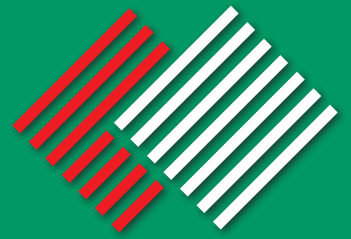
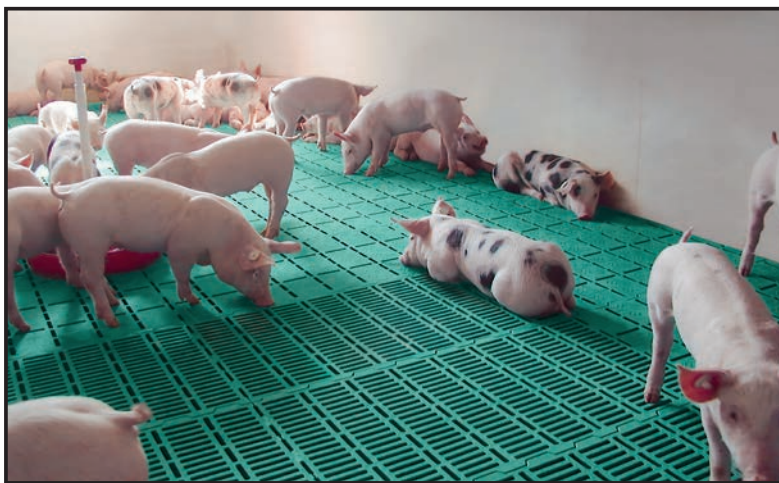


# Stall-Ring

FLOORING SYSTEMS FOR PIGS



## Product - Information



Plastic slats • Cast iron slats • Heat pads



[www.stall-ring.de](http://www.stall-ring.de)

## Stall-Ring has what pigs are looking for!

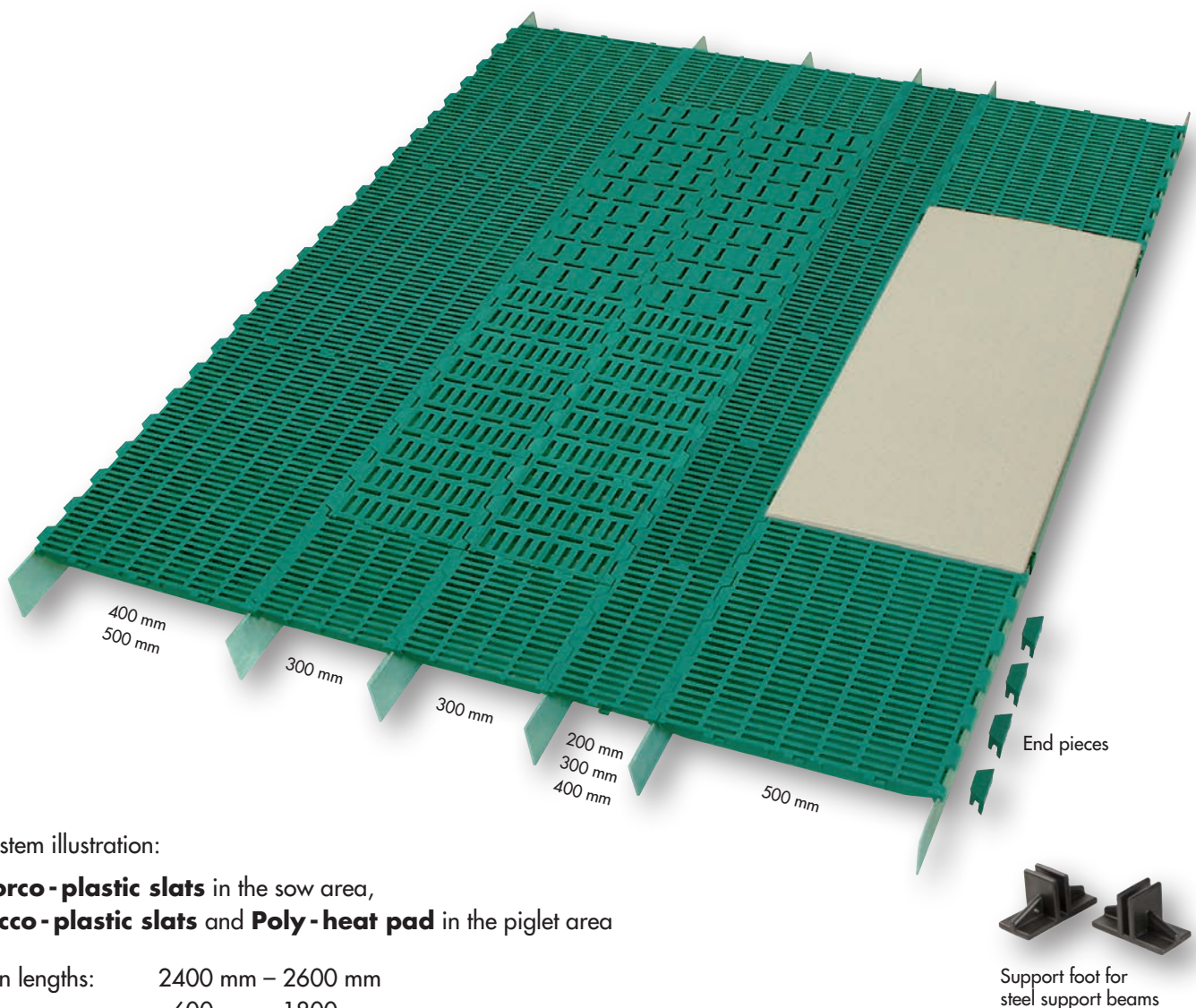


We specialize in high quality flooring systems for farrowing and weaner barns.

With over 40 years of international experience in design we distribute animal friendly, high class **plastic slats**, **cast iron slats** and **heat pads** throughout Europe and abroad.



## „Porco/Picco“- System for straight farrowing pens

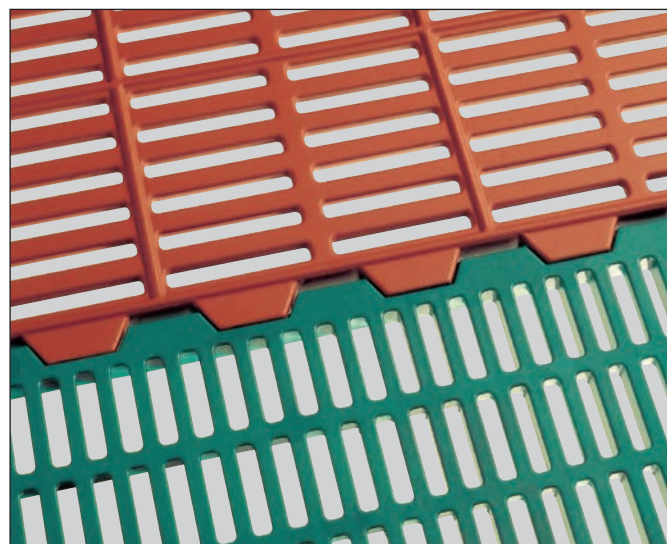


System illustration:

**Porco - plastic slats** in the sow area,  
**Picco - plastic slats** and **Poly - heat pad** in the piglet area

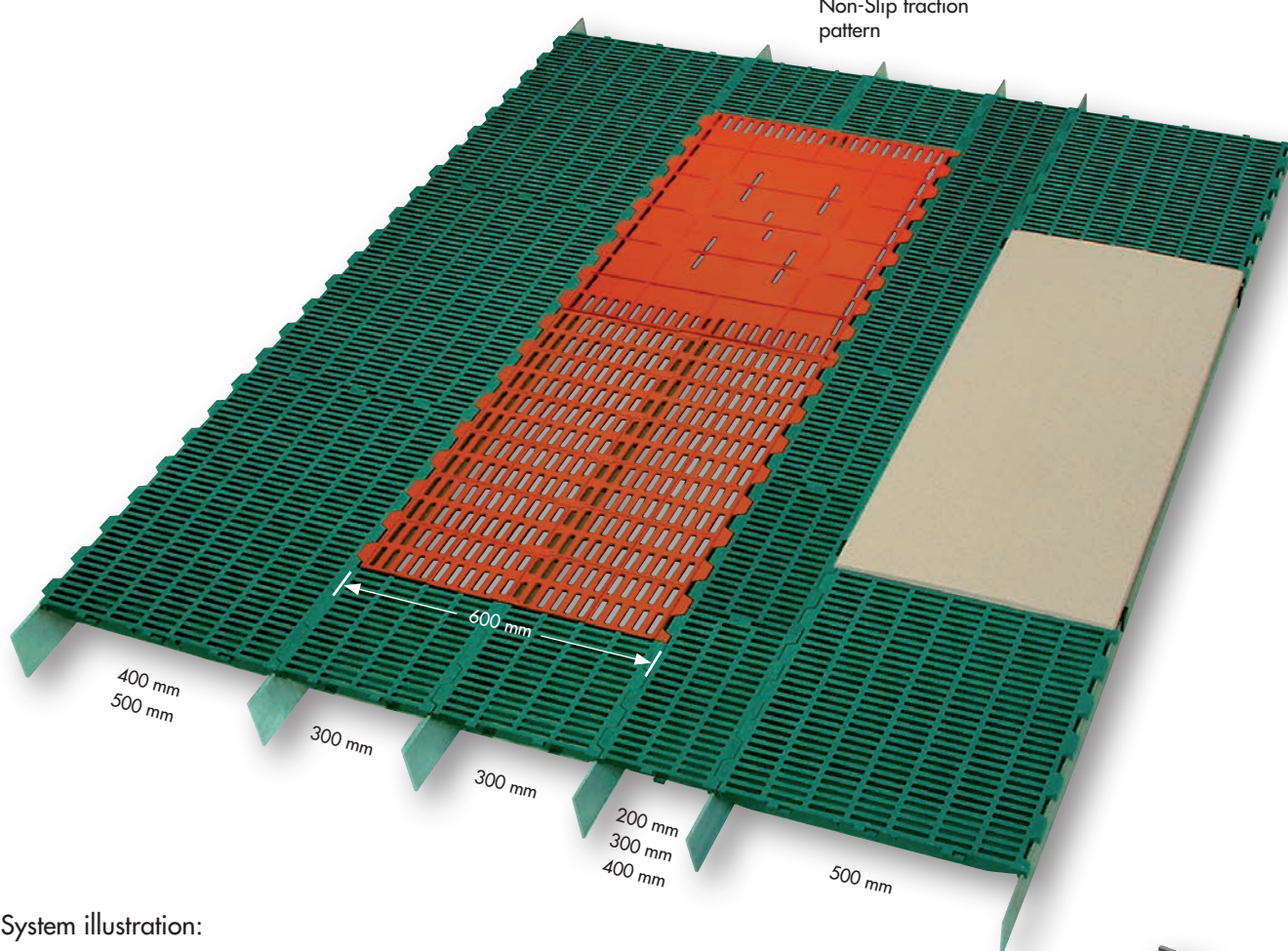
Pen lengths: 2400 mm – 2600 mm  
Sow area: 600 mm x 1800 mm





## „Mix“- System for straight farrowing pens

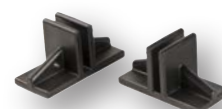
Mix 693/N  
Solid surface with  
Non-Slip traction  
pattern



System illustration:

**Mix-cast iron slats** in the sow area,  
**Picco-plastic slats** and **Poly-heat pad** in the piglet area

Pen lengths: 2400 mm – 2600 mm  
Sow area: 600 mm x 1800 mm

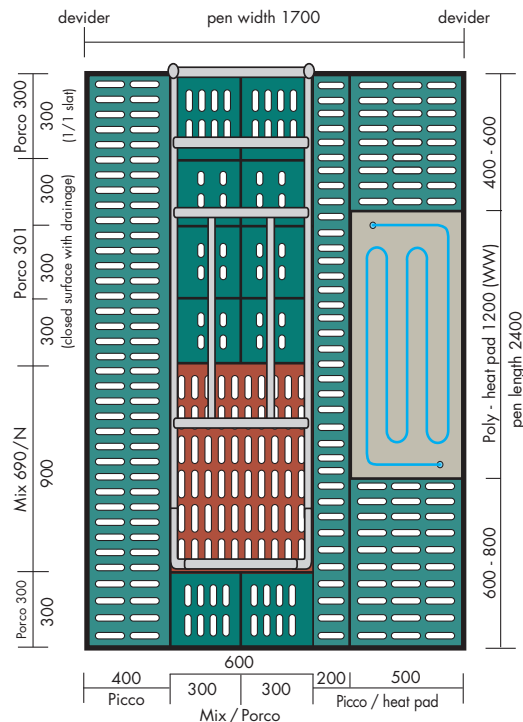


Support foot for  
steel support beams

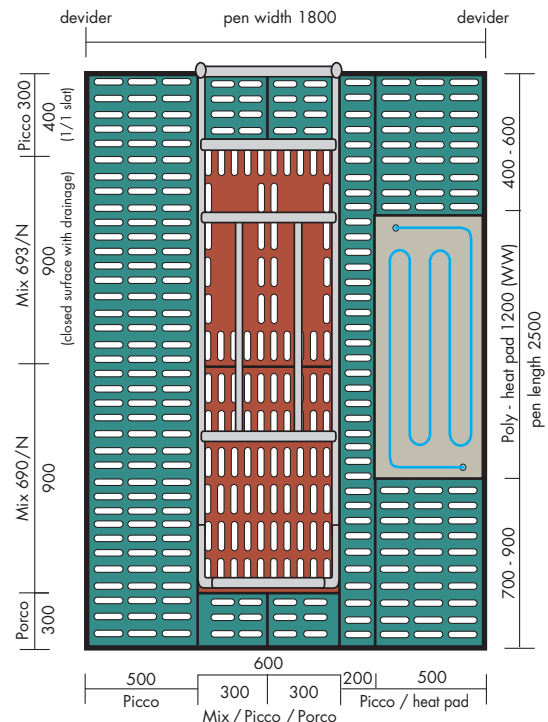
# Layout examples for conventional straight farrowing pens

(dimensions mm)

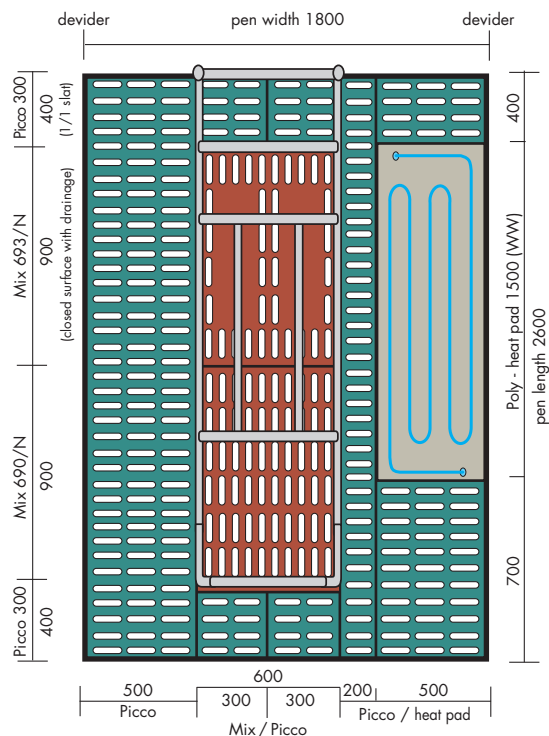
1.) „Mix“- System 1700/2400



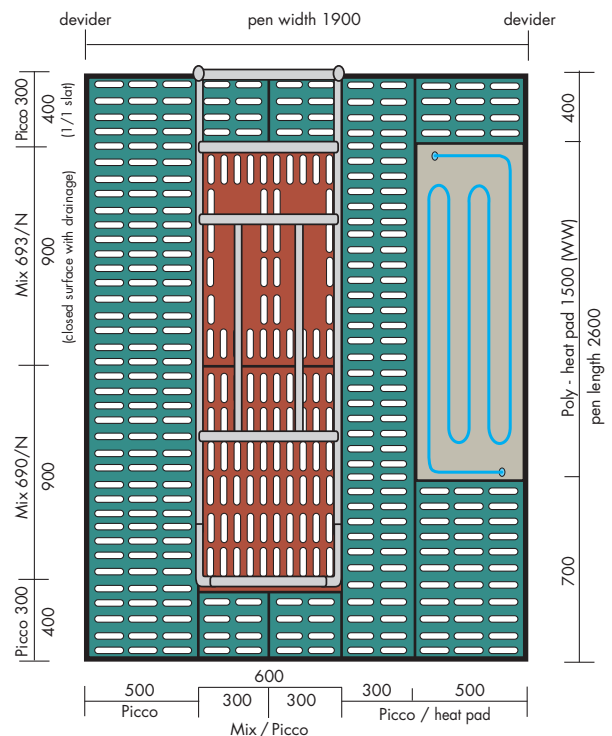
2.) „Mix“- System 1800/2500



3.) „Mix“- System 1800/2600



4.) „Mix“- System 1900/2600



For installations of our slats and heat pads in farrowing pens it is required to use **5 mm wide rolled and galvanized steel support beams**, manufactured to DIN EN 10025, dimensional tolerances to DIN EN 10058 or of 5 mm wide stainless steel beams. For the required support height consult our „**support tables**“ on page 7 of this price list (only recommendations).

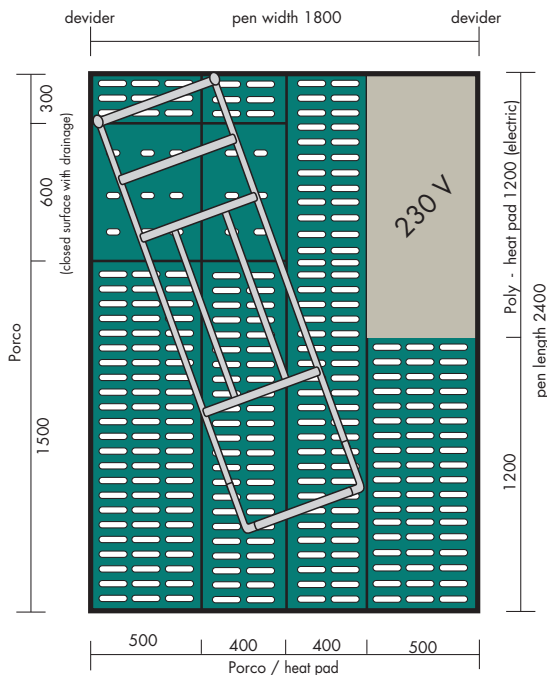
Due the temperature dependant dimensional variations of the various materials, the plastic slats including cut-offs, cast iron slats and heat pads must be installed **directly in sequence** one after the other within the same floor system. From a **trough depth of 400 mm** our plastic **farrowing slat „Picco 300“** can be used as whole slat with length of 400 mm under the trough in front of the sow. For **smaller trough depths** reduced there the plastic area of 300 mm length and our plastic **sow slat „Porco 300“** are be used as whole slat with length of 300 mm (see installation example 1).



# Layout example for conventional diagonal farrowing pens

(dimensions mm)

## 5.) Porco - System 1800/2400



## Support Tables

### 5 mm wide rolled and galvanized steel support beams

manufactured to DIN EN 10025,  
dimensional tolerances DIN EN 10058

farrowing pens free span up to	Picco + Porco	Mix- cast iron
1200 mm	60 x 5 mm	80 x 5 mm
1800 mm	80 x 5 mm	90 x 5 mm
2600 mm	100 x 5 mm	100 x 5 mm
3000 mm	120 x 5 mm	120 x 5 mm

All dimensions are only recommendations.

They do not eliminate the need for the static load analysis for each individual project.

flatdecks free span up to	Picco 200 - 500	Piccolino 450 + 451	Piccolino 800 - 802 Piccoletto 810
1600 mm	60 x 5 mm	60 x 5 mm	80 x 5 mm
2400 mm	80 x 5 mm	80 x 5 mm	100 x 5 mm
3000 mm	100 x 5 mm	100 x 5 mm	100 x 5 mm

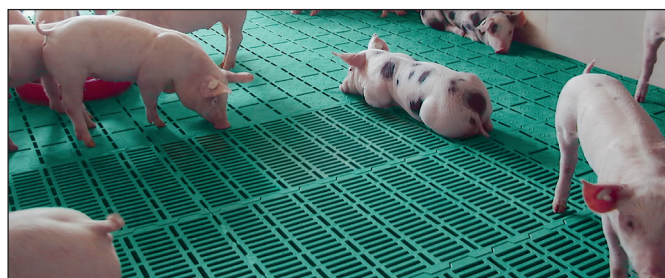
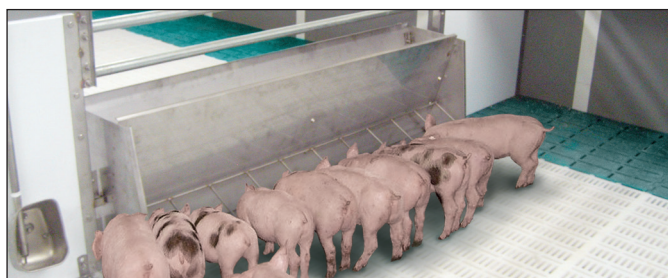
All dimensions are only recommendations.

They do not eliminate the need for the static load analysis for each individual project.

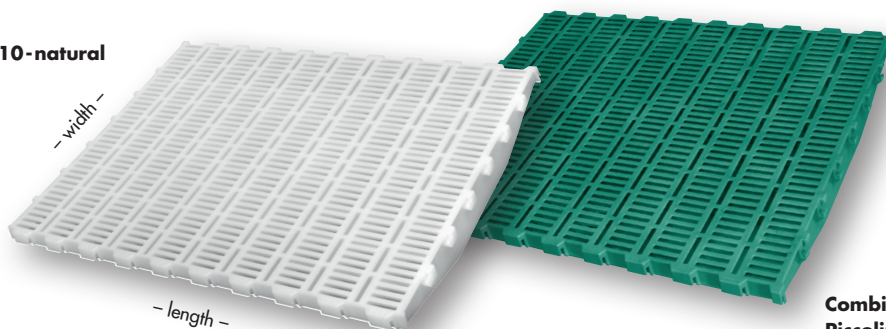
For installations of our slats and heat pads in farrowing pens it is required to use **5 mm wide rolled and galvanized steel support beams**, manufactured to DIN EN 10025, dimensional tolerances to DIN EN 10058 or of 5 mm wide stainless steel beams. For the required support height consult our „**support tables**“ from above (only recommendations).

Due the temperature dependant dimensional variations of the various materials, the plastic slats including cut-offs, cast iron slats and heat pads must be installed **directly in sequence** one after the other within the same floor system.

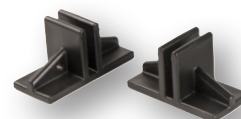
## Piccoletto and Piccolino - weaner slats for flatdecks



**Piccoletto 810-natural**



**Piccoletto 810-green**

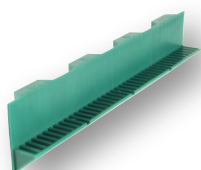


Support foot for  
steel support beams

Combinable with  
Piccolino 800 - 802

### Weaner-plastic slats for flatdecks made of PPC - Polypropylen

Piccoletto-weaner slats	sizes mm width x length	gap width	bar width	support high	weight/ piece	for weaners up to	prices on request
Piccoletto 810-natural	800 x 1000	10 mm	10 mm	12 mm	5.75 kg	<b>35 kg</b>	
Piccoletto 810-green	800 x 1000	10 mm	10 mm	12 mm	5.75 kg		



Carrier strips L+R  
for concrete slat inserts

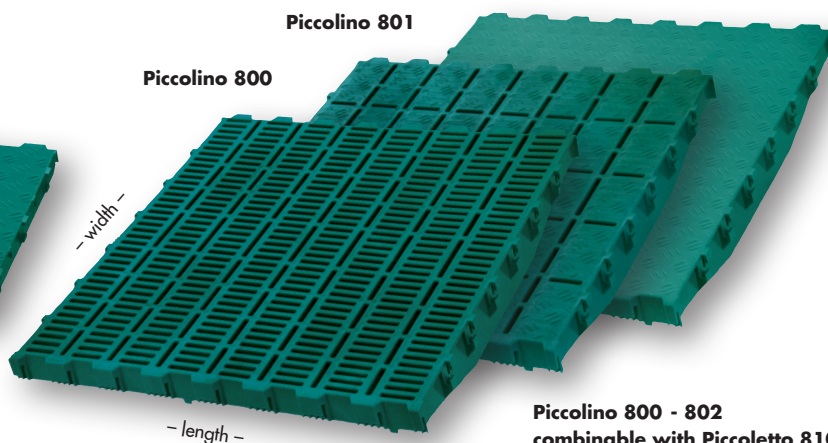
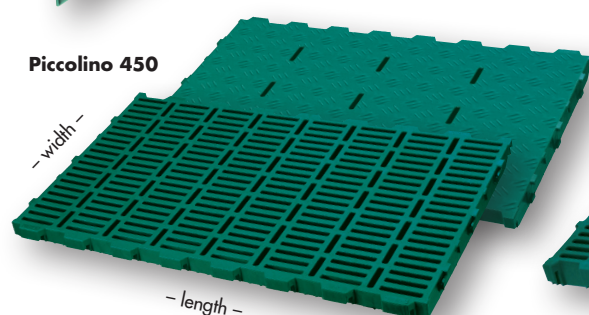
**Piccolino 451**

**Piccolino 802**

**Piccolino 801**

**Piccolino 800**

**Piccolino 450**



**Piccolino 800 - 802**  
combinable with Piccoletto 810

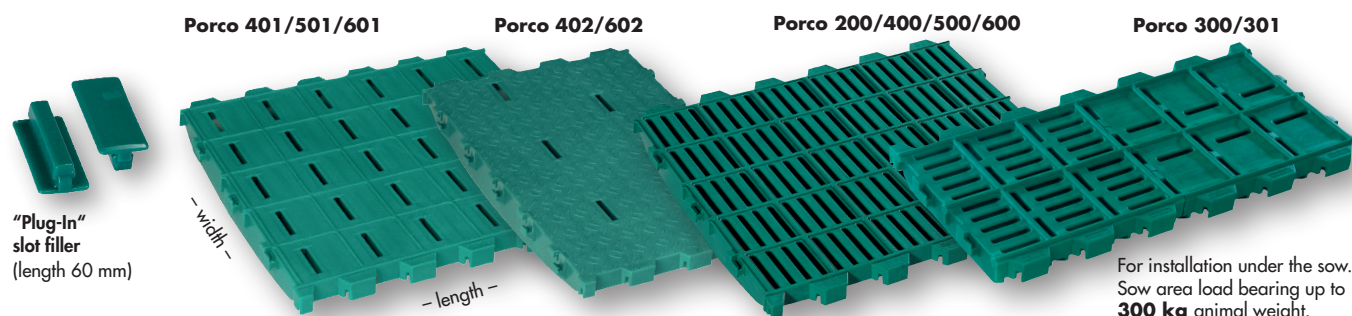
### Weaner-plastic slats for flatdecks and grower pens made of PPC - Polypropylen

Piccolino-weaner slats	sizes mm width x length	gap width	bar width	support high	weight piece / pair	for weaners up to	prices on request
Piccolino 450	450 x 800	10 mm	10 mm	12 mm	2.70 kg / pc	<b>50 kg</b>	
Piccolino 451	450 x 800	closed surface with 2% openings		12 mm	3.00 kg / pc		
Piccolino 800	800 x 800	10 mm	10 mm	12 mm	5.55 kg / pc		
Piccolino 801	800 x 800	closed surface with 10% openings		12 mm	5.75 kg / pc		
Piccolino 802	800 x 800	closed surface		12 mm	5.85 kg / pc		
Carrier L+R	400 mm length	Carrier strips (left+right) for concrete slat inserts			0.400 kg / pair	–	
End piece	–	–	–	12 mm	0.010 kg / pc	–	
Support foot	Support foot for 5 mm steel support beams				0.016 kg / pc	–	

**Please take note of our „storage- and installation instructions“ for plastic slats.**



## Porco-sow slats and Picco-farrowing slats for farrowing pens

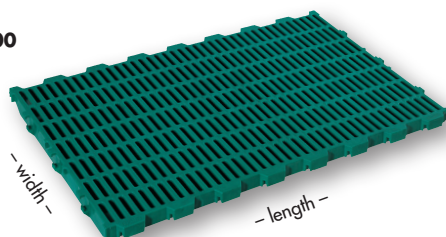


### Sow - plastic slats for straight and diagonal farrowing pens made of PPC - Polypropylen

Porco-sow slats	sizes mm width x length	gap width	bar width	support high	weight/ piece	for type of pens	prices on request
Porco 200	200 x 400	10 mm	15 mm	12 mm	0.75 kg	farrowing pens	
Porco 300	300 x 300	10 mm	15 mm	12 mm	0.96 kg		
Porco 301	300 x 300	closed surface with 10% openings		12 mm	0.97 kg		
Porco 400	400 x 600	10 mm	15 mm	12 mm	2.45 kg		
Porco 401	400 x 600	closed surface with 6% openings		12 mm	2.55 kg		
Porco 402	400 x 600	closed surface with drainage		12 mm	2.52 kg	piglets resting areas	
Porco 500	500 x 600	10 mm	15 mm	12 mm	3.35 kg	farrowing pens	
Porco 501	500 x 600	closed surface with 6% openings		12 mm	3.55 kg		
Porco 600	600 x 400	10 mm	15 mm	12 mm	2.45 kg		
Porco 601	600 x 400	closed surface with 6% openings		12 mm	2.65 kg		
Porco 602	600 x 400	closed surface with drainage		12 mm	2.65 kg	piglets resting areas	
Plug-In	Slot filler for Porco 401/402, Porco 501, Porco 601/602				0.010 kg	–	
End piece	–	–	–	12 mm	0.010 kg	–	
Support foot	Support foot for 5 mm steel support beams				0.016 kg	–	

#### Picco 200/300/400/500

For installation in creep areas,  
in front, behind or beside sows  
and perforated doorways.  
Temporary loading up to **200 kg**.



### Farrowing - plastic slats for straight farrowing pens and doorways made of PPC - Polypropylen

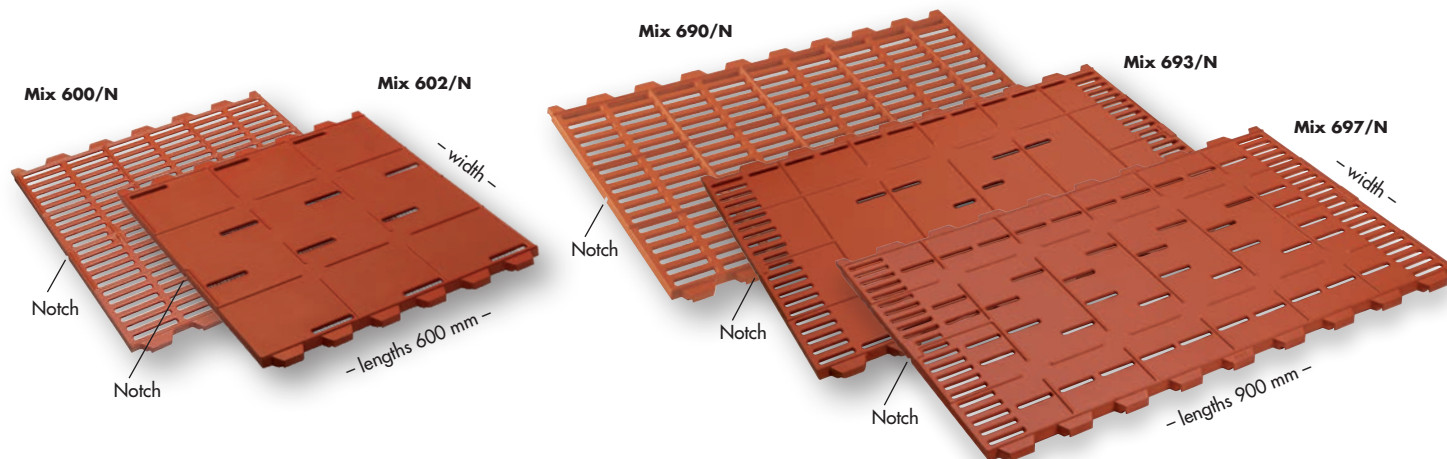
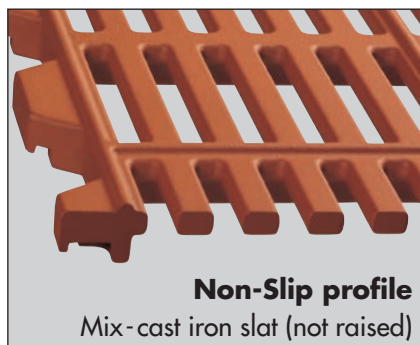
Picco-farrowing slats	sizes mm width x length	gap width	bar width	support high	weight/ piece	for type of pens	prices on request
Picco 200	200 x 400	10 mm	10 mm	12 mm	0.54 kg	straight farrowing pens (in piglets areas) and perforated doorways	
Picco 300	300 x 400	10 mm	10 mm	12 mm	0.90 kg		
Picco 400	400 x 800	10 mm	10 mm	12 mm	2.55 kg		
Picco 500	500 x 800	10 mm	10 mm	12 mm	3.80 kg		
End piece	–	–	–	12 mm	0.010 kg	–	
Support foot	Support foot for 5 mm steel support beams				0.016 kg	–	

**Please take note of our „storage- and installation instructions“ for plastic slats.**

## Mix - cast iron slats •

## Conventional •

## Free Move



## Cast iron slats made of FERRO-cast iron

Item-No. with „N“ = **Notch / Groove** (in centre of the slats for combination with plastic slats Picco 300 and / or Porco 300/301)

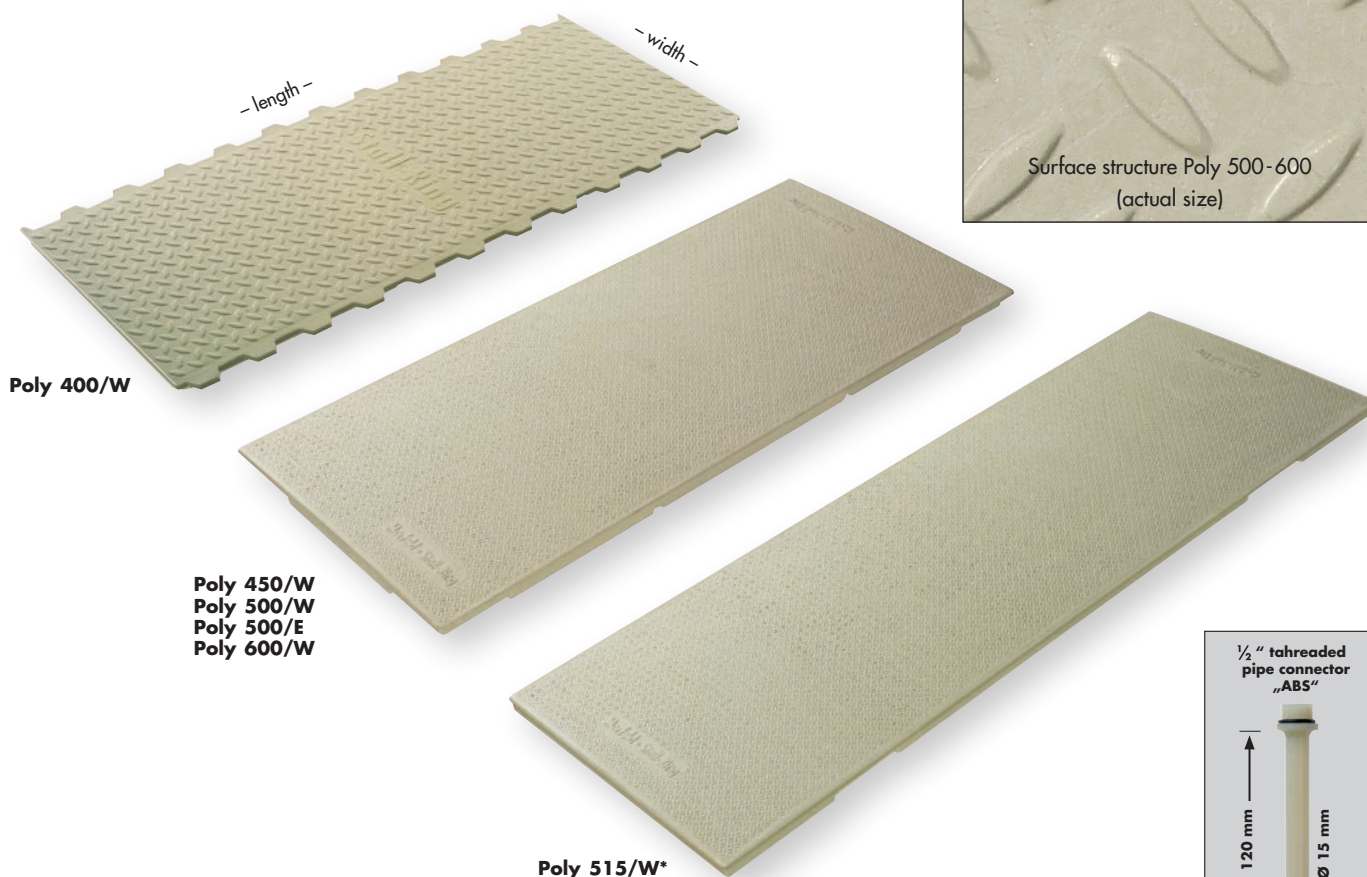
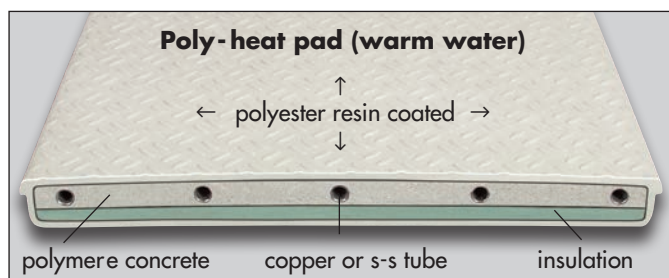
Mix-cast iron slats	sizes mm width x length	gap width	bar width	support high	floor level	weight/ piece	for type of pens	prices on request
Mix 600/ <b>N</b>	600 x 600 mm	10 mm	15 mm	12 mm	even	20.0 kg	Conventional farrowing pens	
Mix 602/ <b>N</b>	600 x 600 mm	closed surface with 3% openings		12 mm	even	22.0 kg		
Mix 690/ <b>N</b>	600 x 900 mm	10 mm	15 mm	12 mm	even	28.0 kg	Conventional farrowing pens	
Mix 693/ <b>N</b>	600 x 900 mm	closed surface with 5% openings		12 mm	even	31.0 kg		
Mix 697/ <b>N</b>	600 x 900 mm	closed surface with 7% openings		12 mm	even	30.0 kg	Free Move farrowing pens	

These Mix-cast iron slats with „Non-Slip profile“ are used for our Combi-floors in farrowing pens under the sow.



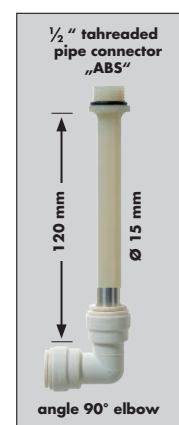
## Energy-saving Poly-heat pads

made of **Polymere-concrete** (internal heater core) and **Polyester-resin** (outer protective coating).



\* The overall length of the heat pad **Poly 515/W** is 1530 mm above the plastic slats.  
The dimension in between the plastic slats is 1500 mm.  
Therefore the heat pad is overlapping the plastic slats by 15 mm each end.

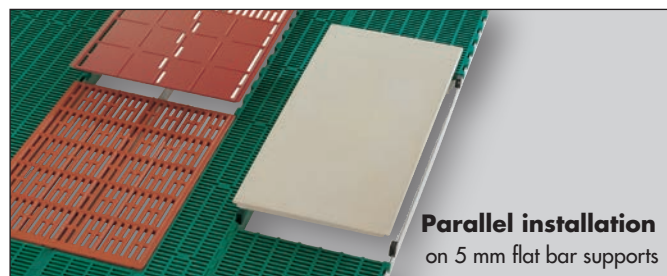
### For weaners up to 35 kg.



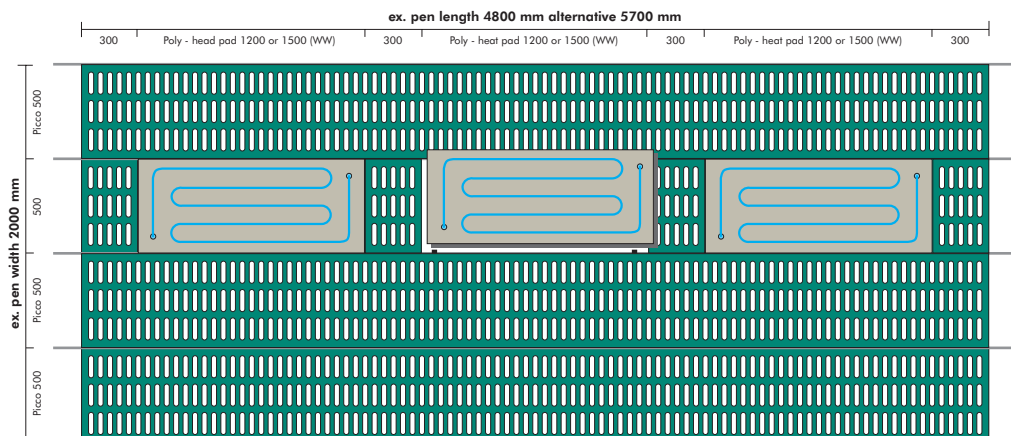
Poly-heat pads	sizes mm width x length	heat source	power pad / hour	supp. direction to the pad	weight/ piece	for type of pens	prices on request
Poly 400/W	400 x 1200	warm water	150 W / 75 W	lengthways	24.0 kg	farrowing pens	
Poly 450/W	450 x 1350	warm water	180 W / 90 W	length- & crossways	37.0 kg	flatdecks	
Poly 500/W	500 x 1200	warm water	180 W / 90 W	length- & crossways	36.0 kg	farrowing pens and flatdecks	
Poly 500/E	500 x 1200	electric	180 W / 90 W	length- & crossways	36.0 kg		
Poly 515/W	500 x 1500	warm water	220 W / 110 W	lengthways	43.0 kg	straight farrowing pens	
Poly 600/W	600 x 1200	warm water	220 W / 110 W	length- & crossways	41.0 kg	farrowing pens and flatdecks	
Poly-Clip	assembly piece	—	—	—	0.02 kg	Poly-heat pads	
Connector / ABS	connection 1/2"	warm water	—	—	0.08 kg	heat pads	
Angle 90°	for pipe Ø 15 mm	warm water	—	—	0.02 kg	heat pads	

Up to **eight warm water heat pads** can be connected in series to the same water circuit.  
The connection and start-up of our heat pads are to be performed by qualified and experienced installer.  
For electrical heat pads and their controllers the DIN / VDE 0100 requirements are to be followed.

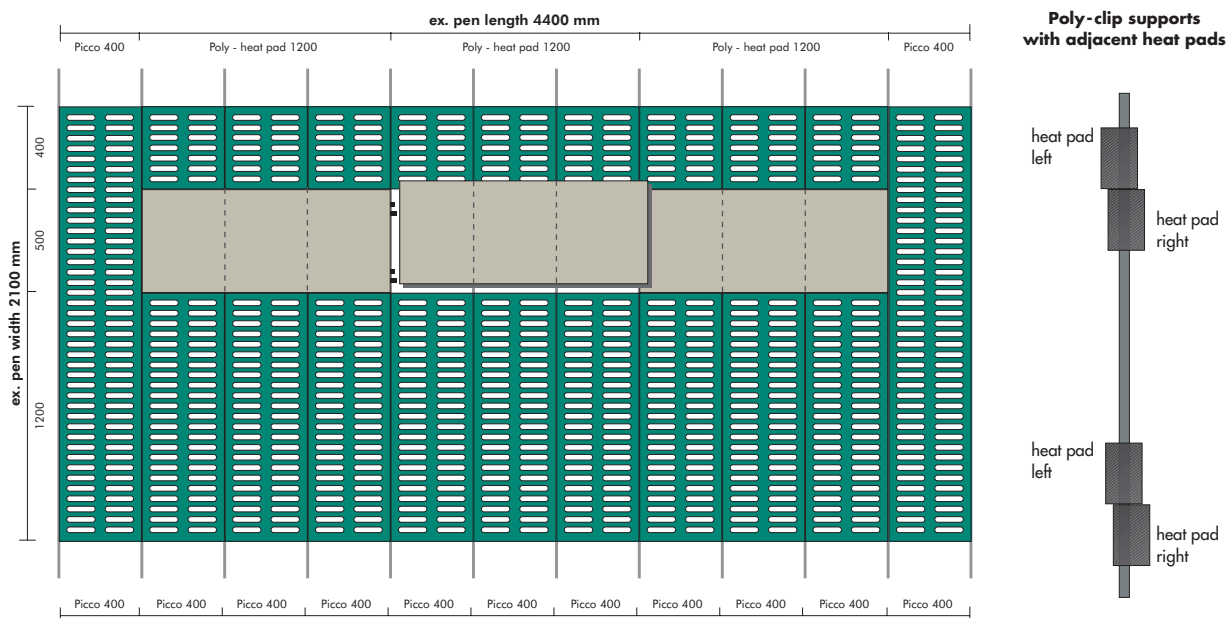
## Installation diagrams for Poly-heat pads in farrowing pens and flatdecks



### Assembly lengthways to support (for warm water and electrical heat pads)



### Assembly crossways to support (for warm water and electrical heat pads)



### Electronic-controllers (for electrical Poly-heat pads)



## Multi controller



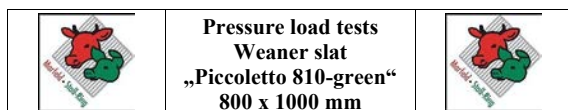
### Single controllers with controller box

controllers and accessories	indication	weight/ piece	prices on request
Controller 1	single controller	0.15 kg	
Controller 2	multi controller (for max. 10 x heat pads)	0.36 kg	
Box 6	controller housing, 6 times (for controller 1)	1.00 kg	
Box 12	controller housing, 12 times (for controller 1)	1.70 kg	
Sensor	replacement sensor	0.15 kg	

For electronic controllers the DIN / VDE 0100 requirements are to be followed.

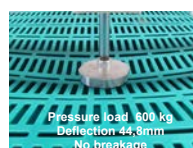
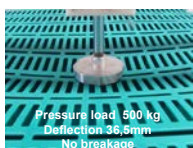
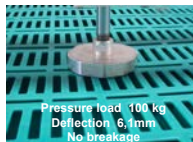


# Examples of our static pressure tests for plastic slats

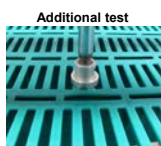


**Pressure load tests**  
**Weaner slat**  
**„Piccoletto 810-green“**  
**800 x 1000 mm**

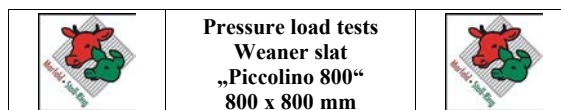
Pressure tests with a Compression Test Plunger diameter 100 mm centred on the slat.  
The pressure loads were 100 kg / 200 kg / 300 kg / 400 kg / 500 kg / 600 kg.



Pressure with a test plunger  
diameter 30 mm.  
Pressure load: 300 kg  
Result: No breakage of bars  
and the slat.

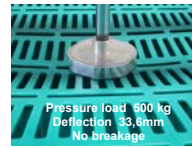
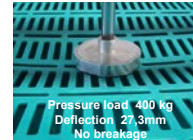


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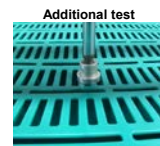


**Pressure load tests**  
**Weaner slat**  
**„Piccolino 800“**  
**800 x 800 mm**

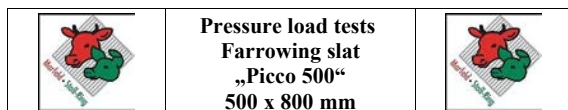
Pressure tests with a Compression Test Plunger diameter 100 mm centred on the slat.  
The pressure loads were 100 kg / 200 kg / 300 kg / 400 kg / 500 kg / 600 kg.



Pressure with a test plunger  
diameter 30 mm.  
Pressure load: 300 kg  
Result: No breakage of bars  
and the slat.

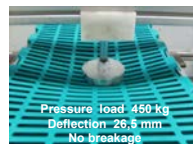
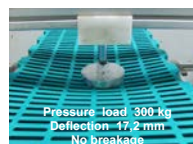
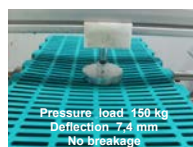
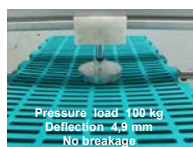


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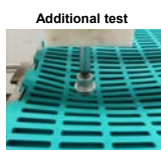


**Pressure load tests**  
**Farrowing slat**  
**„Picco 500“**  
**500 x 800 mm**

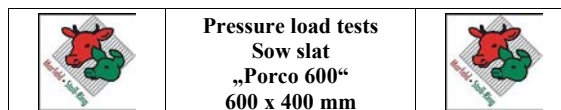
Pressure tests with a Compression Test Plunger diameter 100 mm centred on the slat.  
The pressure loads were 100 kg / 150 kg / 200 kg / 300 kg / 400 kg / 450 kg.



Pressure with a test plunger  
diameter 30 mm.  
Pressure load: 300 kg  
Result: No breakage of bars  
and the slat.

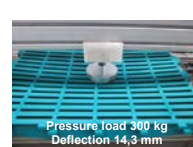
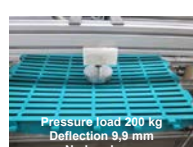


09.09.2015 L. Thomann

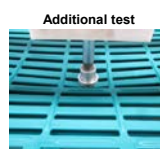


**Pressure load tests**  
**Sow slat**  
**„Porco 600“**  
**600 x 400 mm**

Pressure tests with a Compression Test Plunger diameter 100 mm centred on the slat.  
The pressure loads were 200 kg / 300 kg / 500 kg / 600 kg / 700 kg / 800 kg.



Pressure with a test plunger  
diameter 30 mm.  
Pressure load: 300 kg.  
Result: No breakage of bars  
and the slat.



23.10.2015 L. Thomann

# Storage-, layout- and installation instructions

## 1.) Storage and installation & cleaning and disinfection

Plastic slats made of polypropylen (PP) are not UV-resistant. During storage and after installation a permanent UV-radiation (ultra violette light) reduces the stability/durability of the slats significantly.

Due to temperature dependant dimensional variations of the various materials, the plastic slats including cut-offs, cast iron slats and heat pads must be installed **directly in sequence** one after the other within the same floor system.

For the cleaning and disinfection of plastic slats **no plastic harmful substances** (e.g. containing chlorine) may be used which damage the durability of the slats.

## 2.) Support design

For installations of our slats and heat pads it is required to use 5 mm wide rolled and **galvanized steel flat bar** supports manufactured to DIN EN 10025, dimensional tolerances to DIN EN 10058 or of 5 mm wide s-s flat bar supports.

For the required support height consult our „**support tables**“ on page 7 of this price list (only recommendations). They do not eliminate the need for a static load analysis for each individual project.

## 3.) Installation plastic slats

- 3.1 Our **plastic slats** can be **cut in length every 10 cm** between the double supports which were specifically designed for this purpose. In most cases the cut-off can be used again in the next rows of the floor system. Any cuts outside of the specified 10 cm raster (outside of the double supports) will drastically reduce the support strength and the load rating of this slat.
- 3.2 When **installing plastic slats**, temperature dependant dimensional variations (**cold - / warm +**) need to be considered. We recommend installing all slats at „**room temperature**“. It is important that the support system is floating (none of the supports or slats are fixed or constrained) and **expansion / contraction joints** are planned. Larger slat areas (> then 10 m width) are to be separated by an **additional support bar** (double support), to start new rows again. For individual calculation of the expansion rate, please ask for our „technical information on temperature dependent dimensional variations“. If tools need to be used to assemble the slats, please use a rubber mallet, only.
- 3.3 When plastic slats are used in **weaner decks** with surrounding concrete areas, the **plastic slats need to be installed at least approx. 5,0 mm below the concrete floor** to prevent any lift outs of the slats by the animals. From the installer the „**cut off slats**“ at the wall and at the concrete floor must to be secured against bending and be protected against any lifting of the cut pieces by the weaners.
- 3.4 When plastic slats are used in **partial perforated farrowing pens** (with solid concrete area at the front), a support has to be installed at the concrete wall to prevent the ends of the plastic slats from bending und breaking in this area.
- 3.5 In **straight farrowing pens** with **trough depth from 400 mm** our plastic **farrowing slat „Picco 300“** can be used as whole slat with length of 400 mm under the trough in front of the sow. For **smaller trough depths** reduced there the plastic area of 300 mm length and our plastic **sow slat „Porco 300“** are be used as whole slat with length of 300 mm.

## 4.) Heat pads and electronic controllers

- 4.1 Up to **eight warm water heat pads** can be connected in series to the same water circuit. The connection and start up of our heat pads is to be performed by a qualified and experienced installer.
- 4.2 For **electrical heat pads** and their **controllers** the requirements **DIN/VDE 0100** are to be followed.

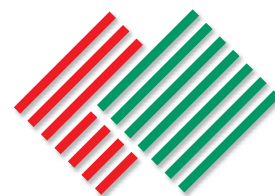
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**We give no warranty if „Stall-Ring products“ are not exclusively used together in our combination - flooring system or above „storage-, layout- and installation instructions“ are not followed.**



# Stall-Ring

FLOORING SYSTEMS FOR PIGS



*... simply better!*

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