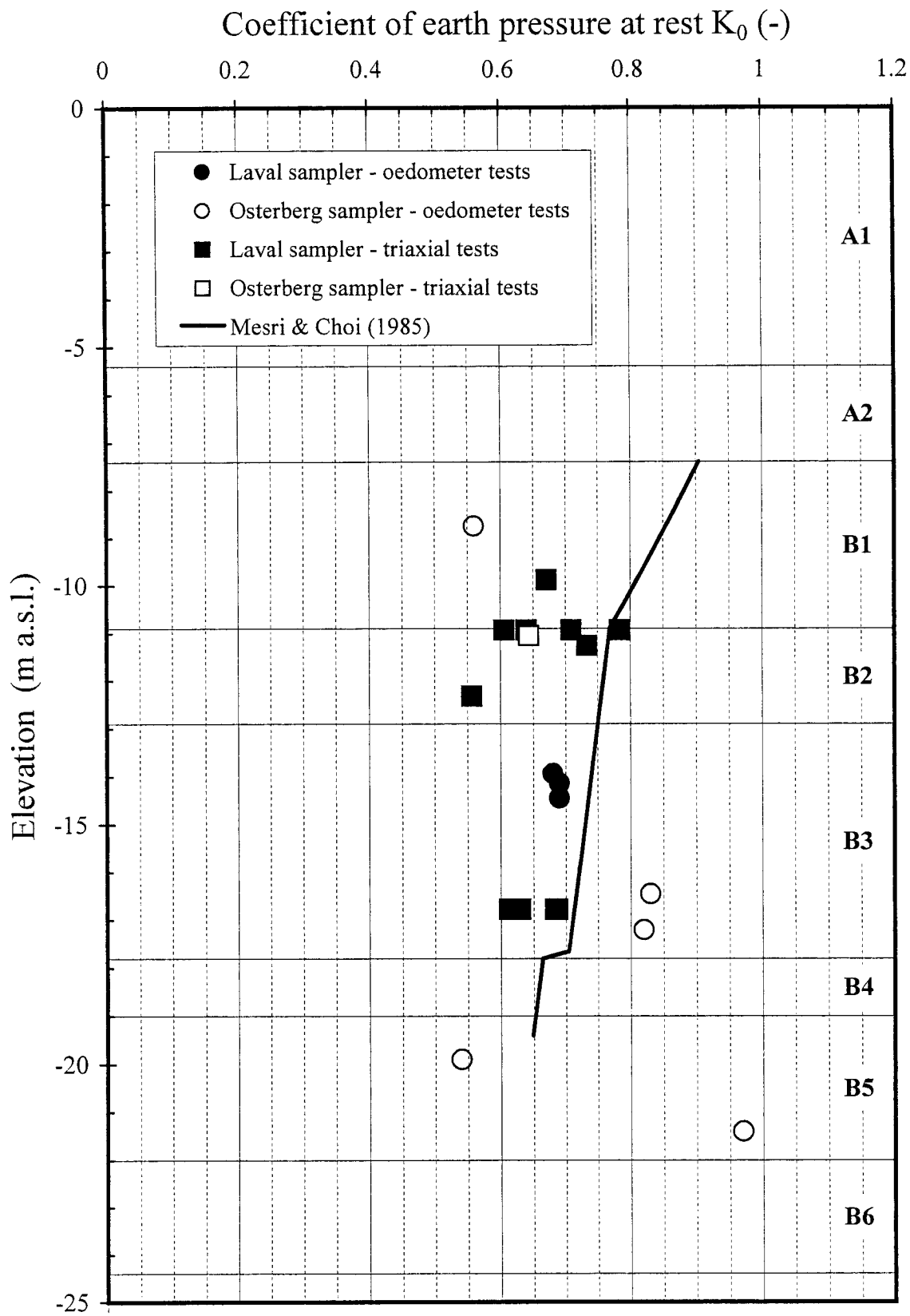


Fig. 12: coefficient of earth pressure at rest versus elevation

RAPPORTI E INDICI DI COMPRESSIBILITA'

$$RR = \Delta \varepsilon_v / \Delta \log \sigma'_v \quad (\text{CR, SR})$$

$$c_r = -\Delta e / \Delta \log \sigma'_v \quad (c_e, c_s)$$

$$m_v = \Delta \varepsilon_v / \Delta \sigma'_v \quad \text{coefficiente di compressibilità}$$

$$a_v = -\Delta e / \Delta \sigma'_v \quad \text{indice di compressibilità}$$

$$RR = \frac{c_r}{1 + e_0}$$

$$m_v = \frac{0.435 \cdot CR}{\sigma'_v}$$

$$m_v = \frac{1}{M} = \frac{(1 + \nu) \cdot (1 - 2\nu)}{E \cdot (1 - \nu)}$$

VALORI TIPICI

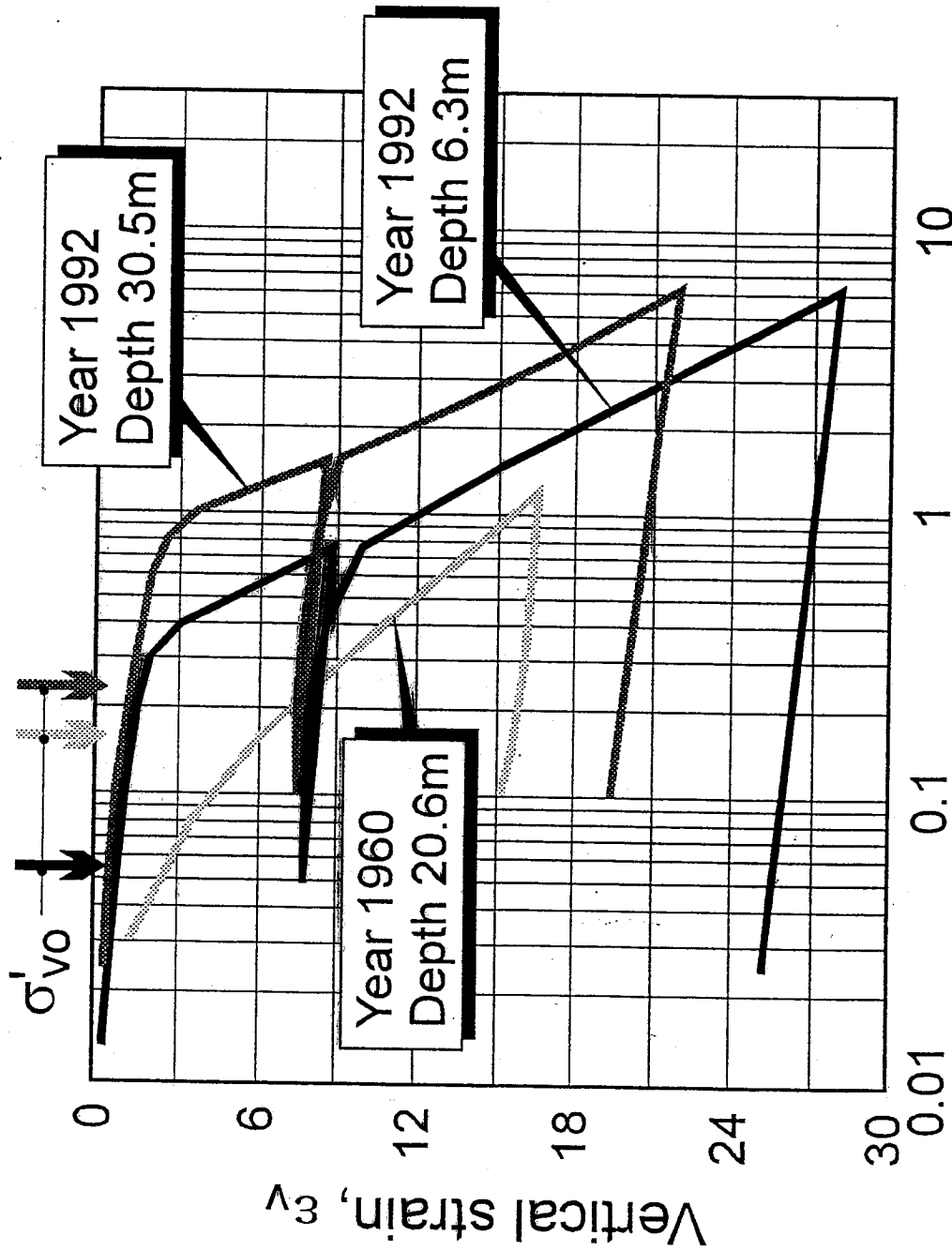
Cr	Cc	Cs
0.005-0.05	0.1-1.1	1/5-1/10Cc

CEDIMENTO MONODIMENSIONALE

$$\Delta H = H_0 \left[RR \cdot \log \frac{\sigma'_p}{\sigma'_{vo}} + CR \cdot \log \frac{\sigma'_f}{\sigma'_p} \right]$$

SUGAR SILOS OF AVEZZANO, ITALY OEDOMETER TESTS

Brignoli, 1994



Vertical effective stress, σ'_v (MPa)