

Instructions for use

Transport Supply Unit



WARNING

To properly use accessories, read and comply with all relevant instructions for use.

Transport supply unit

Trademarks

Trademark	Trademark owner
Evita®	Dräger
Infinity®	Dräger
Savina®	Dräger
Incidur®	Ecolab
Dismozon®	Bode Chemie

Safety information definitions

WARNING

A **WARNING** statement provides important information about a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

A **CAUTION** statement provides important information about a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or in damage to the medical device or other property.

NOTE

A **NOTE** provides additional information intended to avoid inconvenience during operation of the medical device.

Definition of target groups

For this product, users, service personnel, and experts are defined as target groups.

These target groups must have received instruction in the use of the product and must have the necessary training and knowledge to use, install, reprocess, maintain, or repair the product.

The product must be used, installed, reprocessed, maintained, or repaired exclusively by defined target groups.

Users

Users are persons who use the product in accordance with its intended use.

Service personnel

Service personnel are persons who are responsible for the maintenance of the product.

Service personnel must be trained in the maintenance of medical devices and install, reprocess, and maintain the product.

Experts

Experts are persons who perform repair or complex maintenance work on the product.

Experts must have the necessary knowledge and experience with complex maintenance work on the product.

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For your safety and that of your patients

General Safety Information

The following WARNING and CAUTION statements apply to general operation of the product.

WARNING and CAUTION statements specific to subsystems or particular features of the product appear in the respective sections of these instructions for use or in the instructions for use of another product being used with this product.

Strictly follow these instructions for use

WARNING

Risk of incorrect operation and of incorrect use

Any use of the product requires full understanding and strict observation of all sections of these instructions for use. The product must only be used for the purpose specified in "Intended use" on page 7.

Strictly observe all WARNING and CAUTION statements throughout these instructions for use and all statements on the product labels. Failure to observe these safety information statements constitutes a use of the product that is inconsistent with its intended use.

Maintenance

WARNING

Risk of malfunction of the product and of patient injury

The product must be inspected and serviced regularly by service personnel. Repair and complex maintenance carried out on the product must be performed by experts.

If the above is not complied with, failure of the product and patient injury may occur. See chapter "Maintenance".

Dräger recommends that a service contract is obtained with DrägerService and that all repairs are performed by DrägerService. For maintenance Dräger recommends the use of authentic Dräger repair parts.

Accessories

WARNING

Risk due to incompatible accessories

Dräger has tested only the compatibility of accessories listed in the current list of accessories. If other, incompatible accessories are used, there is a risk of patient injury due to product malfunction.

Dräger recommends that the product is only used together with accessories listed in the current list of accessories.

Product-specific safety information

WARNING

Risk of damage to the device or personal injury

Failure to observe the maximum loads permitted can cause the transport supply unit to tip over. Observe maximum loads, see "Technical data" on page 25.

CAUTION

Risk of damage to the device or personal injury

In the non-coupled state, the transport supply unit has limited tipping stability. Move the transport supply unit carefully when not coupled.

Intended use

The transport supply unit supplies a ventilator with gas (oxygen or medical compressed air) from one or two compressed gas cylinders.

The transport supply unit may only be used with Dräger ventilators as indicated in the respective list of accessories.

The transport supply unit can be used:

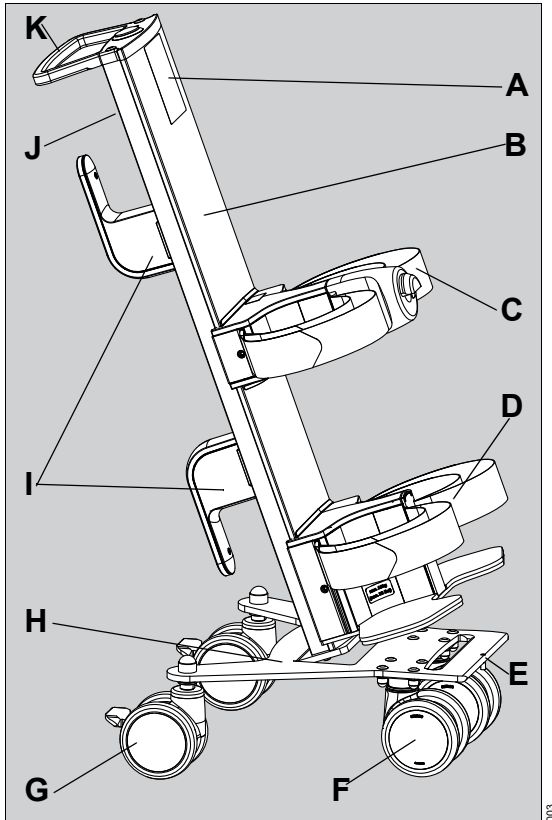
- in intensive care units
- during transport in the hospital

The transport supply unit can be used, e.g., with the following Dräger ventilators:

- Evita Infinity V500
- Savina 300

Overview

Overall view



J Product label indicating the maximum load permitted on the hose holder

K Handle

A Product label

B Column

C Upper gas cylinder holder

D Lower gas cylinder holder

E Guide pin

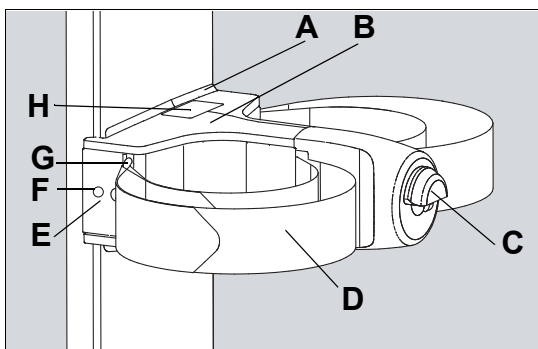
F Double castors (2 pcs.)

G Double castors with locking brake (2 pcs.)

H Pedestal

I Hose holder

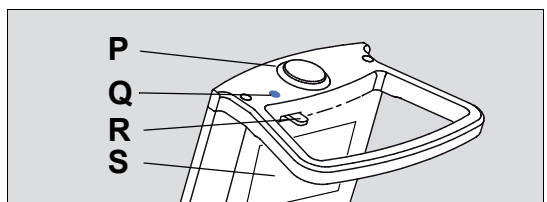
Upper gas cylinder holder



- A Finishing trim
- B Cover
- C Coupling element of the transport supply unit
- D Hook-and-loop strap
- E Column clamp
- F Clamping screw
- G Fixing lug
- H Product label for positioning the compressed gas cylinders

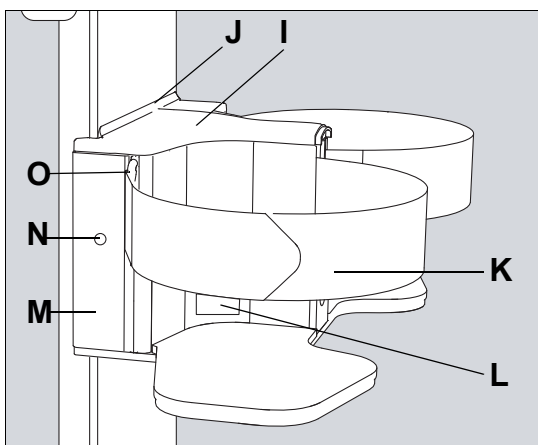
- I Cover
- J Finishing trim
- K Hook-and-loop strap
- L Product label indicating the maximum load permitted per gas cylinder holder
- M Column clamp
- N Clamping screw
- O Fixing lug

Locking elements



- P Locking button
- Q Product label: Warning! Strictly follow these instructions for use
- R Locking lever
- S Rating plate

Lower gas cylinder holder



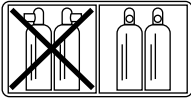
Product labels

max. 3 kg
(max. 6.6 lbs)

Maximum load permitted on the hose holder

max. 10 kg
(max. 22 lbs)

Maximum load permitted per gas cylinder holder



Positioning of the compressed gas cylinders on the transport supply unit



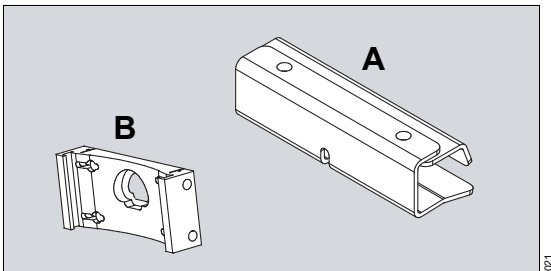
Warning! Strictly follow these instructions for use



Tipping stability

Fixing plate and coupling element of the trolley

The fixing plate and the coupling element of the trolley must be mounted to the trolley of the ventilator.



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A Fixing plate

B Coupling element of the trolley

Preparation

Installation on the trolley of the ventilator

The installation must be performed by technical personnel.

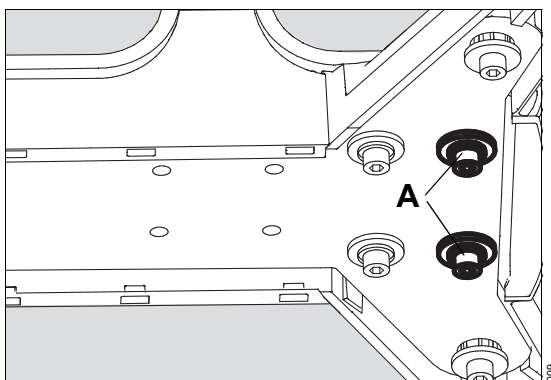
The following parts must be fitted to the trolley of the ventilator before using the transport supply unit for the first time:

- Fixing plate
- Coupling element of the trolley

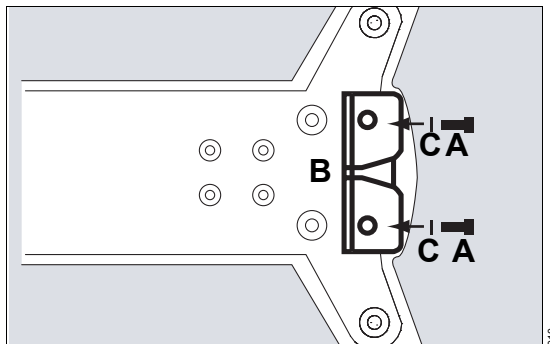
Fitting the fixing plate

The fixing plate is fitted to the bottom of the trolley.

- 1 Lock all locking brakes on the trolley.
- 2 Tilt the trolley back.

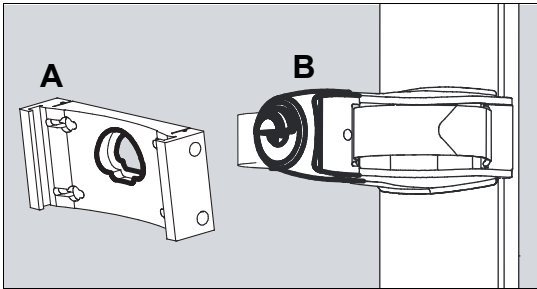


- 3 Use an Allen key to remove the screws (A) on the bottom of the pedestal.
- 4 Remove the flat washers and the spring washers from the screws.

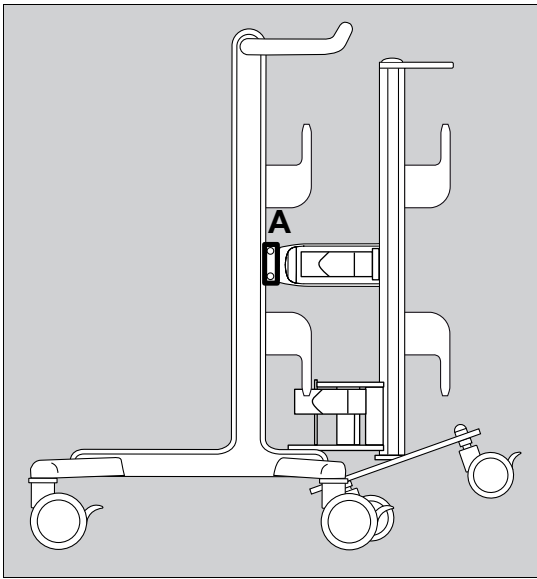


- 5 Screw on the fixing plate (B) with the screws (A) and spring washers (C).
The flat washers are no longer needed.
- 6 Use a torque spanner to tighten the screws (A) to a tightening torque of 24 ± 0.5 Nm.

Fitting the coupling element of the trolley

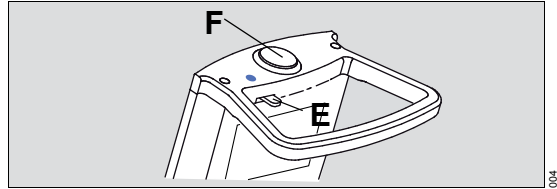


- 1 Push the coupling element of the trolley (A) onto the coupling element of the transport supply unit (B) until it engages audibly.

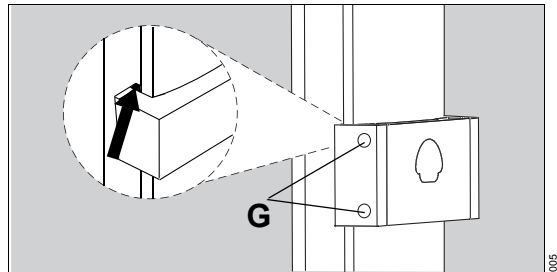


- 2 Push the transport supply unit under the trolley. The guide pin must be pushed into the fixing plate.
- 3 Use a marker pen to mark the height of the coupling element of the trolley (A) on the trolley column.
- 4 Pull out the transport supply unit from under the trolley.

- 5 Remove the coupling element of the trolley (A) from the coupling element of the transport supply unit (B). To do this, move the locking lever (E) to the left while pressing the locking button (F).



- 6 Fit the coupling element of the trolley (A) at the mark. To do this, loosen the screws (G) on the left and right side and position the claws in the lateral grooves on the trolley. Align the coupling element of the trolley horizontally.



- 7 Move the transport supply unit under the trolley.
- 8 Connect the coupling element of the transport supply unit to the coupling element of the trolley. If the coupling element of the transport supply unit does not engage or gets stuck, adjust the position of the coupling element of the trolley.
- 9 Use a torque wrench to tighten the lateral screws (G) to a tightening torque of 12 ± 0.5 Nm.

Replacing the hook-and-loop strap

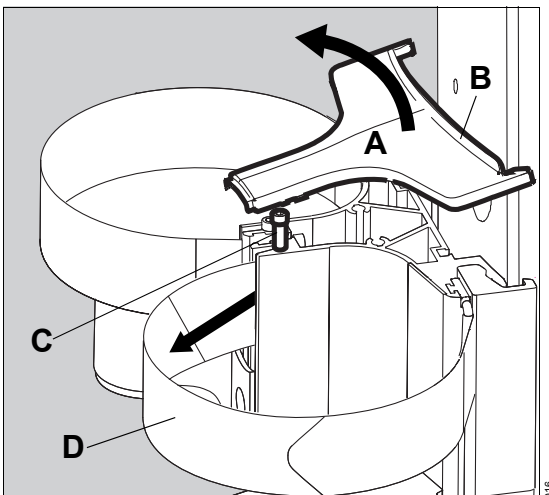
The hook-and-loop straps must be replaced by technical personnel.

WARNING

Risk of damage to the device or personal injury

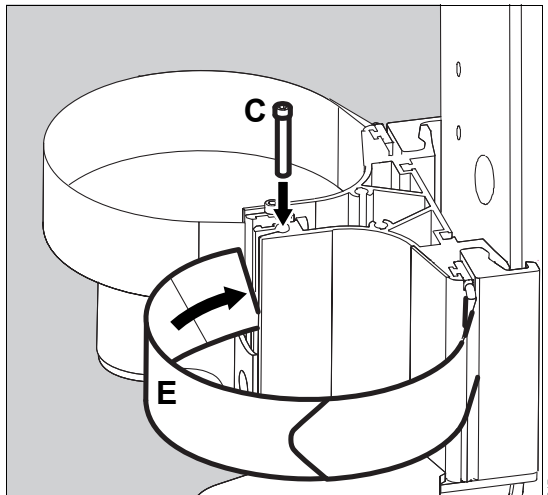
The length of the hook-and-loop straps must match the circumference of the compressed gas cylinders. Otherwise, the compressed gas cylinders cannot be secured correctly. Replace with the respective hook-and-loop strap as required.

Diameter of the compressed gas cylinder	Length of the hook-and-loop strap
80 to 130 mm (6.3 to 5.1 in)	450 mm (17.7 in)
130 to 160 mm (5.1 to 6.3 in)	570 mm (22.4 in)



- 1 Fold up and remove the cover (A).
- 2 Remove the finishing trim (B).
- 3 Pull the pin (C) out of the lug of the hook-and-loop strap.

- 4 Pull out the hook-and-loop strap (D).



- 5 Insert the new hook-and-loop strap (E), with the lug and the loop side facing outwards, fully into the lateral opening.

NOTE

The loop side must be facing outwards when inserting the hook-and-loop strap. Otherwise, the hook-and-loop strap cannot be closed.

- 6 Insert the pin (C) fully into the lug.
- 7 Put back the cover (A).
- 8 Insert the finishing trim (B).
- 9 Press the cover (A) down until it engages.

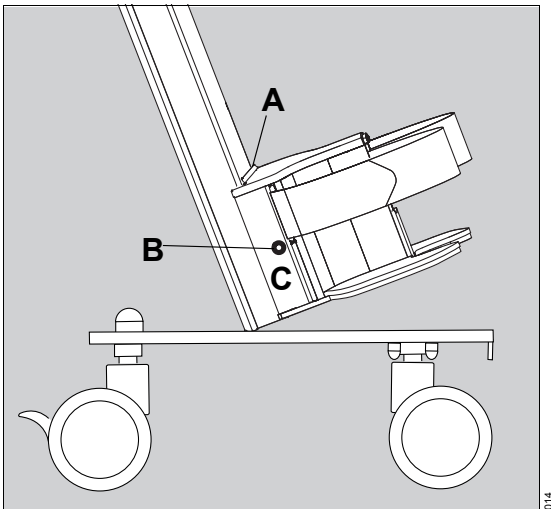
Adjusting the lower gas cylinder holder

The lower gas cylinder holder must be adjusted by technical personnel.

WARNING

Risk of damage to the device or personal injury

Adjust the height of the lower gas cylinder holder to the compressed gas cylinders being used. Adjust the height so that the upper gas cylinder holder holds the compressed gas cylinders around the top half of the cylinder. Otherwise, the compressed gas cylinders can fall off.



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- 1 Remove the finishing trim (A).
- 2 Loosen the clamping screw (B) until the column clamps (C) can be moved.
- 3 Slide the gas cylinder holder upwards according to the height of the compressed gas cylinder.
- 4 Insert the finishing trim (A).
- 5 Tighten the clamping screw (B) to a tightening torque of 5.5 ± 0.5 Nm.

Securing the compressed gas cylinders

The following requirements must be met before the compressed gas cylinders can be secured to the transport supply unit:

- Coupling element and fixing plate are fitted to the trolley.
- The height of the lower gas cylinder holder is adjusted according to the compressed gas cylinders being used.
- The lengths of the hook-and-loop straps correspond to the compressed gas cylinders being used.

WARNING

Risk of damage to the device or personal injury

Attach the compressed gas cylinders securely to the transport supply unit, using both hook-and-loop straps. Otherwise, there is a risk of the unit tipping over.

CAUTION

Risk of damage to the transport supply unit and the coupling element on the trolley of the ventilator

The gas cylinder holder and the coupling elements may be damaged if the maximum load of 2 x 10 kg (2 x 22.05 lbs) is exceeded. Do not exceed the maximum load of 2 x 10 kg (2 x 22.05 lbs).

CAUTION

Risk of damage to the pressure reducers

Position the compressed gas cylinders so that the pressure reducers face the front. Observe the labels on the device. Otherwise, there is a risk of damage during transport.

CAUTION

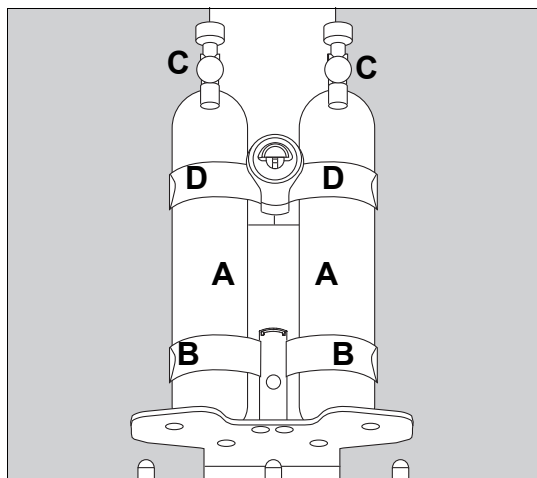
Risk of damage to the compressed gas cylinders

The pedestal of the transport supply unit serves as a collision protector. Take particular care when the compressed gas cylinders are larger than the collision protector.

WARNING

Risk of damage to the device or personal injury

Failure to observe the maximum loads permitted can cause the transport supply unit to tip over. Observe maximum loads.



- 1 Place the compressed gas cylinders (A) in the lower gas cylinder holder (B).
- 2 Turn the compressed gas cylinders so that the pressure reducers (C) face the front.
- 3 Tighten the hook-and-loop straps of the upper gas cylinder holder (D) and the lower gas cylinder holder (B) and press together firmly.

When coupling, turn the cylinders with the pressure reducers slightly to the side to prevent a collision with the ventilator.

Operation

CAUTION

Check the transport supply unit for visible damage (e.g., dents, cracks). In the event of visible damage, do not use the transport supply unit. Contact DrägerService.

- Check that the compressed gas cylinders are fitted securely.

Moving the transport supply unit

WARNING

Risk of damage to the device

Do not move the transport supply unit faster than at a walking pace. There is an increased danger of the unit tipping over at thresholds, uneven surfaces, and ramps. Slow the walking pace down even further.

CAUTION

Risk of damage to the device

Cables and hoses lying about can get dragged along or cause the transport supply unit to stop suddenly. When moving the transport supply unit, pay attention to cables and hoses lying about.

CAUTION

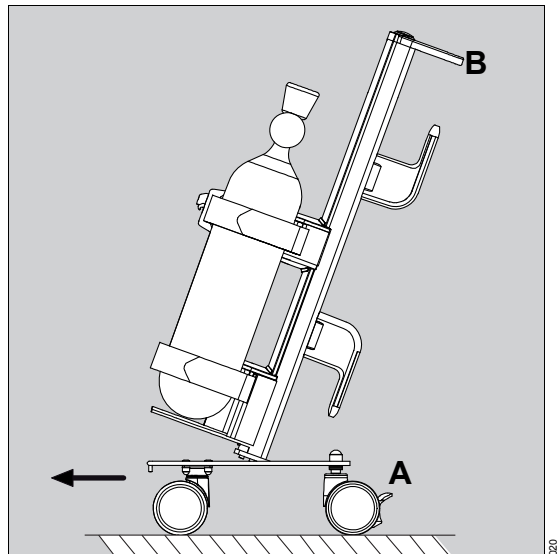
Risk of damage to the device

If the compressed gas cylinders protrude beyond the pedestal, damage may occur during transport. Particular care is required when moving the transport supply unit.

CAUTION

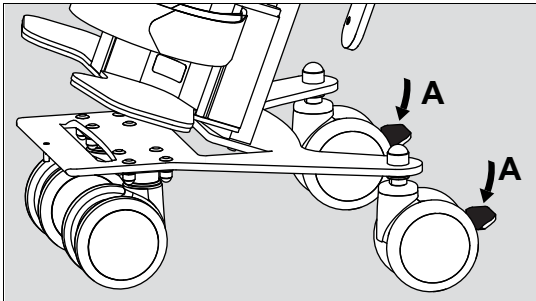
Risk of damage to the device

If the transport supply unit is to be moved a long way, remove the pressure reducers and if required, close off the compressed gas cylinders with the appropriate caps.



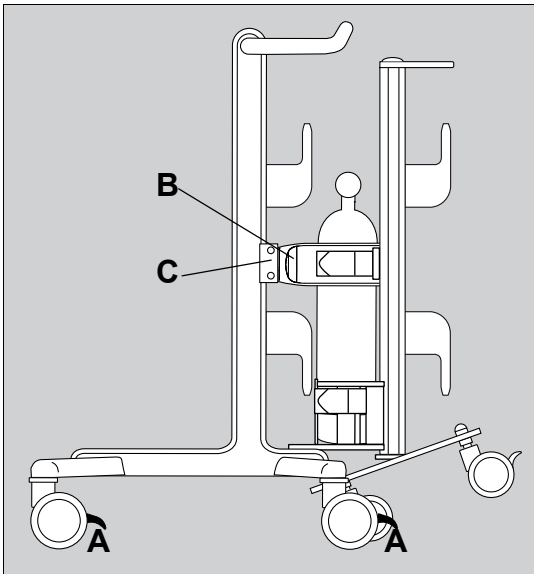
- 1 Release both locking brakes (A).
- 2 Hold the transport supply unit by the handle (B) and push it no faster than at a walking pace.

Parking the transport supply unit



- Lock both locking brakes (A).

Coupling the transport supply unit



- 1 Lock all four brakes (A) on the trolley of the ventilator.
- 2 Push the transport supply unit under the trolley. The guide pin must be pushed into the retaining plate.

- 3 Turn the cylinders with pressure reducers sufficiently far to the side that the pressure reducers do not collide with the trolley or other parts of the ventilator during coupling.
- 4 Tip up the transport supply unit until the coupling element of the transport supply unit (B) audibly clicks into the coupling element of the trolley (C).
- 5 Pull on the transport supply unit to check correct coupling.
The locking button can no longer be operated when locked correctly.

CAUTION

Risk of damage to the device

If the transport supply unit is not fully engaged, it can unexpectedly release from the trolley. Check for proper coupling.

Moving the transport supply unit and trolley

WARNING

Risk of damage to the device

Do not move the transport supply unit faster than at a walking pace. There is an increased danger of the unit tipping over at thresholds, uneven surfaces, and ramps. Slow the walking pace down even further.

CAUTION

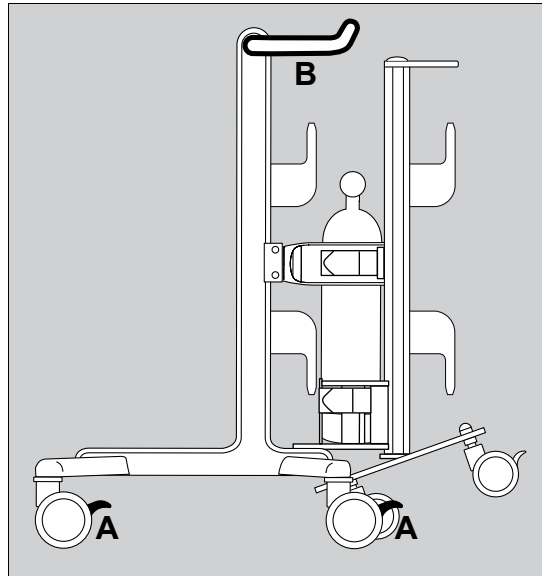
Risk of damage to the device

Cables and hoses lying about can get dragged along or cause the transport supply unit to stop suddenly. When moving the transport supply unit, pay attention to cables and hoses lying about.

CAUTION

Risk of damage to the device

If the compressed gas cylinders protrude beyond the pedestal, damage may occur during transport. Particular care is required when moving the transport supply unit.



- 1 Release all the brakes (A) on the trolley of the ventilator.
- 2 Use the trolley handle (B) to move the trolley with the coupled transport supply unit.

Tipping stability

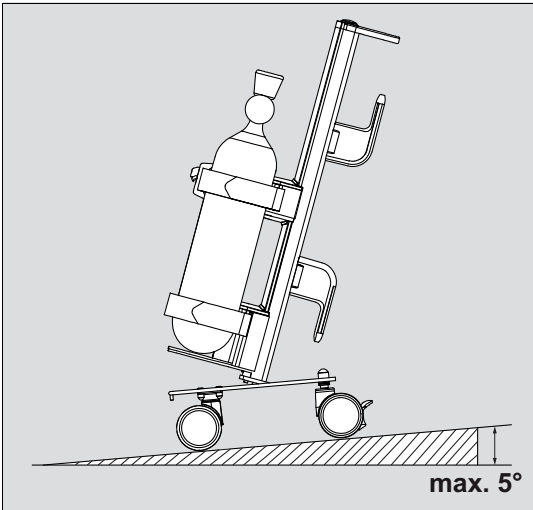
Transport supply unit

WARNING

Risk of damage to the device or personal injury

There is a risk of the transport supply unit tipping over when it is used on inclines $>5^\circ$.

On inclined surfaces, the transport supply unit must be oriented so that the handle is always at the upper end.



Combination with a ventilator

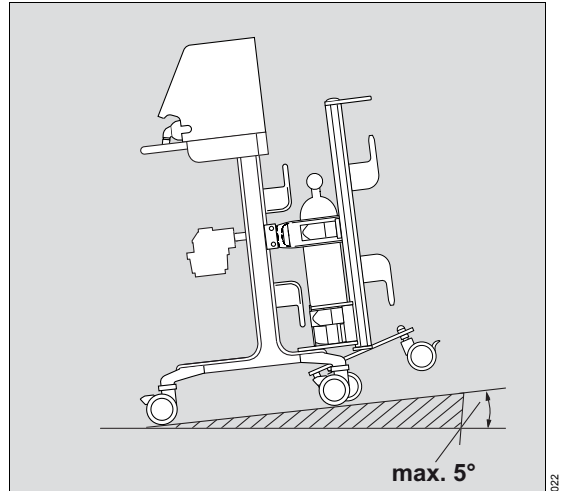
WARNING

Risk of damage to the device or personal injury

If the transport supply unit is combined with a ventilator on a trolley and is used on inclines $>5^\circ$, there is a risk that it may tip over.

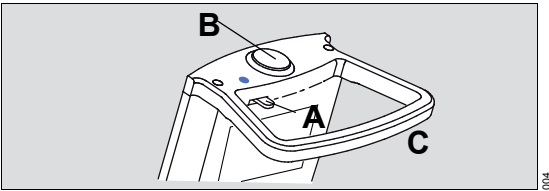
On inclined surfaces, the combination must be arranged so that the transport supply unit is always at the upper end.

Illustration: Combination with Savina 300 ventilator



Uncoupling the transport supply unit

- 1 Lock all the brakes on the trolley of the ventilator.
- 2 Hold the transport supply unit by the handle (C) and move the locking lever (A) to the left while pressing the locking button (B).
- 3 Pull out the transport supply unit from under the trolley and park it.



Cleaning and disinfection

Testing of procedures and agents

The cleaning and disinfection process has been tested with the following procedures and agents. At the time of testing, the following procedures and agents showed good material compatibility and effectiveness:

Manual disinfection and simultaneous cleaning:

- Incidur from Ecolab, Germany
- Dismozon pur from Bode Chemie Hamburg, Germany

Manual disinfection and simultaneous cleaning

Perform manual disinfection preferably with disinfectants based on aldehydes or quaternary ammonium compounds.

For choosing the appropriate disinfectant, observe country-specific lists of disinfectants. The list of the German Association for Applied Hygiene (Verbund für Angewandte Hygiene VAH) applies in German-speaking countries.

Strictly observe the manufacturer's instructions for using disinfectants. The composition of disinfectants may change.

Procedure:

- 1 Remove dirt immediately with a wipe soaked in disinfectant.
- 2 Perform surface disinfection (scrub-and-wipe disinfection).
- 3 After the contact time has elapsed, remove disinfectant residues.

Maintenance

Overview

This chapter describes the maintenance measures required to maintain the proper functioning of the product. Maintenance measures must be performed by the personnel responsible.

WARNING

Risk of infection

Users and service personnel can become infected with pathogenic germs.

Disinfect and clean device or device parts before any maintenance measures and also before returning the medical device for repair.

Definition of maintenance concepts

Concept	Definition
Maintenance	All measures (inspection, preventive maintenance, repair) intended to maintain and restore the functional condition of a product
Inspection	Measures intended to determine and assess the actual state of a product
Preventive maintenance	Recurrent specified measures intended to maintain the functional condition of a product
Repair	Measures intended to restore the functional condition of a product after a device malfunction

Inspection

Perform inspections at regular intervals and observe the following specifications.

Checks	Interval	Personnel responsible
Inspection	Every 2 years	Experts

Preventive maintenance

WARNING

Risk of faulty components

Device failure is possible due to wear or material fatigue of the components.

To maintain the proper operation of all components, this device must undergo inspection and preventive maintenance at specified intervals.

The following table shows the preventive maintenance intervals:

Component	Interval	Measure	Personnel responsible
Double castors	Every 2 years	Check for secure fitting	Experts
Fixing lug on the gas cylinder holders for the hook-and-loop straps	Every 2 years	Check integrity and replace if necessary	Experts

Repair

Dräger recommends that all repairs are carried out by DrägerService and that only authentic Dräger repair parts are used.

Disposal

At the end of its service life:

- Consult the relevant waste disposal companies for appropriate disposal.
- Observe the applicable laws and regulations.

Technical data

Ambient conditions

During operation

Temperature	5 °C to 40 °C (41 °F to 104 °F)
Relative humidity	5 % to 95 %

During storage

Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Relative humidity	5 % to 95 %

Transport supply unit

Height	950 mm (37.4 in)
Width	425 mm (16.7 in)
Depth	585 mm (23 in)
Weight	18.5 kg (40.8 lbs)
Maximum load	23 kg (50.7 lbs)

Gas cylinder holder

Weight	5.1 kg (11.2 lbs)
Maximum height of the compressed gas cylinders including valves	790 mm (31.1 in)
Minimum diameter of the compressed gas cylinders	80 mm (6.3 in)
Maximum diameter of the compressed gas cylinders	160 mm (6.3 in) without bed coupling 140 mm (5.5 in) with bed coupling
Maximum load	2 x 10 kg (2 x 22.05 lbs)

Hose holder

Weight	200 g (0.44 lbs)
Maximum load	3 kg (6.6 lbs)


Materials used





Column	Aluminum and stainless steel
Handle	Aluminum
Hose holder	Polyamide
Gas cylinder holder	Aluminum, acrylic styrene acrylic ester, polyoxymethylene
Pedestal	Steel
Double castors	Polyamide

Accessories





Designation	Part no.
Transport coupling	G93137

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 Manufacturer

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Dräger reserves the right to make modifications
to the equipment without prior notice.



As of 2015-08:
Dräger Medical GmbH
changes to
Drägerwerk AG & Co. KGaA