

Sole

- technical User Guide



This manual is intended for technicians, installers, therapists and other personnel, in connection with the use, servicing and maintenance of the Ergolet Sole lifter.
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Important - warning
This manual must be read before Sole is used

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93/42/EØF CLASS I
EN ISO 10535
EN 60601-1-2

1.1 PURPOSE

Sole is a mobile lifter designed to transfer clients in institutions such as nursing homes, hospitals, handicap centres and in home care. Transfer situations include short transfers from a bed to a chair/wheelchair, from a wheelchair to a toilet/commode, from a wheelchair to another chair and for clients up to 175kg. Never use the Sole lifter for other purposes than originally intended.

Using Sole preconditions the following:

- Personnel have received qualified instruction in using the Sole lifter.
- The lifter has been assembled correctly and according to these instructions.
- Use of the Sole does not endanger any person by trapping/squeezing during the lifting situation.
- The Sole lifter has been developed for use with Ergolet lifting slings and other sling products authorised by Ergolet. See Ergolet's sling leaflet for specific information about authorised models.
- Sole should be stored at normal indoor temperatures (+2 – +40degreesC) and relative humidity (40-90%)

1.2 SAFETY INSTRUCTIONS

This User Guide must be read thoroughly before Sole is taken into service.

- All parts must be mounted correctly according to this guide.
- There must be no indication of wear on the Sole lifter or lifting sling.
- NEVER begin lifting if there is a suspicion of any defect (abnormal sound, loose brackets etc.) In such cases the lift must be taken out of service immediately and your dealer or Ergolet contacted.
- Lifting capacity of Sole is 175kg, and must never be exceeded. When using Sole in connection with other components eg. slings it is always the component with the LOWEST capacity that decides the maximum lifting capacity.
- Ensure that neither carers/helpers nor clients/users can be hurt during the lifting.
- Never lift higher than necessary in the actual lifting situation.

1.3 DAILY CHECK

The carer/helper is responsible in ensuring that a visual check is carried out BEFORE Sole and accessories are used, including the following:

- 1) Lifting slings are checked for damage especially as regards lifting straps and tears in the material. The slings must not be used if defects are detected.
- 2) Check that no parts of the lifter are missing.
- 3) If any abnormal sound is heard from Sole the lifter must not be used before personnel authorised by Ergolet have carried out a safety check on the unit.
- 4) Check for any signs of rust, surface damage or breakage to the lifter.
- 5) If in any doubt concerning Sole or lifting slings contact Ergolet for advice and guidance.

General: see section 5.1 annual check.

1.4 TERMINOLOGY

Sole

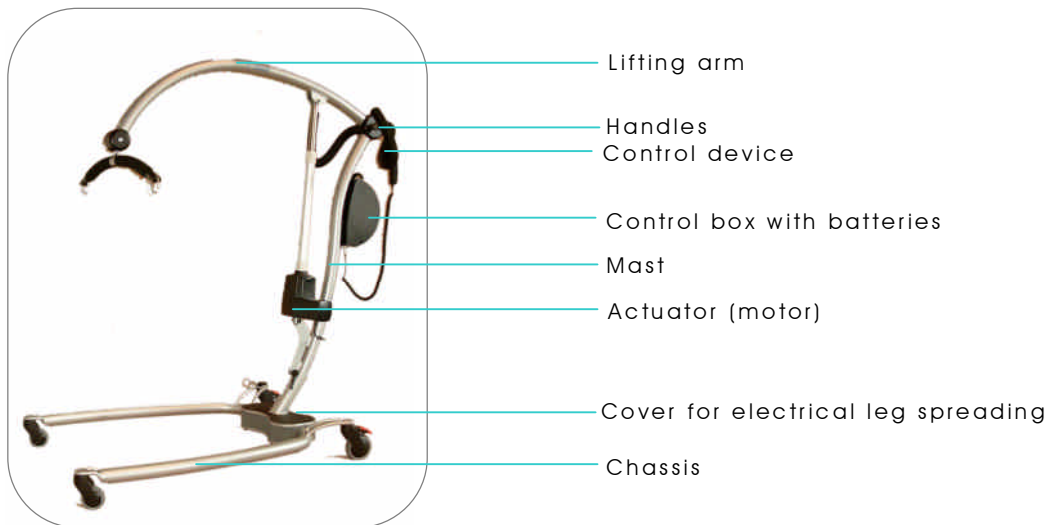


Fig. 1.4A

1.5 UNPACKING

Check that all the parts are present and undamaged. Any suspicion of damage or shortage should be reported to your dealer or Ergolet. We recommend that the box packaging be kept if Sole is to be used on other sites or for return shipment in case of repair or annual check.

Ensure that no accessories remain in the box (see illustration).

Contents of the box

- a. Chassis
- b. Mast and arm
- c. Spreader bar
- d. Actuator
- e. Control box
- f. Control device
- g. User Guide
- h. Charger
- i. Check list
- j. Pushing handles



Fig. 1.5A

1.6 ASSEMBLING FAUN

Follow the step by step instructions below to ensure trouble free assembly modes:

Place the chassis on the floor and brake the wheels. Fig 1.6A

Place the mast section above the corresponding bracket on the chassis. Fig 1.6B

Connect the motor cables using the push connectors. Ensure that red is connected to red and blue is connected to blue. Fig 1.6C

Push the cables up into the mast section before allowing the mast to slide into the chassis bracket.

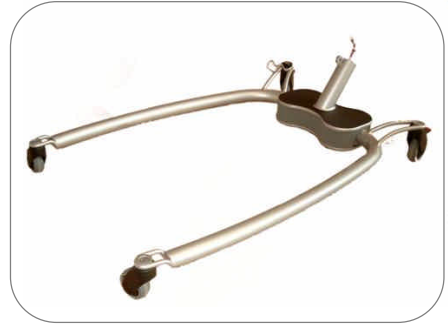


Fig. 1.6A

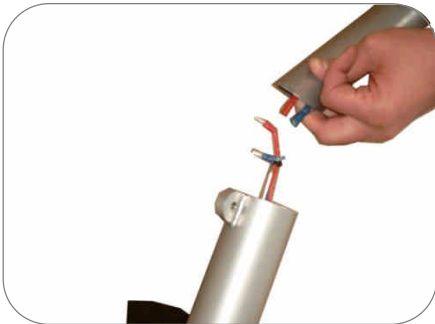


Fig. 1.6B

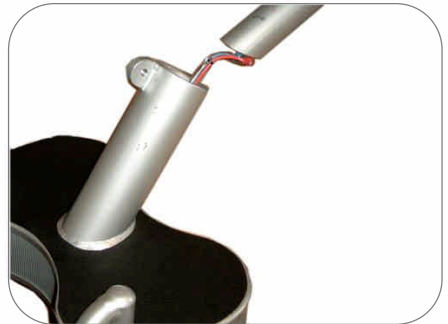


Fig. 1.6C

Position the hand held tightening bolt in the corresponding hole and tighten. Note that hand held bolt cannot be placed in the hole unless the mast is fully and correctly placed onto the chassis. Fig. 1.6D



Fig 1.6D

Plug the control device into the corresponding socket on the electrical control box. Hand tighten the nut on the plug.

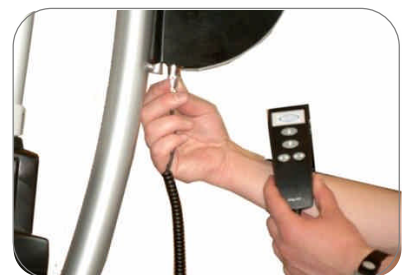
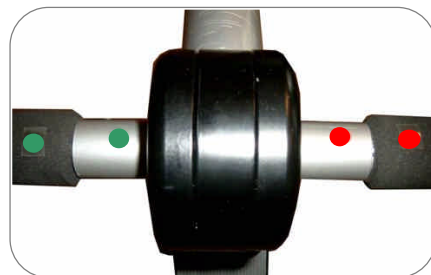


Fig. 1.7

To mount the pushing arms use the Allen key included in the box see Fig. 1.6I
 On the right side red against red and on the left side green against green. See Fig. 1.6H



1.7 LIFTING SLINGS

Sole is equipped with a spreader bar (pat. pending) designed for use with Ergolet lifting slings. Ergolet lifting slings have 4-6 lifting straps and are designed for lifting hooks larger than $\varnothing 8\text{mm}$. Use of non authorised slings will rend Ergolet's responsibility for faults and accidents null and void.

Ergolet can assist in choosing slings and also offer training sessions in transfer techniques and the correct use of slings. In the leaflet Sole Ergonomics there is specific advice for transfer situations.

Hanging slings on the Ergolet spreader bar

Ergolet accepts no responsibility if slings are placed incorrectly, it is always the onus of the carer/helper to ensure that the sling is correct for the situation needs and is correctly mounted.

The sling strap is placed over the hook in its open position. (Fig. 1.8A)

The strap is pulled downwards so that the hook closes. (Fig. 1.8B)
 The design of the lifting hook is such that the weight of the client/user will help close the hook.

To release the strap after lifting simply pull upwards to open the hook.
 Note: Risk of finger entrapment – ensure that clients fingers cannot be trapped

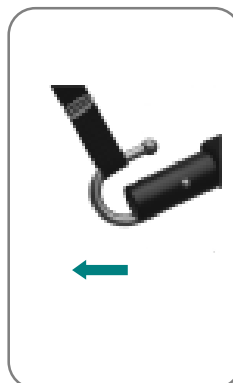


Fig. 1.8A

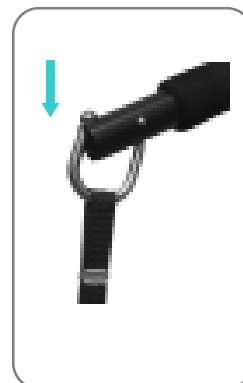


Fig. 1.8B

2.1 PICTOGRAMS AND FUNCTIONS – CONTROL BOX

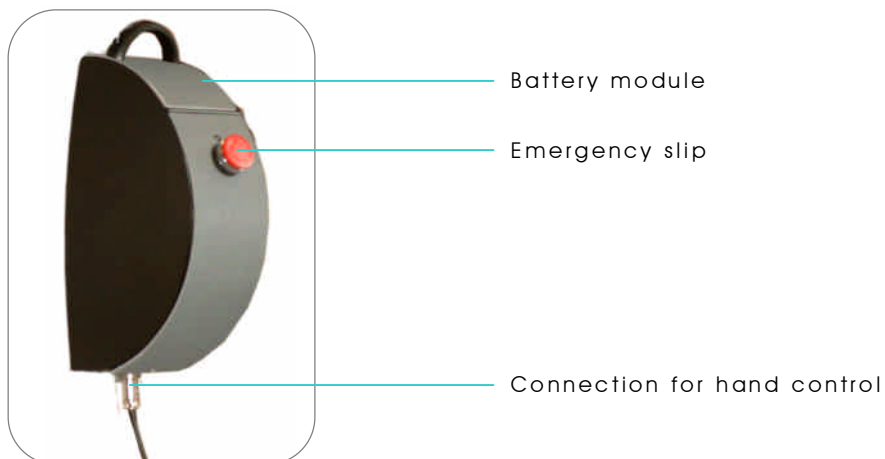


Fig. 2.1A

2.2 PICTOGRAMS AND FUNCTIONS – HAND CONTROL



Fig. 2.1B

1. Hand control basic (Fig. 2.1B)

The control device has functions for up/down and leg spreading:
In addition there is electronic emergency lowering.

2.3 OPERATION AND TECHNICAL

Place the hand control in the socket (see section 1.6) on Sole which is now ready for use.

Note: Ensure that the emergency stop button is in the "out" position.

The Sole lifting arm will move faster when not loaded in order to reach the client without too much waiting time. When the client is lifted the speed will automatically reduce to increase comfort and security for the client.

Sole is intended for indoor use under normal temperatures (+2 til +40degrees C) and relative humidity (40 –90%). The unit should be protected against sudden changes in temperature/humidity since these can damage the lift functions.

2.4 SAFETY FUNCTIONS

Emergency stop: This function is only to be used in an emergency eg. if Faun does not react or does not stop after releasing the control operation. This button stops all functions immediately.
If this function has been activated due to an emergency Sole must not be used again before a check has been made and any defect repaired. If in any doubt contact an authorised dealer or Ergolet



Emergency lowering handle: This is also only to be used in an emergency where it is necessary to safely lower a client. If this function has been activated due to an emergency Sole must not be used again before a check has been made and any defect repaired. If in any doubt contact an authorised dealer or Ergolet.
Pulling this handle in an upward direction will cause the lifting arm to slowly lower itself if a client is in the process of being raised.
It is a hold to run device.



2.5 CHARGING

Sole has the following two possibilities:

1) Wall/table charger

Move Sole to the charging station, place the hand control onto the charger after which charging starts automatically.

2). This charging method is an option and must be ordered in advance.
Remove the battery module from the electrical box, place this in the external charging station after which charging will start automatically.
The extra battery is used on the Sole whilst the charging is underway.

Sole is fitted with batteries that require regular charging. Ergolet recommends that Sole is charged every night or when the unit is not in use. Sole is fitted with a diode (marked batt.) which gives the following information concerning battery condition during use:

Sole cannot be overcharged

- Indicates that there is a power connection at the electrical box contact.
- When the batteries are fully charged the diode shines green.
- When the batteries are approx. 50% the diode shines yellow – at this point it is recommended that Luna is put on charge.
- If the batteries reach a critical point the diode will shine red and at the same time an acoustic ("beep, beep" signal) will be heard. Luna must IMMEDIATELY be put on charge in this situation.

2.6 TRANSPORT

Ergolet Sole lifter is most safely transported using the original packaging.

Symbols are printed on the packaging to ensure the best information to carrier companies

3.1 USING SOLE

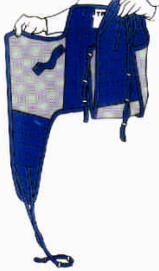
Sole is ready for use if all the assembly instructions have been followed.

3.2 TIPS FOR USING SLINGS

STANDARD SLING

Important! The sling is positioned such that the back support is placed all the way down the back. If the chair has arm rests then the leg sections must be placed first, in order to get the back support down. Check and ensure that the sling is undamaged. Damaged slings must not be used. Check the slings at regular intervals and always before using. If in doubt consult your dealer.

Picture 1



Picture 2



Picture 3



Picture 4



LIFTING FROM SITTING POSITION

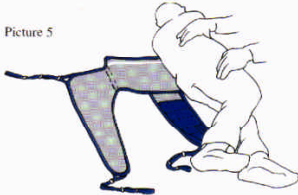
Hold the sling with the label away from you.
Fold the right hand side as shown.
Fold the leg sections up. See picture 1.

Fold the left hand side in the same way.
See picture 2.

Place the sling behind the patient by pushing the back support all the way down the back.
See picture 3.

Pull the leg sections forward.
See picture 4.

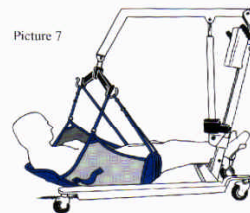
Picture 5



Picture 6



Picture 7



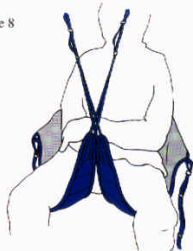
LIFTING FROM LYING POSITION

Placing a sling under a patient lying down.
Fold the sling as shown in picture 5.
Roll the patient onto one side and towards you.
The position is relevant when lifting from a bed or lifting a patient lying on the floor.

Roll the patient onto the other side and pull out the sling. See picture 6.

Place the patient as shown in picture 7 when lifting from the floor.

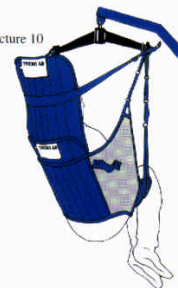
Picture 8



Picture 9



Picture 10



CROSSOVER LIIFT

The sling straps are threaded through each other. See picture 8. The straps have colour coding with different colours so that is easier to place the patient in different positions i.e. from an upright position to a semi-reclining position.

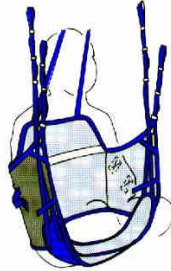
COMFORT LIIFT

Both leg sections are drawn under both legs.

All slings can be fitted with a head/neck support extension piece. The head/neck extension is fixed to the sling by means of velcro tape after which the straps are fixed to the hooks on the lift/hoist. All the slings are fitted with the velcro tape system sewn on both the lifting sling and the head/neck extension.

USER GUIDE

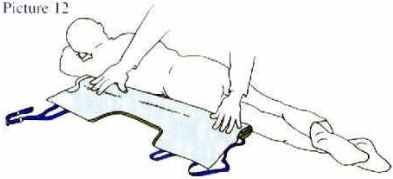
Picture 11



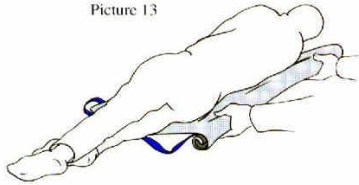
AMPUTATION SLING

The sling is used in a so called comfort lift situation. See picture 9
The straps are fed on the inside and outside flaps respectively of the side sections.
The straps are then fixed onto the hooks of the spreader bar. See picture 11.

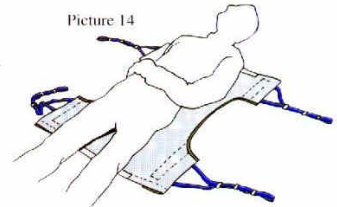
Picture 12



Picture 13



Picture 14



FULL SLING

The sling is folded in half.
Roll the patient towards you after which the sling is placed as shown in picture 12.
The sling is placed so that it is level with the knee joint.
See picture 12.

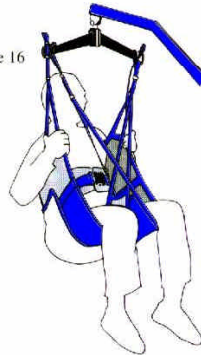
The patient is rolled over onto the sling.
Pull the sling forward as shown.
See picture 13.

Roll the patient back onto the back section. See picture 14.

Picture 15



Picture 16



UNIVERSAL SLING

The universal sling is placed above the waist band. Click the snap lock and tighten the chest strap.
Position the leg section in a cross over lifting position. See picture 8.

Place the sling as shown in picture 16.

4.1 CLEANING

The actuator (motor), electrical box and battery module may be cleaned using a slightly damp cloth with a small quantity standard household cleaning agent. Chemicals and other strong/abrasive agents must not be used. Sole cannot under any circumstance be autoclaved.

4.2 STORAGE

Sole must be stored in a dry environment with relative humidity between 40 - 90%

Sole will enter the standby mode after 1 hour??????

If Sole is not to be used over a longer period of time it is best to fully charge the unit before putting in storage.

4.3 SPECIAL ENVIRONMENTS

Sole is not intended for use in aggressive environments eg. leisure center swimming pools etc. For these situations please contact your local dealer.

5.1 ANNUAL CHECK

Sole must always be maintained by qualified and authorised personnel who have been approved by Ergolet for replacing batteries, chargers, checking lifting straps and other components

The manufacturer Ergolet A/S, stipulates that this lifter MUST be checked by a qualified and authorised person at least once a year. This annual check is also recommended in the relevant European Standard (EN ISO 10535) for patient lifters/hoists.

It is the onus of the buyer to ensure that this annual check is carried out and that the check is written in the logbook (section 5.2 Logbook). The logbook is held by the buyer

Ergolet's or other authorised service personnel will fill out the logbook after each annual check. If it is necessary to replace any parts due to wear or damage these must be obtained/purchased from Ergolet A/S.

5.2 LOGBOOK

Product name: Ergolet Faun
Serial number:
Date of purchase:
Guarantee period:

Supplier:
Packed and checked by (full name)
Pack date:

Check list

- Sole may only be serviced by Ergolet certified technicians
- The logbook may only be filled out by Ergolet certified technicians
- All repairs must be written in the log book after service or inspection
- The logbook must be signed

Must be filled put after each service check or inspection

Service type Before delivery Periodical inspection Smaller Larger

Report :

Replaced:

Date: Inspected by (full name) Company

Must be filled put after each service check or inspection

Service type Before delivery Periodical inspection Smaller Larger

Report :

Replaced :

Date: Inspected by (full name) Company

Must be filled put after each service check or inspection

Service type Before delivery Periodical inspection Smaller Larger

Report :

Replaced

Date: Inspected by (full name) Company

Must be filled put after each service check or inspection

Service type Before delivery Periodical inspection Smaller Larger

Report :

Replaced :

Date: Inspected by (full name) Company

If the logbook is full additional pages can be obtained from Ergolet or your dealer.

5.3 FAULT FINDING

Fault:

Faun does not react when the hand control buttons UP/DOWN are used,

The diode does not light up

Possible cause: Sole is not on
Emergency stop is activated
Deactivate emergency stop (see section (2.4))

Possible cause : Defect hand control
Solution: Check if the lift reacts using another hand device
Requires a new hand control from the dealer

Fault:

The lifting arm can travel up or down not both heard)
The electrical leg spreading can only move in or out not both

Possible cause : Fault in the electrical control box
Faultfinding: Defect control device or control box
Solution : Replace control device or control box

Possible cause : Loose connection in the hand control
Solution : New hand control

Fault:

Actuator is noisy or vibrates abnormally

Possible cause: Defect actuator or faulty assembly
Faultfinding: Actuator cannot move freely in the mountings
Defect actuator
Solution: Remount the actuator and ensure that it can move freely

Fault:

The lifting or leg movement is slow.

Possible cause : Power shortage.
Faultfinding: Batteries are low or defect.
Charger or charging connections are defect
Solution : Charge for min. 24 hrs. or replace batteries.
Replace charger

Possible cause : Defect charger
Faultfinding: If another charger is available try this
Request new charger

Possible cause : Connection from hand control to charger defect
Faultfinding: If another charger is available try this
Request new hand control

6. 1 TECHNICAL DATA AND SKETCHES

Lifting

Load capacity 175 kg
Lifting interval 31 - 185 cm
Number of lift movements with 175 kg approx. 40-50
(refer to Ergolet A/S for definition)

Chassis

C) Width of chassis (external) 67 - 107 cm
D) Width of chassis (internal) 58 - 93cm
E) Height of chassis (Back/Front) 15/12 cm
E) Length of chassis 107 cm
F) Diameter of wheels 100/75mm
Hoist reach max. 103cm (from pivot point)
Height to lower edge sling hooks at max. reach 121,5cm
Turning radius 125cm

Weight

Weight in total 46,5 kg
Heaviest component approx. 24 kg

Material

Powder coated steel

Standard RAL-colours

see leaflets

Electrical details

Power supply on lift 36V
Maximum current 10A
Protection class for electrical components IP 65

Noise

Lwa during lifting/lowering without load is 52dB(A)
Lwa during lifting/lowering at maximum load is 48dB(A)
More test results may be available by contacting Ergolet



7.1 ENVIRONMENTAL CONDITIONS

Sole has an expected lifetime of minimum 10 years under the assumption that all recommended service checks have been carried out and that the normal maintenance and care instructions have been followed.

Disposal of this mobile lifter lift can be made through Ergolet A/S. After Sole's useful lifetime Ergolet will receive the unit back and split the individual fractions in an environmentally friendly way either through reuse or recycling. Fractions that contain halogenes, aluminium, lead acid batteries, ABS plastic, steel may damage the environment if not handled in an environmentally responsible way.

7.2 BATTERIES AND THE ENVIRONMENT

Sole is equipped with 3 x 12Volt batteries which, at the end of their useful lifetime may be returned to the local recycling station or to Ergolet A/S.

7.1 ENVIRONMENTAL AND QUALITY CERTIFICATION

Ergolet A/S, the manufacturer, is certified according to the Quality standard 9001-2000, the Medical Device standard ISO 13485 and the environmental standard ISO 14001.

The lifter is classified as a Medical device Class 1 product.

8.1 ACCESSORIES AND SPARE PARTS

PRODUCTS:**Item number**

010-01301

Description

Sole

ACCESSORIES:**Item number**

017-00500

250-02101

017-00120

017-00125

Description

Discrete charger for battery module

Battery module with handle 36V

Weigh scale including spreader bar

Weigh scale complete w/o spreader bar

SPARE PARTS:**Item number**

019-00405

019-00866

019-00604

250-02101

018-04706

018-04803

019-00701

710-60260

710-60261

018-03213

018-03214

018-00607

018-00507

Description

Electrial box

Circuit board

Hand control

Battery module with handle 36V

Lifting actuator LA34310F-3L365141

Leg spreading actuator Re. GC (A 99.08.056)

Plug in (switchmode) charger complete

Plug in (switchmode) charger

Charging box

Brake wheel Mannor ø100mm-1pc. Red brake

MK-J-S-100PTE/K-10

Front wheel Mannor ø75mm 1 pc.

MK-S75PTE/K-1080SH

Foam for spreader bar

Foam for handles



Sole manuals

- Sole (sales catalogue/leaflet)
- Sole User Guide
- Slings and lifting guide (later)

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Fax: +45 58 37 31 72
e-mail: ergolet@ergolet.dk
Hjemmeside: www.ergolet.dk

Dealer: