OKA-PILE

Prestressed Concrete Piles

PILE

OKA CONCRETE INDUSTRIES SDN. BHD.

Prestressing wires before concreting of OKA square piles.

OKA Readymixed Concrete plant is used to produce quality concrete for the production of prestressed square piles.

OKA-piles are manufactured in accordance to BS 8110 and BS 8004. They are manufactured to high grade *125mm x 125mm and 150mm x 150mm prestressed concrete square piles most suitable for the changing trend in building and civil engineering industries.

Having a great demand for quality concrete piles towards light engineering structures, it is most suitable for replacing tropical hardwood timber piles (Bakau piles).

It is also more economical as it is proven to achieve higher strength to weight ratio compared to Reinforced concrete piles in material, handling and driving cost.

* piles of other sizes can be made upon request.

APPLICATIONS

- **L**ow and medium rise buildings.
- **P**edestrian and other short span bridges.
- **F**actories.
- **R**etaining walls.
- **L**arge drains and culverts.
- **R**oad and bridge embankments.
- **T**emporary structures.

Fully computerised batching systems are installed and applied in OKA Readymixed Concrete plant to ensure accurate batching and concrete of superior quality.

GENERAL SPECIFICATIONS

1. PRESTRESSING
Longitudinal wires are stressed to between 70% and 80% of its characteristic breaking stress. Average loss of prestress is 18%.

2. CHARACTERISTIC STRENGTH for concrete is 60 N/mm ^{2}.

3. BREAKING STRESS of prestressing wires is 1770 N/mm ^{2}.

4. ALLOWABLE AXIAL WORKING LOAD
Normal conditions for actual load are based on soil conditions and should be determined by load test. The normal allowable axial working load recommended represents the structural capacity of the piles.

5. PILE JOINT
Piles comes with end plate jointings and weldings are required to effect the piles jointing.

6. LIFTING
OKA-piles are provided with 2 lifting hooks incorporated in the pile at 0.2 times of the pile length from each end. This ensures minimum lifting stress.

■ *OKA-piles being used at site.*

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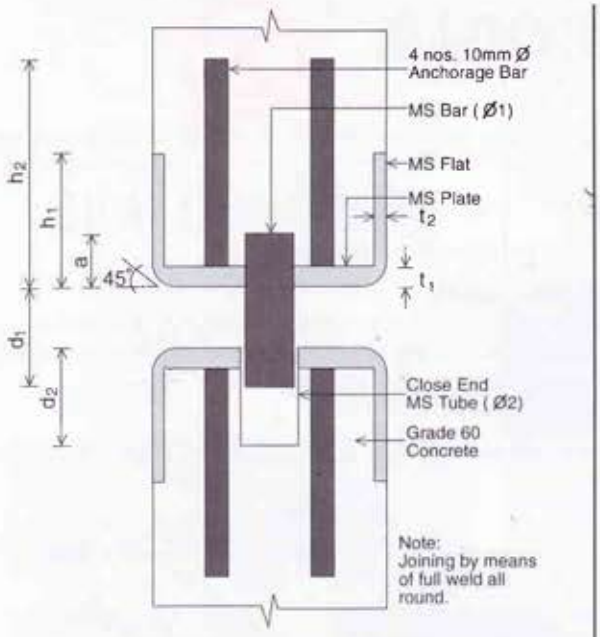
PILE SPECIFICATIONS

Norminal Size *	(mm)	125 x 125	150 x 150
Standard Length	(m)	6.0 & 3.0	6.0 & 3.0
Weight	(kg/m)	39	57
Sectional Area	(mm ^{2})	15625	22500
Concrete Characteristic Strength	(N/mm ^{2})	60	60
Diameter of Prestressing Wires	(mm)	4.0 (4 nos)	5.0 (4 nos)
Diameter of Links	(mm)	4.0	4.0
Prestress After Losses	(N/mm ^{2})	3.5	4.9
Allowable Axial Working Load	(Tonnes)	22	32

MATERIALS SPECIFICATIONS

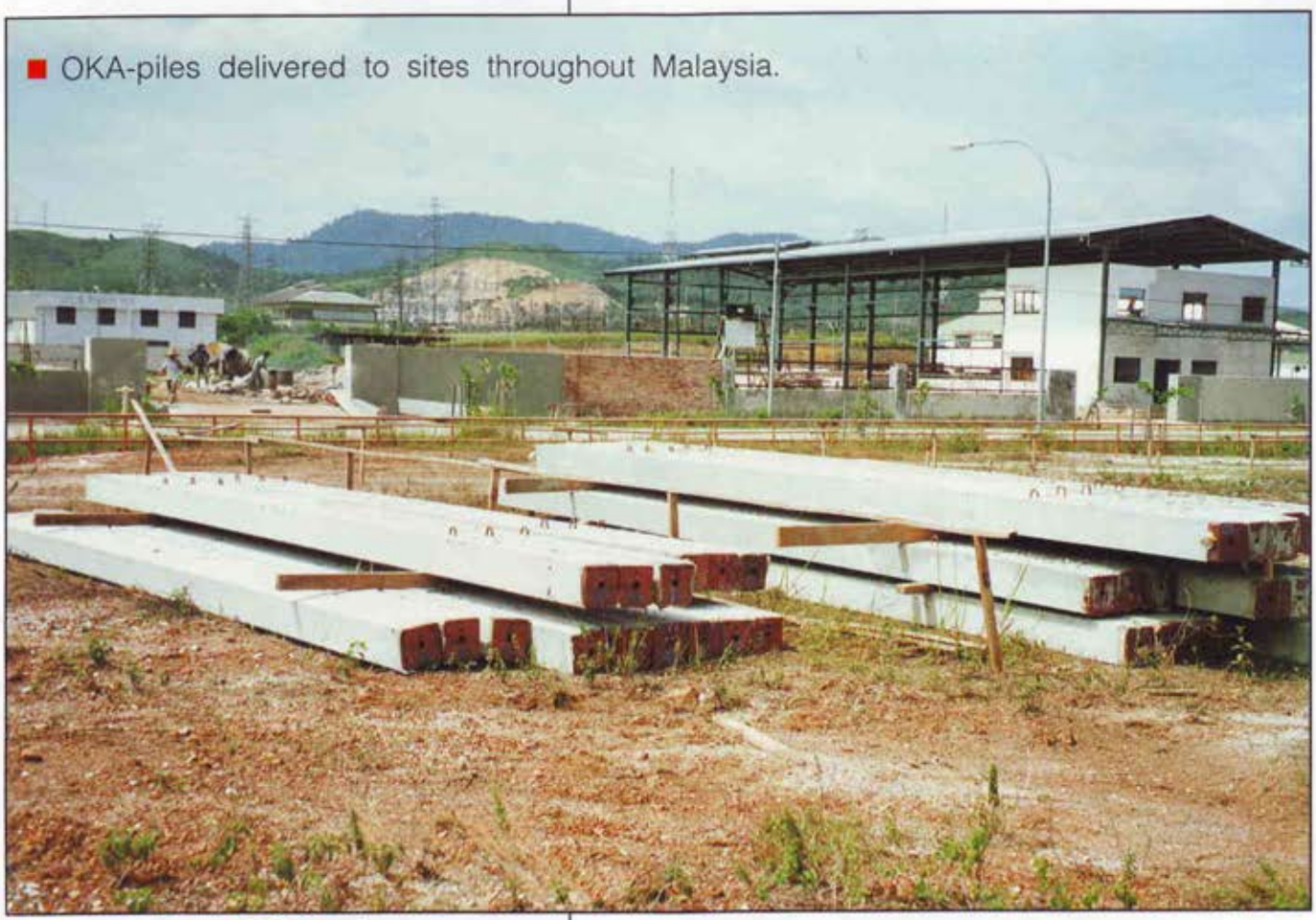
Prestressing Wire	BS 5896	Pretensioned Logitudinal Steel
Cement	BS 12	Ordinary Portland Cement
Aggregates	BS 882	Washed Mining Sand / 20mm Granite
Admixture	BS 5075	Super-Plasticizer
Links	BS 4482	Spiral 4mm Dia. Hard Drawn Wires
End Plates	BS 4360	Mild Steel Plates (Grade 43 A)



JOINT SPECIFICATIONS

		125mm x 125mm	150mm x 150mm
a	(mm)	15	15
d_1	(mm)	50	50
d_2	(mm)	55	55
$Ø_1$	(mm)	20	20
$Ø_2$	(mm)	25	25
h_1	(mm)	50	50
h_2	(mm)	500	500
t_1	(mm)	6	6
t_2	(mm)	2	2

■ OKA-piles delivered to sites throughout Malaysia.



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PILE CAPACITY

Allowable pile working load :

$$W = 0.25 f_{cu} - f_p) A_c$$

where,

f_{cu} = Concrete characteristic strength
f_p = Prestress after losses
A_c = X-Sectional area of pile

■ As a result of product improvements, OKA Reserves the right to alter specifications without notice. Please check before placement of order.