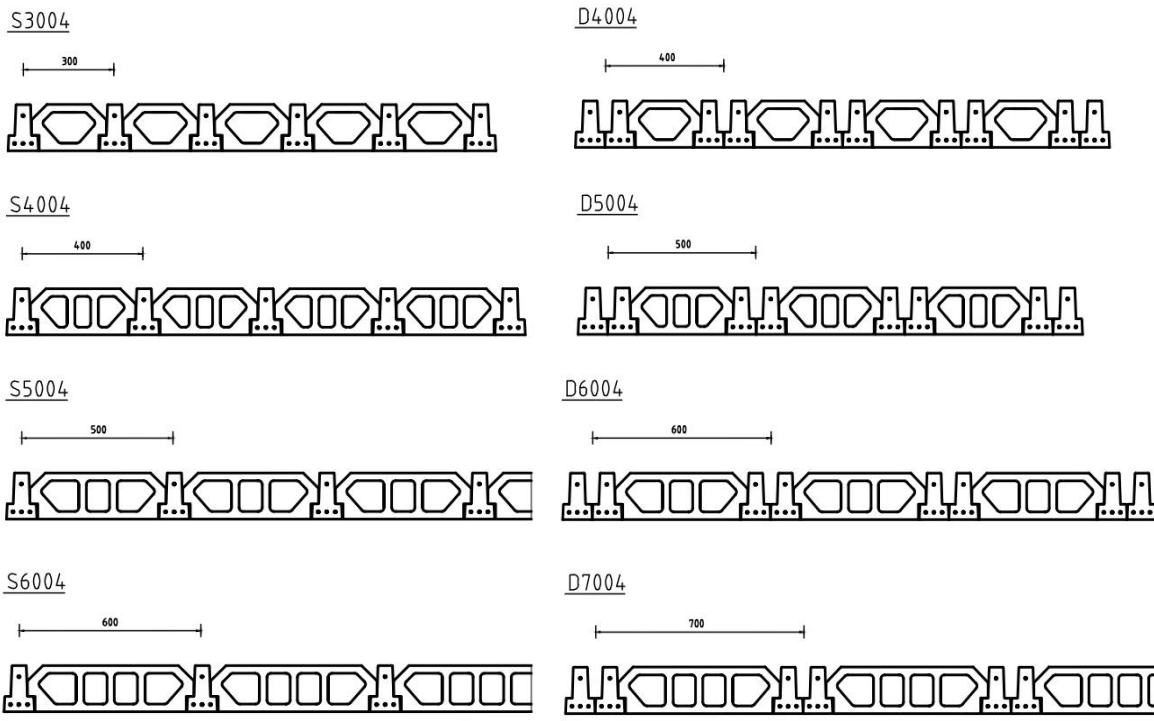


Beam & Block- designed as per eurocode EN 15037

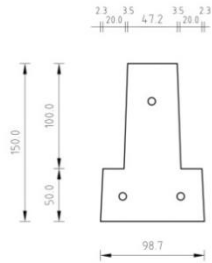


PRESTRESSED BEAM & BLOCK



Strut & Mac
PRESTRESSED CONCRETE

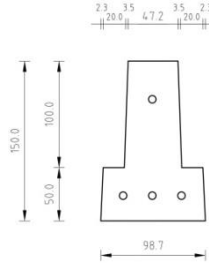
3 WIRE BEAM



Weight of unit = 0.237 kN/m

3 wires: MRserv = 4.484 kN/m
MRult = 6.390 kN/m
Vco = 13.715 kN

4 WIRE BEAM

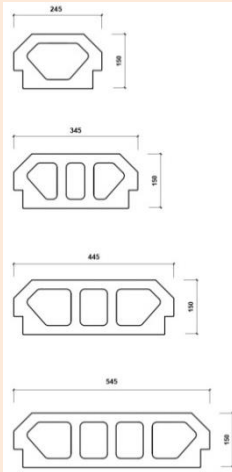


Weight of unit = 0.237 kN/m

4 wires: MRserv = 4.804 kN/m
MRult = 8.616 kN/m
Vco = 14.727 kN



BLOCKS



B300 - 6.5kg
245 X 200 X 150mm

B400 - 9.3kg
345 X 200 X 150mm

B500 - 11.6kg
445 X 200 X 150mm

B600 - 14.0kg
545 X 200 X 150mm

The blocks provide a 3.5kN transverse strength tested to Kenyan and British standards.

Weight of Construction

Average dead weight of floor is 170kg/m²
150mm standard beam weight – 23.7 kg/m.

PRESTRESSED T-BEAM

SECTIONAL PROPERTIES

Depth = 150mm Area, A = 9895mm² Steel strength, fy = 1770 N/mm²
Tendon dia. = 5.0mm Young Es = 200kN/mm² Concrete strength, fcu = 60 N/mm²
Moment of inertia, I = 19.485 x 10⁻⁶ mm⁴ Coefficient for transmission length = Kt = 600

Beam pattern	Load- Span table: Imposed load						
	1.5	2.0	2.5	3.0	3.5	4.0	5.0
S6004	3.88	3.63	3.43	3.26	3.11	2.98	2.75
S5004	4.18	3.93	3.71	3.52	3.36	3.22	2.99
S4004	4.57	4.30	4.07	3.87	3.70	3.54	3.29
S3004	5.10	4.80	4.55	4.33	4.15	3.98	3.70
D7004	4.87	4.60	4.36	4.16	3.98	3.82	3.56
D6004	5.25	4.96	4.70	4.48	4.29	4.12	3.83
D5004	5.71	5.38	5.11	4.87	4.67	4.48	4.17
D4004	6.28	5.93	5.63	5.37	5.14	4.94	4.60

Strut & Mac Engineering Limited
Simba rd, off Namanga rd, Athi river
info@strutmac.co.ke
+254 718 791 604

