

Comfort **Slat Mat**

Installation Instructions **Mat & Valve**



Manual Assembly of “The Green Floor System” c/w Mk III Valve

Before you begin:

- Read this manual carefully
- Check instructions on receiving delivery (see chapter 1)
- Ensure slats are clean, uniform, flat, and free from burrs (see chapter 2)
- Provide adequate labour

Tools Required:

- For installation of The Green Floor:
 - Work-gloves and Kneepads
 - Manual installation tool – for ease of fitting (Optional)
- To Cut The Green Floor:
 - Jig-Saw & Box Cutters
 - Drill & Drill Bit (3mm)
 - Specialized Sealant – available from your agent
- For installation of the Mk III valves
 - Wire Cutters
 - Box Cutters
 - Work Bench

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1. Managing your Green Floor System Delivery

Packing docket

Comfort Slat Mats are delivered on pallets (See Figure 1 & 2). Each pallet has its own packing label (See - Figure 3) with information on the quantity and type of mat. Please ensure that you check what is on the pallet against the packing docket. If there are any discrepancies, please notify your agent immediately. Keep the packing docket until all the mats have been removed and checked. Note: each label has its own unique reference number. Once you have checked your delivery you can remove packing film and strapping



Figure 1 - Pallet of Comfort Slat Mats packed, strapped & labelled ready for dispatch – side photo



Figure 2 - Pallet of Comfort Slat Mats packed, strapped & labelled ready for dispatch – end photo.

Note: Disposable White support cubes to facilitate the secure transport of the mats.

Beerepoot Agri Soesterberg

Pallet number: 1

(143 H) 68 x 2475 mm (inners)

(143 H) 34 x 2475 mm (outers)

(143 H) 70 x 2200 mm (inners)

Figure 3 - Label

Example of pallet packing: Customer name, pallet number, quantity, length & type of mat.

If you have ordered differing mats, we recommend you open one pallet at a time and locate them in near proximity to where they are to be fitted

Contents of Label Information (in order)

- Line 1 – Product description
- Line 2 – Customer Name
- Line 3 – Length of valve (Europe only)
- Line 4 – Overall Slat length
- Line 5 – Box/Carton number
- Line 6 – Product code
- Line 7 – Quantity
- Line 8 – Date of Production

1. Preparation – Cleaning & de-burring of the concrete slats

It is important that the slats are clean, free from debris and have no sharp edges. Any sharp edges can damage the mat and reduce the lifespan. Any debris will prevent the mat from sitting correctly on the slats.

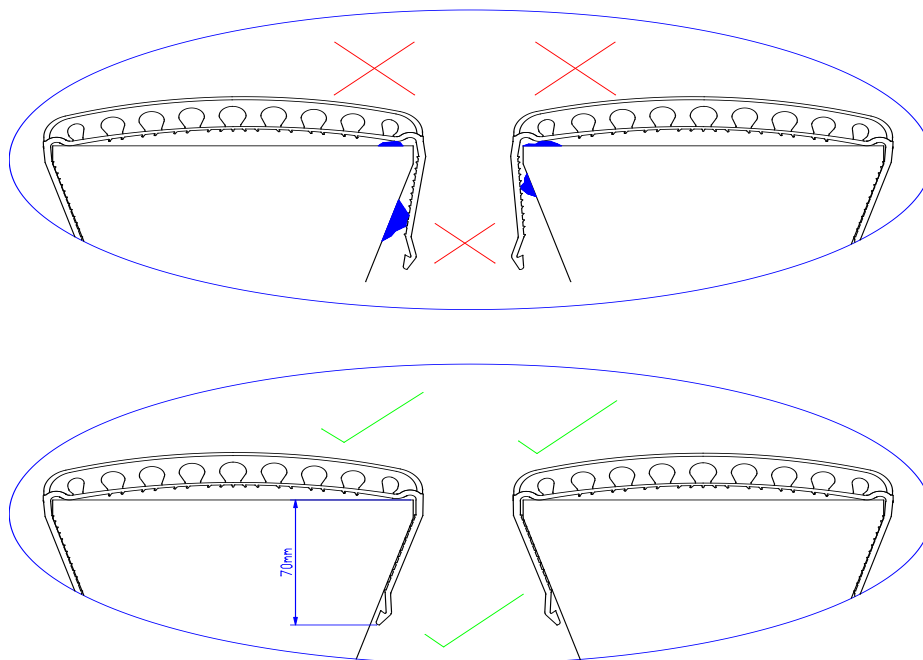
Firstly remove any large debris from the slats and then brush the slats clean of any

smaller debris. Then examine the edge of the slats and ensure there are no sharp edges. If there are sharp edges they need to be removed by means of a file or grinder. When all sharp edges have been removed please brush the slats to remove any further debris or dust created during this process.

Preparation for fitting Comfort Slat Mats to existing Gang Slats

It is important the slats are clean of all residues. The top of the slat can be cleaned by means of a power washer. The sides of the slats must be cleaned below the surface by 70mm (figure 4). This can be achieved by a combination of a power washer to loosen the residue and a spade to remove the residue. If this residue is not removed, it may lift the mat and/or prevent the “leg” of the mat from following the tapered contours of the slat, which may restrict the natural removal of faeces from the floor.

Figure 4 – Ensure ALL residues are removed



3. Installing “Comfort Slat Mats” on the concrete slats

Preparation

Bring the mat as close as possible to relevant slats. This ensures speed of installation. Ensure you have identified the correct mat for each slat and it is facing the correct way for fitting.

Method of fitting

The most efficient and easiest method of installation is with two people. The first person lifts and presents the mats to the slat while the second person fixes the mat to the slat.

Fitting is achieved by opening the two legs (black) and placing the mat over the slat rib. Next, place pressure by means of your foot or knee (See – Figure 5 & 6) on the green surface of the mat, Repeat this process along the length of the mat until the mat is fully fixed. For further information and video of fitting instructions, we have uploaded a video on our Comfort Slat Mat YouTube channel and www.slatmats.com

Link address is: http://youtu.be/YojB-_4UbnE

https://youtu.be/Ss_mTtXajM4



Figure 5 – pressure applied by foot

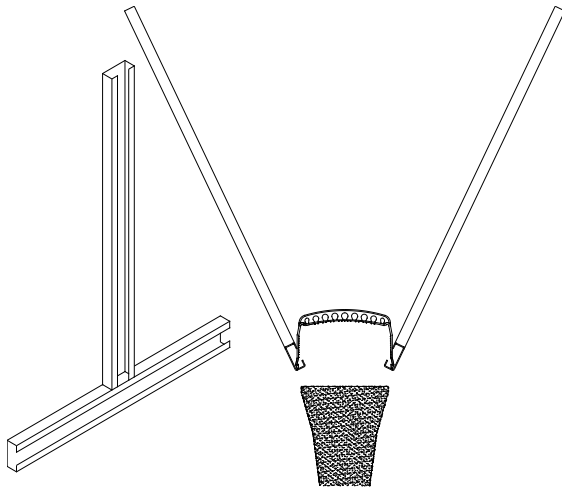


Figure 6 – pressure applied by knee

Mat Fitting Tool

A fitting tool (set) – (See – figure 7) is available for purchase or for rent to aid with the speed and ease of installation. For further information, please contact your agent.

Figure 7 – Mat Fitting Tool



NOTE: For further information and video of fitting instructions, we have uploaded a video on our Comfort Slat Mat YouTube channel and www.slatmats.com

See YouTube Channel link:

<https://www.youtube.com/watch?v=qgorWuB1AU0>

Maximum notch lengths for either end of The Green Floor

We recommend that the mat is notched no longer than 220mm for mats of 140mm and greater and 180mm for mats of 133mm and less (see figure 6 – red circle). If the mat is notched longer than 220mm, we recommend the mat is fixed to the concrete to prevent the mat from being dislodged (See – Figure 8 & 9). A stainless steel fixing screw is recommended (see Useful Hints G).

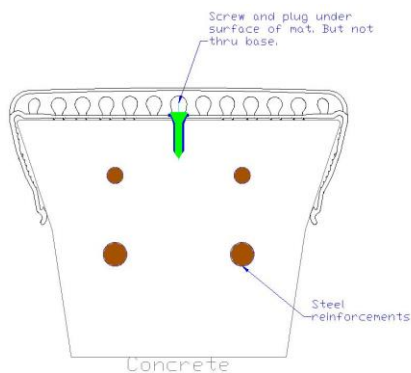


Figure 8 – One Fixing Screw

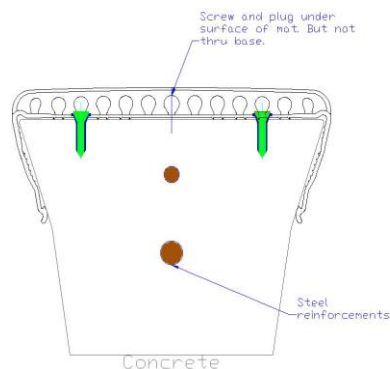


Figure 9 – Two Fixing Screws

“Inners” and “Outers”

There are two different mats – “inners” & “outers”. The inner mats are to be placed on the internal (inner) ribs of a gang slat and are identified by having notches on both sides of the legs of the mat (See figure 10). The outside mats are placed on the external (outer) ribs of the gang slat and are identified by having one leg with no notches (See figure 11).



Figure 10- “Inner” mats



Figure 11 – “Outer” mats

Sequence to fitting “Comfort Slat Mats”

For ease of installation it is advisable to fit the inner mats first. On most 6 gang slat there will be 4 “inners”. (See – figure 12). The “inner” mats will have “notches” or cut-outs along both legs to facilitate the cross beams.

Figure 12– Fitting “Inners”

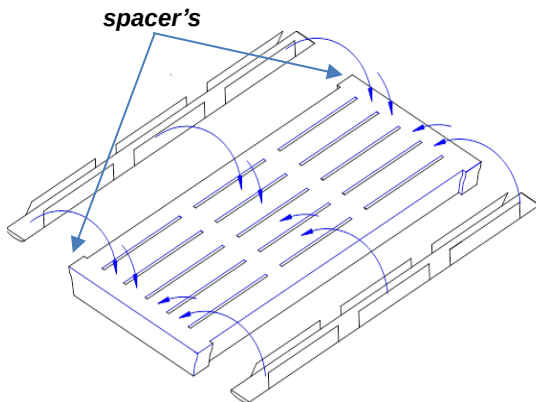
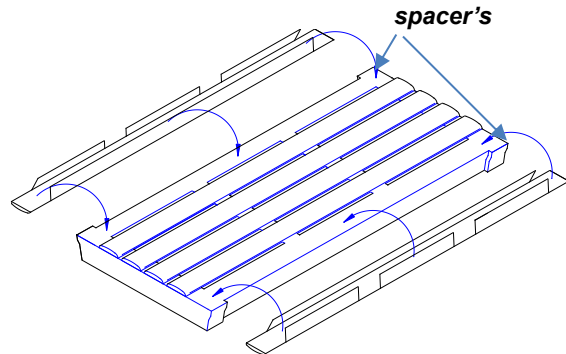


Figure 13 – Fitting “Outers”



Once all the “inners” are fitted, proceed to fit the “outers”. On most 6 gang slat, there will be 2 “outers”. (See – figure 13). The “outers” can be identified by the fact that one of the legs will not have any “notches” or cut-outs along the leg to facilitate the cross beams. Please note there may be small cut-outs to facilitate the spacers (See –figure 12 & 13) on the slat. These are usually at either end of the gang slat, as per the drawing above.

Note: A small number of gang slats are classified as “all inners” i.e. on the 6 gang, they have 6 no. “inner” mats and no “outer” mats.

4. Exposed Mat Ends

Where the end of a mat is not butted up against a permanent fixture such as a wall, there is a possibility for the end of the mat to be “kicked up” and/or damaged by the animals. To prevent this, it is essential that the ends of the mat are protected by means of (a) fitting a perimeter mat perpendicular to the end of the mat (See – Figure 14) or (b) elevating the height of the concrete area by a minimum of 20mm.

Comfort Slat Mats manufacture a perimeter mat for this function. It comes in 4800mm lengths and can be cut on site to your requirements. Included are 12 no. stainless steel screw fixing (Hilti HPS – – 1R 8/30 x 40mm) – 2 no. fixing at either end & one centrally at 500mm intervals (See – Figure 15).

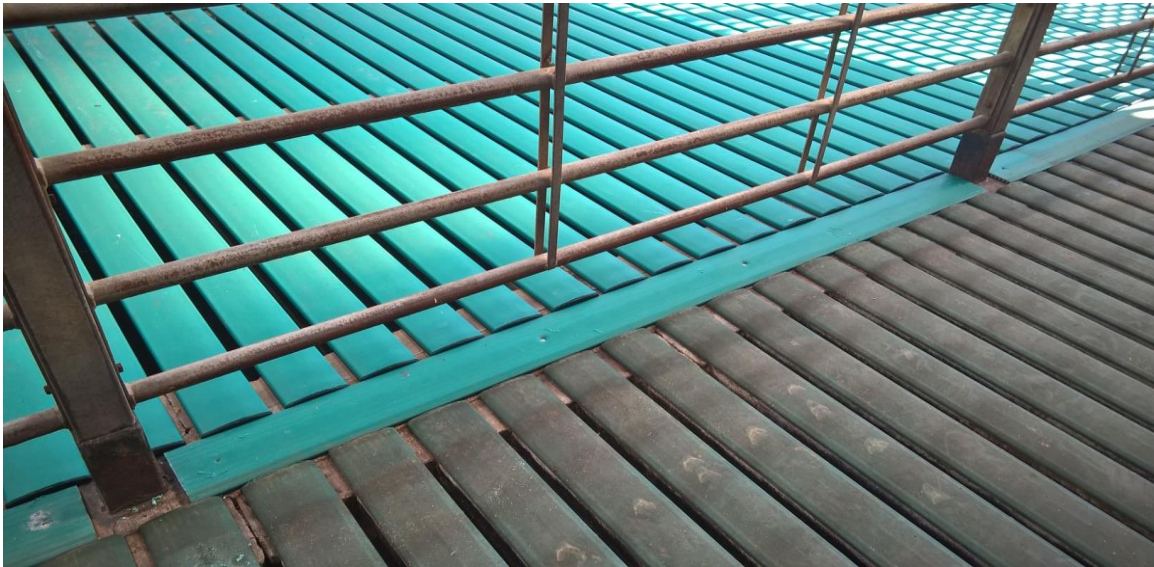


Figure 14 – Perimeter mat installed to protect the end / end cap of mats

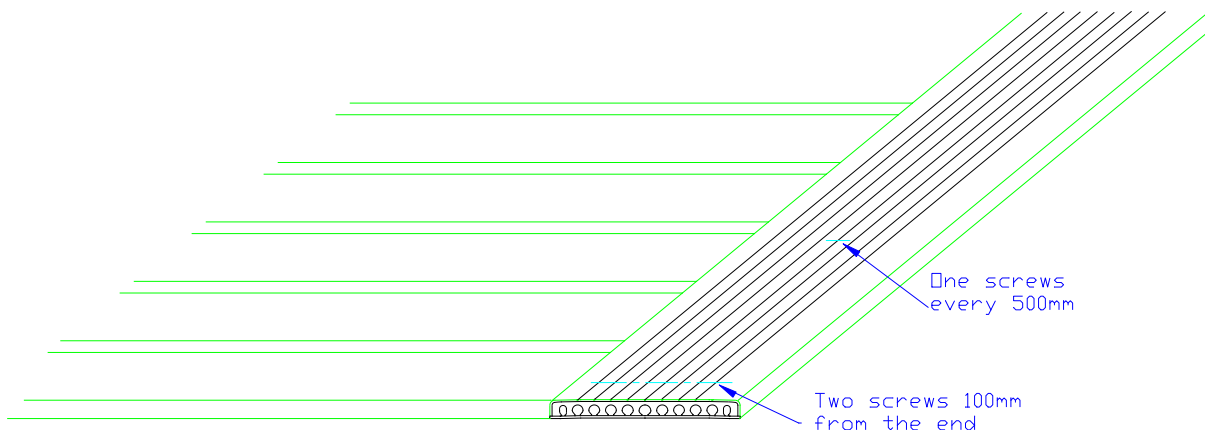


Figure 15 – Positioning of stainless steel fixings for perimeter mats

5. Installing “Comfort Slat Mats” around impediments / permanent fixtures.

Where there are unanticipated permanent fixtures such as posts, water troughs or barriers. It may be required to shorten the mat. A jig-saw, Hack - saw or angle- grinder are suitable for this. Pay particular attention when measuring to ensure the newly cut mat is as close as possible to the structure (See – Figure 16, 17 & 18).

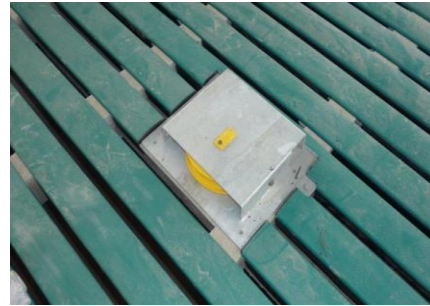


Figure 16 –Comfort Slat Mats fitted around a permanent fixture.

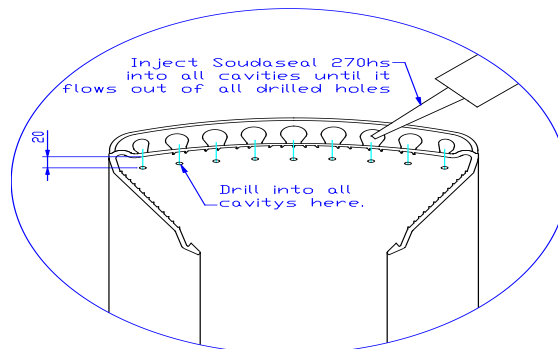


Figure 17 – Impediments



Figure 18 – Impediments

While there is no loss of functionality if the mat is cut, a special mastic as be purchased (See – Figure 19) to seal any exposed areas of the mat.



**Figure 19
Mastic applied to Mats cut on site**

6. Installing “Comfort Slat Mats” to Access/Manhole gang slats.

Where there are access/agitation gang slats (Figure 20) inside the barn, we suggest the following procedure for covering. Firstly, fit the short comfort Slat Mats (Figure 21) to the access point slats. Then cut to required length 4 perimeter mats (Figure 22) and fix by means of stainless steel screws (see item G on page 19).

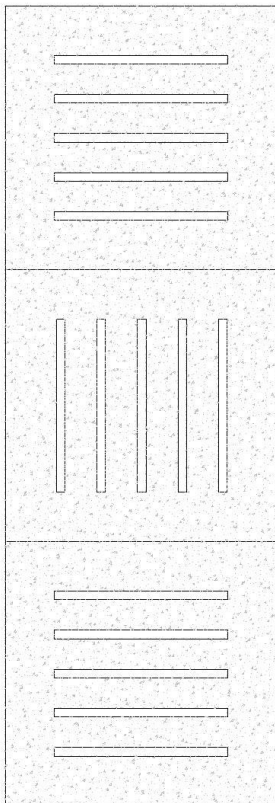


Figure 20:
Uncovered Access Slat

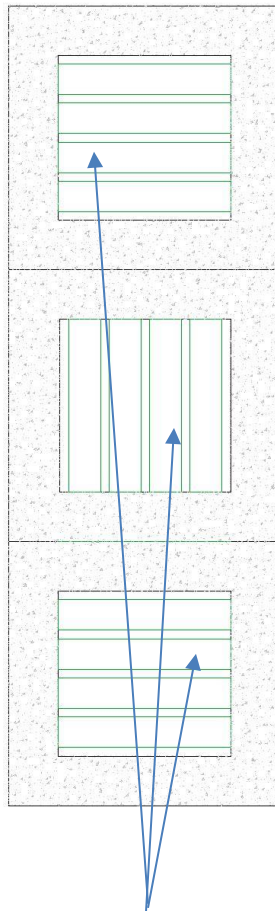


Figure 21:
Access points covered

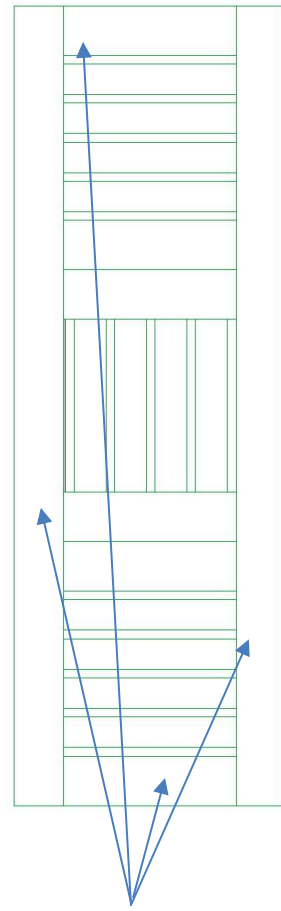
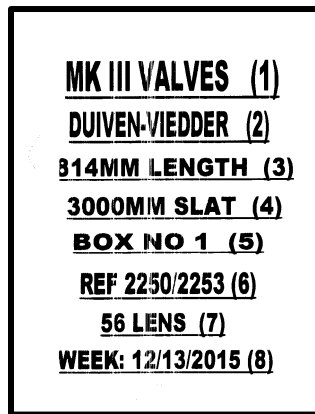


Figure 22:
Perimeter covered

7. Managing your valve delivery

Mk III Valves – (Optional) are supplied in a separate boxes. Each box has a sticker (See figure 23) with information as to which slat length of the Comfort Slat Mat is to be fitted to, the length of the valve, customer name, product reference number and quantity in the valves in each box. The Comfort Slat Mat valves are delivered on pallets. Please ensure that you check what is on the pallet against the packing docket. If there are any discrepancies, please notify your agent immediately. Keep the packing docket until all valves have been removed and checked. Note: each label has its own unique reference number.

Figure 23: Sample Label for Mk III Valves



8. Fitting of Valves Mk III to “Comfort Slat Mats”.

The valves are in labeled boxes. Identify the slot and the valves suitable for each mat (i.e. the valve length must match the leg length. Sometimes there are two or more valves to complete a full slot length. You will be provided with a list of all valves and the type and number for each mat.

Lay the first mat on a bench upside down (green side down). Identify which end of the mat corresponds to the gang slat. The valves are only fitted to one side of the mat, so it is important that you choose the correct side for all mats. Slide the corresponding length valve(s) on to the mat (See – figure 24). The valve will only fit one way – i.e. with the spring facing towards the centre of the mat (See – figure 16 & figure 17).



Figure 24 – sliding valve on to a Comfort Slat Mat

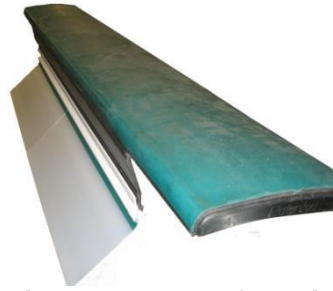


Figure 25 – Comfort Slat Mats fitted with valves.

After you have fitted all the valves ensure that the valves move freely and return to their original position (See – figure 25).

NOTE: Slat manufacturers produce gang slats with “spacers” on the outside of the slats to create a slot when the slats are aligned. In most cases these do not correspond to the support beams on the gang slat. (See – figure 27 & 28 on the next page).

For ease of assembly, the quantity and size of the valves for the “outers” are the same as the valves for the “inners”. However, with the “outer” slot, we supply an extra “filler” valve to compensate for the gap created by difference in measurement between the support beams and the spacers. The “outer” mat & valve are always the last valve to be fitted (See figure 26).

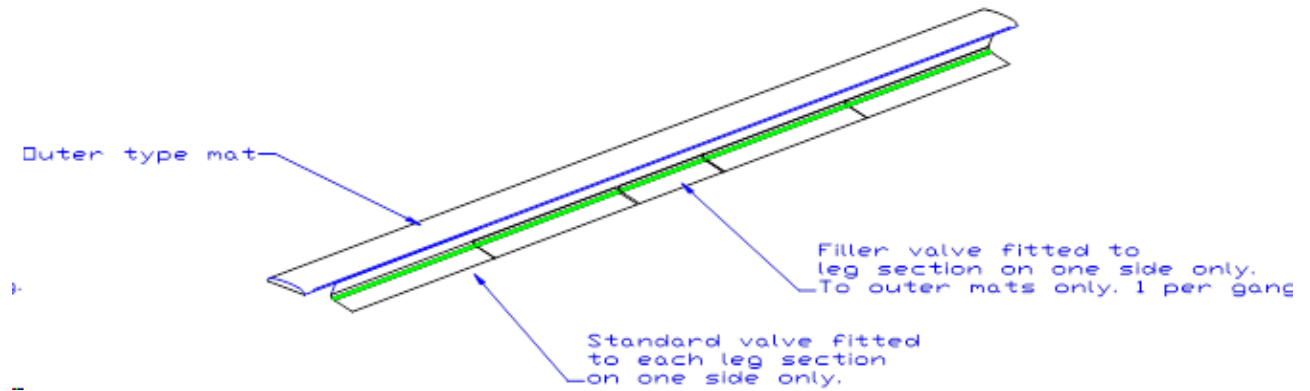


Figure 26
Mats fitted with valves for “outer” gang slats (c/w “filler” valve)

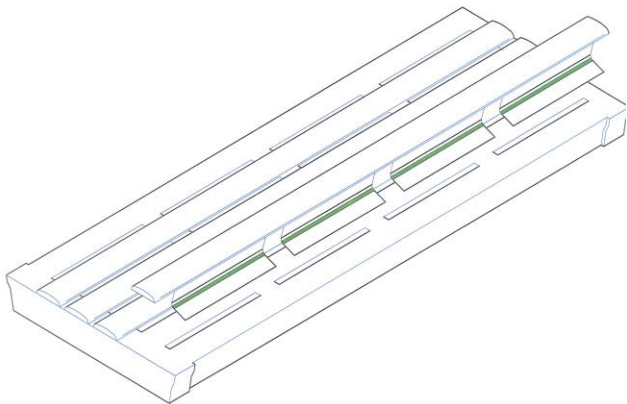


Figure 27
“Inner” mat & valves presented to the gang slat.

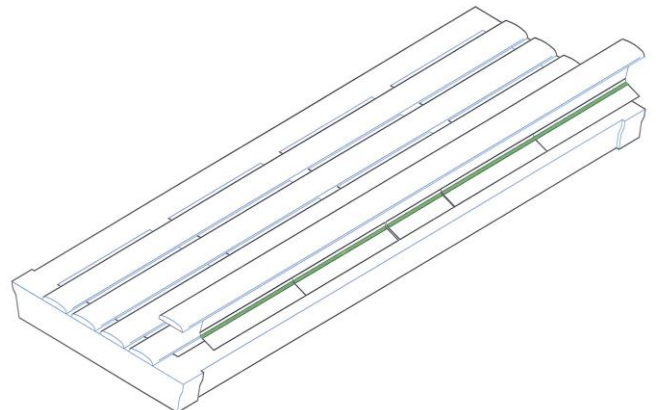


Figure 28
“Outer” mat & valves presented to gang slat.

9. Installing “Comfort Slat Mats” c/w Valves Mk III to the gang slats

See video on www.slatmats.com or Comfort Slat Mat You Tube channel

1. Place mats c/w fitted valves on gang slats
2. Align valves with slots and gently place valves into slots
3. Ensure springs do not get caught
4. Flip mat over - (Green side up)
5. Place wedge tools into slots (if required) Wedge tools are available to rent from your agent.
6. Grab the free leg of mat with fitting shovel. Fitting Shovels are available (to rent) from your agent.
7. Pull towards slot and lever into slot
8. Tap mat home gently ensuring firmly in place
9. It is important to use the same size fitting shovel to The Green Floor leg size/ Slot length.
10. While standing on the mat, gently remove wedge tools
11. Manually ensure valves are operating. (See – Figure 29).

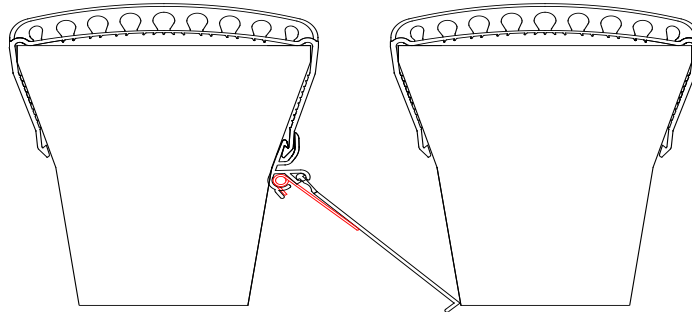


Figure 29
Side profile of mats & valves fitted to gang slats

10(a): Sample listing of valves for Den Boer Beton gang slats (141mm)

Den Boer Beton 141mm gang slats Green Floor Valve Quantity & Type								
Slat Len	Drawing No	Inner Slat only	Valve Qty. Per Gang	Valve Length (mm)	Valve Qty. Per Gang	Valve Length (mm)	Filler Valve Qty. Per Gang	Filler Valve Len MM
1600	10823N	X	12	614			1	135
1625	13008N	X	12	614			1	135
1675	13032N	X	12	614			1	135
1970	11011N	X	12	789			1	135
2000	109016N	X	12	789			1	135
2170	11012N	✓	12	889				
2200	109017N	✓	12	889				
2300	10850N	X	18	614			1	270
2400	10822N	X	18	614			1	270
2470	11013N	X	18	614			1	270
2500	109018N	X	18	614			1	270
2700	11019N	✓	18	731				
2720	11014N	✓	18	731				
2750	109019N	✓	18	731				
2970	11015N	X	18	814			1	270
3000	10816N	X	18	814			1	270
3250	12027N	✓	24	639				
3500	10843N	X	24	701			1	405
3750	109021N	X	12	509	18	634	1	540
4000	10844N	X	30	634			1	540

Disclaimer: The above dimensions are the manufacturers at the time of going to print and are for guidance only. Any order for mat and valves should be placed against the actual measurement of the slats delivered to the farm.

10(b): Sample listing of valves for Morssink gang slats (141mm)

		Morssink 140mm gang slats Green Floor Valve Quantity & Type						
Slat Len	Drawing No	Inner Slat only	Valve Qty. Per Gang	Valve Length (mm)	Valve Qty. Per Gang	Valve Length (mm)	Filler Valve Qty. Per Gang	Filler Valve Len MM
1998	121211/1A	X	12	614	6	214	1	270
2098	121211/1A	X	12	614	6	314	1	270
2198	121211/1A	X	12	614	6	414	1	270
2298	121211/1A	X	12	614	6	514	1	270
2398	121211/1A	X	18	614			1	270
2498	121211/1A	X	12	614	6	714	1	270
2698	121211/1A	X	18	614	6	164	1	405
2748	121211/1A	X	18	614	6	214	1	405
2998	121211/1A	X	18	614	6	464	1	405
3248	121211/1A	X	18	614	6	714	1	405
3498	121211/1A	X	24	614	6	214	1	540
3748	121211/1A	X	24	614	6	464	1	540
3998	121211/1A	X	24	614	6	714	1	540

Disclaimer: The above dimensions are the manufacturers at the time of going to print and are for guidance only. Any order for mat and valves should be placed against the actual measurement of the slats delivered to the farm.

10(c): Sample listing of valves Swaans gang slats (130mm)

Swaans 130mm gang slats Green Floor Valve Quantity & Type								
Slat Len	Drawing No	Inner Slats only	Valve Qty. Per Gang	Valve Length (mm)	Valve Qty. Per Gang	Valve Length (mm)	Filler Valve Qty. Per Gang	Filler Valve Len MM
1745	RVGK175	X	5	493	5	943	1	103
1995	RVGK200	X	5	943	5	743	1	103
2095	RVGK210	X	5	943	5	843	1	103
2195	RVGK220	X	10	943			1	100
2295	RVGK230	X	10	694	5	494	1	206
2395	RVGK240	X	10	694	5	594	1	206
2495	RVGK250	X	15	694			1	206
2745	RVGK275	X	5	611	10	861	1	204
2995	RVGK300	X	15	861			1	204
3495	RVGK350	X	15	861	5	397	1	306
3995	RVGK400	X	15	861	5	897	1	306

Disclaimer: The above dimensions are the manufacturers at the time of going to print and are for guidance only. Any order for mat and valves should be placed against the actual measurement of the slats delivered to the farm.

11 Useful hints.

- (A). Work carefully and always use work gloves and knee pads
- (B). In cold weather, the mats can be stiff and thus more difficult to install. In these situations, we advise you place the mats indoors 24 hours in advance of installation
- (C). Ensure you have adequate workmen and power before commencing installation.
- (D). Note: Care should be taken to identify which mats (inner & outer) are suitable for which slats. Do not unwrap pallet until you have confirmed quantities of mats & valves) and verified locations in the barn.
- (E). While inner mats will fit the outer part of the slat, outer valves will NOT fit the inner part of the slat. If the “inner” or “outer” mats are fitted to the wrong slats, they must be changed, which is time consuming.
- (F). A small number of gang slats are classified as “all inners” i.e. on the 6 gang, they have 6 “inner” mats and no “outer” mats
- (G). To screw fix the mats in certain situations, please use stainless steel screw fixing. When fixing to slats or hardened concrete a Hilti HPS – 1R 8/30 x 40mm or similar is recommended. When fixing to a softer concrete a Hilti HPS – 1R 8/30 x 60mm or similar is recommended. Please ensure that any holes drilled are sealed with a recommended mastic.

12. Instructions from ICE Comfort Slat Mats Ltd.

- The use of scraper systems is allowed in coordination with the manufacturer of the scraper.
- The scraping plate must be fitted with a polyurethane blade of the correct height and length which facilitates the blade to follow the contours of the mat.
- A scraper with a chain is **NOT** permitted. However, if you have a chain pulled scraper, we can design Comfort Slat Mats to facilitate this. Consult with your agent about this.
- A rope or SWR is acceptable providing there is no contact with the mat. (A small guide wheel can be placed below the level of the blade to prevent undue friction on the mats.
- Vehicles (max. weight 1 ton) are permitted on the mats with the following provisions:
 - Radial tyres with maximum 4 bar pressure
 - Diagonal tyres with maximum 3 bar pressure
 - Maximum speed 2km / hour
 - Do not brake abruptly.
 - Do not park on the mats.
 - Slope should not exceed 2%
 - Gentle acceleration and no turning
 - Ensure there are no sharp parts lodged on the tyres.
 - Ensure you have proper foot-ware.
 - For the first few months the mat will be harder than expected. The mat will soften up to the apportioned softness for your barn. The lead time for this depends on stocking density. After this “bedding in” period, the floor will become less stiff and stabilize ensuring a confident grip for the animals.
 - Comfort Slat Mats & valves have a 5 year regressive warranty
 - It is recommended that the mats are cleaned once a year. At the time of cleaning also make sure that all mats are correctly positioned on the slats.
 - If valves are installed, ensure that the manure in the pit/tank is always below the level of the valves. This ensures the proper working of the valves.
 - Valves must be thoroughly cleaned and made free from debris at 6 month intervals. For instruction on cleaning valves, please consult your local agent.
 - The valves have a 12 month warranty.

The information provided is correct at the time of print. The manufacturer/seller has the right to change the specification and general conditions of sale.

13. ICE Comfort Slat Mats Ltd. (ICE CSM) offers the following warranty on mats:

1. ICE CSM warrants that all Comfort Slat mats it supplies will meet the applicable product specifications and will be free from defects in material and workmanship at the time of shipment from ICE CSM and for 5 years thereafter. If there are defects in the material, and/or workmanship during this period from the date of delivery, ICE CSM will supply replacement mats on a linear depreciation basis dependent on useful life already provided, ex-factory subject to the conditions as stated thereafter.
2. If defects appear during the warranty period, ICE CSM, at its sole option, will supply replacements for the defective mats, provided that ICE CSM receives written notice of the defect and proof of purchase. This warranty does not include installation, removal or disposal costs.
3. The purchaser is responsible for the normal care and maintenance, details of which will be supplied on application.
4. ICE CSM (and/or its' agent) is allowed to carry inspection on the site of the alleged defective mats and if necessary remove sample(s) for laboratory testing. Any defect determined by ICE CSM to be attributable to customer alteration, Modification, negligence or misuse will not be covered by this warranty.
5. This warranty is the only warranty offered by ICE CSM. ICE CSM expressly disclaims other warranties, expressed or implied, including any warranties of the merchantability or fitness for a particular purpose.
6. Design, data and other technical information is subject to change, and it is supplied by ICE CSM "as is" and is not covered by any other warranty, except as stated by ICE CSM in writing.
7. In no event will ICE CSM be liable for any indirect, incidental, consequential or special damages, including lost profits, loss of use or other economic loss. ICE CSM's liability under this warranty will not exceed the amount paid by customer to ICE CSM for the product at issue.

14. ICE Comfort Slat Mats Ltd. (ICE CSM) offers the following warranty on valves:

1. ICE CSM warrants that all Comfort Slat valves it supplies will meet the applicable product specifications and will be free from defects in material and workmanship at the time of shipment from ICE CSM and for 1 year thereafter. If there are defects in the material, and/or workmanship during this period from the date of delivery, ICE CSM will supply replacement valves on a linear depreciation basis dependent on useful life already provided, ex-factory subject to the conditions as stated thereafter.
2. If defects appear during the warranty period, ICE CSM, at its sole option, will supply replacements for the defective valves, provided that ICE CSM receives written notice of the defect and proof of purchase. This warranty does not include installation, removal or disposal costs.
3. The purchaser is responsible for the normal care and maintenance, details of which will be supplied on application.
4. ICE CSM (and/or its' agent) is allowed to carry inspection on the site of the alleged defective valves and if necessary remove sample(s) for laboratory testing. Any defect determined by ICE CSM to be attributable to customer alteration modification, negligence or misuse will not be covered by this warranty.
5. This warranty is the only warranty offered by ICE CSM. ICE CSM expressly disclaims other warranties, expressed or implied, including any warranties of the merchantability or fitness for a particular purpose.
6. Design, data and other technical information is subject to change, and it is supplied by ICE CSM "as is" and is not covered by any other warranty, except as stated by ICE CSM in writing.
7. In no event will ICE CSM be liable for any indirect, incidental, consequential or special damages, including lost profits, loss of use or other economic loss. ICE CSM's liability under this warranty will not exceed the amount paid by customer to ICE CSM for the product at issue.



Comfort Slat Mat Range

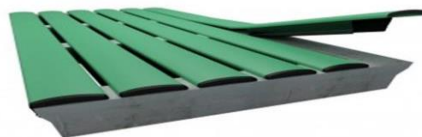
One of the unique designs of Comfort Slat Mats is an air-cushioned “core” which can be manipulated at the point of production to give cattle of differing weights the ability to grip the mat to its optimum ability.

To this end Comfort Slat Mats manufacture a range of mats with different “softness’s” designed for various weights of cattle from the new born up to the heavy Bull Beef Adult.

The table (below) lists the mats available with the recommended minimum to maximum weights of the cattle.

It is important to note that the table below is our recommendation based purely on the weights of the cattle. We are however happy to discuss your farming practices to facilitate the correct choice of Comfort Slat Mat.

Mat Type	Minimum weight (kg's)	Maximum weight (kg's)
White Veal	25	200
Rosé Veal	200	380
Dairy	380	600
Beef	600	950



Green Floor Mat Size		Slat Width
Beef / Dairy	Veal / Calf	Slat Rib Sizes -mm
121	121V	119-120
123	123V	121-122
127	127V	125-126
130	130V	128-129
133	133V	131-132
140	140V	138-139
143	143V	141-142
146	146V	144-145
151	151V	149-150
157	157V	155-156
161	161V	159-160
165	165V	163-164
170	170V	168-169
174	174V	172-173
195	195V	193-194
200	200V	199-200

All the above mat sizes are suitable for imperial (inches) slats. Please contact your local distributor for information.

The above slat rib widths must be within the minimum and maximum dimensions stated above. Any dimensions outside the above must be addressed by the farmer in order for the correct fit and performance of the mat and valves.

