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Hexa-Cover<sup>®</sup> Floating Cover

User Guide.



Hexa-Cover A/S congratulates you on your new Hexa-Cover<sup>®</sup> Floating Cover and we thank you for choosing our product.

Please contact us immediately if this floating cover solution does not meet your expectations.

Kindly read the following instructions of use carefully before using your Hexa-Cover<sup>®</sup> Floating Cover. This will ensure the best possible utilization and performance of your new Hexa-Cover<sup>®</sup>.

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# AS Friis Ltd.



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## Before applying the Hexa-Cover® Floating Cover

## 1. Check the delivery.

Check if you have received the quantity ordered, please contact us immediately if any you find any quality issues or delivery shortage.

# 2. Check the intake and outlet openings on your vessel. (Tank, Lake, Pond. etc)

The vessels intake and outlet openings must be smaller than the diameter of the Floating Covers, to prevent the Hexa-Cover<sup>®</sup> tiles jamming and/or block the openings.

## 3. Remove any sporadically occurring surface layer. (Skin, debris)

The surface of the liquid in the vessel should be fluid and free of any surface coatings (skin) and foreign debris. This will help the Hexa-Cover<sup>®</sup> Floating Cover to become distributed to form a uniform and connected cover across the vessel.

## During the application of the Hexa-Cover® Floating Cover

## 4. Application into the vessel.

The delivered bags containing the Hexa-Cover<sup>®</sup> Floating Cover are to be lifted by a crane over the vessels edge with the bag opening facing downwards. The bags are fitted with a simple opening mechanism which is released by loosening the string. There may be situations where a sharp knife will be needed to do this. The bag opens and the tiles will fall out.

# 5. At least two persons is required during the application.

For safety reasons, it is recommended that at least two persons undertake the application of the Hexa-Cover<sup>®</sup> Floating Cover tiles.

# 6. Safety in connection with opening the bags.

The person in charge of opening the bags should be secured against the risk of falling into the vessel or pond.

# 7. Only 90% of tiles to be applied.

Only 90% of the Hexa-Cover<sup>®</sup> Floating Cover should be poured into the vessel on the first day. It is recommended to use the remaining tiles to top after a few days.

This is to ensure that the vessel does not become overfilled with Hexa-Cover<sup>®</sup> Floating Cover tiles. It is recommended to have less Hexa-Cover<sup>®</sup> Floating Cover tiles at the beginning as it is easier to add additional HEXA-COVER later than to remove surplus tiles. Only an exact quantity will ensure the desired performance of the cover.

Due to delivery batch sizes, there can be a small number of Hexa-Cover® Floating Cover tiles left over after the application.

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## 8. Application into an empty container.

Hexa-Cover<sup>®</sup> Floating Cover can be applied into an empty vessel. It is recommended that care is taken in estimating the number of tiles used on the first day, as the exact number can only be determined when the vessel is full. Therefore, it should be insured that no more than 90% of the estimated full cover should is applied.

Attention should be taken when pouring tiles into an empty container. The Hexa-Cover<sup>®</sup> Floating Cover can withstand being dropped onto a concrete floor from a height of maximum 5 meters, if heights are greater than 5 meters, the Floating Covers must only be applied when there is liquid in the vessel.

#### After the application of the Hexa-Cover® Floating Cover

## 9. Adding extra tiles.

It may be tempting to add extra Hexa-Cover® Floating Cover to cover small openings in the surface. However, these openings are necessary for the whole cove to be able to move and maintain its structure. Too many Floating Covers will cause disorder in the pattern. Therefore, accept a few openings in the structure to ensure the cover can maintain it uniform pattern to provide the best coverage!

Hexa-Cover A/S emphasizes that, in measuring the emissions from vessels covered by Hexa-Cover<sup>®</sup> Floating Cover, it is these openings in the surface that constitute part of the remaining 5% of the uncovered surface area. The rest is due in part to the marginal area resulting from the vessels own shape fitting with the hexagonal shape of the Floating Covers.

# 10. Recommendations for stirring/mixing/agitation.

Hexa-Cover A/S recommends that any stirring/mixing/agitation of the liquid is done in a careful way such that the moving parts of the mixer do not come into direct contact with the Hexa-Cover® Floating Cover. If contact occurs, there is a risk that that the Floating Covers are damaged and that fragments from these may become lodged in the pumping system/emptying system with undesired results.

It is recommended to always maintain a distance of at least 1 to 1½ meters between mixer blades and cover.

Attention during emptying of vessels, the conditions in the vessel will change constantly during emptying. The recommendation above concerning stirring/mixing/agitation should followed, to prevent damage of the Floating Covers during emptying of vessel.

# 11. Emptying by pumping or suction

It is important that all pumping or suction is carried out from below the surface of the liquid and at a suitable distance from the Floating Covers, to ensure that the tiles are not sucked into the pump.

It is recommended that any pumps and/or equipment is not turned on before it is at least 1 to  $1\frac{1}{2}$  meters beneath the Floating Covers.

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## 12. Naturally occurring surface coatings (Slurry / Manure)

When a natural surface coating/layer (cake/crust) is formed under the Floating Covers, it may partially of completely lift the tiles, with the result that the Hexa-Cover<sup>®</sup> Floating Cover pattern will be disturbed. When the surface coating dissolves, the Floating Covers will automatically realign itself back to a uniform cover.

Hexa-Cover<sup>®</sup> Floating Cover performs best on a smooth slurry surface (thin slurry with low viscosity) this is the condition where a cover is normally required.

If there is a pre-existing, coating/layer (cake/crust) on the surface, the Hexa-Cover<sup>®</sup> Floating Cover will not be able to move freely which prevents the cover to perform as intended.

If there are openings in the existing organic coating/layer (cake/crust) it is not recommended to apply Hexa-Cover<sup>®</sup> to cover until the tank is empty and re-filling begins as the slurry will be fresh and not have had the time to form an organic coating/layer (cake/crust).

It is recommended that to stir/mix/agitate the slurry/liquid to remove a sporadic organic surface layer, as this will only release ammonia and nitrogen.

Please contact Hexa-Cover A/S or its authorised distributors recommendation on application and use of any products.

#### 13. Effects of the weather

The Hexa-Cover<sup>®</sup> Floating Cover can be disturbed by weather and strong winds, this can cause the tiles move and to create overlap or stacking. Stacking and overlap due to weather is normally only occurring in large tanks/vessel during strong winds. The Floating Covers will regain its original pattern as soon as the wind reduces.

#### 14. General

The cover cannot be walked upon!

# 15. Liability for damages

Hexa-Cover A/S cannot be held responsible for any damage incl. consequential damages resulting of or caused in connection with the installation of cover as well as any stirring/mixing/agitation and pumping, and any other handling of or use in connection with Hexa-Cover<sup>®</sup> Floating Cover.

Hexa-Cover A/S cannot be held responsible for any health-related problems, injury, or drowning etc. associated with installation as well as stirring/mixing/agitation and pumping, and any other handling of use in connection with Hexa-Cover<sup>®</sup> Floating Cover.

Hexa-Cover A/S recommends that any stirring/mixing/agitation and/or pumping/suction is only performed under careful supervision as well as it recommended that operators pay attention to any changes in the distance between any rotating equipment (as an example but not limited to stirring/mixing/agitation/pumping/suction mechanism) and the cover This is to prevent any damage to the Hexa-Cover<sup>®</sup> Floating Cover and/or equipment and people.



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