Free Farrowing









Piglet Protection Features

Sloped walls, rails, rings – what's the best option?







Maternity Ring SunPork©

Piglet Protection Features

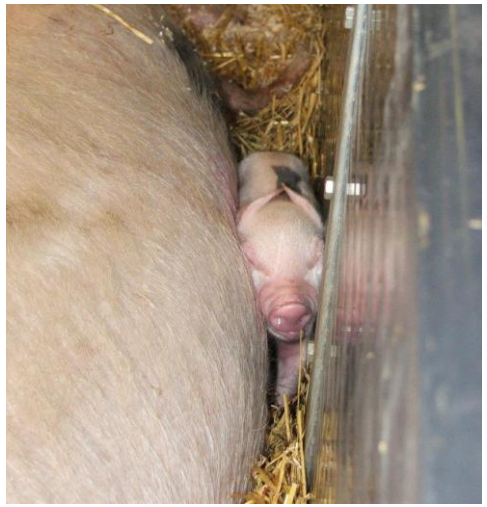


- Sows prefer to lie against vertical or sloped walls
  - *Damm et al. 2006* 10.1016/j.applanim.2005.09.014



- They may lie down unaided rather than against a rail

Piglet Protection Features









- Vertical/straight walls can cause a high risk of piglets being trapped
- Rails must be the correct height to stop the sow getting stuck

Sloped wall advantages

Sloped Walls:

- Support sow descent
- Allow piglet escape and prevent trapping
- Create safe lying area in addition to creep

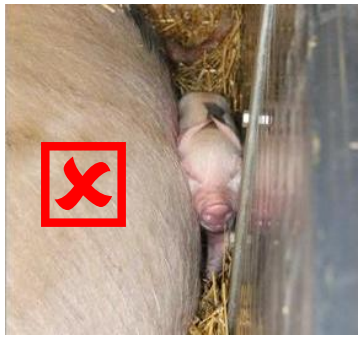


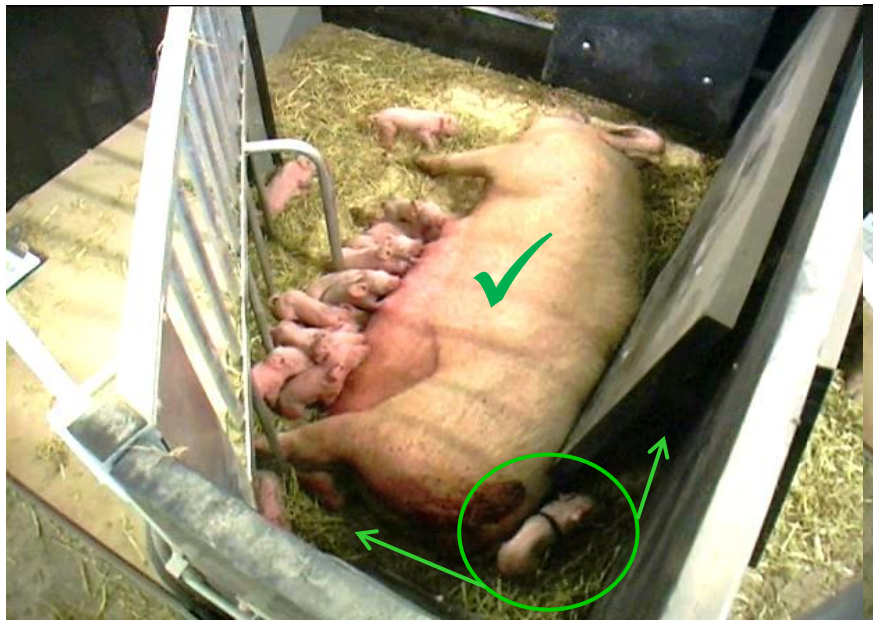


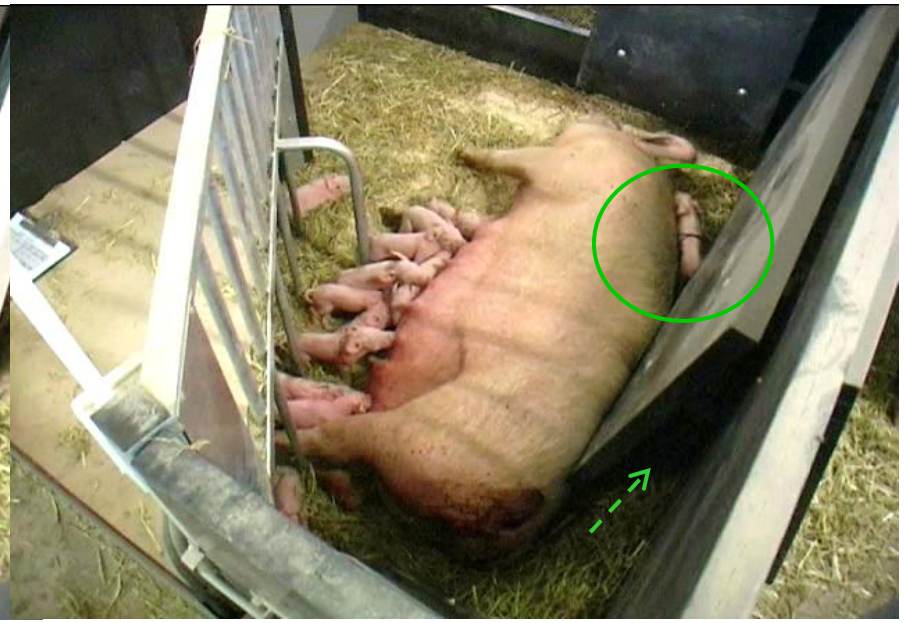


Sloped Walls:

- Allow safe teat seeking behaviour by piglets





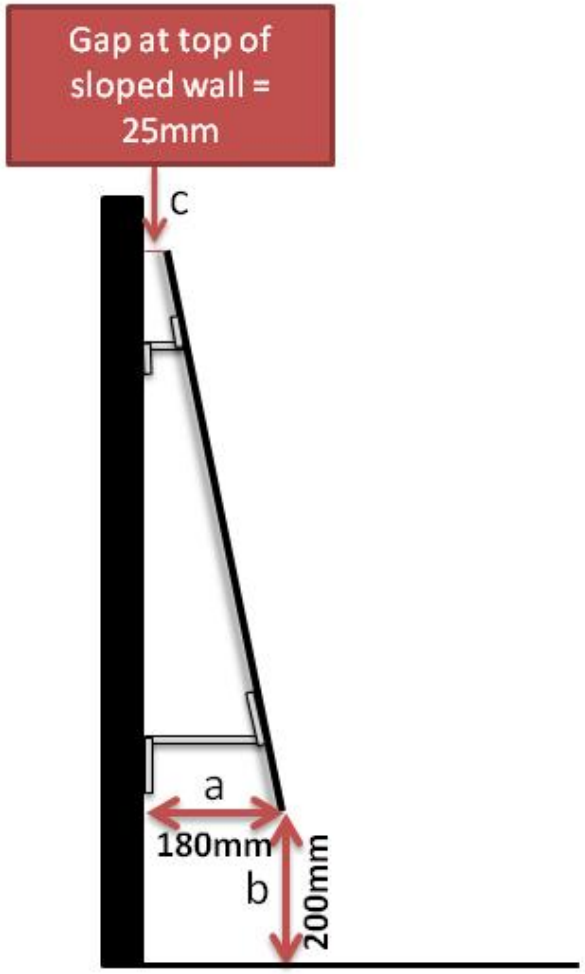


New-born piglet can teat-seek without getting trapped

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Sloped walls: correct dimensions

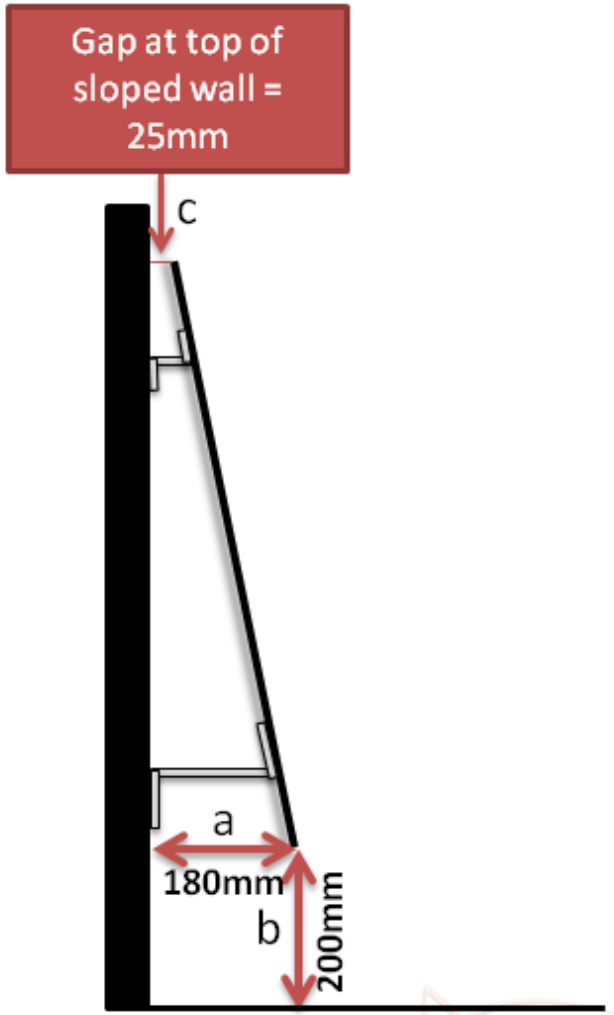
- **<u>Details are crucial!</u>**
- Get the dimensions and angles right – check them before installing on a larger scale.





Sloped walls: correct dimensions

- These dimensions are based on research that measured many piglets and sows from typical commercially produced pig breeds (i.e. crossbreeds such as Large White x Landrace x Yorkshire)
  - *Nielsen et al. 2018 -* https://doi.org/10.1016/j.livsci.2018.01.015
  - *Moustsen and Poulson 2004. Landsudvalget for Svin: Danske Slagterier.*
- These dimensions stop the sow getting her back or shoulders stuck
- They allow 4-week weaners to continue to use the walls



Farrowing rails and ‘rings’


Maternity Ring SunPork©



Con-Tented Products ©

- In European and UK regulations it is a requirement that pens have some form of protection (e.g. rails) for the piglets
- Most pens have a rail around the base of the pen
- Some pens have installed rings to achieve the same sort of protection (e.g. Maternity Ring, WellFair-Pen). These are also seen in some outdoor systems (e.g. ‘Clarkson Ring’ – Con-Tented)
- Rails/rings reduce the risk of piglets being crushed against straight walls when the sow lies down or when she rolls or stretches when already lying

Angled rails/bars in front of creep



- Farrowing rails are recommended for use in front of the creep
- Angled rails prevent sows trapping piglets in the creep
- Allows piglet escape route

Rails/Rings: Important considerations

- Considerations - Correct height is essential in all areas of the pen
- Where there are horizontal bars, these can be risky if too low but not flush to the floor



Rails/Rings: Important considerations

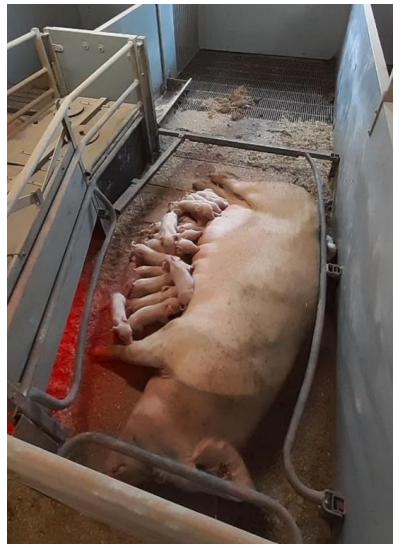
- Considerations - Correct height is essential in all areas of the pen
- Where there are horizontal bars, these can be risky if too high





Too High = Sow can get trapped





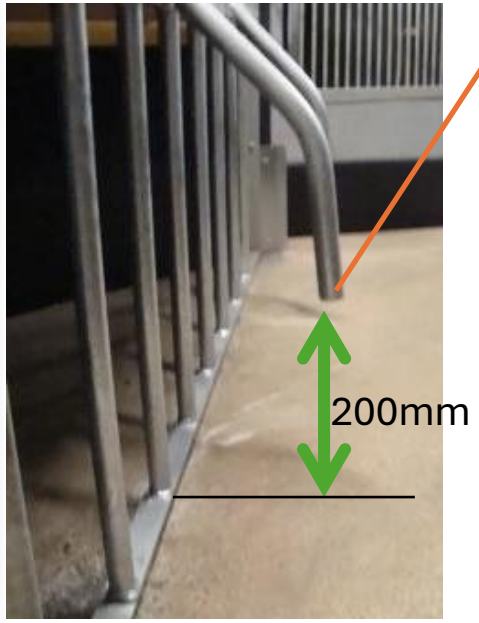
Correct height = recommended 200mm

Rails/Rings: Important considerations

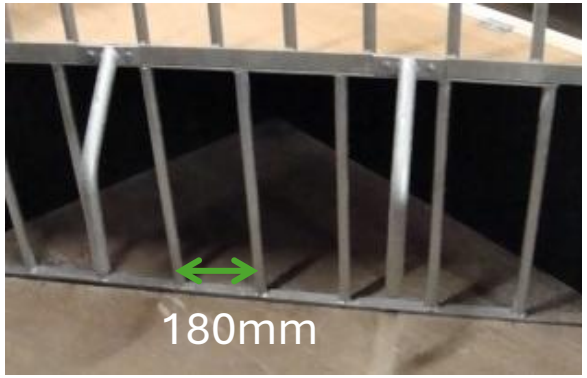
Considerations – Protruding bars

- Make sure protruding bars are spaced correctly to stop piglets getting trapped and at the correct height
- Make sure the bars are smooth to prevent injury





Need to round off bars





Other in pen features for protection

- Middle of the pen protection features are designed to reduce rolling risk
- Design is critical – poor design and placement risks injury to sow and piglets
- There are features that are well designed and have been tested in research facilities (e.g. MamaGuide™)
  - MamaGuides have specific instructions for installation including emphasising correct spacing and positioning to maximize safety and effectiveness for sows and piglets

https://mamaguide.eu/installation/



MamaGuide©

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These recommendations are based on research results as well as experience from farm staff and research colleagues working in various alternative farrowing systems