Recommendations from CowPlan for cubicle dimensions

[please note: we can supply cubicles to fit any length beds – these are just ideals]

It is important that any cubicle building is designed to fit the cows that will be housed in it. It is not acceptable to simply use an off the shelf plan. Please take advice, consider long term aims for your building and consider the size of your cows now, and future breeding changes. Cow Plan can help you measure your cows to ensure the correct size cubicles are installed.

Cubicle sizes:

Single row facing a wall, if possible we look for **9ft6inches** [2900mm] or more. When you observe a cow getting up she will lunge as much as 10 feet, and it is essential to provide this for her in any cubicle environment. Often we accept a shorter bed length, but an open front to allow the cows to lunge through.

Head to head rows, we will compromise and accept 15 feet as the cows will share the lunging space, however in most cases we recommend **16ft6inches** [5029] where possible and can install cubicles on 18ft [5486] with standard equipment. Recently we have accessed cow sizes and installed many on 17ft6inch [5334].

In terms of widths of cubicles, it is important to study your cow sizes. We have installed cubicles for black and white cows, from between 45 inches [1150mm] to 50inch centres [1270mm]. When we have excellent bed lengths we can offer a wider cubicle and the cows lye in a good position. This has proven to increase lying times [1.6kg milk/hour lying – *Grant 2007*]. This will need to be discussed with your representative, and we are happy to visit and measure cows with you.

Heel kerb height:

Current opinions state that the heel kerb should not be too high (e.g. 4-5 inches), however we have found that by lifting the neck bar up to 50 inches [1270], instead of 45 inches [1143] we can get the cow to stand in the cubicle with all four feet instead of standing half in half out. This is very important to reduce feet problems etc, and increase herd health. Therefore the heel curb can be at about 6 or 8 inches [150-210mm], which works really well in terms of scraping out and slurry not splashing onto the beds.

The beds should have a 3.5 to 4% fall. This is about 3 to 4 inches [50-100mm] fall over standard beds. More than this has resulted in problems keeping the bedding on the beds.

We use the original Canadian PolyPillow™ as our plastic brisket barrier, which should be positioned at 66-68 inches [1680-1730] from the heel curb and will position the cows perfectly in the cubicle. This will also vary depending on cow size.

Passage widths:

To a feed barrier, the passage should never be less than 11 feet wide [3350mm]. Ideally we can achieve 16ft [4877] or more. Between cubicles, we will accept anything from 9 to 14 feet [2750-4267mm]. Most common would be about 11 feet [3350]. This will depend on the lengths of the building and slurry handling system in place.

Cubicle bedding:

As you know we like to use the Pasture Mat® mattress with 20mm, 30mm or 40mm layer of HD foam called Premium Pad™ on all our cubicle beds. The Premium Pad foam goes on top of the mattress and below the top cover. It increases softness on the surface and has been proven to significantly increase lying time.
Using a full mattress system will increase lying times considerably when compared to concrete, or EVA foam mats. You will need to use bedding on these mattresses for two main reasons:

- It gives the any manure something to stick to thus helping to keep the beds clean;
- It will reduce friction between the animal and the surface. This will reduce potential of hock abrasions and damage etc.

Approximately 80% of our customers will use sawdust and a mix of lime as bedding. The remaining 20% tend to use chopped straw, paper, sand etc.