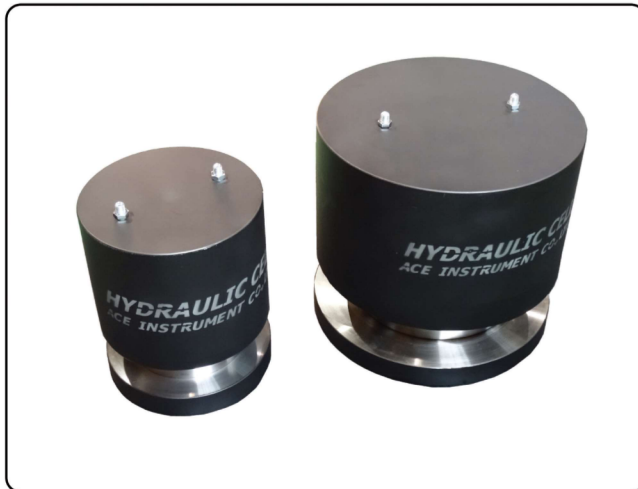


Hydraulic cell for pile load test



Description

We are providing model ACH-200, 300, 400, 600, 800, 1000, 1200, 1500 single acting hydraulic cells, model ACD-400, 600, 800, 1000, 1200, 1500 double acting hydraulic cells, and hydraulic pump unit for pile load test.

We provide customized service for single acting and double acting hydraulic cells that apply common pressure 1500bar. These hydraulic cells are made by our vertical CNC lathe, including CNC milling center. Hydraulic cells are including leak thghtness preventers and super high pressured airtight design. Also, we take 100% load test for each cell in order to prevent any fault.

Specification

[Single acting hyd. cell]

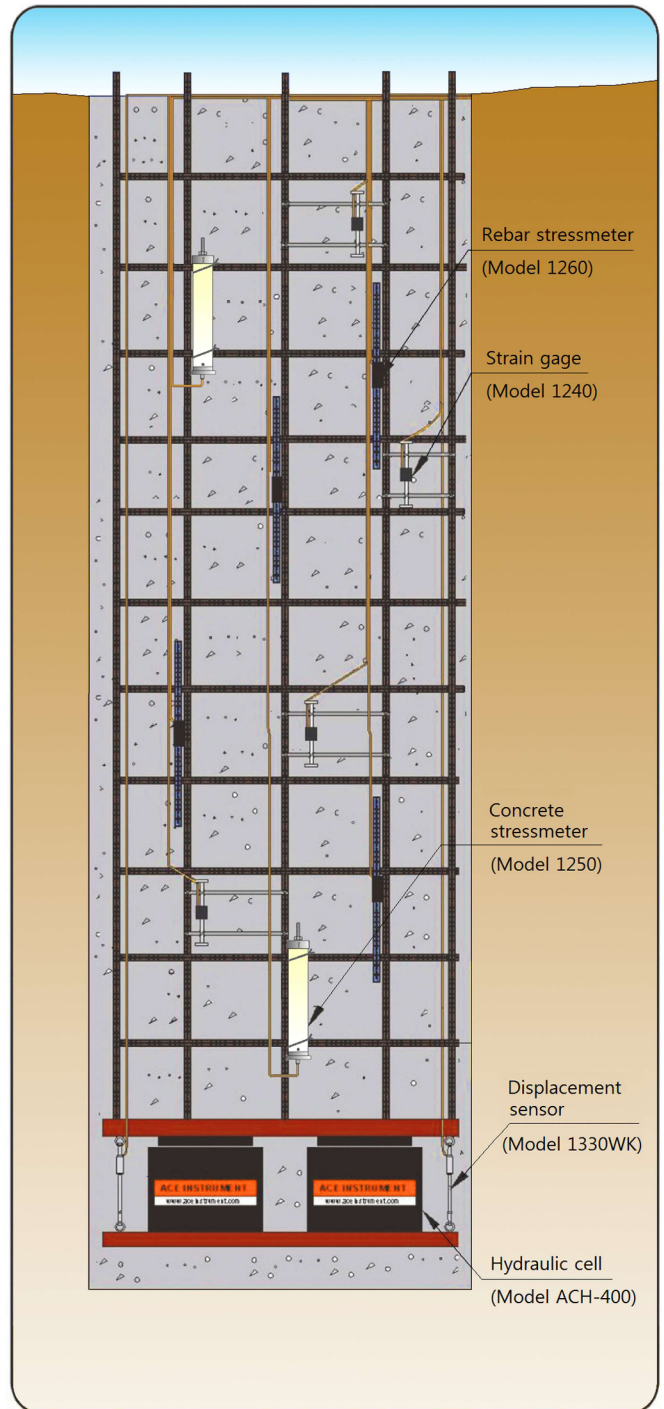
[Material: SCM steel]

Model	Load (ton · f)	Effective sectional area (cm ²)	Working pressure (kg/cm ²)	Max. pressure (kg/cm ²)	Stroke (mm)	Weight (kg)
ACH-200	200	134	1500	2000	150	71
ACH-300	300	201				106
ACH-400	400	267				142
ACH-600	600	401				223
ACH-800	800	535				304
ACH-1000	1000	667				389
ACH-1200	1200	802				477
ACH-1500	1500	1001				613

[Double acting hyd. cell]

[Material: SCM steel]

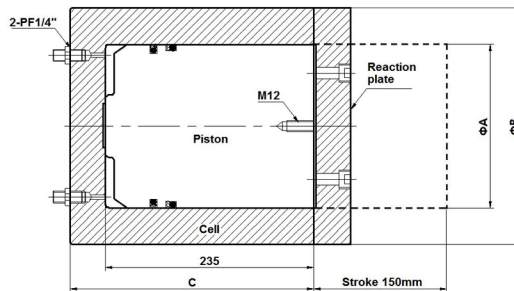
Model	Load (ton · f)	Effective sectional area (cm ²)	Working pressure (kg/cm ²)	Max. pressure (kg/cm ²)	Stroke (mm)	Weight (kg)
ACD-400	400	267	1500	2000	150	210
ACD-600	600	401				319
ACD-800	800	535				428
ACD-1000	1000	667				549
ACD-1200	1200	802				660
ACD-1500	1500	1001				847



[Composition of pile load test]

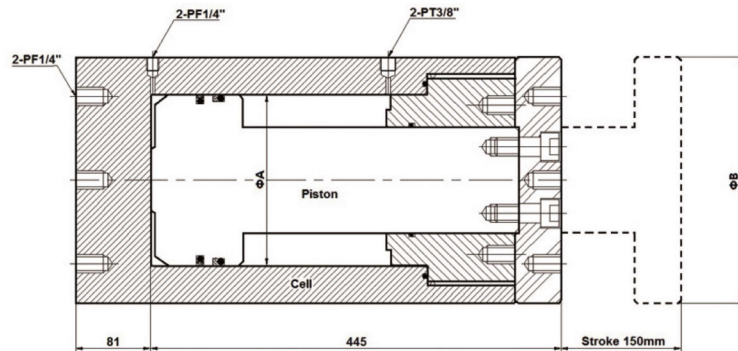
Hydraulic cell for pile load test

Dimensions



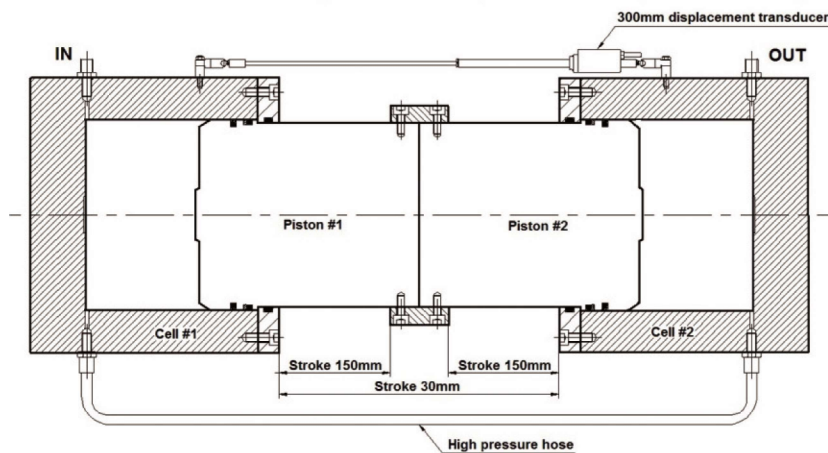
[Single acting hyd. cell]

Model	Working load (ton · f)	Efficiency area (cm ²)	Working pressure (kg/cm ²)	Max. pressure (kg/cm ²)	Dimension(mm)		
					ØA	ØB	C
ACH-200	200	134	1500	2000	131	190	270
ACH-300	300	201	1500	2000	160	232	278
ACH-400	400	268	1500	2000	185	268	285
ACH-600	600	601	1500	2000	226	328	296
ACH-800	800	535	1500	2000	261	378	305
ACH-1000	1000	667	1500	2000	292	423	314
ACH-1200	1200	802	1500	2000	320	464	321
ACH-1500	1500	1001	1500	2000	357	518	331



[Double acting hyd. cell]

Model	Working load (ton · f)	Efficiency area (cm ²)	Working pressure (kg/cm ²)	Max. pressure (kg/cm ²)	Dimension(mm)	
					ØA	ØB
ACD-400	400	268	1500	2000	185	268
ACD-600	600	601	1500	2000	226	328
ACD-800	800	535	1500	2000	261	378
ACD-1000	1000	667	1500	2000	292	423
ACD-1200	1200	802	1500	2000	320	464
ACD-1500	1500	1001	1500	2000	357	518

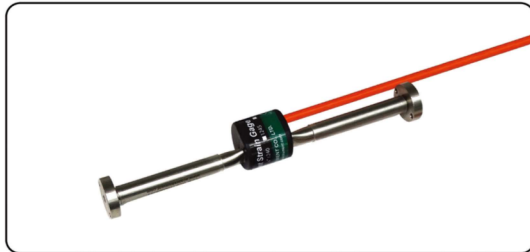


By using 2set of single acting hydraulic cell, the stroke can be extended from 150mm to 300mm as shown in the figure.

Hydraulic cell for pile load test

1. Measurement of concrete displacement

To install 2~3 nos of VW embedment strain gages (model 1240) in each one section belong to drawing of installation.



Specification

Model	1240
Applied sensor	VW type
Range	3000 micro strain
Resolution	0.5 micro strain
Accuracy	$\pm 0.1\%$ FSR
Non linearity	$\pm 0.5\%$ FSR

2. Measurement of rebar stress

To install 2~3nos of VW rebar streemeters (model 1260 : D25) in each one section belong to drawing of installation.



Specification

Model	1260
Applied sensor	VW type
Range	3000 micro strain
Resolution	0.025 micro strain
Accuracy	$\pm 0.1\%$ FSR
Non linearity	$\pm 0.5\%$ FSR

3. Measurement of hyd. cell displacement

To attach VW crackmeters (model 1340WK : 25bar) on the cage which is an attachment for hyd. cell it is for measuring the displacement of cell's ram.



Specification

Model	1340WK
Applied sensor	VW type
Range	100mm (150~200mm optional)
Resolution	0.025%FSR
Accuracy	$\pm 0.1\%$ FSR
Non linearity	$\pm 0.5\%$ FSR
Waterproof	25bar

4. Measurement of concrete stress

Model 1250 VW concrete stressmeter is fixed at rebar to measure stress of concrete.

Concrete poured on site is directly applied to a load cell to measure stress under the same conditions as the surrounding concrete, including temperature changes and changes in elastic modulus.



Specification

Model	1250
Applied sensor	VW type
Range	-2 ~ 25MPa
Resolution	0.025%FSR
Accuracy	$\pm 0.1\%$ FSR
Non linearity	$\pm 0.5\%$ FSR
Waterproof	25bar

Hydraulic cell for pile load test

[Description of top and bottom cage]

The size of the top and bottom cage is determined by considering the overall external size of the pile, the size of the applied load, and the number of hydraulic cells installed, taking into account the size of the total applied load. By reflecting and designing the sensor cable discharge plan and the hydraulic hose discharge plan of the hydraulic cell, the reaction plate of the hydraulic cell is welded to the top cage and the exterior of the hydraulic cell is partially welded to the bottom cage to intergate it.

The cage is installed along with the wire mesh at the excavation depth and prevents concrete from entering the piston of the hydraulic cell when pouring concrete, and helps distribute the concrete load. The thickness of the cage is approximately 50mm in total, and unnecessary parts are cut to avoid interfering with the ongoing process and installation.

[Hyd. pump unit]



Specification

Model	KHB-300T
Manufacturer	Korea hydraulic co.
Working pressure	300~2100
Max. flow	0.63L/min
Driven air	1~10.3



[1200ton Material testing machine / 1500ton load tester]

[Several type kit of installed the top and bottom cages]

