



SCAFFORM ARABIA
48.3 DESIGN SOLUTION

TITLE:

INTERNAL ACCESS SCAFFOLDING FOR T-6960

SHEET NO:

DRAWING NO:

SA-JUPC-SC-001

PREPARED BY:

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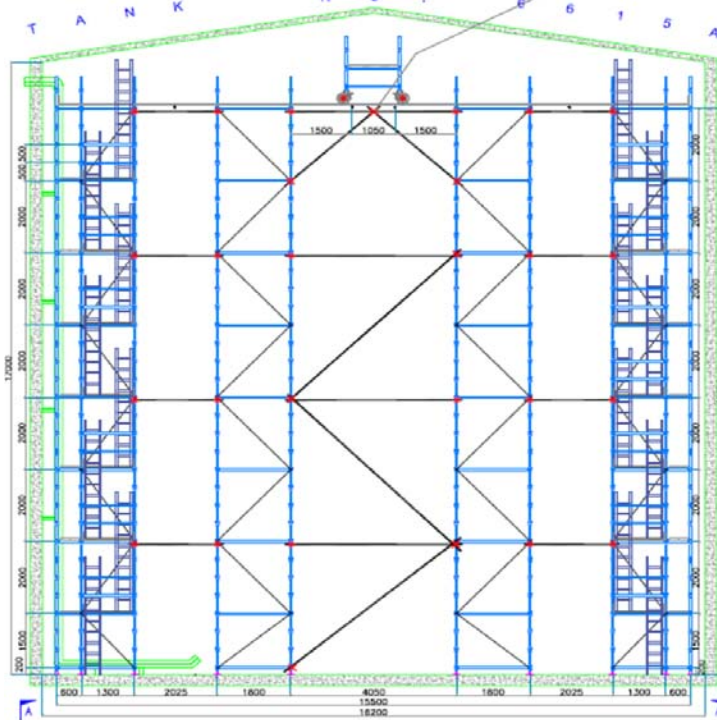
DATE:

05-02-2020

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REV:00

Scaffold Design Calculations



Design Check: Standard (CupLock)

The total load acting in the Standard = Self Weight of Tubes, Fittings, & Boards + Live Load from working Lift above

Self weight of Cuplok Tubes

<u>Tubes</u>	length	Nos.	Total	
Standards	16.0 m	x 1 nos.	x 0.055 kN/m =	0.88 kN
Ledger	1.60 m	x 20 nos.	x 0.04 kN/m =	1.28 kN (Including Guard Rail)
Transoms	1.30 m	x 20 nos.	x 0.04 kN/m =	1.04 kN (Including Guard Rail)
				3.20 kN ----- A

Self weight of Tubes

<u>Tubes</u>	length	Nos.	Total	
Vertical Bracing	2.50 m	÷ x 7 nos.	= 17.50 m	
Plan Bracing	2.50 m	÷ x 8 nos.	= 20.00 m	
			37.50 m	
		x	0.043 kN/m	Weight of scaffold tube per meter
			1.59 kN	

Allowing 5% extra for Tube Overage, Laps & fittings

Total Load of Tubes & fitting = 1.59 kN x 1.050 = **1.67 kN ----- B**

Self weight of Planks on Fully planked levels:

Tributary area per Standard = 1.8 m x 1.3 m = 2.3 m²
 Load of the Planks = Tributary area x Self weight of the Boards x No. of Lifts
 = 2.3 m² x 0.25 kN/m² x 7 nos = **4.10 kN ----- C**

Total Dead Load = 3.20 kN + 1.67 kN + 4.10 kN = 8.97 kN (From A, B & C)

Live Load

Live Load due to Access loading

Tributary working lift area per Standard = 1.80 m x 1.30 m = 2.34 m²
 Access Loading = 1.2 kN/m²
 Total Live Load per Lift = Tributary area x Live Load per m² x No. of working Lifts at a time
 = 2.34 m² x 1.2 kN/m² x 1 nos = **2.81 kN**