Help

porktuner-webhelp

Content

Pig Farming

How does the Nedap PorkTuner work?

The Nedap PorkTuner weighs each pig and automatically leads it to the correct feed type or to the delivery area. Based on the weight, the pigs are sorted to the left exit (50% of the lightest animals), the right exit (50% of the heaviest animals), or the middle exit (for example exact weight for slaughter). This means you do not have to close off a feeding area to start sorting for delivery, and during the full growing period there is always 100% feed capacity available.
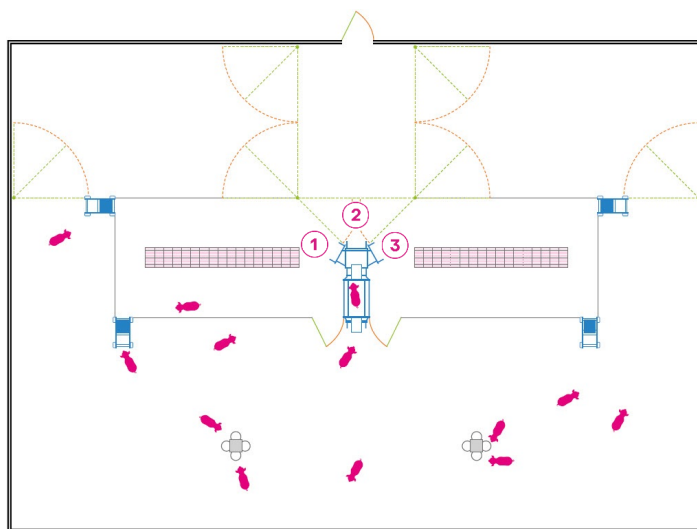

Figure 1: PorkTuner concept

1. Left exit. 50% lightest animals.   *3. Right exit. 50% heaviest animals.*
2. Middle exit. Delivery.

The Nedap PorkTuner monitors not only growth, but also the number of visits to the PorkTuner. This means that you keep an eye on the activity and health of your animals, from piglet to full-grown pig ready for slaughter. You can monitor them continuously and make timely adjustments as and when required. The benefits of the PorkTuner:

- Detailed insights of accurate forecasts for optimal planning
- Data on activity, weight, growth and sorting results 24/7
- Precise and individual feeding for specific body weights and performance levels
- Reduced workload & lower labor costs
- Higher profits due to feeding efficiency
- More kilos (more meat) sold per square meter of floor-space
- 99% effective use of floor-space
- Automated delivery at target weight for maximum revenue

Automatic tare system

The PorkTuner is equipped with an automatic tare system (from Velos version 2019.1 on). When a pig has left the weighing platform, the system automatically tares before the next pig comes in. That means that even if there is something like dung on the platform, the PorkTuner does not count that in the weighings to come.

PorkTuner modes

The PorkTuner goes through 4 modes: Empty, Learning, Sorting and Delivery:

1. Empty
   The area is empty.
2. Learning
   Pigs learn in five phases to go through the PorkTuner to reach the feed area.
3. Sorting

The PorkTuner weighs each pig and automatically leads it to the correct feed area. Optional features for the PorkTuner that can be used during the Sorting mode:

– Feeding advice. The system advices about the optimal moment to switch to another feed phase.

– Marking. With marking certain animals can be recognized and marked, based on the weight or growth of the animals.

4. Delivery
   Deliver pigs at target weight.

Depending on the PorkTuner mode, there are some tasks to do. The picture provides an overview of all tasks during the different modes.
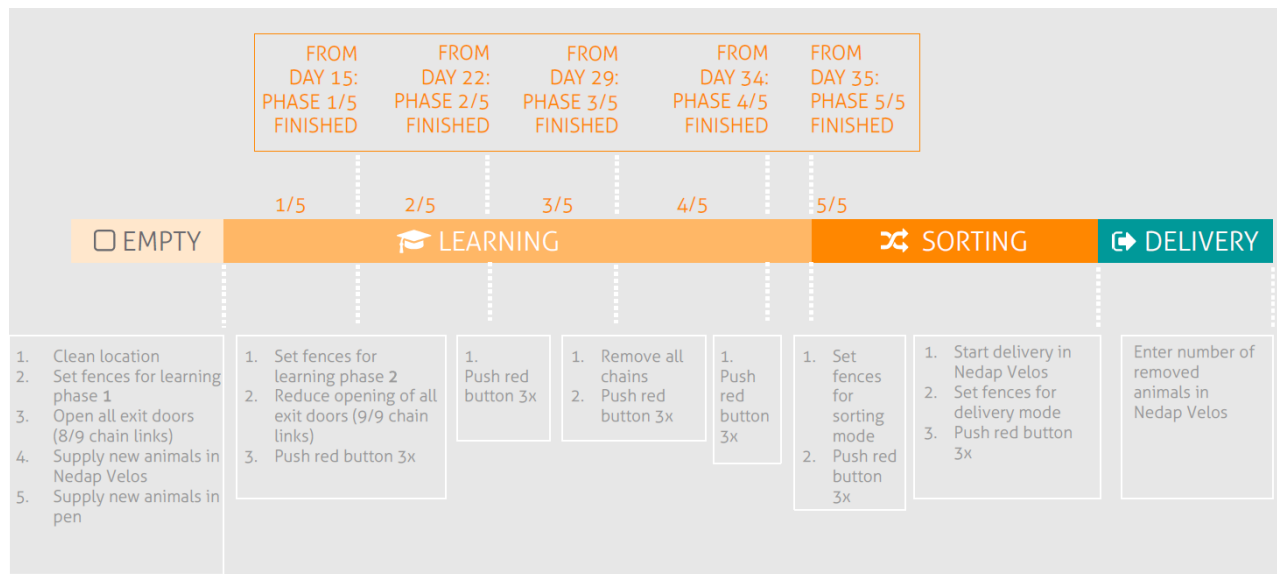
Figure 2: Tasks during PorkTuner modes

Empty

Supply new animals

Overview
The status light is on, if a location is empty. Take the following steps when supplying new animals:
1. Clean location.
2. Calibrate the PorkTuner to check if the weighing module is still correct. See Calibrate the PorkTuner (page 5).
3. Set the fences in the pen in the correct position.
4. Set the exit doors for Learning phase 1.
5. Supply animals in Nedap Velos.
6. Supply animals in the pen.

Clean location
Clean the location and make sure all conditions in the location are optimal.

Table 1: Nedap's recommendations for dry feed for maximizing the return on investment from weaning through marketing

Feed	Water	Pen temperatures and minimum air exchange rates for the growing pig				Space
		Weight in kg (lbs)	Desired room temperature ºC (ºF)	Winter set point ºC (ºF)	Summer set point ºC (ºF)	(!) *Only if allowed by local legislation.*
• 24/7 available • 3.2 kg (7,05 lbs) feeder capacity per pig • 7 pigs per feeding place	• 24/7 available • 10 pigs per drinker • Water flow rate = 1 l./minute	23 (51) 33 (73) 45 (99) 57 (126) 70 (154) 83 (183) 96 (212) 115 (254) 127 (280) 138 (304)	23 (73) 21 (70) 19 (66) 19 (66) 18 (64) 17 (63) 16 (61) 16 (61) 16 (61) 16 (61)	23 (73) 21 (70) 19 (66) 18 (64) 17 (63) 17 (63) 16 (61) 16 (61) 16 (61) 16 (61)	22 (72) 19 (66) 18 (64) 17 (63) 17 (63) 16 (61) 16 (61) 16 (61) 16 (61) 16 (61)	Stocking density • 25 - 35 kg: min. 0.34 m² (55 - 77 lbs: min. 3.7 ft²) • 35 - 120 kg: min 0.68 m² (77 - 264 lbs: min. 7.3 ft²) • >120 kg: min 0.8 m² (>264 lbs: min. 8,6 ft²) Slats • gap width: 18-25 mm (0,7 - 1,0 in.) • beam width: min. 80 mm. (3,1 in.)

Calibrate the PorkTuner

(!) *The animal weighing module must be calibrated with a minimum metric weight of 80 kg ± 100 g before it can be used.*

Action	Display
1. Check if the display shows **kilograms** and a **decimal period**. If not, the Behavior Component (BC) has not sent the correct settings to the weighing indicator. Remove the existing BC and install a new one in Velos, see Configure the Nedap Velos software.	"x.x kg"
2. Push and hold the "I" and the "ƒ" keys of the weighing indicator at the same time until "Full SEtuP" appears in the display, followed by "bUiLd".	"Full SEtuP". "bUiLd".
3. Push the" >0< ZERO" key twice.	"CAL".
4. Push the ">T< TARE" key once. (!) *Check if the animal weighing module is empty, clean and free from obstacles on, under or against it.*	"ZErO".
Push the "ƒ" key twice.	"Z in P", followed by "00.0 kg". (i) *This is the 0 kg calibration level of the weighing module.*
5. Push the ">0< ZERO" key once.	"CAL"
6. Push the ">T< TARE" key twice.	"SPAN".
7. Push the "SELECT" key once.	"00080.0 kg" (or another number) blinks in the display.

Action	Display
8. Push the "ƒ" key once.	The first digit blinks.
9. Enter the calibration weight that is going to be used. a. Push the "PRINT" key to edit the first digit. b. Push the "SELECT" key to go to the next digit. c. Repeat steps 1 and 2 until "00080.0 kg" is shown in the display.	"00080.0 kg" must become visible in the display.
10. Put 4 known metric weights of 20 kg ± 25 g exactly in the center of the weighing module. ⚠ *4 known metric weights of 20 kg ± 25 g must be used for calibration, otherwise the weighing accuracy is too small to obtain dependable results.*	"00080.0 kg"
11. Push the "ƒ" key once to set this calibration level for the PorkTuner.	"S in P".
12. Push and hold the "I"and the "ƒ" keys at the same time until "SAvinG" appears in the display and a beep sounds. The calibration settings are now stored.	"SAvinG".
13. Remove the calibration weight. The display should now show "0.0 kg".	"0.0 kg".
14. Turn on the pneumatic shut-off valve.	

⚠ *The buttons of the PorkTuner (except the "TARE" button) are disabled by default to prevent activating by accident. Pushing and holding the "I" and the "ƒ" keys of the weighing indicator at the same time to enter the menu, will still work.*

⚠ *The button disabling does not work on older indicators, with firmware version 3.15.*

ℹ *Push the ">T< TARE" key to set the weighing indicator to zero (0 kg) if any number shows in the display when the weighing module is clean and empty.*

⚠ *(Only if the buttons are not disabled:) If you push the ">0< ZERO" key by accident, the unit must be re-calibrated as described in the procedure above.*

Set the fences in the pen in the correct position
Open the fences next to the PorkTuner entrance, so the pigs have easy access to feed. Make sure the pigs have access to all the feed regardless of which exit of the PorkTuner they come from.
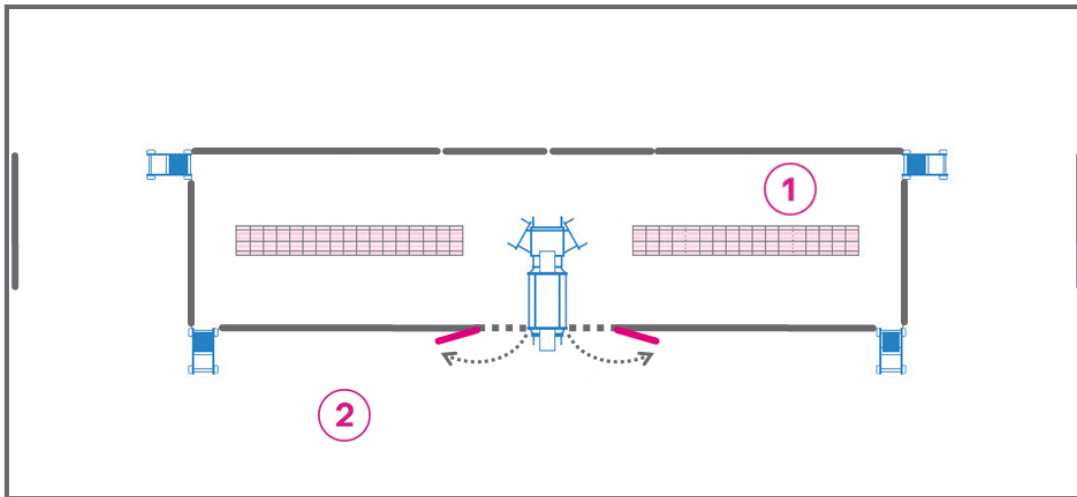
Figure 3: Position of the fences for Learning phase 1/5

1 = Feeding area   *2 = Lying area*

> ⚠️ *Nedap advises to reduce the size of the lying area in the beginning. Pigs are still very small then and with reduced lying area size pigs stay closer together. Only if allowed by local legislation.*
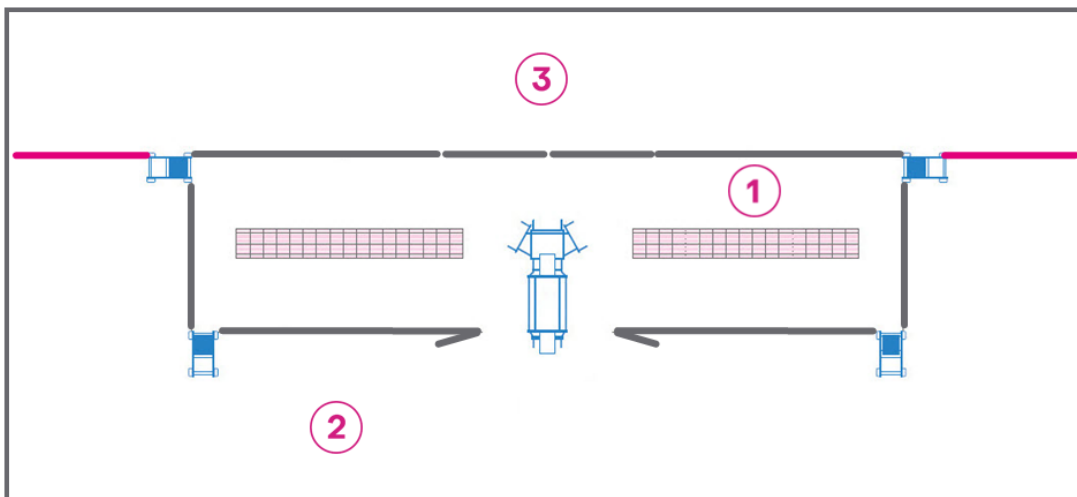
1 = Feeding area   *3 = Not in use*
2 = Lying area

Set the exit doors for Learning phase 1
Open the three exit doors of the PorkTuner, by means of the chains that are provided on the exit doors. Use 8 of the 9 links of the chain. This makes it easier for the pigs to enter the feeding area if they walk through the PorkTuner.
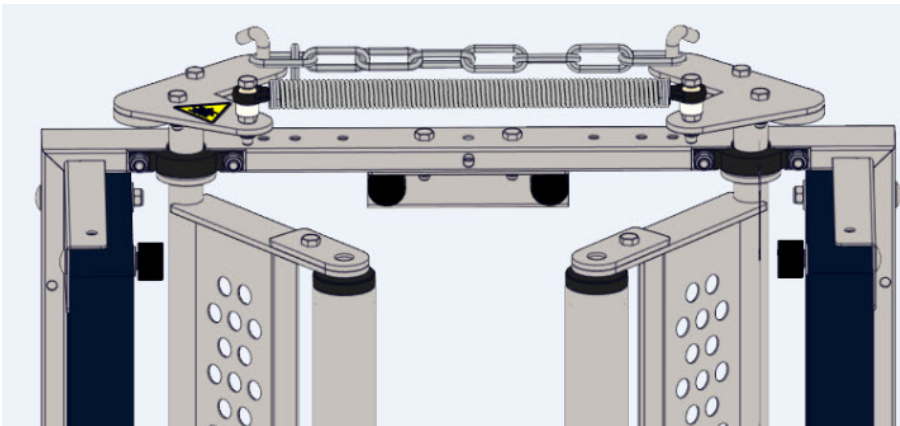
Figure 4: Set the exit doors for Learning phase 1

Supply animals in Nedap Velos
1. Go to **Farm**.
2. Select **location**.
3. Click **Supply**.
4. Enter details:
   Date: Nedap Velos shows the current date and time. Enter date and time when animals are supplied.
   Animals: number of supplied animals.
   Average weight: average weight of supplied animals.
   Sex: Make a choice between gilts and barrows, gilts, boars and barrows.
   Breed: Breed of the supplied pigs. Required field.
   Comment: Optional, leave a comment. For example supplier information.
5. Click **Submit.**
6. The events *Supply* and *Learning (1/5)* appear. The status light breathes.

Supply animals in the pen
Supply new animals in the pen according to the following guidelines:
- Recommended to use all in - all out principle.
- Required to supply equal batches of pigs (same week of birth).
- Sufficient and fresh feed must always be available in the feeding troughs.
- Maximum advised number of pigs on one PorkTuner is 600 pigs.
- Minimum advised (supply) weight of the pigs is 25 kg.

I supplied pigs and entered a wrong average weight. What should I do?

It is not possible to edit the entered weight. If you entered a weight that is too low, the growth is probably more than expected. If you entered a weight that is too high, the growth is probably less than expected.

When you entered a wrong average weight, it is advised to remove the supplied animals and supply the same animals again, with the correct weight:
1. Go to **Farm**.
2. Select the **Location**.
3. Click **Remove**.
4. Click **Ok**.
5. Click **Supply**.
6. Enter all details and Click **Submit.**

Learning

Learning phases

The Learning mode starts after supplying new pigs. The environment is new for the pigs and the most important thing to happen is that the pigs start eating well. The PorkTuner can be seen as a restriction while trying to reach this goal. Therefore, it is very important for the pigs to get familiar with the PorkTuner.

The Learning mode takes 5 weeks and is divided into 5 phases. The default duration of the Learning phases is:
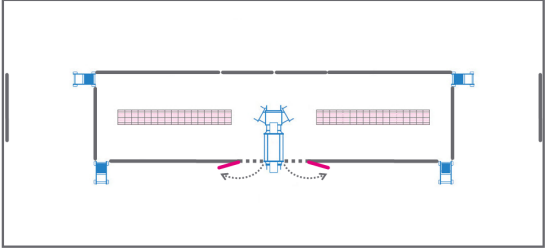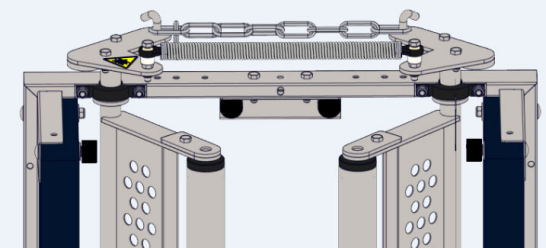
1. Phase 1: 14 days

2. Phase 2: 7 days

3. Phase 3: 7 days

4. Phase 4: 5 days

5. Phase 5: 2 days.

When you think some phases should be shorter or longer for your animals, change the time period of these phases.
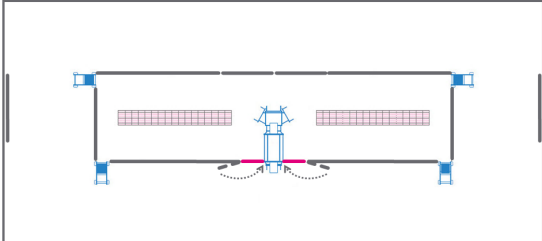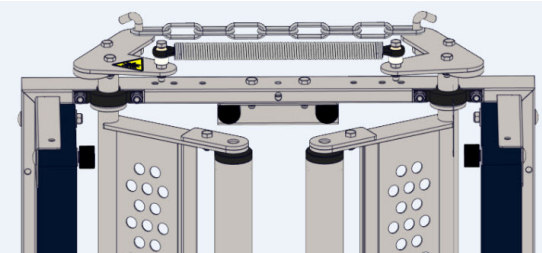
1. In Velos, go to **Farm** and click on the settings icon ⚙ in the upper right corner of the screen.

2. Change the number of days of the period(s) you want to change and click on **Save**. The default time duration has been changed now.

See the table for the instructions per Learning phase.
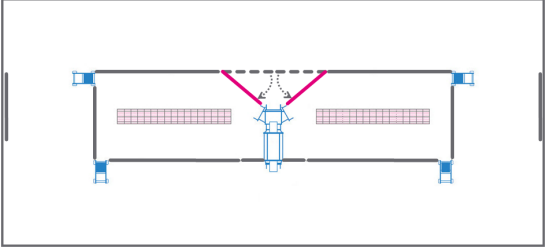
Table 2: Five phases of Learning

From day	Description	Actions to take
1	**Learning phase 1/5** New environment. Other pigs to get used to. • The exit doors opened to about 45 degrees. • Pigs have free access to feed. • Pigs have free access to lying area. • The entrance gate and exit gate of the weighing module are open. • There are no moving parts on the PorkTuner. • In this Learning phase pigs only use the left exit to leave the PorkTuner.	1. Entrance gate -> Reduce air pressure to 2.5 bar. 2. Exit gate -> Reduce air pressure to 2.5 bar. 3. Open the fences next to the PorkTuner entrance, so the pigs have easy access to feed. Make sure the pigs have access to all the feed regardless of which exit of the PorkTuner they come from. *Figure 5: Position of the fences for Learning phase 1* 4. Open the three exit doors of the PorkTuner, by means of the chains that are provided on the exit doors. Use 8 of the 9 links of the chain. This makes it easier for the pigs to enter the feeding area if they walk through the PorkTuner. *Figure 6: Set the exit doors for Learning phase 1*

From day	Description	Actions to take
15 *	**Learning phase 1/5 finished** The status light on the PorkTuner blinks once with an interval. This means that Learning phase 1/5 is finished.	1. Set the fences in the pen in the correct position for Learning phase 2. Close the fences next to the PorkTuner entrance. Pigs can have access to feed through the PorkTuner only. Pigs can return to the lying area through the return gates only. *Figure 7: Position of the fences for Learning phase 2* 2. Set the exit doors for Learning phase 2. Slightly close the three exit doors of the PorkTuner, by means of the chains that are provided on the exit doors. Use all 9 of the 9 links of the chain. Pigs get used to more tightened exit doors. It is more difficult now to enter the PorkTuner from the exit sides. *Figure 8: Set the exit doors for Learning phase 2* 3. Push the red button 3 times to start Learning phase 2. x 3
15 *	**Learning phase 2/5** Pigs get used to more tightened exit doors. It is more difficult now to enter the PorkTuner from the exit side. • The opening of each exit door is reduced. • Pigs know the environment, the other pigs and where to get feed. • Pigs have access to feed through the PorkTuner only. • Return to lying area is only possible through the return gates. • The PorkTuner changes its exit (left, middle, right) once a day.	None
22 *	**Learning phase 2/5 finished** The status light on the PorkTuner blinks twice with an interval. This means that Learning phase 2/5 is finished.	Push the red button 3 times to start Learning phase 3. x 3
22 *	**Learning phase 3/5** • When a pig enters the PorkTuner the **entrance gate closes** behind the pig. • Pigs have access to feed only through the PorkTuner. • Return to the lying area is only possible through return gates. • The PorkTuner changes its exit (left, middle, right) once a day.	None

From day	Description	Actions to take
29 *	**Learning phase 3/5 finished** <u>Learning phase 3/5 finished</u> The status light on the PorkTuner blinks 3 times with an interval. This means that Learning phase 3/5 is finished.	1. Set the exit doors for Learning phase 4. Remove the chains and keep them in a safe place (for example in the office). *Figure 9: Set the exit doors for Learning phase 4* 2. Push the red button 3 times to start Learning phase 4. x 3
29 *	<u>Learning phase 4/5</u> • The chains are removed. • Pigs cannot enter the PorkTuner from the exit side anymore. • When a pig enters the PorkTuner the entrance gate closes behind the pig. • When a pig leaves the weighing module the exit gate closes behind the pig. • Pigs have access to feed only through the PorkTuner. • Return to lying area is only possible through the return gates. • The PorkTuner changes its exit (left, middle, right) once a day.	1. Entrance gate -> Increase air pressure to 3.5 bar. 2. Exit gate -> Increase air pressure to 3.5 bar.
34 *	<u>Learning phase 4/5 finished</u> The status light on the PorkTuner blinks 4 times with an interval. This means that Learning phase 4/5 is finished.	Push the red button 3 times to start Learning phase 5. x 3
34 *	<u>Learning phase 5/5</u> Pigs will be weighed for at least 24 hours. When pigs leave the PorkTuner the **exit door moves** behind the pigs.	None
35 *	<u>Learning phase 5/5 finished</u> The weight of all animals in the group is known. The status light blinks 5 times with an interval. This means that Learning phase 5/5 is finished. Nedap Velos shows the event *Learning finished* on the Dashboard. The PorkTuner will remain in Learning mode until it is set in Sorting mode.	None

From day	Description	Actions to take
	Preparation Sorting	1. Set the fences in the pen in the correct position for sorting. *Figure 10: Position of the fences for the Sorting mode* 2. Push the red button 3 times to start the Sorting mode. x 3
	Sorting Pigs will be weighed and the PorkTuner changes its exit **to the left** (50% lightest animals) **or right** (50% heaviest animals) based on pigs weight.	1. Entrance gate -> Increase air pressure to 4.5 bar. 2. Exit gate -> Increase air pressure to 4.5 bar.

* days are adjustable

How can I extend a Learning phase?

When you think the pigs are not yet ready for the next Learning phase, it is possible to extend a Learning phase. To extend a Learning phase, do not push the red button when Velos indicates the Learning phase has finished. The current phase will be extended until you push the red button on the PorkTuner 3 times.

How can I shorten a Learning phase?

When you think the pigs are ready for the next Learning phase but the phase has not finished yet, it is possible to manually shorten the Learning phase. Push the red button on the PorkTuner for 5 seconds during the current Learning phase. The PorkTuner finishes the current Learning phase. To move on to the next Learning phase, push the red button 3 times.

Velos shows Learning finished. What should I do?

Learning finished means the pigs have gone through a Learning phase. The next Learning phase can be started (Learning phase 1 - 4 finished) or the PorkTuner can start sorting (Learning phase 5 finished).

Learning phases 1 - 4 finished

If applicable, set the fences in the pen and/or the exit gates of the PorkTuner in the correct position. Push the red button on the PorkTuner to start the next Learning phase. As long as the red button has not been pushed, the PorkTuner stays in the current Learning phase. See Learning (page 9) for all specific tasks for each Learning phase.

Learning phase 5 finished
1. Set the fences in the correct position for the Sorting mode.
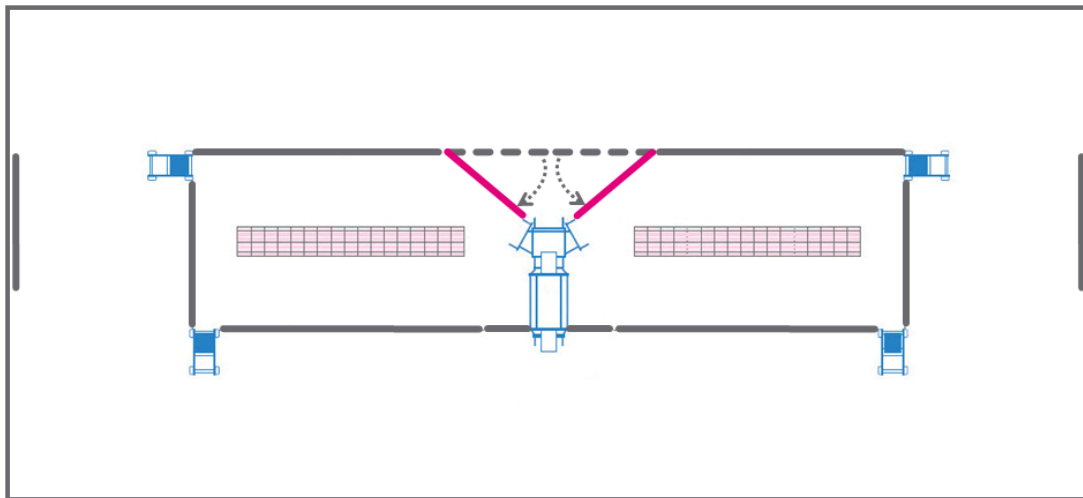
Figure 11: Position of the fences for the Sorting mode

2. Push the red button on the PorkTuner 3 times.

   🖑 x 3

3. The status light breathes. The PorkTuner starts sorting.

The Pigs will be weighed and the PorkTuner changes its exit **to the left** (50% lightest animals) **or right** (50% heaviest animals) based on the weight of the pigs.

Sorting

> ⚠ *If your Velos version is older than 2019.1: Make sure to tare on a regular basis by pushing the "TARE" button. Taring sets the weighing indicator to 0, even if there are things such as dung on the weighing platform. The "TARE" button will even work when the rest of the buttons have been blocked.*
> *From Velos version 2019.1 on, taring happens automatically.*

Nedap PorkTuner weighs each pig. Based on the weight, pigs are sorted to the left exit (50% of the lightest animals) or right exit (50% of the heaviest animals). The weight, growth, time and number of visits are registered in Nedap Velos.
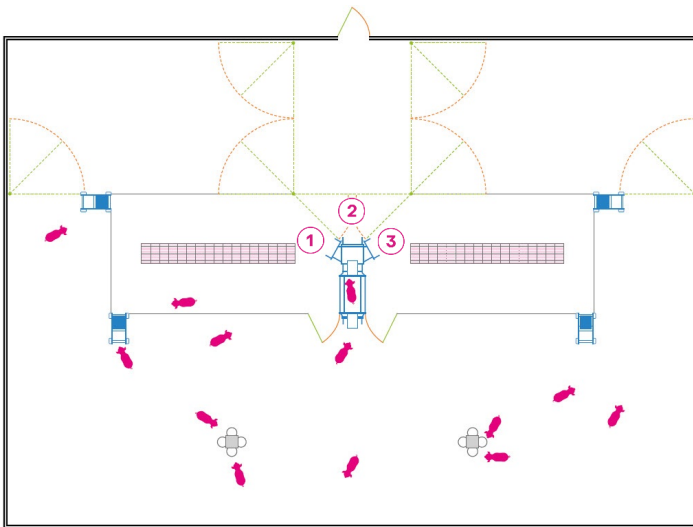
1. Left exit. 50% lightest animals.
2. Middle exit. Delivery.
3. Right exit. 50% heaviest animals.

How do I make the PorkTuner start sorting?

See Velos shows Learning finished. What should I do? (page 12).

Delivery

How do I start a delivery in Velos?

⚠ *If your Velos version is older than 2019.1: Make sure to tare on a regular basis by pushing the "TARE" button. Taring sets the weighing indicator to 0, even if there are things such as dung on the weighing platform. The "TARE" button will even work when the rest of the buttons have been blocked.*
From Velos version 2019.1 on, taring happens automatically.

Deliver pigs
Take the following steps to start delivering pigs:
1. Select animals.
2. Put the fences in the correct position for delivery.
3. Push the red button 3 times.
4. Deliver.
5. Enter number of removed animals.

Select animals

Heavy animals
1. Select the gender of the animals that should be delivered.
2. Fill in the delivery weight (kg) of the animals that you want to deliver. The graph shows which animals on the farm meet this weight. This includes all locations in Sorting mode. The table under the graph shows in which locations these animals are, what the average weight of the animals in this location is, and how many animals are available based on the indicated weight.
3. In the field **To deliver**, fill in how many animals of each location must be delivered.
4. Make sure there is enough room in the pen for delivering the desired amount of pigs, and check the box **Yes, there's enough room to deliver selected animals**.

5. Click **Start delivery**. The status light blinks continuously. The location overview page and the Dashboard in Nedap Velos show the event *Prepare for delivery*.

Light animals

1. Select the gender of the animals that should be delivered.

2. To select the lightest animals on the farm, in the field **Growth**, fill in the maximum growth of the animals that you want to deliver. The graph shows which animals on the farm meet this growth. This includes all locations in Sorting mode. Because not all pigs of the several locations are supplied on the same date and therefore do not have the same weight, Velos calculates which delivery weight per location corresponds with the indicated growth. See the next table and picture for an example.

Table 3: Calculation weight light animals

Location	Supplied	Supplied weight	Growth	Calculated delivery weight
1	60 days ago	25 kg	< 400 g	25 + (60 x 0,4) = 49 kg
2	70 days ago	25 kg	< 400 g	25 + (70 x 0,4) = 53 kg
3	70 days ago	27 kg	< 400 g	27 + (70 x 0,4) = 55 kg
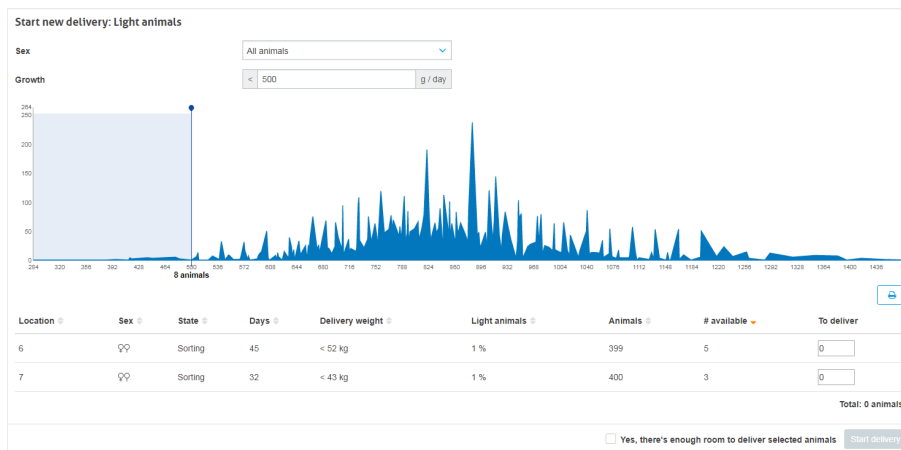
On this farm, animals that grow less than 500 grams per day must be delivered. All animals that meet this growth are selected in the graph. The table below the graph shows in which locations these animals are (locations 6 and 7), how long they are on the farm (45 days in location 6 and 32 days in location 7), what the delivery weight for each location is (52 kg for location 6 and 43 kg for location 7), and how many animals in these locations are available for delivery based on the indicated growth (5 in location 6 and 3 in location 7).

3. In the field **To deliver**, fill in how many animals of each location must be delivered.

4. Make sure there is enough room in the pen for delivering the desired amount of pigs, and check the box **Yes, there's enough room to deliver selected animals**.

5. Click **Start delivery**. The status light blinks continuously. The location overview page and the Dashboard in Nedap Velos show the event *Prepare for delivery*.

Set the fences for delivery

1. Put the fences in the correct position for delivery.
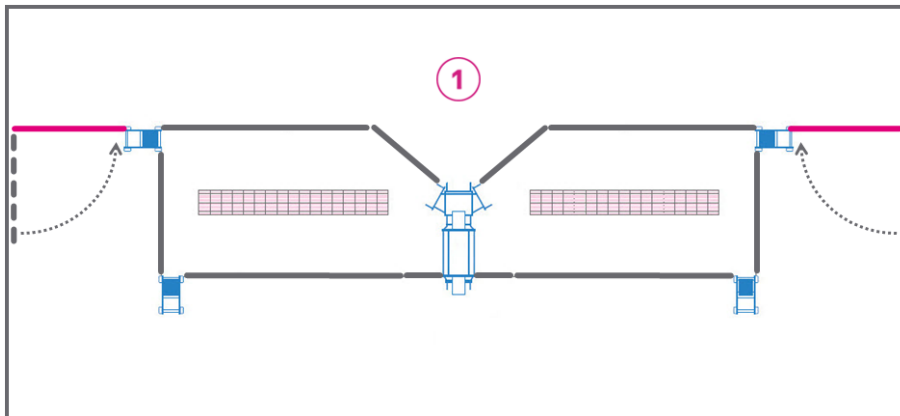
Figure 12: Position of the fences for delivery.
    1 = Delivery area

Push the red button 3 times

Push the red button 3 times to set the PorkTuner into the Delivery mode.

 x 3

The status light breathes. The PorkTuner starts delivering.

Deliver

The delivery is split into 2 phases. In the first phase, the PorkTuner delivers the heaviest/lightest animals of the group to make sure that they will always be included in the delivery. In the second phase, the PorkTuner delivers the animals that meet the entered delivery weight.

Delivery phase 1/2 Heavy animals

The first 4 hours, the PorkTuner will deliver the heaviest pigs. These are the pigs with the entered delivery weight + 3 kg. For example, when the entered delivery weight is 120 kg, the PorkTuner sorts all animals that are heavier than 123 kg (120 + 3 kg).

Delivery phase 1/2 Light animals

The first 4 hours, the PorkTuner will deliver the lightest pigs. These are the pigs with the entered delivery weight - 3 kg. For example, when the entered delivery weight is 53 kg, the PorkTuner sorts all animals that are lighter than 50 kg (53 - 3 kg).

Table 4: Example of a delivery during phase 1/2 and 2/2 of heavy and light animals

Type	Setting	First four hours	After four hours
Heavy animals	> 120 kg	> 123 kg	> 120 kg
Light animals	< 400 g/day = < 53 kg* *25 kg + (70 days x 0,4 kg) = 53 kg	< 50 kg	< 53 kg

Delivery phase 2/2

Four hours after starting the delivery session the PorkTuner starts to deliver the pigs with the entered delivery weight. When the number of pigs to deliver is reached, the PorkTuner stops sending pigs to the delivery area and continues in Sorting mode, or Empty when no animals are left in that location. Nedap Velos shows *Animals delivered*.

Enter number of removed animals

1. Go to **Deliveries**.
2. Click **Details**

3. Click **Edit**.

4. Enter the number of removed animals and click **Save**. The system calculates the remaining pigs on the location.

- When the number of animals is 0, the PorkTuner returns to the mode *Empty*. Clean the location and supply new animals.

- When the number of animals is greater than 0, the PorkTuner returns to the mode *Sorting*. The PorkTuner continues to sort the animals based on their weights.

After entering the removed animals Nedap Velos shows the event *Delivered* in the location overview.

How do I change the delivery forecast settings?

Click on the Dashboard on the icon settings icon ⚙ at the right upper corner of the **Delivery forecast** widget. Fill in the delivery weight and number of animals that should be delivered and click on **Save**.

Monitor all deliveries

The menu item **Deliveries** shows an overview of all deliveries of the last month.

- **Start date**. Start date and time of the delivery
- **Location**. Number(s) of the location(s) used for delivery.
- **Description**. Type of animals and selected weight.
- **State**. Current state of the delivery:
  – *Waiting for location ready*. Push the red button on the PorkTuner 3 times to put the PorkTuner into Delivery mode.
  – *Busy delivering*. The PorkTuner is delivering pigs. The progress bar shows how many animals have been delivered already.
  – *Animals delivered*. The number of pigs has been delivered. Note how many pigs have actually been delivered to complete the delivery
  – *Done*. The delivery is complete.
- **No. of animals**. When the delivery is in progress: Progress bar with number of animals that should be delivered. When the delivery is finished: number of delivered animals.
- **Average weight**. The average weight of the delivered animals.
- **Actions**. View details of the delivery. See View details about the delivery for this specific location (page 17) for more information.

Monitor a delivery for a specific location

There are two ways to monitor the current deliveries:
- Select the menu item **Dashboard** and click on the link **Go to deliveries** in the **Deliveries** widget for the specific location.
- Select the menu item **Deliveries** and click on the link **Details** in the **Recent Deliveries** section for the specific location.

Information about the delivery in this location is shown:
- **Location**. Number of the location.
- **State**. Current state of the PorkTuner:
  - *Waiting for location ready*. Push the red button on the PorkTuner 3 times to put the PorkTuner into Delivery mode.
  - *Busy delivering*. The PorkTuner is delivering pigs. The progress bar shows how many animals have been delivered already.
  - *Animals delivered*. The number of pigs has been delivered. Note how many pigs have actually been delivered to complete the delivery
  - *Done*. The delivery is complete.
- **Progress**. Progress bar with the number of animals that is currently delivered.
- **# Removed**. Number of actual removed animals (filled in by farmer).
- **Avg. weight**. The average weight of the delivered animals.
- **Actions**.
  - **Abort**. Stop the current delivery.
  - **Edit**. Change the number of removed animals or the average weight of the delivered animals.

What happens when I abort a delivery?

The PorkTuner continues sorting. Enter the number of removed animals, or enter 0 when no pigs left the group.

Feeding

An optional feature of the Nedap PorkTuner system is feeding advice. With feeding advice Nedap advices about the optimal moment to switch to the next feed phase, based on the weight of the animals.

The page **Feeding** in Velos shows an overview of the current feed phases of all locations. Velos always shows the locations that should switch now first. Click **All**, **Soon** or **Overdue** to see the other locations. The progress bar indicates when the optimal switch moment is. When the indicator is in the green part of the progress bar, you should switch to the next feeding phase.

Figure 13: Example of the optimal switch moment

When the optimal switch moment is reached for a location, the location also appears on the **Dashboard** in the **Feeding phases** widget.

To switch to the next feeding phase, click on **Start next phase** behind the location, or select the location(s) and select **Actions > start next feeding phase** to start the next feeding phase.

Select **Actions > Start previous phase** to start the previous feeding phase, in case you started the next feeding phase by accident.

How do I add, remove or change a feeding phase?

By default, there are three feeding phases: Starter (starts at 0 kg), Grower (starts at 50 kg) and Finisher (starts at 75 kg). It is possible to delete and add feeding phases and to change the start moment.

(!) *There must be at least one feeding phase. The maximum number of phases is 6.*

Add a feeding phase
1. Go to **Feeding**.
2. Click on the settings icon ⚙ in the right upper corner of the screen to add one or multiple feeding phase(s).
3. Click **Add phase** to add a feeding phase.

4. Enter the name of the feed and the number of kg when this feeding phase must start.

5. Click **Submit** to save.

Remove a feeding phase
1. Go to **Feeding**.

2. Click on the settings icon ⚙ in the right upper corner of the screen to delete a feeding phase.

3. Click on **Delete**.

4. Click on **Save**.

Change a feeding phase
1. Go to **Feeding**.

2. Click on the settings icon ⚙ in the right upper corner of the screen to delete a feeding phase.

3. Change the name and/or the start moment for the feeding phase.

4. Click on **Save**.

Marking

An optional feature of the Nedap PorkTuner system is marking. With marking certain animals can be recognized and marked, based on the weight or growth of the animals.

Start a marking action
1. Select the menu item **Marking**.

2. In the field **Start marking action**, click on **Growth** when a marking action based on growth must be entered. Click on **Weight** when animals with a certain weight must be marked.

3. Fill in the date when the marking action should start, which color should be used, and when the animals should be marked.

4. Select the location(s) for which the marking action is, and click on **Save**.

Monitor a marking action
As long as the marking action is ongoing, the progress is visible on the **Dashboard** in the **Marking** widget.

Recent markings can be viewed by clicking on the menu item **Marking**. Select current actions or actions that are already planned (**Now / Planned**), or actions that are finished (**Finished**). Click on the arrow icon ⌄ to see the details of the action.

I use spray markers but the Marking menu item is not visible in Velos.
When using spray markers, an additional licence is necessary. Probably this is not activated. Click on the My Portal icon in the upper right corner of the screen to activate spray marking.

How do I change the settings for the spray marker?
1. Select the menu item **Marking** and click on the settings icon ⚙ in the right upper corner of the screen.

2. Select which colors should be color 1 and 2 and click **Save**.

Dashboard

The dashboard shows an overview of your farm. Here you can see at a glance how your farm is doing and if applicable, which actions you have to take:

- Check and if necessary, adjust your delivery forecast.
- View the progress of current deliveries.
- View the state of all PorkTuners. This indicates if an action is necessary, for example when the Learning mode is finished.
- View the trends for the growth and number of visits of the animals to see if the animals in all locations are doing well. When the trend is going down, it is necessary to find out why.
- Check if there are feeding phase switches recommended (optional).
- View the progress of current marking actions (optional).

Delivery forecast

The delivery forecast shows a forecast for the next 4 weeks. Use this information to decide if there are enough animals

to deliver. The delivery forecast is based on the total number of animals on the farm. Click the settings icon ⚙ to change the preferred delivery number or the delivery weight range.

Deliveries

Shows an overview of all current deliveries. The column **Locations** shows all location numbers that are in use as a location where pigs are selected for delivery. Use this information to see the progress of the deliveries. Click on **Go to deliveries** to view more details.

Feeding phase transition (optional)

Shows an overview of the locations where feeding phase switches are advised now. A switch is advised when the average weight of the animals in the location is higher than the optimal switch moment, but lower than the optimal switch moment + 3kg. Click on **Go to feeding overview** to change the feed phases or to start the next feeding phase.

Marking (optional)

The Marking widget shows all current marking actions and the progress. Click on **Go to marking overview** to view more details of the marking actions.

System notifications

An overview of non-critical notifications is shown. Immediate action is not necessary, but there is an action that should be done (for example creating a backup or updating the V-pack firmware). Click on the notification to see more information.

Farm

Shows an overview of the total number of locations and pigs, and the number of locations with a specific state. Click on **Go to farm overview** to view more details.

Table 5: Overview of states

State	Description	Required action	How to
Empty	The location is empty.	Clean location and supply new animals.	Supply new animals (page 4)
Learning	The PorkTuner is in Learning mode.	No action required	
Learning finished	Learning phase 5/5 is finished.	The status light on the PorkTuner is blinking. Put the fences and the exit doors of the PorkTuner in the Sorting mode.	Sorting (page 13)
Sorting	The PorkTuner is sorting.	No action required.	

State	Description	Required action	How to
Prepare for delivery	A new delivery is set up and the PorkTuner is waiting unit the delivery can start.	Set the fences in the pen in Delivery mode. After that, set the PorkTuner in the Delivery mode by pushing the red button on the PorkTuner 3 times.	How do I start a delivery in Velos? (page 14)
Delivery	The PorkTuner is delivering pigs.	No action required. The PorkTuner is busy with delivering. After delivering the PorkTuner continues in Sorting mode.	
Unknown	Something is wrong with the PorkTuner.	Try to find the cause of the problem and solve it.	Troubleshooting

When a unit is blocked, the Dashboard shows this apart from the other states. Push the red button 1 time to release the entrance gate of the PorkTuner. The PorkTuner continues in the same mode as before it was blocked (Learning, Sorting or Delivery).

Growth

This graph shows the average growth in gram per day of all animals of PorkTuners in Sorting mode. To view the growth of the animals in a single location, click on the menu option **Farm**, and select the location in the field **Farm overview**. The tab *Growth* shows the growth of the location.

#Visits

This graph shows the number of visits per day for all animals of PorkTuners in Sorting mode. To view the visits of a single location, go to the location monitor page by selecting the menu option **Farm**, and in the field **Farm overview** select the location. The tab *Visits per hour* shows the number of visits per hour of the location.

Monitor your farm

Farm overview

There are two ways to view more details about the farm and specific locations:

1. Click on **Farm** in the menu.
2. On the **Dashboard**, go to the **Farm** widget and click on the link **Go to farm overview**.

The timeline shows an overview of the current state of all PorkTuners. The tab *Locations* shows information about all locations. In case there is a blocked PorkTuner, an extra tab *Blocked* is shown. Click on the location number in the table to view detailed information specified per location.

The table below shows the required action per state:

State	Required action
Empty	Clean location and supply new animals.
Learning	PorkTuner is in Learning mode.
Learning finished	When a Learning mode is finished, Velos displays **Learning finished**. If applicable, set the fences in the pen and the exit doors in the correct position, and push the red button on the PorkTuner 3 times to move to the next Learning mode, or Sorting mode.
Sorting	PorkTuner is in Sorting mode. No action required.
Prepare for delivery	Set the fences in the correct position and push the red button on the PorkTuner 3 times to start delivering pigs.
Delivery	PorkTuner is in Delivery mode. No action required.
Blocked	Release the PorkTuner with the red button.

Monitor a single location

1. Select the menu item **Farm**.
2. Select the location in the field **Farm overview** for detailed information about a specific location.

The location overview shows all data of the location. Click on the tabs *Events*, *Weight distribution*, *Visits per hour*, *Growth* and *Visits* to see more information about the location. Select another location in the drop down menu to see the data of another location.

Use the location overview page also for supplying new animals, and adding or removing animals. It is also possible to add a comment to the events, for example when you remove animals and you want to note the reason.

The picture in the right upper corner of the screen shows if the PorkTuner is in Empty, Learning, Sorting or Delivery mode. It depends on the state which information is shown:

- Learning: the progress of the Learning mode.
- Sorting: the average weight of the animals that enter the left and right exits.
- Delivery: an overview of which animals should be delivered, and the progress.

Frequently Asked Questions

How do I block or unblock a PorkTuner?

To block a PorkTuner, for example for maintenance, push the red button on the PorkTuner 1 time. To unblock the PorkTuner, push the red button 1 time again. The PorkTuner continues in the same mode as before blocking (Learning, Sorting or Delivery).

(i) *Check the **Farm** widget on the Dashboard for blocked PorkTuners.*

Where can I find the current state of the PorkTuner?

Go to the menu option **Farm** to see an overview of all PorkTuners. In the field **Farm overview**, select the **Location** to see the current state of one PorkTuner.

See Monitor the farm by using the dashboard for more information about all states.

How do I set the PorkTuner to another phase/state?

From	To	What to do?	How to
Empty	Learning	Set all fences in the correct position, open all exit doors of the PorkTuner and supply new animals. Learning phase 1 starts automatically after supplying new animals.	Supply new animals (page 4)
Learning	Sorting	When Learning phase 5/5 is completed, the status light will be blinking. The software shows *Learning finished*. Set the fences in Sorting mode and push the red button 3 times to set the PorkTuner in Sorting mode.	Velos shows Learning finished. What should I do? (page 12)
Sorting	Delivery	Set up a delivery session	How do I start a delivery in Velos? (page 14)
Delivering	Empty	Finish the delivery and make sure the location is empty after the delivery.	1. Enter the number of delivered pigs. 2. Make sure the location is empty and clean the location for the next group of animals.

From	To	What to do?	How to
Delivering	Sorting	No action required. The PorkTuner continues with sorting when the delivery is finished and there are remaining pigs at the location.	

How do I add animals?

Sometimes it is necessary to add animals to the group. Always correct the current number of animals in the group to keep the system up to date.

1. Go to **Farm**.
2. Select **location.**
3. Click **Add animals.**
4. Enter date, number of animals and optional a comment.
5. Click **Submit**.

How do I remove animals?

Sometimes it is necessary to remove animals from the group. Always correct the current number of animals in the group to keep the system up to date.

1. Go to **Farm**.
2. Select **location**.
3. Click **Remove animals.**
4. Enter date, number of animals and optional a comment.
5. Click **Submit.**

How do I add or remove a Velos user?

1. Go to **Settings > Contact/users**
2. Click **Add Business Insight account** or **Add contact**.

Business insight account:

1. Search username.
2. Click **Add**.

Add contact

1. Enter details
2. Select box **user**
3. Enter user settings
4. Select box **Internet access**.
5. Click **Submit**.

Can I change the Velos permissions of a user?

Yes, it is possible to set the permission of a user by assigning roles to the users.

When starting up the system there are 2 roles in the software:
- Service. The service role has all viewing and editing permissions, including viewing and editing the service checklist, and editing Vpack settings.
- Manager. The manager role has all viewing and editing permissions **except for** viewing and editing the service checklist and editing Vpack settings.

Assign the role to a user when adding the user via **Settings > Contacts > Contacts / users**.

Pig Farming

I want to use other roles
Besides the Manager and Service role, all kinds of other roles can be made:
1. Click on **Add role**.

2. In the field **Name** fill in the name of the new role.

3. Select the permissions for the new role.

4. Click on **Submit**.

To delete a role:
1. Select the role that you want to delete and click on **Actions**.

2. Click on **Remove**.

3. Confirm with **Ok**.

What does 'User management' mean?
User management means the possibility to edit the permissions of all roles, and view and edit all contacts and users of the software.

How do I change the date and time of Velos?

1. Go to **Settings > System - date/time.**

2. Change date/time.

3. Click **Submit**.

4. Date and time are changed.

How do I change the language of Velos?

1. Go to **Settings > Contact/users**.

2. Select the user who's language must be changed.

3. Change language.

4. Click **Submit**.

Set up, create and restore a backup

Set up backup
It is important to make a backup of the system to prevent loss of data in case the system failures.

1. Go to **Settings > System - Automatic backups**.

2. Select **None**, **USB backup** or **Online backup** (online backup is Premium only).
   USB backup: recommended if there is not an internet connection available.
   a. Insert an USB drive in the USB connection A on the VP8001.

   (!) *Make sure the cover of the V-box can still be closed to keep the V-box splash and dust proof.*

   b. Click **Format disk** to format the USB drive. All data on the drive will be lost.
   c. Enter the backup time.
   d. Click **Submit**. Backups are automatically saved on a USB drive.
      Online backup: recommended if there is an internet connection available.
   a. Enter the backup time.
   b. Click **Submit**. The backup will be made once a day. The last 7 backups are saved in Business Insight. Make sure a VPU-online domain name is registered for the system and the system is linked to a Business Insight account. Use this Business Insight account to restore a backup in case the system failures.

Create a backup manually
1. Go to **Maintenance > System - Backup/Restore**.

2. Select **Backup** to create a backup file.

3. Click **Submit**.The backup file will be saved on the computer or device.

Restore a backup
1. Go to **Maintenance > System - Backup/Restore**.
2. Select **Restore** to restore a local backup file. Upload the backup file from your computer or device.
    Select **Restore online backup** to restore an online backup. Choose in the drop down menu the online backup file you want to restore.
3. Click **Submit**.