



# INFERNO® USER INSTRUCTIONS

## INTRODUCTION

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The Inferno® slings are made from High-Performance load-bearing fibers, i.e. Aramid. The sling shall be equipped with a label identifying the following; manufacturer (Lift-TEX®), type of load-bearing fiber (Aramid), month of manufacturing, serial number, Minimum Break Load (MBL), Working Load Limit (WLL), effective working length. (EWL)

Each product is delivered with a DOC (Declaration of Conformity). The DOC states the following data: Company name, type of sling, sleeve, yarn composition, sewing yarn, your P.O., serial number, WLL, EWL, application, safety factor and date of manufacturing.

The WLL is not always defined for project-specific lifting since the safety factor is sometimes different. For such cases, the slings shall refer to the specifications provided by the customer. The project shall document that the required sling MBL is less than the actual MBL.

*\* All the pictures used are example pictures which do not display the Inferno®.*

## **GENERAL**

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1. In selecting an INFERNO® sling, its maximum workload should be considered based on the method of use and the load to be hoisted. (see Table 1)
2. INFERNO® slings are only used between -70 °C and +200 °C. For temperatures higher or lower, contact the sling manufacturer or the local dealer.
3. INFERNO® slings must never be knotted, twisted, or constricted (e.g. by tape, tie-wraps, a.o.)
4. When lifting with the INFERNO® sling, ensure the load is evenly distributed over the sling's full width.
5. Suppose the INFERNO® sling is used as a loop (choke hitch). Never try to tighten the loop with force. The correct way to hoist a double-slung INFERNO® sling is indicated in the label or Table 1.
6. If the INFERNO® sling is used in a basket hitch or a multi-legged lift, the angle may not exceed 60 degrees (see Table 1).

7. The INFERNO® sling must be fastened so the load cannot fall out during lifting. Ensure that the lifting point is above the center of gravity of the load to balance the load. Otherwise, the load to be hoisted could slip out of the sling. Slipping out or tilting the load must be prevented.
8. If lifting takes place using the U-sling method it is necessary to ensure the load is appropriately secure.
9. A lifting beam is recommended if the INFERNO® slings are to be used in pairs. If lifting is to occur using one or more INFERNO® slings, the angles indicated in Table 1 must be observed. These values are based on practical experience and calculations of forces occurring in the case of asymmetrical lifting



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10. Avoid shock loads or impact to the load.
11. Never push the load to be hoisted into the INFERNO® sling.
12. Make sure that the INFERNO® sling is not dragged along the ground or over rough surfaces.
13. Never let the load rest on the INFERNO® sling as this could damage the sling.
14. If several INFERNO® slings are used at once, none must be overloaded, and the load must be stable and balanced.
15. Ensure that the INFERNO® sling does not catch on any parts sticking out, and never use force to pull the sling from under the load.
16. When not in use, INFERNO® slings should be stored at room temperature in a dry, well-ventilated room, away from heat sources.
17. Ensure that the INFERNO® sling does not come into contact with hot surfaces

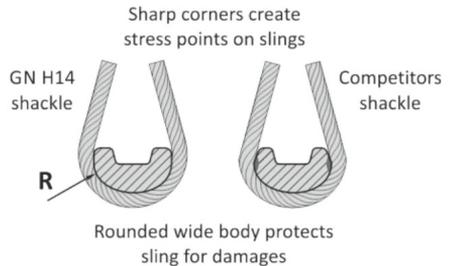
18. Raw material from which the round sling is produced are susceptible to degradation if exposed to ultraviolet radiation. Round slings should not be stored in direct sunlight or sources of ultraviolet radiation.
19. More than one person should handle with the appropriate apparatus an INFERNO® sling heavier than 18kg that is regularly transported.
20. Only use INFERNO® slings for lifting, not for pulling, dragging, lashing etc.
21. Always check [extreemasoftslings.com](https://extreemasoftslings.com) as a guideline to determine the proper sling configuration. For further information, please get in touch with our Technical Sales Department.
22. At low temperatures, ice can be formed. The ice can act as a cutting agent and be abrasive, damaging the slings inside (core). Additionally, this will affect the flexibility of the sling and, in extreme cases, make it unusable.
24. The flattening, “hardening”, or compression of the bearing core is a normal phenomenon and can “easily” be softened again by massaging with hands. Furthermore, the hardening, or bedding in, of the bearing point does not affect the safety of the round sling. Instead of fixed bearing points, non-rotating, it could work out positively to rotate, e.g. weekly or monthly, thus spreading loads on the bearing core and jacket and even lengthening lifetime.

## **INSPECTION & REPAIR**

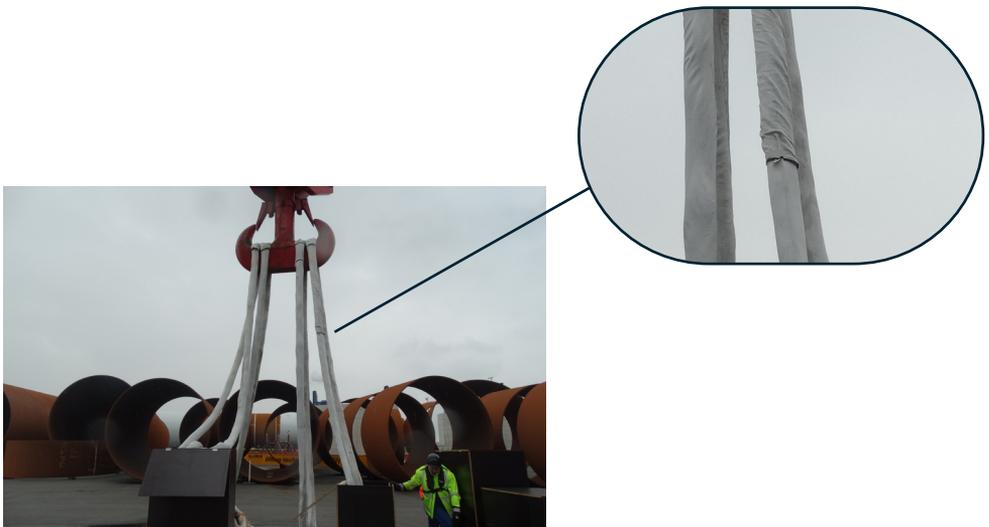
- INFERNO® slings should be taken out of service for inspection and possible proof load by the user regularly to be determined in correspondence with local regulations.
- Before use, an INFERNO® sling must be inspected along its entire length and under protection covers for damage to the stitching, equipment and the sling itself by a competent person.
- The sling must be withdrawn if the cover shows clear signs of wear. A certified dealer or the manufacturer must assess whether the sling in question can be safely reused after repair. An INFERNO® sling, of which the core itself is visible, must be withdrawn from use.
- INFERNO® slings may only be repaired by the manufacturer or a certified dealer. Repairs may only be carried out on slings still identifiable by their label.
- When the INFERNO® sling is equipped with a heat indicator that shows that the sling came in contact with 200°C, discard the sling.

## CONNECTION MATERIALS

- If INFERNO® slings are combined with shackles, preferably wide-body shackles and lifting gear, they must be compatible and in good condition.



- The INFERNO® sling should be positioned so that, during lifting, the stitching of the overlap or side seam is not in contact with the connection material or the load.



- To avoid pinching off ( and early damage of the sling), slings should never overlap in the shackle/ anchoring point or crane hook. There should always be enough space for the sling to position correctly on the attachment point. The low elongation of INFERNO® slings makes correct sling positioning extra important.



- The D:d ratio and the bending radius between the sling and lifting gear/shackle must be considered. INFERNO® slings are advised that under 50T should have a minimum of D:d ratio 1:1.

## LABEL

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- Only use INFERNO® slings that have a legible label.
- Protect the label from damage caused by the hook, load or strapping if the sling is looped.
- The INFERNO® slings may not be overloaded and should only be used according to the instructions on the label of the sling.

## CHEMICALS

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- Acid and alkaline solutions may become so concentrated due to evaporation that they can damage the lifting sling. Discontinue the use of contaminated slings immediately. INFERNO® slings made with Aramid® jackets resist chemicals, water/moisture and microorganisms. Contact the sling manufacturer or local dealer in case the effect of the chemical on the round sling is unclear.
- Contact with chemicals can cause local weakening and soften the cover material. Visible signs of this problem include flaking surface fibers (powder in extreme situations), which can be pulled or rubbed off. Discard the use of such INFERNO® slings immediately.
- If an INFERNO® sling has come into contact with acids and/or alkalis, check the wash declaration. Sometimes, it may be necessary to consult the manufacturer about how to clean the INFERNO® slings.

## PROTECTION

- We always advise to use protection covers.
- INFERNO® slings should be protected from edges, friction and abrasion, whether from the load or the lifting appliance. Where reinforcements and protection against damage from edges and/or abrasion is supplied as part of the sling, this should be correctly positioned. Contact the sling manufacturer or local dealer for advice on the lift job.
- The INFERNO® protection should be positioned so that, during lifting, the Velcro of the Protection cover does not come in contact with the connection material or the load.



# TABLE 1: WORKING LOAD LIMITS

Table 3 — Working load limits and colour codes

WLL of sewn webbing component	Colour of sewn webbing component	Working load limits in tonnes								
		Straight lift	Choked lift	Basket hitch		Two leg sling		Three and four leg slings		
				Parallel	$\beta = 0 \text{ to } 45^\circ$	$\beta = 45^\circ \text{ to } 60^\circ$	$\beta = 0 \text{ to } 45^\circ$	$\beta = 45^\circ \text{ to } 60^\circ$	$\beta = 0 \text{ to } 45^\circ$	$\beta = 45^\circ \text{ to } 60^\circ$
		M = 1	M = 0,8	M = 2	M = 1,4	M = 1	M = 1,4	M = 1	M = 2,1	M = 1,5
1,0	Violet	1,0	0,8	2,0	1,4	1,0	1,4	1,0	2,1	1,5
2,0	Green	2,0	1,6	4,0	2,8	2,0	2,8	2,0	4,2	3,0
3,0	Yellow	3,0	2,4	6,0	4,2	3,0	4,2	3,0	6,3	4,5
4,0	Grey	4,0	3,2	8,0	5,6	4,0	5,6	4,0	8,4	6,0
5,0	Red	5,0	4,0	10,0	7,0	5,0	7,0	5,0	10,5	7,5
6,0	Brown	6,0	4,8	12,0	8,4	6,0	8,4	6,0	12,6	9,0
8,0	Blue	8,0	6,4	16,0	11,2	8,0	11,2	8,0	16,8	12,0
10,0	Orange	10,0	8,0	20,0	14,0	10,0	14,0	10,0	21	15,0
Over 10,0	Orange									

M = Mode factor for symmetrical loading. Handling tolerance for slings or parts of slings indicated as vertical = 6°

\*Our slings do not correspond with the colour coding of EN 1492-2.

## Disclaimer

This manual only provides general information on the characteristics and use of INFERNO® slings with Aramid products. Purchase of INFERNO® slings should be made only after a thorough assessment of particular needs and suitability of a specific INFERNO® sling with ARAMID with the assistance of a skilled LIFT-TEX® Heavy Lift Slings professional. Information and specifications in this user manual are indicative and subject to change. No rights can be derived.

INFERNO® slings are sold only under contracts containing specific product specifications and our general delivery conditions. Any pictures in this brochure are indicative only and unsuitable for copying. Setups should be assessed by a skilled LIFT-TEX® Heavy Lift Slings professional. INFERNO® is a registered trademark of LIFT-TEX® Heavy Lift Slings, The Netherlands.

## WASH DECLARATION

### For synthetic Inferno® Round slings

- It is recommended not to use a washing machine regularly.
- Water temperature max 40°C / degrees with a mild soapy detergent.
- After cleaning/washing the sling, allow the sling to dry naturally in a warm environment (room temperature), away from direct sunlight, before use.
- Regular hand-cleaning to wipe away surface dirt and grease is preferred, and when required, rub a mild soapy detergent with a damp sponge in the affected area.
- Solutions of harmless acids or alkalis can become sufficiently concentrated by evaporation.
- Contaminated slings should be taken out of service at once, soaked in cold water, dried naturally and referred to a competent person for examination.
- Where lifting slings have been into contact with acids, and/or alkalis, dilution with water or neutralization with suitable medium is recommended before storage.







**INFERNO®**

## **CONTACT**

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