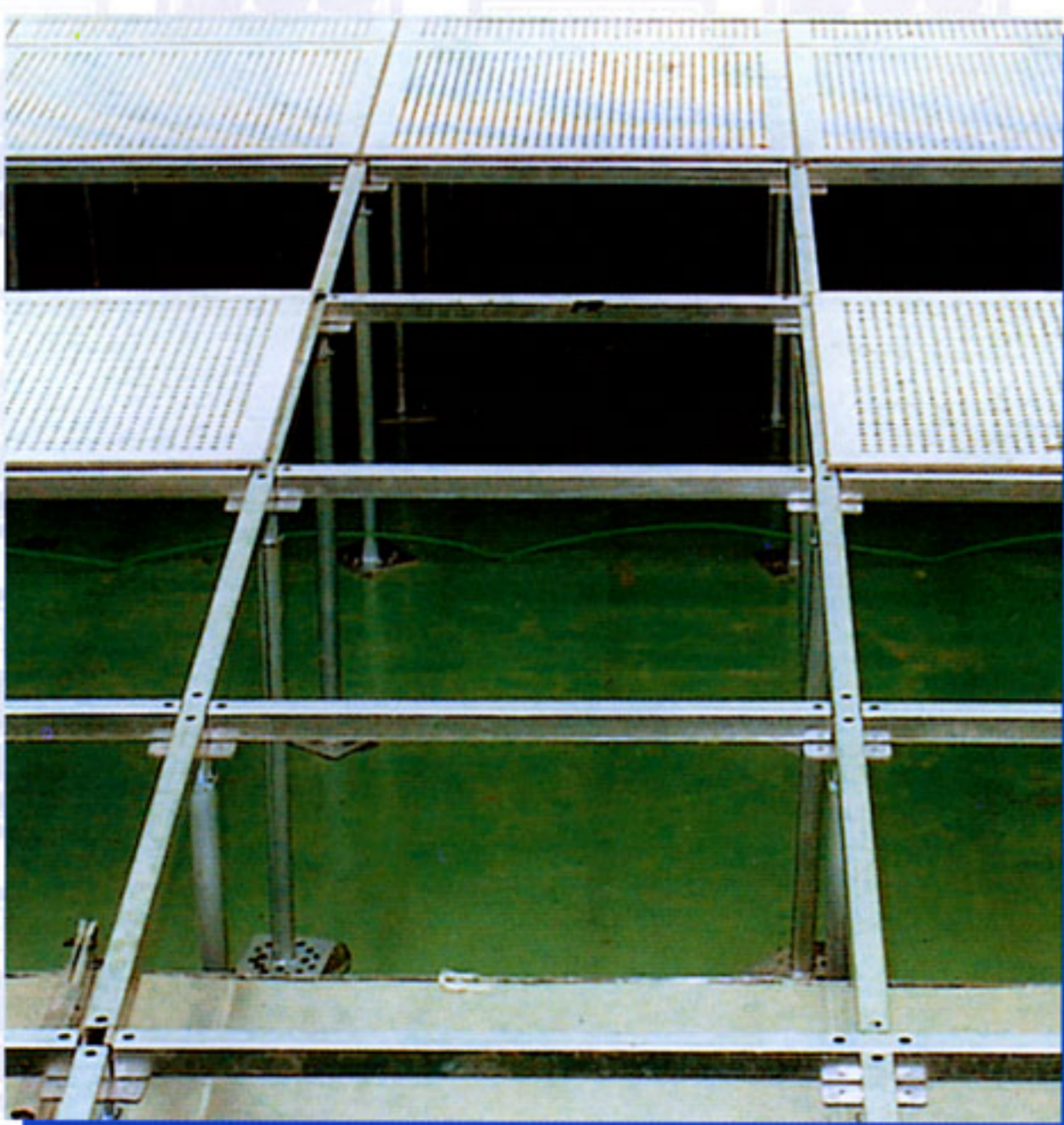


# BES MK30 SERIES RIGID GRID SYSTEM



## TECHNICAL DATA IN BRIEF

Description	Model: BES MK30-12	Model: BES MK30-10	Model: BES MK30-8
Concentrated Load	6.0 kN (1350 lbf)	4.5 kN (1000 lbf)	3.0 kN (670 lbf)
Uniform Distributed Load	16.0 kN per M <sup>2</sup> (330 lbf)	12.0 kN per M <sup>2</sup> (250 lbf)	8.0 kN per M <sup>2</sup> (165 lbf)
Impact Load	0.40 kN (90 lbf)	0.40 kN (90 lbf)	0.40 kN (90 lbf)
Rolling Load 10,000 Passes	4.4 kN (900 lbf)	3.3 kN (740 lbf)	2.7 kN (600 lbf)
Fire Protection	Non-combustible		
General Construction	Die form steel shell, epoxy painted and infill with cementitious compound.		
Finish Floor Height	Min 150mm	Max 1000mm	

# BES MK30 SERIES RIGID GRID SYSTEM

## Specifications

### 1. THE SYSTEM IN GENERAL

1.1 The system shall be BES MK30\* SERIES Rigid Grid Systems being manufactured by Building Equipment Services Sdn Bhd consisting of modular square panels, stringers and pedestals. The Rigid Grid or the framework shall be formed by galvanized stringers and pedestal assemblies carefully bolted at 600mm centres. Modular square panels shall then be supported equally along the edges of the Rigid Grid. Bolting down the modular square panel to the Rigid Grid is not recommended.

1.2 The main components of the system shall be as follows:-  
a. Modular square panel 600mm x 600mm x 33mm nominal thick and comply to the loading requirement as specified.  
b. Galvanised steel stringers 1800mm and 600mm nominal lengths.  
c. Pedestal assemblies.

1.3 The weight of the modular square panel shall not exceed 16kg per piece and therefore shall be easily removed by one person with a lifting device. These modular square panels shall be interchangeable in all respect unless being cut for a particular position or purpose.

1.4 The stringers forming the Rigid Grid shall be bolted with M6 thread-size screws in electro-zinc plated finish, to the pedestal assemblies. The stringers shall be 1800mm and 600mm nominal lengths and the former shall span 3 panels width to achieve better strength and stability.

1.5 The system when completed shall be sturdy, rigid and free of rattles, squeaks and other vibrations. The floor shall achieve to an overall flatness of within 1.5mm over any area of 5M<sup>2</sup> and within 6.0mm over any size of the enclosed space. It shall also be capable of accepting a concentrated load as specified over an area of 6.25cm square.

1.6 The Rigid Grid System shall be constructed to a specified height with 30mm plus minus vertical adjustment.

### 2. PANELS

2.1 The modular square panel shall be 600mm x 600mm with manufacturing tolerance within 0.5mm. All edges are sealed with hard PVC trim in grey colour and with mitred corner joints.

2.2 The modular square panel shall consist of the following parts:-

- A die-formed steel bottom pan of 33mm nominal depth consisting of 64 hemispherical cups moulded by cold-forming process to achieve 7 rows of uniform structural ribs running in both directions.
- The top flat sheet is die-cut similar in size to the bottom pan and spot-welded together to form a square modular panel.
- The panel shall have at least 100 resistance welded points in accordance with the manufacturer's approved welding procedures.

2.3 The edges of the panel are protected with hard PVC trimmings. These trimmings are chemically bonded to the panel with approved adhesives.

2.4 The modular square panel shall be capable of discharging static electricity transversely, as specified i.e.:-  
a. "anti-static" performance shall be within  $1 \times 10^8 - 2 \times 10^{10}$  ohms.  
b. "dissipative" performance shall be within  $1 \times 10^6 - 1 \times 10^8$  ohms.  
c. "conductive" performance shall be within  $0.25 \times 10^4 - 1 \times 10^6$  ohms.

2.5 The modular square panel shall be surface coated with an approved epoxy paint system.

2.6 Floor covering as specified shall be laminated to the panel by double gluing method using an approved adhesive system being selected by the manufacturer. Floor covering would not peel from the panel or create any formation of air cavity under normal usage or under specified environment conditions.

### 3. PEDESTAL ASSEMBLY

3.1 Pedestal assembly shall consist of:-  
a. pedestal head complete with self-locking device.  
b. pedestal base of a specified height.

3.2 Pedestal head shall be fabricated from either steel die form plate or an ADC 12 alloy, pressured die cast aluminium, consisting M6 thread size tapped holes and a 22mm diameter shaft for vertical adjustment. It shall be self-locked into the pedestal base by forces of gravity and restraint with a M6 hexagonal bolt.

3.3 Pedestal base shall consist of a threaded M22 diameter steel tube welded to a die formed base plate of 100mm square and with minimum thickness of 3.0mm. A dimple hexagonal nut shall be used for vertical levelling.

3.4 Pedestal assembly shall be supplied in electro-zinc plated finish and during installation, the base of the pedestal shall be glued to the sub-floor with fillet adhesive. The type of fillet adhesive and its usage shall be recommended by the manufacturer.

### 4. STRINGERS

4.1 Stringers shall be manufactured from galvanised steel to comply to JIS 3313:1979 and its thickness shall be 1.2mm. Stringers are manufactured to 1800mm and 600mm nominal lengths, and with a minimum sectional dimension of 25mm x 30mm and bent 4 times.

4.2 Stringers shall be fastened to the pedestal assembly with M6 thread-size Philip head machine screws in EZP finish. ■

\* Specify the appropriate model, refer to page 8