

# LOGSTOR Handbook for Hauliers



# Introduction

## Handbook for hauliers

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Correct handling and transport is an important part of LOGSTOR's quality system. Therefore, please handle our products with care.

In this handbook you will find a short description of the safe and correct handling of our products to ensure that the goods are not damaged during transport and handling.

### In general

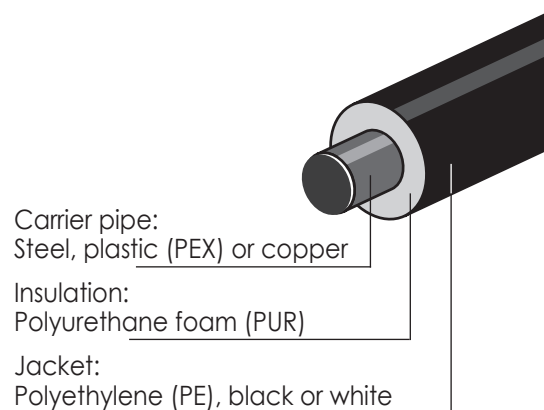
It is important to make sure that the pipes are not damaged during transport and handling.

Defects may cause leaks. In particular, when it comes to jacket ends, where the joint must be totally waterproof.

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### What is a pre-insulated pipe?



The pipe dimensions are indicated as follows:  
76,1 mm / 140 mm

The dimension to the left of the oblique stroke indicates the outside diameter of the inner pipe (carrier pipe), whereas the dimension to the right of the oblique stroke indicates the outside diameter of the outer pipe (jacket).

# Product information

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LOGSTOR produces 4 standard pipe systems for district heating:

- Bonded system with carrier pipe in steel.
- SteelFlex flexible system with carrier pipe in steel.
- PexFlex flexible system with carrier pipe in PEX.
- CuFlex flexible system with soft copper.

### Bonded system

The bonded pipe system is supplied as straight pipes, fittings and joints.

### Flexible systems

PexFlex, CuFlex and Flextra are supplied as straight pipes, pipes in coils, fittings and joints.

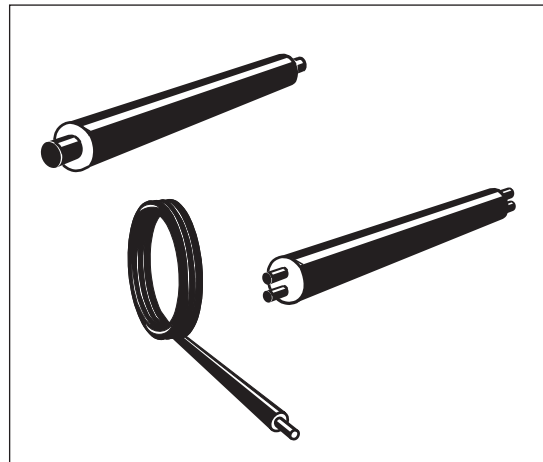
SteelFlex is supplied as pipes in coils, fittings and joints.

### Pipes

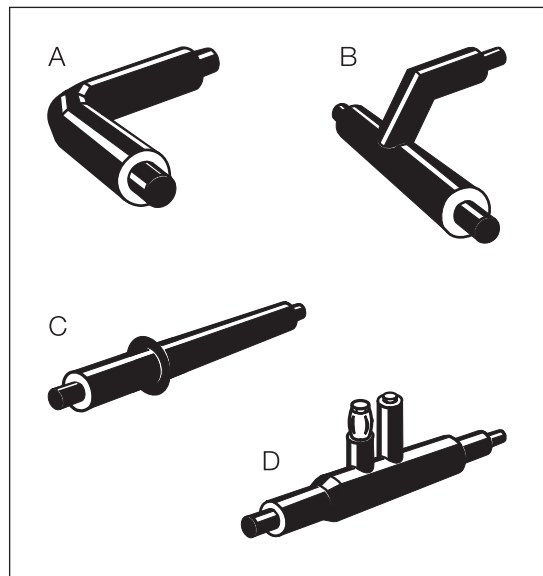
Straight pipes are available in 6, 12, 16 and 18 m or fixed lengths.

Pipes in coils are supplied in lengths of 10-1000 m dependent on the type and dimension of the pipe.

### Examples of pipes



### Examples of fittings



A: Elbow 90°

B: T-joint

C: Anchor

D: Ball valve

# Loading and delivery

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### 10 golden rules for hauliers

- 1 Check the information of the freight bill including time of delivery.
- 2 Notification is very important for customers. Consequently, the customer must always be notified min. 1 hour before arrival, unless delivery is in the morning e.g. 7 a.m. In case of delay the customer must be notified immediately.
- 3 If damages or shortages are found when unloading, LOGSTOR must be informed immediately.
- 4 Handle the products properly and never throw them off the lorry trailer.
- 5 Check the goods and compare them with the specifications on the delivery note.
- 6 Remember readable signature by the customer on the freight bill (if necessary, ask the recipient's name and write it down, if the signature is illegible).
- 7 Always have correct/adequate equipment in the lorry, minimum 12 straps and strapping tools.
- 8 Wooden supports must be returned to LOGSTOR. They are not to be thrown off the lorry trailer.
- 9 Returns must only be transported according to agreement and a return order. The goods must be labelled with a return order number.  
(for additional information see page 11)
- 10 The customer is ALWAYS right.  
Do not argue with the customer.  
In case of doubt contact LOGSTOR.

### Delivery

Delivery is normally effected by lorry, if the roads are solid.

As a rule a representative of the consignee will be present at the unloading of the pipes in order to give instructions as to where to place the pipes, assist with the unloading, and sign for the receipt of the products.

However, there may be deliveries where the recipient is not presented. In these cases the products are unloaded without a signature for the receipt. If possible take a photo, when unloading has been completed, as it may be used as documentatin towards the customer in case of a later dispute.

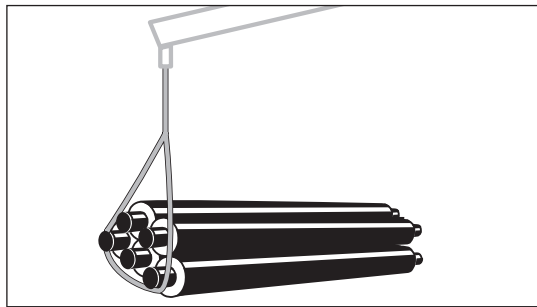
# Unloading pipes in bundles

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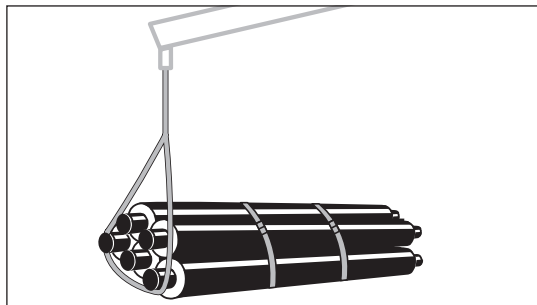
Pipe in dimensions from Ø90 to Ø280 may be lifted in bundles. (See tables on pages 6-7)

Use wide nylon straps or the like – never chains.



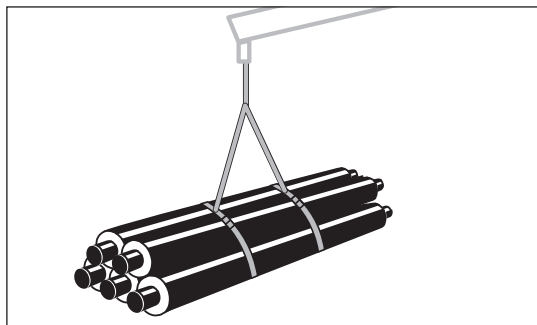
### Procedure for unloading pipes in bundles:

Place a strap around the free ends and lift the pipes at one end, making it possible to place straps around the middle of the pipes. If there are various dimensions in a bundle, it is important that the largest dimensions are placed outmost to prevent the pipes from curving.



Place 2 straps around the middle of the pipe bundle approx. 4 m from each pipe end.

Now lower the pipes again onto the lorry.



The pipe bundle is lifted off the lorry trailer by means of the straps.

Please note! All single pipes with steel service pipe dimension  $\leq \varnothing 48$  mm and all TwinPipes in dimension 26 x 26 mm must be lifted off the lorry trailer by means of the straps as illustrated.

# Other instructions for unloading

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### Strapping and unloading with crane

It is the responsibility of the crane operator to arrange with the assistants what their jobs are during unloading.

Likewise, the crane operator is responsible for ensuring that all persons are at a proper distance to the lorry before unloading with the crane commences.

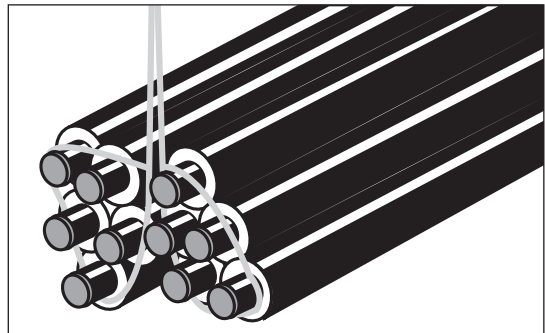
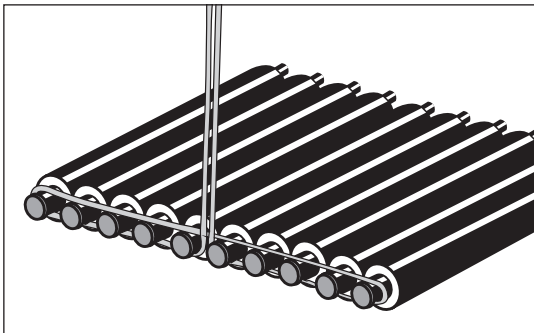
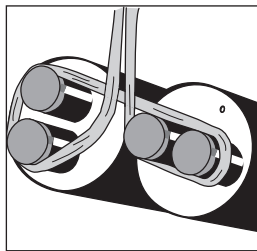
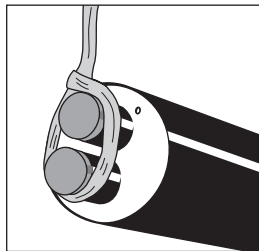
It is not permitted to remove straps, before the pipe is on the ground.

Always assess the actual conditions, including the weather, slippery surfaces, strong winds, poor visibility or the use of other machines in the same area.

Watch out for persons, live cables, trees and other relevant things when unloading.

As for 12 m pipes the straps should be placed as appears from below illustrations.

The straps are placed on the outmost third of the pipe end. It is vital to ensure that the straps do not get in contact with the jacket.



# Table for unloading with crane

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From below table the maximum number of pipes to be lifted at a time appears.

Min. length of straps used for unloading:

6 m pipes: min. 6 m straps.

12 m pipes: min. 9 m straps.

16 m pipes min. 11 m straps.

Single pipes				
Outside jacket diameter	12 m pipe		16 m pipe	
	Max no. of pipes per lift	Weight per pipe	Max no. of pipes per lift	Weight per pipe
90	Unloading pipes in steel dimension > 48 max 10 pcs. Straps on the steel ends **.	38		
110		54		
125		71		
140		87		
160		110		
180		150		
200	Pipes in smaller steel dimension unloading in bundle *	182	Unloading max 5 pcs Straps on the steel ends **	212
225		238		258
250		250		334
280		268		357
315	2-3	368	2-3	490
355	2-3	397	2-3	529
400	2	525	2	700
450	2	678	2	904
500	2	765	2	1020
560	2	969	2	1291
630	1	1120	1	1492
710	1	1288	1	1718
800	1	1679	1	2239
900	1	2157	1	2876
1000	1	2668	1	3557
1100	1	3340	1	4454
1200	1	4032	1	5376
1300	1	4465	1	5954
1400	1	5427	1	7237

\* Unloading according to the drawings on page 4.

\*\* Straps are put on pipes according to the drawings on page 5.

# Table for unloading with crane

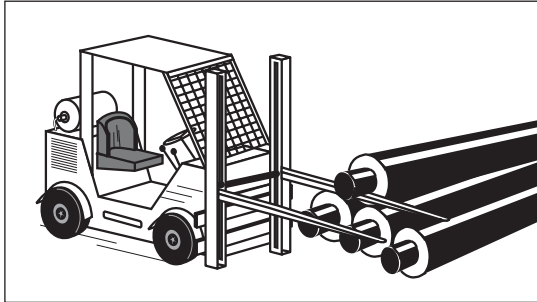
TwinPipes				
Outside jacket diameter	12 m TwinPipe		16 m TwinPipe	
	Max no. of pipes per lift	Weigth per pipe	Max no. of pipes per lift	Weigth per pipe
125	Unloading pipes in steel dimension $\geq 33 \times 33$ mm. max 10 pcs Straps on the steel ends **. Pipes in smaller steel dimension unloading in bundle *	60		
140		74		
160		103		
180		110		
200		146		
225		184		
250		230		
280		248		
315	2-3	340	2-3	454
355	2-3	370	2-3	492
400	2	453	2	604
450	2	591	2	787
500	2	639	2	852
560	2	872	2	1162
630	1	957	1	1275
710	1	1063	1	1417

\* Unloading according to the drawings on page 4.

\*\* Straps are put on pipes according to the drawings on page 5.

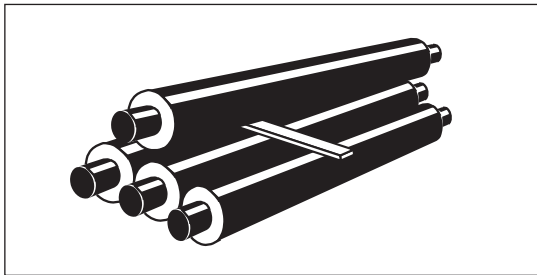


# Unloading with forklift

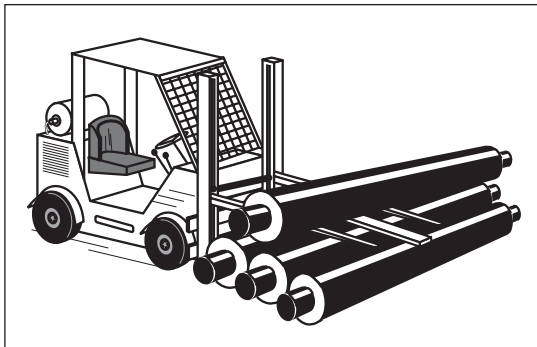


### Unloading with forklift

Carefully lift the pipes at one end, making room between the pipes for a wooden sleeper to be inserted. Lift at the free ends.



Place a wooden sleeper between the pipes and lower the pipes again.



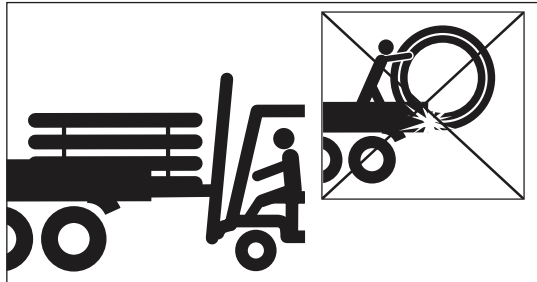
Carefully lift the pipes off the lorry trailer with the forklift.

# Unloading coils and accessories

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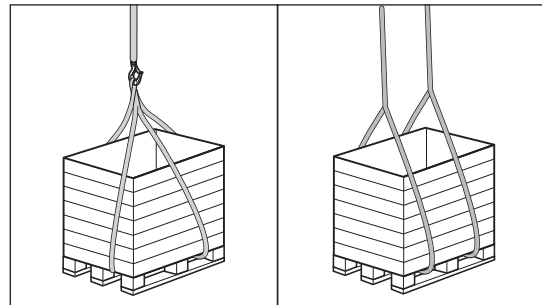
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### Unloading coils and accessories

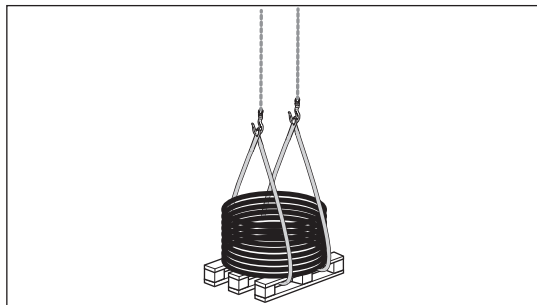


Never tip or throw coils, fittings and pallets off the lorry trailer.

To unload coils on pallets chains with hooks combined with straps or chains alone can be used.

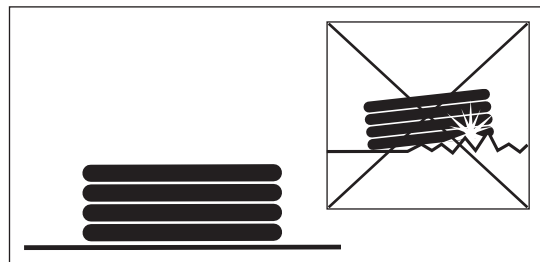


When unloading pallets place the straps under the pallet in one of the following two ways.

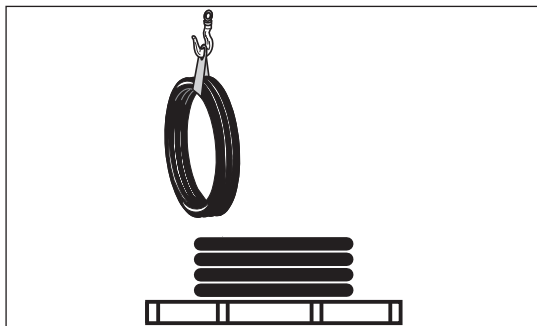


Place the straps under the pallet without the straps getting in contact with the coil.

6 m straps together with 4 m chains are used.



Always place coils on an even surface, so that they have the maximum supporting surface. The substratum must not contain stones that might damage the jacket.



If only the top coil is to be unloaded from a pallet, a flat strap is placed around the the coil as illustrated.

# Safety

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### Safety in general

- The haulier shall always wear safety vest and safety shoes during loading and unloading.
- When unloading by means of a crane safety helmet must be used.
- Safety information from the customer must always be respected and observed.
- In case children have been brought along for the ride, they must remain in the driver's cab during loading and unloading.



### Traffic safety

- The haulier is responsible for the goods being carefully secured during transport
- Never exceed the permissible speed limit
- Always use the seat belt
- Do not use the mobile phone while driving
- Do not park the lorry so hazardous situations may occur for other road users or possible evacuations are obstructed

# Returns

### Instructions for collecting returns

- If a customer has more return orders than the ones to be loaded according to LOGSTOR, the surplus return orders must not be loaded without prior consent of LOGSTOR.
- If for some reason a return order is not collected, LOGSTOR's transport department must be informed hereof.
- If pallets and crates are loaded, the number is counted and entered into the delivery note.
- Make notes on the delivery note, so your colleagues and LOGSTOR's staff can see what has been loaded in case you do not unload the lorry trailer yourself.
- If the goods are wet on collection, it must be noted on the delivery note.
- On arrival at LOGSTOR report to the porter's lodge prior to unloading, so the returns, received, can be registered.

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# Contact details

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