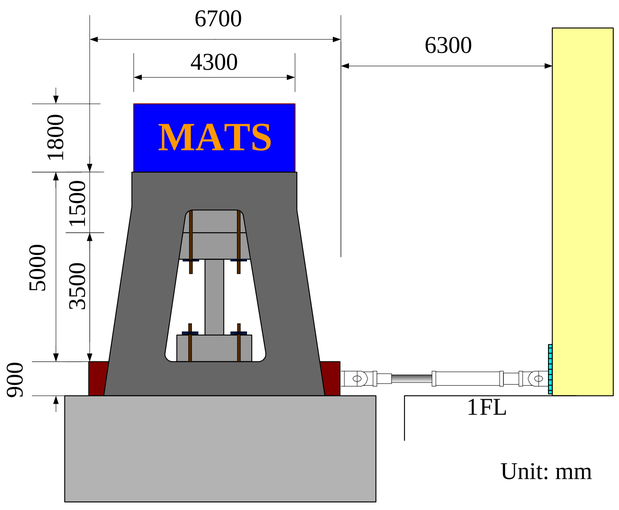
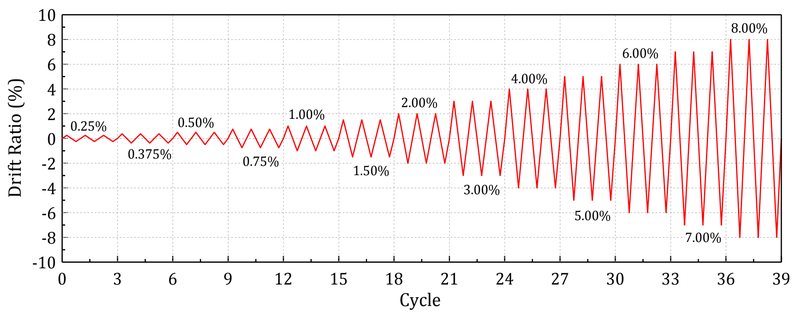
台灣新型高強度鋼筋混凝土結構研發

柱圍束箍筋量測試

財團法人國家實驗研究院國家地震工程研究中心



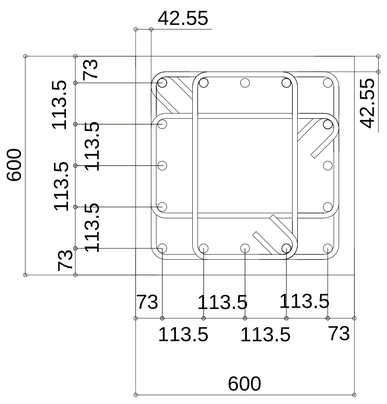
多軸向測試系統(MATS)

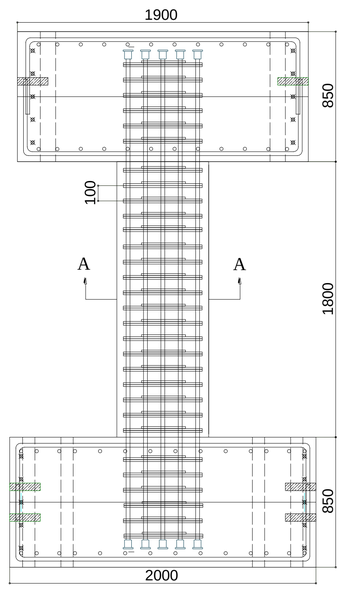


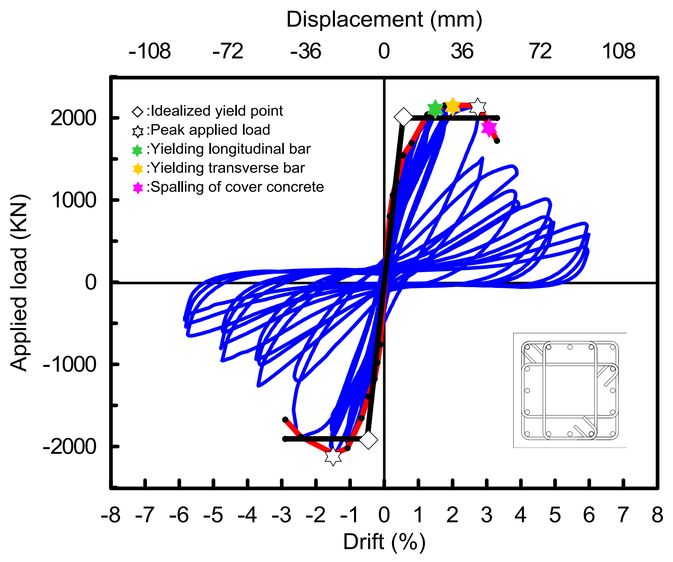
載重歷時圖

試體規劃表

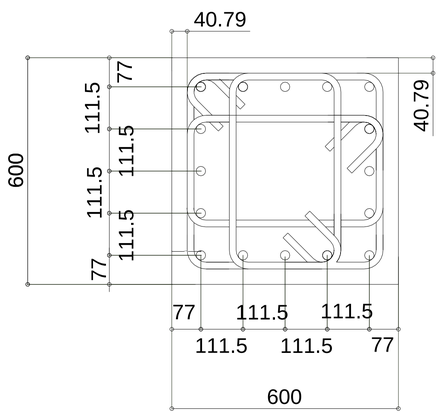
Specimen	Longitudinal Bars SD685			Transverse Bars SD785				Axial load ratio
	Splicing	size	ρ_g (%)	size)	s (mm)	ρ_s (%)	Type	
CF-C-PT-0.1	No splice	16-D25	2.18	D13	100	2.12	PT	0.1
CF-C-PT-0.33	No splice			D16	100	3.20	PT	0.33
CF-G-PT-0.1	Grouted Sleeve			D13	100	2.12	PT	0.1
CF-G-PT-0.33	Grouted Sleeve			D16	100	3.20	PT	0.33
CF-G-W-0.1	Grouted Sleeve			D13	100	2.12	W	0.1
CF-G-W-0.33	Grouted Sleeve			D16	100	3.20	W	0.33

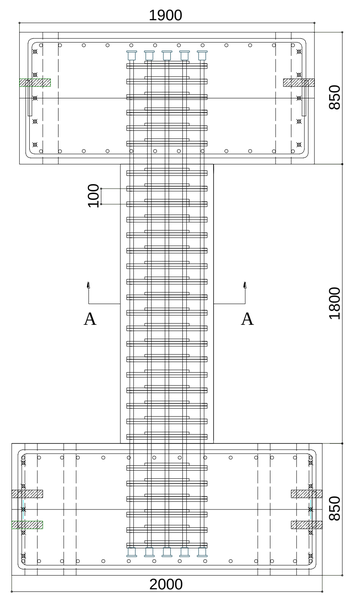


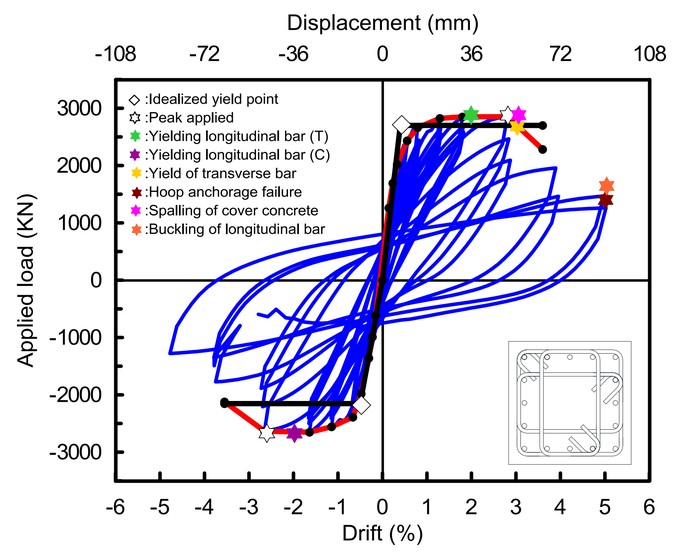




CF-C-PT-0.1





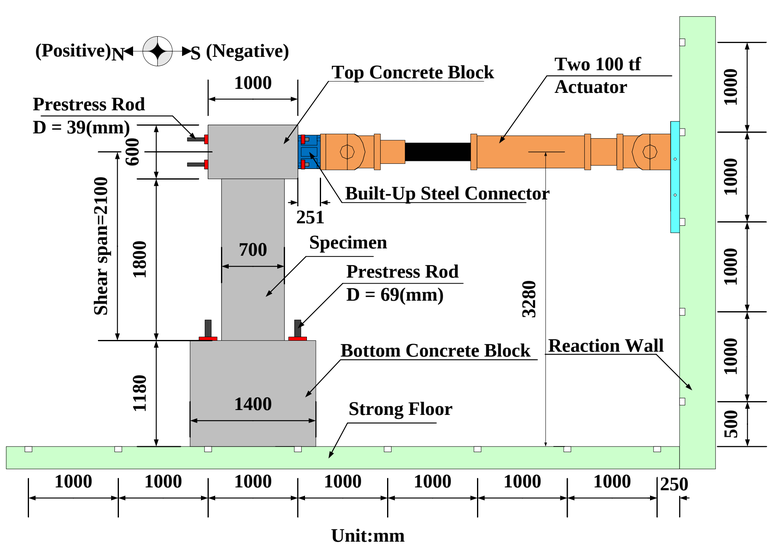


CF-C-PT-0.33

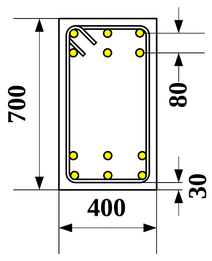
測試試驗結果

Specimen	Yield Drift (%)	Peak Load (kN)	Ultimate Drift (%)	Ductility
CF-C-PT-0.1	0.55	2152	3.3	6
CF-G-PT-0.1	0.7	2161	3.4	4.9
CF-G-W-0.1	0.6	2121	3	5
CF-C-PT-0.33	0.4	2853	3.6	9
CF-G-PT-0.33	0.55	3014	3.45	6.9
CF-G-W-0.33	0.48	2925	3.5	7.3

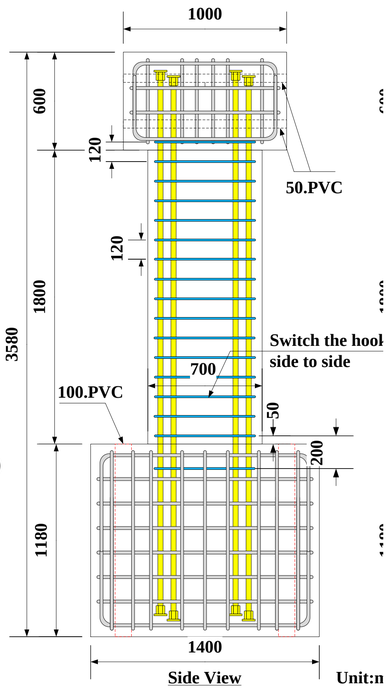
梁剪力行為測試

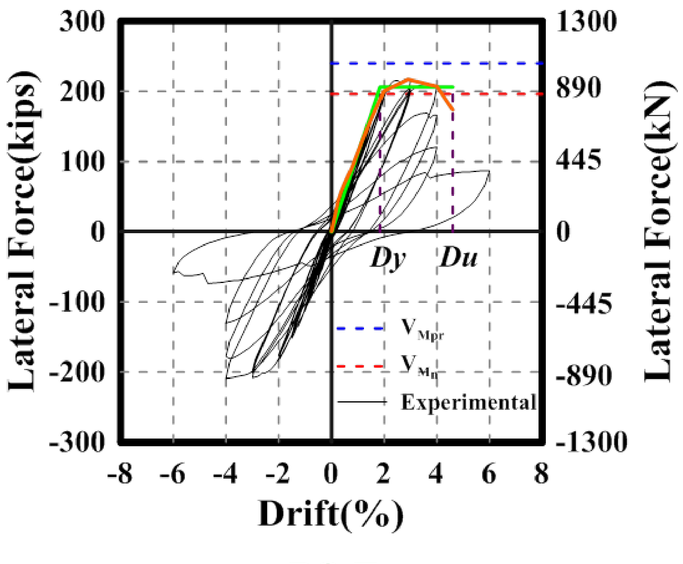


測試佈置

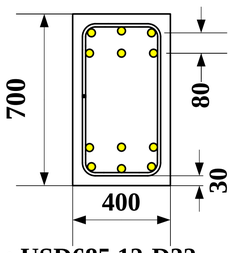


Bar : USD685 12-D32
Hoop: USD785 17-D13@120

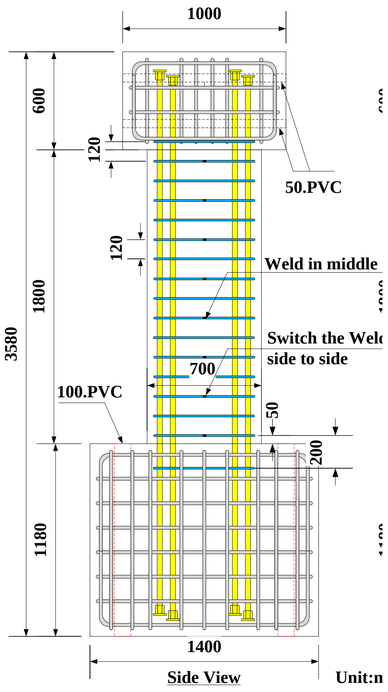


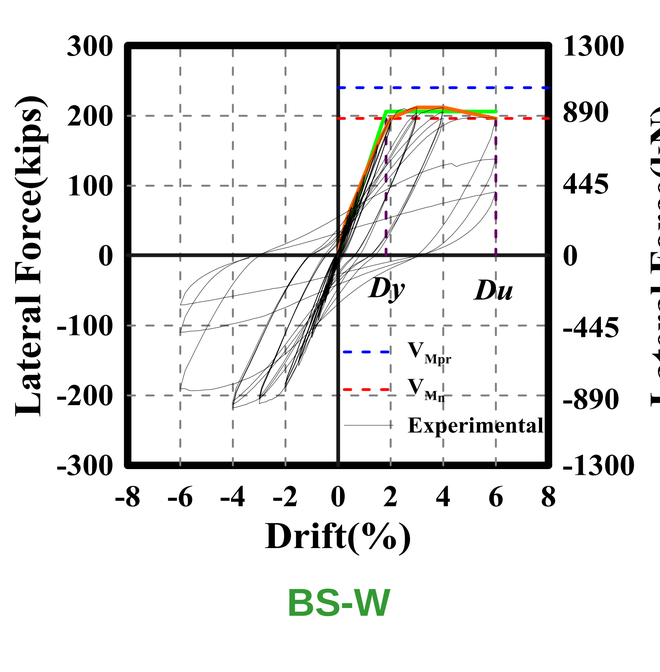


BS-T



Bar : USD685 12-D32
Hoop: USD785 17-D13@120
(weld)





BS-W

測試試驗結果

Specimen	Yield Drift (%)	Peak Load (kN)	Ultimate Drift (%)
BS-T	1.85	966.2	4.6
BS-W	1.83	943.2	6.0