

Portable, Mobile & Compact Extraction Units

FilterCart

ADVANCED +



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Declaration of Conformity

Declaration of Conformity

We, AB Ph. Nederman & Co., declare under our sole responsibility that the Nederman product:

FilterCart Advanced+ (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, 2014/30/EU, 2011/65/EU.

Standards

EN ISO 12100:2010, EN 60204-1:2018, EN 61000-6-2:2019, EN 61000-6-4:2019, EN 61000-3-3:2013, EN ISO 20607:2019

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

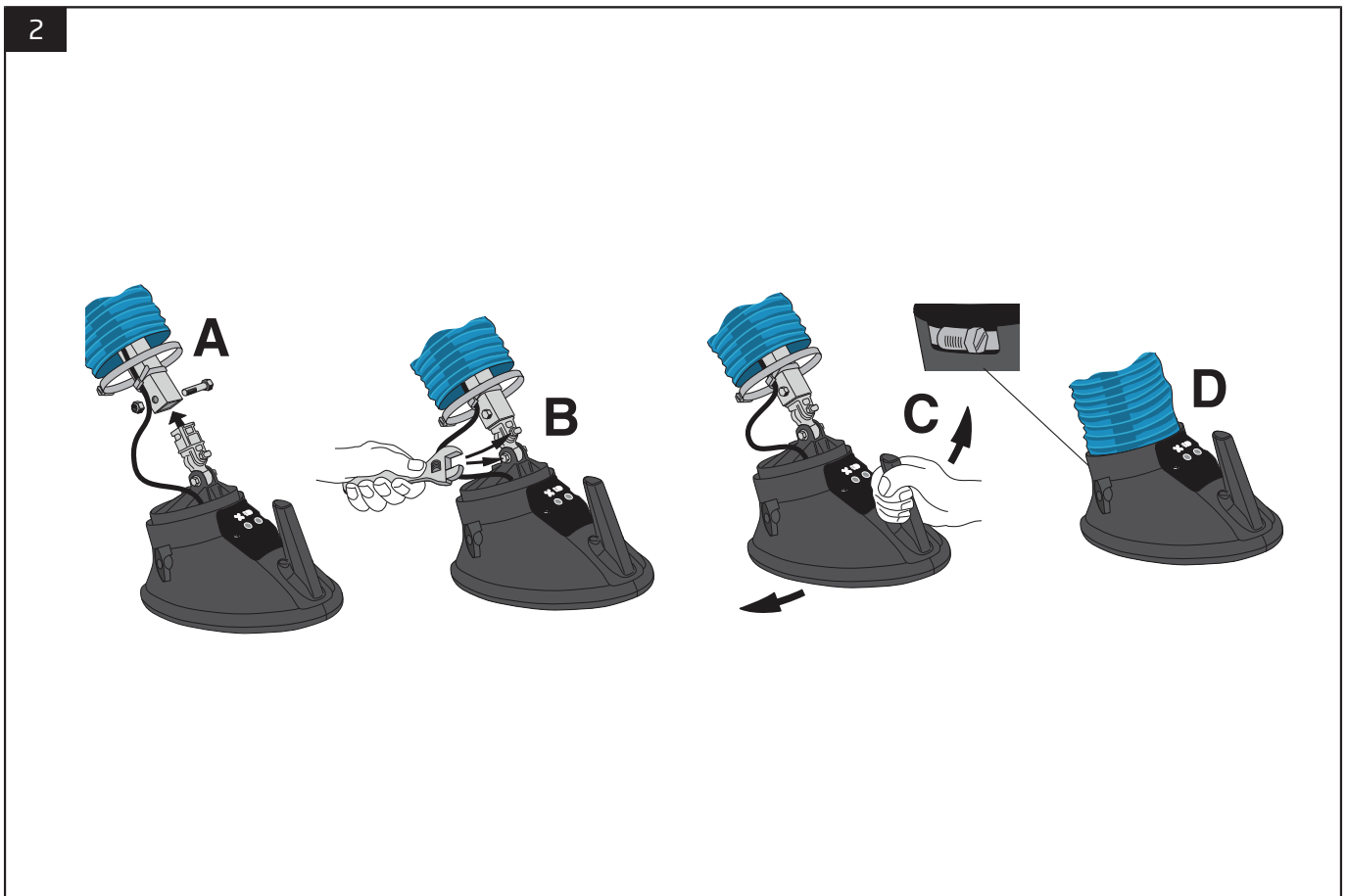
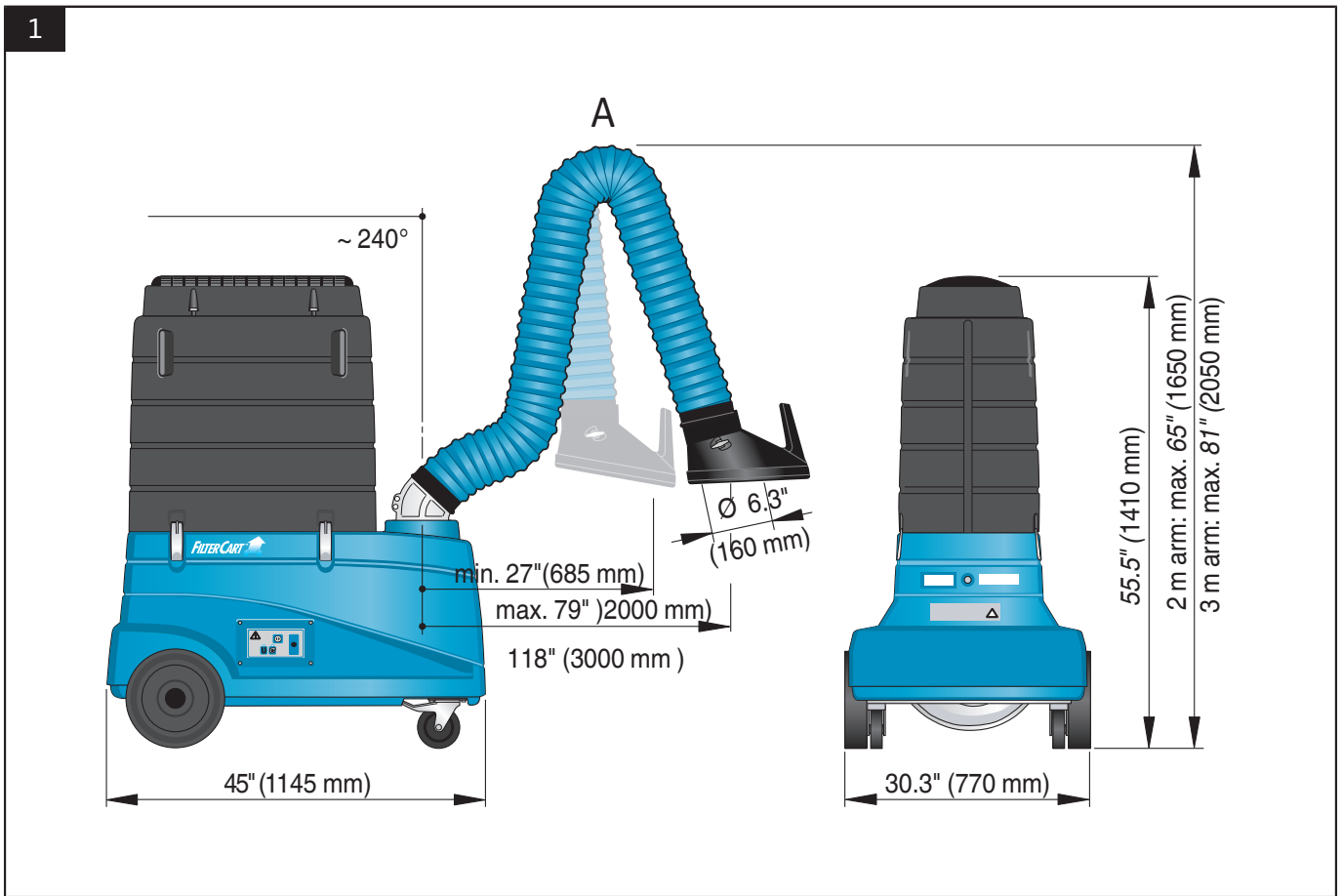
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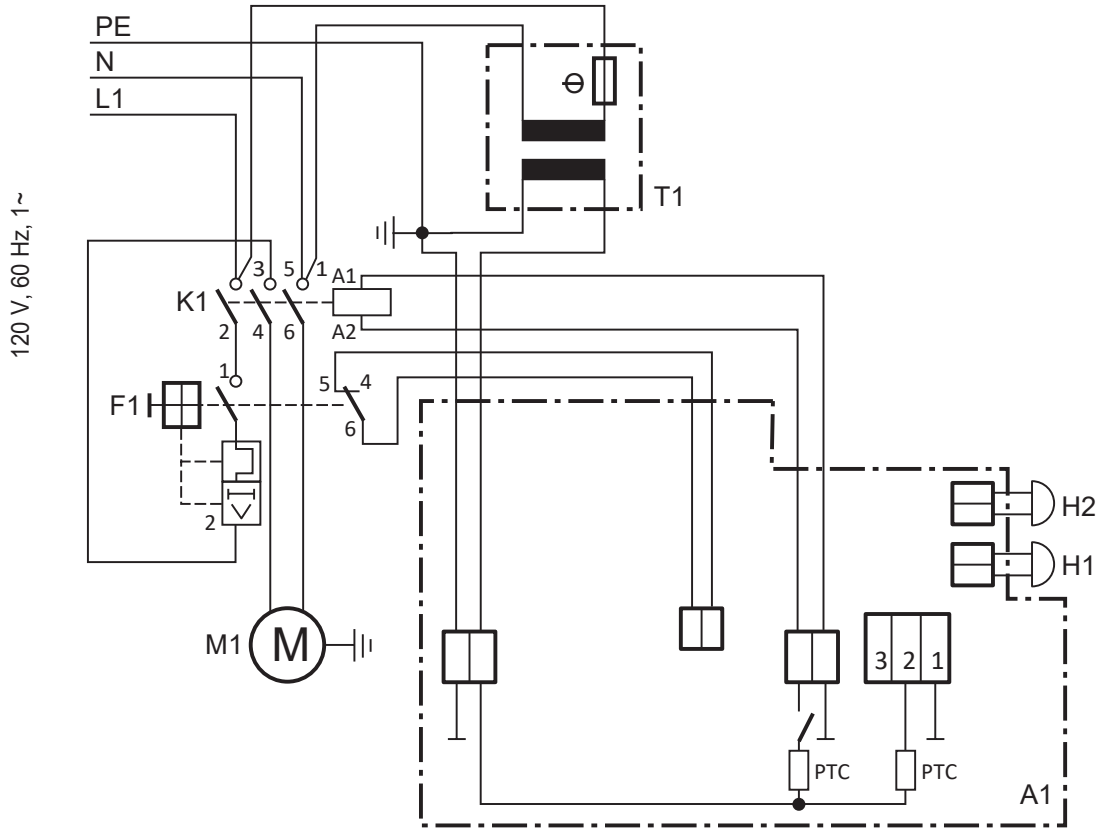
Anna Cederlund
Product Center Manager
Technical Product Management
2022-10-28



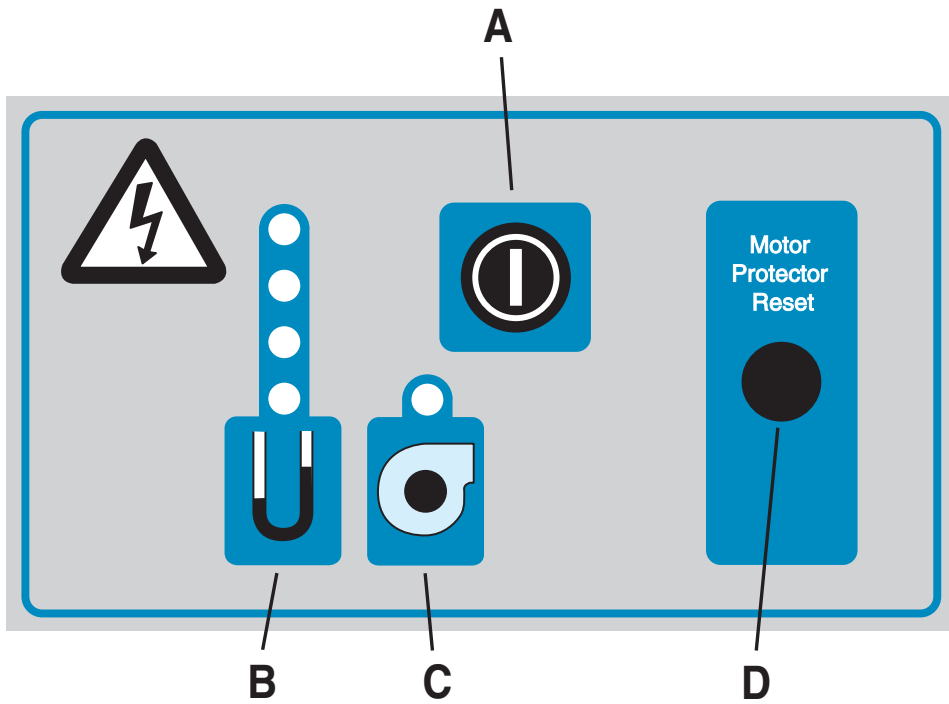
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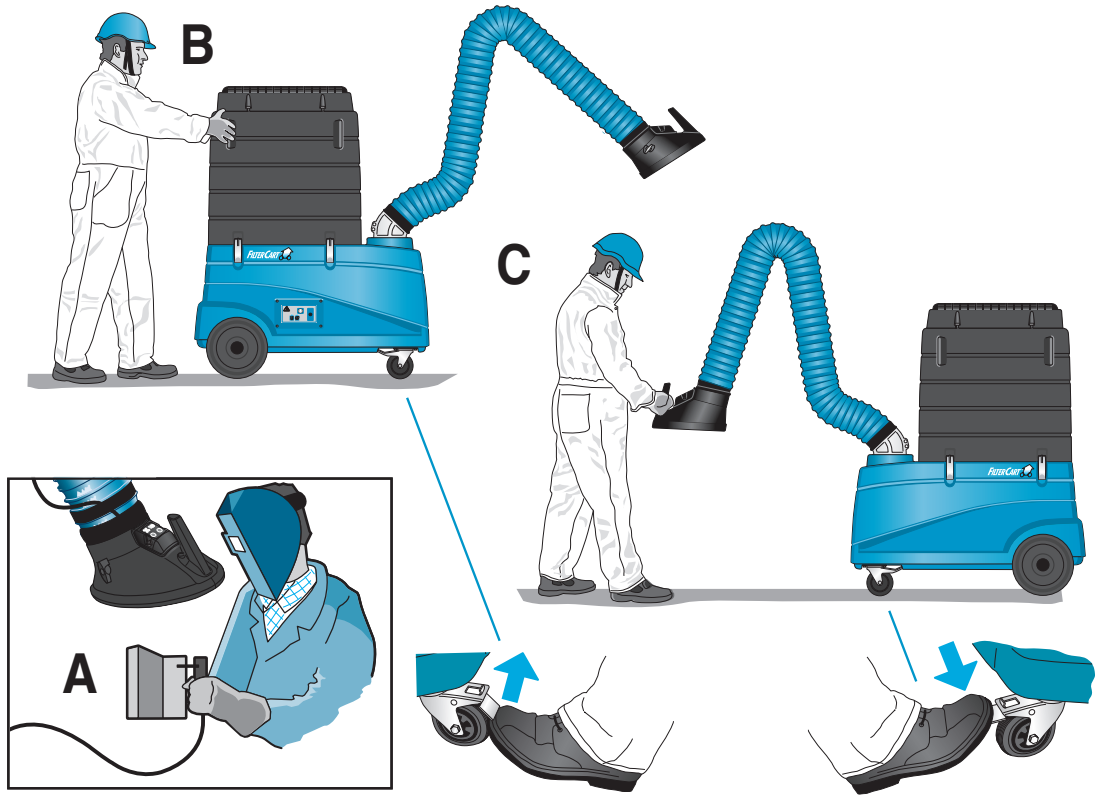
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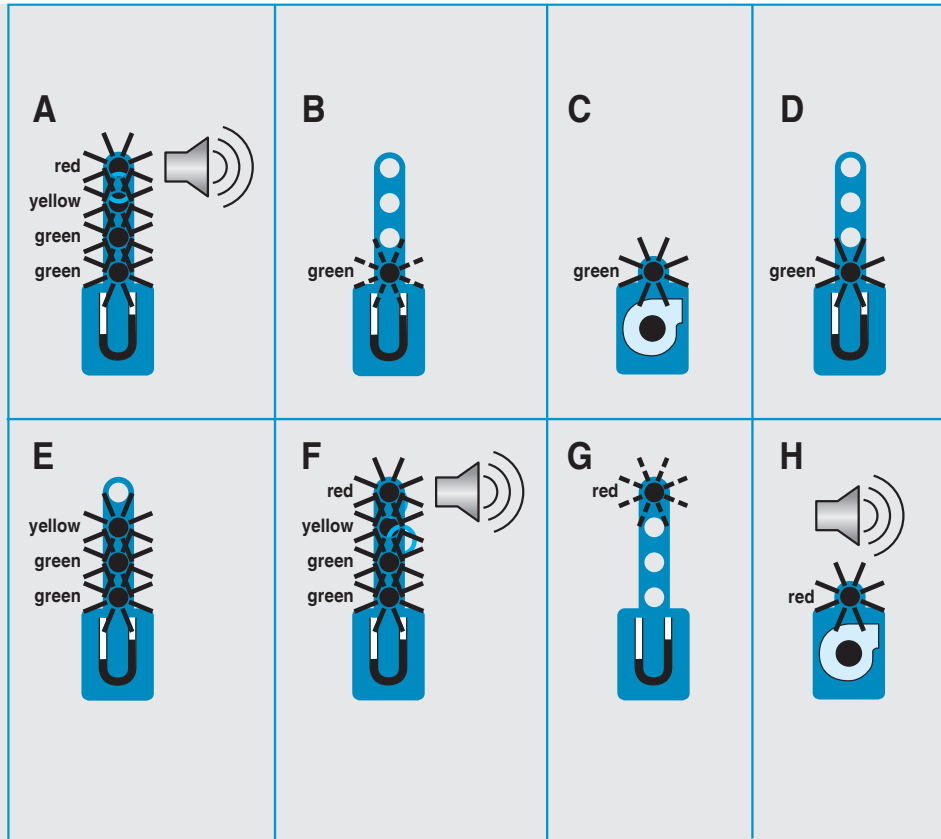
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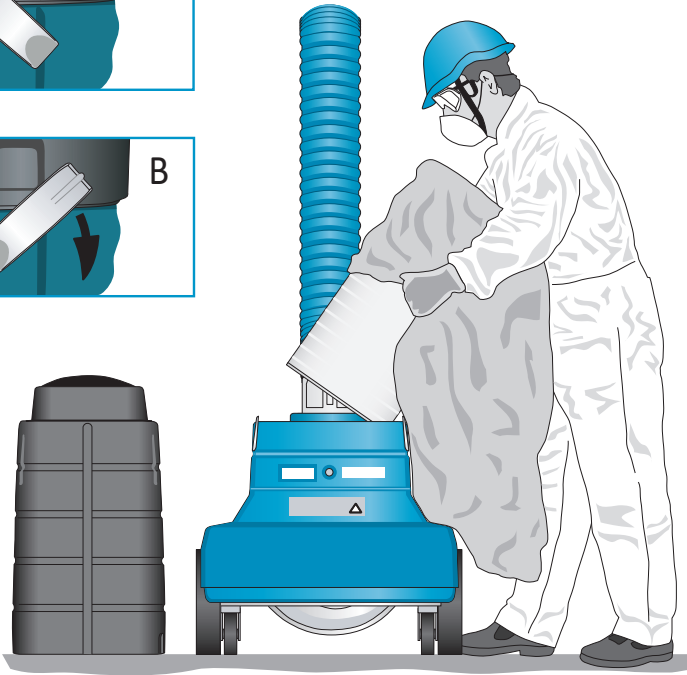
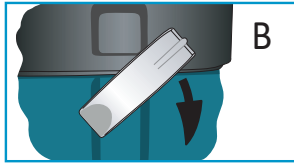
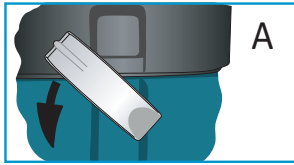
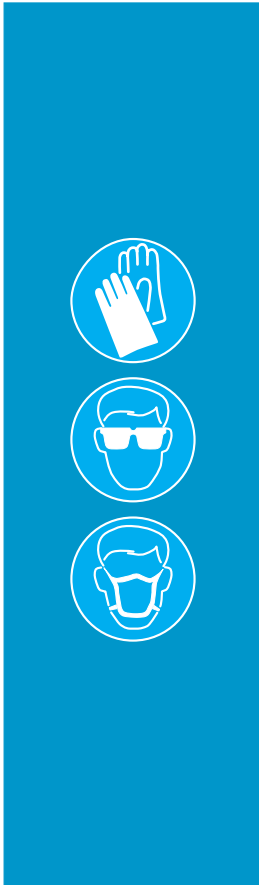
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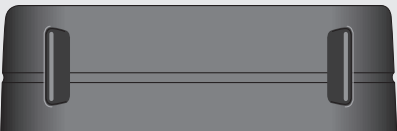
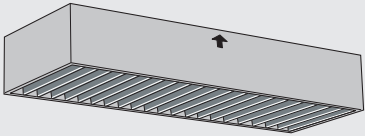
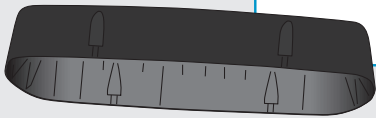
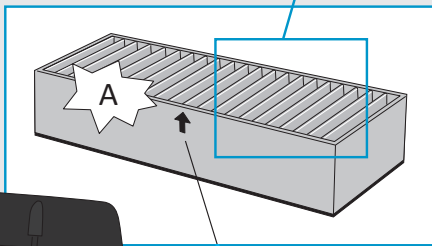
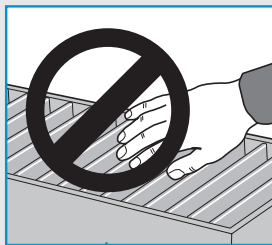
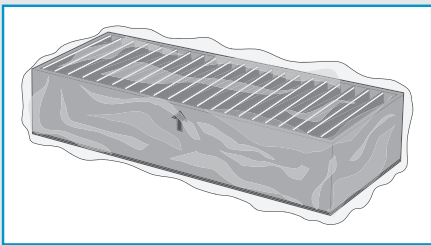
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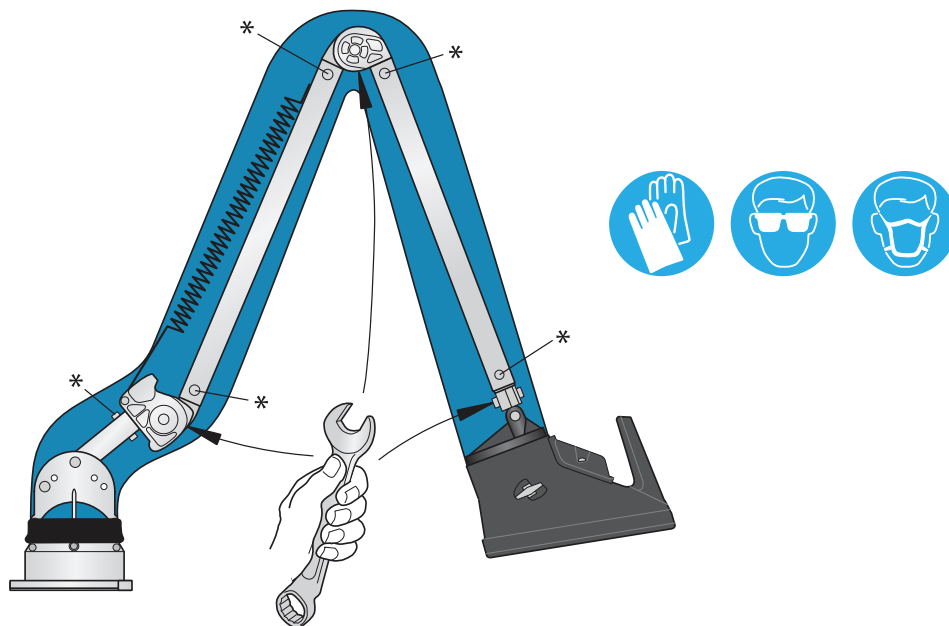
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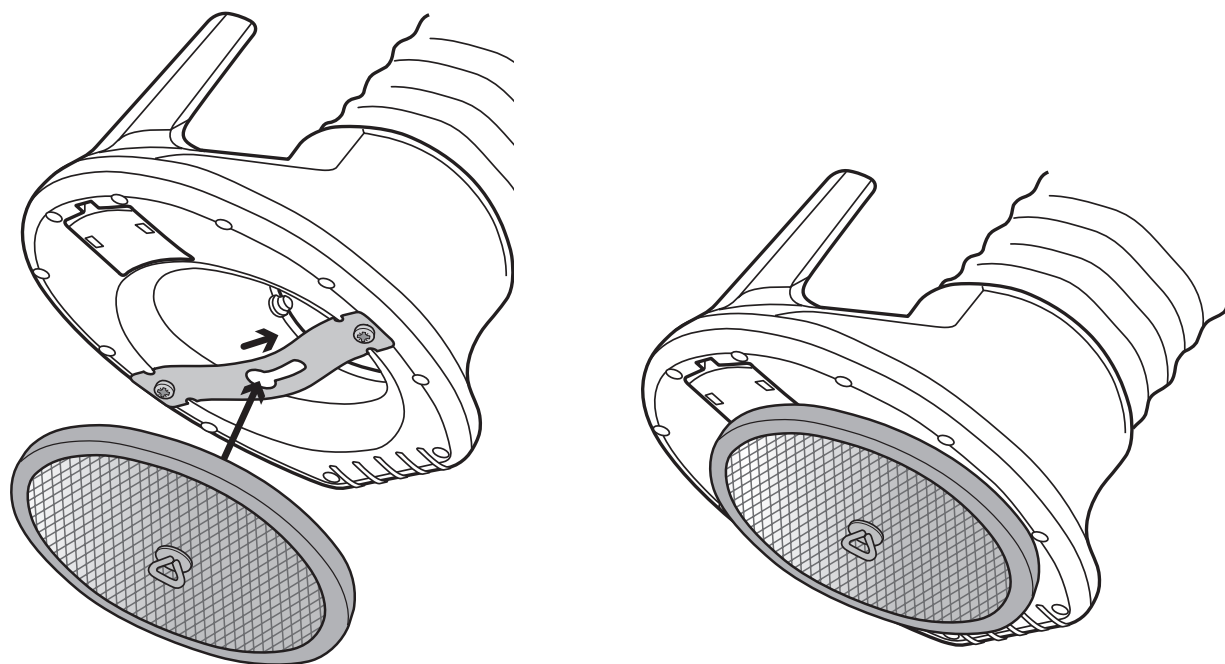
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1 Preface

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 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.

All installation, maintenance, and repair should 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.

2 Safety

2.1 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.

2.2 General safety instructions



WARNING! Risk of personal injury

- In case of fire, smoke from FilterCart Advanced+ may contain hazardous substances such as burning polycarbonate, Pvc, polyethylene, etc. Also, depending on the material being separated, there may be hazardous smoke from the separated dust.
- The product must not be used in an environment with the danger of explosion or for dust or gases in explosive concentrations.
- If the product has been used for dust applications it must not be used for welding fumes or grinding dust.
- Check that no sparks or other objects that can cause fire are sucked into the arm. For welding applications generating a high amount of sparks, spark protection (accessory) must be mounted in the hood to reduce the risk of fire. See [Figure 10](#).
- The product must not be used for extracting toxic substances (except welding fume).
- The product must not be used without filter cartridge and casing.
- The product must not be used in closed rooms without general ventilation.
- Only properly trained personnel are allowed to use this product.

3 Description

FilterCart Advanced+ filters out pollutants such as fumes and dust, is only intended for indoor use and is designed for the extraction and filtration of welding fumes. It must not be used for the extraction of fluids.



NOTE!

The FilterCart Advanced+ does not have any connections for venting of exhaust air.

3.1 Overload protector

See [Figure 4](#). The FilterCart Advanced+ is equipped with an overload protector that disconnects the power automatically if the fan motor overloads.

- C: Red light emission light indicates power is disconnected and overload protector.
- D: Button for resetting the overload protector.

3.2 Control board indications

See [Figure 6](#).

- A When the main plug is connected the light emission diode indicates a fixed light and an alarm signal sounds for a short time.
- B The light emitting diode indicates a blinking green light when the FilterCart Advanced+ has been connected to power supply (stand by).
- C When the FilterCart Advanced+ is started, the light emission diode indicates a fixed green light. The fan is then in operation.

- D The FilterCart Advanced+ is ready for use when the light-emitting diode indicates a fixed green light. Over time, the airflow through the extraction arm will be reduced due to increased pressure drop across the filter as it gets dirty. This will require changing the filter cartridge.
- E The light emitting diodes indicates a fixed light when the pressure drop has increased. Pre-warning for changing the filter cartridge.
- F The light-emitting diodes indicate fixed light and after ~30 s an intermittent alarm signal starts. Change the filter cartridge. If you want to finish the work in progress before the filter cartridge is changed, the alarm signal can be stopped by pushing the start button once. The alarm signal activates after ~10 minutes. Pushing twice on the start button makes the fan stop. As an alternative, the fan can be stopped with the switch on the Fume Extractor hood.
- G The light emitting diode indicates a blinking red light means alarm memory. The FilterCart Advanced+ has been stopped after the alarm start (according to above), for example at work shifts. The filter cartridge has to be changed.
- H The light emitting diode indicates a fixed red light and an intermittent alarm signal starts when the overload protector has been activated. Examine the reason and reset the overload protector by pushing the "Motor Protector Reset" button.

3.3 Dimensions

See [Figure 1](#).

A: Horizontally swivelling arm.

3.4 Technical data

FilterCart Advanced+	
Capacity	397-620 cfm (675-1050 m ³ /hr)
Filtration efficiency, main filter	> 99 % average weight filtration efficiency. Minimum Efficiency W3 (99%), EN ISO 15012-1, MERV 14 (ASHRAE 52.2) *.
Filtration efficiency, HEPA-filter (accessory)	> 99.95 % H13 *
Filter area, main filter	323 ft ² (30 m ²)
Filter area, HEPA-filter (accessory)	81 ft ² (7.5 m ²)
Motor power	1 hp (0.75 kW)
Voltage **	120 V
Phase	1 ~
Frequency **	60 Hz
Transformer	24 V secondary
Alarm signal	acoustic, 2.9 kHz
Extraction arm, action radius	maximum 6' 7" (2 m) or 9' 10" (3 m)
Extraction arm, swivelling	approx. 240°
Weight	<ul style="list-style-type: none"> • 156 lbs (71 kg) with 6'7" (2 m) arm • 161 lbs (73 kg) with 9'10" (3 m) arm
Temperature, max. ambient temp.	104 °F (40 °C)
Temperature, max. airflow temp.	140 °F (60 °C)
Noise level, measured according to ISO 11204.	73 dB(A)
Material recycling	90 weight-%, without filter cartridge

* See the filter cartridge information for more specific data.

** Depending on the model.

4 Installation

4.1 Initial operation

See [Figure 4](#).

- 1 Ensure the FilterCart Advanced+ has not been damaged during transport.
- 2 Verify that the power supply voltage is the same as on the name plate.
- 3 Connect the connection cable with the plug to the power supply. The light-emitting diodes at B indicates a fixed light and an alarm signal sounds for a short time. The light diode at C indicates a blinking green light (stand by).
- 4 Start the FilterCart Advanced+ with switch A.
- 5 The light emission at C indicates fixed green light: The fan is in operateion.

4.2 Fitting the Fume Extractor hood

The Fume Extractor arm is already fitted. The hood must be fitted according to [Figure 2](#). Adjust the links so that the hood can easily be positioned.



NOTE!

X: Cable with loop.

4.3 Wiring diagram

See [Figure 3](#).

- M1: Fan motor, 1 hp (0.75 kW).
- A1: Circuit card.
- T1: Transformer, 24 V secondary.
- K1: Relay, fan.
- F1: Overload protector relay.
- H1: Alarm signal, 2.9 kHz.
- H2: Alarm signal, 2.9 kHz.

* Voltage: depending on the model.

5 Directions for use

See [Section 4.1 Initial operation](#) and [Figure 5](#).

- The hood of the extraction arm is to be positioned as close to the pollution source as possible, see item A.



NOTE!

For specific positioning details, see the separate manual for the hood.

- The FilterCart Advanced+ is to be moved from behind according to item B and with the wheels unlocked.
- The extraction arm is to be positioned with the wheels locked according to item C.

6 Maintenance



WARNING! Risk of personal injury

- Disconnect the mains connection cable before starting any maintenance work.
- Use the necessary personal safety equipment.
- FilterCart Advanced+ needs to be cleaned before any disassembly.
- FilterCart Advanced+ must only be disassembled in a well-ventilated room.
- Use proper equipment, such as a vacuum cleaner to clean FilterCart Advanced+.
- The area where maintenance is done must be properly cleaned after work is complete.

See [Figure 9](#). Maintenance is recommended at least once a year. Complete as follows:

- Change the filter cartridge (and optional HEPA-filter) if necessary, see [Section 6.1 Changing the filter cartridge](#)
- Check that the Fume Extractor hose is not damaged. If necessary change the hose.
- Check that the hose to the fan inlet is not damaged. If necessary change the hose.
- Check that no objects have been caught on the guard net on the fan inlet.
- Check that the pressure drop hose (from the control board) not is damaged and is fitted properly.
- If necessary, adjust the Fume Extractor links.
- If necessary, tighten the arm profile bolts, see the * symbols in [Figure 9](#).
- Check that the mains connection cable and the fan motor cable are not worn out or damaged.
- Check that the eccentric locks tighten the filter casing properly. Adjust the eccentric locks if necessary. See [Section 6.1 Changing the filter cartridge](#).

6.1 Changing the filter cartridge

See [Figure 7](#). The filter cartridge is disposable and is to be thrown away after use. The life span of the filter cartridge varies greatly depending on how the FilterCart Advanced+ is used and how much and what type of pollutants are collected.

Regularly check the light-emitting diodes on the pressure drop symbol on the control board to know when to change the filter cartridge, see [Section 3.2 Control board indications](#). Always check that the hoses for the extraction arm and the fan inlet are undamaged before it is decided to replace the filter cartridge.



WARNING! Risk of personal injury

Use necessary personal safety equipment when replacing the filter cartridges.

Change the filter cartridge in the following way:

- 1 Disconnect the power cable.
- 2 Unlock the locks and remove the filter casing.
- 3 Use the plastic bag supplied with the new filter cartridge and pull it over the used cartridge. Fold the plastic bag under the cartridge.
- 4 Use a duster to wipe off the filter cartridge contact surfaces in the FilterCart Advanced+. Put the duster in the plastic bag with the filter cartridge and close the bag with the band supplied.
- 5 Handle the used filter cartridge according to the relevant regulations for the substances that have been collected.
- 6 Check that the pressure drop hose (from the control board) not is damaged and is fitted properly.
- 7 Check that the new filter cartridge is not damaged. Also, check that the seal fitted on the underside of the cartridge is not damaged. Then fit the cartridge on the FilterCart Advanced+.
- 8 Refit the filter casing. Make sure the locks tighten to the filter casing properly.
 - A: Increasing the locking power.
 - B: Decreasing the locking power.

6.2 Changing the HEPA-filter (accessory)

See [Figure 8](#). If the FilterCart Advanced+ has been supplied with a HEPA-filter, this is to be changed at the same time as the main filter cartridge is changed.



WARNING! Risk of personal injury

Use necessary personal safety equipment when changing the HEPA-filter.

Change the HEPA-filter cartridge in the following way:

- 1 Disconnect the power cable.
- 2 Unscrew the top cover.
- 3 Remove the used HEPA-filter and put it in the plastic bag supplied with the new HEPA filter. Close the plastic bag with the band supplied.
- 4 Handle the used HEPA-filter according to the relevant regulations for the substances that have been collected.
- 5 Check that the new HEPA-filter, item A, is not damaged.



NOTE!

The filter surface must not be touched.

- 6 Verify that the UP-arrow, item B, is pointing upwards. Handle the HEPA-filter very carefully and fit it in the FilterCart Advanced+. Ensure it is fitted in the correct position and that the seal is downwards. Check that the seal not is damaged.
- 7 Refit the top cover. Fasten it securely.

7 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.

7.1 Ordering spare parts

When ordering spare parts always state the following:

- The control number (see the product identification plate).
- Part number and name of the spare part (see <https://www.nederman.com/en-us/service/spare-part-search>)
- Quantity of the parts required.

8 Accessories

- HEPA-filter H13, 81 ft² (7.5 m²) high-efficiency final filter, class H13.
- Spark protection, for mounting in the hood. To reduce the risk of fire.

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.

Notes

Nederman

The Nederman Group is one of the World's leading suppliers of products and solutions within the environmental technology sector focusing on industrial air filtration and recycling. These products and solutions reduce the environmental impact of industrial production and create safe and clean working environments while boosting production efficiency.

The group's offering covers the design stage through installation, commissioning and servicing with subsidiaries in 29 countries and agents and distributors in over 30 countries.

Nederman is ISO 9001 and 14001 certified and develops and produces in its own manufacturing and assembly facilities in Europe, North America and Asia.

Nederman Service Capabilities

Nederman has certified service partners trained extensively in servicing our machinery. Make sure to choose a certified technician to service your Nederman equipment as they have the correct tools and knowledge to solve any machinery issues and improve its performance. Be sure to ask if your technician is certified by Nederman.

Our services for dust collection systems are customized to your particular needs. We work with you to understand your needs, then develop a program to meet your specific needs. Our services include: *(not all services available in all locations)*

- Bag Change-outs
- Bag Selection Recommendations
- Collector Re-builds
- Dye Testing for Leakage
- Electrical Tests - Current, Voltage
- Emergency Call-outs
- Filter Media Analysis
- Mechanical Survey and Repair
- Multi-year Contracts
- New Collector Start-up Service
- On-going Technical Support
- Preventative Maintenance Programs
- Repair and Replace
Gauges/Timers/Valves
- Stack Emission Testing
- Training Programs
- Troubleshooting / Auditing
- Velocity, Pressure and Temperature Tests
- Written Service Report

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