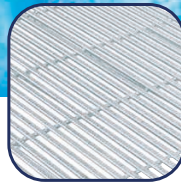


NOOYEN

▲ USA

INNOVATORS BY TRADITION

Catalog



PIG FLOORING



CATTLE FLOORING

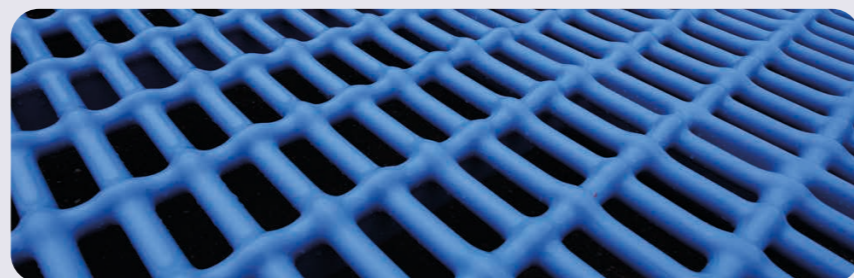
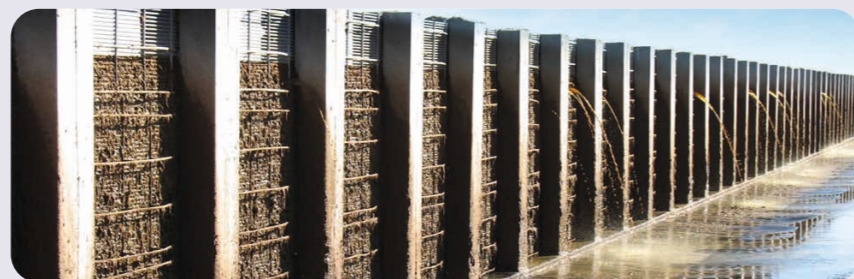
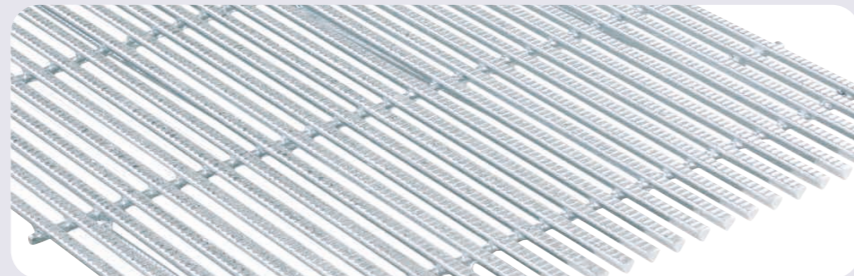


FARM EQUIPMENT



PROUDLY MADE IN THE USA

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Innovators by Tradition

From pig farmer to producer of steel slatted floors. And from a producer of steel slatted floors to a multinational involved in industries in which steel solutions predominate. That is Nooyen Group in a nutshell. Growth is only achieved through continuous innovation. Something that is good today should be even better tomorrow. With this philosophy in mind, Nooyen Group is working hard every day.

Today, in our Mt. Sterling Kentucky plant, we manufacture pig flooring, cattle flooring and farm equipment for distribution throughout the United States and Mexico. We have a factory with an in-house galvanizing facility. From steel coil to finished product, we do it all in one location. The same craftsmanship that has made Tri-Bar pig flooring a success, has carried over to the dairy industry with our Tri-Bar Weep Wall manure management system. Now, with over fifteen years of experience in producing these Weep Walls.

We are unique in a way that we try to bring as much manufacturing in-house as we can. Instead of outsourcing, we have always thought of ways of doing it by ourselves. Almost every machine in our factory has been custom made by ourselves to fit our goals. That way, we can produce efficiently on one hand, and most importantly, we have complete control over the quality.

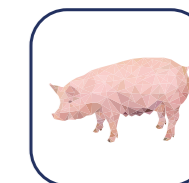
Every product that leaves this factory is produced the way we want to see it produced. Hog and dairy producers have come to trust Nooyen for its quality. It is our goal to continue that tradition. Every new idea, new concept, and every new product we produce meets these high-quality standards. Our floors are constructed of steel that is made to Nooyen's strict specifications. We roll our round rods into triangle shape. Then, all Tri-Bar panels are welded on a large, fully automated Mig welding machine. And then, at the last stage, the Tri-Bar floors are hot dipped in our own galvanizing facility. This process is computer controlled and fully automated. Resulting in a very high-quality finish that exceeds the industrial standards.

Our years in this business have given us an opportunity to learn how important customer service is to business success. The finest product in the world is of little value if not delivered accurately, on time, and in optimal condition.

Here, in the United States, we cooperate with dealers who can advise you extensively in determining your choice. In close cooperation with your dealer you can decide which product best matches your farm and which farm equipment you can optimally combine with it. Naturally, you're assured of excellent service and guidance by both Nooyen and your dealer. Not only before sales, but definitely after as well.



SLATTED FLOOR SYSTEMS FOR SOWS



Top results require optimum sow housing in the various production stages. Nooyen is known for its high-quality floor systems for sows, focused on fast and hygienic work, maximum comfort and significantly better results.

TRI-BAR BALANCE

Floor system with moveable sow slat

The Tri-Bar Balance floor will change the way you work forever. This sow lifting system reduces your loss of crushed baby pigs by 80%. The reliable and proven technology also brings you convenience, peace of mind, and a high return on your investment.

80% LESS CRUSHED PIGLETS

The calculation example below shows how the Nooyen Balance can help you to wean more piglets per farrowing pen per year based on international common principles.

1 FARROWING PEN	
Rounds per year	12
12 x 14 piglets born alive	168
12% total mortality	20
45% is crushed piglets	9
80% less crushed piglets with Balance	7

CONCLUSION: 7 piglets extra / balance / year

PROVEN SYSTEM

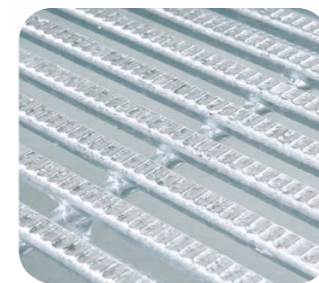
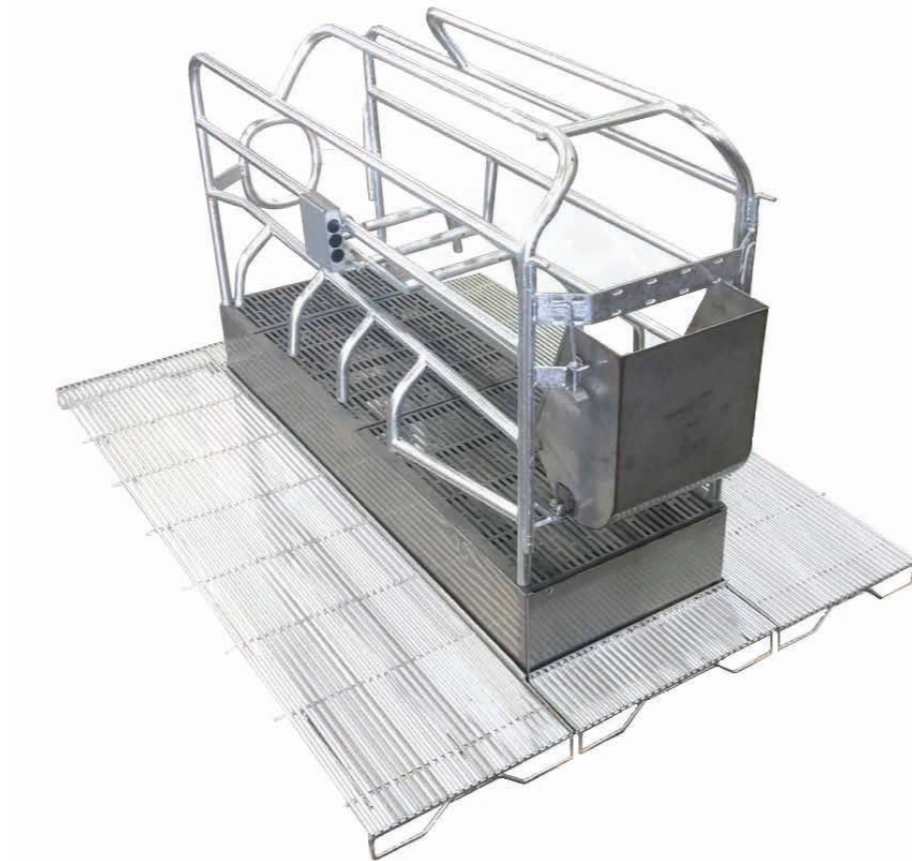
Nooyen has already delivered more than 100,000 Balance floors worldwide. In a special video you can see how the Balance floor prevents the sow from crushing her own piglets.

NOOYEN BALANCE

- ▶ 80% less crushed piglets
- ▶ Fast payback time
- ▶ Straight and angled positioning possible
- ▶ Sow can be placed off centre
- ▶ Flexibility in dimensions
- ▶ Operation with flexible side switch
- ▶ Quick and easy to assemble
- ▶ Works 24/7, year-round
- ▶ Labor saving due to less intensive control of the maternity departments



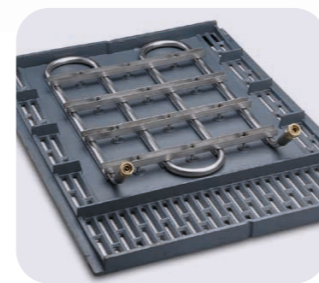
Scan the QR code and watch the video.



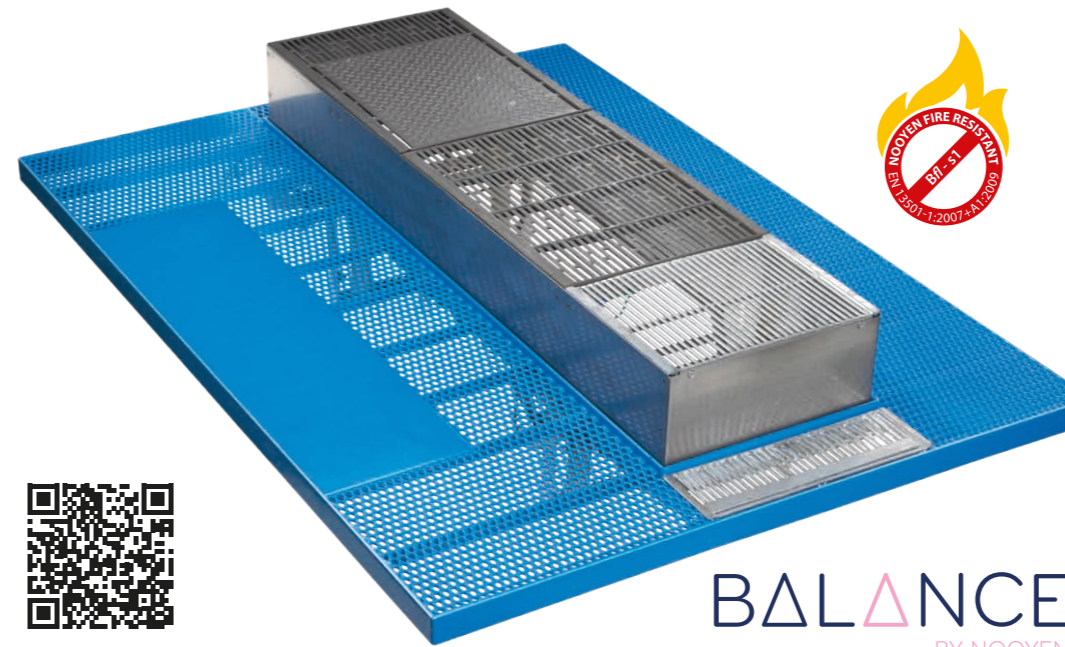
▶ Close-up Tri-Bar.



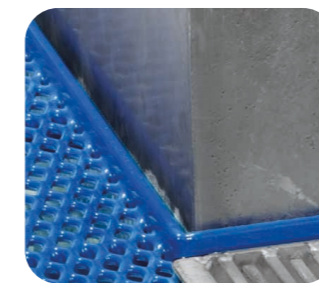
▶ Balance Control System (BCS): standard movement control using pneumatic operation.



▶ Option: sow cooling.



Scan the QR code and watch de video.



▶ A raised edge prevents injury to the piglets.



▶ Balance Control System (BCS): standard movement control using pneumatic operation.



BALANCE

The Super Coated slatted floor system with moveable sow slat

With the Balance, Nooyen offers a sophisticated system centring on the reduction of piglet mortality. We prevent sows from lying on their piglets. As soon as the sow stands up, she activates a switch that raises the sow area to a safe height for the piglets, to prevent them climbing onto it. When the sow lies down again, the sow area is lowered to the same level as the piglet slat which enables the piglets to drink safely.

80% LESS CRUSHED PIGLETS

The calculation example below shows how the Nooyen Balance can help you to wean more piglets per farrowing pen per year based on international common principles.

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NOOYEN BALANCE

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Scan the QR code and watch the video.

BALANCE BLUE DECK

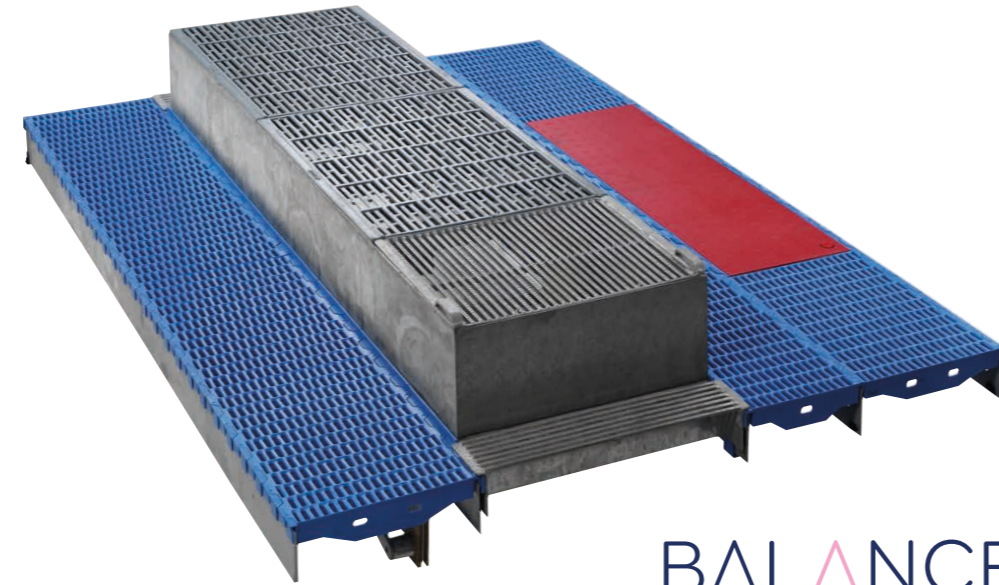
The plastic slatted floor system with moveable sow slat

With the Balance Blue Deck, Nooyen offers a sophisticated system centering on the **reduction of piglet mortality caused by sows lying on piglets**. As soon as the sow lies down, she activates a switch that lowers the sow slat to the same level as the piglet slat. When the sow gets up again, the sow slat will rise to a safe height.

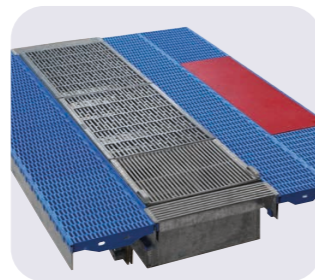
The piglet slats used in this model are the Blue Deck solid plastic slats. Thanks to the tear shaped bars and the rounded top, the Blue Deck slat for in the farrowing pen provides a comfortable surface for the pig to lie on, **perfect manure drainage** and is extremely **easy to clean**. The slat is different from other solid plastic slats: as the bars run parallel to the sow, they provide **maximum grip** to the piglets during suckling. The Balance Blue Deck is operated using a flexible side-mounted switch.

The Balance is **laboursaving** as the farrowing pens require less extensive monitoring. The Balance Blue Deck is **quick and easy to install**.

The sophisticated Balance system means that initial investment costs are higher than the costs for conventional flooring for farrowing pens. However, the Balance system will quickly earn back this extra expense. The earn-back time mainly depends on the reduction of piglet mortality.



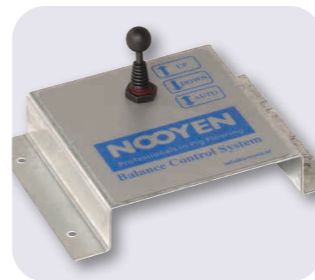
BALANCE
BY NOOYEN



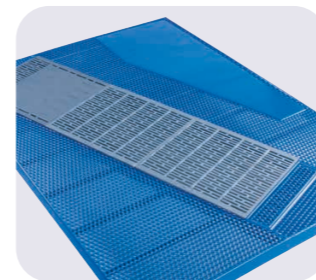
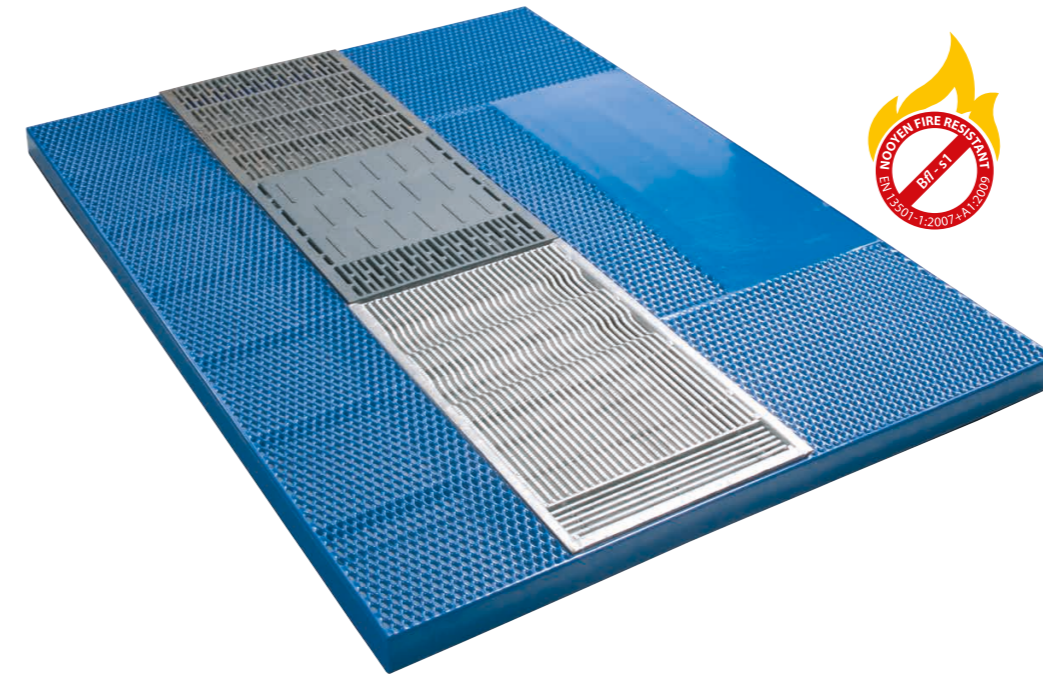
▶ The Balance Blue Deck with the sow slat level with the piglet floor.



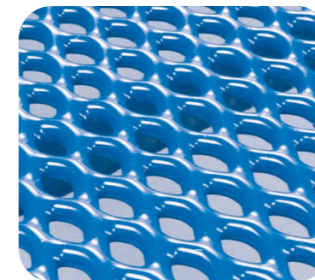
▶ Simple operation using a flexible side-mounted switch guarantees reliable results.



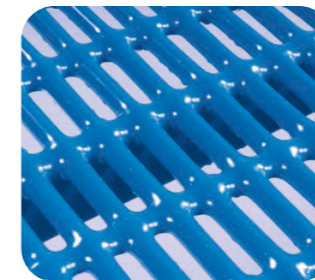
▶ Balance Control System (BCS): standard movement control using pneumatic operation.



▶ Super Coated Frame model in a diagonal position.



▶ Expanded metal.



▶ Woven wire.



SUPER COATED FARROWING PEN SLAT

The animal-friendly, coated slat for optimal comfort

The Super Coated slatted floor is an **animal-friendly** floor system, made of expanded metal or woven wire equipped with a **qualitatively excellent coating**. This coating creates **optimal comfort** because it feels warm and soft.

The Super Coated slat is available in various standard sizes. Other sizes are available on request. The Super Coated slat for the farrowing pen is available as a self-supporting Frame model in a straight or diagonal position or Wing model.

ADDITIONAL OPTION:

- ▶ The Super Coated slat can be equipped with lying areas on either side of the sow. All models are available with an integrated heating system. Various removable heated elements are also available.



BLUE DECK FARROWING PEN SLAT

The unique solid plastic slat in Woven Wire model

The Blue Deck slat for the farrowing pen is a solid plastic slat, which, because of the tear shaped bars and the rounded top, provides **high lying comfort, perfect drain of manure** and an easy to clean surface. The slat is different from other solid plastic slats: as the bars run parallel to the sow, they provide **maximum grip** to the piglets during suckling.

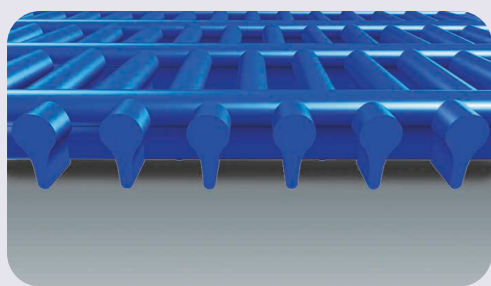
The self-supporting Blue Deck slat is **easy to install**. Galvanised or glass fibre strips can be used for the support.

The slat has a standard length of 600 mm and is available in 200, 300 or 400 mm widths. The length of the individual components can be customised if required. In this way, practically all required sizes are possible.

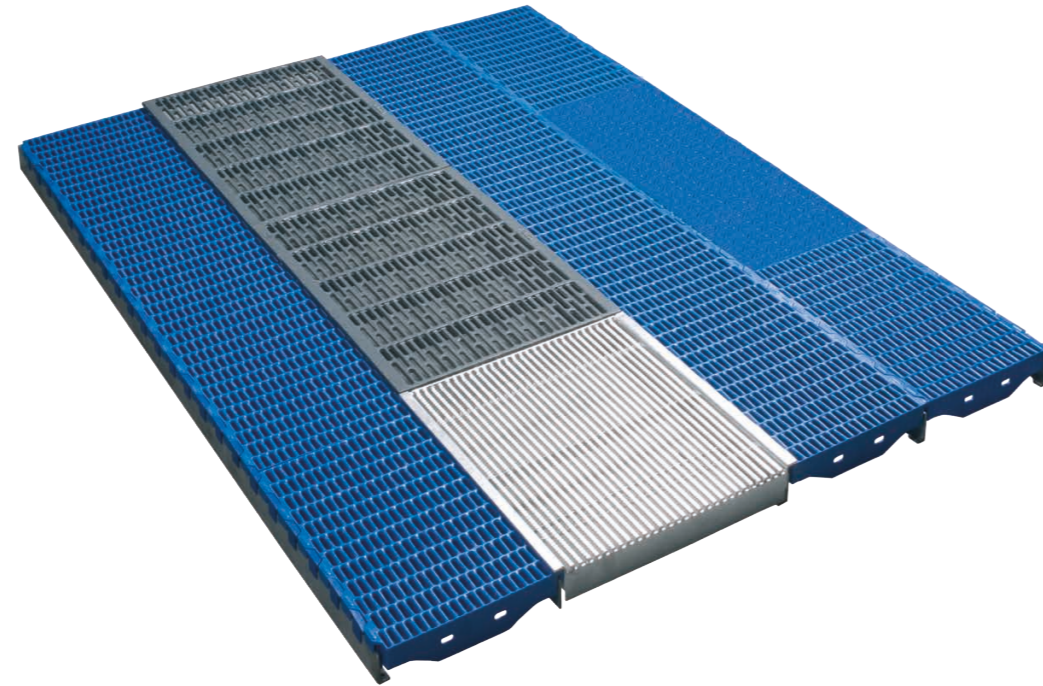
All models of the Blue Deck slat have sufficient bearing capacity for the sow.

ADDITIONAL OPTIONS:

- ▶ The Blue Deck slat can also be fitted on one or both sides of the sow with an integrated lying area. Various removable heated elements are also available..
- ▶ The steel galvanised support strips can be equipped, for instance, with a wall plate, an angle iron or a round pin. This offers additional installation options.



- ▶ The tear shaped bars and the rounded top provide high lying comfort, perfect drain of the manure and easy to clean surface.



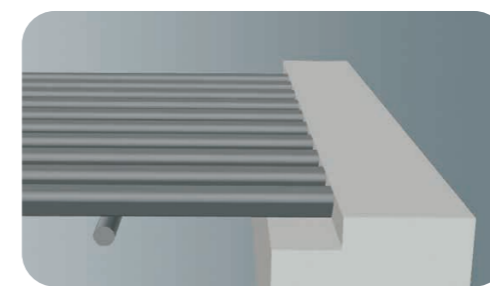
- ▶ The solid area of the Blue Deck has a tear shaped profile, giving the piglets optimal grip.



- ▶ The Blue Deck slat is equipped with bars running parallel to the sow providing extra grip for the piglets



- ▶ Option: Soft-Grip provides additional grip for baby pigs and added traction for the sow.



TRI-BAR SOW SLAT

For individual or group housing

The **V-shaped bars** of the Nooyen steel Tri-Bar slatted floors ensure a **perfect drain of manure** and, consequently, **excellent hygiene**. This gives the flooring system an ammonia reducing effect. Because of their flat tops, Tri-Bar slats have an optimal standing surface and offer outstanding lying comfort.

Tri-Bar is available as a self-supporting construction and is easy to install in a standard position or in a combined position (parallel to the passage) with a steel support. In the standard position, self-supporting spans are possible up to 12-foot length.

For pens housing gestation sows, an option is a self-supporting Tri-Bar floor system installed over the width above the manure channel. All our floors can be raised to the desired height with our loop system. A nut can be welded to the loop to secure the floor to the concrete. Loops are used to install the slats on the edges of the pit. By using the center-to-center dimension of the pens, these loops fall precisely under the side fences, creating no obstacle for the sows.

NOOYEN ADVANTAGES:

- ▶ Tri-Bar floors are constructed of steel that is made to Nooyen's strict specifications.
- ▶ The Tri-Bar floors are hot-dip galvanized in our very own fully automated galvanizing plant.
- ▶ The process is computer controlled and tested, which results in a high-quality finish.
- ▶ The thickness of the zinc exceeds the industrial standard.
- ▶ All Tri-Bar panels are welded on a large fully automatic Mig welding machine, therefore, our floors produce a superior weld consistency and strength.

OPTIONAL FEATURES:

- ▶ Soft-Grip: Soft-Grip is a texture added to the floors by forming indentations in the steel bars providing additional grip for baby pigs and added traction for the sow.
- ▶ Non-supported: a non-supported floor is a perfect floor to replace woven wire or when it can be installed in an existing working frame.

LOOSE HOUSING SOW

Farrowing crate for more hygiene and animal welfare

Animal welfare is a key focus area for Nooyen. In traditional pig farming this translates into a focus on free roaming for the sow in the farrowing pen. Nooyen Pig Flooring has ample experience with a farrowing pen in which the free-roaming sow has a lot of freedom of movement and the risk of piglet mortality is reduced to a minimum.

HYGIENE

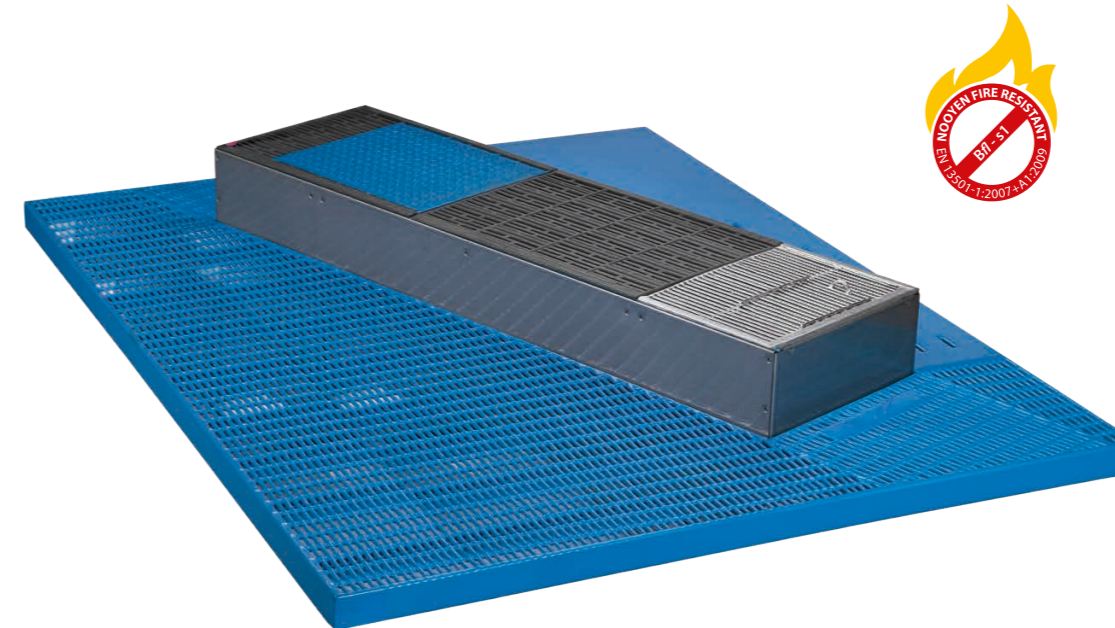
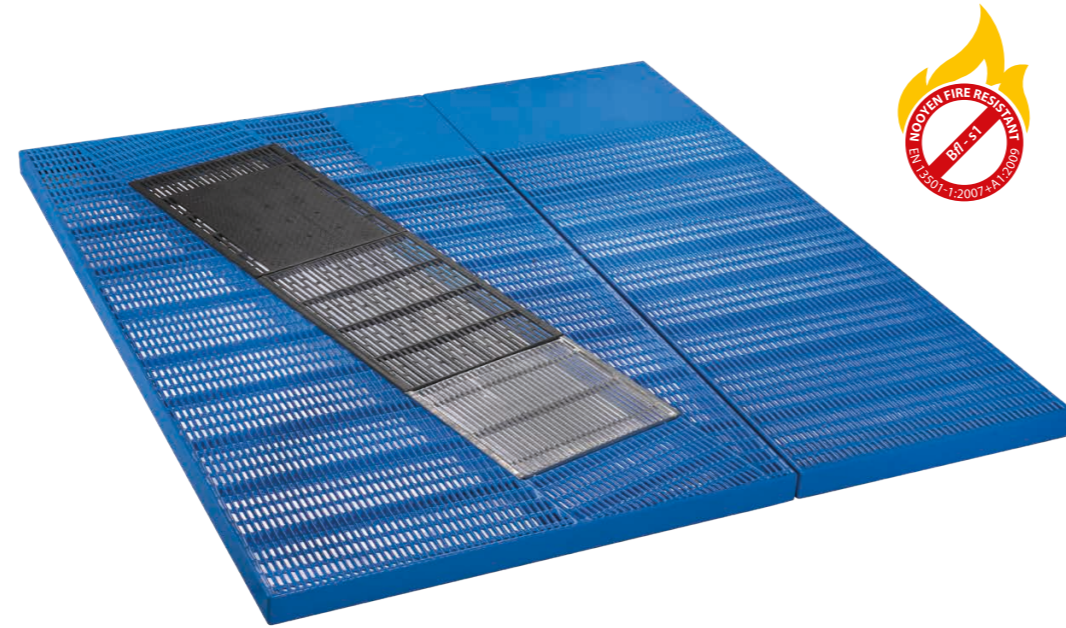
The high-quality Super Coated frame is the answer to the need for maximum hygiene and optimum animal welfare.

ANIMAL WELFARE

After one week the farrowing crate is opened and this creates a spacious (>65 Sq.Ft.) farrowing pen.

EFFICIENCY

Smart investment anticipating on future developments with the possibility of easy conversion from 3 into 2 farrowing pens.



WELLFARROWING
BY NOOYEN



WELLFARROWING

Loose housing without reducing your technical results!

The WellFarrowing farrowing pen from Nooyen is the only free farrowing pen with no reduction in results. WellFarrowing offers the advantages of freedom of movement with maximum results thanks to the built-in Balance floor and delivers improved animal welfare for both the sow and the piglets.

FEWER CRUSHINGS

The new WellFarrowing farrowing pen provides better animal welfare and a higher return on investment. With the built-in Balance floor, the survival rate of newborn piglets is maximised and crushing of piglets is minimized. Once the sow lies down, the height difference is gone and allows the piglets to drink at their mother safely and undisturbed.

INCREASED HYGIENE AND QUALITY OF LIFE

With WellFarrowing, hygiene and quality of life go hand in hand. Sows can walk around freely on a steel grid with soft coating, which offers sufficient grip. This grid optimises the removal of manure and hygiene is guaranteed. On the soft, coated floor, the piglets will not damage their knees and nipples. Piglets remain healthy and there is a reduced risk for infections. WellFarrowing ensures maximum results.

NOOYEN WELLFARROWING	
Material	Super Coated steel
Fire safety	Nooyen Fire Resistant: Fire classification EN 13501-1:2007+ A1: 2009 (Bfl - s1)
Hygiene	The high-quality Super Coated frame, in combination with an optimal removal of manure, contributes to maximum hygiene
Animal welfare	<ul style="list-style-type: none"> ▶ After a week, the farrowing crate will be opened and this creates a spacious area for the sow ▶ The soft coating contributes to animal welfare and a reduction in antibiotics ▶ The survival rate of newborn piglets is maximised by the Balance system
Return	<ul style="list-style-type: none"> ▶ The only free farrowing pen with no reduction in results ▶ Smart investment: easy to convert from 3 to 2 farrowing pens

LYING AREAS FOR PIGLETS

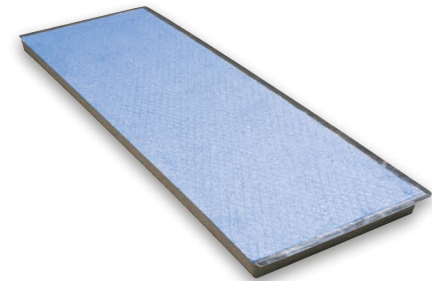
With integrated heating system

Nooyen offers a comprehensive range of lying areas for piglets in the farrowing pen. These lying areas can be equipped with an integrated heating system and are characterised by their optimal grip and comfort levels



SUPER COATED PANEL

- ▶ Integrated in the Super Coated slatted floor: no joints;
- ▶ Also available as removable model;
- ▶ Water heated;
- ▶ Comfortable: coating feels warm;
- ▶ Hygienic: easy to clean;
- ▶ Optional insulation.



POLYMER CONCRETE SOLID AREA

- ▶ Standard insulated;
- ▶ Good grip;
- ▶ Long life span;
- ▶ Low entry temperature;
- ▶ High pipe density gives good distribution across the panel.



WATER BATH HEATED PLATE

- ▶ Manufactured from solid plastic;
- ▶ Profile gives good grip;
- ▶ Hygienic: easy to clean;
- ▶ Standard insulated.



POLYMER CONCRETE SOLID AREA WITH STAINLESS STEEL TOP PANEL

- ▶ Standard insulated;
- ▶ Hygienic: easy to clean;
- ▶ Long life span;
- ▶ Low entry temperature;
- ▶ High pipe density gives good distribution across the panel.



RUBBER FLOOR

- ▶ Water-heated rubber heating plate with nubs;
- ▶ Optimum grip.

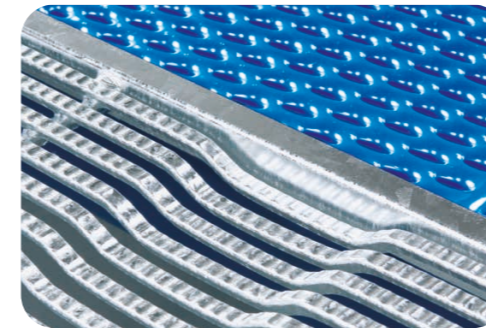


ALUMINIUM SOLID AREA

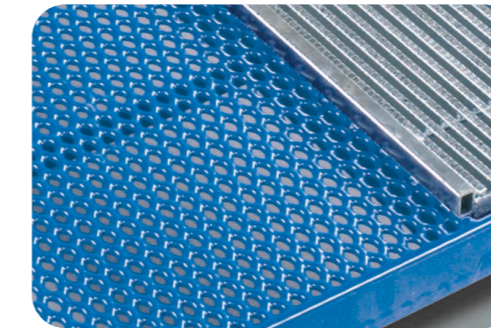
- ▶ Standard insulated;
- ▶ Good grip thanks to tear shaped profile;
- ▶ Low entry temperature;
- ▶ Aluminium pipe under the panel ensures maximum heat transfer;
- ▶ Excellent distribution of heat across the panel.

TRI-BAR AND TRI-CAST SOW INSERTS

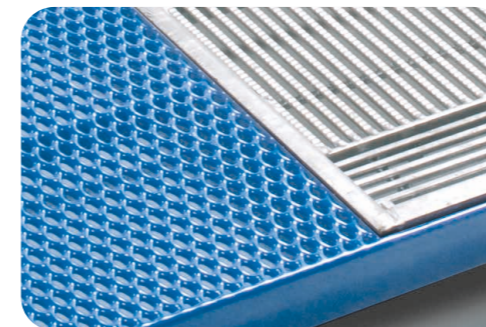
Tri-Bar inserts for perfect hygiene - Tri-Cast inserts for reliability and durability



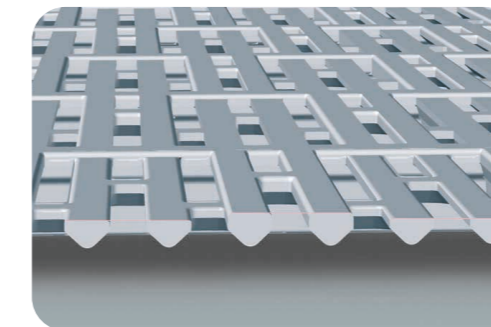
- ▶ U-Noslip provides optimal grip for the sow.



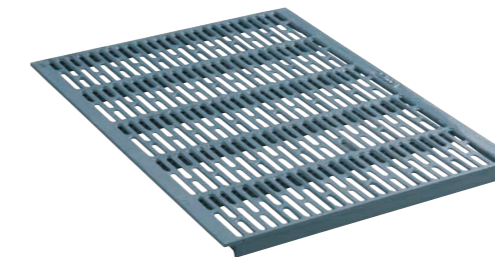
- ▶ Raised sow slat



- ▶ Level sow slat.



- ▶ Tri-Cast: anti slip standing surface thanks to high-low profile.



- ▶ Tri-Cast sow insert without shoulder plate.

In the farrowing pen, the sow can be positioned in a straight or in a diagonal position. The slatted floor under the sow can be provided level with the piglet slats or in a raised position. With raised sow slats, a lowered passage for the piglets is possible in the front and the back.

The inserts under the sow can be made of Tri-Bar or Tri-Cast. A combination of different inserts is also possible.

Tri-Bar sow inserts

The **V-shaped bars** of the Nooyen steel Tri-Bar slatted floors ensure a **perfect drain of manure** and, consequently, **excellent hygiene**. Because of their flat tops, Tri-Bar slats have an **optimal standing surface** and offer **outstanding lying comfort**.

The Tri-Bar sow slats are available with 3/8" bar widths. In combination with a 3/8" slot.

TRI-BAR ADDITIONAL OPTIONS:

- ▶ Equipped with shoulder plate for extra sow comfort.
- ▶ Equipped with a Hotpipe behind the sow, for a warm reception of newly-born piglets.
- ▶ Equipped with a manure opening or manure hatch that tilts upwards or downwards.

Tri-Cast sow inserts

The Tri-Cast slatted floor is a reliable cast-iron floor system made of high-quality cast-iron. The Tri-Cast slats are **strong, ductile** and, especially, **durable**, and have a **good drain of manure** thanks to the **V-shaped bar**. The Tri-Cast insert under the sow is available in various standard sizes

TRI-CAST ADDITIONAL OPTION:

- ▶ Equipped with shoulder plate and/or cooling for extra sow comfort..

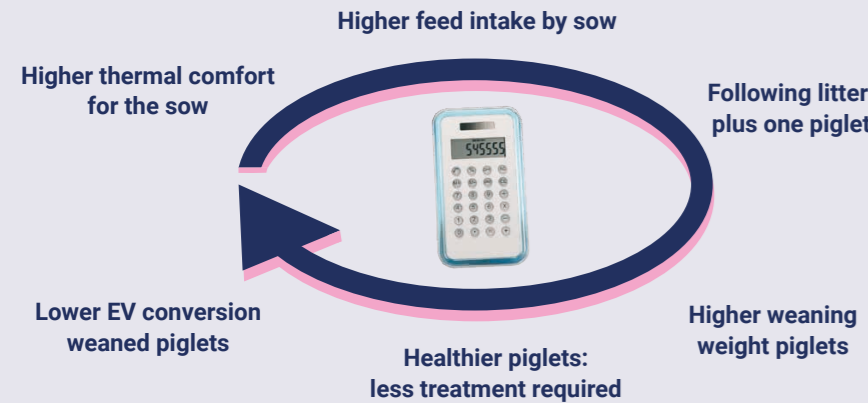
COOL SOW SYSTEM

Floor cooling with lactating sows

Creating a warm zone for piglets and a cool zone for the sow is essential for the performance in the farrowing pen. Precisely for this application, Nooyen has developed a sow slat with floor cooling: the Cool Sow System.

Varkens Innovatie Centrum (VIC) Sterksel, part of Wageningen University (NL), has performed two years of research into the effects of floor cooling on lactating sows. The research shows that sows housed in a farrowing pen with floor cooling have a higher feed intake. This is expressed in lower weight loss by the sow and a higher weaning weight of the piglets. The financial advantage of the system has been calculated to be \$65 per farrowing pen/year.

Floor cooling is the most effective if used with cast iron slats with a shoulder plate. The optimal temperature of the water used for cooling is 69.8 degrees Fahrenheit.



▶ Tri-Cast sow insert with the Cool Sow System.

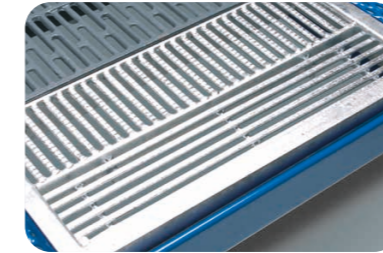


▶ Cool water flows through a stainless steel tube underneath the slat.

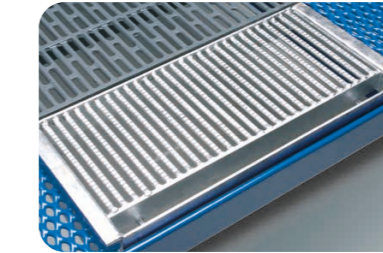
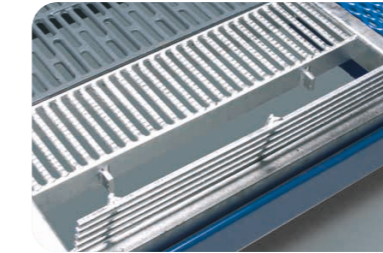
MANURE DRAIN BEHIND THE SOW

For perfect hygiene in the farrowing pen

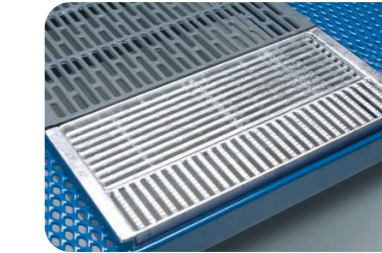
Nooyen offers many possibilities for manure drainage behind the sow in the farrowing crate. The use of a removable, tilting manure hatch or the choice of a manure opening ensure perfect hygiene in the farrowing crate.



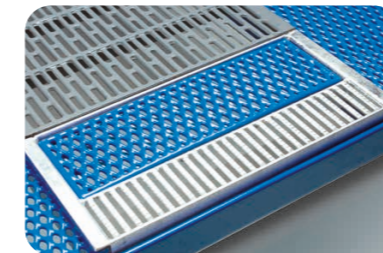
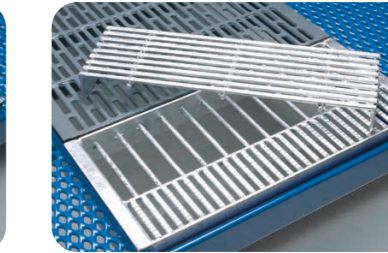
▶ Tri-Bar tilting manure hatch.



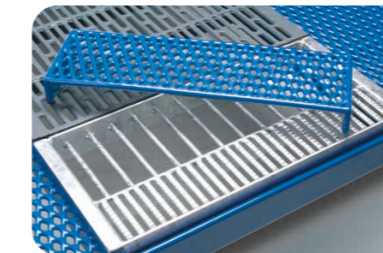
▶ Manure opening 40 mm.



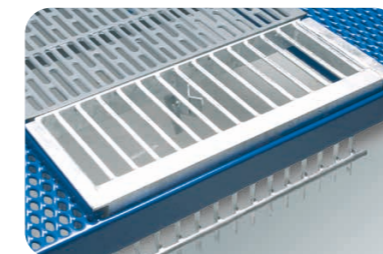
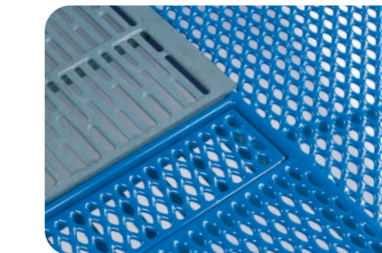
▶ Tri-Bar manure slat with removable Tri-Bar insert.



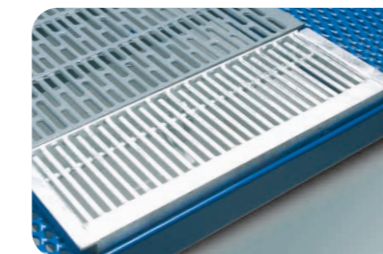
▶ Tri-Bar manure slat with removable Super Coated insert, made of expanded metal.



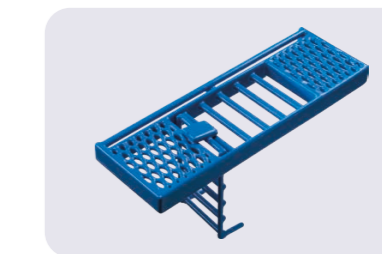
▶ Super Coated manure slat with removable Super Coated insert, made of expanded metal. Alternative option: Tri-Bar insert.



▶ Tri-Bar Turnable manure hatch downwards.



▶ Galvanised manure opening with insert.



▶ Coated manure opening with insert.

TRI-BAR FARROWING PEN SLAT

The V-shaped slat for perfect hygiene

- ▶ The Eco-Line is a Tri-Bar slatted floor for in the farrowing pen with heated lying areas on both sides of the sow.

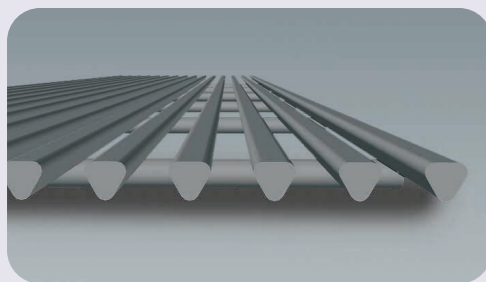
The **V-shaped bars** of the Nooyen steel Tri-Bar slatted floors ensure a **perfect drain of manure** and, consequently, **excellent hygiene**. This gives the flooring system an ammonia reducing effect.

Because of their flat tops, Tri-Bar slats have an **optimal standing surface** and offer **outstanding lying comfort**.

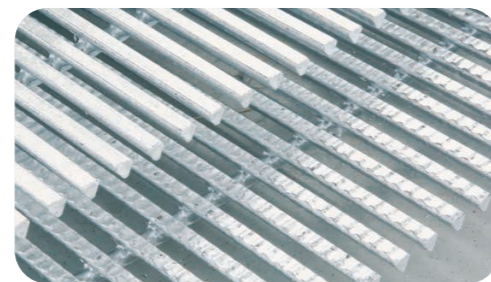
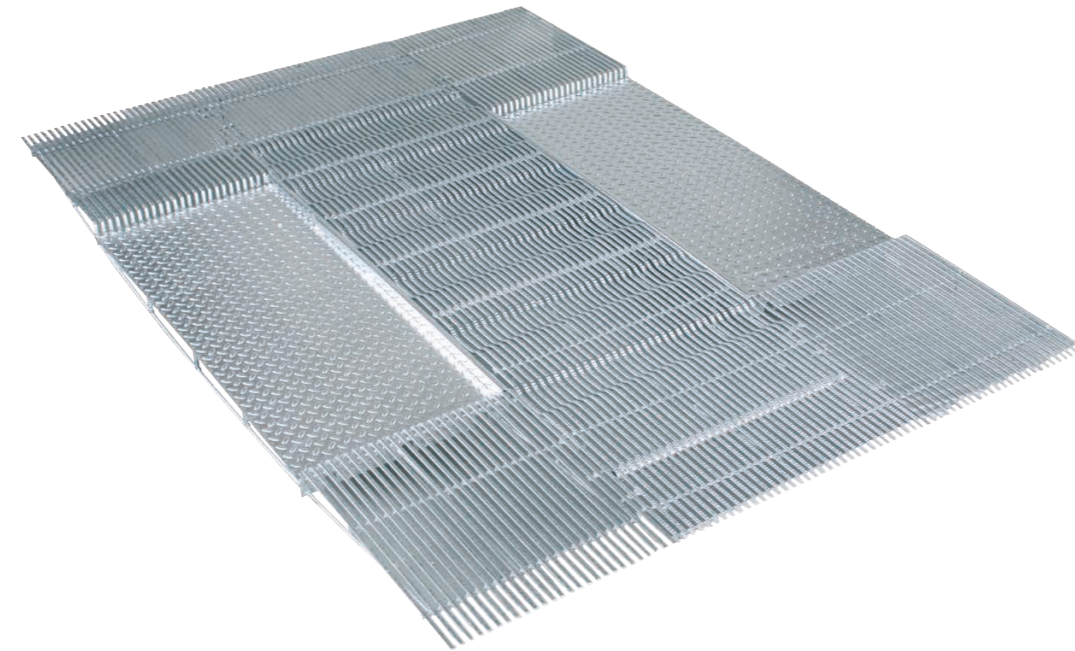
In addition to various standard sizes, the Tri-Bar is available in any customised size. The steel Tri-Bar slats for the piglet area in the farrowing pen is available with a 3/8" bar width. In combination with 5/16" & 3/8" inch slots.

ADDITIONAL OPTIONS:

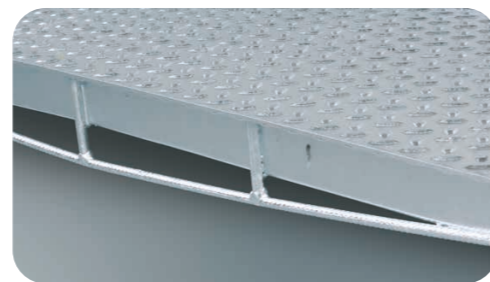
- ▶ Tri-Bar slats can be installed at any required height using strips welded against or under the Tri-Bar or angle irons.
- ▶ The Tri-Bar farrowing pen slatted floor can also be fitted on both sides of the sow with a steel lying area with integrated floor heating system. The Eco-Line has a steel solid area on both sides; the MVR on one side.
- ▶ Tri-Bar slats can also be combined as a half-slatted floor with a concrete area.



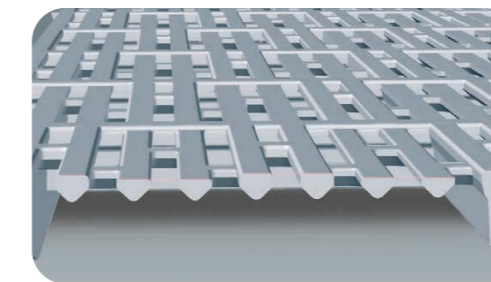
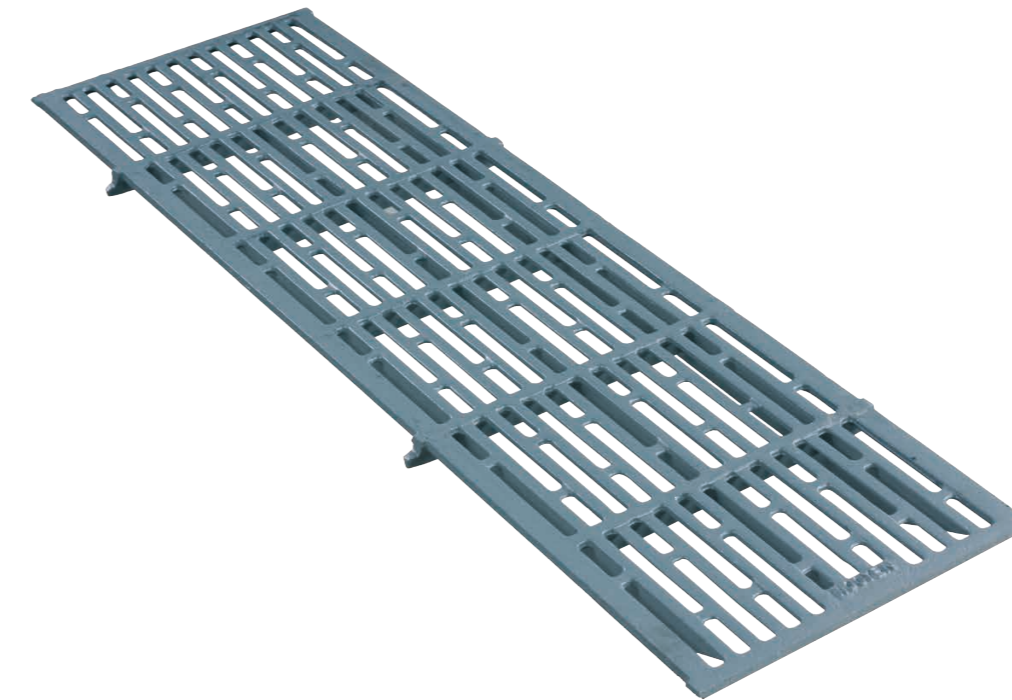
- ▶ Optimal manure drainage and hygiene thanks to the V-shaped bars with rounded edges.



- ▶ Tri-Bar is available in a flat model or a model with extra profile: Softgrip



- ▶ The lying areas in the Eco-Line have a tear shaped profile., providing optimal grip for the piglets.



- ▶ Anti-slip standing surface thanks to alternate high-low profile and optimal manure drainage thanks to the V-shaped bars.

TRI-CAST SOW SLAT

For individual or group housing

The Tri-Cast slat is a reliable cast-iron floor system for gestation sows. The slats are available in various standard lengths up to 78.75" self-supporting. The Tri-Cast slats are made of high-quality Australian cast-iron and are **strong, ductile** and, especially, **durable**.

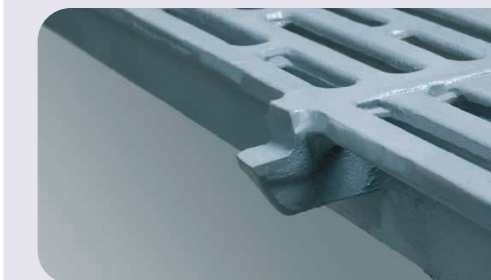
The V-shaped bars in the Tri-Cast slat give excellent **manure drainage** and therefore reduce ammonia. Moreover, the surface is **easy to clean**. These factors ensure **excellent hygiene**.

An alternating **high-low profile** creates a **perfect anti slip standing surface** for the sows. Tri-Cast slats offer **optimal lying comfort**.

The Tri-Cast slats for sows have 19/32" standard bar and slot widths. The slats are available in various standard lengths.

The slatted floor is **easy to install** in a standard position or a combined position (parallel to the passage) with a steel support. The optimal standard seating is 1". For deviating pit dimensions, slatted floors can be customised lengthwise and widthwise.

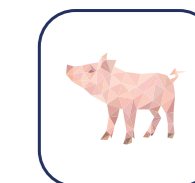
Like Tri-Bar slatted floors, Tri-Cast slatted floor systems can be combined perfectly with solid concrete areas.



- ▶ Side lips ensure a good connection of the slatted floors.



SLATTED FLOOR SYSTEMS FOR PIGLET REARING



Piglets are extra sensitive immediately after weaning. Good and easy to clean housing allows you to ease the transition, and this helps prevent a weaning dip. For piglet rearing, Nooyen offers super-coated plastic, Tri-Bar or Tri-Cast gratings, or a combination, and with the option of partly concrete.

BLUE DECK PIGLET SLAT

The comfortable solid plastic slat

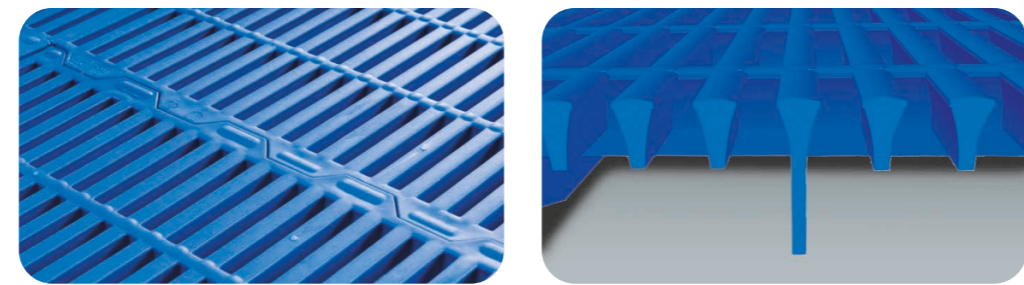
The Blue Deck slats are solid plastic slats, developed for piglets of up to 110 pounds. The **V-shape and rounded top of the bars** ensure a **perfect drain of manure** and an **easy to clean surface**. This means **optimal hygiene**. The extra elevations on the slatted floor provide **comfort** and **good grip** for the piglets. This results in a good development of the piglets' legs. The Blue Deck slats can be combined perfectly with the Tri-Bar slats to control the piglets' dunging behaviour even better.

The Blue Deck slats are **easy to install**. Steel galvanised or glass fibre strips can be used for the support. As the galvanised base strips can be equipped with a bridge construction, large self-supporting spans are possible. Another option is a height-adjustable plastic support leg.

The standard size of the slatted floor is 600 x 600 mm or 600 x 800 mm. If necessary, the floors can be customised lengthwise and widthwise.

ADDITIONAL OPTIONS:

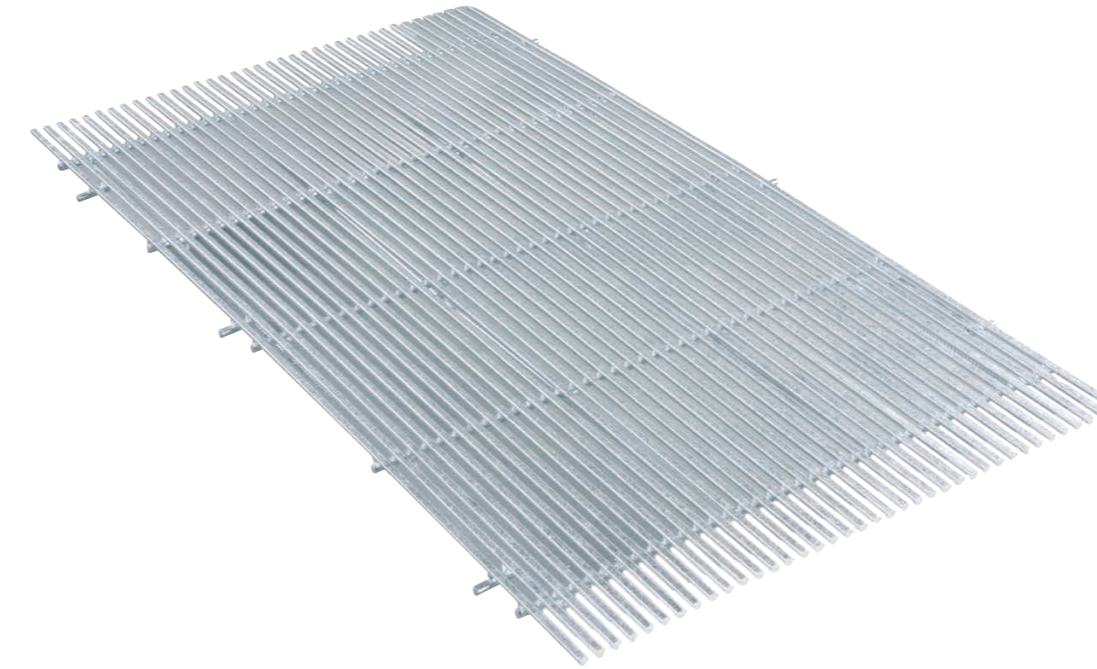
- ▶ The Blue Deck slatted floor is also available as a model with a 100 per cent solid area.
- ▶ The galvanised support strips can be equipped, for instance, with a wall plate, an angle iron or a round pin. This offers additional installation options.



- ▶ Extra elevations on the slats ensure good grip.
- ▶ Optimal drain of manure and cleaning thanks to V-shape and rounded top of the bars.

TRI-BAR PIGLET SLAT

The V-shaped slat for perfect hygiene



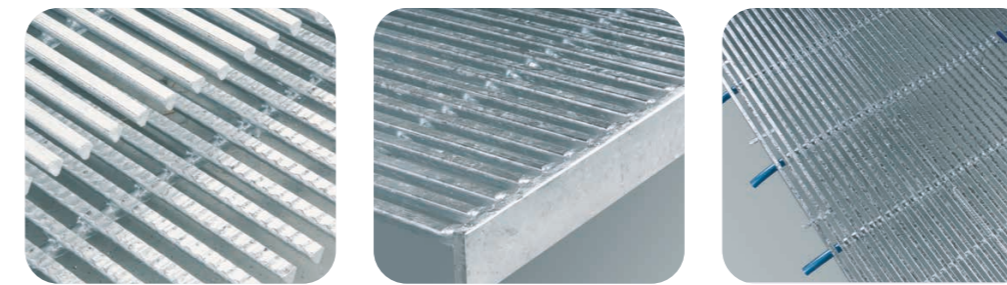
The **V-shaped bars** of the Nooyen steel Tri-Bar slatted floors ensure a **perfect drain of manure** and, consequently, **excellent hygiene**. This gives the flooring system an ammonia reducing effect. Because of their flat tops, Tri-Bar slats have an **optimal standing surface** and offer **outstanding lying comfort**.

Tri-Bar is available as a self-supporting or non-self-supporting construction and is easy to install in a standard position or in a combined position (parallel to the passage) with steel support.

Tri-Bar is available in various standard lengths up to 12 feet and a standard width of 2 1/2 feet. The Tri-Bar slatted floors can also be equipped with a heating system: the Hotpipe slatted floor. The steel Tri-Bar slats are available with 3/8" (10mm) bar width in combination with 10 slots.

OPTIONAL FEATURES:

- ▶ All our floors can be raised to the desired height with our loop system. A nut can be welded to the loop to secure the floor to the concrete.
- ▶ Soft-Grip: Soft-Grip is a texture added to the floors by forming indentations in the steel bars providing additional grip for baby pigs and added traction for the sow.
- ▶ Non-supported: a non-supported floor is a perfect floor to replace woven wire or when it can be installed in an existing working frame.
- ▶ The Tri-Bar slats can be combined perfectly with Blue Deck or Super Coated slats.



- ▶ Tri-Bar is available in a flat model or a model with extra profile: Softgrip.
- ▶ Tri-Bar equipped with a strip welded against the Tri-Bar.
- ▶ Hotpipe slatted floor.

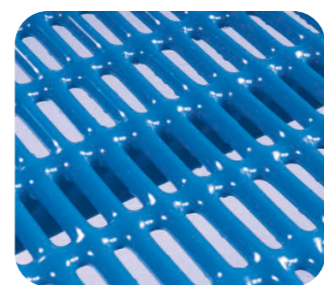
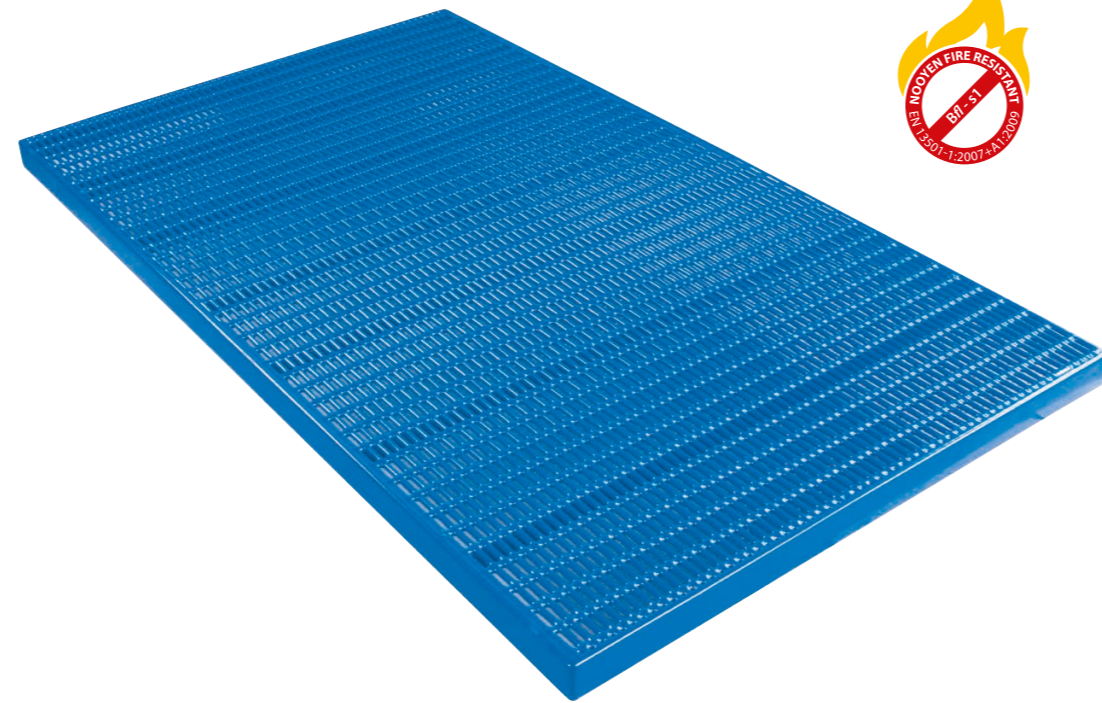
SUPER COATED PIGLET SLATS

The animal-friendly, coated slat for optimal comfort

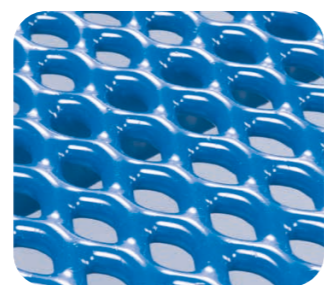
The Super Coated slatted floor for weaning is an animal-friendly floor system for piglets. The slats are made of expanded metal or woven wire, equipped with a **qualitatively excellent coating**. This coating ensures **optimal comfort** for the piglets because it feels warm and soft. The Super Coated slats are available as a self-supporting construction. Dimensions can be produced to customer requirements. The Super Coated slats can be combined perfectly with the Tri-Bar slats to control the piglets' dunging behaviour even better.

ADDITIONAL OPTIONS:

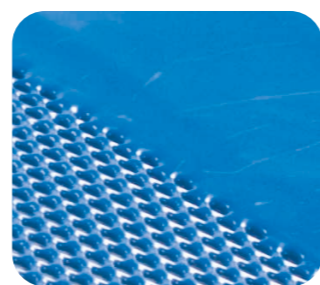
- ▶ Super Coated slats for weaning can be fitted with a solid area and, if necessary, with an integrated heating system.
- ▶ Super Coated slats for weaning are also available as separate coated panels that can be installed on a steel frame.



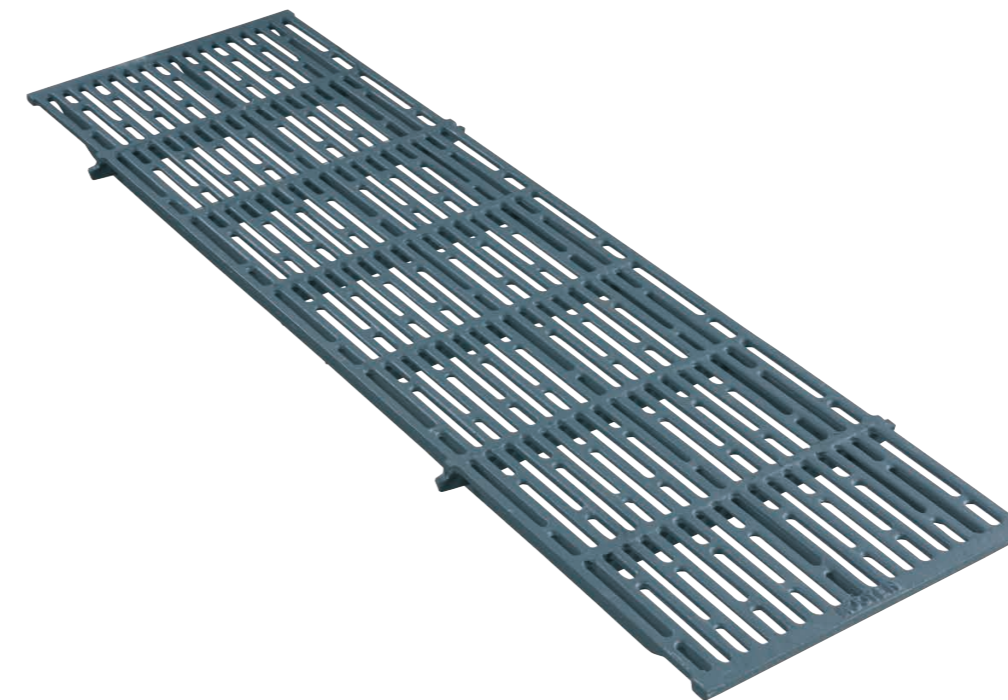
▶ Super Coated woven wire.



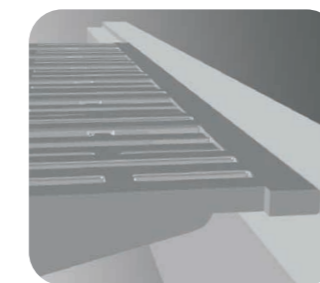
▶ Super Coated expanded metal.



▶ Super Coated weaning piglet slat with solid area, equipped with an integrated heating system.



▶ Side lips ensure a good connection of the slatted floors.



▶ Optimal standard seating: 25 mm

TRI-CAST PIGLET SLAT

A reliable and durable cast-iron slatted floor

Tri-Cast slats are a reliable cast-iron floor system for weaning. The Tri-Cast slats are made of high-quality cast-iron and are **strong, ductile** and, especially, **durable**.

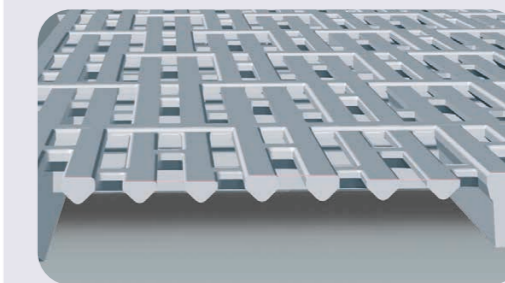
The V-shaped bars in the Tri-Cast slat give excellent **manure drainage** and therefore reduce ammonia. Moreover, the surface is **easy to clean**. These factors ensure **excellent hygiene**.

An alternating **high-low profile** creates a **perfect anti slip standing surface** for the sows. Tri-Cast slats offer **optimal lying comfort**.

Tri-Cast slats for weaning have standard 1/2" bar and 3/8" slot widths. The slats are available in various standard lengths up to 78 3/4" self-supporting. The slatted floor is **easy to install** in a standard position or a combined position (parallel to the passage) with a steel support. For deviating pit dimensions, slatted floors can be customised lengthwise and widthwise.

ADDITIONAL OPTION:

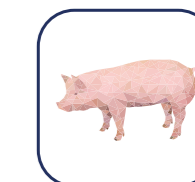
- ▶ Tri-Cast slatted floors in combi-position can be equipped with a manure opening.



▶ Anti-slip standing surface thanks to alternate high-low profile and optimal manure drainage thanks to the V-shaped bars.



SLATTED FLOOR SYSTEMS FOR FATTENERS



Tri-Bar or Tri-Cast gratings ensure nice clean fatteners and reduce pathogen pressure. Poly Deck composite gratings offer extra hygiene due to the dense structure of the gratings. And the Second Floor significantly increases the living space for the fatteners.

TRI-CAST FATTENER SLAT

A reliable and durable cast-iron slatted floor

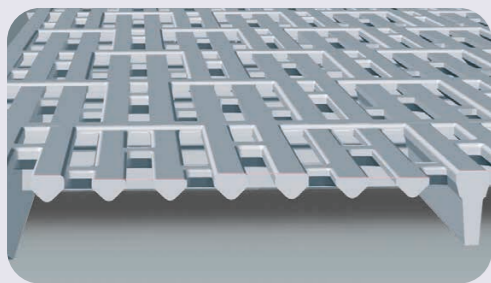
Tri-Cast slats are a reliable cast-iron floor system for fatteners. The Tri-Cast slats are made of high-quality Australian cast-iron and are **strong, ductile** and, especially, **durable**. The V-shaped bars in the Tri-Cast slat give excellent **manure drainage** and therefore reduce ammonia. Moreover, the surface is **easy to clean**. These factors ensure excellent hygiene.

The alternating high-low profile creates a **perfect anti slip standing surface** for the fatteners. Tri-Cast slats offer **optimal lying comfort**.

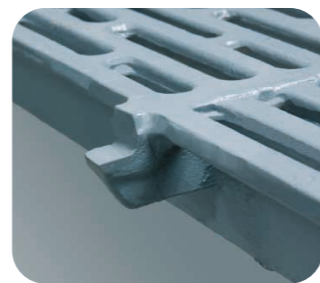
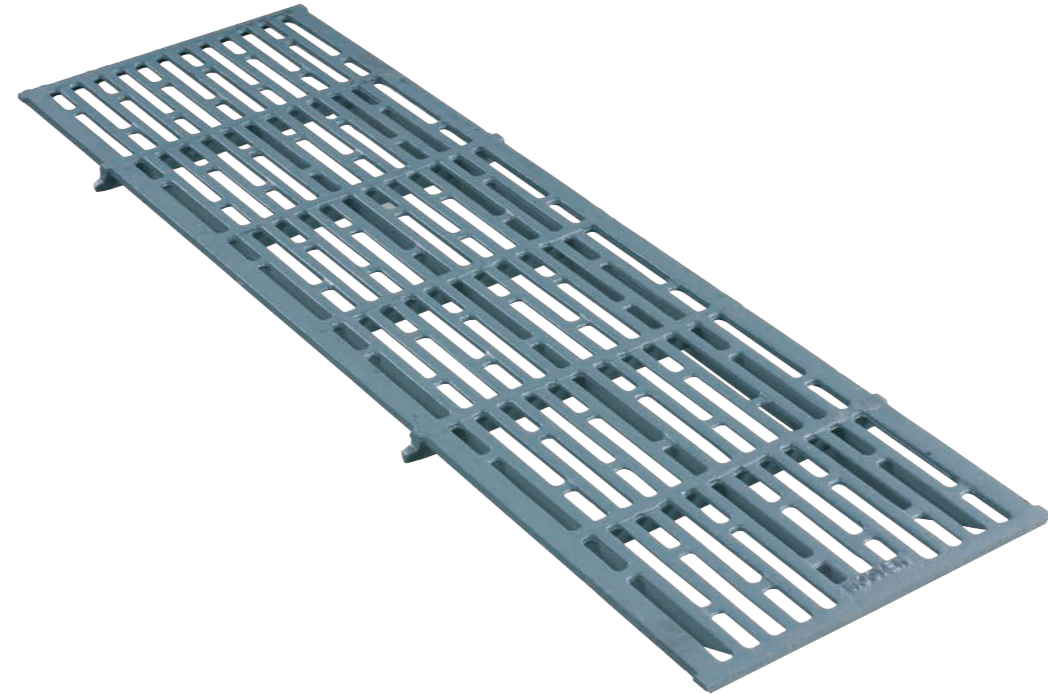
Tri-Cast slats for fatteners have standard 15 mm bar and slot widths. The slats are available in various standard lengths up to 2,000 mm. self supporting.

The slatted floor is **easy to install** in a standard position or a combined position (parallel to the passage) with a steel support. The optimal standard seating is 25 mm. For deviating pit dimensions, slatted floors can be customised lengthwise and widthwise.

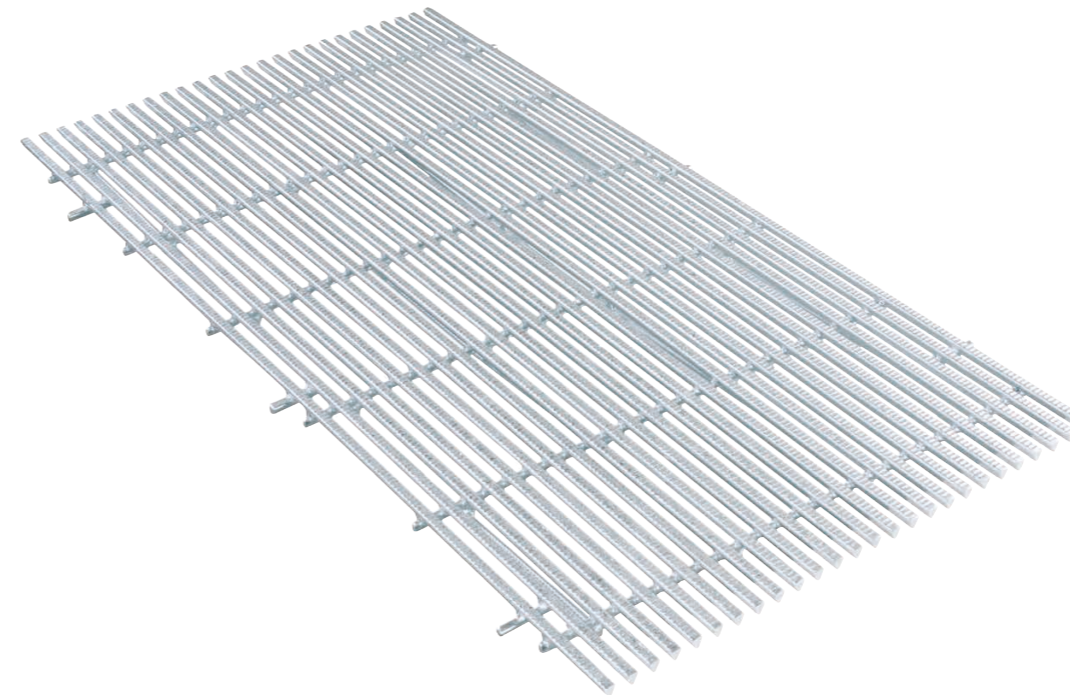
Like Tri-Bar slatted floors, Tri-Cast slatted floor systems can be combined perfectly with solid concrete areas.



▶ Anti-slip standing surface thanks to alternate high-low profile and optimal manure drainage thanks to the V-shaped bars.



▶ Side lips ensure a good connection of the slatted floors.



▶ Optional Soft-Grip provides additional grip for baby pigs and added traction for the sow.



▶ Side pins ensure a good connection of the slatted floors..

TRI-BAR FATTENER SLAT

The V-shaped slat for perfect hygiene

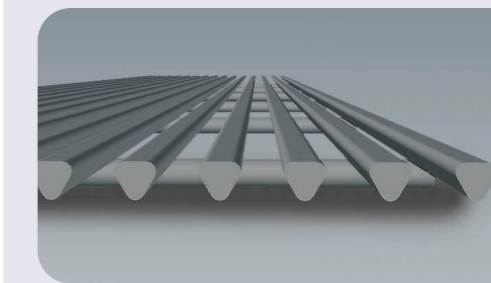
The **V-shaped bars** of the Nooyen steel Tri-Bar slatted floors ensure a **perfect drain of manure** and, consequently, **excellent hygiene**. This gives the flooring system an ammonia reducing effect. Because of their flat tops, Tri-Bar slats have an **optimal standing surface** and offer **outstanding lying comfort**.

Tri-Bar is available as a self-supporting or non-self-supporting construction and is easy to install in a standard position or in a combined position (parallel to the passage) with steel support.

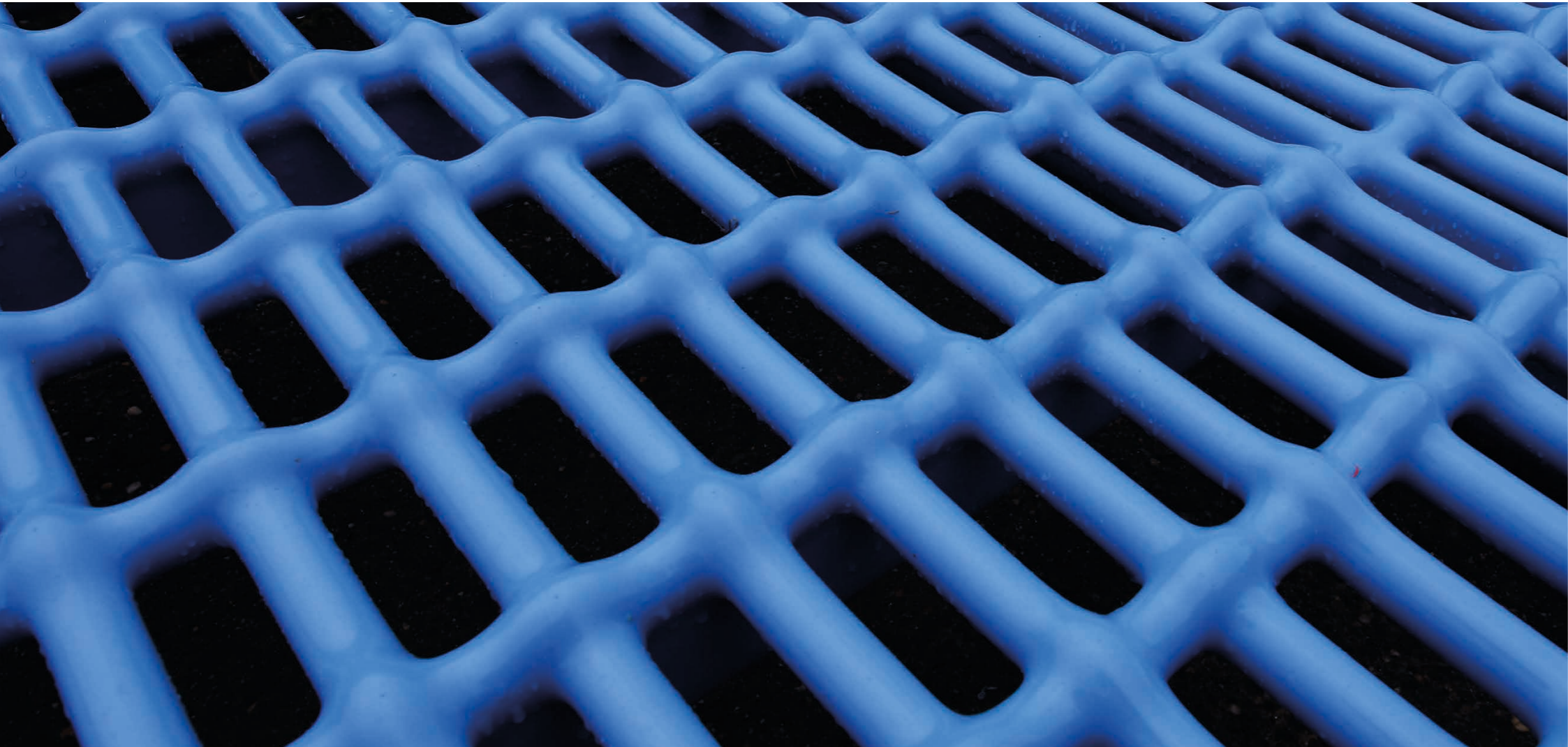
Tri-Bar is available in various standard lengths up to 12 feet and a standard width of 2 1/2 feet. The Tri-Bar slatted floors can also be equipped with a heating system: the Hotpipe slatted floor. The steel Tri-Bar slats are available with 3/8" (10mm) bar width in combination with 10 slots.

OPTIONAL FEATURES:

- ▶ All our floors can be raised to the desired height with our loop system. A nut can be welded to the loop to secure the floor to the concrete.
- ▶ Soft-Grip: Soft-Grip is a texture added to the floors by forming indentations in the steel bars providing additional grip for baby pigs and added traction for the sow.
- ▶ Non-supported: a non-supported floor is a perfect floor to replace woven wire or when it can be installed in an existing working frame.
- ▶ The Tri-Bar slats can be combined perfectly with Blue Deck or Super Coated slats.

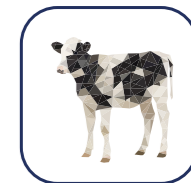


▶ Optimal manure drainage and hygiene thanks to the V-shaped bars with rounded edges



The Nooyen super coated slat conforms to strict USA building regulations as well as meeting our high standards in regard to seamless implementation to ensure the best level of hygiene and animal welfare through its soft feel coating, as well as a long lifespan. Our super coated slats are tested according to European standard EN 13501-1:2007 + A1:2009 and they are classified as Bfl - S1.

NOOYEN SUPER COATED CATTLE FLOOR



There is a need for welfare floors for calf farming, which responds to hygiene and animal welfare. After all, a calf experiences more comfort on a welfare floor, but the technical indicators are also important for farmers. There are various alternatives for this in the market and Nooyen has responded with a super coated floor. Nooyen's super coated flooring is known for its high-quality floor systems for sows, focused on fast and hygienic work, maximum comfort and significantly better results.

NOOYEN SUPER COATED CATTLE FLOOR:

- ▶ Animal friendly
- ▶ Optimal manure removal
- ▶ A healthier environment
- ▶ 5/6" thick steel woven wire
- ▶ 13/16" x 2 7/16" x 5/8" rectangular openings
- ▶ 1/8" thick fire-retardant plastisol coating

TRI-BAR WEEP WALL SYSTEM



The Tri-Bar Weep Wall system is a simple, manure management system that separates solids and liquids by using gravity rather than machinery. The system consists of two basins constructed of concrete separated by a drainage channel. At each side of the drainage channel are Tri-Bar galvanized steel panels.

HOW CAN TRI-BAR WEEP WALLS BENEFIT YOUR DAIRY OPERATION?

- ▶ Flexibility: Using Tri-Bar weep walls, manure does not have to be hauled daily or weekly.
- ▶ Used in dairies of any size or location: Our systems have been installed and successfully managed manure for herds from 20 to 20,000 cows in over 17 states as well as other countries.
- ▶ Provides valuable soil amendment: With our system you can plan land application as you would any fertilizer application. Consider manure to be an additional resource instead of waste.
- ▶ High quality: The Tri-Bar panels are made of 3/8" triangle shaped steel bars with a 3/8" opening, which reduce plugged holes. The panels are hot dip galvanized on site, in our state-of-the-art galvanizing facility.

HOW DO TRI-BAR WEEP WALLS WORK?

When manure is added to a basin, liquids drain through the Tri-Bar Weep Walls into the drainage channel, while retaining solids in the basin. Having two basins allow a filled basin to drain and dry while the other is being filled. The consistency of the solids is dry enough to allow removal with a skid steer or loader. The solids from the basin can then be recycled as bedding, soil amendments, or marketed for additional income.

Whether you are expanding, building, remodeling or upgrading, Tri-Bar Weep Walls are the most cost-effective system for your dairy operation. Other systems are major contributors to energy use on the farm. Tri-Bar Weep Walls do not require additional energy, equipment or labor. Very low cost to operate. Gravity does the work for you. In addition to startup costs, most manure separation systems require maintenance, repair, and training for employees to operate the system. With the Tri-Bar Weep Wall system, there are no mechanical parts to upkeep. Maintenance is very low.



Quality is a number one priority with Nooyen. Many years of experience in the field of slatted floor systems enables Nooyen to continually improve its product range. This is an important condition to be able to optimally anticipate the requirements of pig farmers and further consolidate the market position.

In addition to quality, Nooyen naturally attaches great value to sharp price levels. This is partly achieved by a great extent of standardisation of products and dimensions. Additionally, custom-made equipment naturally remains an important spearhead.

SUPER COATED

Prior to and during the coating process, various quality inspections are conducted in order to guarantee optimal quality and a long life span of the coated slats. For instance, the pH-value of the primer is measured and the viscosity – or the degree of fluidity – of the coating is determined.

A coating hardness tester is used to determine the hardness of the coating. This measurement is conducted before treating the slatted floor with a salt solution.

Finally, testing samples are used to carry out a mechanical tensile test. Via this test, the flexibility of the coating is tested. After the tensile test, the sample is checked using a microscope, so that optimal adhesion of the coating to the steel can be guaranteed.

TRI-BAR

Nooyen aims for a long, durable life of its Tri-Bar slatted floor by using high resistant steel instead of standard reinforcing steel (FeB 500). High resistant steel is a high quality alloy with a high nickel, chromium and copper content and a highly specific amount of silicon. Compared with standard reinforcing steel, high resistant steel has a highly accurate and therefore consistent composition. The steel is cold formed and thermally galvanised. The zinc coating has an average thickness of 100 to 130 micron. As high resistant steel can be coated with more zinc than standard reinforcing steel, it has a longer life. Thanks to the use of high resistant steel, the quality of the slatted floors marketed by Nooyen far exceeds NEN-EN-ISO 1461 standards.

TRI-CAST

Nooyen Tri-Cast slats are made of a qualitatively excellent casting mixture: Ductile casting (EN-GJS-400-15). Thanks to the lamellar structure of the iron molecules and the high viscosity of this mixture, the material is impact-resistant and highly ductile. This means that Tri-Cast can withstand a 5 percent bend without any problems.

BLUE DECK

The Blue Deck slats are made of environmentally-friendly and recyclable first-generation cadmium-free polypropylene. Polypropylene is a thermoplastic polymer with a very wide range of applications. This material group consists of linear macromolecules without cross links. The application of thermoplasts has big advantages because softened materials can easily be formed into the required shape and can also easily be reused. Blue Deck slatted floors are also highly resistant to chemical solutions, bases and acids.

GALVANIZING

The Blue Deck slats are made of environmentally-friendly and recyclable first-generation cadmium-free polypropylene. Polypropylene is a thermoplastic polymer with a very wide range of applications. This material group consists of linear macromolecules without cross links. The application of thermoplasts has big advantages because softened materials can easily be formed into the required shape and can also easily be reused. Blue Deck slatte





INNOVATORS BY TRADITION



Nooyen USA
111 Adena Drive
Mt. Sterling, Ky. 40353

T 859-497-4429
F 859-497-4425

E sales@nooyenky.com
I www.nooyenky.com

