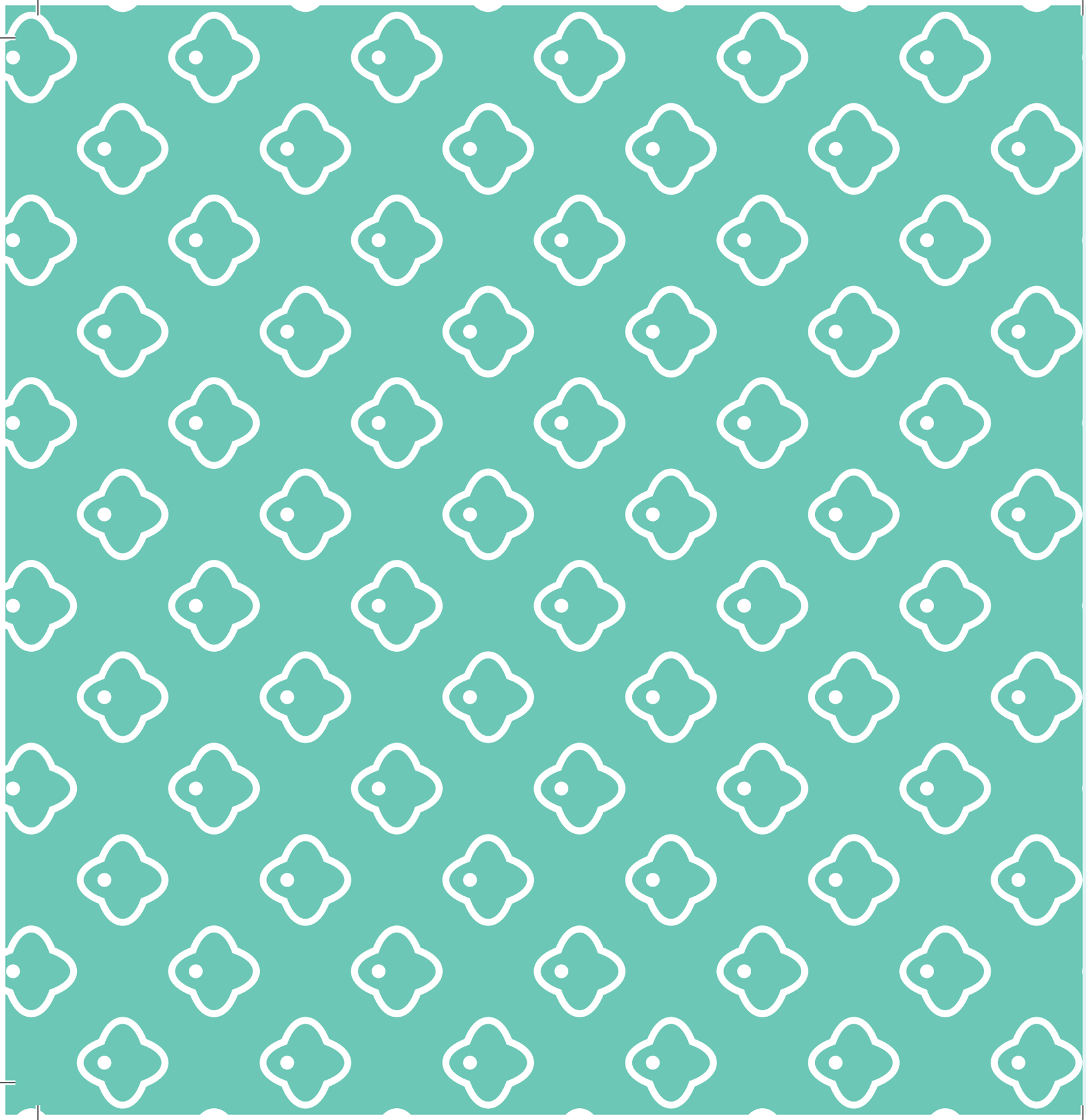
piavet | user manual



CONTENTS

CAUTIONARY NOTES	4
PIAVET SYSTEM COMPONENTS	6
GENERAL INDICATIONS AND SECURITY INFORMATION	8
PIAVET MEASURING DEVICE	12
PIAVET CHARGER	17
PIAVET BASE STATION	18
PIAVET BELT	20
PIAVET BAG	22
PIAVET PLATFORM	24
THE PIAVET SYSTEM APPLICATION	25
HOW TO TAKE YOUR FIRST MEASUREMENT IN 5 STEPS	26
PRODUCTION STANDARDS	30
COMPLIANCE	31
CONTACT INFORMATION AND SERVICE	34

CAUTIONARY NOTES

Please consider the following GUIDELINES and important cautionary notes:

- The Piavet System shall only be used under supervision and responsibility of a veterinarian.
- All parts of the Piavet System shall only be applied with the original accessories. Only the use of original Piavet accessories guarantees optimal measurement results and safety for the horse and user.
- The Piavet Measuring Device shall only be charged on the Piavet Charger.
- All parts of the Piavet System are non-edible; prevent the animal from eating or biting the product.
- Please consider the washing and cleaning instructions for each component of the Piavet System.

Please DO NOT:

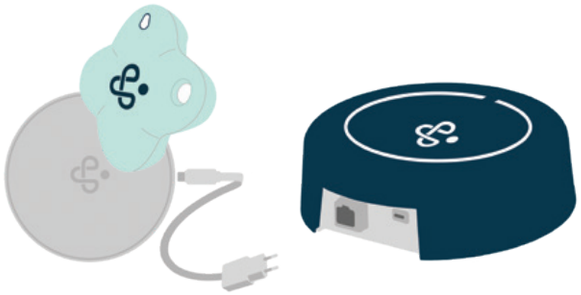
- x Apply the Piavet System to foals (under one year).
- x Apply the Piavet System to any other animal than horses.
- x Apply the Piavet System to horses that are in danger of seizures or uncontrolled behavior e.g. falling over.
- x Cover the Piavet Measuring Device when applied to the horse e.g. with a blanket.
- x Expose any part of the Piavet System to open fire or heat sources.
- x Expose the Piavet Base Station or Piavet Charger to water or moisture whilst in operation.
- x Open any component of the Piavet System.
- x Attempt to repair any component of the Piavet System yourself.

Note: The Piavet System can never replace the care, diagnosis and/or supervision of a veterinarian or any other supervisor.

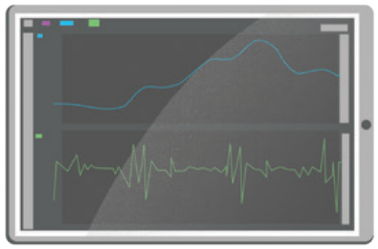
PIAVET SYSTEM COMPONENTS

The components of Piavet System include:

- Hardware (Piavet Measuring Device, Piavet Charger, Piavet Base Station)
- Software (Piavet Platform)
- Accessories (Piavet Belt in individual waterproof pouch, Piavet Bag)



Hardware
Piavet Measuring Device,
Charger and Base Station



Software
Piavet Platform

Accessories
Piavet Belt (in pouch)
and Piavet Bag

Requirements:

- The Piavet Measuring Device should be charged for at least 30 min before initial set up. Put the Measuring Device on top of the Piavet Charger. The Charger must be connected to a power source with the micro USB charging cable provided by Piavita.
- The Piavet Base Station must be fully charged or connected to a standard power source.
- The Piavet Base Station must be connected to the internet (integrated SIM or LAN).
- The Piavet Measuring Device and Piavet Base Station must be within a distance of max. 30 meters.
- Your PC, laptop or tablet must be connected to the internet (a stable internet connection is needed) in order to access the Piavet Platform (**www.piavita-vet.com**) or download the Piavet App on your mobile iOS device. For best possible visualization and experience, your internet browser needs to be updated to the most current version.
- For setting up your Piavet Account, open the welcome-email from Piavita and click on the customized login-link. Follow the steps described in the email and set your password. Please remember this password, you will need it again to open the Piavet Platform.
- Take some time to complete the tutorial and learn how to start, stop, access and analyse your measurements as well as how to manage your recordings and patients.

GENERAL INDICATIONS AND SECURITY INFORMATION

Cleaning

All Piavet System components must not be cleaned with any corrosive substances. Clean the Piavet System components if they come in contact with anything that may cause stains or other damage, such as tenacious dirt, makeup, ink, acids, salt water, perfume, insect repellent, lotions, sunscreen, oil, adhesive remover, hair dye, or solvents. The colors of the Piavet System may vary or fade over time. Do not clean the Piavet Measuring Device, Base Station and Charger while charging. Do not dry the Piavet Measuring Device, Base Station, Charger or Belt using any external heat source (for example a hair dryer or tumble dryer).

Water resistance

Water resistance is not a permanent condition and may diminish over time. The Piavet System components cannot be rechecked or resealed for water resistance. The following may affect the water resistance of the Piavet System components particularly and should be avoided: Dropping Piavet System components or subjecting them to other impacts. Exposing Piavet System components to perfume, solvents, detergents, acids or acidic foods, insect repellent, lotions, sunscreen, oil or hair dye.

Using ports

Never apply excessive pressure or force a connector into a port, like this may cause damage that is not under warranty. If the connector and port do not join with reasonable ease, they probably do not match. Check for obstructions and make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port. Certain usage patterns can contribute to the fraying or breaking of cables. The cable attached to a charging unit, like any other metal wire or cable, is subject to becoming weak or brittle if repeatedly bent in the same spot. Aim for gentle curves instead of angles in the cable. Regularly inspect the cable and connector for any kinks, breaks, bends, or other damage. Should you find any such damage, discontinue the use of the cable.

Operating temperature

The Piavet System is designed to work best in ambient temperatures between 0° C and 35° C (32° F and 95° F) and must be stored in temperatures between 0° C and 45° C (32° F and 113° F). The Piavet System can be damaged and battery life shortened if stored or operated outside of these temperature ranges. Avoid exposing the Piavet System to enormous changes in temperature or humidity. If the interior temperature of the Piavet Measuring Device, Base Station or Charger exceeds normal operating temperatures (for example, in a hot building or in direct sunlight for extended periods of time), you may experience the following as it attempts to regulate its temperature: (a) charging may slow or stop, (b) recording and data transfer may be paused or delayed.

Prolonged heat exposure

- The Piavet Measuring Device, Base Station and Charger comply with applicable surface temperature standards and limits. However, even within these limits, sustained contact with warm surfaces for long periods of time may cause discomfort or injury.
- The Piavet Measuring Device will get warm while charging.
- The Piavet Base Station and the Charger will get warm when plugged in to a power source.
- Use common sense to avoid situations where your skin is in contact with the Piavet Measuring Device, the Base Station and the Charger for long periods of time when they are plugged in. Take special care if you have a physical condition that affects your ability to detect heat.

Handling

Handle the Piavet System with care. The Piavet System contains sensitive electronic components and can be damaged if dropped, burned, punctured, or crushed. Do not expose any of the Piavet System components to corrosive substances. Do not expose the Piavet Base Station and Charger to water or any other liquids other than a moist cloth; these devices are not waterproof. Do not use a damaged Piavet System as it may cause injury.

Battery

- Do not attempt to replace the battery of the Piavet Measuring Device yourself - you may damage the battery, which could cause overheating and injury. The lithium-polymer battery in the Piavet Measuring Device should be serviced only by Piavita.
- Batteries must be recycled or disposed of separately.
- Do not incinerate the battery.

Repairing

Do not open any component of the Piavet System and do not attempt to repair any component of the Piavet System yourself. Disassembling any component of the Piavet System may damage it, result in loss of water resistance, and may cause injury to you. If a component of the Piavet System is damaged or malfunctions, contact Piavita directly.

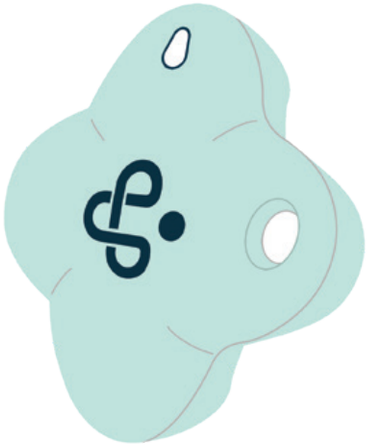
Warning

Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to the Piavet System or other property. Read all safety information below before using the Piavet System or any of its components.

PIAVET MEASURING DEVICE

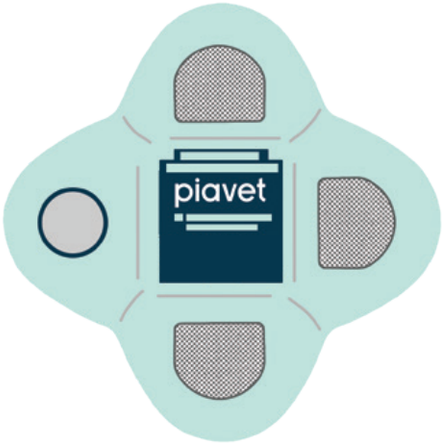
Overview

The Piavet Measuring Device is covered with a soft-touch material that allows for good grip even when wet, is UV-resistant, and can be cleaned with all common cleaners and liquids.



Top side

On the top side of the Measuring Device, there is a drop-shaped signalling light to inform you about the status of the battery, data recording and data transfer.



Bottom side

The bottom side of the Measuring Device is the contact surface for the vital sign measurements and has to be applied directly onto the body (coat) of the horse by inserting the Measuring Device into the Piavet Belt. The sensor which measures the body core temperature goes through the Measuring Device with an open ending towards the top side. Therefore, the top side of the Piavet Measuring Device must never be covered to enable precise temperature measurements.

Application

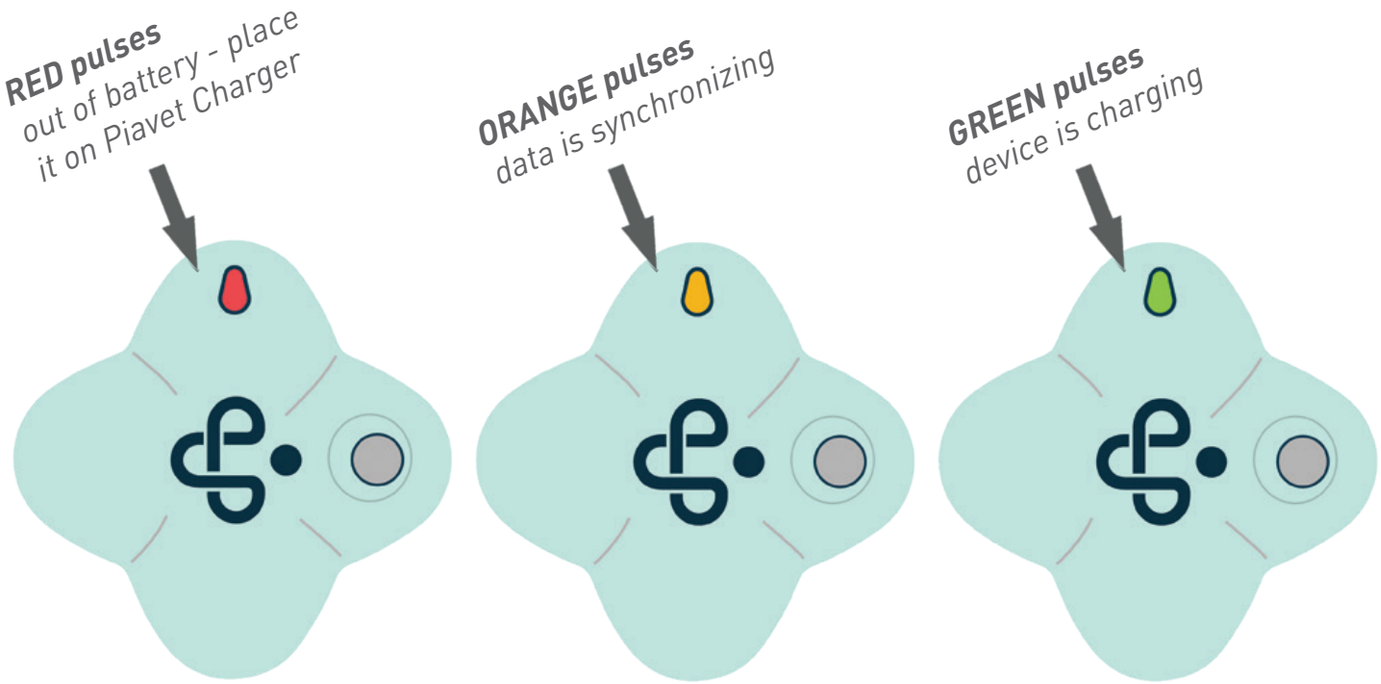
- The Piavet Measuring Device can be attached to any horse with an abdominal girth larger than 150cm (otherwise the Belt is too long). It can be applied to horses of any shape, with any fur texture. The fur does not need to be shaved.
- The Measuring Device can be used in any environment and ambient temperature. However, please note that the Measuring Device works best in ambient temperatures between 0° C and 35° C (32° F and 95° F).
- Keep the Piavet Measuring Device away from fire and do not dry near a heat source.
- The Measuring Device is very robust and waterproof.

Cleaning

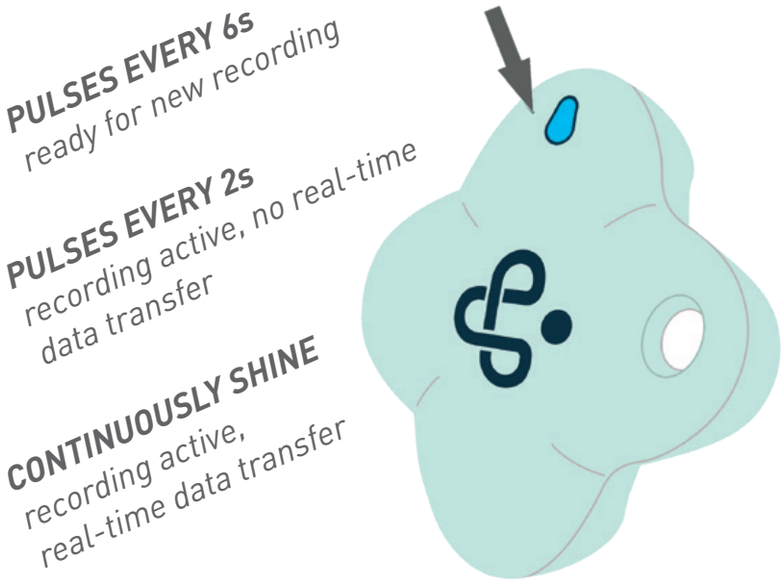
- The Piavet Measuring Device is waterproof with a water resistance rating of IPX8 under IEC standard 60529.
- It can be cleaned with disinfectant, water, soapy water and soft brushes at maximum 60° C.
- Make sure the surface of the Piavet Measuring Device is clean before usage (clean electrodes with alcohol if needed).

Light indication

The signalling light informs you about the status of the battery, data recording and data transfer. Please find below an explanation of the signalling light (next page).



Note regarding the default color: Each Piavet Measuring Device has its specific default color - for example blue / turquoise / purple / yellow / white - so you can distinguish the Measuring Devices from each other. Please refer to the Piavet Platform if you would like to change the default color of your Measuring Device(s).



Battery and charging

- The Piavet Measuring Device runs with a lithium-polymer battery. The battery can be charged by placing the Measuring Device on top of the Piavet Charger upside-down (see page 17).
- To charge the Measuring Device, the Piavet Charger must be connected to a power source with the micro USB cable provided by Piavita. Insert the micro USB interface into the micro USB port of the Charger. Insert the the regular USB interface into a power source - for example a USB port of a laptop or a USB port of a plug.
- As soon as the charging starts, the light circuit of the Piavet Charger will pulse in white color. Charging an empty battery completely takes approximately 90 minutes. Only use the original Piavet Charger to charge your Piavet Measuring Device.
- It is important to keep the Piavet Measuring Device, the Charger and the respective cables in a well-ventilated area when charging. Using a Measuring Device, Charger or cable of the Charger that is damaged or charging the Piavet Measuring Device when moisture is present, can cause fire, electric shock, injury, or damage to the Measuring Device or other property. Be sure the Measuring Device, the Charger and the cable of the Charger are dry before charging. Avoid charging the Measuring Device in direct sunlight or in temperatures below 0° C or above 35° C.
- The battery of the Piavet Measuring Device must not be replaced at any time.
- Green pulses on the Measuring Device prove it is charging. When the battery is completelty empty, it takes up to 15min until green pulses start.

Data Storage

The Piavet Measuring Device itself can store the data of continuous vital sign recordings (all parameters) of up to 18 hours (for example in case connectivity to the Piavet Base Station is lost or the Base Station cannot transfer the data).

PIAVET CHARGER

Overview

- The Piavet Charger allows for safe, fast and easy charging of your Piavet Measuring Device.
- The Charger must be connected to a power source. Use the micro USB cable provided by Piavita. Insert the micro USB interface into the micro USB port of the Charger. Insert the regular USB interface into a power source – for example a USB port of a laptop or plug.
- In order to charge your Piavet Measuring Device, just place the Measuring Device upside down in the middle of the Piavet Charger. The light circuit of the Charger will start to pulse when charging starts.
- The Piavet Charger has a water resistance rating of IPX5 under IEC standard 60529. If water splashes onto the Charger, wipe it off with a non-abrasive cloth.

PIAVET BASE STATION

Overview

The Piavet Base Station enables wireless transmission of high-volumes of medical data. On the one hand, it receives data from the Piavet Measuring Device (via Bluetooth). On the other hand, it transmits data to the server (via internet).

- The Piavet Base Station must be connected to a power source and the internet in order to start and stop a measurement and to transmit vital data in real-time.
- In addition, the Piavet Measuring Device and Base Station must not have a distance above 30 meters. Please ensure that there are no major limiting factors such as metal doors or walls separating the Measuring Device from the Base Station.
- If the above requirements are fulfilled, the status of the Piavet Measuring Device is shown on the Piavet Platform as “ready”. This means that the Measuring Device is ready to start and stop a measurement and vital data will be transmitted in real time.

Note: You might check the status of the Piavet Measuring Device on the Piavet Platform, by clicking on “Devices”. When connection is interrupted, limit the distance between the Measuring Device and the Base Station up to 10 meters. In such a case, vital data will be stored

on the Measuring Device meanwhile and can be reviewed retrospectively once the Measuring Device and Base Station are within reach again.

Base Station Problem
low power, weak internet connection or poor signal

Base Station Connected
to the LAN ethernet

Base Station Connected
to the LTE mobile net

Power supply

The Piavet Base Station must be connected to a power source in order to start and stop a measurement and to transmit vital data in real-time. Use the standard power supply provided by Piavita.

Internet access

The Piavet Base Station must have continuous internet access such as the integrated SIM-card (mobile Base Station) or LAN (stationary Base Station) in order to start and stop a measurement and to transmit vital data in real-time.

Cleaning

The Piavet Base Station is water resistant but not waterproof. It has a water resistance rating of IPX3 under IEC standard 60529. If water splashes onto the Base Station, wipe it off with a dry or moist, non-abrasive cloth. Disinfectant might be used for cleaning.

PIAVET BELT

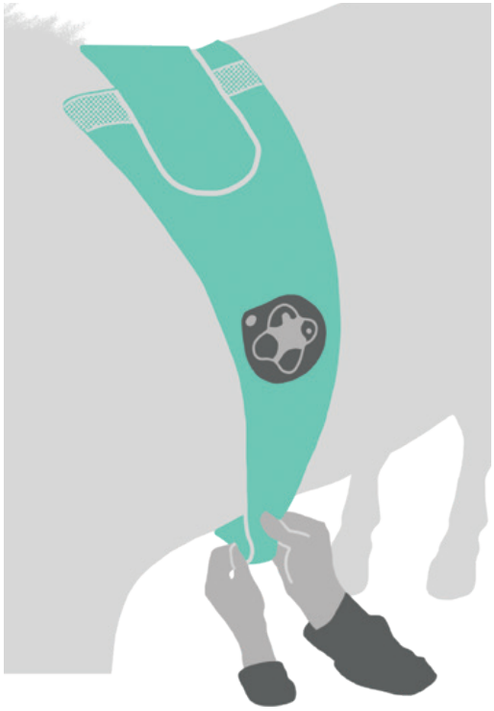
Overview

The Piavet Belt is a double-layered breathable system to be used for horses of different size and shape.

Outer fabric: 89% PA HT (High Tenacity), 11% PU
Internal fabric: 100% Polyester

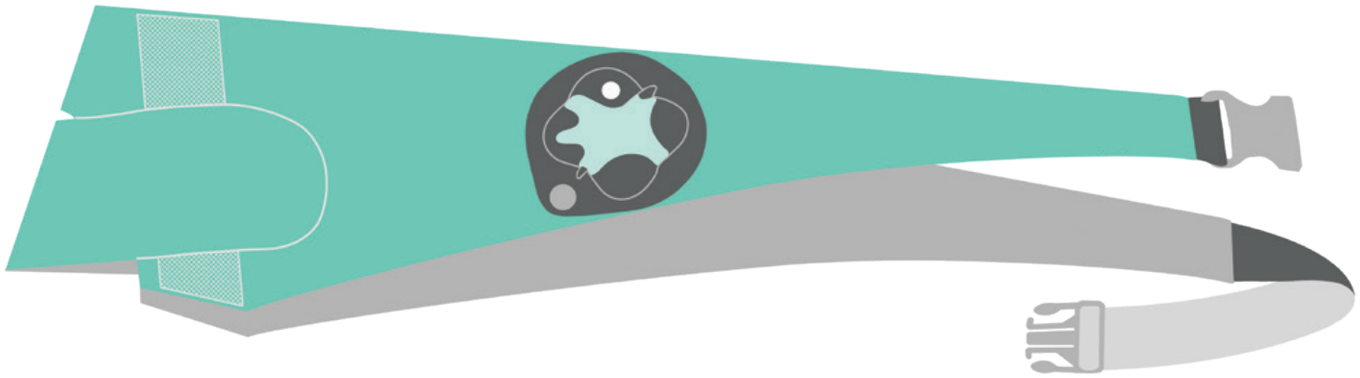
General cautionary notes:

- Prevent the animal from eating or biting the Belt or from tearing it off.
- Only use on cord led horses and check the mounting regularly.
- Avoid wrinkles when mounting the belt and adjust, tighten and loosen the Belt regularly to ensure it fits the horse well.
- Do not saddle the horse with the Piavet Belt on.
- Do not use the Belt on open wounds.
- Prevent the horse from rolling with the Belt on.
- Do not use the Piavet Belt inside out.



Washing instructions

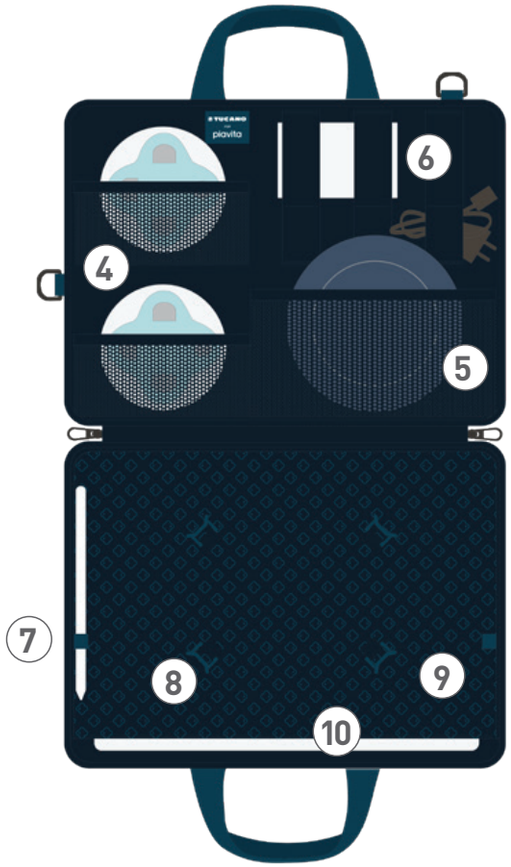
Wash at 30° C in delicate cycle with low sling speeds. Do not tumble dry. Do not wring. Do not bleach. Do not iron. We recommend using a laundry net. After washing, use the Piavet Belt again only if completely dry. Do not dry near a heat source. Keep away from fire.



PIAVET BAG

Overview

- The Piavet Bag is designed to fit the following Piavet components: one Piavet Base Station, two Piavet Measuring Devices and their Chargers, two Piavet Belts in individual waterproof pouches and one laptop or tablet connected to the Piavet Platform. Additional space is provided for a bottle of Alcohol Solution, an USB Charger, cables and pens/pencils. The overall dimension also fits A4 documents.
- Externally, the Piavet Bag consists of an expandable pocket for two Piavet Belts, inside or outside of their pouches. An adjustable strap is also provided.
- Internally, there is a protective pocket for a laptop or tablet and several elastics for other Piavet components attached on the hard back side.
- The front side of the Piavet Bag can be adjusted while using the laptop or tablet for taking measurements. Thanks to a hard surface (flap), the tablet remains stable in different angles, even on table or floor.



1. double water-restistant ***zipper***
2. ***expandable pocket*** for 2 Piavet Belts
3. ***waterproof pouches*** for the Piavet Belts

4. *2 pockets for Piavet Devices and Chargers*
5. *pocket for Piavet Base Station*
6. *elastics for cables and USB Charger*
7. *2 elastics for pens/pencils*
8. *placeholders to fit various sizes of tablets*
9. *flap for using tablet on the floor/table*
10. *protective pocket for laptop/tablet*

PIAVET PLATFORM

Overview

The Piavet Platform is your individualized webpage where you can start, stop and manage your vital signs recordings and manage your patients. Each Piavet user has a customized and secured login to the Piavet Platform. You can access your customized Piavet Platform at: **www.piavita-vet.com** or download Piavet App on your mobile iOS device. Please login with your user name (provided in the welcome-email) and password. All functionalities of the Piavet Platform are described in tutorials available on the Piavet Platform. The Piavet iOS app for iPad and iPhone is an addition to our browser-based platform.

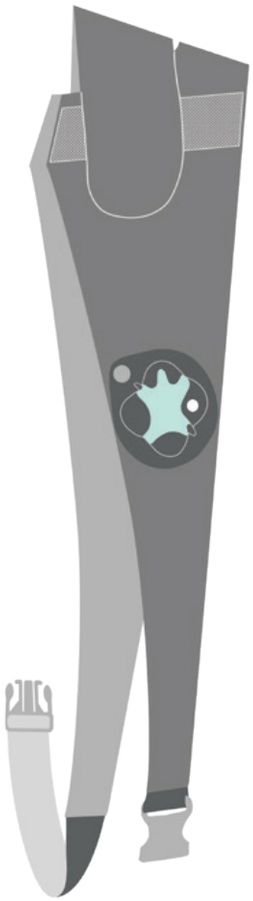
Software and hardware updates

The Piavet System, including its software, will be developed and improved continuously. Piavita reserves the right to ask you to replace your current Piavet System with a newer one, for example if your hardware is no longer compatible with the latest software.

THE PIAVET SYSTEM APPLICATION

Materials needed

For the best measurement result, the correct application of the system is very important. The materials you need are the Piavet Base Station, the Piavet Measuring Device, the Piavet Belt, a laptop or tablet with internet access and Alcohol Solution (70%+).



Piavet Belt
Alcohol Solution

Piavet Measuring Device
Piavet Base Station

Laptop or tablet with internet access

HOW TO TAKE YOUR FIRST MEASUREMENT IN 5 STEPS

Set up Check List

- ☑ Ensure the Piavet Measuring Device is fully charged.
- ☑ Ensure the Piavet Base Station is charged or connected to power.
- ☑ Place the Base Station in close proximity to the Measuring Device.
- ☑ Both hardware should be visible and online on the Piavet Platform.
- ☑ Your clinic is set up on the Piavet Platform.

0 CHARGE AND EXPLORE

- Charge your Piavet Measuring Device and Base Station for one hour.
- Explore the Piavet Platform (**www.piavita-vet.com**). Look for the welcome-email from administrator@piavita.com in your inbox. It includes a link to set your password and login to piavita-vet.com. After the initial set-up, the Piavet System is ready for regular use.

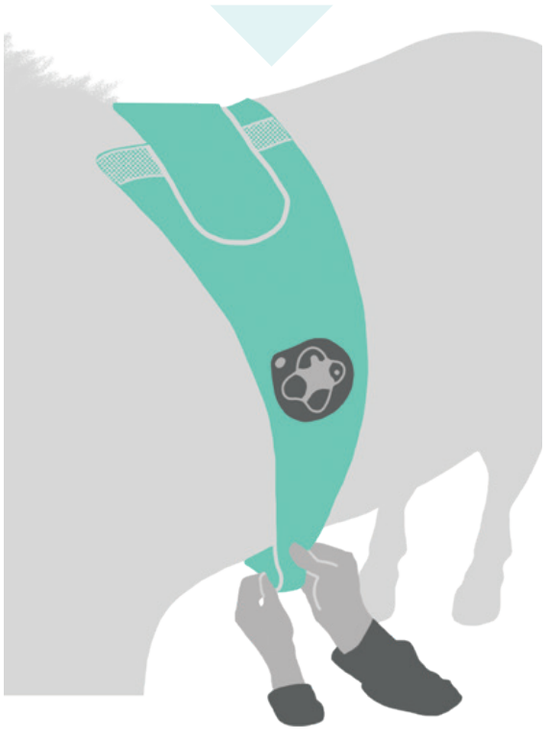
Note: We recommend checking the tutorials that describe the main features of the Piavet Platform.

1 CLEAN

- Thoroughly clean the Piavet Measuring Device and the patient's coat on the left side of the barrel.
- Shearing is not necessary, but recommended for very long winter fur or long-term measurements.

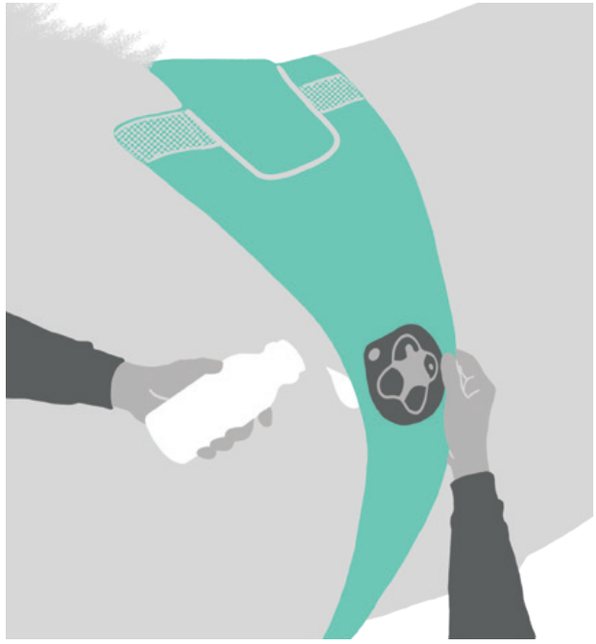
2 APPLY THE BELT

- Open both seals: the belt clip and the velcro.
- Position the velcro opening on the withers of the horse, with the Piavet Measuring Device placeholder on the left side of the horse.
- Close the belt clip and the velcro.
- Adjust accordingly until the belt sits stable at the narrowest point of the barrel.



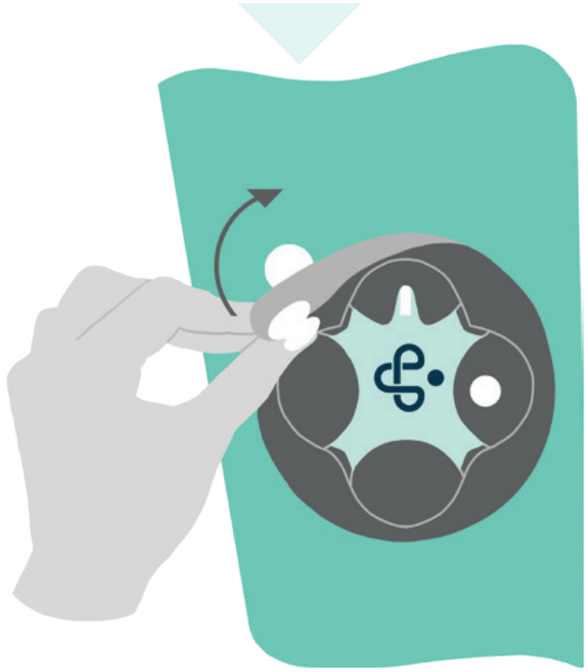
3 RINSE THE COAT

- Rinse the coat generously with Alcohol Solution in the area underneath the Piavet Measuring Device placeholder. In order to access the area that you want to rinse, pull the Piavet Belt sideways.
- Readjust the Piavet Belt ensuring it sits at the narrowest point. At this position, tighten it snuggly using the loose end of the clip as well as the velcro.



4 APPLY THE DEVICE

- Pull the silver button to open the placeholder.
- Place the Measuring Device inside the placeholder with the round opening pointing to the right and the light at the top. The brackets should be under the Measuring Device to fasten it into place.
- Push the silver button until it clicks.



5 START MEASURING

- Simply click on the “New Recording” button on the Piavet Platform and follow the steps.
- Stop your measurement after finishing.

PRODUCTION STANDARDS

Piavita's social and environmental responsibility

We strive to be a role model in terms of our social and environmental impact. We take the following measures to ensure sustainable production practices:

- The Piavet System is developed and produced in Switzerland.
- Hence, we are in full control of our production and ensure highest quality and fair production standards.
- We select our component suppliers carefully. We only source from companies who are socially and environmentally responsible.
- We aim for minimising waste and for recycling in accordance with latest standards.
- We are fully compliant with RoHS (Restriction of Hazardous Substances Directive).

COMPLIANCE

The Piavet System is CE-certified and FCC-certified by independent authorities.

Recycling and disposal

The Piavet Measuring Device, Base Station and Charger and/or battery should not be disposed with household waste. Dispose of your Piavet devices and/or battery in accordance with local environmental laws and guidelines.

European Union - disposal information

The symbol below means that according to local laws and regulations your product and/or its battery shall be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product and/or its battery at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

FCC Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help important announcement.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CONTACT INFORMATION AND SERVICE

If your Piavet System needs servicing, please contact our support team:
support@piavita.com

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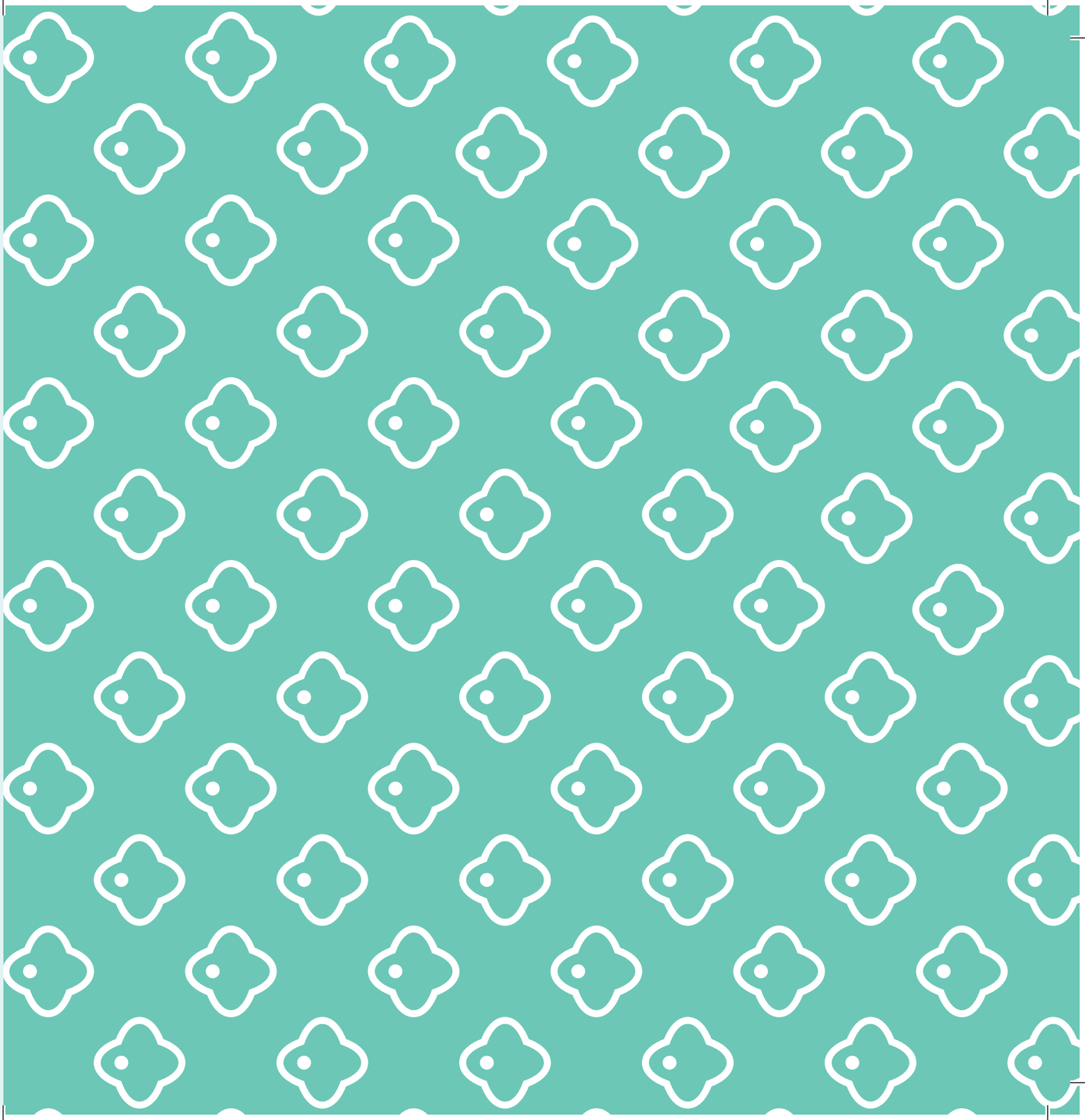

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