PRE-STRESSING & POST TENSIONING SYSTEMS

SIS INTEGRATED Sdn. Bhd.

POST TENSIONED MONO STRAND SYSTEM

Our Company provides extensive services for the construction of post tensioned slab systems covering the following scopes:

- Project Feasibility study for post tension application Preliminary design & cost estimation Final design & shop/ working drawings
- Complete supply & installation of post tensioning systems
- Complete services for formwork set up, reinforcement fixing, concreting & post tensioning
- installation of slab structures







Advantages of PTSS

The maind advantages of post tensioned slab over conventional reinforced concrete slab,

May be summarised as follows:

- Increase clear spans
- Thinner slabs
- Lighter structures
- Reduced cracking & deflections
- Reduced storey height
- Rapid construction
- Better water tightness

These advantages can result in significant savings in overall costs. There are also some situations where the hieght of the building is limited, in which the reduced storey height has allowed additional storeys to be constructed within the building envelope.

Applications

The use of post tensioned slab systems has been consistently growing in the recent years.

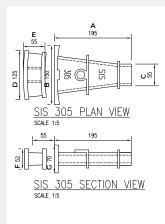
Typical applications have been:

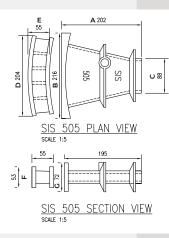
- ° Private residentioal housing
- Offices
- Car parks
- Shopping centres
- Hospitals
- Hotels & apartments
- Industrial buildings
- Transverse prestressing of bridge deck slabs



SIS PRE-STRESSED ANCHORAGE SYSTEM

SIS Prestressed Anchorage System is normally adopted for bonded system. The strands are individually gripped by wedges inside the anchor block and transmit the tendon forces to the flat anchor plate casting unit. The strands are stressed individually by means of a mono strand jack. The strands are contained in the flat duct which is made of corrugated galvanized metal. To ensure corrosion protection and to give adequate bond strength, the tendons are filled with suitable cement grout mix after complete stressing of the tendon.



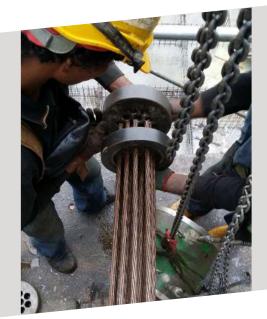




| Strand Type | Anchor Head Type | Anchor Plate Type | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Duct Size ID mm |
|----------------------------|---------------------|----------------------|---------|---------|---------|---------|---------|---------|---------|--------------------|
| 0.5 in (12.7mm/ 12.9mm) | SIS-305 | SIS-305/206 | 195 | 150 | 55 | 125 | 55 | 52 | 70 | 20x50 |
| | SIS-505 | SIS-505/406 | 202 | 216 | 88 | 204 | 55 | 53 | 72 | 20x70 |
| 0.6 in (15.2mm/ 15.9mm) | SIS-206 | SIS-305/206 | 195 | 150 | 55 | 125 | 55 | 52 | 70 | 20x60 |
| | SIS-306 | SIS-405/306 | 202 | 216 | 88 | 204 | 55 | 53 | 72 | 20X70 |
| | SIS-406 | SIS-505/406 | 202 | 216 | 88 | 204 | 55 | 53 | 72 | 20x70 |

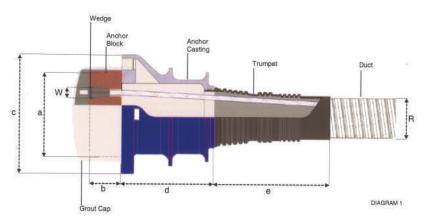
Post Tensioned Mono Strand System

POSTERNSTONED NULTISTRANDISSTEM









| MULTIS | RAND |) SYSTEM | 1205 /706 | 1805 /1206 | 1506 | 1906 | 2206 | 2706 | 3106 |
|-------------------|------|-----------|--------------|---------------|------|------|------|------|------|
| Anchor | а | Diameter | 125 | 170 | 190 | 200 | 230 | 250 | 260 |
| Block | b | Length | 45 | 55 | 60 | 65 | 70 | 85 | 90 |
| Anchor Casting | с | Diameter | 180 | 220 | 250 | 270 | 300 | 330 | 336 |
| | d | Length | 160 | 190 | 220 | 220 | 240 | 275 | 310 |
| Trumpet | е | Length | 65 | 180 | 210 | 225 | 275 | 275 | 275 |
| Duct | R | InternalØ | 55 | 75 | 80 | 90 | 100 | 110 | 115 |
| Wedges | W | Diameter | 28 | 28 | 28 | 28 | 28 | 28 | 28 |

Refer to DIAGRAM 1. Dimension in millimeters unless otherwise stated



WE BUILD A SUSTAINABLE FUTURE











Contact us

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