INFRAPIPE™
SUSTAINABLE SOLUTIONS FOR GENERATIONS TO FOLLOW


HANDLING, TRANSPORTATION & STORAGE – KRAH PIPES

For further information on **Inspection on Delivery** use this QR code:

HANDLING

This section specifically outlines the requirements for the handling of INFRAPIPE™ pipes and fittings.

LOADING & UNLOADING

All INFRAPIPE™ pipes shall be handled in a manner that avoids damaging them. It is important that the operation of loading shall be carried out in a manner that:

- Ensures stability of the loading vehicle e.g. forklift or crane.

- Ensures the transport vehicle is level prior to loading.

- Prevents damage to any pipes or fittings.

Pipes shall not be dragged or pushed. Pipes shall be lifted onto trucks using any of the following methodologies:

- Use of a carpet pole down the middle of the pipe (when lifting EF pipe make sure to lift in a manner that does not damage the EF wire).
- Side loading with a forklift or telehandler.
- Using the lifting lugs that have been extrusion welded to the pipe.
- Using two strops choked around the pipe with a best practice lift angle of 60 degrees.
  A lift angle should not be less than 45 degrees.

It is important to ensure the socket or spigot ends of the pipe are not supporting any of the pipes weight when loaded as this can impact the reliability of the pipe joint.

USE OF LIFTING LUGS

INFRAPIPE™ can supply and weld on HDPE lifting lugs that are tested and certified for the lifting of pipes and fabricated items. The lifting lugs are extrusion welded to the pipe, manhole, tank, bend or fitting for ease of lifting and handling.
These HDPE lifting lugs are for loading, unloading and for lowering pipes into the trench. It is important to ensure for the safe use of the lifting lugs are followed. The points are:

- **Do not** use them if it is not stamped with a punch tool to identify it has been tested,
- **Do not** side or shock load,
- **Do not** use to pull or drag the pipe,
- **Do not** use when the lifting equipment is moving e.g. an excavator tracking with a pipe.
  If you do wish to move then choke stropping the pipe is preferable.
- **Do not** use for lifting at an angle that is less than 45 degrees.
- **Do not** use them to push the pipes together.

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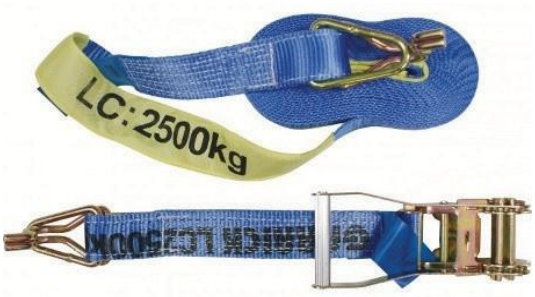
TRANSPORTATION

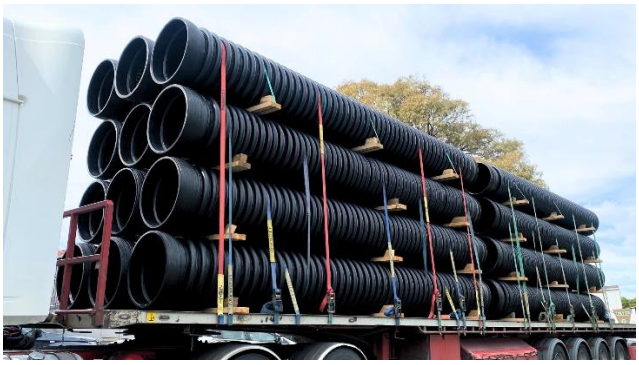
This section specifically outlines the requirements for the transportation of INFRAPIPE™ pipes and fittings.

All INFRAPIPE™ pipes shall be supported and secured in a way that prevents excessive deformation to the pipe cross section and shall minimise the risk of bowing or twisting the pipes.

INFRAPIPE™ will supply wooden dunnage that the pipes will sit on in transit to mitigate the risk of pipes deforming during transport. This dunnage is to be taken off the truck and used for storing the pipes onsite.

It is important to note that the height of the stack shall be limited if there is a risk of damaging or over deforming pipes. Nesting of pipes inside each other is encouraged as this is not only an economical way of transporting INFRAPIPE™, but an advantage of the lightweight profile pipe system.





Ratchet tie downs with safety latches are the preferred method of restraint for transportation

All supports, restraints and packing will be transported in a manner to prevent point loading, scraping, shock or any other damage during transit.
INFRAPIPE™ is best tied down using nylon ratchet tie-downs and if chains are used, they should never come into direct contact with the pipes and fittings.

MOVING THE PIPE ONSITE

- If pipe needs to be moved onsite then it is to be done in accordance with loading and unloading as above.
- When pipe is moved, sufficient dunnage needs to be available so that the pipes can be laid down on suitable dunnage.
- EF wire is protected at all times.
- Do not drag or pull the pipe.
- For information on laying and joining the pipe see the Krah Installation Guide

HANDLING, TRANSPORTATION & STORAGE – KRAH PIPES

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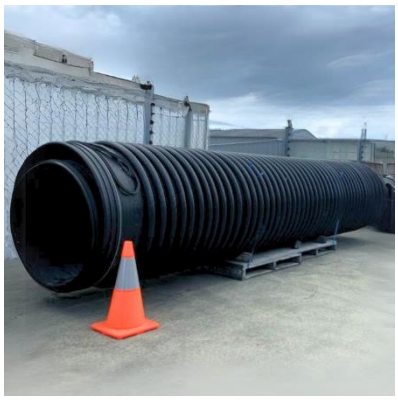
STORAGE

This section specifically outlines the requirements for the storage of INFRAPIPE™ pipes and fittings.

Suitable storage sites are to be chosen that have enough area to store any pipes that will not be in use throughout the installation project. When selecting a storage area, it is important to consider:

- The site is level and firm.
- Clear of combustible materials to minimise the risk of fire damage,
- If long-term storage is required (2 months or more) the pipes may need to be covered. If in doubt, cover the pipes.
- There is no obstruction to vehicles, pedestrians, and property access.
- All pipes are stored 2 metres away from a trench or excavation.



Pipe Storage

INFRAPIPE™ will supply flat timber dunnage for the INFRAPIPE™ pipes in transport and this is to be used at the same intervals when storing the pipes onsite. It is important to check that the pipes are stored correctly.

Important aspects to check are:

- The sockets, spigots or ends of the pipes are free from any load and all ends are clear of debris.
- The bottom layer of pipes that are stored in stacks are not going to deform over time under load.
- Pipes are supported in a manner that will limit longitudinal deformation.
- Krah pipes should only be stored two high.
- If pipes are stored two high, then adequate chocks must be provided to prevent the stack collapsing.
- Fittings are rotated such that any flanges or apertures are facing upward or outward not downwards.
- EF wire is protected.
- Pipe or tank sections should be rotated such that they are stored with their final spring line vertical, ie rotated by 90 degrees for storage in relation to their ultimate rotation when installed. This avoids deformation in storage which can impair installation.
- Don't lose the rubber rings.
- If unsure, please check with the Project Manager allocated by INFRAPIPE™.