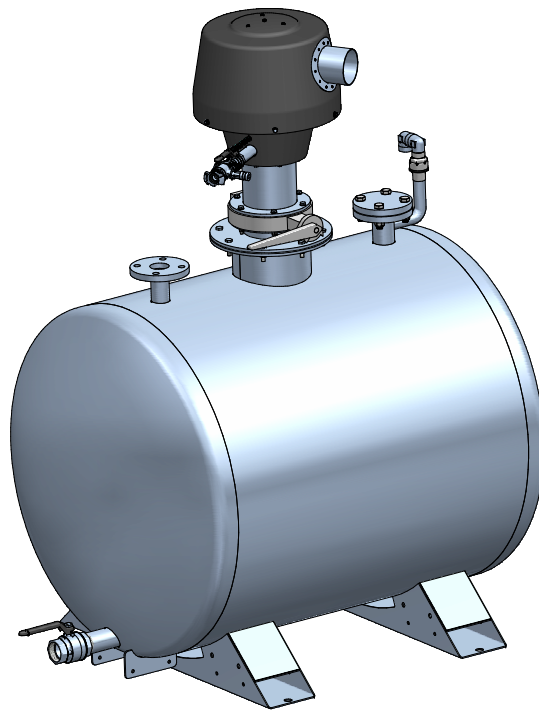


Air-driven ATEX series

950A EX-NE74, ATEX Ex II 2GD

42295000



Original instruction manual

EN INSTRUCTION MANUAL

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Declaration of Conformity

We, AB Ph. Nederman & Co., declare under our sole responsibility that the Nederman product: 950A EX-NE74, ATEX Ex II 2GD (Part No. **, and stated versions of **) to which this declaration relates, is in conformity with all the relevant provisions of the following directives and standards:

Directives

2006/42/EC, 2014/34/EU

Standards

EN ISO 80079-36:2016, EN ISO 80079-37:2016

The name and signature at the end of this document is the person responsible for both the declaration of conformity and the technical file.

**
42295000



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Anna Cederlund
Product Center Manager
Technical Product Management
2022-08-11



UK Declaration of Conformity

We, AB Ph. Nederman & Co., declare under our sole responsibility that the Nederman product: 950A EX-NE74, ATEX Ex II 2GD (Part No. **, and stated versions of **) to which this declaration relates, is in conformity with all the relevant provisions of the following regulations and standards:

Relevant legislation

Supply of Machinery (Safety) Regulations 2008, Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 2016

Standards

EN ISO 80079-36:2016, EN ISO 80079-37:2016


The name and signature at the end of this document is the person responsible for the declaration of conformity.

The UK importer is authorised and responsible to compile the technical file.

**

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2022-08-11

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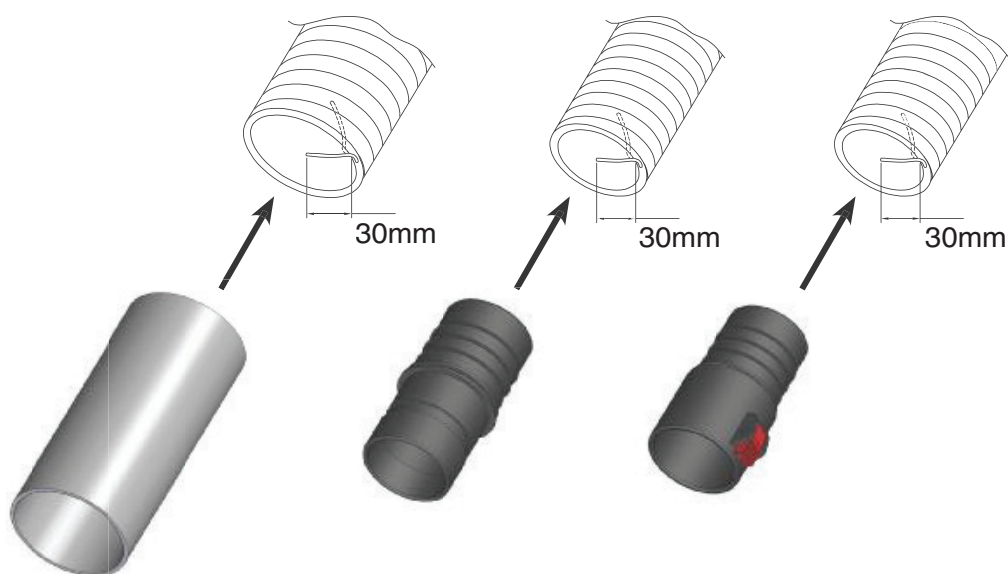


Figures

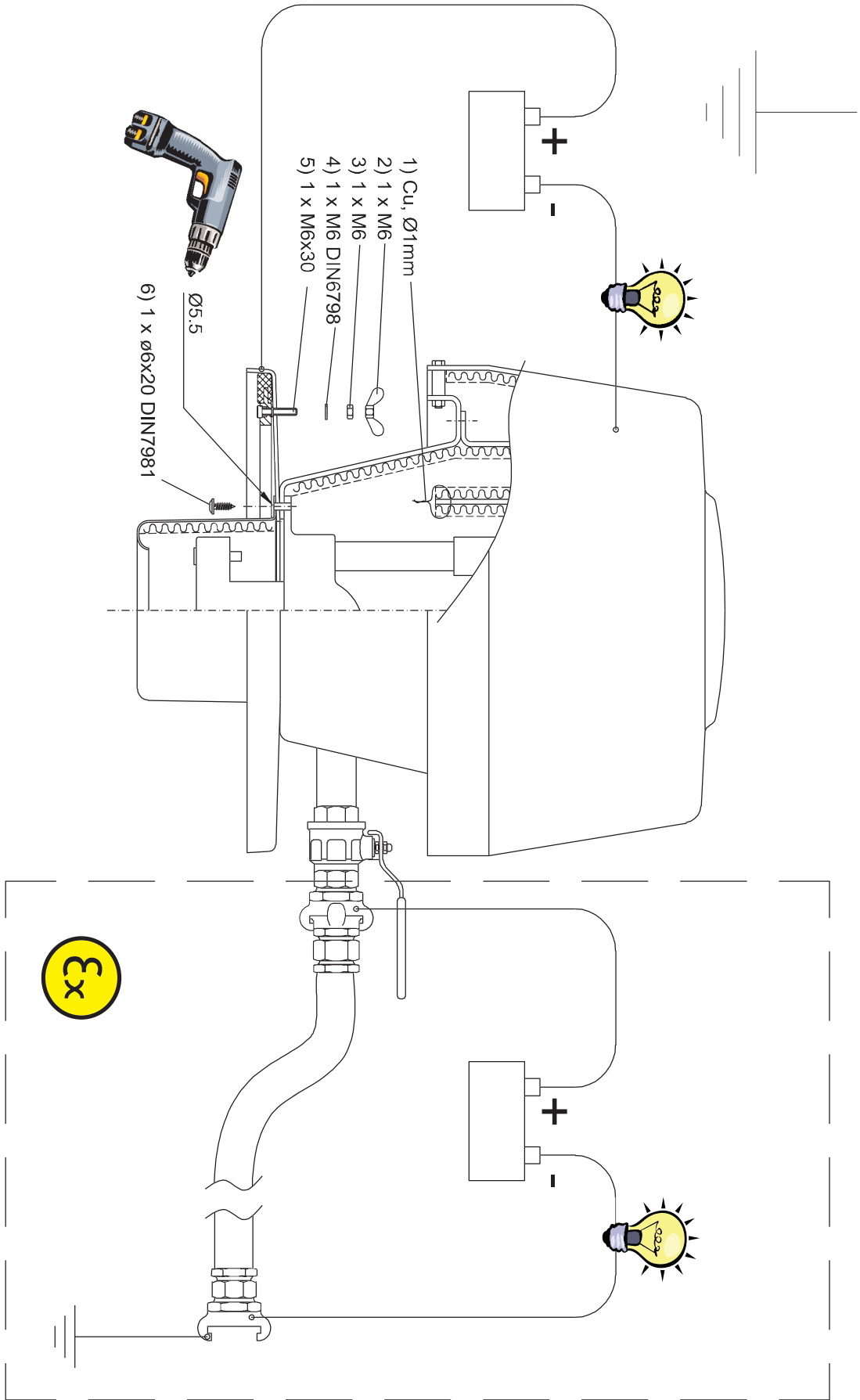
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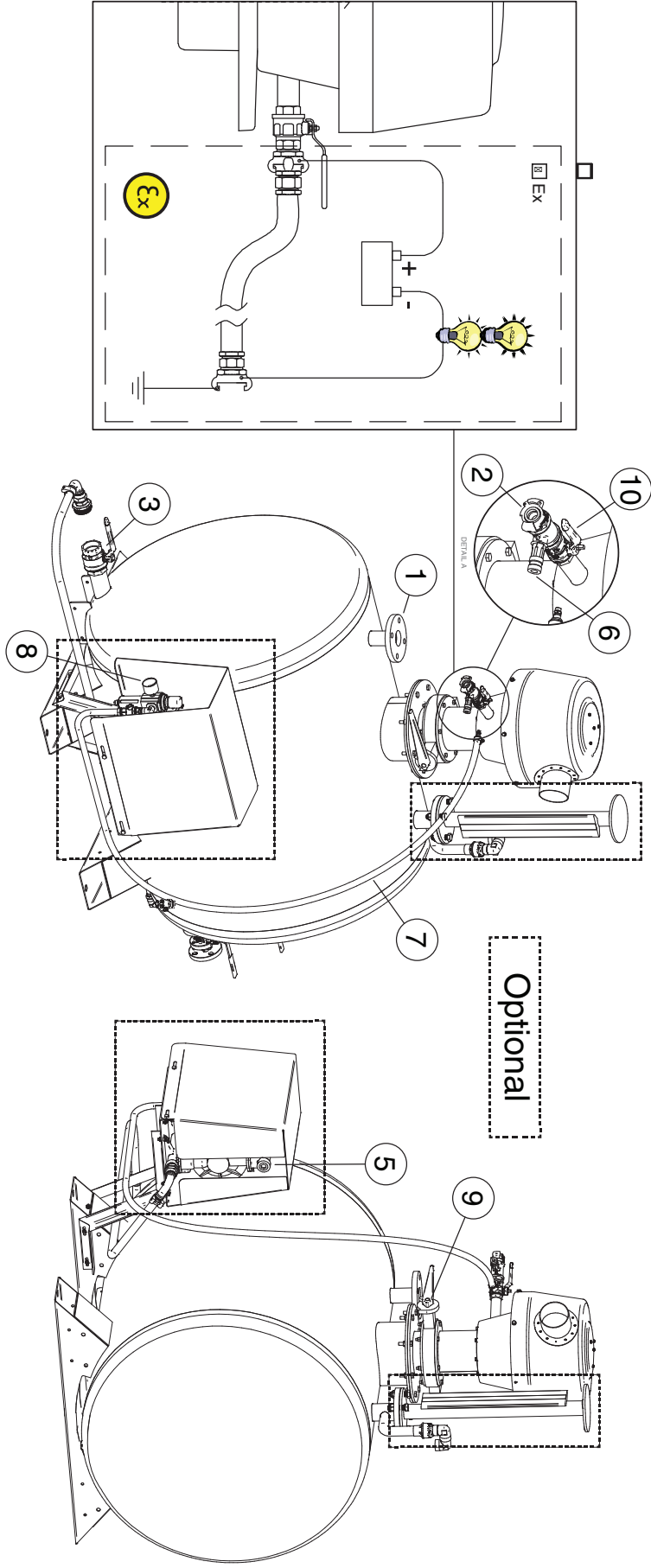


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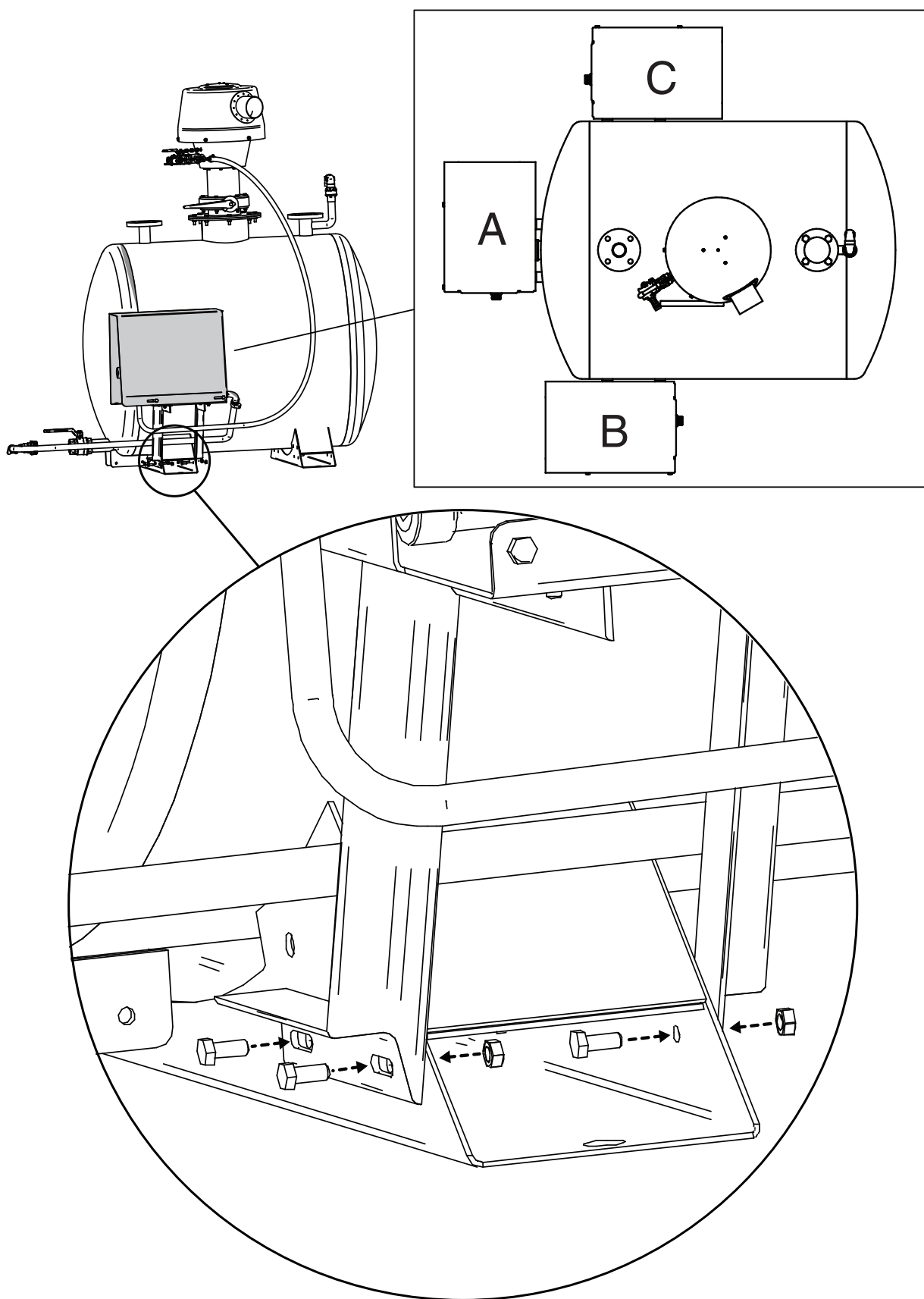


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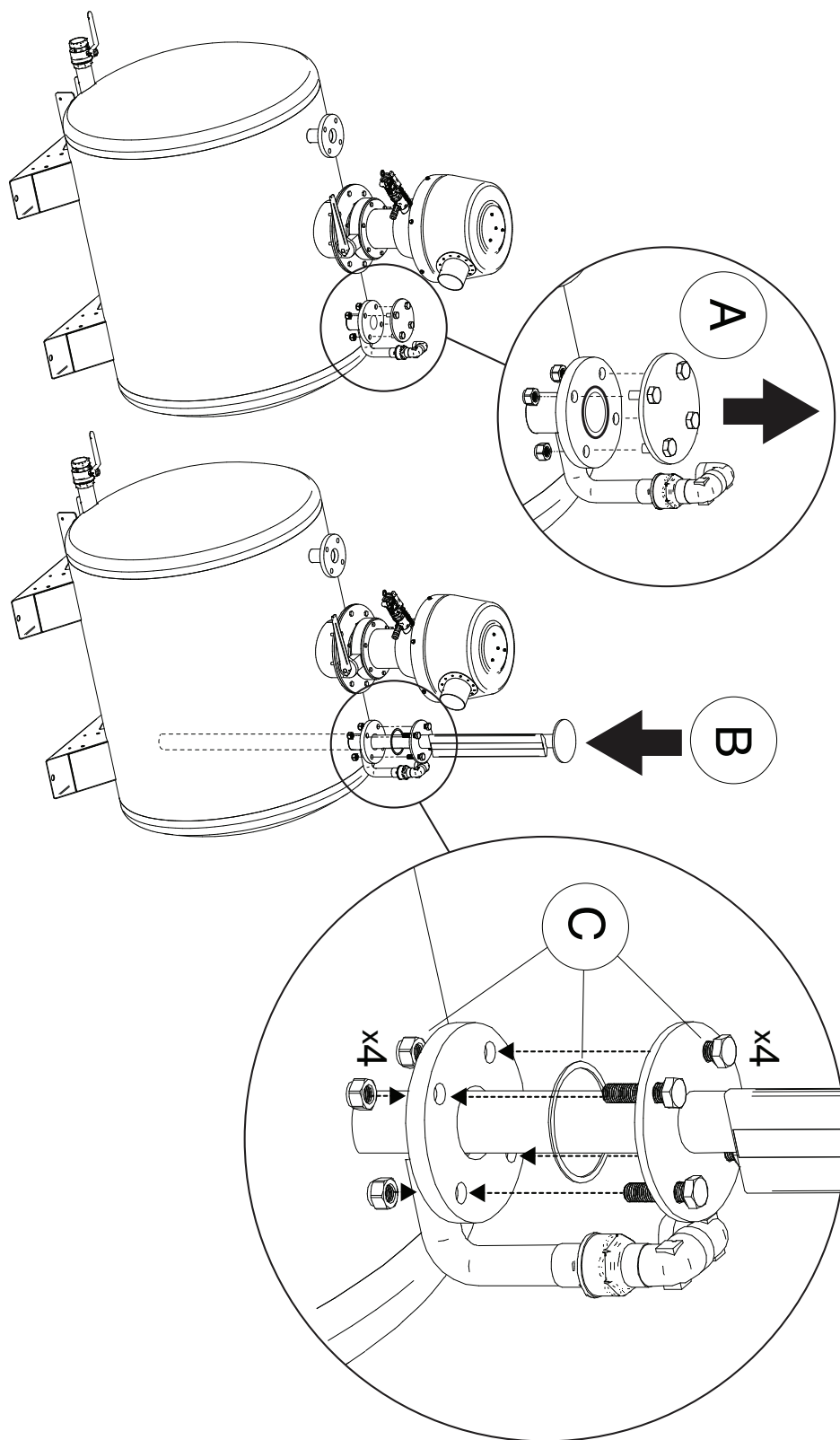




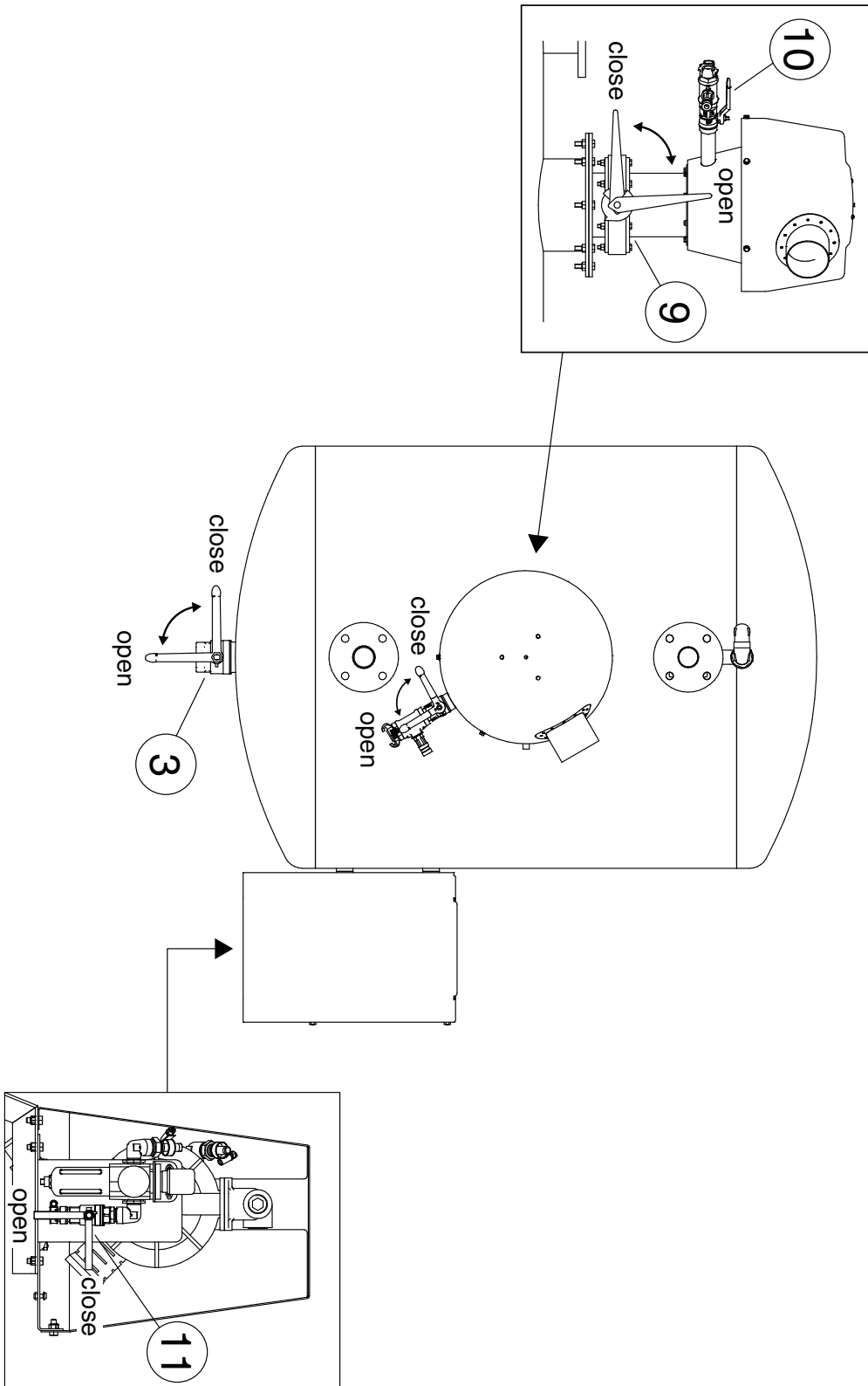
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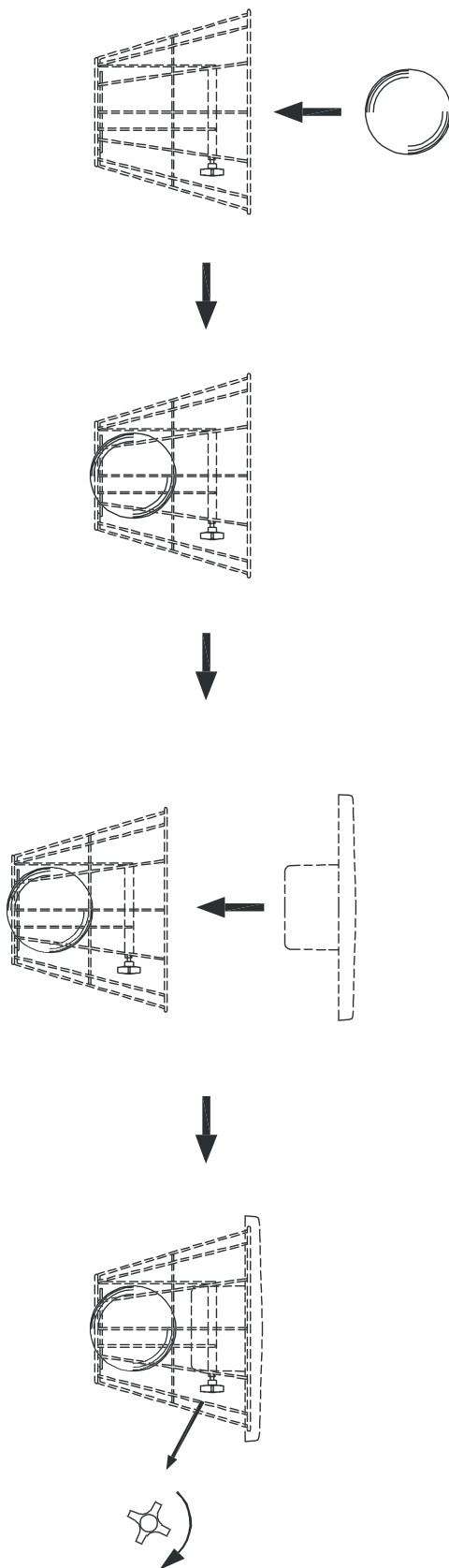


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1 Product marking

950A EX-NE74, ATEX Ex II 2GD is ATEX-classified and is marked according to the description:

II 2G Ex h IIC T60°C(T6) Gb

II 2D Ex h IIIC T60°C Db

$-10^{\circ}\text{C} \leq \text{Ta} \leq 40^{\circ}\text{C}$

Nederman 19.HB03X

Part	Explanation
II:	From ATEX directive, Equipment group non-mining equipment.
h:	The letter "h" as specified in EN ISO 80079-36.
IIC:	<p>Equipment of Group II is intended for use in places with an explosive gas atmosphere other than mines susceptible to firedamp.</p> <p>Equipment of Group II is subdivided according to the nature of the explosive gas atmosphere for which it is intended.</p> <p>Group II subdivisions:</p> <ul style="list-style-type: none"> • IIA , a typical gas is propane; • IIB , a typical gas is ethylene; • IIC , a typical gas is hydrogen.
IIIC:	<p>Equipment of Group III is intended for use in places with an explosive dust atmosphere other than mines susceptible to firedamp.</p> <p>Equipment of Group III is subdivided according to the nature of the explosive dust atmosphere for which it is intended.</p> <p>Group III subdivisions:</p> <ul style="list-style-type: none"> • IIIA : suitable for combustible flyings; • IIIB : suitable for combustible flyings and non-conductive dust; • IIIC : suitable for combustible flyings, non-conductive dust, and conductive dust.
T60°C (T6)	The maximum surface temperature in degrees Celsius.
Gb:	<p>Equipment protection level Gb. Same as old 2G marking.</p> <p>For explosive atmospheres, caused by mixtures of air and gases, the equipment does not contain any effective ignition sources in normal operation and expected malfunctions.</p>
Db:	<p>Equipment protection level Dc. Same as old 3D marking.</p> <p>For explosive atmospheres, caused by mixtures of air and combustible dust, the equipment does not contain any effective ignition sources in normal operation and expected malfunctions.</p>
$-10^{\circ}\text{C} \leq \text{Ta} \leq 40^{\circ}\text{C}$	Ambient temperature range.
Nederman 19.HB03X	Certificate number. If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to specific conditions for safe use.

1.1 Special Conditions for Safe Use "X"

The vacuum cleaner must always be earthed when in use. Using a conductive hose for compressed air can do this.

Maximum surface temperature depends on collected material.

The 950A EX cleaners may not be used to vacuum combustible dust; they are only for use with liquids. Depending on the installation requirements they may need to be fitted with a protection system to limit the effects of an internal explosion.

1.2 Type of Protection constructional safety "c"

Technical documentation contains the information required to maintain product safety.

2 Preface

Thank you for using a Nederman product!

The Nederman Group is a world-leading supplier and developer of products and solutions for the environmental technology sector. Our innovative products will filter, clean and recycle in the most demanding of environments. Nederman's products and solutions will help you improve your productivity, reduce costs and also reduce the impact on the environment from industrial processes.


Read all product documentation and the product identification plate carefully before installation, use, and service of this product. Replace documentation immediately if lost. Nederman reserves the right, without previous notice, to modify and improve its products including documentation.


This product is designed to meet the requirements of relevant EC directives. To maintain this status, all installation, maintenance, and repair is to be done by qualified personnel using only Nederman original spare parts and accessories. Contact the nearest authorized distributor or Nederman for advice on technical service and obtaining spare parts. If there are any damaged or missing parts when the product is delivered, notify the carrier and the local Nederman representative immediately.


EN 3 Safety

3.1 Classification of important information

This document contains important information that is presented either as a warning, caution or note, according to the following examples:















 **WARNING! Risk of personal injury**
Warnings indicate a potential hazard to the health and safety of personnel, and how that hazard may be avoided.

 **CAUTION! Risk of equipment damage**
Cautions indicate a potential hazard to the product but not to personnel, and how that hazard may be avoided.

 **Note**
Notes contain other information that is important for personnel.

3.2 General safety instructions

Table 3.1 Explanation of sign and sticker symbols used on vacuum cleaner components or with documentation.

Sign	Description	Sign	Description
	Pressure, max 8 bar.		Ambient temperature, max 40°C.
	Alternating current.		Moving pneumatic cylinder.
	High noise level. Use hearing protection.		Crush risk.
	Easily tipping over.		Use a cotter pin.
	Do not vacuum hazardous material.		Do not place on an uneven surface.
	Do not vacuum explosive material.		Do not use a crane.
	Do not vacuum caustics.		Do not weld.

4 Description

4.1 Intended use

This heavy-duty stainless steel vacuum unit is excellent for the suction of hazardous and flammable liquids. Can transport material over long vertical and horizontal distances. Suitable for various cleaning and

liquid pick-up operations in the industry, and for stripping of cargo tanks and deep well sumps in shipping. Normally connected to tank stripping pumps equipped with stripping pipe. Parts in direct contact with collected liquids are made from stainless steel. All parts are antistatic and conductive to avoid static electricity loading. Suitable for suction of oil, water and other liquefied products.

4.2 Technical data

See [Table 4.1](#) and [Table 4.2](#). See also [Figure 1](#). Also, see the attached Spare Parts Manual for descriptions and article numbers for spare parts.

Table 4.1 Technical data

Material description	Stainless steel
Material recycling (approximate weight)	95%
Ambient temperature.	-10 to +40 °C
Process air (dry) temperature	0 to 60 °C
Compressed air pressure	700 kPa
Container gross volume	950 litres
Container practical volume	950 litres
Length x Width x Height	1700 x 1500 x 2000 mm
Weight	222 kg

Table 4.2 Ejector top data

Ejector type	Compressed air consumption	Maximum Vacuum		Maximum airflow	Noise level *
	[Nm ³ /min]	[mmWC]	[-kPa]	[Nm ³ /hr]	[dB(A)]
NE74	5.3	7800	78	318	75.0

* Distance 3 m, height 1.1 m (Air pressure 7 bar)

5 Installation



WARNING! Risk of personal injury

- Mount non-mobile vacuum cleaners firmly to a hard flat surface.
- Do not place the vacuum cleaner on an uneven surface.
- Always use proper lifting equipment and protective gear when using lifting lugs to lift vacuum cleaners.



CAUTION! Risk of equipment damage

- Make sure hoses are properly grounded when connected, see [Figure 2](#).
- Make sure the ejector top is properly grounded, see [Figure 3](#).



Note

Follow local rules and regulations for all steps in the installation process.

5.1 Earth control measurement

Check for proper earth connection after both the main installation and regular maintenance work. If a component, such as the top module, for example, is removed and refitted, the earth connection must be verified.

5.2 950A EX



WARNING! Risk of personal injury

Air line must be grounded. See [Figure 4](#).

- 1 Install the fluid extraction line/pipe to the inlet. See [Figure 4](#) item 1.

- 2 Install air line to ejector top. See [Figure 4](#) item 2. [Figure 4](#) item 2.
- 3 Install proper line/pipe for the drain valve. See [Figure 4](#) item 3.

5.3 Pump kit (accessory)

WARNING! Risk of personal injury

- Make sure the drain valve is closed before starting extraction. See [Figure 4](#) item 3.
- If a diaphragm pump is used after extraction, the butterfly valve between the ejector and the tank must be open.

- 1 The pump kit can be fitted in 3 positions. See [Figure 5](#) items A-C. It can be fitted in front of the drain, item A, or on either side fixed to the support, items B and C.
- 2 Fit the drain hose to the tank drain valve. See [Figure 4](#) item 3.
- 3 Install the drain line/pipe to the outlet of the diaphragm pump. See [Figure 4](#) item 5.
- 4 Fit the air line, [Figure 4](#) item 7, to the ejector top with the quick coupling. See [Figure 4](#) item 6.
- 5 Check air pressure to the pump kit. Recommended air pressure 1.4 - 8.6 bar. If a diaphragm pump is used after extraction, the butterfly valve between the ejector and the tank must be open. See [Figure 4](#) item 8.
- 6 Open the drain valve. See [Figure 4](#) item 3.

5.4 Level gauge (accessory)

- 1 Remove the blind flange. See [Figure 6](#) item A.
- 2 Fit the level gauge. See [Figure 6](#) item B.
- 3 Tighten fasteners. See [Figure 6](#) item C.



Note

Fit the gasket between flanges. See [Figure 6](#) item C.

6 Use



WARNING! Risk of personal injury

- Do not use a vacuum cleaner to collect material that is caustic, hot, explosive, highly flammable, chemically unstable, spontaneously ignitable, or which can release sparks.
- Do not use if the ambient temperature exceeds 40°C.
- Only properly trained personnel are allowed to use this vacuum cleaner.
- Do not place the vacuum cleaner on an uneven surface.
- Do not expose the body to vacuum inlets when operating the unit.



CAUTION! Risk of equipment damage

- Make sure compressed air pressure is between 6 and 8 bar.
- Turn off the vacuum cleaner if liquid or foam escapes from it.

6.1 Vacuuming

- 1 Connect the compressed air hose to the ejector top.



WARNING! Risk of personal injury

Secure compressed air hose with the attached cotter pin before use, see [Figure 1](#)(A).

- 2 Open the ball valve on the ejector top to start vacuuming, see [Figure 1](#)(C).



Note

For vacuuming wet material, when the container is full, the suction flow is shut off by the float ball. Turn off 950A EX before emptying the container.

6.2 Pre-use checklist

- 1 Check that the tank has enough capacity for the fluid to be extracted. If necessary, drain the tank according to local regulations and set work instructions. See [Section 6.3 Extraction instruction](#).
- 2 Close drain valve. See [Figure 7](#) item 3.
- 3 If a valve is fitted to the extraction pipe, make sure the extraction pipe is open.

6.3 Extraction instruction

- 1 Open butterfly valve. See [Figure 7](#) item 9.
- 2 Open the ball valve to start the ejector top. See [Figure 7](#) item 10.
- 3 To stop the extraction close the ball valve. See [Figure 7](#) item 10.
- 4 When the container is full, the suction flow is shut off by the float ball.
- 5 Close butterfly valve and ejector top. See [Figure 7](#) items 9 and 10.

6.4 Drain instruction

- 1 Open the butterfly valve to allow leak air into the tank. See [Figure 7](#) item 9.
- 2 Open the drain valve. See [Figure 7](#) item 3.
- 3 If the pump kit (optional) is fitted, start the diaphragm pump by opening the ball valve. See [Figure 7](#) item 11.

7 Maintenance

⚠ WARNING! Risk of personal damage

- Disconnect vacuum cleaner from compressed air before any type of service or transportation.
- Be cautious when performing maintenance; there is a crush risk with a pneumatic cylinder.
- Do not place the vacuum cleaner on an uneven surface.
- Always use proper lifting equipment and protective gear.

⚠ WARNING! Risk of equipment damage

- Replace all damaged components with original spare parts.
- Turn off the vacuum cleaner if liquid or foam escapes from it.
- Store the vacuum cleaner in a standing position.

7.1 Service and Maintenance of ATEX equipment

Make sure the required level of protection with regards to the equipment category is as follows:

- Regularly inspect 950A EX for damage or malfunction. If 950A EX is damaged, it must be shut down and possible explosive atmosphere removed.
- Make sure that no explosive atmosphere layers are present when cleaning, servicing or inspecting 950A EX.
- Use only Nederman original spare parts.

7.2 Clean the float ball

If 950A EX is used for wet material, clean the float ball once a month.

ⓘ Note
To put back the float ball after cleaning, see [Figure 8](#).

7.3 Routine inspection and service

Follow the list below to routinely inspect, and repair or replace worn and damaged parts on the inside and outside of 950A EX. See also [Chapter 11 Appendix: Service form](#). Contact your nearest authorized distributor or Nederman for advice on technical service or if you require help with spare parts.

⚠ WARNING! Risk of personal injury

- Disconnect the vacuum cleaner from compressed air before any type of service or transportation.
- Be cautious when performing maintenance; there is a crush risk with a pneumatic cylinder.
- Do not place the vacuum cleaner on an uneven surface.
- Always use proper lifting equipment and protective gear.

Items to inspect	What to look for	Service
VACUUM OFF		
Suction hoses, couplings.	Leaking suction hoses and couplings.	Replace
Gaskets	Worn out, aged and leaking gaskets.	Replace
Float ball	Dirty float ball.	Clean the float ball at least once a month.
Ejector nozzle	Dirty ejector nozzle.	Clean
VACUUM ON		
If the specified vacuum is not reached.	See Chapter 10 Troubleshooting .	
Abnormal noise level.		

8 Spare Parts



CAUTION! Risk of equipment damage

Use only Nederman original spare parts and accessories.

Contact your nearest authorized distributor or Nederman for advice on technical service or if you require help with spare parts. See also www.nederman.com.

8.1 Ordering spare parts

When ordering spare parts always state the following:

- The part number and control number (see the product identification plate).
- Detail number and name of the spare part (see www.nederman.com/en/service/spare-part-search).
- Quantity of the parts required.

9 Recycling

The product has been designed for component materials to be recycled. Different material types must be handled according to relevant local regulations. Contact the distributor or Nederman if uncertainties arise when scrapping the product at the end of its service life.

10 Troubleshooting



WARNING! Risk of equipment damage


- Disconnect the vacuum cleaner from compressed air before any type of service or transportation.
- Be cautious when performing maintenance; there is a crush risk with a pneumatic cylinder.
- Do not place the vacuum cleaner on an uneven surface.
- Always use proper lifting equipment and protective gear.

Table 10.1 Troubleshooting guide

Problem	Cause	Solution
If the specified vacuum is not reached.	Clogged suction hose or inlet.	<ul style="list-style-type: none"> • If the specified vacuum is not reached, check all gaskets and connections. • Disconnect suction hose. Turn and suck in the opposite direction. If still clogged, open it with a rod. • Clean ejector nozzles. • Execute the vacuum test with the suction inlet(s) closed.
	Leaking suction hose.	Replace the suction hose.
	Leaking gaskets.	Remove and replace damaged neoprene gaskets. Use suitable two-component glue.
	The discharge valve opens.	Close valve.
Water in exhaust air.	Filter basket or float ball wrongly or not installed.	Reattach filter basket or float ball.
	Filter basket or float ball defect.	Replace.
Abnormal noise level.	Leaking gaskets.	Remove and replace damaged neoprene gaskets. Use suitable two-component glue.
	Sound absorbing material defect.	Dismantle the silencer hood and remove dirt. Replace damaged silencing material.

11 Appendix: Service form

Copy the installation protocol, fill it in and save it as a service record. For values, note the value in the result column, otherwise, a tick will suffice if the item has been performed or considered.

	<p>WARNING! Risk of personal damage</p> <ul style="list-style-type: none"> • Disconnect the vacuum cleaner from compressed air before any type of service or transportation. • Be cautious when performing maintenance; there is a crush risk with a pneumatic cylinder. • Do not place the vacuum cleaner on an uneven surface. • Always use proper lifting equipment and protective gear.
---	--

Customer	
Vacuum Type/Model	
Service date	
Serviced by	

Items to inspect	OK	Repaired	Replaced	Replaced part number
VACUUM OFF				
Silencer				
Compressed air hose				
Containers				
Suction hoses, couplings				
Accessories				
Other items, specify				
VACUUM ON				
Gaskets				
Lid, vacuum head				
Ejector nozzle				
Containers				
Silencer material				
Float ball				
Other items, specify				
VACUUM ON (TOP COVER ATTACHED)				
Start/stop switch function				
Vacuum				
Noise level				

EN

Items to inspect	OK	Repaired	Replaced	Replaced part number
OTHER ITEMS (SPECIFY)				

Nederman

www.nederman.com