

HAYGAIN®

Haygain® HG-600 Hay Steamer

User Manual



HGP347US

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About your Haygain® HG-600 hay steamer

Congratulations on purchasing your Haygain® HG-600 hay steamer!

Your Haygain® hay steamer is the only system scientifically proven to kill mold spores and bacteria in hay, and remove the potentially allergenic respirable dust. Steamed hay helps to protect your horse from harmful dust and microorganisms.

Here at Haygain® we are committed to improving the health and well-being of your horse. To see other ways that we can help you and your horse please visit haygain.com.

You must always steam hay in the hay steamer for at least 60 minutes and until the thermometer reads at least 176 °F. The minimum time for steaming is based on an ambient temperature of 59 °F and a sufficient power supply.

About this user manual

This user manual describes how to safely use and maintain your Haygain® hay steamer, and how to get the best results from it. To watch some helpful videos or see frequently asked questions, visit haygain.com



Read this user manual before use

Before you get started, read this user manual. When you use your Haygain® hay steamer, follow all instructions carefully and safely.

Disclaimer

We have made every effort to ensure that the information in this user manual is correct at the time of publishing. However, we reserve the right to change the information at any time without notice.

Failure to observe the requirements of this user manual may cause harm or injury to you or your horse and may invalidate the warranty.

This equipment is designed for steaming hay and should not be modified in any way. We accept no liability for misuse or unauthorized modifications to your Haygain® HG-600 hay steamer.

Contact Us

We are here to help. If you have any questions or comments, please get in touch. To see the contact details for your region, visit haygain.com.

Safety

Read this section carefully before setting up and using your Haygain® hay steamer.

General safety



Use your Haygain® hay steamer in a safe place

To prevent hazards and damage to your Haygain® hay steamer, use it in a location that meets the specifications on page 9. Keep the area around the hay steamer clear from loose hay and other debris.



Keep children and animals safe

Keep children and animals away from your Haygain® hay steamer.



Hot steam and temperatures can cause burns

When the steam generator is switched on, it produces hot steam that fills the hay chest via the steam hose. Take care when opening the hay chest during or immediately after use as steam will escape when the lid is opened. Areas of the hay chest, for example the manifold spikes, can get very hot. Take care when you steam hay and unload it.

Before you open the cap of the steam generator, allow it to cool down. Do not stand over the steam generator when you unscrew the cap. Do not pour cold water over a hot heating element.

Take care when opening bales immediately after steaming as they can be extremely hot.



Handle your Haygain® hay steamer with care

Do not carry or move the hay chest or steam generator when in use. Do not use sharp objects, for example hay forks, inside the hay chest. Do not stand or drop a steam generator on the hay chest.



Maintain your Haygain® hay steamer

Follow the maintenance instructions in this user manual. If you do not maintain your Haygain® hay steamer, it may stop working or become dangerous.

If any part of your Haygain® hay steamer is damaged, including the steam hose, electrical cable or thermometer, do not use it. Contact us for help. Use only genuine Haygain® spare parts and approved accessories.

Electrical safety



Electrical equipment can be dangerous

Ensure your electrical setup meets the specifications for the steam generators. If you have any questions about your electrical setup, contact a qualified electrician.



Poor electrical connections can be a fire hazard

Ensure that plugs are inserted fully into power outlets and are not obstructed in any way. A poorly inserted plug may overheat, potentially causing damage to the plug and outlet, and is a fire hazard

Electrical specifications

The steam generator is an electrical device. Before you use the steam generator, check there is no damage to the plug, cable, and cable restraint.

Ensure your electrical circuit meets the following specifications for the steam generator:

- 1500 W power circuit
- 110/120 V, 50/60 Hz,
- The plug, cable, cable restraints and power outlet are not damaged.
- The plug and cable are clean and dry when you plug them into the power outlet.
- The plug can be inserted fully into the power outlet and is not obstructed in any way that may cause a poor connection.
- We recommend you plug the steam generator into a power outlet that is protected with a GFCI (Ground Fault Circuit Interrupter) circuit breaker.



Extension cables can be an electrical hazard

Ensure that the steamer generator is connected directly to the power outlet. Do not use any type of extension cable to connect the steam generator

Routinely check the condition of the electrical cable and plug to ensure it is not getting dirty, corroded or damaged

Getting started

Unpacking your Haygain® hay steamer

Check you have all of the following parts. If you do not have a part, contact your supplier within 7 working days of delivery.

- Haygain® HG-600 hay chest, with a fixed 5-spike steam manifold
- Jiffy steam generator
- Steam hose with quick release fittings
- Funnel
- Measuring dipstick
- 1-gallon filler bottle
- 2 Haygain® descaler sachets
- User manual

Your Haygain® hay steamer details

Make a note of serial numbers and the date of delivery. The serial number for the hay chest is on the inside of the lid. The serial number for the steam generator is on the label on the back.

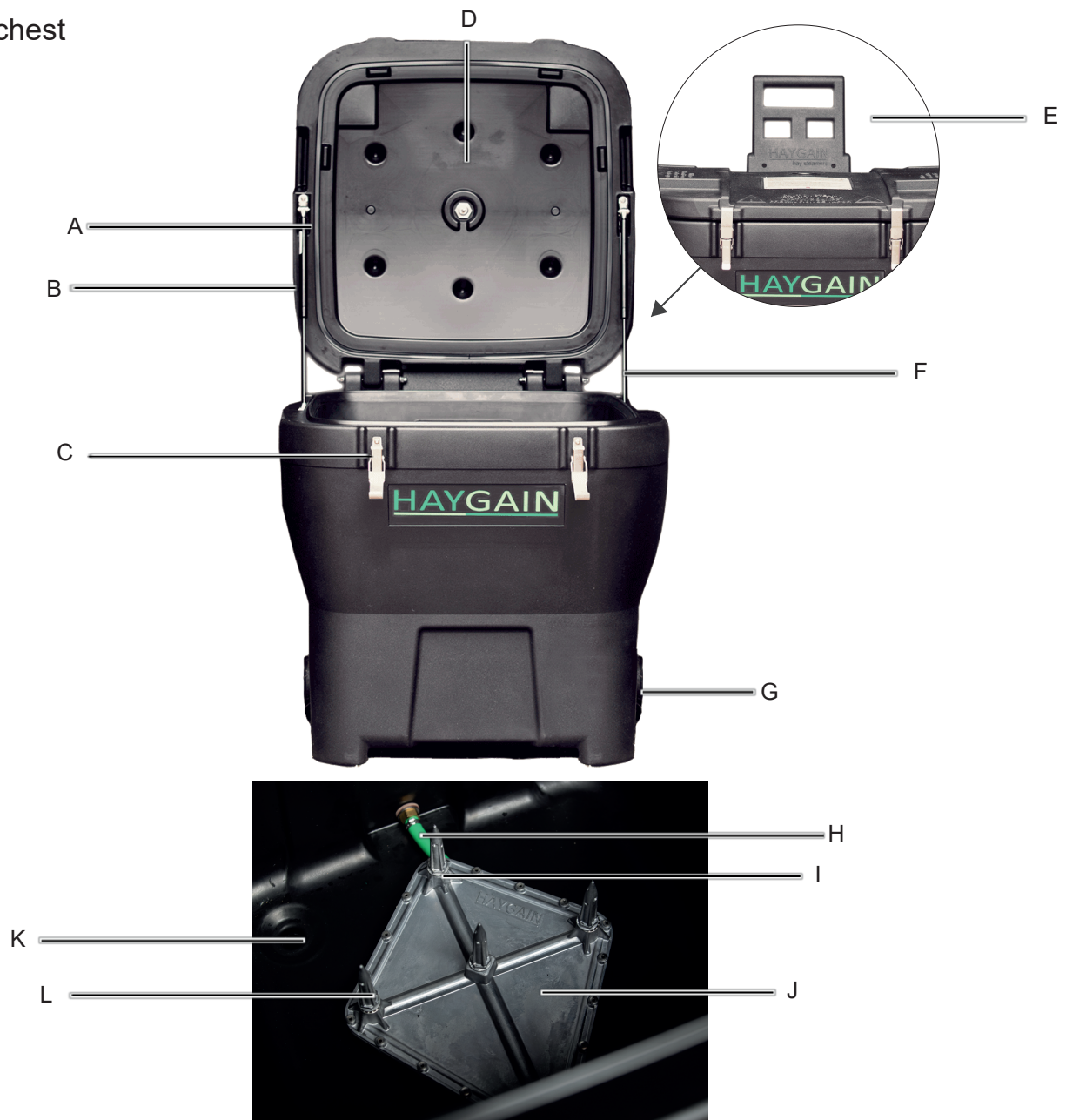
Serial number (hay chest)

Serial number (steam generator)

Date of delivery

Overview

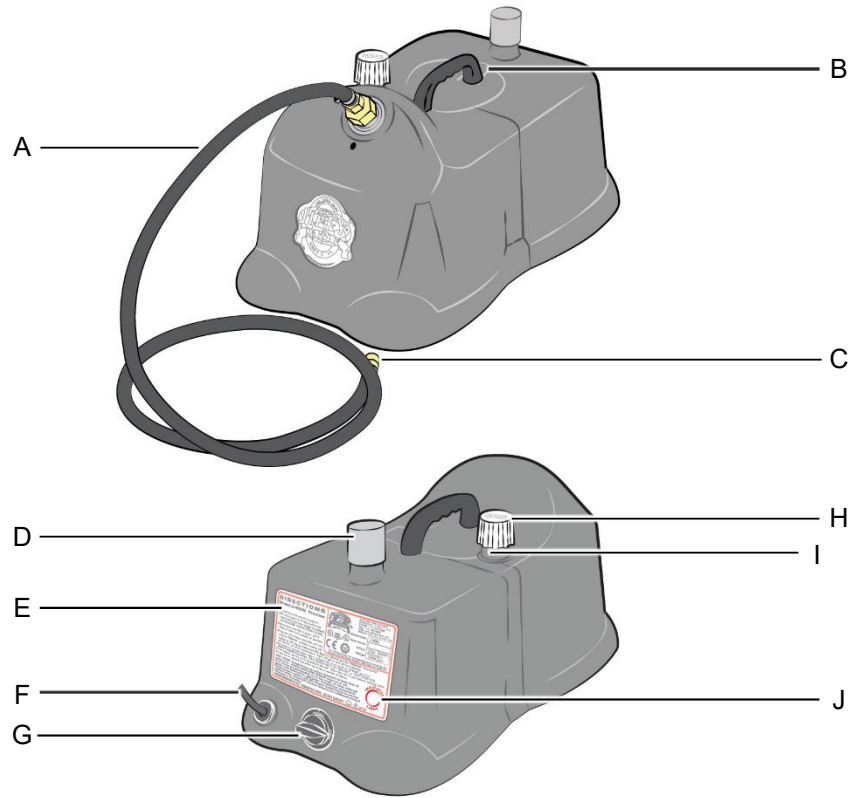
Hay chest



- A** Lid
- B** Lid seal
- C** Latch
- D** Thermometer
- E** Height-adjustable handle
- F** Lid Gas Struts

- G** Wheel
- H** Internal hose
- I** Steam hole
- J** Steam manifold plate
- K** Drain hole
- L** Manifold spike

Steam generator



- | | | | |
|----------|-------------------------|----------|---------------------------------|
| A | Steam hose | F | Power cable and cable restraint |
| B | Handle | G | Power switch |
| C | Connector for hay chest | H | Cap |
| D | Second cap, not used | I | Filler spout |
| E | Safety label | J | Heating indicator light |

Where to set up your Haygain® hay steamer



Set up your Haygain® hay steamer in a safe place

To prevent hazards and damage to your Haygain® hay steamer, use it in a location that meets the specifications below. Keep the area around the hay steamer clear from loose hay and other debris.



Keep children and animals safe

Keep children and animals away from your Haygain® hay steamer.



Take care when moving your Haygain® hay steamer

Do not carry or move the hay chest or steam generator when in use. Before you move the hay chest or steam generator, switch off the steam generator, empty the hay chest of hay, and ensure the steam generator has cooled down.

To move the hay chest, use the height-adjustable handle at the back of it to push or pull it.

To move a steam generator, lift it by the handle.

Set up your Haygain® hay steamer in a location that meets the following specifications:

Location	Steam generator: indoors only Hay chest: indoors or outdoors
Floor	Level and hard floor that drains well Clean and free from mold or damp
Ventilation	Well ventilated, to avoid damp conditions Nothing covering the hay chest or steam generator
Power	Within 6 feet of a power outlet Not directly under a power outlet, as steam can corrode the power outlet Complies with the electrical specifications on page 5.
Water	Near a source of clean tap water

Some water will come out of the drain hole in the hay chest. You can use the drip tray provided to catch the water, or allow the water to flow to floor drains if available.

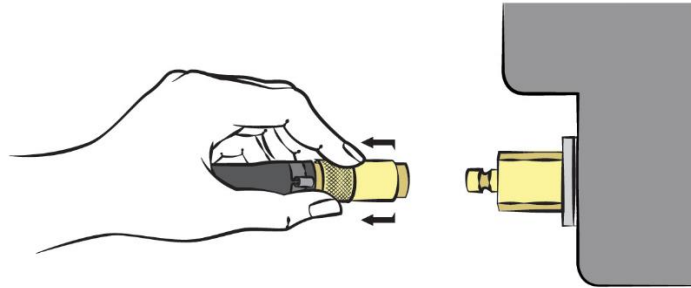
Do not store steamed hay next to un-steamed, dry hay to avoid risk of contamination of the steamed hay. Keep the area around the hay steamer clear from loose hay.

Connecting the steam generator to the hay chest

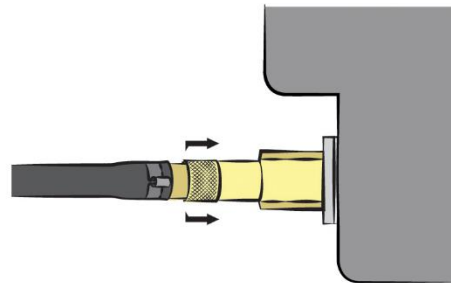
When the hay chest and steam generator are in a suitable location, use the steam hose to connect them. Ensure the steam hose is not coiled, kinked or restricted when in use.

To connect the steam generator to the hay chest

1. Find the quick release fitting at the end of the steam hose.
2. Pull back the barrel of the quick release fitting on the hose, and push it firmly onto the hose connector on the hay chest.



3. Release the barrel of the quick release fitting on the hose, so that it slides into the locked position.



4. To check that the steam hose is securely connected, pull the hose gently.

Using your Haygain® hay steamer



Read the safety chapter

Before you use your Haygain® hay steamer, read the Safety chapter on page 4.

After you set up your Haygain® hay steamer and make sure it is safe, you can start steaming hay. If you are working in freezing conditions, see page 15.

You can feed steamed hay to your horse immediately or ideally within 24 hours of steaming.

To steam hay, complete the following tasks in this chapter:

1. Fill the steam generator with water.
2. Load hay into the hay chest
3. Steam hay in the hay chest
4. Unload hay from the hay chest

Fill the steam generator with water



Warning: Do not open the cap on the steam generator when the steam generator is hot. Ensure the steam generator has cooled down. Do not stand over the steam generator when you unscrew the cap. Do not pour cold water over a hot heating element.

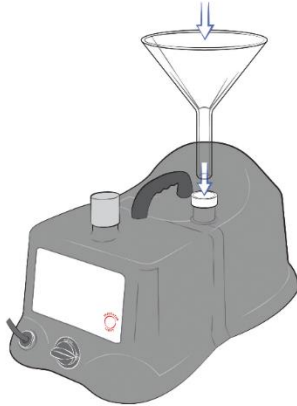


Warning: Take care not to overfill the steam generator with water. Never add anti-freeze or other additives to the water. Additives in the steam generator can be a health hazard to your horse, or can damage the steam generator. It will also void the warranty.

Before you can start steaming hay, you need to fill the steam generator with water.

1. Unscrew the cap on the steam generator.
2. To ensure the steam generator is empty, hold it by the handle and tilt it. Empty the water through the filler spout into a drain or container.

3. Place the funnel in the filler spout and carefully pour up to 1 gallon of clean tap water into the steam generator.



To check the water level in the steam generator, you can use the measuring dipstick.

4. Remove the funnel from the steam generator, then screw on the cap and tighten it by hand.

Load hay into the hay chest



Warning: Do not block the drain hole in the base of the hay chest. A blocked drain hole may cause damage to the hay chest during the steaming process.

The hay chest can hold just over half a standard size bale of hay, several hay nets, or loose hay. When steaming part of a bale of hay, re-tie it using baling twine to keep it together. After steaming, cut and remove any baling twine.

After steaming, any metal parts on hay nets will be very hot. The hot temperatures in the hay chest can also cause some hay nets to shrink. We recommend you use Haygain® hay nets, which do not have any metal parts and are heat-resistant so will not shrink. You can order Haygain® hay nets from haygain.com

1. Lift the lid of the hay chest.
2. Check there is no loose hay in the hay chest, and that the steam holes and drain hole are not blocked. If there is any loose hay or blockages, clean the hay chest before you load new hay. Read more about cleaning the hay chest on page 16.
3. Place the hay into the hay chest. Place hay nets or wedges of loose hay vertically, so that they are parallel with the sides of the chest.
4. Press the hay down firmly, being careful of the manifold spikes. Ensure the manifold spikes fully pierce the hay. Avoid overfilling the hay chest and leave a gap between the hay and hay chest walls.
5. Close the lid of the hay chest and fasten the latches.

Steam hay in the hay chest



Do not allow the steam generator to run out of water

If a steam generator runs out of water, also known as “boils dry”, it can be damaged. If the steam generator boils dry, switch off the steam generator immediately. Before you unscrew the cap and add more water, allow it to cool down. Do not stand over the steam generator when you unscrew the cap. Do not pour cold water over a hot heating element.



Warning: Before you plug the steam generator into a power outlet, mop up any water spillages around your Haygain® hay steamer. Ensure the plug, cable, and power outlet are clean and dry.

When you steam the hay in the hay chest, the internal temperature of the hay chest can reach 176 °F and above. This represents a temperature of 212 °F in the hay. The combination of hot temperature and moisture kills the mold spores and bacteria in the hay, protecting your horse from harmful dust and microorganisms.

When you are steaming hay, some steam may be observed coming from the back or sides of the hay chest lid. This is normal and may be more obvious in low ambient temperatures. If no steam comes out of the manifold spikes when you are steaming hay, there can be a blockage in the hay chest, steam generator or steam hose. For more information, see page 19.

The power switch on the steam generator has the following three positions:

- **OFF**
- **PREHEAT**
- **STEAM**

The **PREHEAT** position allows you to continuously heat the water in the steam generator, so that it is ready when you need it. For example, on a cold day it can take longer for the steam generator to start producing steam. If you preheat the steam generator, you can do other things while the water heats up. When you are then ready to start steaming hay, turn the power switch to the **STEAM** position.

1. Plug the steam generator into a power outlet.
2. To switch on the steam generator, turn the power switch clockwise to the **STEAM** position. The heating indicator light turns amber.
3. Steam the hay for at least 60 minutes then check the thermometer on the hay chest lid.:
 - If the temperature shown is at least 176 °F, steaming is complete.
 - If the temperature shown is below 176 °F, continue steaming until it is 176 °F.



4. To switch off the steam generator, turn the power switch anti-clockwise to the **OFF** position.
5. Unplug the steam generator from the power outlet.
6. When the steam generator has cooled down, unscrew the cap on the steam generator.
7. Hold the steam generator by the handle and tilt it. Empty the water through the filler spout into a drain or container, to reduce the build-up of lime scale.

Unload hay from the hay chest



Beware of hot steam when you open the hay chest lid

When you open the lid of the hay chest, stand to one side to allow steam to escape. Do not lean over the hay chest as steam escapes.



Warning: If the hay in the hay chest is too hot, wear protective gloves when you handle it. Take care when you unload hay nets, as any metal parts will be very hot. Do not use sharp objects, for example hay forks, inside the hay chest.

After you steam hay, the hay is warm and smells sweet. Most horses love the taste and prefer it to dry or soaked hay. We recommend you make any changes to your horse's diet slowly, to give their digestive system time to adapt. When you first start using steamed hay, mix it with your horse's existing hay for a few days.

The steamed hay may be slightly wet on the outside due to condensation from the inside of the hay chest lid, however, the inside of the hay will be dry to the touch.

To ensure the hay chest and its lid always fit together properly, keep the lid closed on the hay chest as they cool down.

1. Lift the lid of the hay chest. Open the lid from the side to allow steam to escape.
2. Unload the hay from the hay chest.
3. Close the lid of the hay chest.

Working in freezing conditions



Do not use anti-freeze products

Do not use anti-freeze or other additives in the steam generator. Additives in the steam generator can be a health hazard to your horse, or can damage the steam generator. It will also void the warranty.



Warning: Do not open the cap on the steam generator when the steam generator is hot. Ensure the steam generator has cooled down.

Do not stand over the steam generator when you unscrew the cap.

Do not pour cold water over a hot element.



Hot steam and temperatures can cause burns

During steaming process the steam hose will become hot. Take care when you hold it.

When the ambient temperature is very low, water can freeze in the hay chest, steam generator or steam hose. In colder ambient temperatures, it will take longer to bring the temperature up to the level required for steaming. To reduce steaming time, you can fill a steam generator with hot water before you switch it on. Please be patient in extraordinary cold circumstances. The horses are the ultimate beneficiary.

1. Disconnect the steam hose connected to the hay chest:
 - a. Pull back the barrel of the quick release fitting on the hose.
 - b. Pull the quick release fitting off the connector on the hay chest.
2. To ensure there is no ice in the steam hose, fill the steam generator with water and then switch on.
 - If steam does not come out of the hose after 15 to 20 minutes, switch off the steam generator and allow to cool for at least 5 minutes.
 - To remove ice in a steam hose, place it in warm water and gently squeeze it.
 - Switch on the steam generator again. If steam comes out of the steam hose, continue to next step.
3. To ensure there is no ice in the hay chest, connect the steam hose to the hay chest and switch on the steam generator. Do not load hay in the hay chest.
 - If steam does not come out of the manifold spikes, switch off the steam generator.
 - To remove ice in the hay chest, pour warm water over the hose, manifold and any visible ice.
 - Switch on the steam generator again. If steam comes out of the manifold spikes, you can steam hay as normal.
4. After you use your Haygain® hay steamer, disconnect the steam hose from the hay chest. To prevent ice from forming in the hay chest, tilt the hay chest backwards to allow water to drain out of the steam manifold.

Maintenance

To continue steaming hay and keeping your horse happy, please maintain your Haygain® hay steamer. Complete the following tasks in this chapter:

- Daily: check that the drain hole is not blocked
- Weekly: clean the hay chest and clean the steam generator
- Regularly: descale the steam generator

Cleaning the hay chest



Warning: When you clean the hay chest, take care not to hit your head on the lid, and take care when cleaning around the manifold as the spikes are sharp.

Check the drain hole in the base of the chest on a daily basis to ensure it is not blocked and remove debris from underneath and in the hay chest. Remove and empty the drip tray if used.

Clean the hay chest every week. To clean the hay chest after steaming hay, switch off the steam generator and wait at least 30 minutes for it to cool down.

1. Lift the lid of the hay chest.
2. Remove all loose hay from inside the hay chest, including from the drain hole and from under the steam manifolds.
3. To rinse the hay chest, use clean tap water. Allow the water to drain through the drain hole at the bottom of the hay chest. Remove debris from underneath the hay chest.
4. Close the lid of the hay chest.

Cleaning the steam generators



Warning: Do not open the cap on the steam generator when the steam generator is hot. Ensure the steam generator has cooled down.
Do not stand over the steam generator when you unscrew the cap.
Do not pour cold water over a hot element.

Clean the steam generator every week. To clean a steam generators after steaming hay, switch it off and wait at least 30 minutes for it to cool down.

1. Unplug the steam generator from the power outlet.
2. Disconnect the steam hose connected to the hay chest:
 - a. Pull back the barrel of the quick release fitting on the hose.
 - b. Pull the quick release fitting off the connector on the hay chest.

3. Empty the steam hose of water.
4. Unscrew the cap on the steam generator. Remove any debris from the cap.
5. Place the funnel in the filler spout and carefully pour in up to ½ a gallon of clean tap water into the steam generator so that it is half full.
6. Remove the funnel from the steam generator, screw on the cap and tighten it by hand.
7. To remove any loose material in the steam generator, shake the steam generator.
8. Unscrew the cap on the steam generator and empty the water through the filler spout into a drain or container.
9. Repeat steps 5 to 8 until the water is clear when it comes out of the steam generator.
10. Screw the cap onto the steam generator and tighten it by hand.
11. Reconnect the steam hose to the hay chest.

Descaling a steam generator



Label the steam generator when descaling

If you steam hay while the steam generator contains descaler, it can be a health hazard to your horse. Clearly label the steam generator to say it contains descaler to prevent other people from using it.



Warning: Only use food grade descaler to avoid any risk to your horse's health. Using a vinegar based solution as a descaler is not advised because it is not effective enough at removing limescale in the boiler and can cause problems by only softening but not removing the limescale.

Limescale can build up in the steam generator. To prevent damage to the steam generator, descale it on a regular basis. The frequency of descaling depends on how often you steam hay and how hard your local water supply is. Please use the following guidelines:

Water Hardness (Grains of CaCO ₃ per Gallon)	Soft or Moderately Soft (0 - 5.8)	Slightly Hard or Moderately Hard (5.9 – 11.7)	Hard or Very Hard (over 11.7)
Less than one steaming cycle per day	12-14 weeks	8-10 weeks	4-6 weeks
One to two steaming cycles per day	8-10 weeks	4-6 weeks	2-3 weeks
Three or more steaming cycles per day	4-6 weeks	2-3 weeks	1-2 weeks

You can purchase descaler from haygain.com.

1. Before you descale the steam generator, clean it. For more information, see page 16. After you clean the steam generator, do not screw on the cap or reconnect the steam hose to the hay chest. Ensure the steam generator is completely empty.
2. Open the packet of descaler and dissolve it in the required volume of warm water, as described in the manufacturer's instructions.
3. Place the funnel in the filler spout and carefully pour the diluted solution of descaler into the steam generator.
4. Remove the funnel from the steam generator, then screw on the cap and tighten it by hand.
5. Switch on the steam generator.
6. When the water starts to boil and steam comes out of the steam hose, switch off the steam generator.
7. Unplug the steam generator from the power outlet.
8. Clearly label the steam generator to say it contains descaler. Then allow the steam generator to descale for at least 3 hours.
Tip: We recommend you descale the steam generator overnight.
9. To remove any loose material in the steam generator, shake the steam generator.
10. Unscrew the cap on the steam generator, then empty the water through the filler spout into a drain or container.
11. Clean the steam generator until the water is clear when it comes out. For more information, see page 16.

Storing your Haygain® hay steamer for long periods of time

If you will not use your Haygain® hay steamer for at least a week, follow the steps below to store it correctly.

1. Disconnect the steam generator from the power outlet
2. Clean the hay chest and steam generator. For more information, see page 16. If the steam generator will not be used for at least 4 weeks, descale it. For more information, see page 17
3. Disconnect the steam hose from the hay chest. Empty the steam hose of water and empty the steam generator of water.
4. Store the hay chest and steam generator in a sheltered and dry place, at above freezing temperature. Store the steam generator with the power cable coiled up.
5. Before you use the hay chest and steam generator again, clean them thoroughly. Ensure there is no damage to the plug or cable, and that they are both clean and dry.

Support

If you have any problems with your Haygain® hay steamer, have a look at the following common causes and solutions. Please ensure you have read and followed the maintenance guidelines on page 16.

If the information below does not solve the problem, or you have any other questions please visit haygain.com and select Support in the menu.

If you need to arrange a service or order space parts please contact us.

Hay is taking longer than normal to steam

Possible cause	Solution
The ambient temperature or water temperature is lower than normal.	Steam the hay for longer than normal. Ensure the thermometer on the hay chest reaches 176 °F.
The heating element of a steam generator is covered in lime scale.	Allow the steam generator to cool down. Clean and descale the steam generator.
The amount of loaded hay is heavier than normal or inconsistently packed in the hay chest.	When loading hay, press it firmly and evenly into the hay chest but do not overload the chest above the top of the base. Ensure there is a gap between the hay and the chest walls.
The power supply may be insufficient.	Check the steam generator is connected to a sufficient power supply. If you are unsure, contact a qualified electrician.

Steam is not coming from all manifold spikes

Possible cause	Solution
The hay chest is not on level ground.	Allow your Haygain® hay steamer to cool down. Move the hay chest to level ground.
There is a kink in the steam hose or it is damaged.	Allow your Haygain® hay steamer to cool down. Replace the steam hose.
There is an unusual amount of water in the steam manifold.	Allow your Haygain® hay steamer to cool down. Disconnect the steam hose from the hay chest and drain the water from the manifold by tilting the hay chest backwards.
A section of the internal hose in the hay chest or a manifold is blocked.	Contact us.

Warranty

Your Haygain® hay steamer comes with a 1 year warranty. The warranty covers the repair and replacement of your Haygain® hay steamer or a part of it. This includes all required parts and labor. All repairs and replacements are at the discretion of Haygain®. For more information about the warranty, contact us.

Terms of the warranty

- The warranty is effective from the date of delivery.
- Before Haygain® repair or replace your Haygain® hay steamer under warranty, you must provide proof of purchase. Without proof of purchase, there will be a fee for the work required.
- If your Haygain® hay steamer is faulty, it is usually repaired at an authorized service center. All work is done by Haygain® or an authorized representative.
- Where possible, Haygain® can provide a steam generator on loan while your steam generator is being repaired. There will be a fee for transportation. If you need a loan steam generator, Haygain® may offer this as a replacement and will collect the faulty steam generator. There will be no fee for a replacement steam generator.
- If a part for your Haygain® hay steamer is no longer available, Haygain® will replace it with a similar functional part.
- Any repair, replacement or exchange of your Haygain® hay steamer under warranty does not extend the warranty period.

Exceptions to the warranty

The warranty does not cover the following conditions:

- Normal wear and tear
- Accidental damage
- Removal of blockages
- Use of parts or accessories that are not approved by Haygain®
- Repairs and installations by parties that are not approved by Haygain®
- Faults or damage caused by not maintaining the hay chest or steam generator as described in this user manual
- Faults or damage caused by negligent use or misuse, which includes but is not limited to the following conditions:
 - Using your Haygain® hay steamer in a location that does not meet the conditions listed in this user manual
 - Using dirty water in the steam generator
 - Allowing the steam generator to run out of water
 - Insufficiently descaling the steam generator
 - Foreign objects in the steam generator or steam manifold