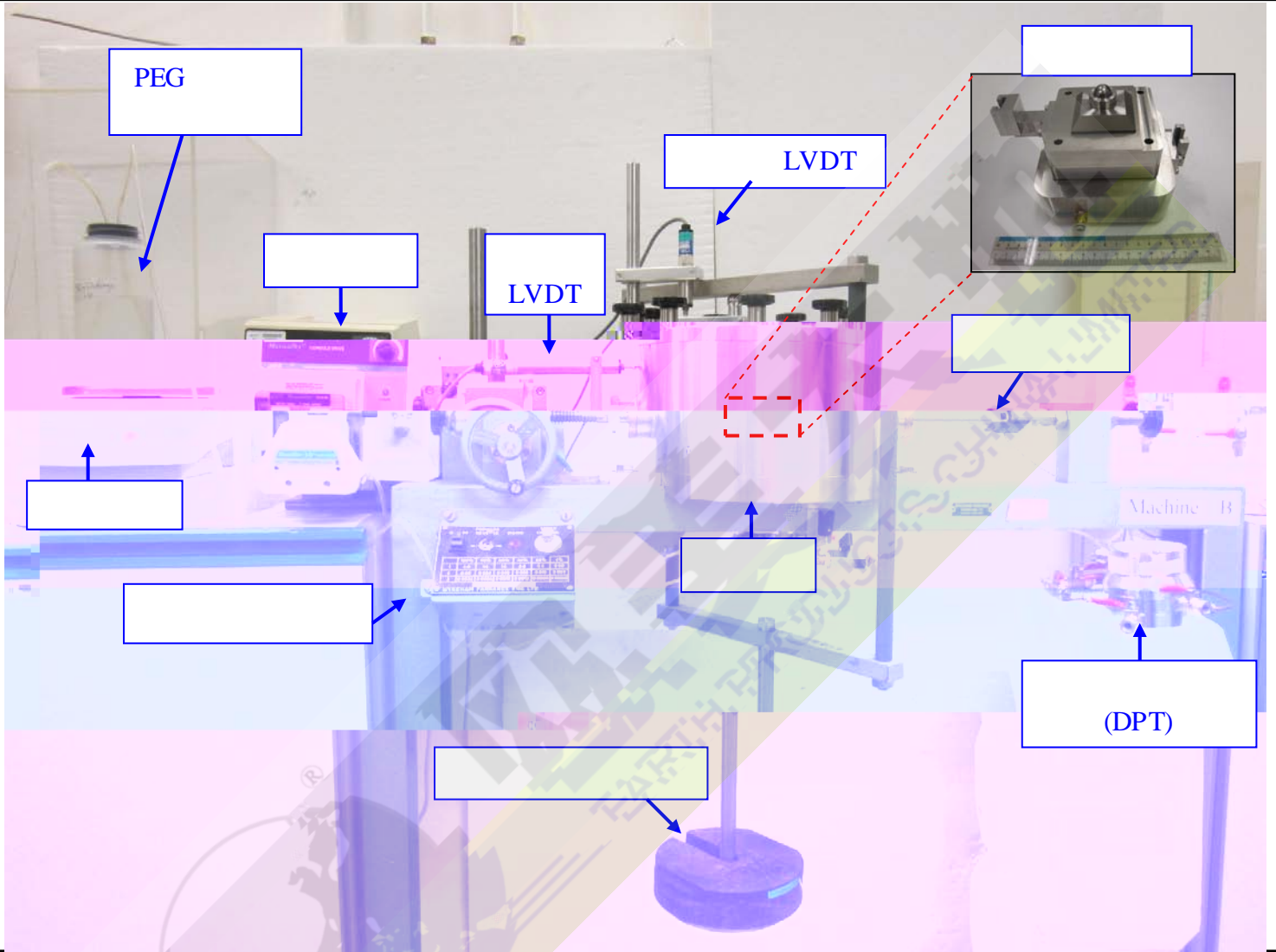


Humidity and Osmotic Suction-Controlled Box



- ◆ SDSWCC ;
- ◆ 300MPa 0.1kPa
- ◆ K₀ /
- ◆ /

Geo-Experts
0.1kPa 300MPa

SDSWCC

Geo-Experts
K

0.1kPa to 10MPa.

/

3. (VET)

/

RH

LVDT

10 300MPa.

用途:

Geo-Experts

Geo-Experts

K_0

/

ATT OMT VET

1. (ATT)

SDSWCC

AEV

u_a

(u_w)

$u_a - u_w$

0.1kPa

AEV

2. (OMT)

PEG

PEG

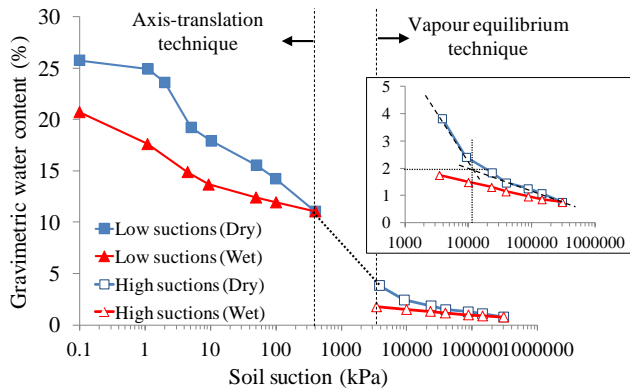
PEG

PEG

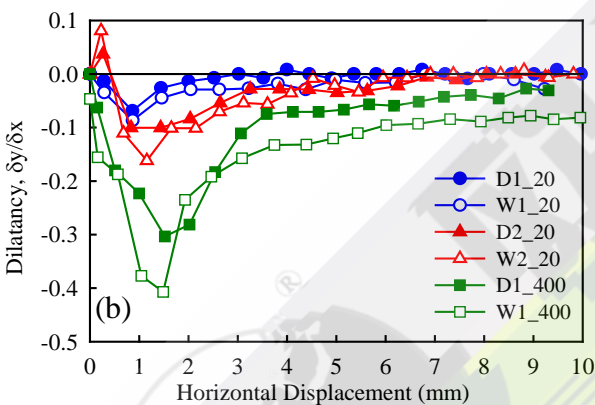
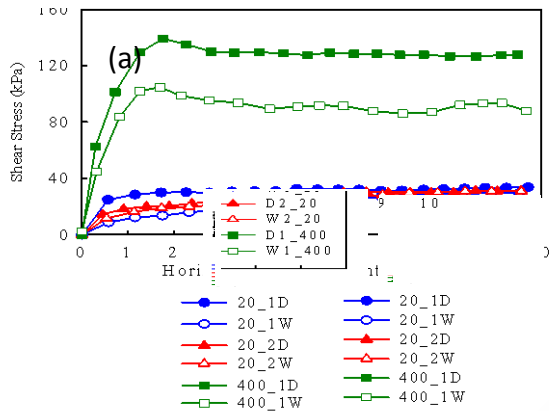
u_w

u_w

PEG



1. SDSWCCs (Ng et al. 2011)



2. (Tse & Ng 2008)

		: 0 – 450 kPa
		: 0 – 1000 kPa
5	()	: 10 kN
		: 25 mm
6	()	: 2 MPa
		: 0.5mV/V
		: 2% RO
		: 1, 4
7		: 5 mm
		: 5 mV/V ± 0.3 %
		: 0.3 % RO
		: 1, 4
8	(DPT)	: -1 to +1 kPa
		: ±8 to ±15 V DC
		: -5 to +5V

	(ATT)	
	*	: 500 kPa
	(OMT)	
1		: 12000-14000/ 3500
2	PEG	: 20000/6000
	(VET)	
		: 11 – 92% of RH
		: (i.e., 10 – 300MPa)

* 1 2 3bar

:

Ng, C.W.W., Leung, A.K., Xu, J. (2011). Keynote lecture: The theory and application of unsaturated soil mechanics in slope engineering. *Indonesia National Geotechnical Conference*, 7 – 8 Dec 2011, Sahid Jaya Hotel, Jakarta, Indonesia

Tse, E. Y. M. & Ng, C. W. W. (2008). Effects of drying and wetting cycles on unsaturated shear strength. *Proc. of 1st European Conf. on Unsaturated Soils*, 2-4 July 2008. Durham, UK. 481-486.

1		: 50 x 50 x 20 mm
2		: 5 – 50 °C
3		: 3500 kPa
		: 68 m ³ /HR, 700 kPa
		: 3 – 200 kPa
		: 10 – 1100 kPa
4		: 10 kN
		: 50 mm