

Hog Slat Plastic Flooring Handling & Installation Manual

General Installation Notes:

Installation of this equipment and related OEM equipment should be in accordance with these instructions, OEM's installation instructions and local codes (if applicable). Failure to follow specified instructions may cause damage to equipment and/or personal injury.

Take special note of any Warnings or Safety Decals on the equipment and in manuals.

Always wear protective clothing and any applicable Personal Protective Equipment (Safety Glasses and/or Ear Plugs) when working with the equipment.

Discarded materials, equipment and boxes should be recycled in accordance with local and national codes.

Safety Instructions:

Read all safety messages in this manual and on equipment safety decals. Follow recommended precautions and safe operating practices.

Handling of Flooring

Please transport the plastic flooring (slats) carefully. Do not expose the slats to excessive force such as impacts. Move the pallets with the flooring in accordance with forklift operating standards; do not shift the pallet with the flooring by using only the tips of the forks.

If you do not install the flooring immediately:

1. Store appropriately
2. Slats should be protected against direct sunlight and excessive heat.
3. Pallets can be stacked 3 high; no additional loading allowed.
4. Do not remove the plastic shrink wrap material until slats are ready to be installed.
5. Remove shrink wrap carefully using a knife, ensuring that you do not cut the slats (scoring the plastic might result in a "rated breaking point".)
6. Do not throw the slats.

When temperatures are below 32°F/0°C, you must bring the slats into a heated area. In this case, do not install the slats immediately. You should not start with the installation before the material has reached a temperature above 50°F/10°C. If the air temperature is higher than 86°F/30°C, you should not start with installation before the temperature of the material has dropped below 77°F/25°C, otherwise the slats may not fit properly.

Installation Guidelines

1. Please use only suitable tools for the installation of the slats.
2. Always use a rubber hammer, never use a metal hammer.
3. Do not hit the slats with full force.
4. When installing the panels, make sure they are assembled unstressed.
5. Never try to adjust an assembled slat by using a pry bar. Excessive pressure is not required. Normally the slats can be installed without too much force.
6. Make sure to use 0.200" (5mm) thick supporting beams to guarantee the perfect interlocking of flooring and beams.
7. The beam support must be completely flat to avoid tilting and give the construction the best possible stability.
8. Do not attach the beams to the walls. Plastic slats always have a small movement due to expansion or contraction depending on temperature changes.
9. Only attach other material to the flooring by using special floor anchors.
10. Farrowing crates should only be fixed to the supporting beams. Only use special anchors that have a flat contact side to the beams, otherwise beams could get damaged.

Tools Required

Jigsaw, rubber hammer, folding ruler or tape measure, and marker



DUO Protectors for Fiberglass Beams

It is absolutely necessary to always use the DUO PROTECT end caps (See Figure 1 & 2) on the fiberglass beams. This is to avoid damage of the supporting beam from rough concrete.

Note: Failure to use DUO Protectors will void warranty.



Figure 1

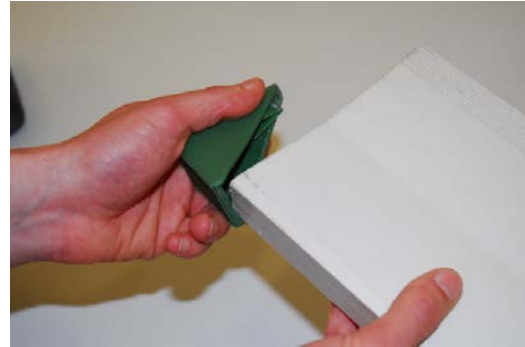


Figure 2

Tap end caps on carefully with rubber hammer until it fits snugly (See Figures 3 & 4).

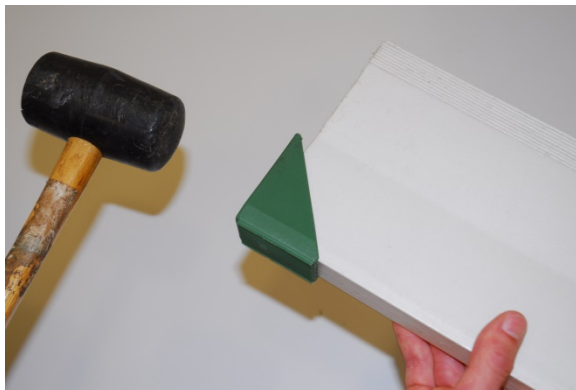


Figure 3

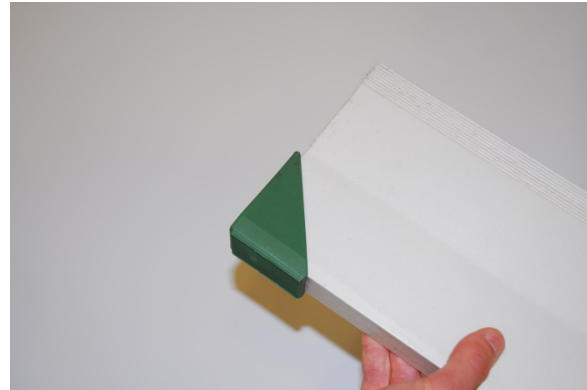


Figure 4

Construction Requirements

Verify there is a minimum bedding surface of 2" (5 cm) as shown in Figure 5. This is where the strength is getting transmitted to the basic structure. **(Note: This minimum required surface will apply regardless if floor is laid on a cement ledge as shown or on top of concrete floor.)**

On applications that requires fiberglass beam on a ledge as shown in Figure 6, a 1" gap to wall is required.



Figure 5




Figure 6

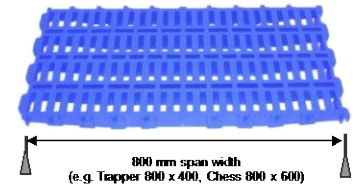
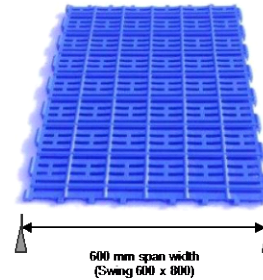
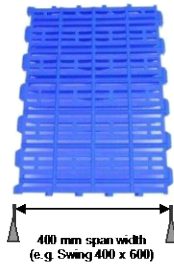
If flooring is laid on ledge as shown, height of the total construction of the DUO XL beams, DUO protectors, and the flooring should always be slightly lower than level of the concrete walkways or surfaces. This will prevent animals from lifting up the flooring.




Calculation Tool – Supporting Beams

DUO fiberglass reinforced support beams

Distance between beams/ span of panel		400 mm (15 3/4")						600 mm (23 5/8")						800 mm (31 1/2")					
Application		animals in groups up to 40 kg (88 lbs) animal weight	animals in groups up to 125 kg (275 lbs) animal weight and farrowing pens	animals in groups up to 250 kg (551 lbs) animal weight	animals in groups up to 40 kg (88 lbs) animal weight	animals in groups up to 125 kg (275 lbs) animal weight and farrowing pens	animals in groups up to 250 kg (551 lbs) animal weight	animals in groups up to 40 kg (88 lbs) animal weight	animals in groups up to 125 kg (275 lbs) animal weight and farrowing pens	animals in groups up to 250 kg (551 lbs) animal weight									
		DUO type Loading						DUO type Loading						DUO type Loading					
		31.3 lbs/ft²		52.2 lbs/ft²		73.1 lbs/ft²		31.3 lbs/ft²		52.2 lbs/ft²		73.1 lbs/ft²		31.3 lbs/ft²		52.2 lbs/ft²		73.1 lbs/ft²	
		inch	meter	inch	meter	inch	meter	inch	meter	inch	meter	inch	meter	inch	meter	inch	meter	inch	meter
		DUO L (120 mm height)	94 1/2	2.40	78 3/4	2.00	57	1.45	82 2/3	2.10	53 1/7	1.35	37 2/5	0.95	67	1.70	41 1/3	1.05	29 1/2
DUO XL (150 mm height)	130	3.30	110 1/4	2.80	98 3/7	2.50	114 1/6	2.90	98 3/7	2.50	82 2/3	2.10	102 1/3	2.60	86 3/5	2.20	55 1/8	1.40	



Steel beams

Distance between beams/ span of panel		400 mm (15 3/4")						600 mm (23 5/8")						800 mm (31 1/2")							
Application		animals in groups up to 40 kg (88 lbs) animal weight		animals in groups up to 125 kg (275 lbs) animal weight and farrowing pens		animals in groups up to 250 kg (551 lbs) animal weight		animals in groups up to 40 kg (88 lbs) animal weight		animals in groups up to 125 kg (275 lbs) animal weight and farrowing pens		animals in groups up to 250 kg (551 lbs) animal weight		animals in groups up to 40 kg (88 lbs) animal weight		animals in groups up to 125 kg (275 lbs) animal weight and farrowing pens		animals in groups up to 250 kg (551 lbs) animal weight			
		Flat steel Loading		31.3 lbs/ft²		52.2 lbs/ft²		73.1 lbs/ft²		31.3 lbs/ft²		52.2 lbs/ft²		73.1 lbs/ft²		31.3 lbs/ft²		52.2 lbs/ft²		73.1 lbs/ft²	
		inch	meter	inch	meter	inch	meter	inch	meter	inch	meter	inch	meter	inch	meter	inch	meter	inch	meter	inch	meter
40 x 5 mm								51 1/6	1.30	39 1/3	1.00	33 1/2	0.85								
50 x 5 mm		73 2/9	1.86	59 4/9	1.51	51 4/7	1.31	63	1.6	44	1.25	41 3/4	1.06								
60 x 5 mm		89	2.26	73 2/9	1.86	61 3/7	1.56	75 1/5	1.91	59	1.50	50	1.27	65	1.65	51 1/6	1.30	43 1/3	1.10		
70 x 5 mm		102 3/4	2.61	85	2.16	71 1/4	1.81	87 4/5	2.23	68 8/9	1.75	58 1/4	1.48	74 4/5	1.90	59	1.50	51 1/6	1.30		
80 x 5 mm		116 1/7	2.95	96 6/7	2.46	81 1/9	2.06	100	2.54	78 1/3	1.99	66 1/2	1.69	82 2/3	2.10	67	1.70	55 1/8	1.40		
90 x 5 mm		130 1/3	3.31	108 2/3	2.76	93	2.36	112 1/5	2.85	88 1/5	2.24	75 1/5	1.91	94 1/2	2.40	74 4/5	1.90	63	1.60		
100 x 5 mm		144 1/2	3.67	120 1/2	3.06	102 3/4	2.61	124 4/5	3.17	98	2.49	83 1/2	2.12	106 2/7	2.70	82 2/3	2.10	70 6/7	1.80		
120 x 5 mm		172	4.37	141 1/3	3.59	120 6/7	3.07	145 2/3	3.70	115 3/4	2.94	98 4/5	2.51	126	3.20	100	2.54	85 3/7	2.17		

Length of beam = support distance + 50 mm!

Caution: The tipping of the beams must be avoided, as otherwise the carrying capacity of the beams will be reduced considerably!

The indicated figures are recommendations only and solely intended for the purpose of material calculation.

These recommendations do not replace static calculation.

DUO Supporting Legs Applications



"PVC" Maximum Height 20"



"GRP" Maximum Height 40"

Installation of Plastic Flooring

Note: If the length of the plastic flooring sections does not fit the required length dimension, cut a section of flooring with a saw as described below.

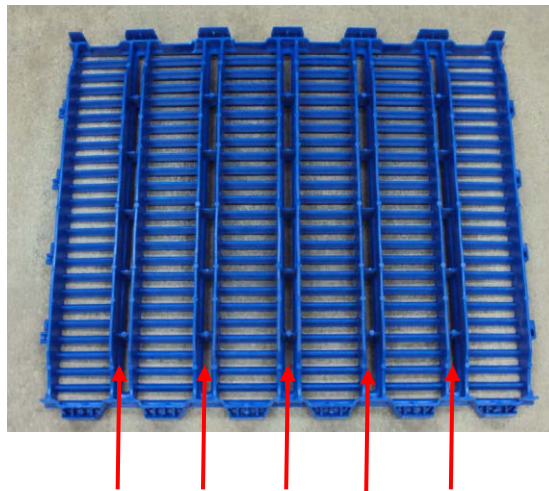
Rubin 19-11/16" x 23-5/8" Hog Slat Blue



Top of Flooring



Bottom of Flooring



This particular style flooring can only be cut between any one of the twin walls depending on cut length needed!

**(Principle is similar for same locking style Hog Slat-flooring.
For other flooring styles i.e. chess, swing, cut along side of a single wall.)**



**Cut the flooring between the twin walls as shown.
Safety procedures must be followed and protective equipment must be worn.**



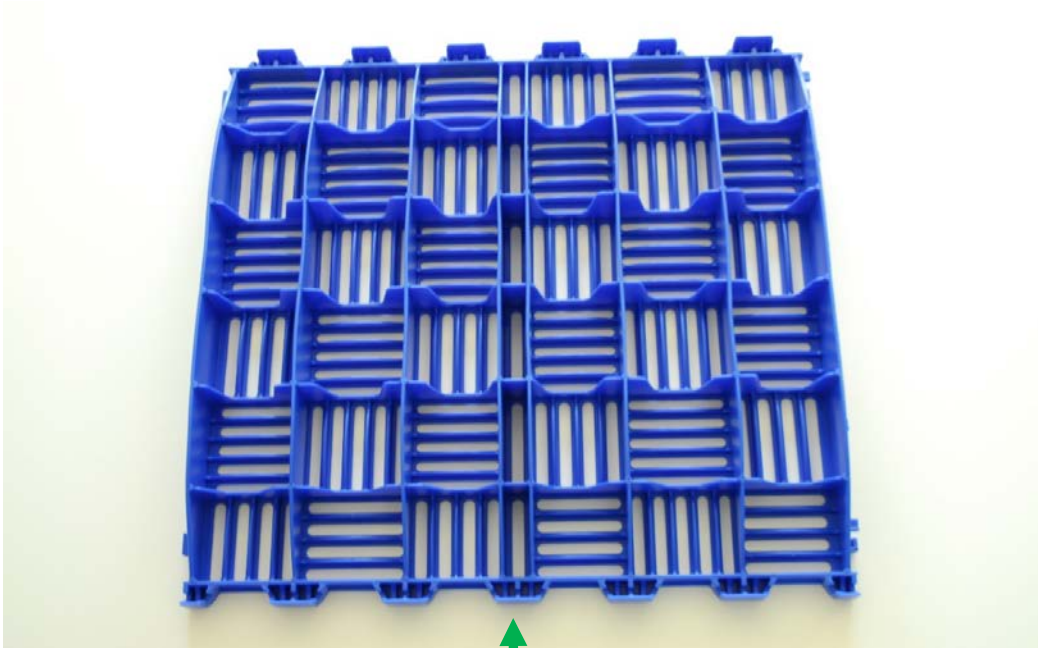
Correct Cut Flooring

If flooring is cut outside of the twin walls, the carrying capacity will be adversely affected.

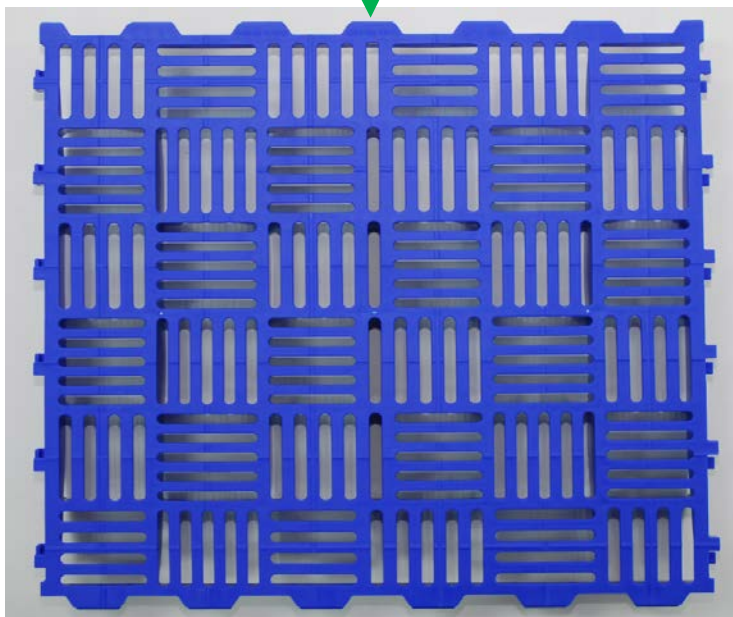


Incorrect Cut Flooring

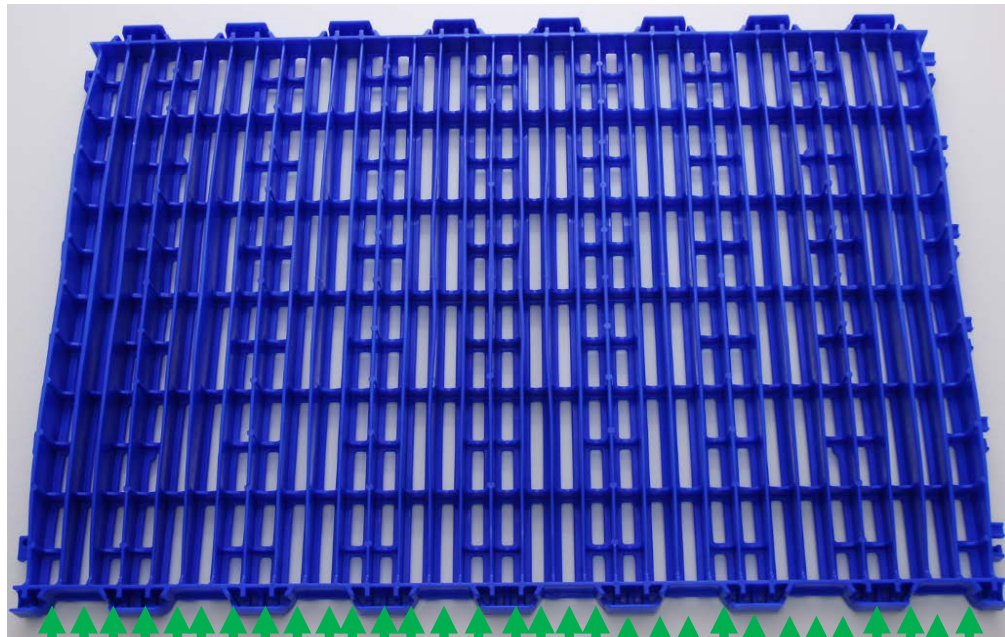
Chess Hog Slat Blue



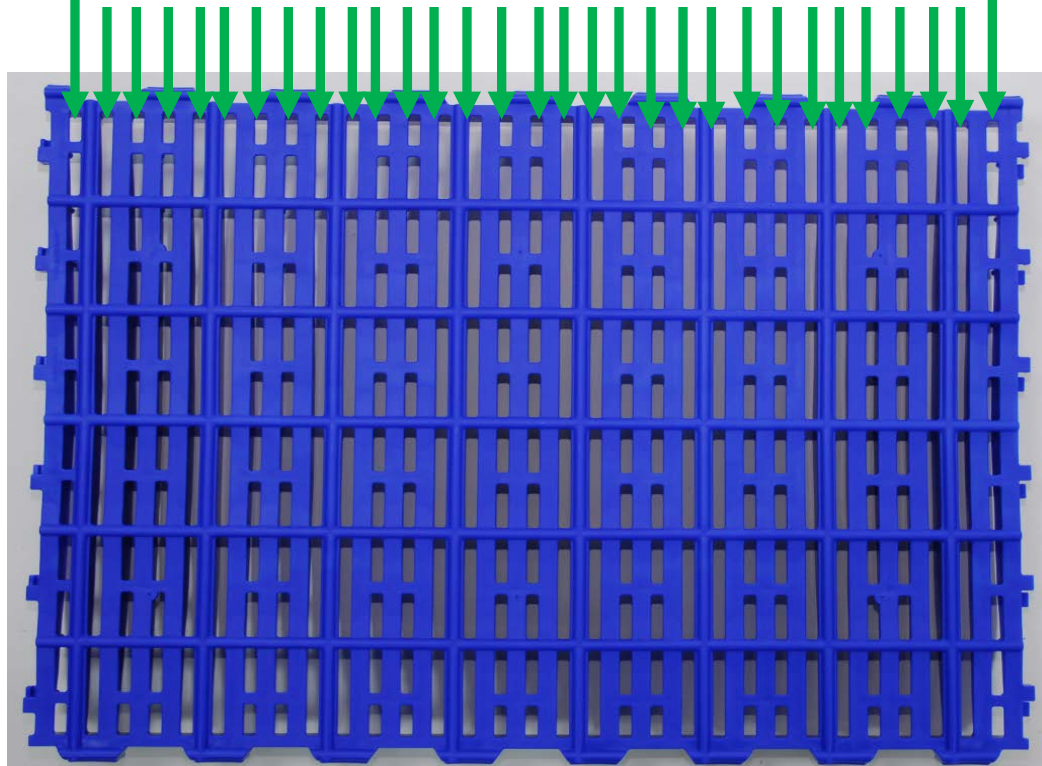
Cut only in the middle! Left over can
be used to start next row



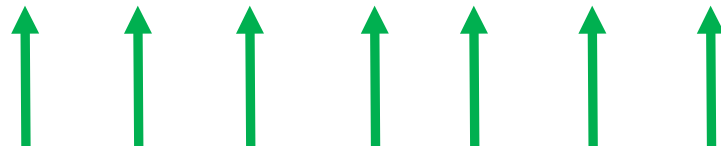
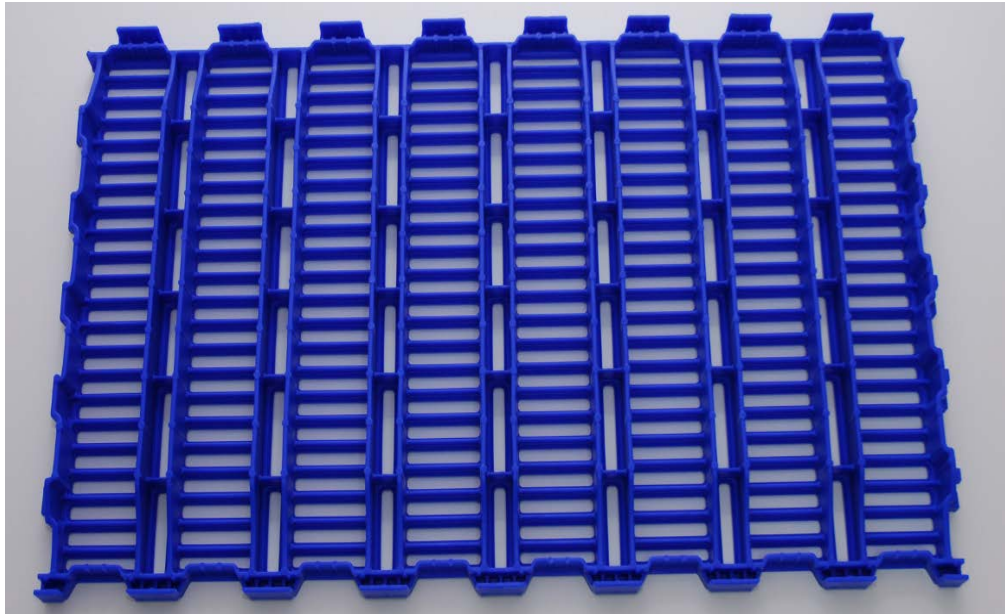
Swing Hog Slat blue



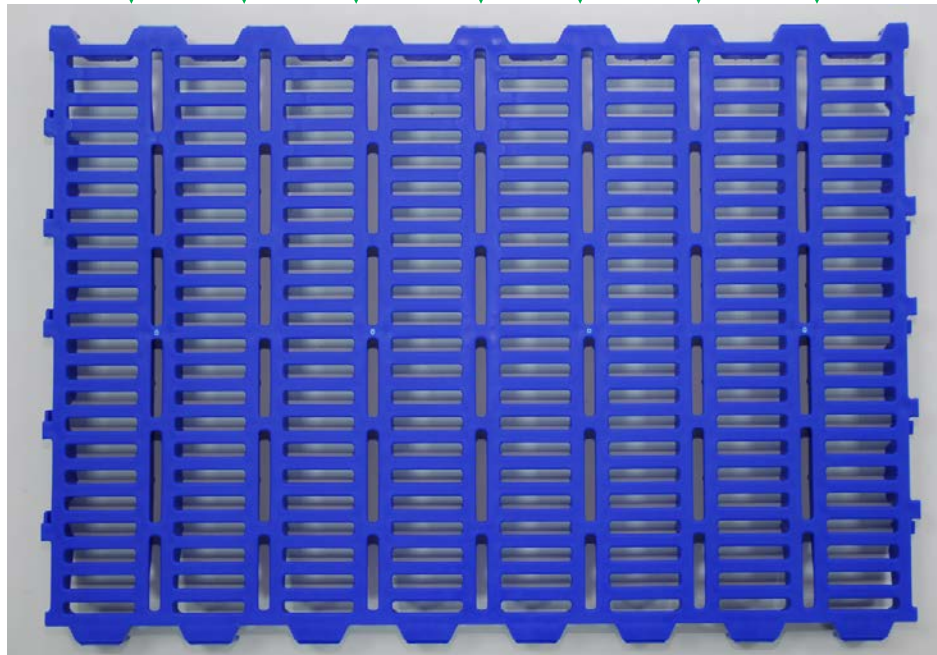
Cut can be made between slot for required length-
see green arrows. Left over can be used to start
next row.



PXL 18" X 31-1/2" HOG SLAT Blue



Can be cut every 3-15/16"- see green arrows.
Left over can be used to start next row.



Procedure:

1. Starting in first row, interlock sections of plastic flooring slats behind each other. Position tabs as shown (Figure 6) and slide until tabs tightly interlock (Figure 7). Use of rubber hammer may be necessary.

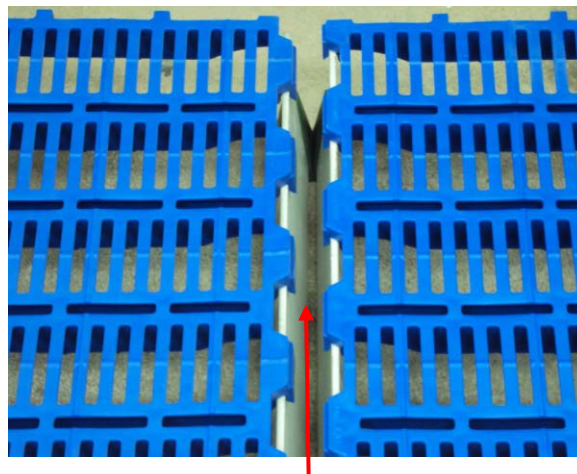


Figure 6



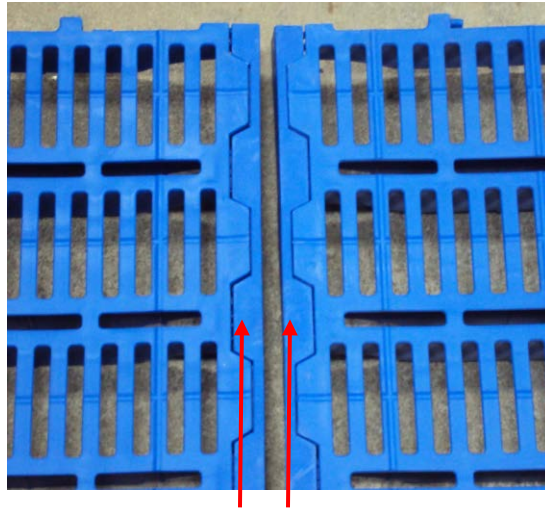
Figure 7

2. Attach additional slats until desired length is reached. If necessary, cut the last slat of this row with a saw to meet the length.
3. Place interlocked flooring slats on fiberglass beams. Make sure slat is even with end of beam. Using rubber hammer, tap flooring down securely onto beams.
4. Use the remaining section of the cut slat to start the next row and continue attaching whole slats until the desired length is reached again. It may be necessary to cut another slat to meet the desired length. (See Layout Example on Page 9)
5. Continue with the same procedure in every row.
6. For flooring areas wider than 65 feet (20 m), it is necessary to install an expansion gap by using a double supporting beam.



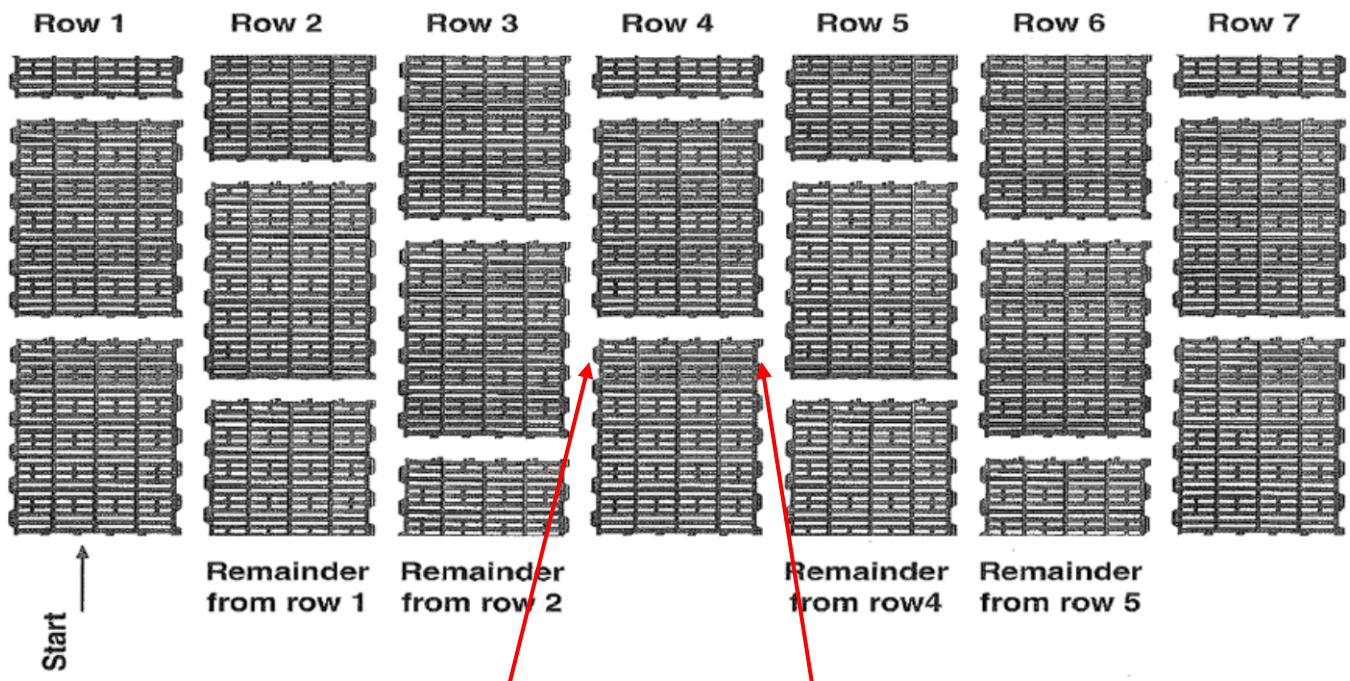
Expansion Gap

7. Always use the edge strip to finish the expansion gap and flooring installation on each side.



Expansion Gap with Edge Strips

Layout Example



Each Hog Slat style slat has a left-hand and a right-hand hook-in device and the slats have to be laid accordingly.

Removal of a Single Slat

- When removing a slat, remove the corresponding row of slats.
- Start with removing at the beginning of the row which should be removed
- Put your feet on the outer edges of both rows which are adjacent to the slat / row that you want to remove.
- Lift the slat until it is detached from the beam. Proceed with this on the opposite side of the slat until the entire slat is completely detached from the beam.
- Unlock the slat from the following one and remove
 - Repeat these steps until you reach the slat you want to remove on until you finish dismantling the row. Make sure not to treat the slats with full force or to excessively pry them since the interlocking system between the slats can only be unlocked by lifting the whole slat one side at a time from the supporting beams.

Bolting Accessories for Mounting Pen System, Feeders, etc.



Plastic Anchors for flooring










J-bolt attaches onto fiberglass beams



Duo Track support system

Parts List

All Plastic Flooring will be in Hog Slat Blue

Part Number	Description	Photo
MK00103-HS	Flooring Plastic Rubin Blue 19-11/16" x 23-5/8" (500mm x 600mm)	
MK00104-HS	Flooring Plastic Rubin Blue 15-3/4" x 23-5/8" (400mm x 600mm)	
MK00105-HS	Flooring Plastic Rubin Blue 11-13/16" x 23-5/8" (300mm x 600mm)	
MK00106-HS	Flooring Plastic Rubin G Blue 15-3/4" x 23-5/8" (400mm x 600mm)	
MK00107-HS	Flooring Plastic Rubin Blue 7-7/8" x 11-13/16" (200mm x 300mm)	
MK00110-HS	Flooring Plastic PXL Blue 18" X 31-1/2" (457mm X 800mm)	
MK00112-HS	Swing Titan 24" x 3-15/16" (609.6mm X 100mm)	

MK00133-HS	Flooring Plastic Blue Swing G 5% 15-3/4" X 23-5/8" (400mm x 600mm)	
MK00135-HS	Flooring Plastic Blue Swing 19-11/16" x 23-5/8" (500mm x 600mm)	
MK00137-HS	Flooring Plastic Blue Swing 19-11/16" x 3-15/16" (500mm x 100mm)	
MK00143-HS	Flooring Plastic Blue Swing 23-5/8" x 31-1/2" (600mm x 800mm)	
MK00145-HS	Flooring Plastic Blue Swing 15-3/4" x 23-5/8" (400mm x 600mm)	
MK00147-HS	Flooring Plastic Blue Swing 11-13/16" x 3-15/16" (300mm x 100mm)	
MK00148-HS	Flooring Plastic Blue Swing 11-13/16" x 23-5/8" (300mm x 600mm)	
MK00149-HS	Flooring Plastic Blue Swing 15-3/4" x 3-15/16" (400mm x 100mm)	
MK00151-HS	Flooring Plastic Blue Swing 23-5/8" x 3-15/16" (600mm x 100mm)	
MK00191-HS	Flooring Plastic Edge Strip Blue 15-3/4" Long (400mm Long)	

MK00320-HS	Flooring Plastic Diamant G Blue 31-1/2" x 15-3/4" (800mm x 400mm)	
MK00330-HS	Flooring Plastic Chess Blue 31-1/2" x 23-5/8" (800mm x 600mm)	
MK00331-HS	Flooring Plastic Chess Blue 31-1/2" x 3-15/16" (800mm x 100mm)	
MK00336-HS	Flooring Plastic Chess Blue 23-5/8" x 23-5/8" (600mm x 600mm)	
MK00337-HS	Flooring Plastic Chess Blue 24" x 23-5/8" (609.6mm X 600mm)	
MK00510	Cast C 15-3/4" x 23-5/8" (400mm x 600mm)	
MK00520	Cast C 23-5/8" x 15-3/4" (600mm x 400mm)	
MK20000	Beam Support DOU XL Per Feet	
MK20000-10	Beam Support DOU XL 10' Length	
MK20000-72	Beam Support DOU XL 7'-2" Length	

MK20000-76	Beam Support DOU XL 7'-6" Length	
MK20000-82	Beam Support DOU XL 8'-2" Length	
MK22000	Beam Support DOU L Per Feet	
MK22000-10	Beam Support DOU L 10' Length	
MK24170	End Cap Pedestal DUO	
79500	J-bolt - Anchor for Support Beams	
HS652	Plastic Anchors for flooring	
MK00455	Track DOU	
MK00423	Pedestal DUO	

Hog Slat Limited Warranty

Hog Slat warrants products to be free from defects in material or workmanship for a period of twenty-four (24) months from the date of **installation**. Hog Slat will credit, repair, or replace, at its option any product deemed defective within this time period. Labor costs associated with the replacement or repair of the product are not covered by the Seller/Manufacturer.

Warranty Extension Coverage Includes

**Plastic Flooring Slats, Fiberglass Beams, DUO Protectors,
DUO Pedestals, Supporting Leg Sets, Edge Strips**

5 years prorated as defined in table below:

Year	Warranty – Manufacturer/Dealer	Customer
1st	100%	0%
2nd	100%	0%
3rd	100%	0%
4th	70%	30%
5th	50%	50%

Conditions and Limitations

1. The product must be installed by and operated in accordance with the instructions published by the **Seller/Manufacturer or Warranty will be void.**
2. Warranty is void if **all components** are not original equipment supplied by the **Seller/Manufacturer.**
3. This product must be purchased from and installed by an authorized retailer/distributor or certified representative thereof or the Warranty will be void.
4. Malfunctions or failure resulting from misuse, abuse, negligence, alteration, accident, or lack of proper maintenance shall not be considered defects under the Warranty.
5. This Warranty applies only to components/systems for the care of poultry and livestock. Other applications in industry or commerce are not covered by this Warranty.
6. This Warranty applies only to the Original Purchaser of the product.

The **Seller/Manufacturer** shall not be liable for any **Consequential or Special Damage** which any purchaser may suffer or claim to suffer as a result of any defect in the product. **“Consequential” or “Special Damages” as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.**

THIS WARRANTY CONSTITUTES THE SELLER/MANUFACTURER’S ENTIRE AND SOLE WARRANTY AND THIS MANUFACTURER EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

Hog Slat Retailers/Distributors are not authorized to modify or extend the terms and conditions of this Warranty in any manner or to offer or grant any other warranties for Hog Slat products in addition to those terms expressly stated above. An officer of Hog Slat must authorize any exceptions to this Warranty in writing. The Seller/Manufacturer reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

Notes:

This equipment must be installed in accordance with all State and Local Codes and applicable Regulations which should be followed in all cases. Authorities having jurisdiction should be consulted before installations are made.



**Hog Slat, Inc.
PO Box 300
Newton Grove, NC 28366**

**Phone: (910) 594-0219
Fax: (910) 594-1392**

www.hogslat.com

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Market – Hog**