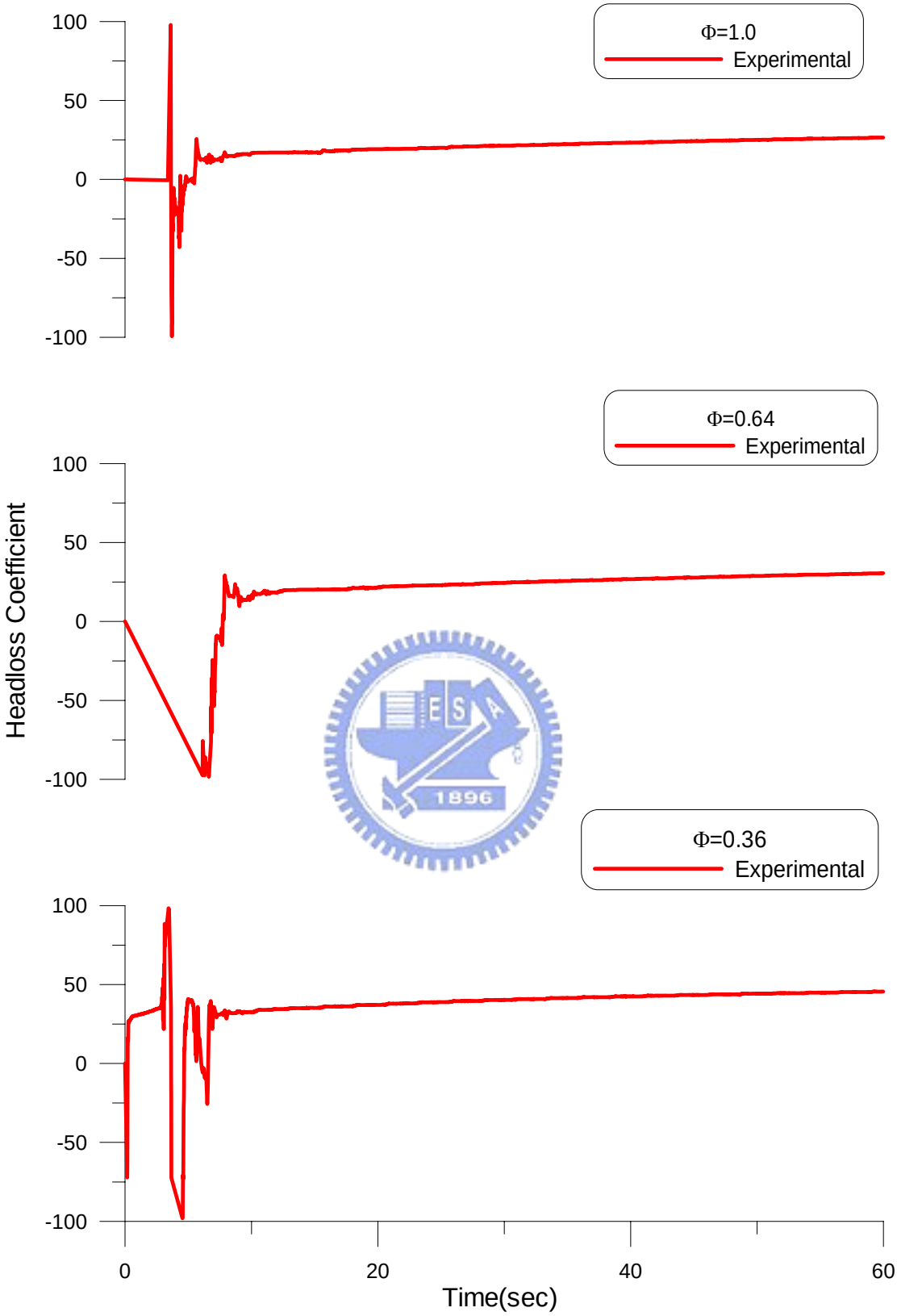

圖 4.24 (a) 等斷面元件測試之水頭損失係數收斂情形(簡諧擾動外力振幅=20mm，擾動頻率比γ_T=0.8)

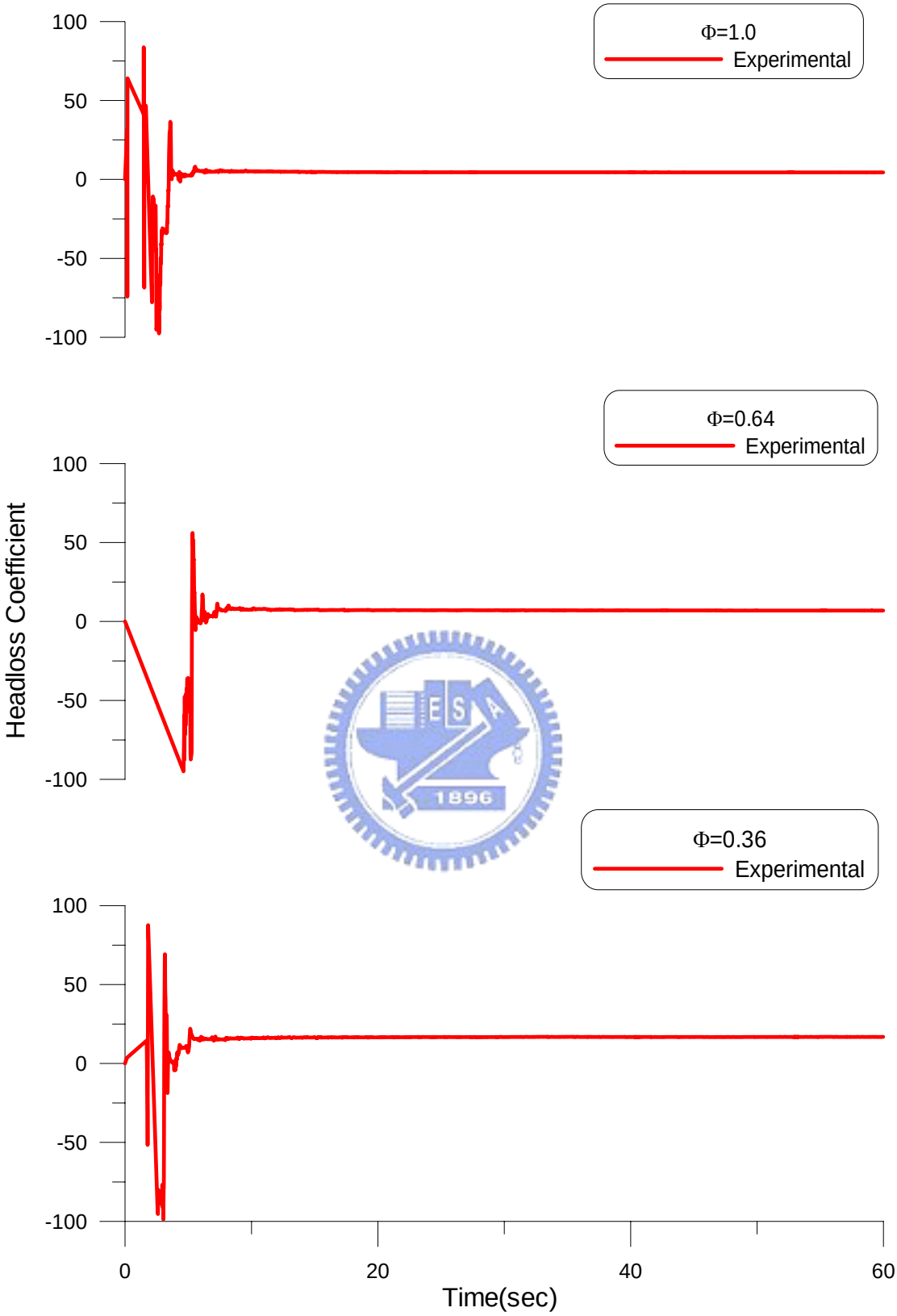

圖 4.24 (b) 等斷面元件測試之水頭損失係數收斂情形(簡諧擾動外力振幅=20mm，擾動頻率比γ_T=1.0)

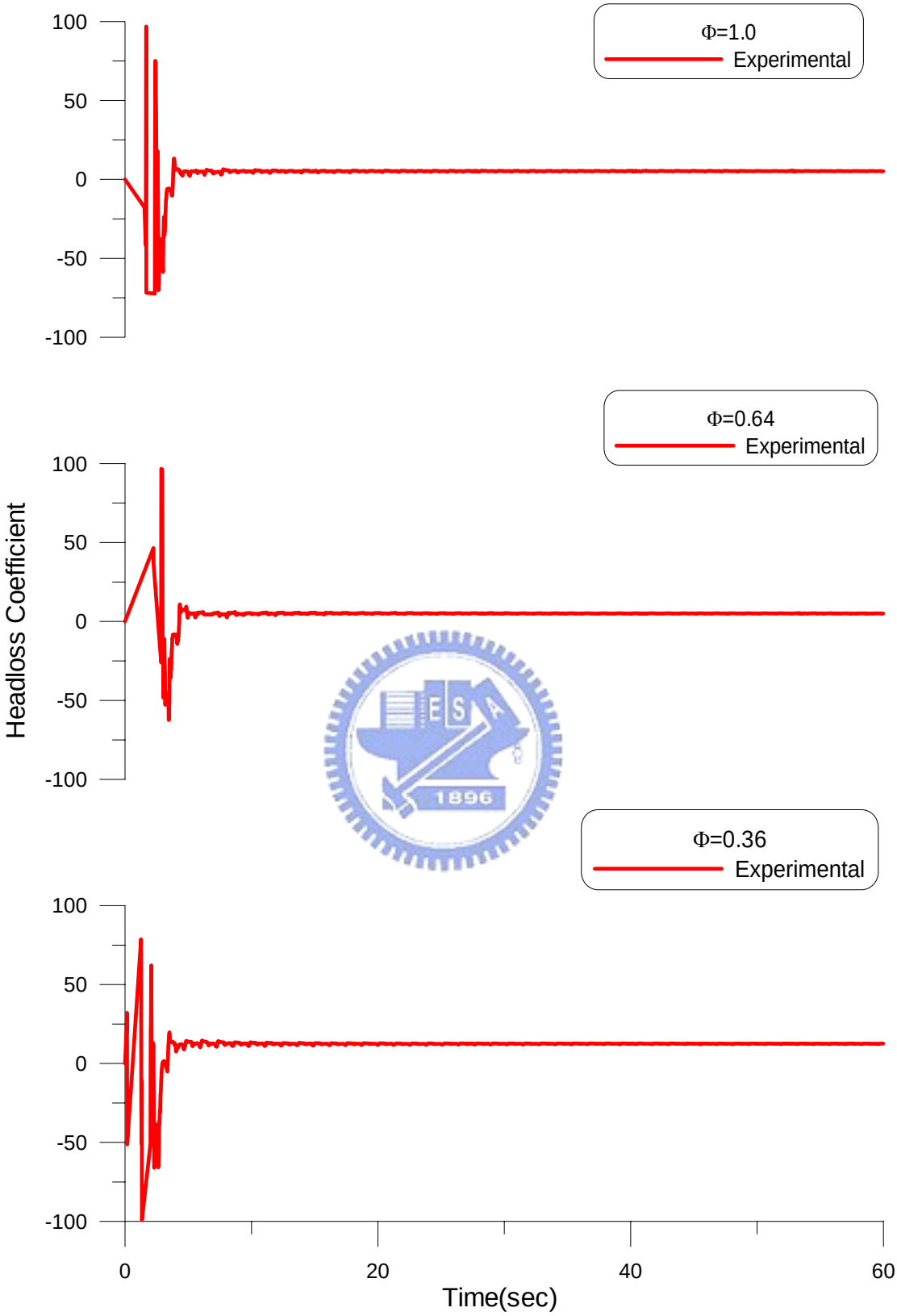

圖 4.24 (c) 等斷面元件測試之水頭損失係數收斂情形(簡諧擾動外力振幅=20mm，擾動頻率比γ_T=1.6)

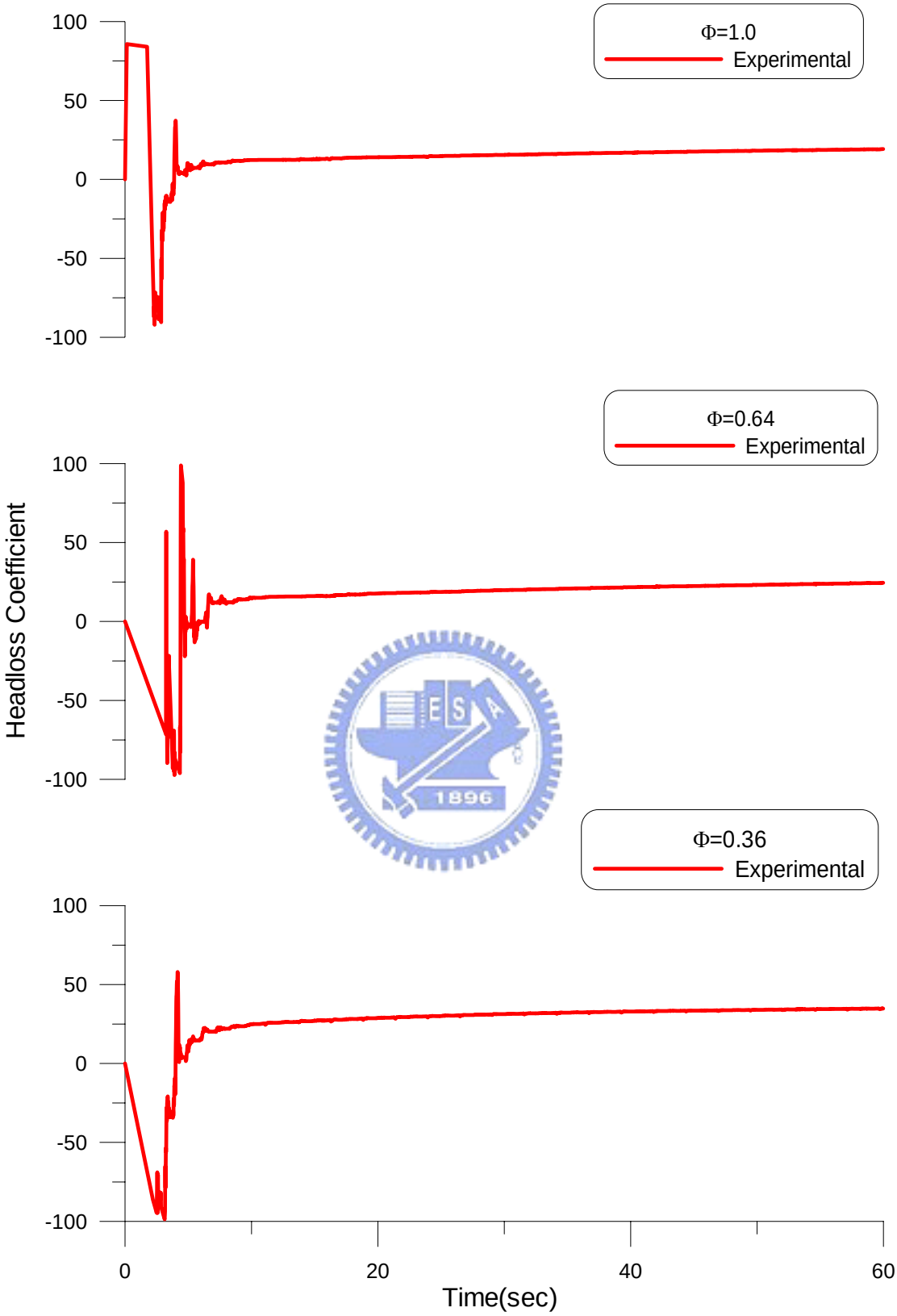

圖 4.24 (d) 等斷面元件測試之水頭損失係數收斂情形(簡諧擾動外力振幅=30mm，擾動頻率比γ_T=0.8)

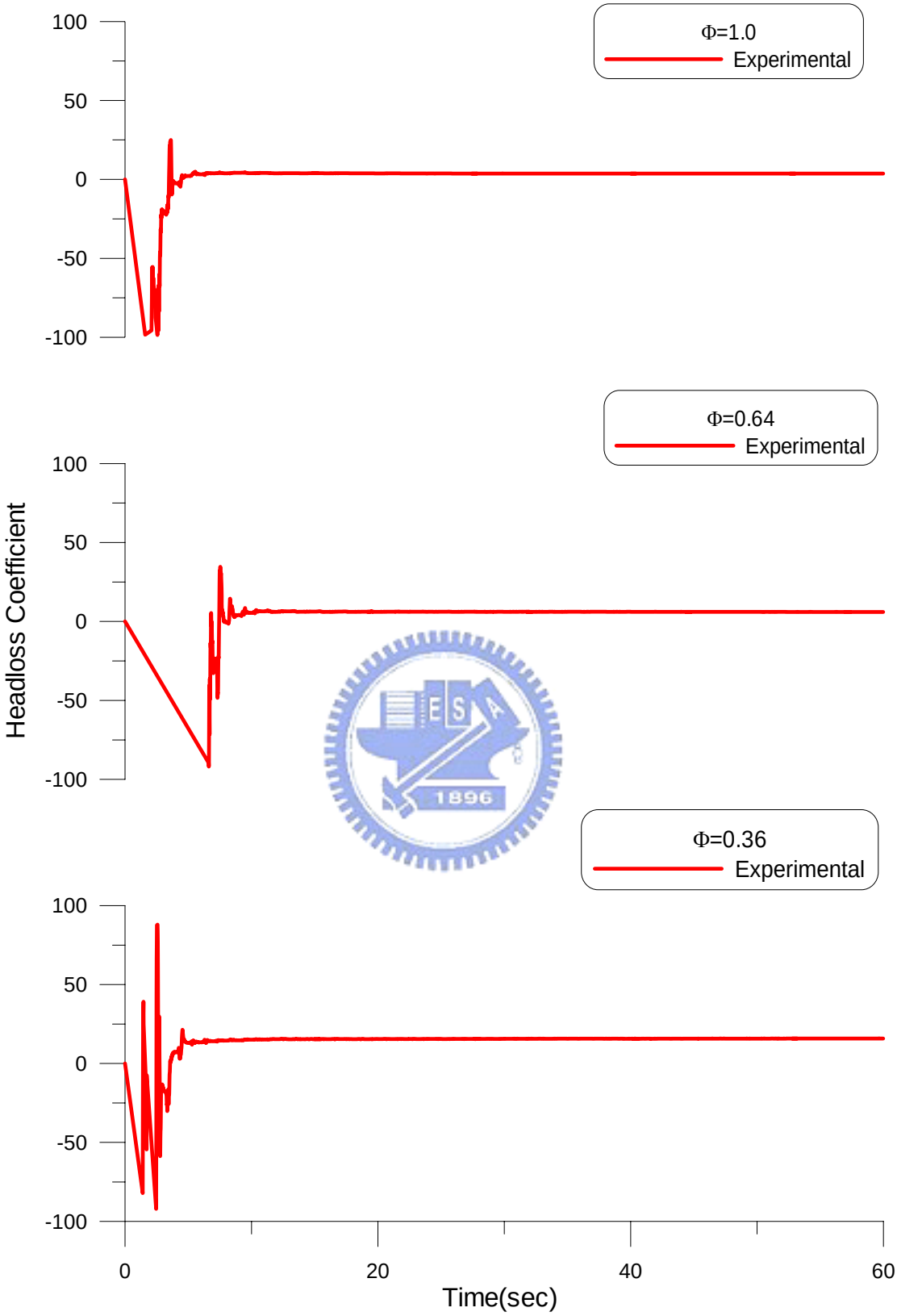

圖 4.24 (e) 等斷面元件測試之水頭損失係數收斂情形(簡諧擾動外力振幅=30mm，擾動頻率比γ_T=1.0)

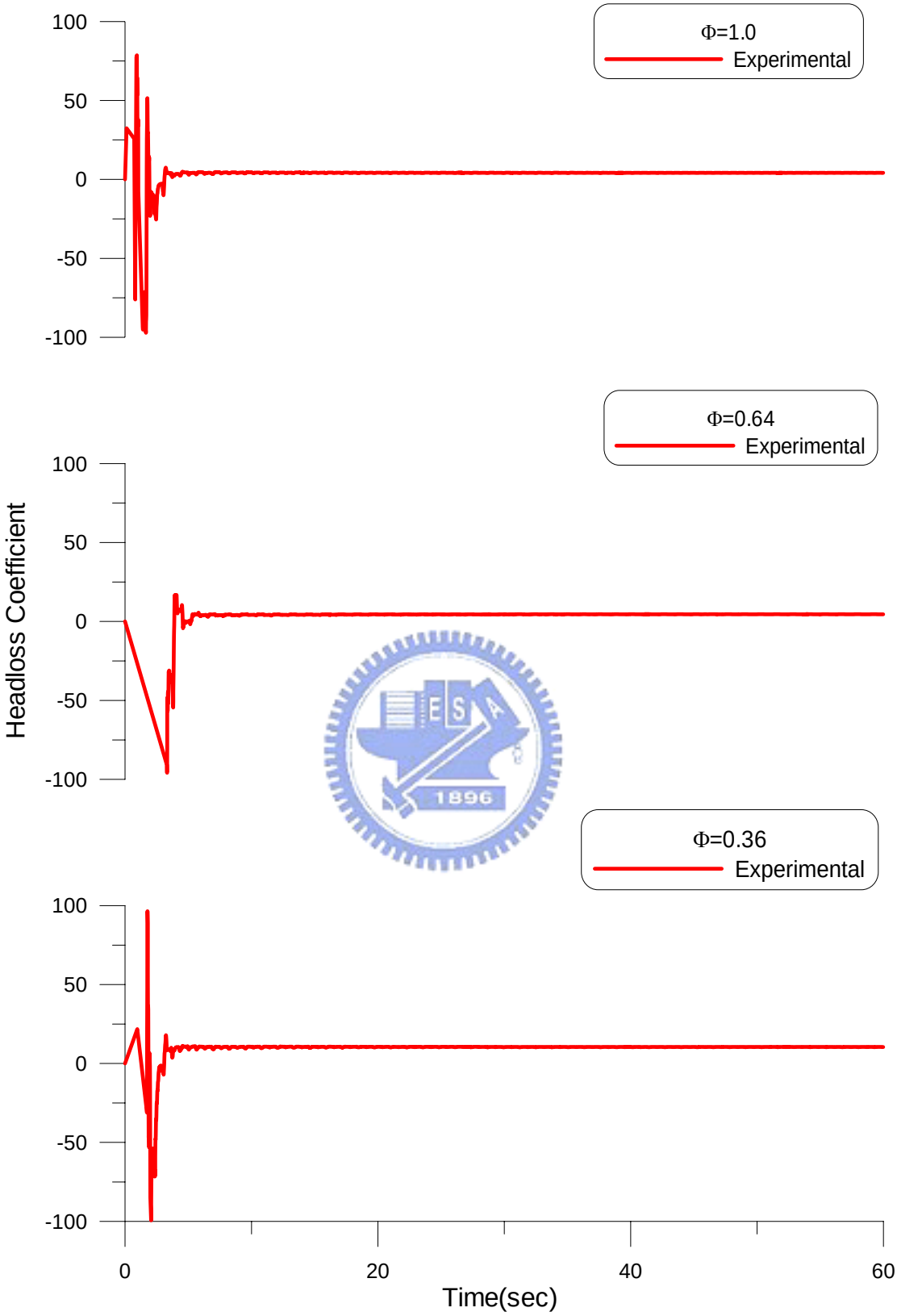

圖 4.24 (f) 等斷面元件測試之水頭損失係數收斂情形(簡諧擾動外力振幅=30mm，擾動頻率比γ_T=1.6)

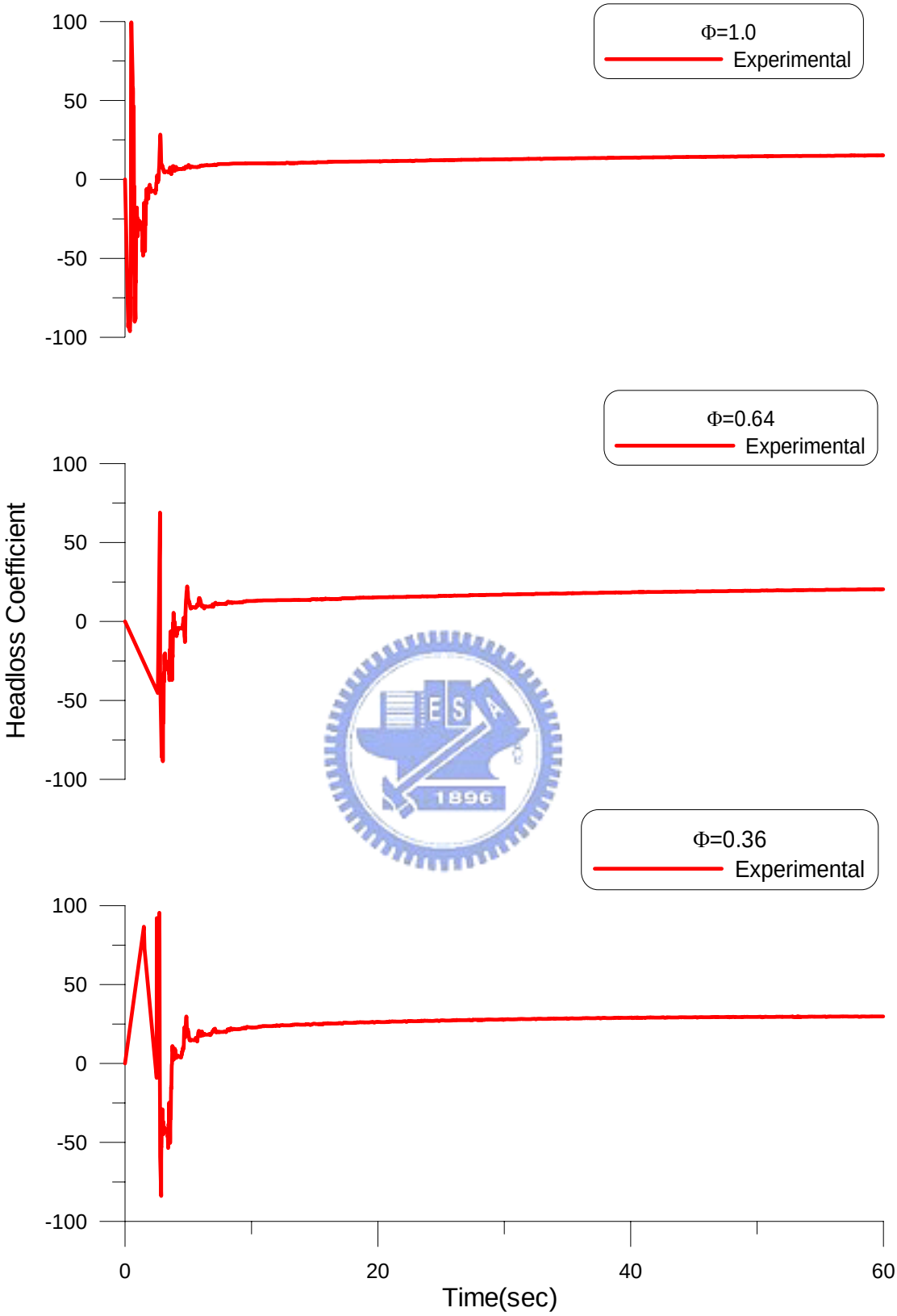

圖 4.24 (g) 等斷面元件測試之水頭損失係數收斂情形(簡諧擾動外力振幅=40mm，擾動頻率比γ_T=0.8)

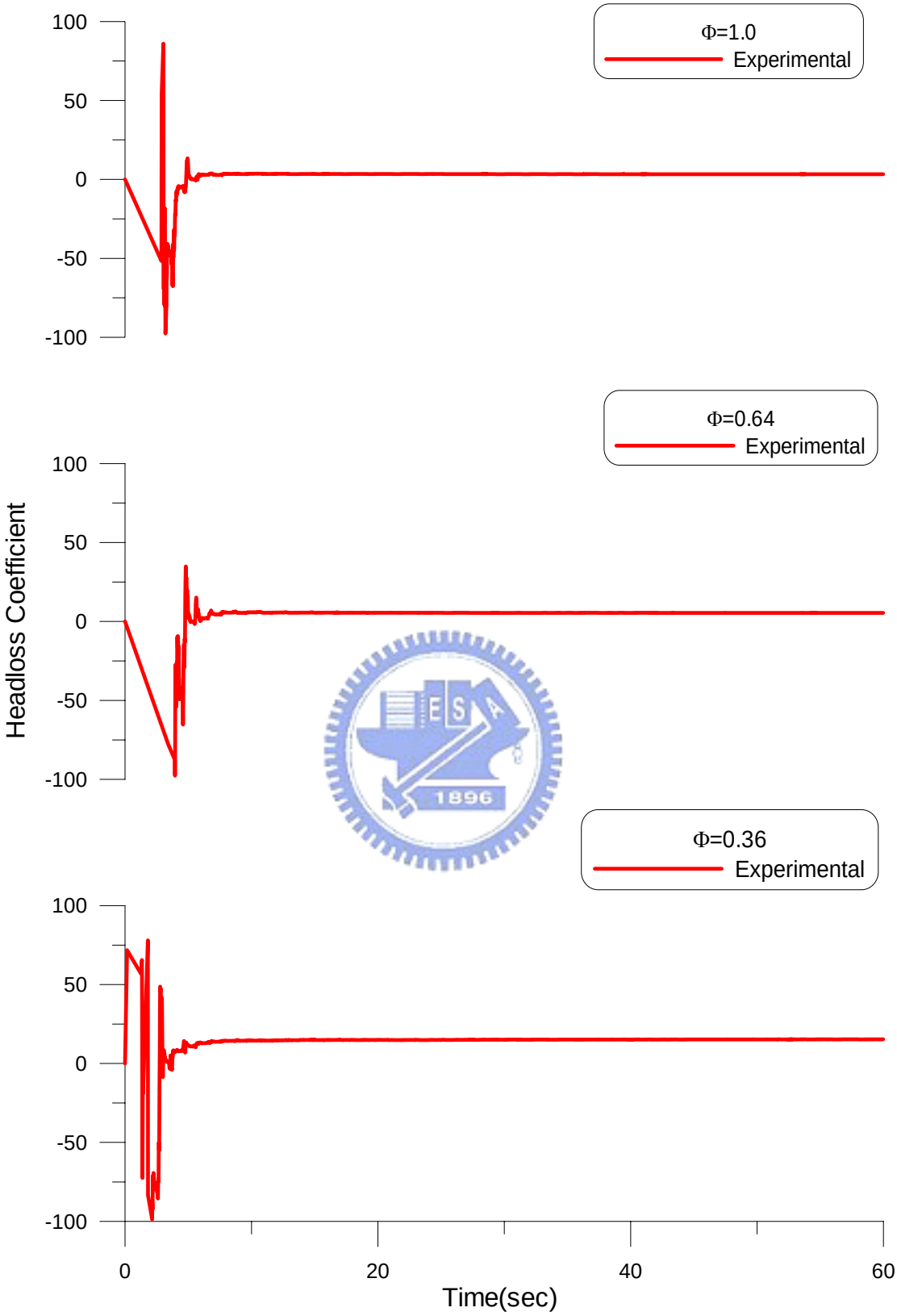

圖 4.24 (h) 等斷面元件測試之水頭損失係數收斂情形(簡諧擾動外力振幅=40mm，擾動頻率比γ_T=1.0)

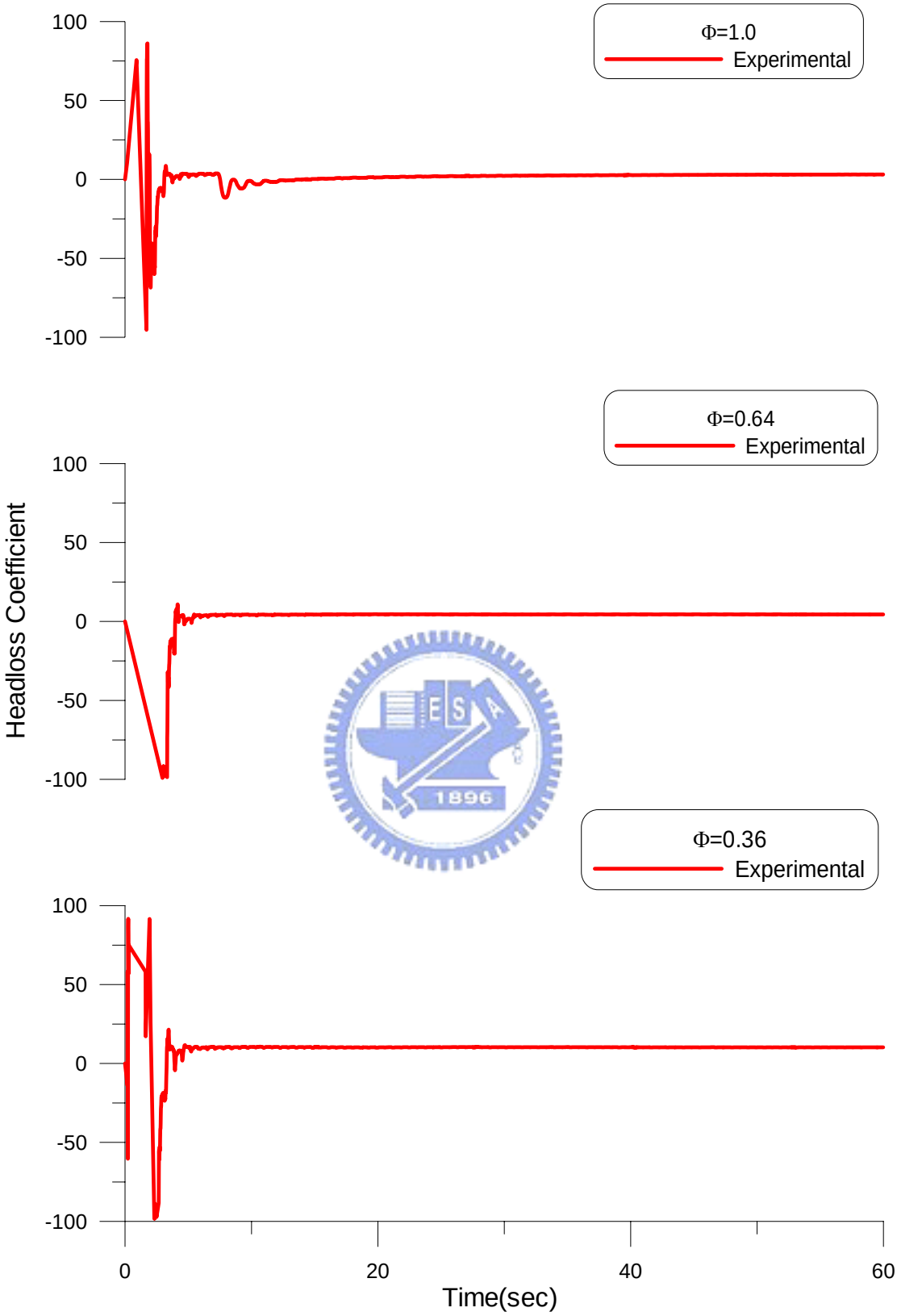

圖 4.24 (i) 等斷面元件測試之水頭損失係數收斂情形(簡諧擾動外力振幅=40mm，擾動頻率比γ_T=1.6)

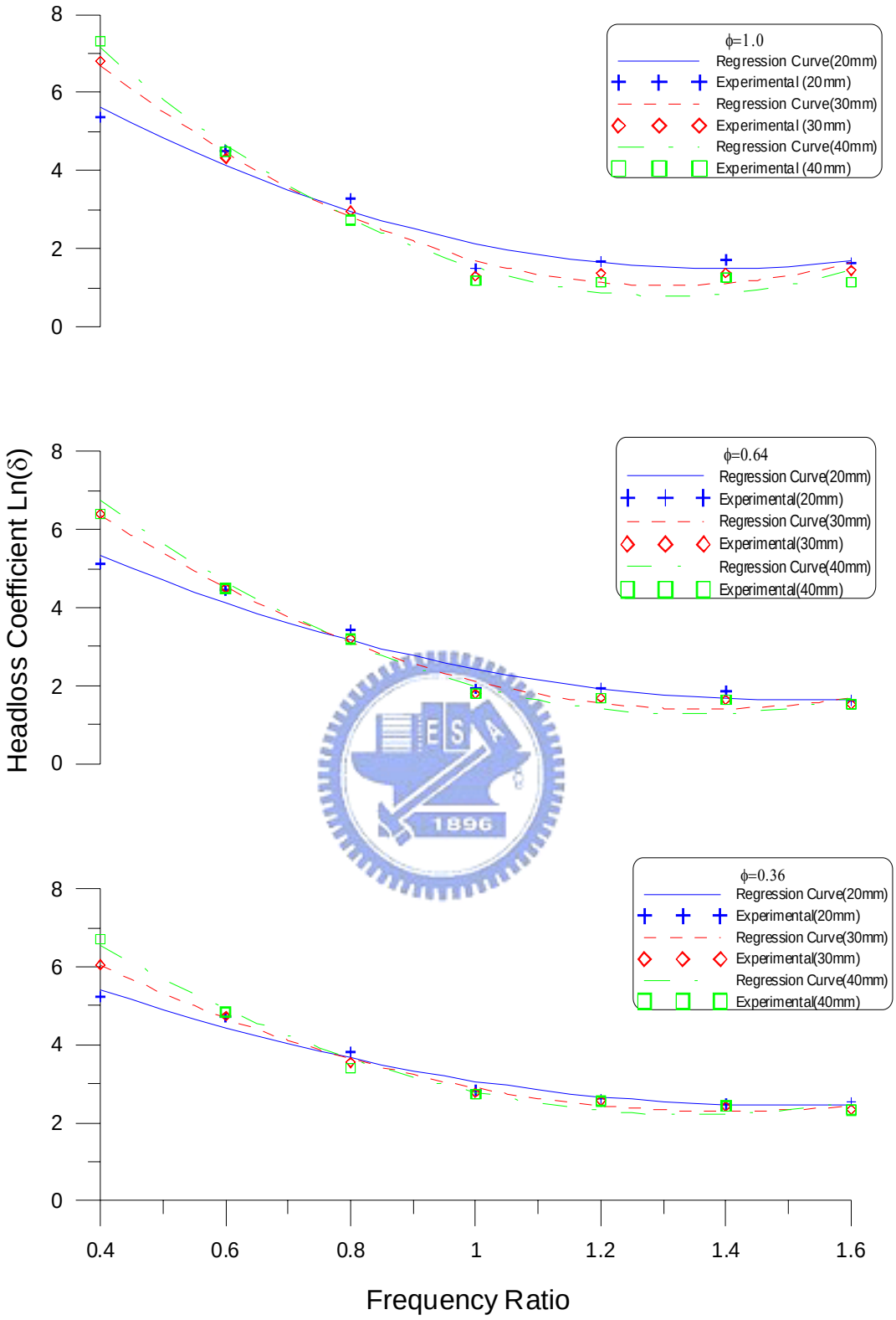

圖 4.25 等斷面 TLCD 元件之面積比、不同外力振幅與擾動頻率比對於水頭損失係數之影響（簡諧擾動外力振幅=20㎜、30㎜、40㎜）

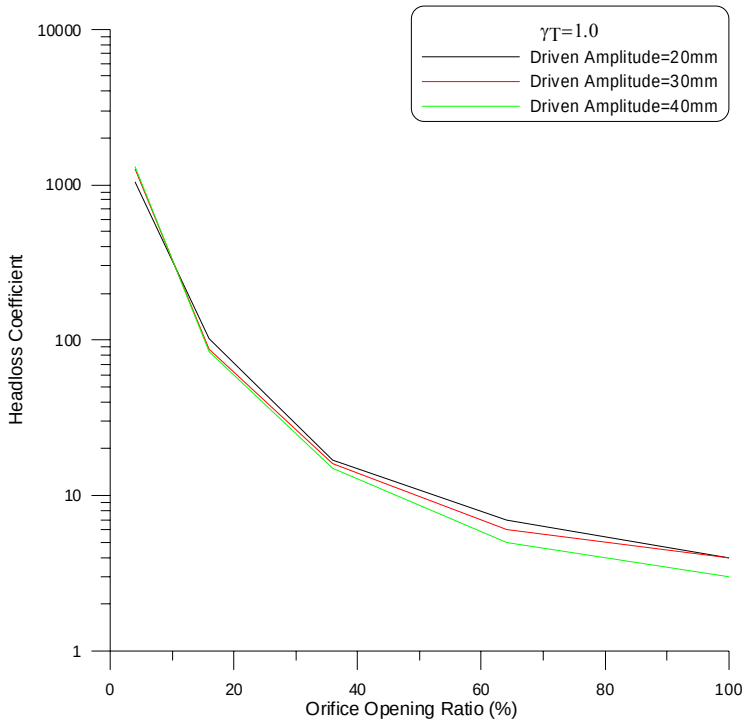

圖 4.26　等斷面 TLCD 元件之不同外力振幅與面積比對於水頭損失係數之影響（簡諧擾動，γ_T=1.0)

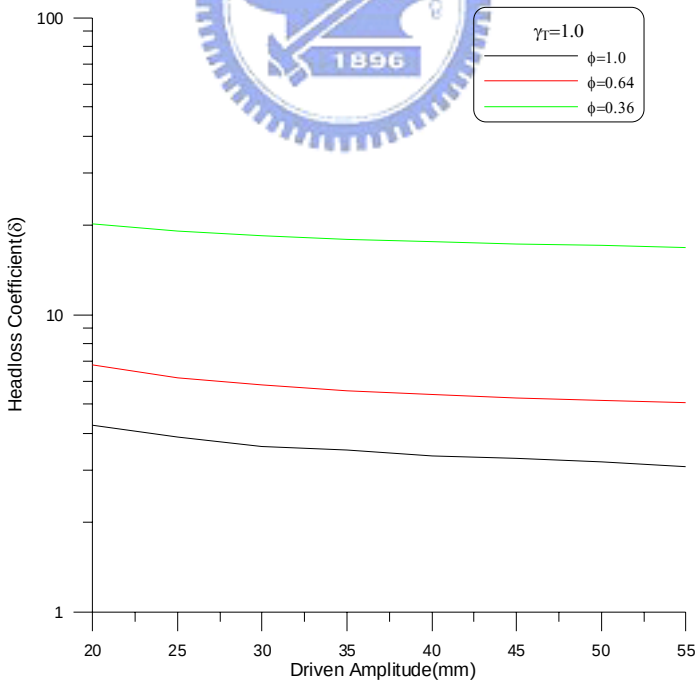

圖 4.27　等斷面 TLCD 元件之面積比與不同共振擾動振幅對於水頭損失係數之影響（簡諧擾動，γ_T=1.0)

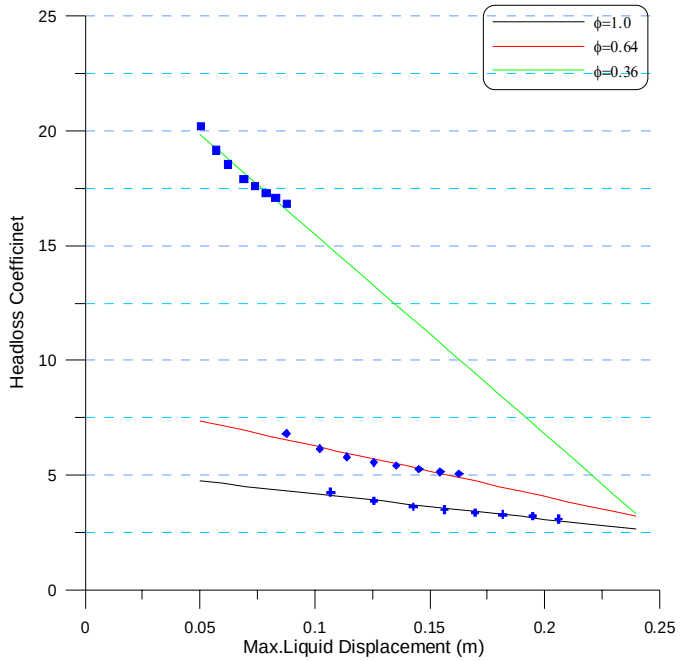

圖 4.28　等斷面 TLCD 元件之面積比與不同共振時水柱激盪位移峰值對於水頭損失係數之影響（簡諧擾動，γ_T=1.0)

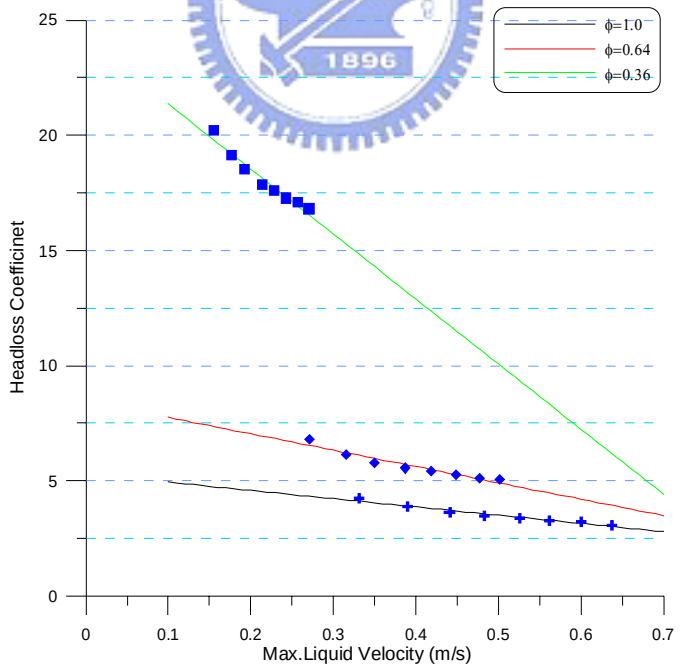

圖 4.29　等斷面 TLCD 元件之面積比與不同共振時水柱激盪速度峰值對於水頭損失係數之影響（簡諧擾動，γ_T=1.0)

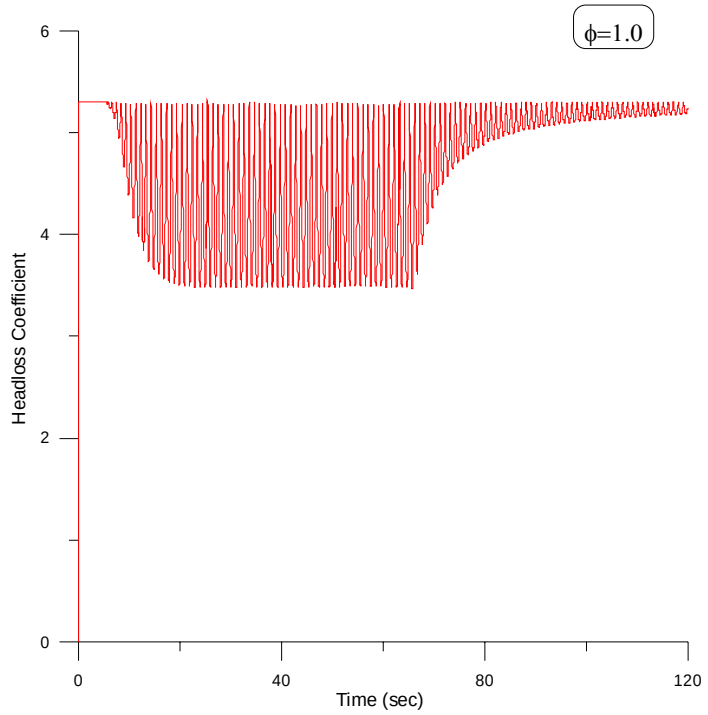

圖 4.30　等斷面 TLCD 元件之水頭損失係數與時間變化情形(簡諧擾動，擾動振幅=40mm, γ_T=1.0，Φ=1.0)

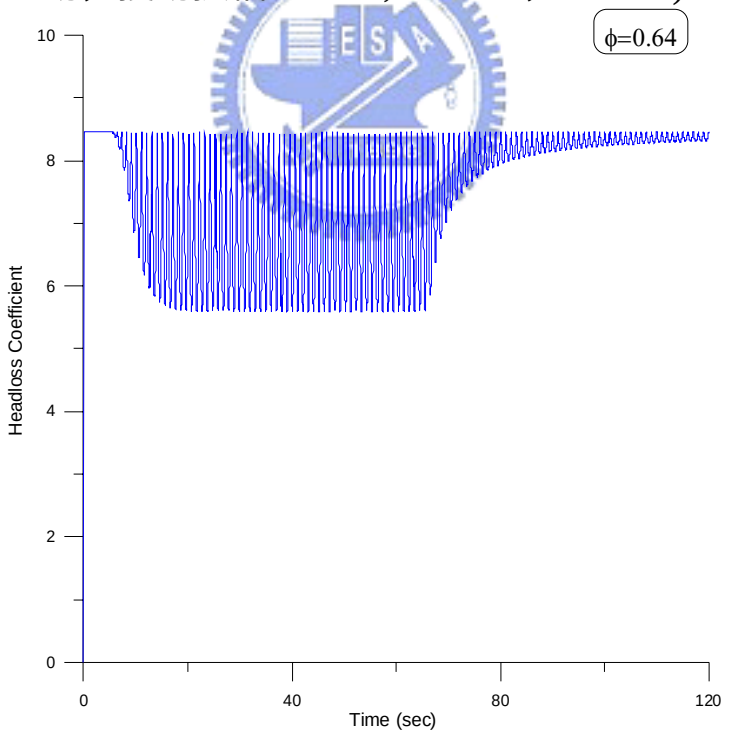

圖 4.31　等斷面 TLCD 元件之水頭損失係數與時間變化情形(簡諧擾動，擾動振幅=40mm, γ_T=1.0，Φ=0.64)

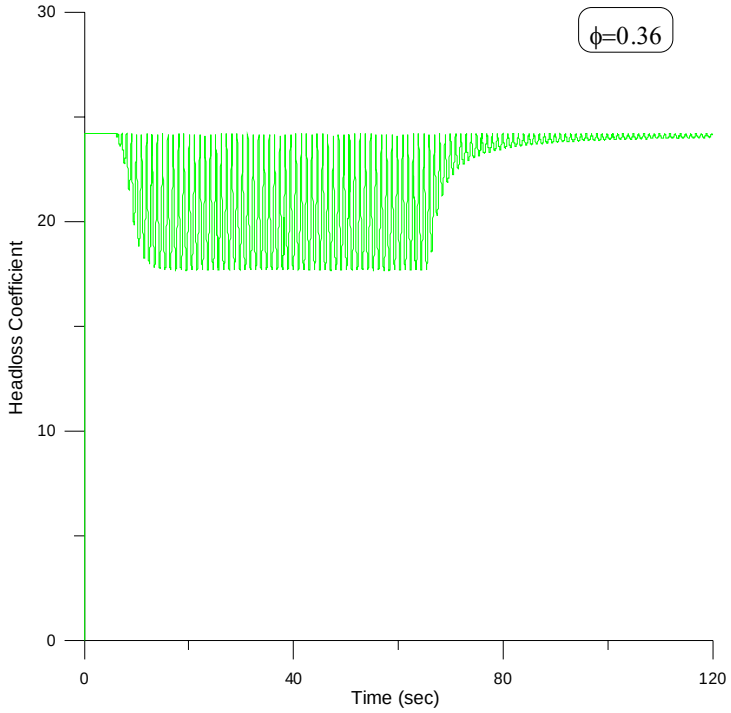

圖 4.32　等斷面 TLCD 元件之水頭損失係數與時間變化情形(簡諧擾動，擾動振幅=40mm, γ_T=1.0，Φ=0.36)

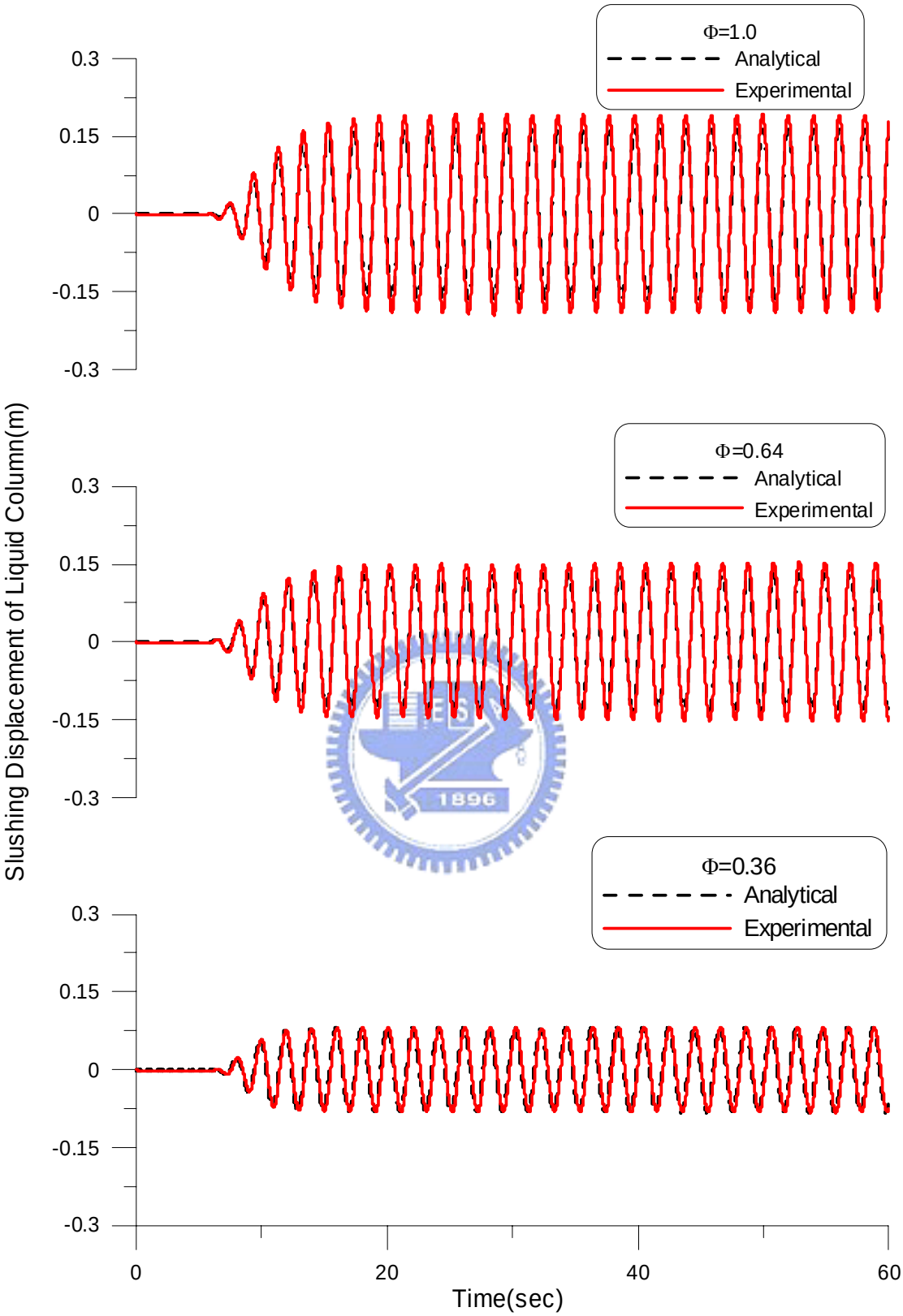

圖 4.33(h) 等斷面 TLCD 元件測試之水柱激盪位移歷時(簡諧擾動外力振幅=40mm，擾動頻率比γ_T=1.0， δ=非定值)

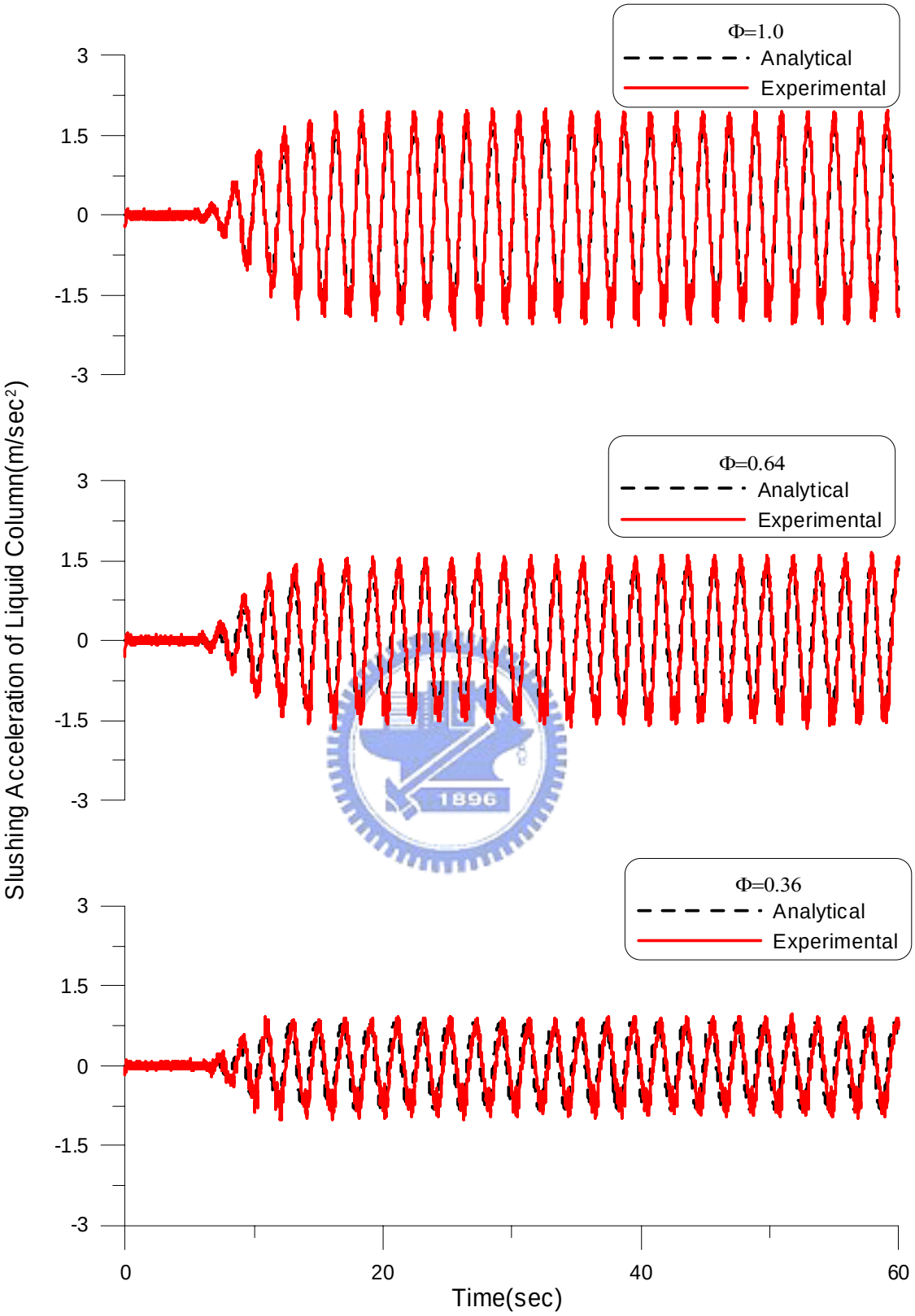

圖 4.33(h) 等斷面 TLCD 元件測試之水柱激盪加速度歷時(簡諧擾動外力振幅=40mm，擾動頻率比γ_T=1.0， δ=非定值)

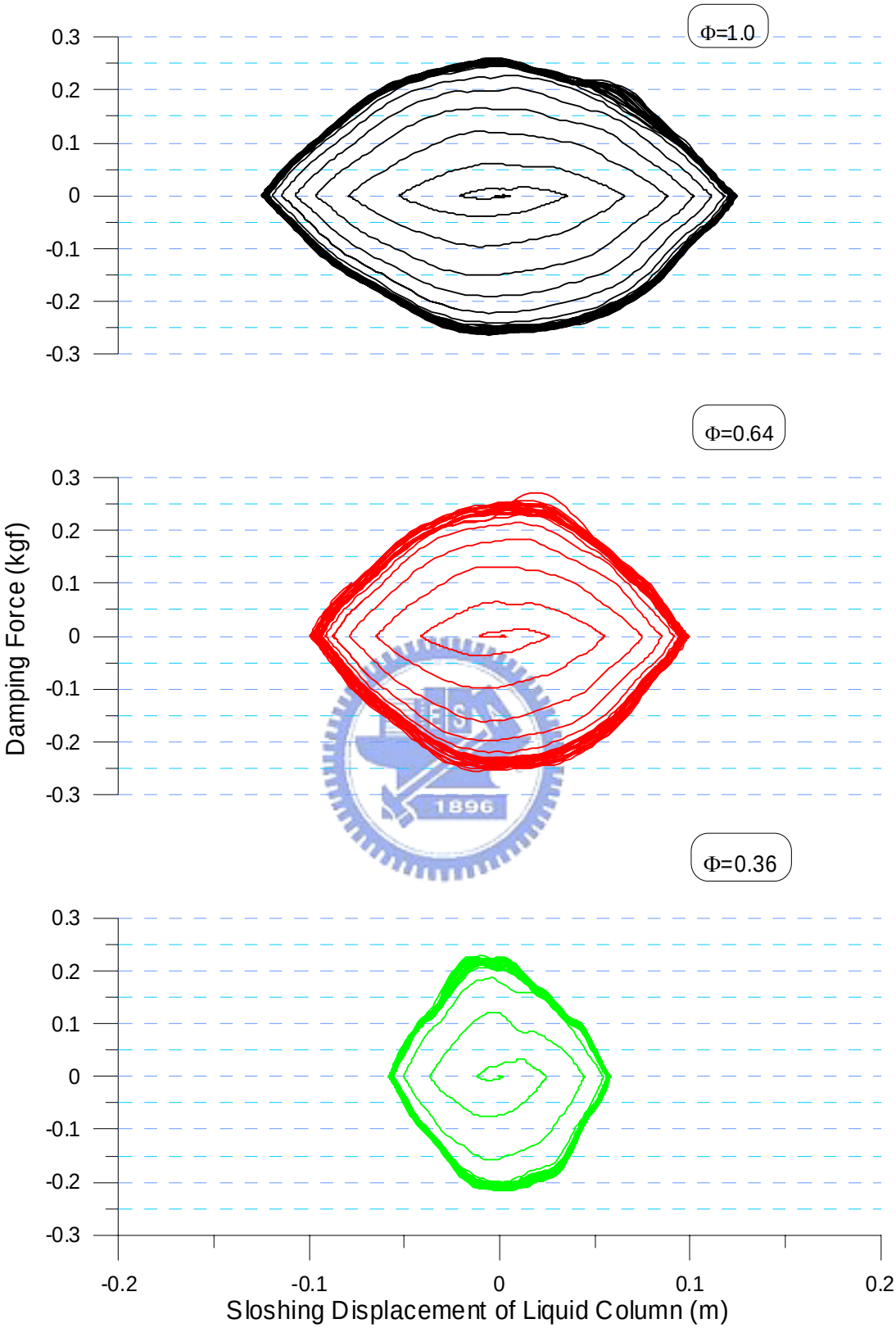

圖 4.34 不同面積比之 TLCD 系統遲滯迴圈(簡諧擾動外力振幅=20mm, 擾動頻率比 γ_T =1.0)

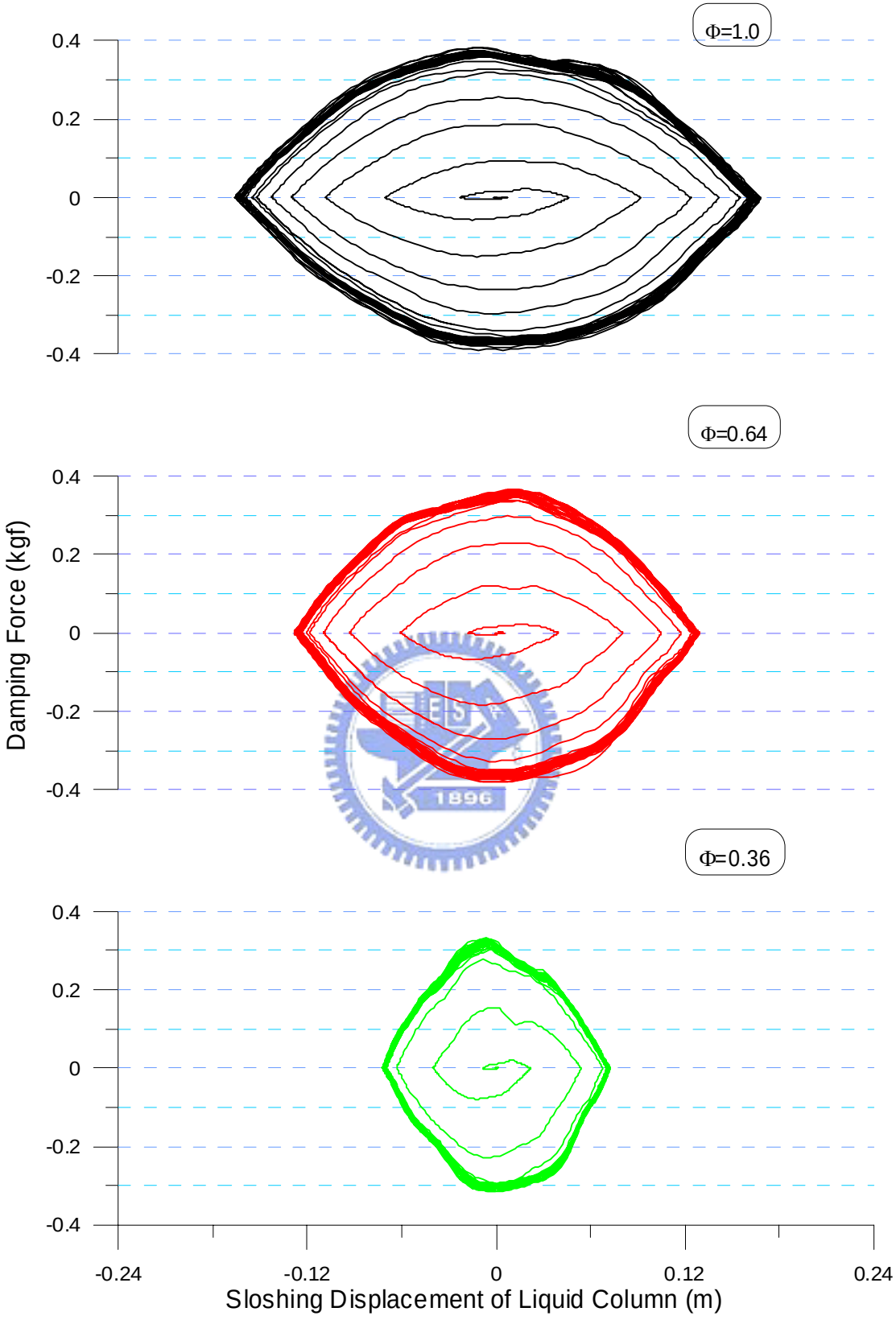

圖 4.35 不同面積比之 TLCD 系統遲滯迴圈(簡諧擾動外力振幅=30mm, 擾動頻率比 γ_T =1.0)

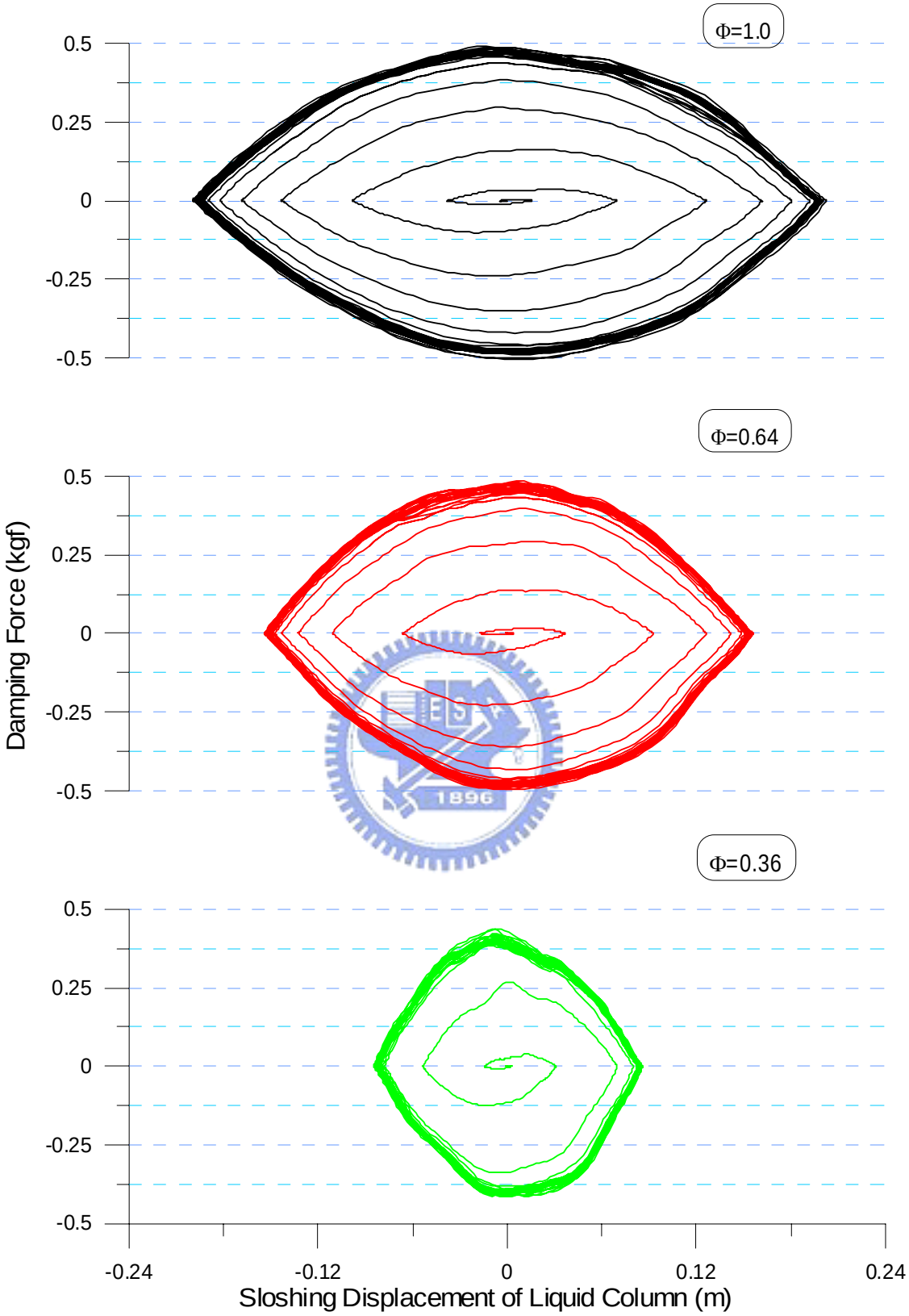

圖 4.36 不同面積比之 TLCD 系統遲滯迴圈(簡諧擾動外力振幅=40mm, 擾動頻率比 γ_T =1.0)

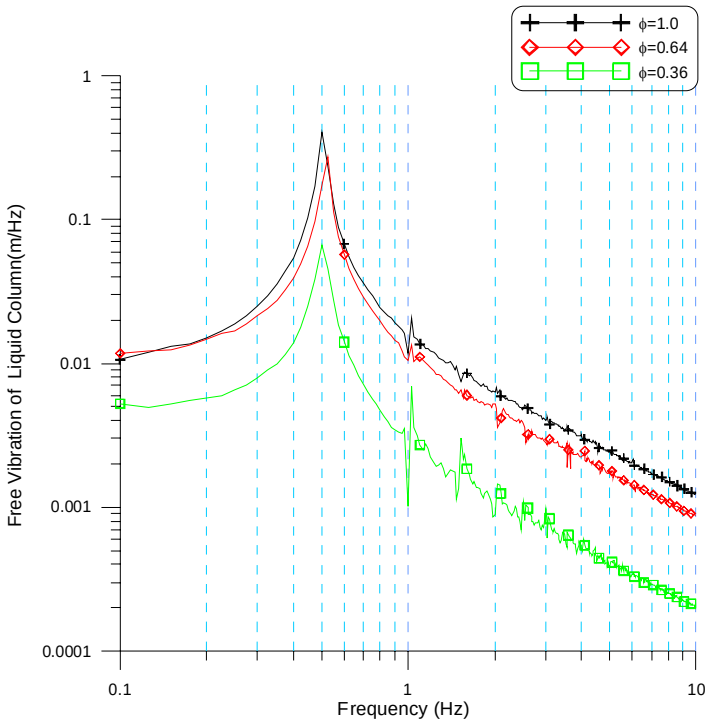

圖 4.37 TLCD 系統於不同面積比之水柱自由激盪振幅富氏頻譜

(簡諧擾動外力振幅=20mm,TLCD 設計頻率=0.5Hz)

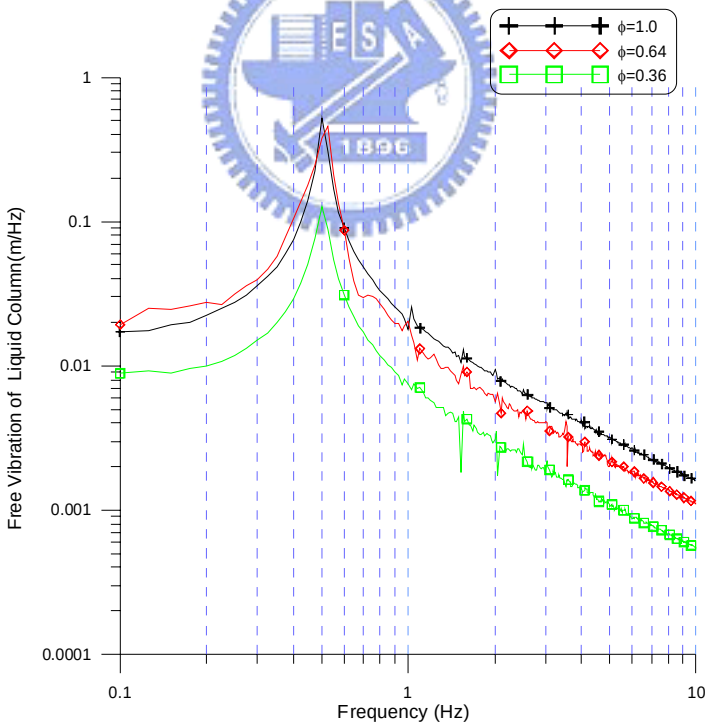

圖 4.38 TLCD 系統於不同面積比之水柱自由激盪振幅富氏頻譜

(簡諧擾動外力振幅=30mm,TLCD 設計頻率=0.5Hz)

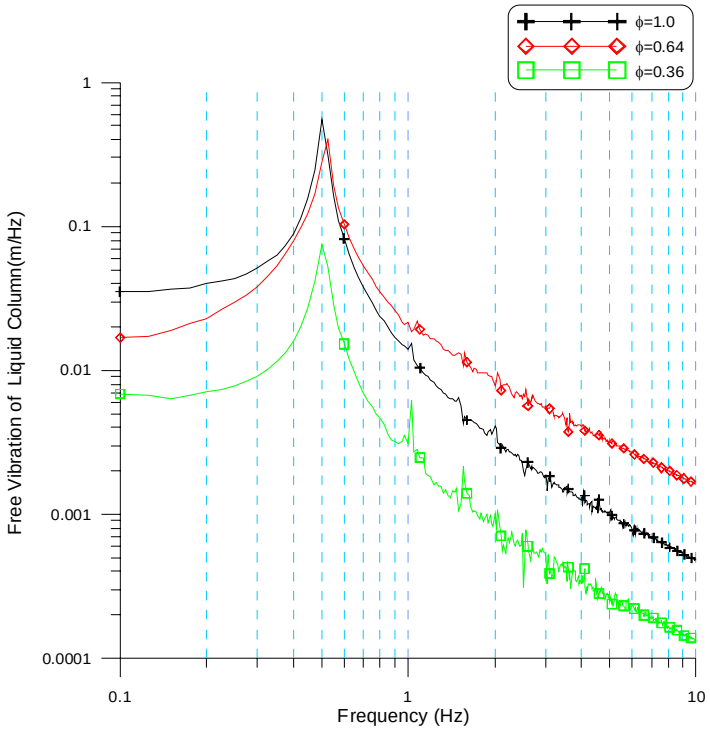

圖 4.39 TLCD 系統於不同面積比之水柱自由激盪振幅富氏頻譜
(簡諧擾動外力振幅=40mm,TLCD 設計頻率=0.5Hz)

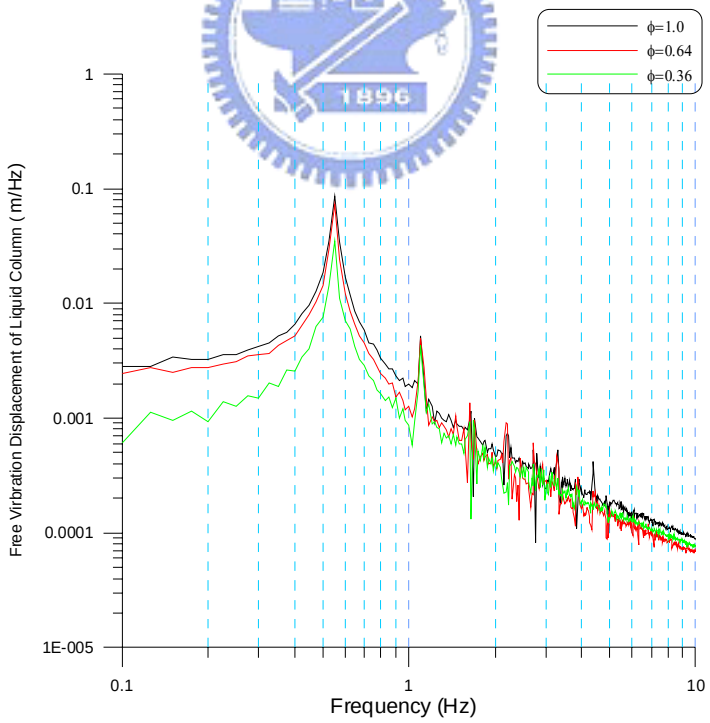

圖 4.40 TLCD 系統於不同面積比之水柱自由激盪振幅富氏頻譜
(簡諧擾動外力振幅=30mm,TLCD 設計頻率=0.54Hz)