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October 8, 2018

Certification of test results on Fectum Global 3-tier ring-lock towers

Interim report—Summary

This summary presents the test results for the instrumented compressive loading of two identical 3-tier Fectum Global Industries ring-lock towers at Talbot Laboratory, University of Illinois at Urbana-Champaign (UIUC), on September 14 and 20, 2018.

Test results

The failure mode was elastic buckling of the verticals in a snake-like pattern from top to bottom. The ledgers, diagonals, screw jacks, and connectors sustained no noticeable damage. The towers were disassembled without difficulty.

Tower no.	Failure load (kips)				Egilura machaniam	
	Tower,	Leg, P			Fanule mechanism	
	4P	Value	Average	Std dev	Component	Mode
1	82.3	20.6	20.2	0.6	Verticals	Elastic buckling
2	78.9	19.7			Verticals	Elastic buckling

Summary of test results

As seen in this summary, the 2 identical Fectum Global towers failed at an average leg load of 20.2 ± 0.6 kips. Applying a safety factor of 4 gives an allowable leg load of 5.05 ± 0.15 kips.

The testing configuration and methods used in this study meet the requirements of the relevant Canadian scaffolding code CSA 269.2-16. Full certification according to this code will be met with the anticipated testing of a third identical tower.

Sincerely yours,

James W. Phillips

James W. Phillips, Ph.D., P.E. Test supervisor

