



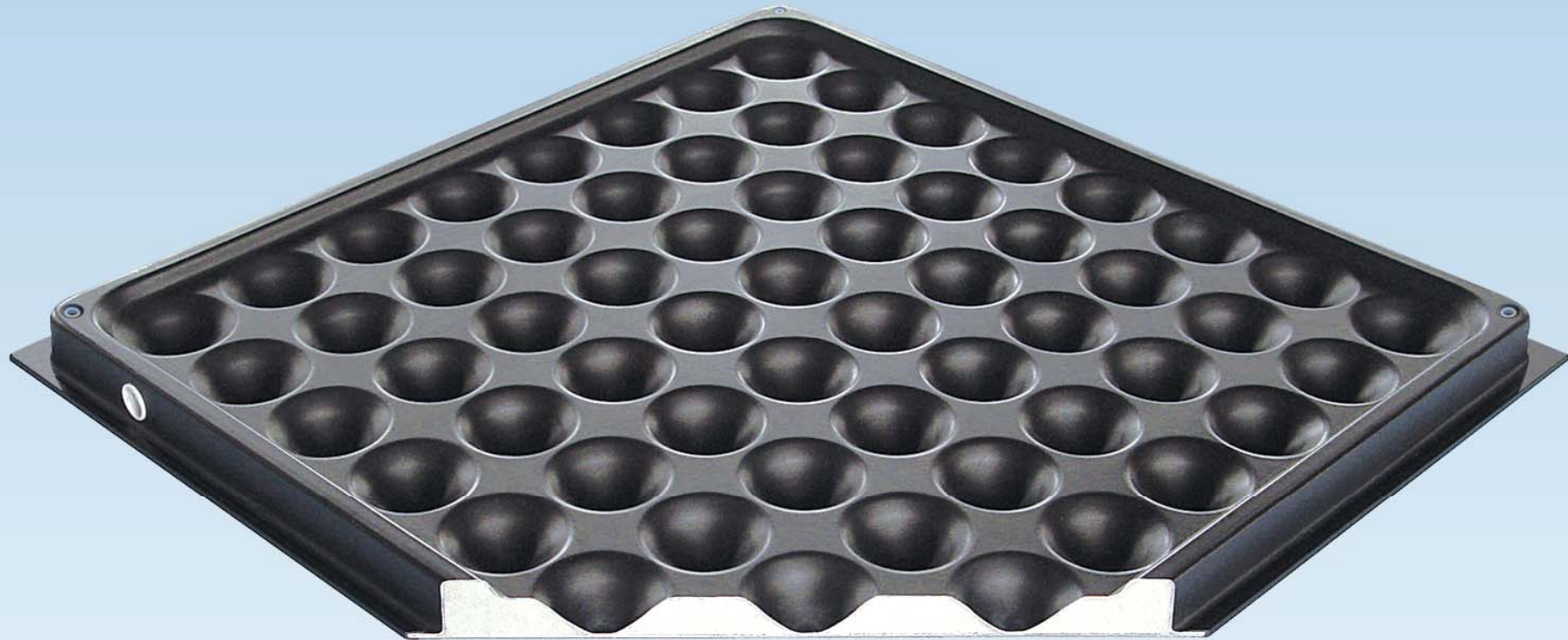
# What is good quality access floor?

**Yinglin Pan**

Managing Director  
Dowseng Limited  
September 28, 2012



# Dowseng SteelCrete Access Floor Panel

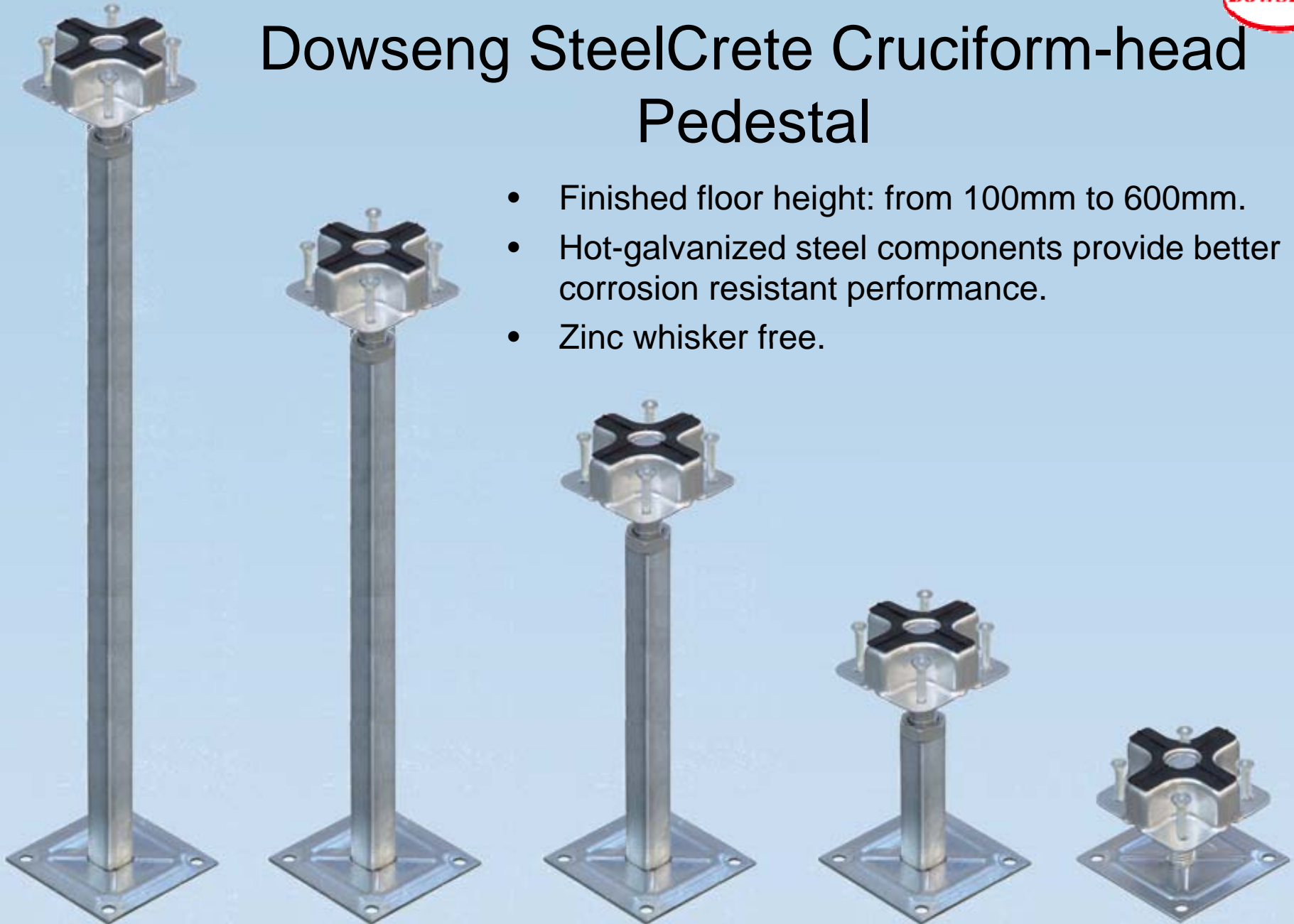


- Dowseng Bare Finished SteelCrete System is suitable for Office Building applications and Underfloor Air Distribution applications.
- Dowseng HPL Finished SteelCrete System is suitable for Data Center applications.



# Dowseng SteelCrete Cruciform-head Pedestal

- Finished floor height: from 100mm to 600mm.
- Hot-galvanized steel components provide better corrosion resistant performance.
- Zinc whisker free.



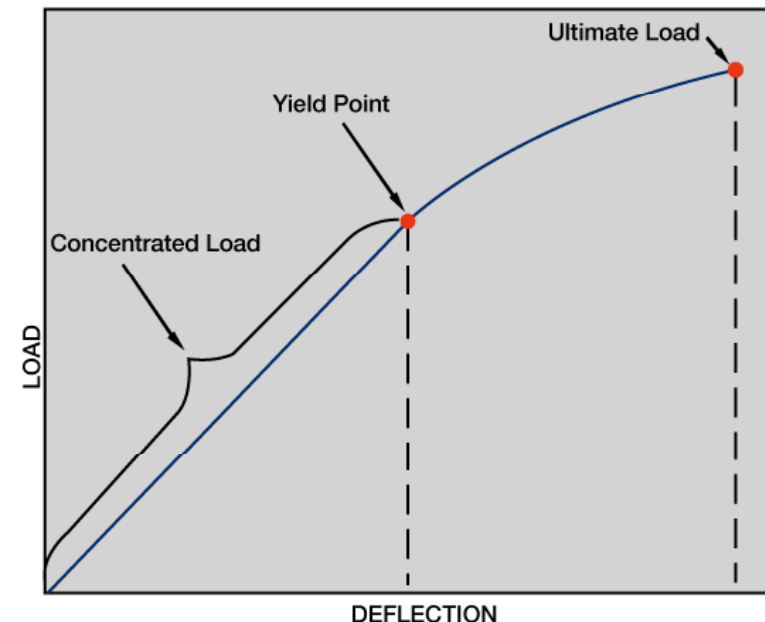
# Dowseng SteelCrete Flat-head Pedestal



# The bigger the Yield Point, the better the steel-concrete panel quality.



- Property of Steel & Concrete in Access Floor Panel
  - Steel is solid and resilient. Concrete is solid, however lack of resilience, easy to shrink.
  - Steel-concrete access floor panel is different with homogeneous access floor panels.
- What is Design Load, Yield Point, Ultimate Load?
  - Design Load - The safe working load that can be applied to the access floor panel.
  - Yield Point - The load at which permanent damage to access floor panel begins to occur. In steel-concrete access floor panel, permanent damage occurs firstly on infilling concrete. The bigger the Yield Point, the better the steel-concrete panel quality.
  - Under no circumstances, should floor users allow applied load exceed Yield Point, as there will be permanent damage to the access floor panel.
  - Ultimate Load - The maximum load that can be applied to the access floor system without failure or falling through the floor. For steel-concrete access floor, Ultimate Load is for reference only.
  - No matter how good the Ultimate Load is, if the Yield Point is not good enough, the panel quality is not good.



# Cannikin Law

- Cannikin Law: The shortest slab determines the capacity of a wooden tub.
- For example, the infilling concrete in the access floor panel is one of the shortest slabs.
  - Problem 1: Concrete is lack of bending strength and resilience.
  - Increasing the concrete bending strength and resilience will improve loading performance and Yie Point dramatically.
  - Problem 2: Concrete is easy of shrinkage.
  - Adding proper aggregate into concrete will dramatically decrease the shrinkage rate, decrease the gap between the steel and concrete, eliminate the annoying crack noise.



# Deepness of the steel dome matters

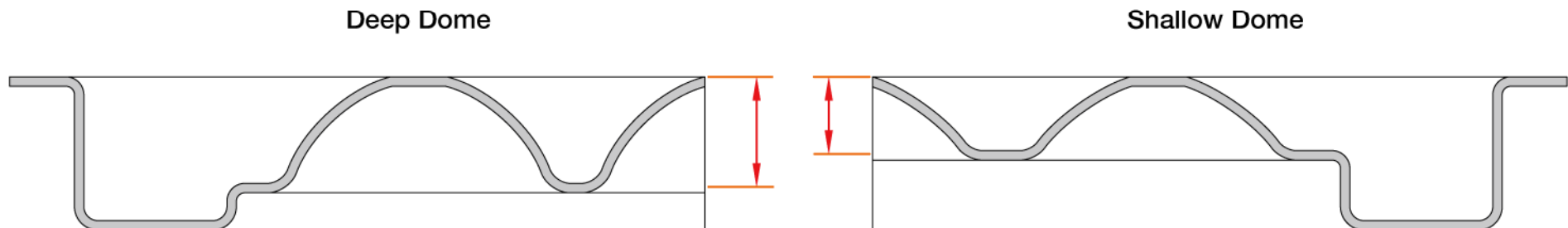
Regarding the different design of the back of the panel: Don't differentiate without a difference. Don't introduce differences whose only purpose is to give you an advantage over your competitor without giving your customers a substantial advantage.

- **Good Quality**

- Deep dome leads to better loading performance, however leads to higher manufacturing cost.

- **Bad Quality**

- Shallow dome leads to poorer loading performance, however leads to lower manufacturing cost.

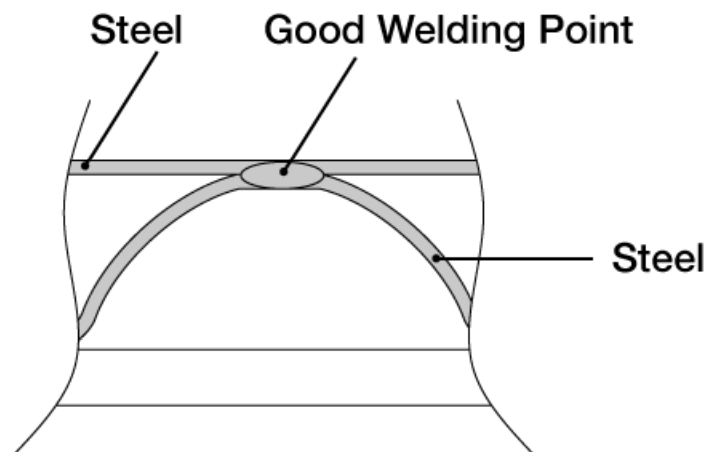




# Welding quality matters

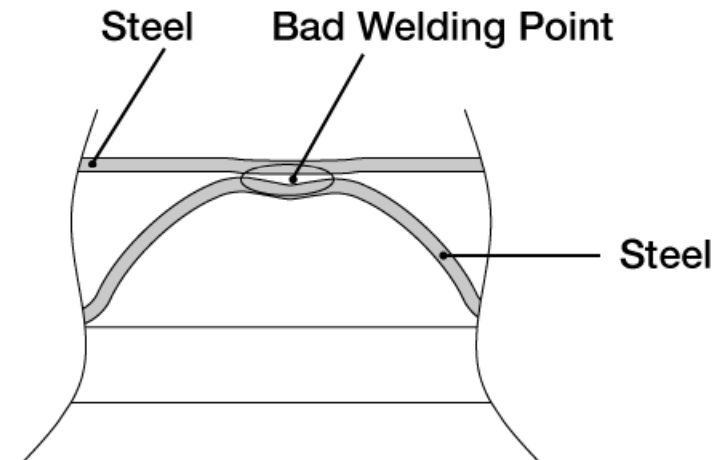
- **Good Quality**

- There are over 100 welding points on one panel, making the welding points uniform and strong enough is key to the panel quality.



- **Bad Quality**

- The faulty soldering will lead to welding point peels open under normal loading, which will lead to crack noise of the panel, the poor loading performance of the panel.





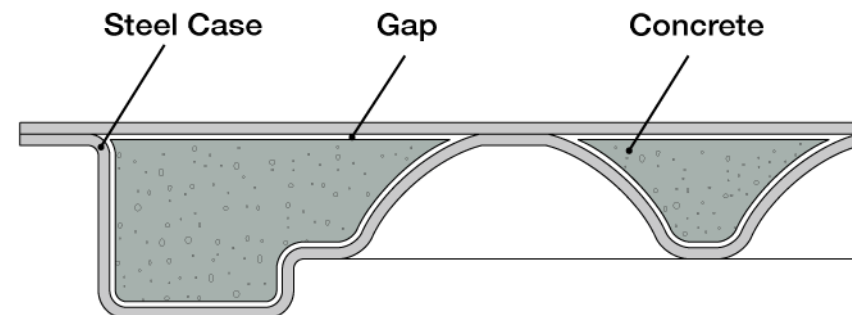
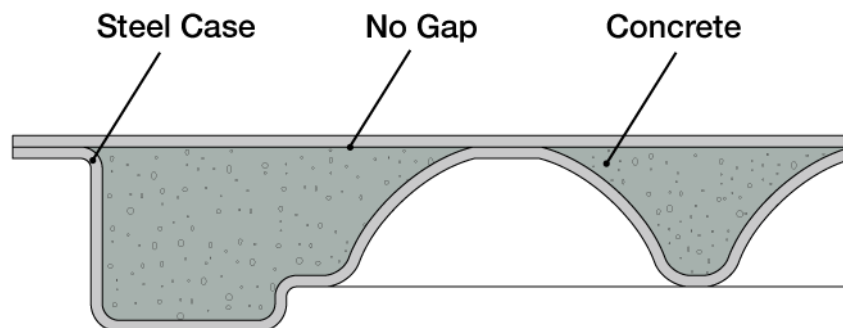
# Gap between the steel and concrete matters

## Good Quality

- There is no gap between steel case and infilling concrete.
- The feet feeling is solid.
- Make no noise.
- Loading performance is better.

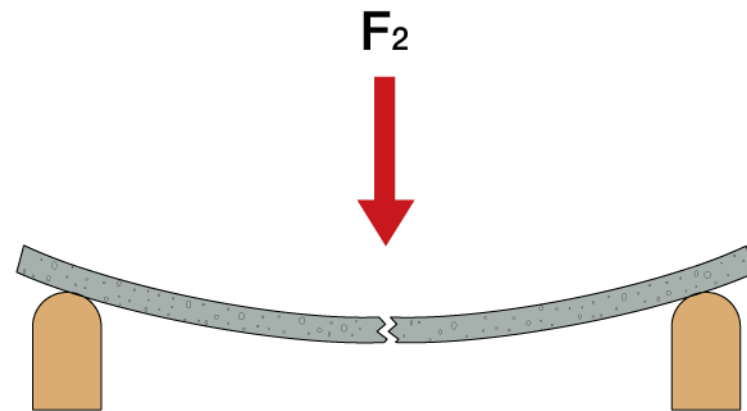
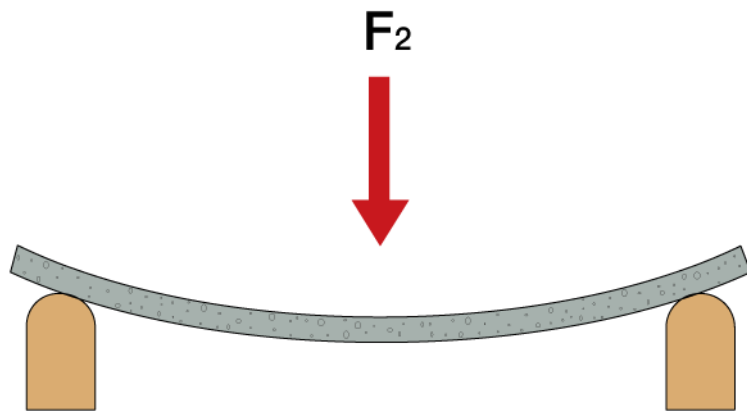
## Bad Quality

- There is gap between steel case and infilling concrete.
- The feet feeling is not solid.
- Crack noise when stepping on.
- Loading performance is bad.



# Concrete property matters

- Good quality of concrete has good bending strength and resilience.
- The higher the concrete bending strength, the better the panel rigidity.
- The higher the concrete resilience, the better the Yield Point.
- The balance of the bending strength and resilience needs careful consideration and massive experiments.
- Many producers' access floor concrete quality is more than unprofessional, it's inferior.





# About Dowseng

Dowseng Limited is a division of [Jindao Floors, Inc.](#) a wholly owned subsidiary of Jindao Floors, Inc.

Dowseng® Raised Access Floor Systems are renown for superior quality and performance, distributed in over 50 countries.

Dowseng Limited

Address: Xiyou Town, Laizhou City,  
Shandong Province, China, 261418

Phone : 0086 535 274-3443

Fax: 0086 535 274-3449

Ms. [Emily Wu](#) Cell: 0086 13864520830

Mr. [Yinglin Pan](#) Cell: 0086 13501190578

Web: [www.dowseng.com](http://www.dowseng.com)

