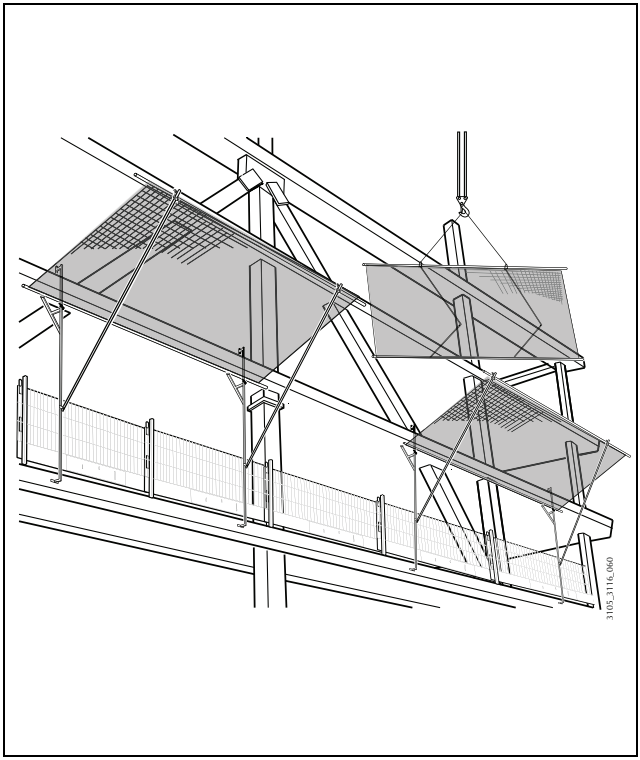
RIDGEWAY

COMBISAFE

Safety Net Fan HD

Fall-Arrest Fan (Art. No. 3106, 3116)
Protection Fan (Art. No. 3105, 3115)



USER INSTRUCTIONS

Contents

Reservation for technical changes

General info

The safety net fan HD is available in two different models: Fall-arrest and Protection fans.

The fall-arrest fan conforms to the requirements set out in “EN 1263-1 Safety nets - Part 1: Safety requirements, test methods” (See the declaration of conformity) and must be installed in accordance with “EN 1263-2 Safety nets - Part 2: Safety requirements for the positioning limits”, see page 34.

The protection fan is a simpler version of the fall-arrest fan and is only used to catch material and debris.

An assessment should be made to determine which safety net fan is best suited to the work. The protection fan is generally used on high-rise buildings to protect the workforce and pedestrians on the ground, or the facade of the building while work is being carried out overhead. The fall-arrest fan is generally used when work on formwork or steel/prefab erection is carried out close to the edge and where there is a risk of falling. The fall-arrest fan combines both applications.

Both safety net fans extend 3 metres out from the facade and can be installed using the range of accessories available.

The safety net fan is designed to be folded up against the facade to allow for easy crane access below, or as a safety precaution in high winds or heavy snowfall.

The safety net fan is designed so that the impact from a fall is partly absorbed by the mesh and partly by the frame. The fall-arrest fan is designed to catch a person falling from a height of up to 6 metres, however, the recommendation is to install the safety net fan as close to the working level as possible in order to minimise the risk of injury in the event of a fall.

The fall-arrest fan has a mesh size of 60 x 60 mm, the protection fan has a mesh size of 100 x 100 mm. Both safety net fans are equipped with a fine mesh (20 x 20 mm) overlay net as standard to catch small objects.

In some cases the safety net fans can be supplemented with scaffold/debris sheets if denser coverage is required. Wind loads, which are often a problem, must be taken into consideration.

The fall-arrest fans are manufactured of steel and aluminium to create the optimal combination of strength and weight.

Assembly, rigging and repairs should always be carried out by competent personnel. It is therefore strongly recommended that all involved with the selection and installation of safety nets fans complete a Combisafe product training course.

Technical data

Dimensions and weights

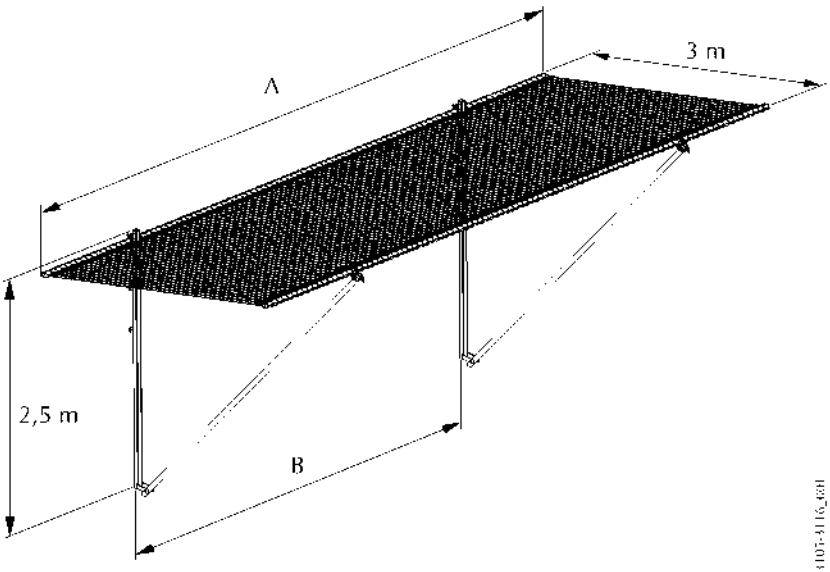


Figure 1. Dimensions

Safety Net Fan HD Protection

Prod. No.	A	B	Weight:
3105	4 m	2 m variable	59 kg
3115	6 m	4 m variable	68 kg

Safety Net Fan HD Fall-arrest

Prod. No.	A	B	Weight:
3106	4 m	2 ± 0.5 m	64 kg
3116	6 m	4 ± 0.5 m	74 kg

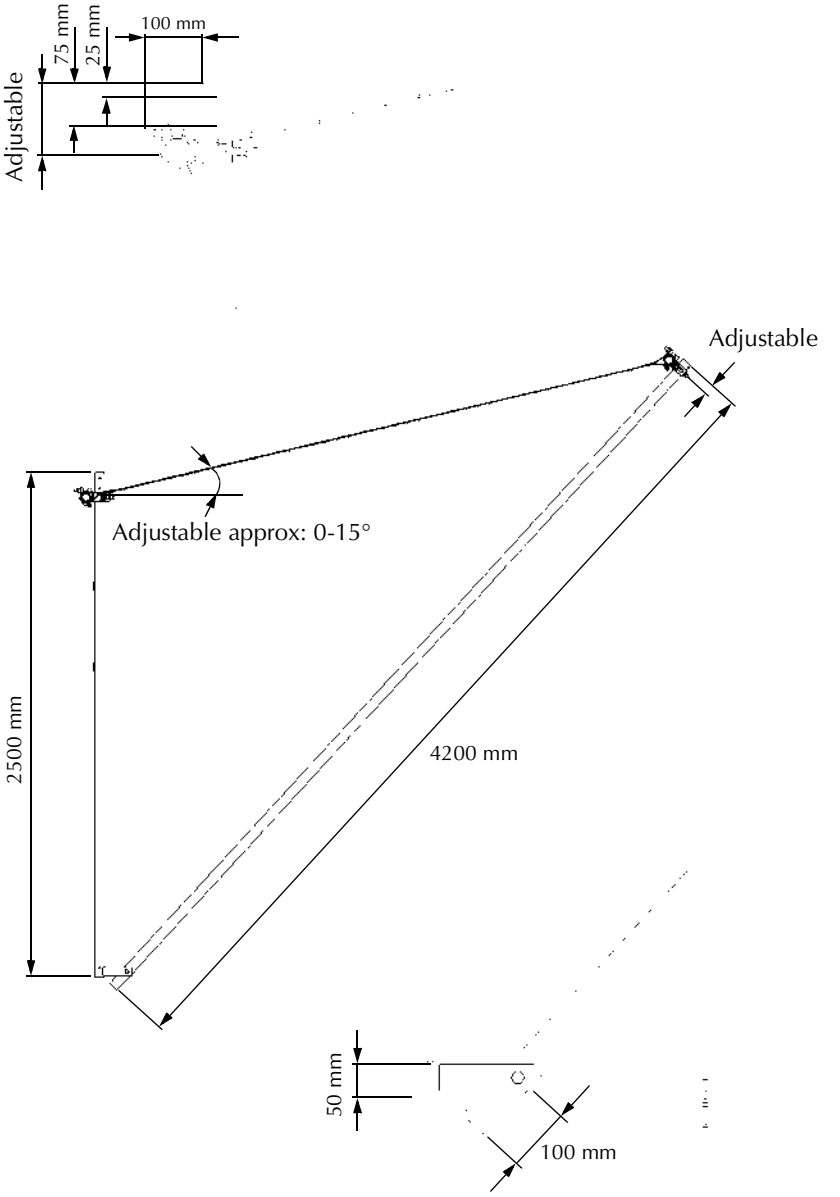


Figure 2. Dimensions

Fall-arrest fan, parts

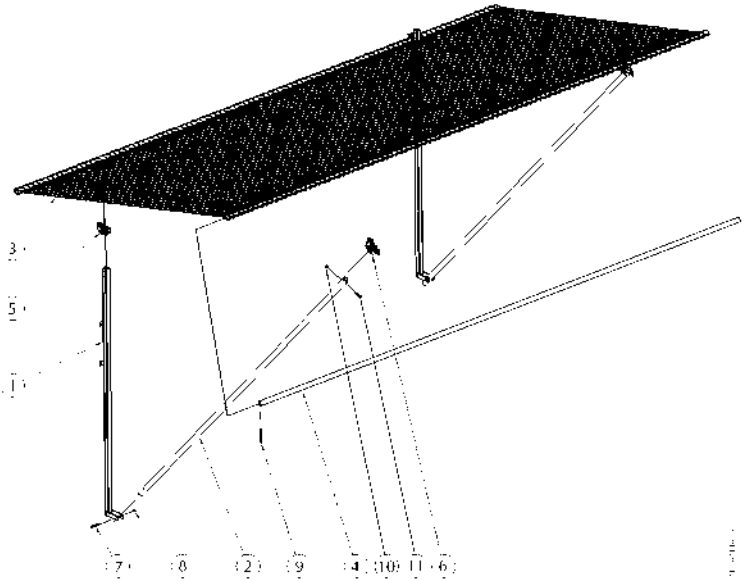


Figure 3. Parts

Item	Quantity	Art no.	Description	Weight:
Standard parts for all safety net fans				
1	2	10393	Safety Net Fan HD Frame	12.2 kg
2	2	10429	Safety Net Fan HD Tube 4.2 m	6.2 kg
3	1	*	Safety Net Fan net	*
4	2	*	Aluminium tube	*
5	2	10432	Square-round coupler	1.6 kg
6	2	200361	Double coupler	1.4 kg
7	2	100153	Bolt M12x80	0.08 kg
8	2	100025	Lock nut M12	0.01 kg
9	4	100154	Plastic ties	0.002 kg
10	2	100061	Lock nut M6	
11	2	100158	Bolt M6x12	

* See table on the next page.

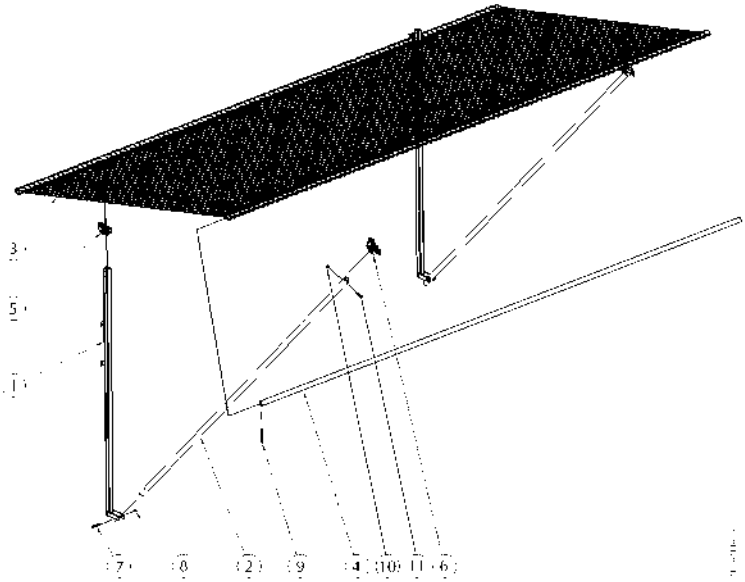


Figure 4. Parts

3105 Safety Net Fan HD Protection 4 m				
3	1	10442	Safety Net Fan net 4.5x3.2 m*	5.2 kg
4	2	10431	Aluminium tube 4 m (with hole)	9.0 kg
3115 Safety Net Fan HD Protection 6 m				
3	1	10443	Safety Net Fan net 6.5x3.2 m*	8.0 kg
4	2	10430	Aluminium tube 6 m (with hole)	9.0 kg
3106 Safety Net Fan HD Fall-arrest 4 m				
3	1	10444	Safety Net Fan net 5x3.2 m*	10 kg
4	2	10431	Aluminium tube 4 m (with hole)	9.0 kg
3116 Safety Net Fan HD Fall-arrest 6 m				
3	1	10445	Safety Net Fan net 7x3.2 m*	14 kg
4	2	10430	Aluminium tube 6 m (with hole)	9.0 kg

*Supplemented with 20 x 20 mm fine mesh overlay net.

Storage and transport design of frame and bracket

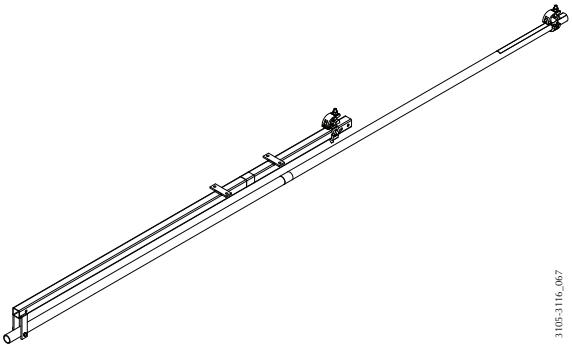


Figure 5. Storage and transport design of frame and tube

This assembly has article number 10613 and consists of articles 10393,10429,10432, 200361,100153 and 100025, see page 7.

Storage and transport of the safety net fan

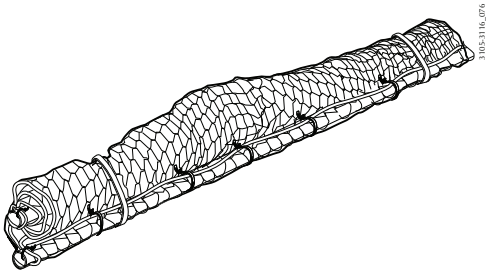


Figure 6. Storage and transport of the safety net fan

Consists of the safety net fan and aluminium tubes and is available in 4 different versions.

10614	Protection 4 m
10615	Protection 6 m
10616	Fall-arrest 4 m
10617	Fall-arrest 6 m

Accessories

10044 Slab attachment

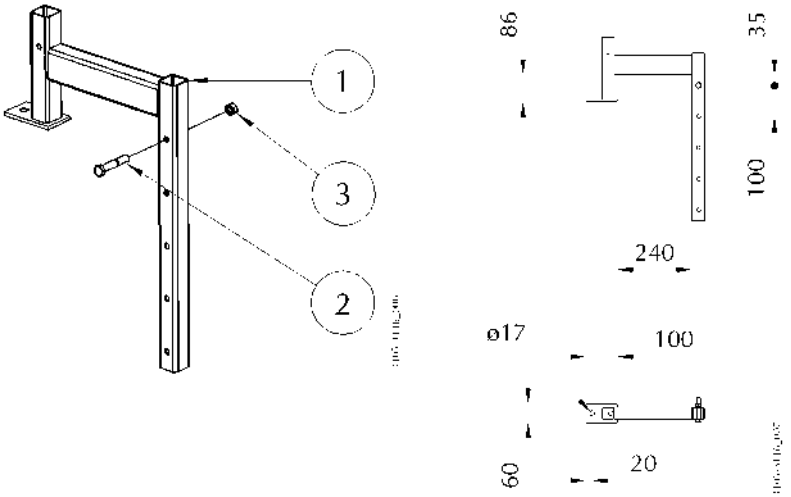


Figure 7. Slab attachment

Item	Quantity	Art no.	Description	Weight:
1	1	10044	Slab attachment	3.8 kg
2	1	100114	Bolt M12x70	0.07 kg
3	1	100025	Lock nut M12	0.01 kg

The slab attachment is used to install the safety net fan on to a flat surface. The most common use is when installing the net on the edge of a slab, often together with a knee brace (Art. No. 10051). The slab attachment can be used separately if the net is supported against the building facade, or together with the extension (Art. No. 10435) which provides reaction support from the structure below.

10051 Knee brace

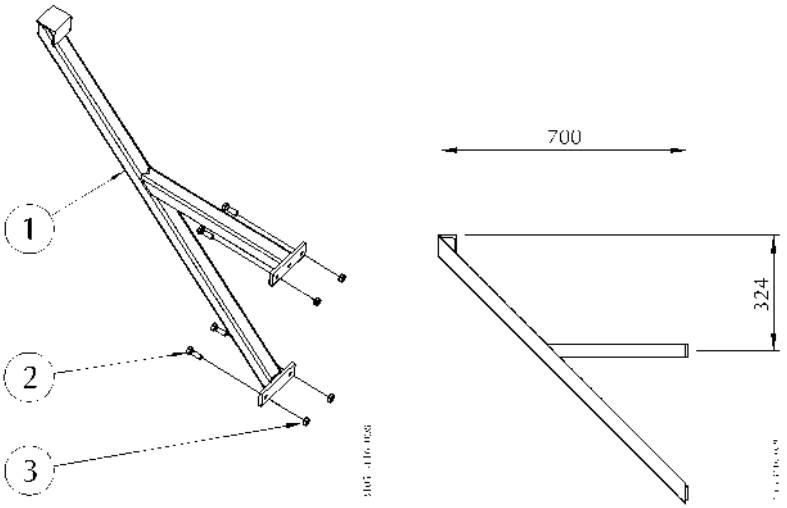


Figure 8. Knee brace

Item	Quantity	Art no.	Description	Weight:
1	1	10051	Knee brace	5.2 kg
2	4	100026	Bolt M10x30	0.03 kg
3	4	100027	Lock nut M10	0.01 kg

The knee brace is used to support the safety net fan below a slab. The knee brace is usually used together with the slab attachment when the safety net fan is installed around an open slab edge.

10439 Facade attachment

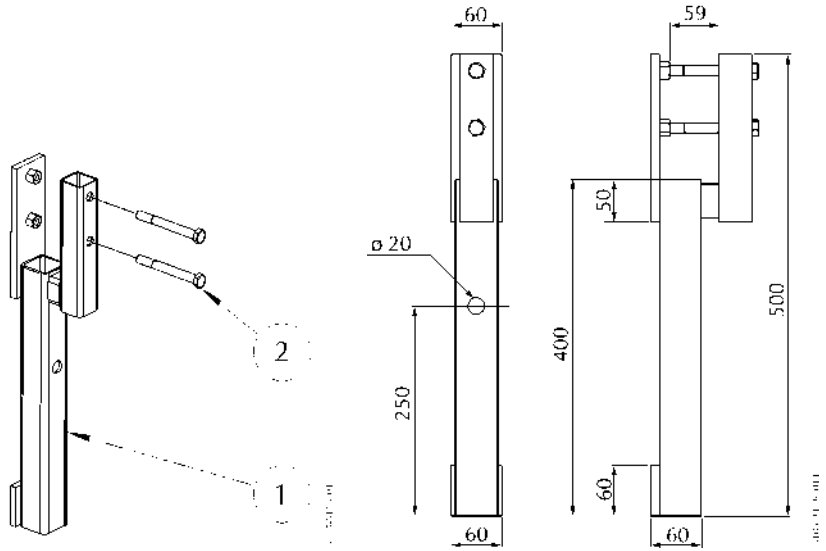


Figure 9. Facade attachment

Item	Quantity	Art no.	Description	Weight:
1	1	10439	Facade attachment	4.2 kg
2	2	100159	Bolt M12x110	0.1 kg

The facade attachment is fitted to the facade using a fixing/anchor//form tie. The safety net fan is installed directly on the facade using two facade attachments. The safety net fan can be equipped with padding to protect the facade. The extension can also be used to extend the lower support to an appropriate position.

10440 Scaffold attachment

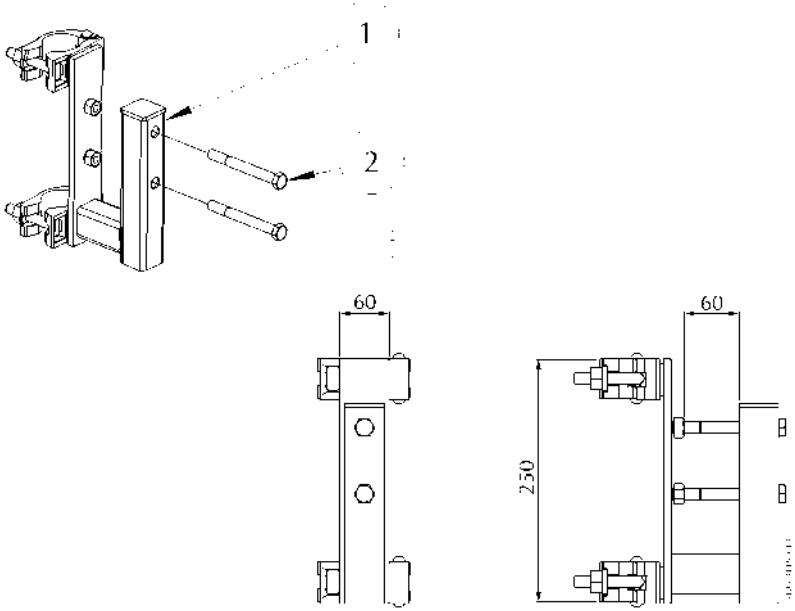


Figure 10. Scaffold attachment

Item	Quantity	Art no.	Description	Weight:
1	1	10440	Scaffold attachment	4.0 kg
2	2	100159	Bolt M12x110	0.1 kg

The scaffold attachment is equipped with two couplers for connection on vertical scaffold tubes. The safety net fan is usually supported by vertical scaffold standards, but in some cases a vertical tube is fitted to the safety net fan. In all cases the scaffold to which the fan is attached, must be assessed by a competent person as capable of accepting the loads imposed by the fan.

10435 Extension bar

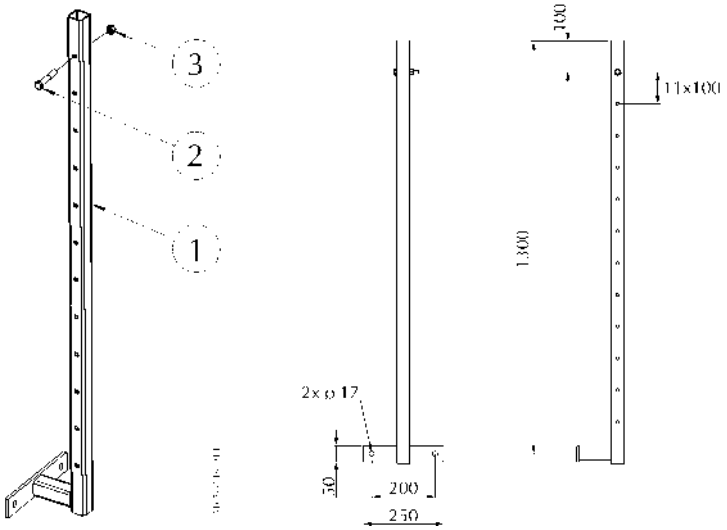


Figure 11. Extension

Item	Quantity	Art no.	Description	Weight:
1	1	10435	Extension	5.6 kg
2	1	100114	Bolt M12x70	0.07 kg
3	1	100025	Lock nut M12	0.01 kg

The extension extends the lower support of the safety net fan downwards and can be used together with most attachments. The support plate holes permit anchorage if necessary. The extensions are frequently used to reach down to the floor below and support against the edge of the slab. When the safety net fan is installed using the facade attachment, the extension can be used to avoid the lower corner of the safety net fan being pressed against the facade, the frame of the safety net fan then remains in the vertical plane.

10047 Lifting sling

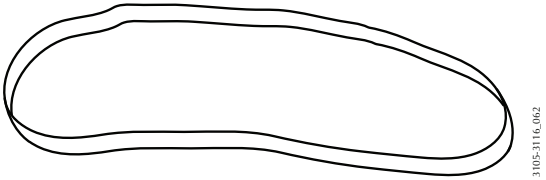


Figure 12. Lifting sling

The lifting sling is used to lift an assembled safety net fan in to position.

Design and function

The safety net fan is assembled on the ground and lifted into position using a crane. Assembly is performed using different accessories to adapt the safety net fan to the building.

The use of accessories is described under “Rigging”.

The lift method is described under “Lifting”.

Once the safety net fans have been lifted into position, they can be connected together. The most common is the overlap method.

When the safety net fans have been installed they can be folded up to allow the crane to access to the area below. The safety net fans can also be folded up for protection against high winds or heavy snow.

There are also solutions for safety net fans to fit around corners.

Overlap

To ensure that there is no gap between the safety net fans, the fans must either be laced together or overlapped. Different procedures are used for protection fans and fall-arrest fans.

The most common method is alternate upper and lower fans, and to first position two lower fans followed by fitting an upper fan between them which overlaps both of the lower fans. This method permits easy folding up and in doing so makes the area below accessible for a crane. Careful planning is needed to ensure that the upper safety net fans are positioned where material will be loaded.

The overlap is created in different ways depending on whether the safety net fans are installed using slab attachments or facade/scaffold attachments. When the slab attachment is used the height difference for the overlap is created by adjusting the square-round coupler to different levels. When the facade or scaffold attachment is used the height difference is created using the different support levels within the bracket.

Figure 13. Common overlap

An alternative overlap method is to create an upper and a lower side on the safety net fan. This is done by setting both couplers at different heights when using the slab attachment. When using the facade and scaffold bracket, an upper and a lower position for each safety net is used. This method is quicker when rigging, but it limits flexibility to fold individual fans up for effective crane access.

Figure 14. Alternative overlap

Effective length

The effective length of the fan depends on the extent of the overlap.

For a 6 metre fan with an overlap of 1 metre the effective length is 5 metres other than for the first fan.

For a 4 metre fan with an overlap of 1 metre the effective length is 3 metres other than for the first fan.

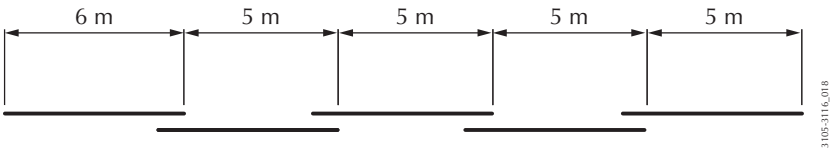


Figure 15. Effective length

Length of the overlap
The required length of the overlap differs between protection and fall-arrest safety nets.

The overlap for a protection safety net fan only needs to prevent material from falling between the fans, and the extent of overlap may depend on the requirements appropriate for the site in question.

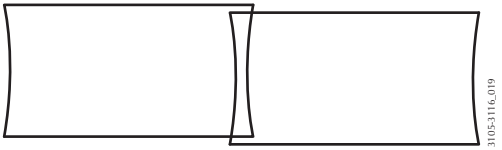


Figure 16. Protection net fan overlap

The overlap for a fall-arrest safety net fan must be at least 0.75 metres. Note that safety net fans "waist in" and are frequently smaller in the middle. The overlap here must be 0.75 metres. If a 1 metre overlap is made at the outer edges generally the minimum overlap of 0.75 metres is maintained.

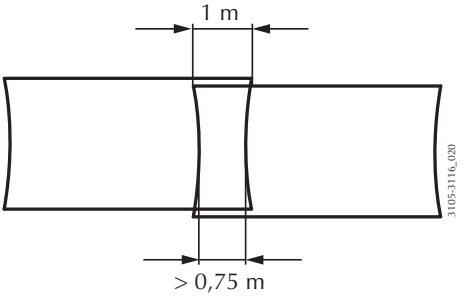


Figure 17. Fall-arrest fan overlap

The safety net fans can also be joined by lacing them together. This is done using a coupling rope to EN1263-1. The rope is used to lace every other mesh in the nets together, after which the ends are secured. Ensure that there are no openings larger than 100 mm (as required in EN1263-2). Protection fans and fall-arrest fans can be laced.

Figure 18. Joining nets by lacing

Lifting

The safety net fan can be lifted in a number of different ways, however the best and most common solution is to lift using two slings on the outer tube, just outside the double couplers.

Make sure that all the couplers are tightened before lifting. Attach a two legged lifting device that cannot slide.

Be aware of any wind when lifting the safety net fan (the safety net fan catches a lot of wind). Exercise care when lifting the safety net fan off the ground. There is a risk of the fan opening and swinging sideways.

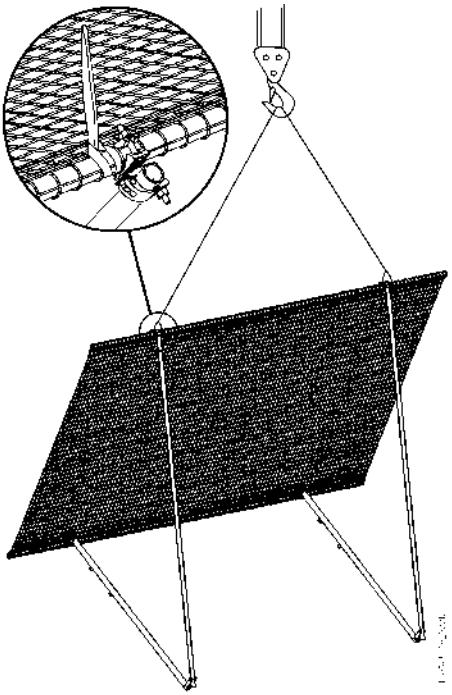


Figure 19. Lifting a safety net fan

Wind, material and snow loads

Wind loads
If the safety net fan is covered e.g. with a scaffold sheet, the fan will be even more sensitive to wind.

If wind loads become a problem the safety net fan can be tied down with ropes. Tie the rope to the outer tube and then tie it back, diagonally down to the building below.

During high winds the safety net fan must be folded up to avoid damage to the safety net fan and the building.

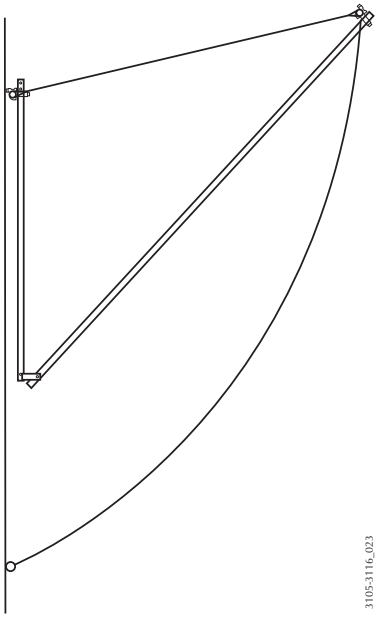


Figure 20. Tying down the safety net fan for high wind

Material and snow loads
The safety net fan is not designed for high loads other than those within EN1263-1. Keep the fans clear of materials, debris and snow.

Rigging

Delivery

The safety net fan is delivered in pieces and must be assembled before use. The safety net fan may be partly assembled before delivery.

Rigging, tools and equipment

The following tools are required to assemble the safety net fan:

- Spanners, or preferably ratchet handle and sockets.
- Gloves
- Pen to mark tubes
- Measuring tape
- Knife
- Assembly aid, weight 2.5 kg
  Place two assembly aids on a scaffold tube at the intended c/c spacing from the frames. Position the frames with in the aids shown.

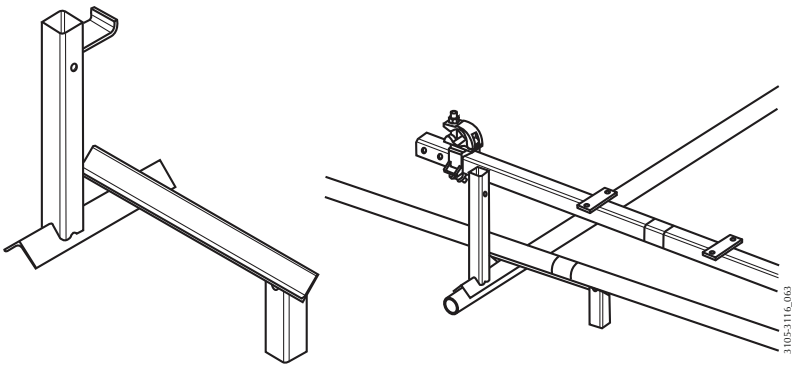


Figure 21. Assembly aids

Assembly of frame and tube

1. Assemble the frame and tube using M12 x 80 bolts and lock nuts. Do not tighten. Screw on the nuts so that they permit the tube to move without clamping.

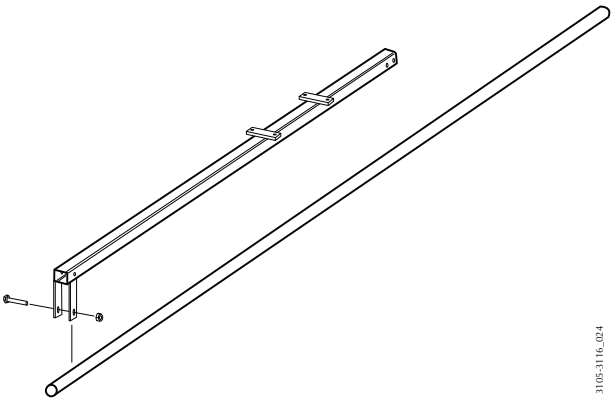


Figure 22. Assembly of frame and brackets

2. Assemble the double coupler on the tube. Ensure that it is the correct way up. Tighten the coupler to secure it. This coupler may need to be adjusted later.

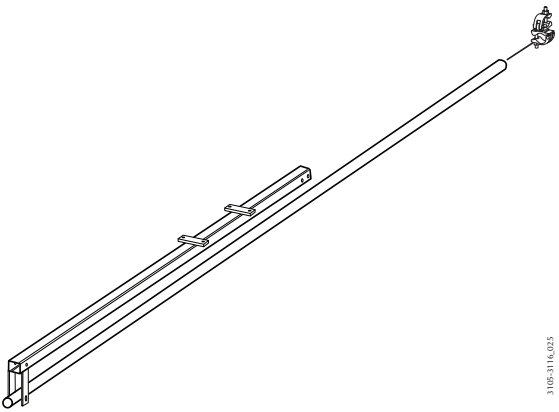


Figure 23. Assembly of the double coupler

NOTE

The position of the coupler determines the angle of the fan. Approximately 100 mm from the end of the tube to the middle of the coupler is usually about right. The safety net fans include a measurement decal which facilitates positioning.

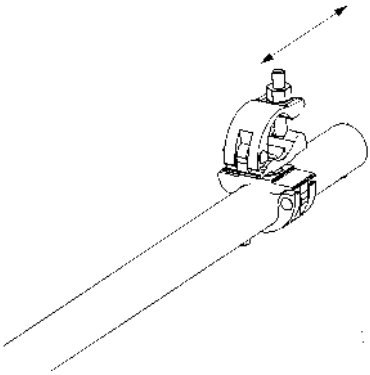


Figure 24. Adjust the double coupler spacing

3. Assemble the square-round coupler on the frame. Ensure that it is the correct way up, and that it accepts the aluminium tube on the face nearest the building.. Tighten the coupler.

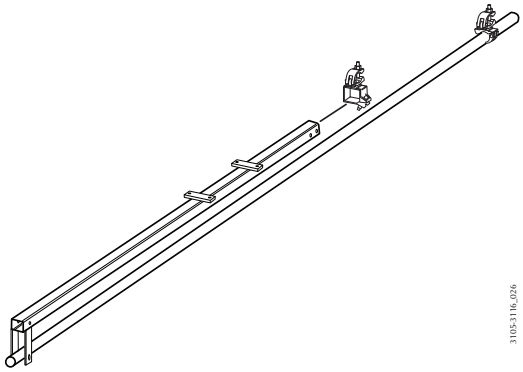


Figure 25. Assembly of the square-round coupler

NOTE

When the safety net fan is assembled with the slab attachment and knee brace, the position of the coupler is determined by the overlap. See the section "Overlap"
Place the couplers at the required distance from the end of the frame.
Postion for the upper fan: approximately 130 mm
Postion for the lower fan: approximately 200 mm

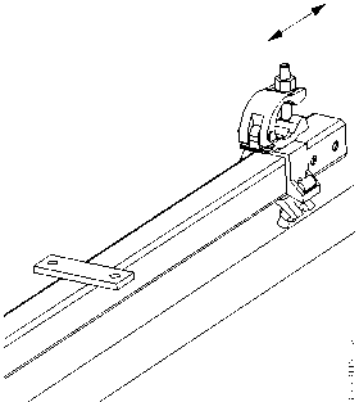


Figure 26. Positioning of square-round coupler

4. Position the frames at the correct spacing to simplify fan assembly.

NOTE

The spacing of the frames depends on the size of fan, type of fan, and the planned location on the specific building. See "Technical data".

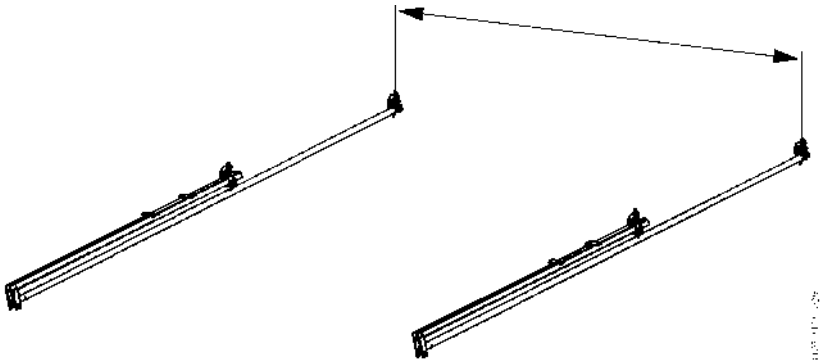


Figure 27. Place the frames with the correct c-c spacing

Fitting tubes to the protection fan net

Before the tubes are threaded into the net, it is helpful to mark the planned position of the couplers on the tubes, i.e. the distance between the frames, should be marked out.

1. Thread the tube through every other mesh in the net.

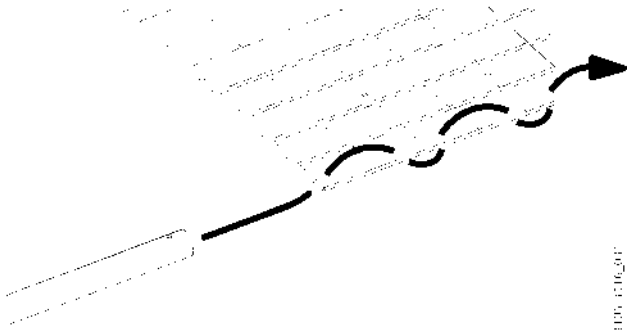


Figure 28. Threading the tube into the protection safety fan net

2. Secure the corner of the net through the hole in the end on the tube with plastic ties. Ensure that the ties run around the edge of the net. Tighten the tie and cut off any surplus.

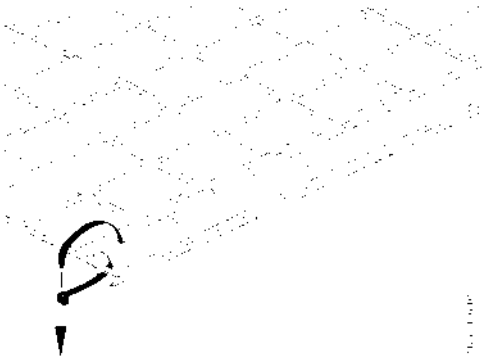


Figure 29. Securing the protection fan net to the ends of the tubes

3. Thread the tubes along both long sides and secure the four corners of the net.

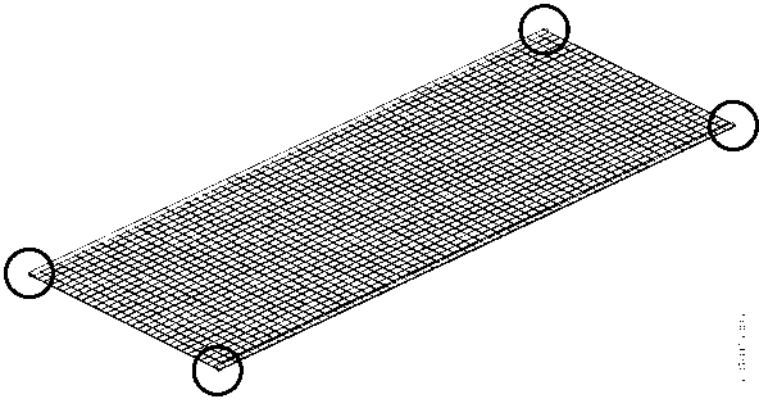


Figure 30. Secure all four corners

Fitting tubes to the fall-arrest net

1. Thread the tubes through the hemmed edge in the net.

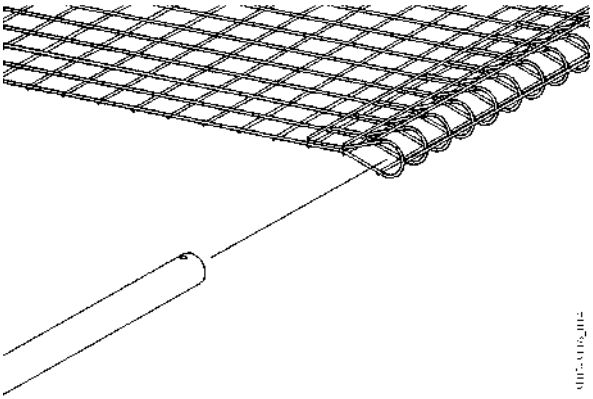


Figure 31. Threading the tubes to the fall-arrest fan net

2. Secure the corner of the net through the hole in the end on the tube with plastic ties. Ensure that the ties run around both edges of the opening on the net. Tighten the tie and cut off any surplus.

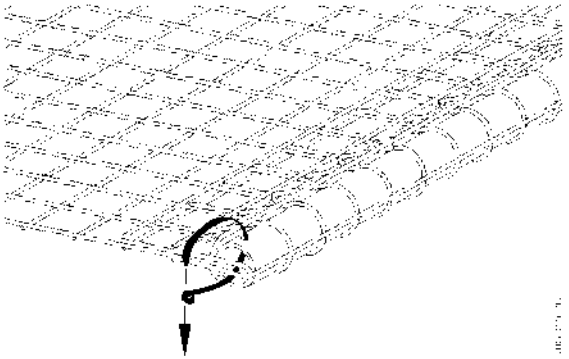


Figure 32. Securing the fall-arrest safety fan net to the ends of the tubes

3. Thread the tubes along both long sides of the net and secure the four corners of the net.

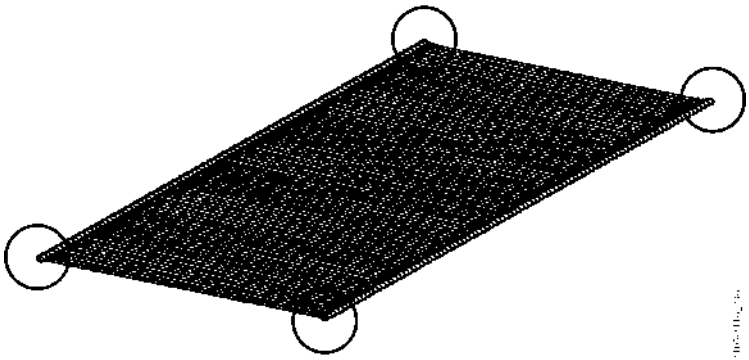


Figure 33. Secure all four corners of the net

Attaching the net to the frames and tubes

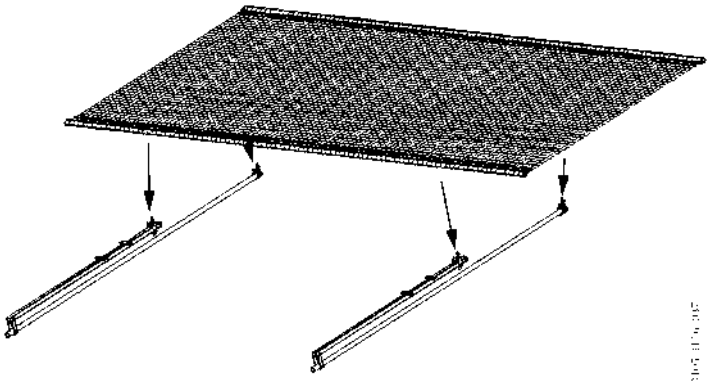


Figure 34. Secure the fan to the frames and tubes

NOTE

It is important that the net is positioned correctly. The label on the net must always be nearest the frame (in towards the building).

The debris net with a 20 x 20 mm mesh must always be on top.

1. Place the net with the aluminium tubes on top of the frames. The safety net fans include measurement decals, which facilitate positioning. Fit the inner tube in the couplers on the frame and ensure that the frames pass through the net outside the tube. This is different on the protection and fall-arrest fans.

   A) Protection safety net fan
   Thread the frame through the net in a mesh as close to the tube as possible. Position the tube in the square-round coupler and ensure that only one mesh cord net yarn comes into the coupler.

B) Fall-arrest safety net fan
The edge of the fall-arrest safety net has colour markings in the-opening where the frame should be threaded through the net. The blue side must be against the frame-and the square-round coupler, and the yellow side must be out towards the tube. Find the opening and thread the frame through. Place the tube in the coupler and ensure that no part of the net gets caught in the coupler.

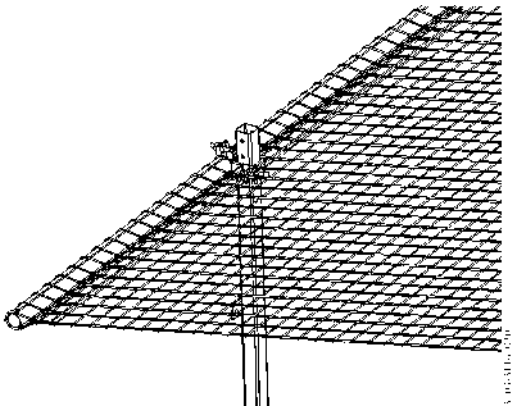


Figure 35. Thread the frame through the net.

NOTE

If the safety net fan is not used together with the slab attachment, a bolt and nut must be fitted in the hole on the fame, so that the square-round coupler cannot slide off the frame.

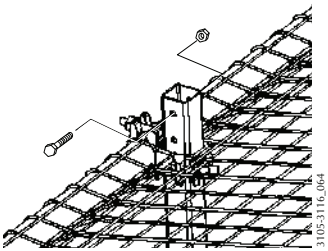


Figure 36. Bolt

2. Make sure that the net goes around the frame. This is important when the slab attachment is used so that it can be threaded through the net and into the frame. Tighten the couplers.
3. Place the outer aluminium tube in the couplers on the raking tubes. Make sure that no mesh cords are caught in the coupler. Remember to tighten the coupler.

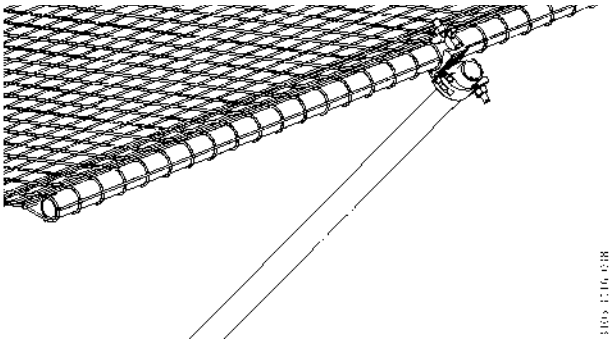


Figure 37. Assemble the outer tube on the raking tube

4. Tie a rope, 5 metres long, Ø12 mm between the inner and outer tubes in the centre of the safety net fan. This rope will be used to fold up the safety net fan.
5. The safety net fan is now assembled and ready for use.

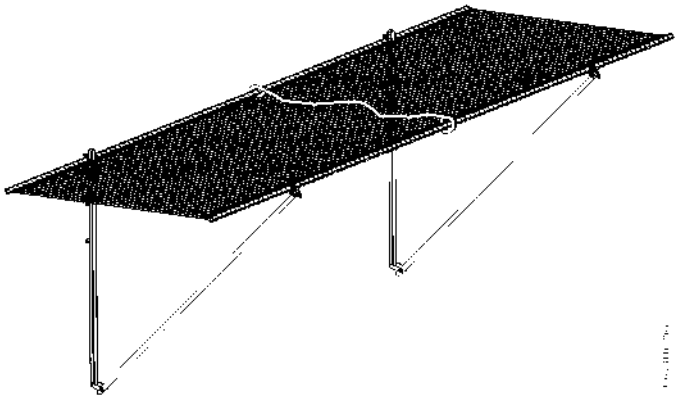


Figure 38. Assembled safety net fan

Positioning limits according to EN1263-2

Positioning limits are set out in EN1263-2 and only apply to the fall-arrest safety net fan.

According to "EN1263-2 Safety nets: Part 2: Safety requirements for the positioning limits", a fall-arrest fan designed to catch persons must be positioned in accordance with the following:

- For a working surface sloping less than 20° the maximum fall height is 6 metres.
- For a working surface sloping more than 20° the maximum fall height is 3 metres.
- The minimum free height below the safety net fan (f) must be at least the height of the safety net fan. Nothing must obstruct the area below the net, within the length of the frames.

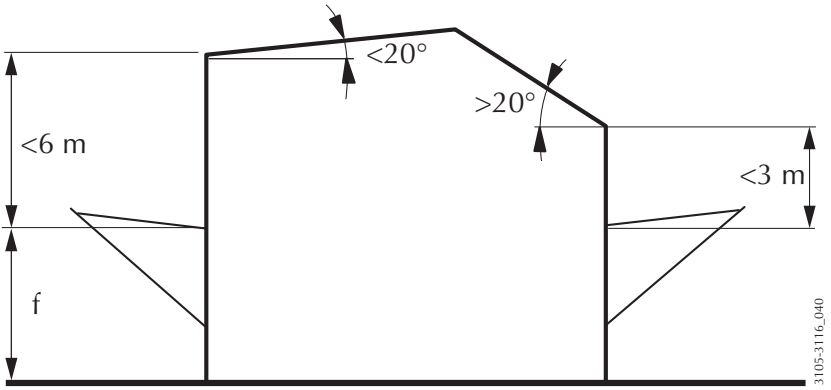


Figure 39. Maximum fall heights

While the fall-arrest safety net fan has been tested and approved for fall heights of 6 metres, Combisafe recommends that the safety net fan is positioned as close to the working area as possible. Falling into a net is never completely risk free and the lower the fall, the less the risk of injury.

Installation

Anchorage loads

Attachments must always be anchored to the building, i.e. it is not enough to hang the safety net fan around a slab or on an attachment without fastening it.

These loads are for the fall-arrest safety net fan.

- The maximum pull-out load on the anchor when the safety net fan is secured to a facade is 16 kN.
- The maximum shear load on the anchor when the safety net fan is secured on a slab is 10 kN.
- These loads are dynamic impact loads.

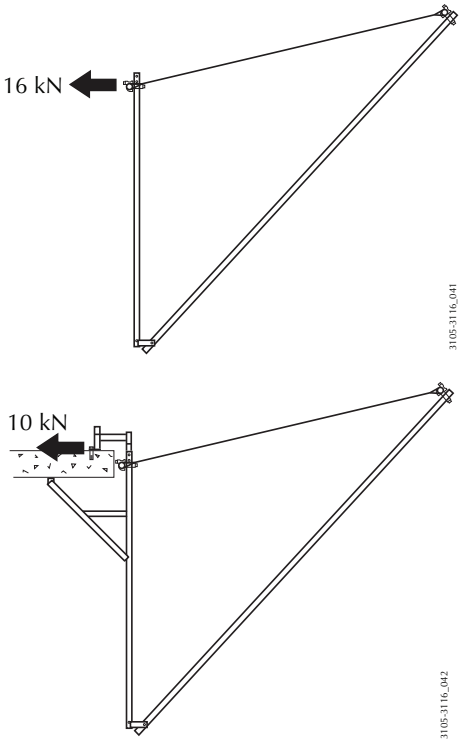


Figure 40. Anchorage loads

Assembling the slab attachment and knee brace

1. Assemble the knee brace on the frame using four M10 x 30 bolts and nuts.

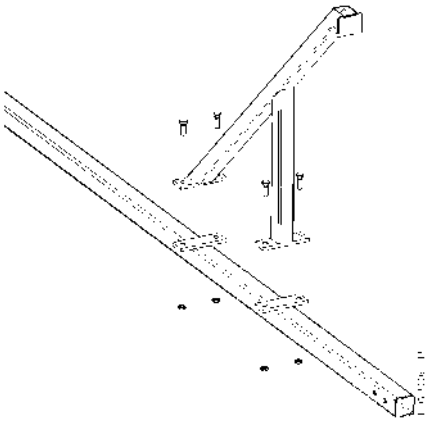


Figure 41. Assembling the knee brace on the frame

2. Assemble the slab attachment on the frames using an M12x70 bolt and nut. Adjust the slab attachment according to the thickness of the slab.

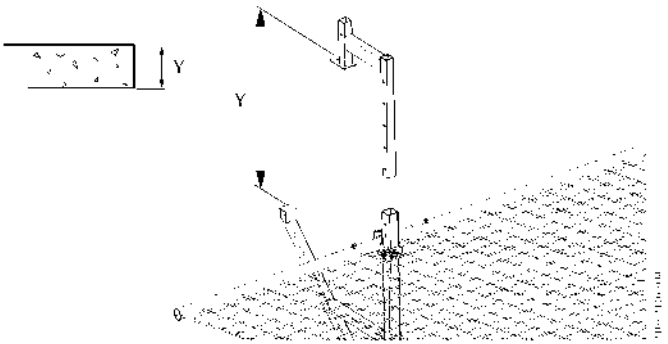


Figure 42. Assembling the slab attachment on the frames

3. The safety net fans are now ready to be lifted into position. See the section “Overlap” and “Lifting”.

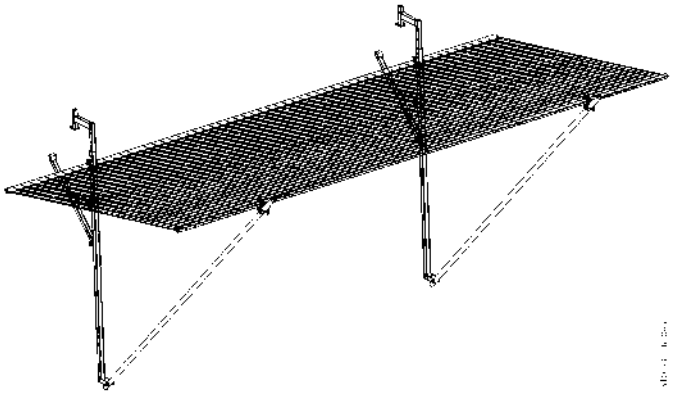


Figure 43. Safety net fan ready for installation on the slab

4. Lift the safety net fan into position and anchor it to the slab, see the section “Anchorage loads”.

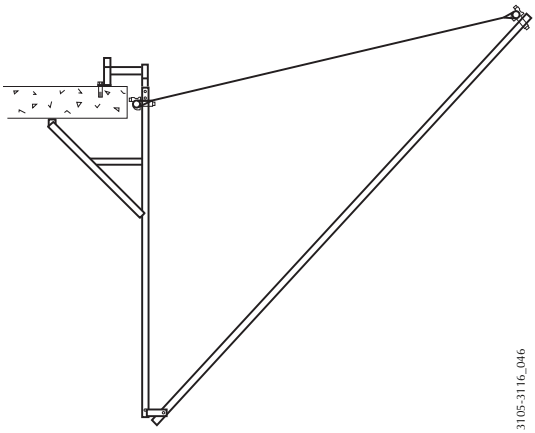


Figure 44. Safety net fan lifted into position

Installing within the facade attachment

1. Facade attachments can all be fitted at the same level. The overlap is created using the two levels within the facade attachment. This also means that the square-round coupler on the frame can be placed at the same level on all the fans. Check that the anchorage or form tie and the structure is capable of accepting loads stated in “Anchorage loads”

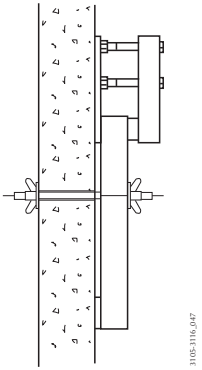


Figure 45. Facade attachment installed through a wall

2. The spacing between facade attachments can be adjusted to suit the site conditions, however, the facade attachments must be placed at a maximum of 0.5 metres from the frames. Attachments can be placed on either sides of the frame.

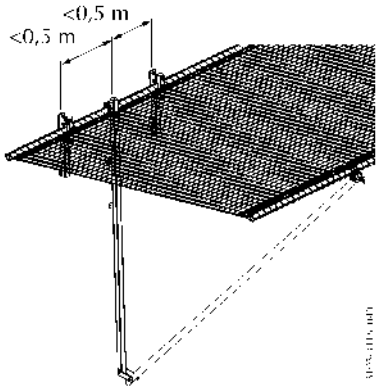


Figure 46. Positioning of the facade attachment

3. Use the level positions within the facade attachments to create the overlap: Pos. 1 - Lower fans and Pos. 2 - Upper fans. See the section “Overlap”.

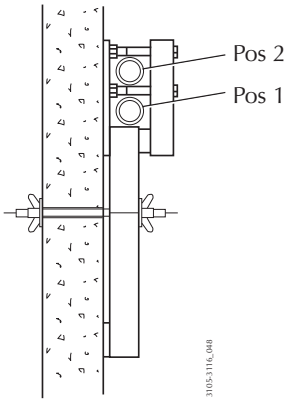


Figure 47. Levels within the facade attachment

4. Lift the safety net fan into position on to the facade attachments. Secure the safety net fan with M12 x 110 bolts. See the section “Lifting”.

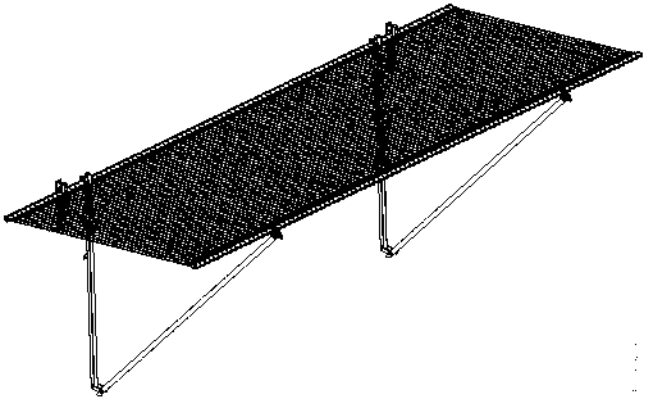


Figure 48. The safety net fan installed within the facade attachment

Installing within the scaffold attachment

1. Fit the scaffold attachments on to the scaffold standards at the same level. The overlap is created using the two levels within the scaffold attachments. This also means that the square-round coupler on the frame can be placed at the same level on all the fans. Check that the scaffold is capable of accepting the loads stated in the section “Anchorage loads”.

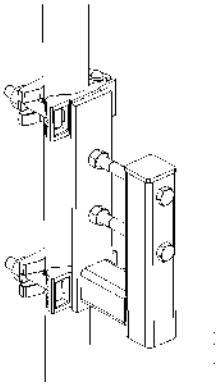


Figure 49. Scaffold attachment installed on a standard

2. The spacing between the scaffold attachments can be adjusted to suit the scaffold in question, however, the attachments must be placed at a maximum of 0.5 metres from the frames in the safety net fans. The attachment can be positioned either sides of the frame. A common solution is to use a 4 metre safety net fan for each 3 metre section of scaffold, which gives an overlap of 1 metre.

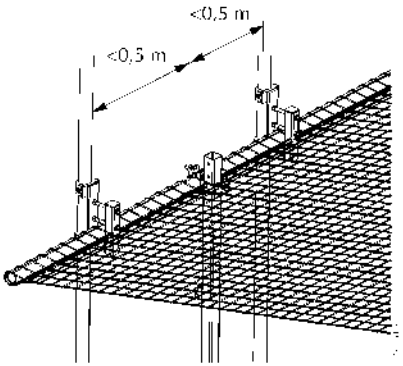


Figure 50. Positioning the scaffold attachment

3. Use the level positions within the scaffold attachment to create the overlap: Pos. 1 - Lower fans and Pos. 2 - Upper fans. See the section “Overlap”

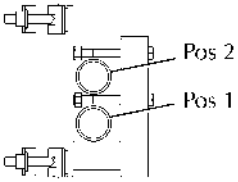


Figure 51. Levels within the scaffold attachment

4. Lift the safety net fan into position on to the scaffold attachments. Secure the safety net fan with M12 x 110 bolts. If lower part of the frame is not automatically supported by one of the horizontal members in the scaffold, an extra horizontal tube is fitted to the safety net fan using two, square-round couplers. See the section “Lifting”.

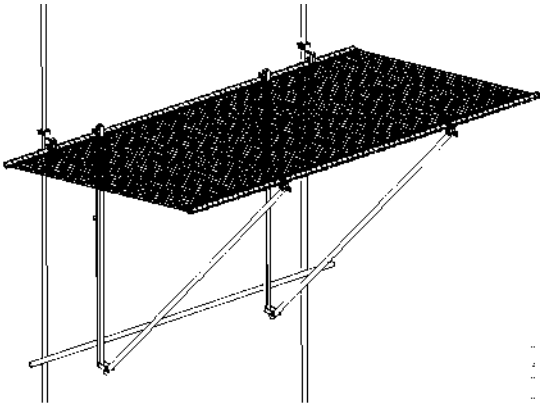


Figure 52. Safety net fan installed on a scaffold with the scaffold attachment

Installing using the multi-clamp

1. Fit two elbows on the multi-clamp as shown and assemble the multi-clamp over the edge of the wall/upstand. Check that the structure is capable of accepting the loads stated under “Anchorage loads”.

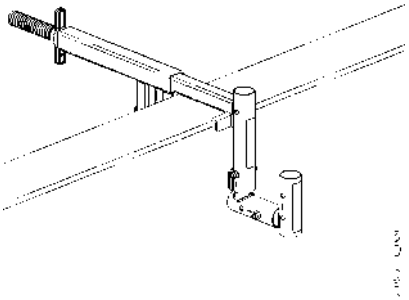


Figure 53. Multi-clamp with elbows installed on a wall top/upstand

2. The multi-clamps must be placed at a maximum of 0.5 metres from the frames in the safety net fans. The multi-clamp can be placed on either side of the frames.

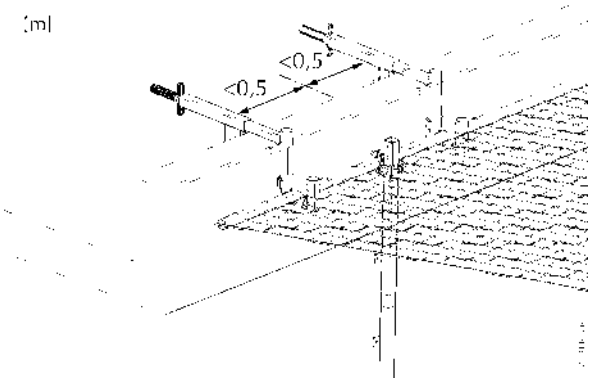


Figure 54. Positioning the multi-clamps

3. Create an overlap by placing the safety net fans on top of each other whitin the elbows.

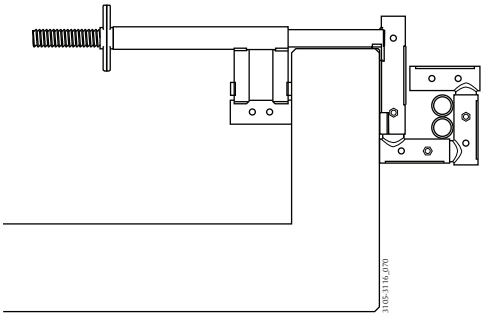


Figure 55. Overlaps within the multi-clamp with elbows

4. Lift the safety net fan into position on to the multi-clamps. Secure the safety net fan using another elbow as shown.

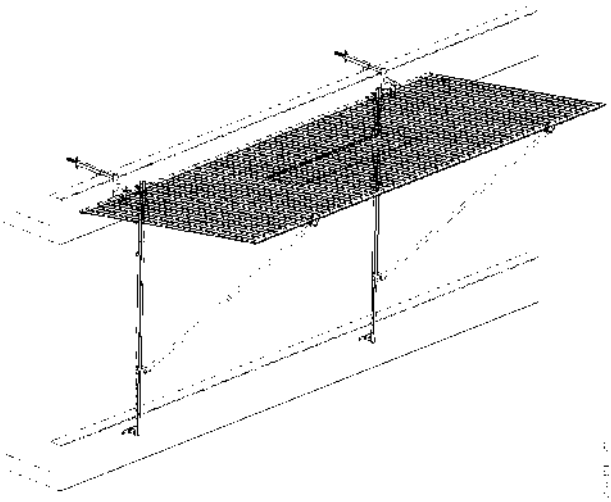


Figure 56. The safety net fan installed with the multi-clamp

Installing using with steel jaw clamp

1. Install two steel jaw clamps on the beam. Check that the beam is capable of accepting the loads stated under “Anchorage loads”.

Figure 57. Steel jaw clamp on a beam

2. The steel jaw clamps must be positioned a maximum of 0.5 metres from the frames in the safety net fan. The steel jaw clamps can be placed on either side of the frames.

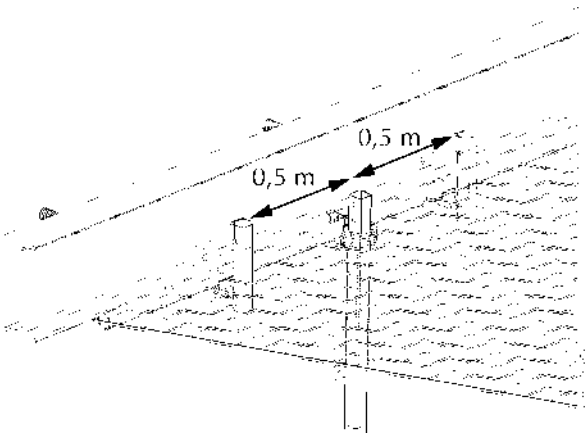


Figure 58. Positioning the steel jaw clamps

3. Create an overlap by placing the safety net fans on top of each other within in the steel jaw clamps.

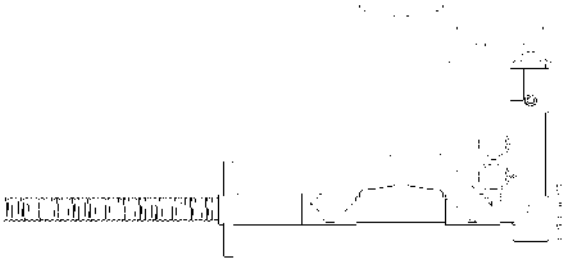


Figure 59. The safety net fan in the steel jaw clamp with elbow

4. Lift the safety net fan into position on the steel jaw clamps. Secure the safety net fan using the elbow.

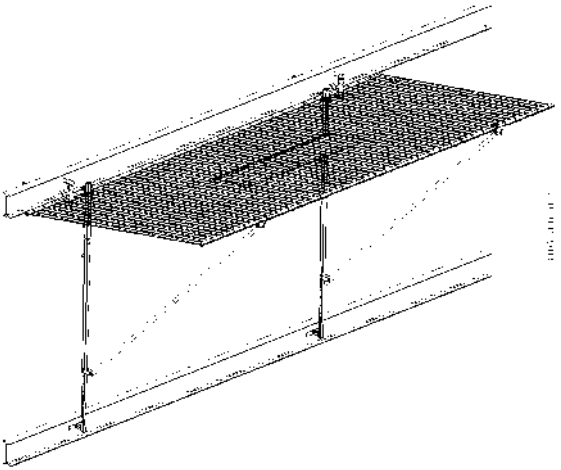


Figure 60. The safety net fan installed with the steel jaw clamp

Using the extension

1. Assemble the extension using M12 x 70 bolt and nut at the bottom of the frame. Adjust to length.

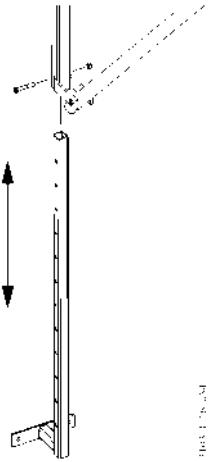


Figure 61. The extension in the safety net fan frame

2. The safety net fan is now ready to be lifted into position. (No attachments are shown in the illustration)

Figure 62. Safety net fan with extension

3. If there is a risk that the extension can slide off of the supporting surface it can be fixed in position using an anchor.

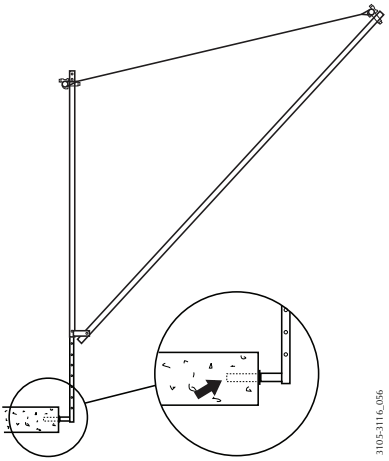


Figure 63. Extension anchored to the slab

4. If the extension is supported on a steel beam which prevents it from sliding, further fixings are not required.

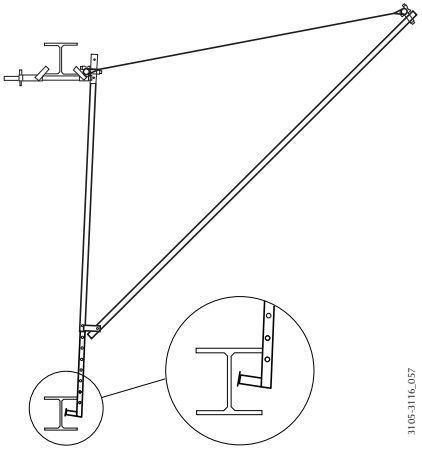


Figure 64. Safety net fan with extension supported on a steel beam

Rescue from the net

A rescue plan should be drawn up before starting to use the safety net fan as a fall-arrest fan.

In most cases involving a fall into a safety net fan, the fall height is low and the faller can climb/roll out of the net themselves.

In the event of a fall where the person cannot climb out of the net by themselves a visual assessment must be made by a competent person to decide the choice of rescue method. The following rescue methods can be used:

- A competent rescuer can descend to the injured person by abseiling equipment and:
  - Assiste the faller out of the safety net.
  - Lift the faller out of the safety net using rescue equipment.
  - Connect to the faller and abseil down to the ground by cutting a hole in the safety net if necessary.
- If the equipment is available, a cherry-picker or similar access equipment , can be used so that for example, the fire brigade can come up under the safety net with a stretcher secured to the cage; fasten the person to the stretcher and then cut a hole in the safety net.

Safety instructions

The safety net fans must be installed by competent personnel, training is strongly recommended.

A safety net fan that has arrested the fall of a person or heavy object (causing permanent deformation of the net) should be withdrawn from service and the net destroyed.

The safety net fan must be inspected before each occasion of use and on a regular basis when installed on site (not less often that every seven days).

Always use suitable personal safety equipment when assembling and installing the safety net fan.

Check that the couplers have been tightened properly and sit firmly before lifting and installing the safety net fan.

Maintenance

To ensure their continued fitness for use, handle safety net fans with care. Damaged safety net fans must be fully reconditioned before use.

Reconditioning must be carried out by competent personnel.

Never adjust or straighten aluminium components. A bent aluminium part must be replaced, never re-used.

The net within the safety net fan must be examined annually. See the section “Inspection”

Inspection

Fully inspect the safety net fan before putting it into service, checking for damage and net deformation.

Frame

Aluminium components must not be bent. Never straighten bent aluminium components.

Check steel and aluminium parts for:

- Cracks in welds
- Deformation
- Rust
- Damage
- Wear
- Visible Combisafe labelling and ID number
- No sharp edges

Safety net

Check the safety net for:

- No damage to mesh cords
- No damage to border ropes
- Visible Combisafe labelling and ID number
- Existing test cords
- Evidence of approval to the EN standard

Tested and approved safety nets must have an addition label confirming the status of the net.

If in doubt, consult Combisafe!

Inspection of the assembled safety net fan

- Are the couplers tightened correctly so that they cannot slide?
- When a slab attachment is not used, is the stop screw fitted above the square-round-coupler so that it cannot slide off the frame?
- Is the bolt between the frame and the tube fitted correctly?
- Are the lift slings fitted correctly, so that they can be attached to the crane?
- Have the nets been inspected and do they conform to EN1263-1?
- Are the anchor points strong enough?
- Is the overlap at least 0.75 metres (fall-arrest safety net fan)?
- Should the safety net fan have been tied up taken down due to wind loads?
- Is there debris in the safety net fan?
- Have the safety net fans been correctly laced?
- Do the safety net fans have adequate support, does the facade need to be protected?

Annual inspection
It is recommended that the safety net fan be examined annually unless otherwise stated in national regulations.

NOTE

The safety net test cord must be tested annually. The test cord can be sent to Combisafe or another accredited testing institute.

Labels on the safety net fan indicate when the next test cord must be sent for testing.

Circumstances in which the product must be withdrawn from service
Do not use products that do not pass the checks set out above.

Safety net fans that do not pass the test cord test must be taken out of service. If however, the last test cord passes the test, the safety net fan con be used for one more year and then be taken out of service.

When a test cord passes a test a label is issued confirming this and indicating the next date for testing. The label must be attached to the safety net fan.

Storage

Safety net fans must be stored in a dry and well-ventilated place, protected from the weather and all forms of corrosive substances.

Discarding

The frames and attachments for fall-arrest safety net fans that no longer meet the inspection criteria are to be recycled as steel and aluminium.

A safety net fan that no longer meets the inspection criteria is to be scrapped as polypropylene, border cord and protection safety net as nylon.

Declaration of conformity

For fall-arrest and protection safety net fans with accessories.

SP STATEMENT

Combisafe International AB
Storsjöstråket 15
SE-831 34 Östersund

Handläggare / Author / Utförare av uppdraget
Sven-Agne Nilsson, Building and Mechanics
+46 (0)33 16 52 15, sven-agne.nilsson@sp.se

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2004-03-17

Statement concerning safety net fan

1 Introduction

Safety net fan type HD from Combisafe International AB, Östersund, Sweden, has been tested according to type **T** in SS-EN 1263-1 "Safety nets – Part 1: Safety requirements, testing methods" edition 1

The tests are presented in Report P203952, dated 2003-02-11.

2 Statement

The safety net fan consist of applicable parts of the articles nos. 3116, 3106, 10044, 10051, 10439 and 10435. Fitting is to be made according to the mounting instructions in the appendix to Report P203952.

Safety net fan type HD conforms to the requirements stipulated by SS – EN 1263-1 for type **T**.

SP The Swedish National Testing and Research Institute
Building Technology and Mechanics – Solid Mechanics and Structures

Erica Waller
Technical Manager

Sven-Agne Nilsson
Technical Officer

This is a translation from the Swedish original document. In the event of any dispute as to the content of the document, the Swedish text shall take precedence.

SP Sveriges Provnings- och Forskningsinstitut, Box 857, 501 15 BORÅS, Tfn 033-16 50 00, Fax 033-13 55 02, E-post info@sp.se, Org.nr 556464-6874
SP Swedish National Testing and Research Institute, Box 857, SE-501 15 BORÅS, SWEDEN, Telephone +46 33 16 50 00, Telefax +46 33 13 55 02, E-mail info@sp.se, Reg. No. 556464-6874

Figure 65. Statement

RIDGEWAY

Belfast:
103 Airport Road West
Belfast
Co. Down
BT3 9ED
Tel: +44 (0) 28 90454599

Ashbourne:
Unit 1 & 2 Greene Park
Ratoath Road
Ashbourne
Co. Meath
A84 XD98
Tel: +353 (01) 802 7173

Web: www.ridgeway-onilne.com
Email: info@ridgeway-online.com