

INSTRUCTIONS FOR USE

FIRE AND RESCUE LADDERS



The Fire and Rescue Ladders are type tested to Swedish standard SS 2091 and Swedish Work Environment Authority statute book AFS 2004:3, as well as to European Norm EN131 and SS-EN 1147.



P102102



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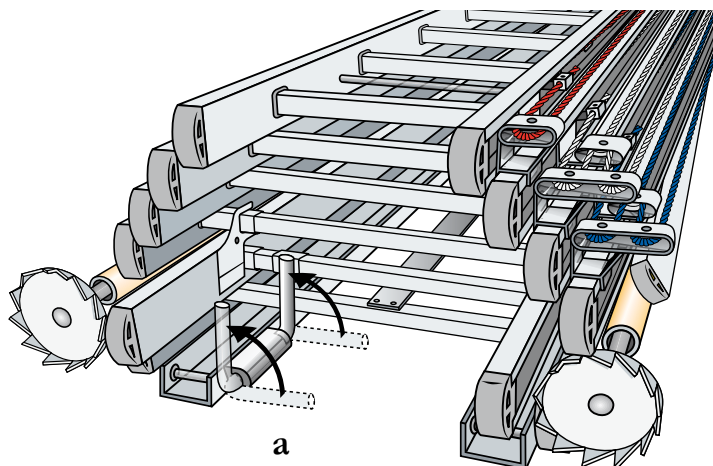
FIRE AND RESCUE LADDERS

Our aim is to make your work safe and more efficient, with particular emphasis on the following:

- Our two ladder systems fulfil the most rigorous user requirements. We have therefore made our ladders lighter than those found on most fire engines.
- Our roof support is designed to make detachment as quick and easy as possible.
- Our ladders are considerably lighter than competing models. Our ladders fulfil Swedish Work Environment Authority regulations for fall protection of employees, among other requirements.
- Our extension ladders weigh just 48-78 kg and can easily be handled by 2 people.
- Having carefully selected suppliers for all semi-manufactured items ensures products of high quality and safety.
- Aluminium profiles specially dimensioned for maximal lengths ensure high stability and safety.
- We have more than 75 years' experience of making ladders.
- We expect our ladders to have a service life of at least 20 years. We provide a 5-year guarantee on material and manufacturing defects, and a 1-year guarantee on parts not manufactured by Hultafors AB, such as hydraulic springs, shock absorbers and rope.

DETACHING THE NOR-BAS EXTENSION LADDER

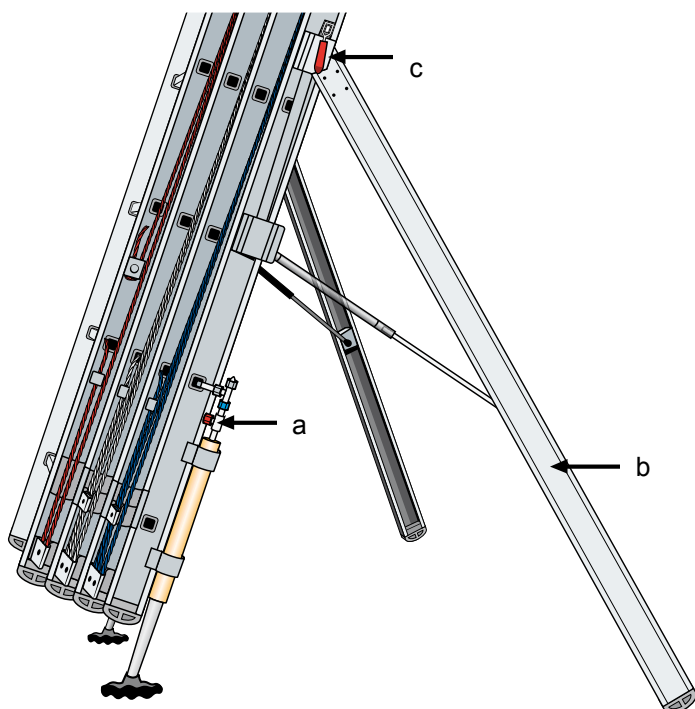
Your extending ladder comes with a special roof support, which allows quick, safe detachment with a simple manoeuvre.



- 1** Release the ladder by turning the safety lever on the left of the roof support clockwise (a).
- 2** Pull the ladder backwards carefully to the tipping point, when it will automatically drop down to the ground.
- 3** The ladder will initially fall quickly, but once the shock absorbers are activated the speed will be more controlled.
- 4** Before detaching the ladder, lift the roof support up and inwards towards the vehicle to release the ladder from the hydraulic spring. Loosen the nylon strap and remove the ladder from its roof support. The roof support can be used as steps up onto the vehicle roof.

POSITIONING THE LADDER

Positioning the ladder is made far easier thanks to the low weight (25-78 kg). Points 1-5 describes standing the ladder in its right position for further extension.



1 After removing the ladder from the vehicle, stand it at the point from which it is to be raised – around 3-4 m from the wall.

2 **Hydraulic Leveller:** Once in position, stabilise the leveller by doing up the valve (a) on the right-hand side. The leveller can regulate vertical differences of up to 20 cm.

Mechanical Leveller: With the ladder in position, adjust the mechanical levellers manually on both sides of the ladder until the ladder is horizontally levelled

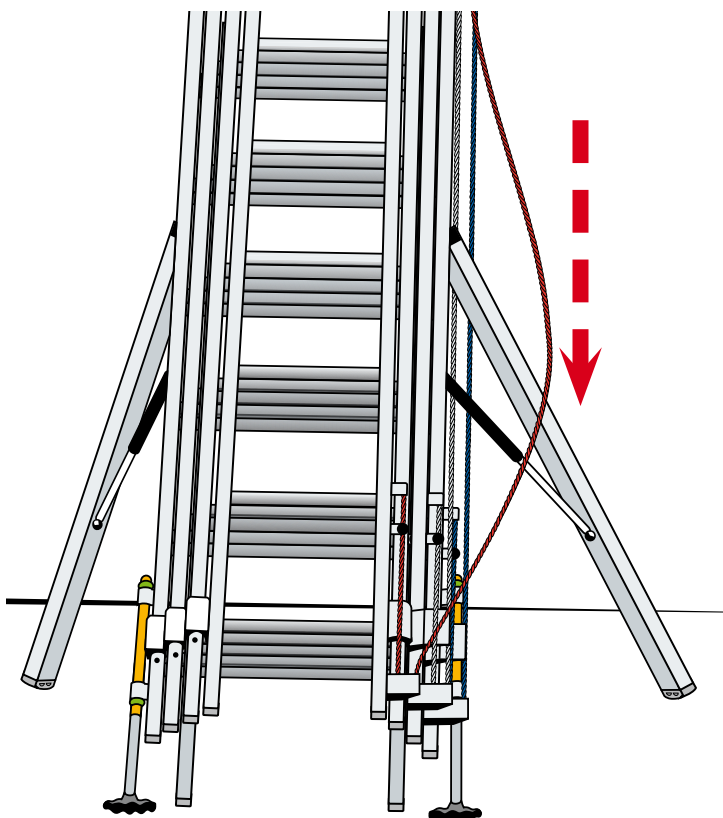
3 The stabilizers on either side of the ladder (b) are released by undoing the locking handle (c). The stabilizers will slide out gradually until they both have good ground contact. Once the correct height has been reached, adjust the stabilizers and lock them.

4 Both the leveller and the stabilizers must be fully locked before extension can begin.

5 The correct step angle on extension is 80-85 degrees (freestanding). The ladder can also be raised by rolling the top wheels up the wall. If this method is used, the wall must be free of obstruction.

EXTENDING THE LADDER

Do not begin extending the ladder until the leveller and stabilizers are all fully locked.



1 Stand to the right of the ladder facing the colour-coded ropes.

2 The two or three ladder sections are raised using different coloured ropes. The red rope extends the top ladder, the white rope extends a midsection, and the blue rope (blue rope, only 4-part ladders) extends the final midsection.

3 The correct order for extending a ladder is:
For 3-part ladder: 1: Red, 2: White.
For 4-part ladder: 1: Red, 2: White, 3: Blue.

4 Before extending the ladder, the required ladder section needs to be released. Do this by pulling the rope straight outwards and downwards until the rope is taut and the ladder section lifted. This will release the drop hook from the rung and extension can begin.

5 Raise each section to the required height and bring the rope in towards the side of the ladder, so that the drop hook latches onto the next rung down.

6 Using the stabilizers as a pivot, the ladder can then be pushed in against the wall.

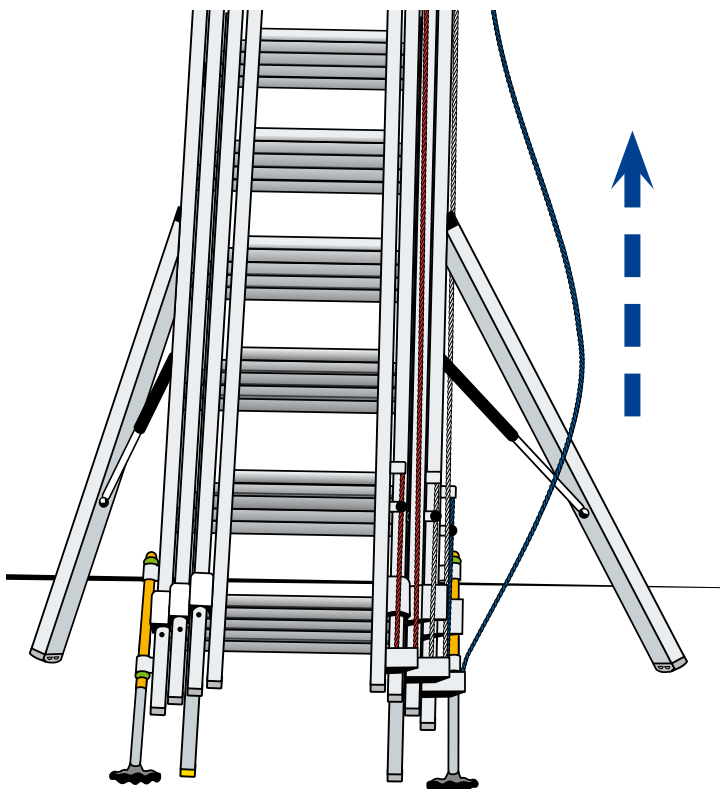
7 Loosen the stabilizers and adjust them until both make contact with the ground. The stabilizers should not bear the weight of the ladder. Once in place, lock the stabilizers again. NB! If the ladder is raised on very solid ground, e.g. asphalt, the stabilizers should be locked in a position approximately 2 cm above ground (Ladder unloaded).

8 Check the angle of the ladder. It should lean at about 75°, as shown on the label on the right-hand side of the ladder.

9 The ladder is now ready for use. NB! The ladder must not be used as a freestanding ladder!

RETRACTING THE LADDER

The ladder is retracted by simply reversing the extension procedure, but always with the same care and attention.



1

Release the ladder from the wall by lifting the ladder and lowering the stabilizers to act as a pivot.

2

The ladder sections should be retracted in the following order:

4-part ladders

- 1** Blue
- 2** White
- 3** Red

3-part ladders

- 1** White
- 2** Red

3

Stand to the right of the ladder, and pull the rope towards you and down. Then raise the ladder slightly to release the drop hooks on the rung. Now retract the ladder with care, holding the rope firmly to keep it taut.

4

If you should let out too much slack or let go of the rope, the drop hooks will latch onto the next rung down. If this happens, continue as from point 3 above.

5

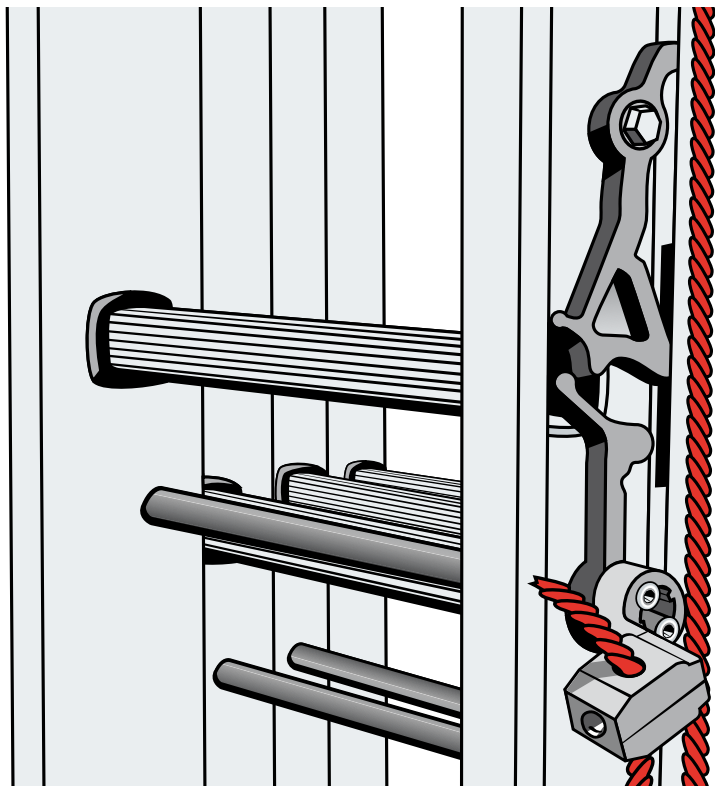
Before returning the ladder to the roof mount, fold in the stabilizers and lock the leveller into the neutral position.

6

Return the ladder to the roof mount and secure it using the nylon straps.

EXTENSION LADDER SAFETY

Safety and quality are always priorities when we design our products. Our special ladder system uses a drop hook to ensure each ladder is always secure.



1

When the ladder sections are fully extended, the drop hooks locks automatically.

2

If you should let out too much slack or let go of the rope, the drop hooks will automatically latch onto the next rung down, maximising the drop at 30 cm.

3

To lock the ladder at the required height, bring the rope in parallel with the ladder and retract it to the next rung down.

4

The workings of the safety catch are clearly visible on the ladders' side during extension and retraction.

NOR-BAS SECTION LADDERS

Safety and quality are always priorities when we design our products. Our section ladder set is made up of several products that can either be used individually or jointly.

A SET OF SECTION LADDERS CONTAINS:

A Vehicle roof support with 4 rails

B A bottom ladder with stabilizers

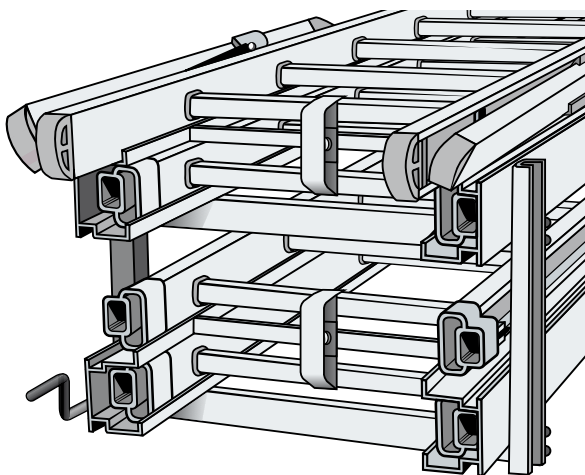
C 2 intermediate ladders

D A jointed top ladder

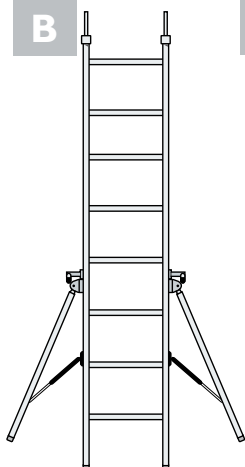
E A mechanical leveller

F A top console

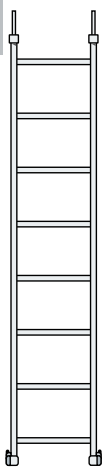
A



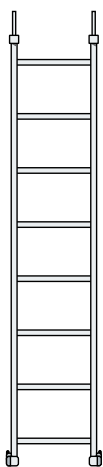
B



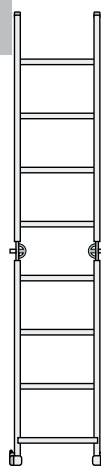
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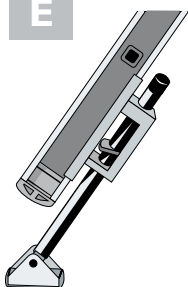
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D



E

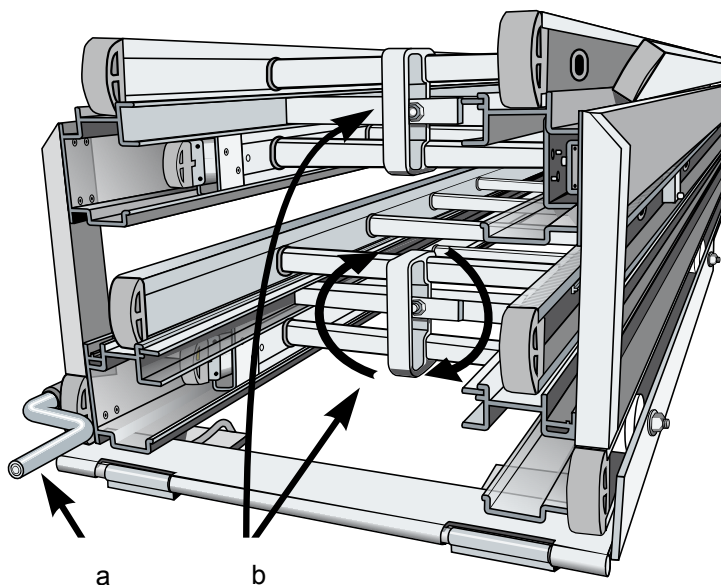


F



DETACHING THE SECTION LADDER

The section ladder fits into a vehicle roof support. The roof support enables each section ladder to be taken out without moving the others.



1 Release the mount by turning the safety lever on the left of the roof support (a) anticlockwise.

2 Pull the roof support straight back.

3 The roof support will automatically drop and stop at a suitable angle.

4 The roof support ends up in the right position for the firefighter, with the safety levers for each section easily accessible.

5 To remove the required ladder, pull and turn the safety lever to the horizontal position (b). The safety lever now opens one section. The other section is still held in place by the safety lever.

6 To remove the ladder section, lift the nearest end and pull out.

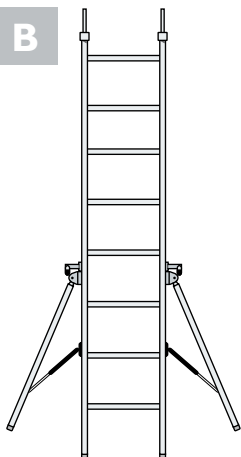
7 The ladder sections are stowed in the following order:

Bottom rail	Intermediate ladder
Lower mid-rail	Top ladder
Upper mid-rail	Intermediate ladder
Top rail	Bottom ladder with stabilizers

GENERAL

The section ladder is lightweight and has a vast array of applications. It is essential to check every locking point every time the ladder is used.

B

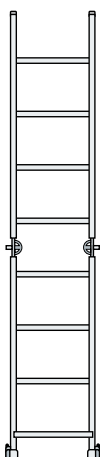


Every time the bottom ladder (B) is used, check that the stabilisers and leveller are locked.

To make joining the sections easier, all joint fittings are permanently in place on each section, complete with a spring-loaded locking mechanism.

The top ladder (D) is jointed and has a quick-lock to allow setting at different angles.

D



The special top console (F) can be used in a variety of work situations.

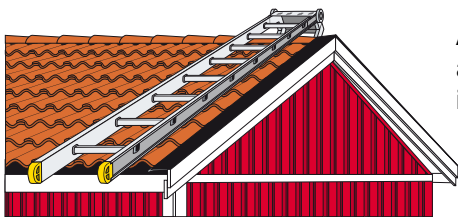
F



NB! It is vital to check that all jointed parts are clean and whole. The quick-locks should be tested and lubricated as required.

APPLICATIONS

The many different applications of the section ladder



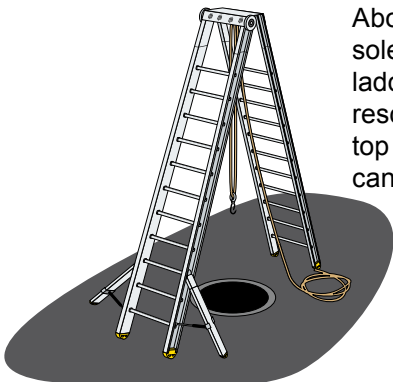
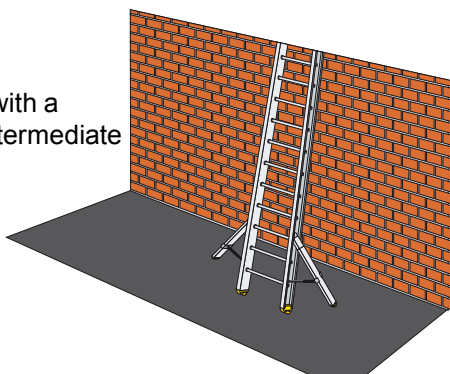
As a roof ladder with a top console and 2 intermediate ladders.

As a pier ladder with a top console and 2 intermediate ladders.



As a bridge with 2 ladder sections. Maximum load on a span of 4.5 metres = 170 kg.

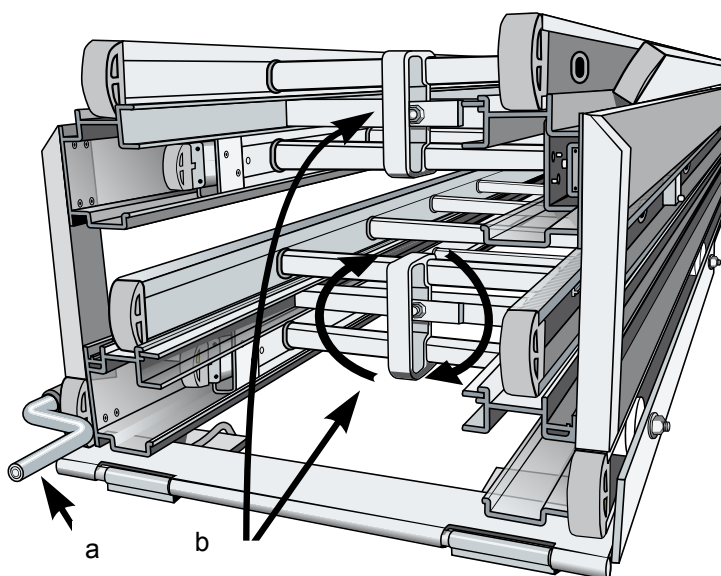
As a 7.5 metre ladder with a bottom ladder and 2 intermediate ladders.



Above a manhole with a top console. 1 intermediate and a bottom ladder. When using tackle or a rescue pulley, the lifting eye the top console can be used, which can take a load of 260 kg.

ATTACHMENT TO VEHICLE ROOF

The section ladder is returned to the vehicle roof by reversing the detachment procedure.



- 1** After use, slide the ladder sections into the correct rail in the mount until they are all properly in place.
- 2** Pull and turn the safety levers to the locked position (b) to ensure safety during transportation.
- 3** Lift and push the roof support into the right position on the vehicle roof.
- 4** Secure and turn the safety levers on the left of the roof support clockwise (a).

SERVICE AND MAINTENANCE

Service and maintenance are essential to long-term safety.

LADDERS:

After use, always clean and inspect all the ladder sections. Lubricate all moving parts with silicon spray or similar as required.

Check all moving parts, such as stabilizers, leveller, ropes/rope attachments and drop hooks.

Check the slide protection and replace as required.

VEHICLE ROOF SUPPORT:

Check the vehicle attachment, locks in transport position, the front stop and shock absorbers inc. attachments.

If your ladder is not working satisfactorily and this can not be remedied locally, please contact us.

FIRE & RESCUE LADDERS

NOR-BAS EXTENSION LADDERS

NOR-BAS SECTION LADDER SET

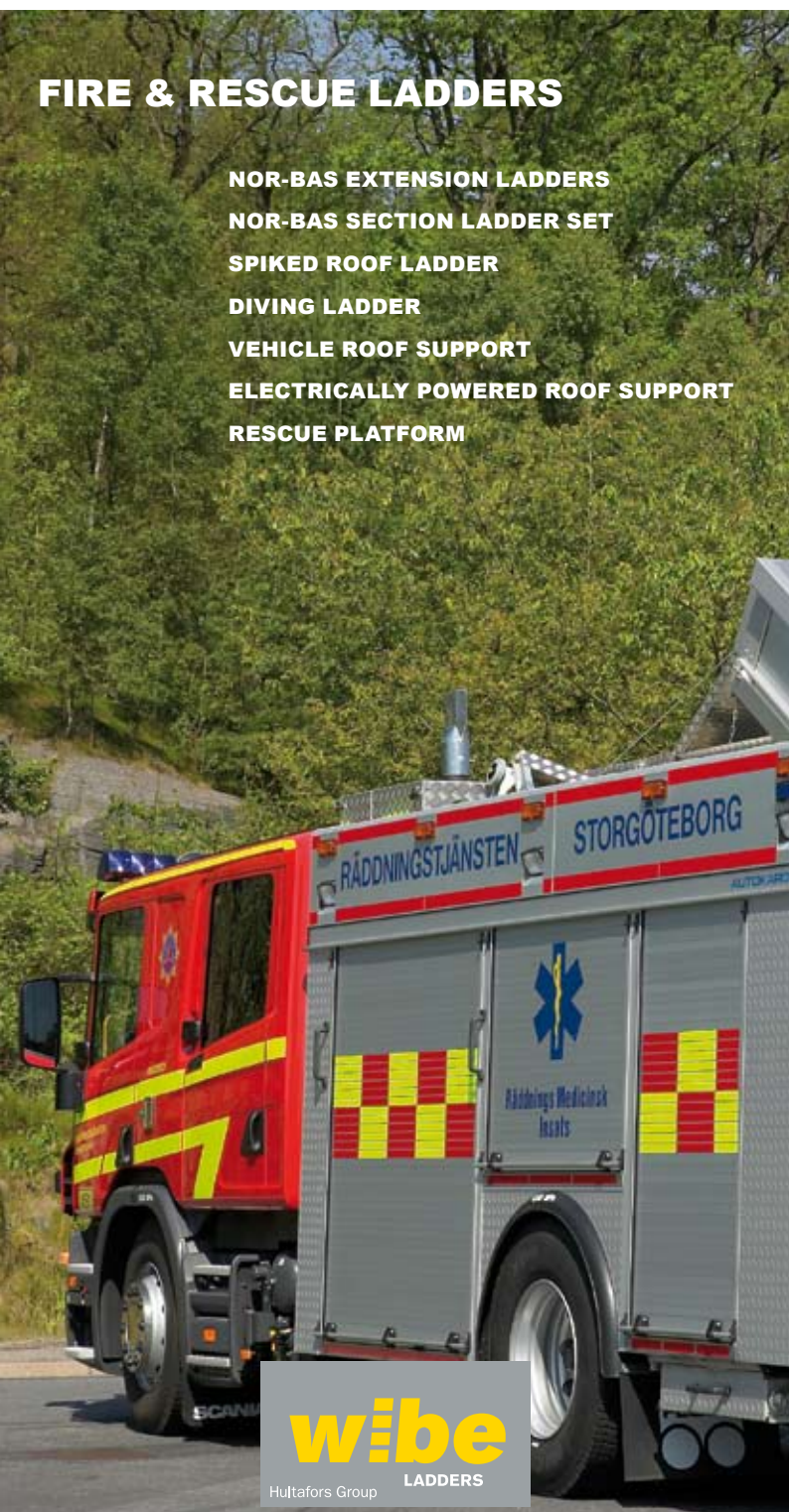
SPIKED ROOF LADDER

DIVING LADDER

VEHICLE ROOF SUPPORT

ELECTRICALLY POWERED ROOF SUPPORT

RESCUE PLATFORM



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LADDERS

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