

DRESTER BOXER D44C

`QUATTRO Combi`

ENGLISH

Original operators manual
(Ref: Illustration attachment 17015)

DEUTSCH

Originalbetriebsanleitung
(Hinweiss: Bildbeilage 17015)

FRANCAIS

SVENSKA

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PURPOSE OF THE MACHINE

The machine is intended for cleaning of air-driven spray-guns that have been used for painting.

The left side of the unit has two separate areas for cleaning:

1. An automatic washer (items 1A illustration 1), intended for cleaning of spray-guns with gravity fed paint-cups.

In this washer either thinner-based solvents or water-based solvents can be used.

2. A sink (items 2A illustration 1), intended for manual cleaning of other tools used in connection with vehicle paint-jobs like: spray-guns with suction fed paint-cups, filler scrapers, paint brushes and such.

In this sink either thinner-based solvents or water-based solvents can be used.

The right side of the unit has two separate areas for cleaning:

- a. An automatic washer (item 1B illustration 1), intended for cleaning of air-driven spray-guns with gravity fed paint-cups that have been used for painting with water-based paints.

In this washer water or water-based solvents can be used.

- b. A sink (item 2B illustration 1), intended for manual cleaning of other tools used in connection with vehicle water-based paint-jobs like: spray-guns with suction fed paint-cups, filler scrapers, paint brushes and such.

In this sink water only shall be used.

All other use of the unit are not allowed like:

- Emptying excess paint into the unit
- Cleaning of electric chargeable items
- Collecting of various waste
- Cleaning of textile materials
- Storing of items
- Cleaning of hands or other parts of the human body
- Cleaning of any items for food or drinks

The coagulation process described below (according to recommendations from the paint manufacturer) allows the cleaning water to be re-used. *CHECK CAREFULLY WITH THE APPROPRIATE AUTHORITY TO ENSURE THAT THE FILTERED WATER OBTAINED AFTER THE COAGULATION PROCESS MAY BE EMPTIED INTO THE REGULAR DRAIN-WATER SYSTEM. YOU MAY NEED INFORMATION FROM THE PAINT MANUFACTURER WHEN DOING SO*

ASSEMBLY

- First of all, check if the machine has been damaged during the transport. Remove the packaging and

check again that the machine has not been damaged during the transport. If so, report this immediately to the transport company.

- Fit the flange for the extraction (item 3 illustration 1) with the 4 screws included
- Fit the glass window into place (item 13 illustration 1)
- The air-line on the left side of the unit (item 4 illustration 1) is during transport placed inside the unit. Take it out, and fasten it with the magnet in a suitable place on the left side. This air-line is intended to blow out the spray-gun after the cleaning procedure.
- The air-gun on the right side of the unit (item 12 illustration 1) is during transport placed inside the unit. Take it out, and fasten it with the magnet in a suitable place on the right side. This air-gun is intended to blow the spray-gun dry after the cleaning procedure.

The DRESTER BOXER QUATTRO C is equipment Category 2 (ref. ATEX-directive 94/9 EC) and may therefore be placed in locations classified as Zone 1 (ref. ATEX-directive 1999/92 EC). If the DRESTER BOXER QUATTRO C is installed in locations classified as Zone 2 (or in unclassified locations), the area within a radius of 1 m from the DRESTER BOXER QUATTRO C is to be classified as Zone 1, and within a radius of an additional 2.5 m from the unit as Zone 2 (total classification: 3.5 m around the machinery and 1 m above it). Within this area, all equipment such as electrical items must be approved for the Zones described. Equipment that generates naked flames or sparks (e.g. welding or grinding equipment) may not be used in this area. Smoking is not permitted. If in any doubt, contact the local fire service authorities for advice.

Make sure that the unit is properly grounded by using the grounding cable (item 6 illustration 2).

This manual is part of the unit and must be available at all times.

INSTALLATION

Compressed air

The unit must be connected to compressed air of 7-12 bar (110-180 psi). When in use, the unit consumes 150 litres/min (6 cfm) of air (450 litres/min (16 cfm) if connected to a DRESTER AIRVENT 11660).

The air is to be connected to the moisture trap inside the unit (item 1 illustration 2). To access this point, remove the front panel (item 5 illustration 1) by lifting it up-and-out.

The air-line can be led into this point via the slots on the side of the unit, or through the open back of the unit. In either case, make sure that the air-line do not bend the hoses or in any other way harm the pneumatic system of the unit.

To prevent pressure drops, the air line and couplings must be adequately dimensioned. The regulator on the unit is pre-set to 6.5 bar (100 psi). This is the optimal setting and must not be altered.

The compressed air supplied to the unit must be clean and dry. If it is not first led through a water trap and filter, it may cause damage to the pneumatic components of the unit, which will invalidate any warranty claims.

Fit a connector to the air-line on the left side of the unit (item 4 illustration 1). This air-line is intended to blow out the spray-gun after the cleaning procedure.

Tap-water connection

Connect a hose for tap water to the water inlet connector (item 13 illustration 2).

The hose can be led into this connector via the slots on the side of the unit, or through the open back of the unit. In either case, make sure that the hose do not bend the air-lines or in any other way harm the pneumatic system of the unit

Drain hose

Connect a drain hose to the drain outlet connector (item 12 illustration 2). Lead it on to, and secure it well to a regular drain-water system.

The hose can be led into this connector via the slots on the side of the unit, or through the open back of the unit. In either case, make sure that the hose do not bend the air-lines or in any other way harm the pneumatic system of the unit

Ventilation

There are three different options for the unit's ventilation. For all three options, it must be ensured that the speed of the air flow at the opening of the hood is at least 0.5 m/s (this corresponds to a ventilation volume of 800 m³/h (500 cfm)).

The ventilation must be connected in such a way as to ensure the grounding of all parts.

Option 1: Connect the flange of the hood (item 3 illustration 1) directly to a metal ducting, which is in turn connected to a ventilation system approved for Zone 1. The ventilation capacity must be at least 800 m³/h (500 cfm).

Option 2: Fit an air-driven DRESTER AIRVENT 11660 to the hood and connect this in turn to a metal ducting. Connect

this ducting to a ventilation system approved for Zone 1 to ensure that the ventilation is at least 800m³/h (500 cfm). NOT E: the DRESTER AIRVET 11660 alone can not reach this ventilation requirement.

Option 3: Connect the hood to an electric ventilator of a kind like DRESTER MINIVENT 2055 via a metal ducting. The exhaust from the ventilator must be led outdoors.

PERMITTED SOLVENTS

The left side of the unit:

This side can be used with solvents and solvent mixtures intended for spray-gun cleaning, such as acetone, toluene, isobutanol, xylene that are listed as Group IIA according to IEC 79-20 (EN 60079-20).

Never use any solvent if it is not provided with an MSDS (Material Safety Data Sheet). Read the MSDS carefully, and follow all the instructions and procedures provided in the MSDS. If unsure, or if more information is needed concerning the solvent, please contact your solvent supplier.

Do not add other chemicals to the solvent including, but not limited to, kerosene, gasoline, detergents, fuel oil or chlorinated solvents.

The right side of the unit:

In the Automatic washer on this side (item 1B illustration 1) water or water-based solvents can be used.

In the Sink on this side (item 2B illustration 1) water only shall be used.

General:

All solvents must have a pH value between 4 and 10. Be sure not to mix water-based solvents with thinner-based solvents. It is important that all users are informed of what solvent is being used, at all times.

PERMITTED SOLVENT DRUMS

The DRESTER BOXER QUATTRO C can be used with different types of drums, but they must comply with the following:

- The drums must fit into the unit
- The drums must be leak-free.
- The drums must be made of a conductive material (valid for the solvent drums used on the left side of the unit).
- Check for local regulations concerning max allowed volume for keeping solvents at the site of the unit

Solvent drums are not provided by Hedson Technologies, thus Hedson Technologies does not take any responsibility for the drums. Follow the solvent supplier's instructions carefully.

COLLECTING TRAY

The unit must be installed in such a way as to prevent accidental leakage of solvent or contaminated water from spreading into a drain water system, thus representing a hazard to the environment. This can be done by:

- installing the unit in a location where floor and walls can hold any accidental drum leakage, or
- equipping the unit with a collecting tray beneath the solvent drum and water container that is large enough to hold the volume of at least one leaking item.

Remove the front panel (item 5 illustration 1) by lifting it up-and-out.

Remove the foot-pedal console (items 6 illustration 1) by lifting it up and folding it out to the side (see illustration 2).

Solvent drums for the left side of the unit:

Two drums are needed, one drum that is empty, and one drum full of solvent. Both drums must be of the same size, and they must meet the requirements described under chapter *PERMITTED SOLVENT DRUMS*. Both drums must be clean on the inside and they must not contain any solids or other objects that could be sucked into the pumps when running.

Drum plugs

There are several types of solvent drums on the market, each with different diameter of the opening. With the unit, a cardboard box with a selection of tapered plugs is supplied (see illustration 3). Select the plug that fit well into the opening of the drums, and fit them onto the drum adaptor of the hoses (see illustration 4).

Solvent fill-up on the left side of the unit:

Use one empty drum and another drum of the same size full of clean solvent.

Place the empty drum underneath the unit (item 2 illustration 2). Insert the group of hoses containing the drain hose from the sink into this drum (item 4 illustration 2). Make sure that the hoses are properly led well down into the drum, and that the opening is well sealed by the tapered plug.

Take the second drum, the one full of solvent, and pour half of its contents directly into the gun cleaner's sink (item 2A illustration 1). The solvent that is poured in will drain into the drum underneath the gun cleaner. Make sure to have the ventilation running during this procedure.

Place the second drum, now half full, on the floor by the first drum (item 3 illustration 2). Insert the second group of hoses containing a white hose into this drum (item 5 illustration 2). Make sure that the hoses are properly led into the drum all the way down to the bottom, and that the opening is well sealed by the tapered plug.

The solvent system for the left side of the unit is now filled-up. Both drums should be half full. The first drum connected to the drain hose from the sink, contains the solvent that will be recirculating for the automatic wash cycle, and the second drum connected to the white hose contains clean solvent for rinsing. **The contents of the right drum will gradually be used up and transferred to the left drum.**

Solvent drum with water based solvent for the right side of the unit:

Place the drum underneath the unit (item 14 illustration 2). Insert the group of hoses containing the drain hose from the automatic washer on the right side into this drum (item 15 illustration 2). Make sure that the hoses are properly led well down into the drum, and that the opening is well sealed by the tapered plug.

Water

Fill the filtrate container (item 7 illustration 2) to 1/2 of the volume with clean water.

Operating instructions

Operating instructions should be formulated on the basis of this manual and translated into the language spoken by the employees. It should always be available close to the machine. To avoid confusion, the employees must be informed about the solvent currently being used in the machine.

SERVICE

Weekly:

- Remove the strainers at the bottom of the automatic washers (item 2 illustration 5) and clean them, do not forget to re-fit!

Monthly:

- Remove the five nozzles in each automatic washer and clean them with clean solvent. (see illustration 8).

When changing drums:

- Check and if necessary clean the strainers on the suction hoses.

When changing filters:

- Check and if necessary clean the strainer on the suction pipe.
- Take out the filtrate container (item 7 illustration 2) and empty it completely. Rinse it with water and wipe it off with cloth or paper.

Every month:

- Change the water completely.

SAFETY INFORMATION

Hazards may arise from improper use of the DRESTER BOXER QUATTRO C. Hazards may also arise from improper choice/handling of drums or solvent. In order to maintain the high safety standard of the unit, it is important that these instructions are followed.

- Do not operate the unit until you have read and fully understood this entire User's Manual.
- The unit should be installed as described in the instructions.
- The unit should be used as described in the instructions.
- The unit should be maintained as described in the instructions.
- Only original spare parts may be used.
- This User's Manual must be available and in legible condition in close proximity to the unit. Every user shall know where to find the User's Manual.
- Operating instructions should be formulated on the basis of this Users Manual, and translated into the language spoken by the employees.
- Do not modify or in any way alter the unit.
- Do not operate the unit unless it is properly vented. Do not operate the unit if the extraction of vapors is insufficient.
- Avoid contact with liquid and vapour. Refer to the solvents' MSDS (Material Safety Data Sheet).
- Wear chemical goggles or similar, to protect your eyes. Wear chemical-resistant gloves to prevent skin-contact. Wear chemical-resistant clothing to protect against spills or splash.
- Personnel suffering from respiratory problems or allergies to solvents used, must not operate the machine.
- Clean up spills immediately.
- Do not smoke, eat or drink while close to the unit.
- The unit is equipped with a safety valve that will interrupt the automatic wash cycle if the lid is opened before the wash cycle is completed.
- Spray guns or any other paint equipment items cleaned in the unit must be suitable for cleaning in a Zone 1 area (ref. Category 2 according to EN 13463-1/2001). If unsure, please contact the spray gun manufacturer.
- The unit must be properly grounded using the attached grounding cable. If plastic drums are used, the openings should be wiped off with a damp cloth, to avoid static electricity, before inserting or removing any hoses or other equipment.

WARRANTY

Hedson Technologies AB will replace all faulty parts on the DRESTER BOXER QUATTRO C with new parts in accordance with the "Warranty Terms for Hedson Technologies AB No. 7.2-8". This warranty only remains valid if the machine is used in the prescribed manner, and it does not cover the cost of repairs. Always state the machine's serial number and year of manufacture if making a claim under warranty. These can be found on the machine's silver-coloured rating plate. The warranty terms may vary from country to country. The importer can provide you with details.

TECHNICAL DATA

Manufacturer HEDSON TECHNOLOGIES AB
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 Sweden
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Type of machine: DRESTER BOXER QUATTRO C
Permitted solvents: See section "Permitted Solvents"
Max solvent (water based) volume of machine: 30+ 30+30 litres
(Check for local regulations concerning max allowed volume for keeping solvents at the site of the unit)

Maximum drum size: 60
Compressed air needed: 7–12 bar (110-180 psi), 250 l/min (9 cfm)
(450 l/min (16 cfm) with DRESTER AIRVENT 11660)
Ventilation capacity required: 800 m³/h (500 cfm)
Pump capacity: 10 l/min
Solvent pressure 2 bar (30 psi)
Weight 65 kg (140 lb)
Overall dimensions: Height: 1510 mm (59,5") width: 1185 mm (46,7")
max depth: 650 mm (25,5") depth at the floor: 610 (24")
Extractor diameter: 80 mm (7 3/16")
Sound pressure level: <70 dB(A)

OPERATING INSTRUCTIONS

Empty the spray-gun of any residual paint into a separate spills-dish.

Open the main valve for compressed air (item 7 illustration 1).

Open the lid for the automatic washer (make sure it `clicks` into the full open position).

Place the spray-gun inside (see illustration 5).

Be sure to fit the trigger clip following illustration 6, and to push the spray-gun up against the nozzle for the paint-channel (item 1 illustration 5) before you lock it into position with aid of the magnets of the trigger clip.

If you prior to cleaning prefer to remove the Air-cap and the needle of the spray-gun, then place those items as shown by arrow 5 in illustration 5.

Close the lid, and start the automatic pre-wash cycle by pressing the foot pedal No.8A in illustration 1. The spray-gun will now be automatically cleaned for approx. 1.5 minutes with circulating solvent.

When the automatic pre-wash cycle is completed, the spray-gun can be rinsed with clean solvent. The rinsing pump is activated by pressing the foot pedal No. 9A in Picture 1, and continues to work for as long as the pedal is depressed. The pump will feed approx. 75 cc of solvent per pump stroke. **4 pump strokes** are generally sufficient for one rinse. Less if the solvent has recently been changed.

When the cleaning procedure is completed, the lid can be opened and the spray-gun taken out. It can now be manually further washed or rinsed if required.

By pressing foot pedal No.10A in Picture 1, recirculating solvent will be fed through the brush placed in the sink (item 1 illustration 7A).

By pressing foot pedal No.11 in Picture 1, clean solvent will be fed through the spray-nozzle placed in the sink (item 2 illustration 7A).

The brush and spray-nozzle in the sink can be used independently of the automatic washer at any time, provided that the lid for the automatic washer is closed.

Connect the spray-gun to the air-line on the left side of the machine (item 4 illustration 1), and blow out the spray-gun through the funnel in the sink (item 3 illustration 7A). By using this funnel, you prevent the fumes from spreading within the premises.

Finally, the spray-gun can be blown dry by using the air-gun on the right side of the unit (item 12 illustration 1).

Close the lid after cleaning.

OPERATING INSTRUCTIONS

Empty the spray-gun of any residual paint into a separate spills-dish.

Open the main valve for compressed air (item 7 illustration 1).

Open the lid for the automatic washer (make sure it `clicks` into the full open position).

Place the spray-gun inside (see illustration 5).

Be sure to fit the trigger clip following illustration 6, and to push the spray-gun up against the nozzle for the paint-channel (item 1 illustration 5) before you lock it into position with aid of the magnets of the trigger clip.

If you prior to cleaning prefer to remove the Air-cap and the needle of the spray-gun, then place those items as shown by arrow 5 in illustration 5.

Close the lid, and start the automatic pre-wash cycle by pressing the foot pedal No.8B illustration 1. The spray-gun will now be automatically cleaned for approx. 1.5 minutes with circulating solvent.

When the cleaning procedure is completed, the lid can be opened and the spray-gun taken out. It can now be manually further washed or rinsed with water.

By pressing foot pedal No.10B in illustration 1, recirculating water will be fed through the cleaning brush placed in the sink (item 1 illustration 7B). Note that the ball-valve on the brush (item 6 illustration 7B) must be in an open position.

The spray-gun's paint channel can now be rinsed with clean water. Press the tapered nozzle of the rinse-gun (item 2 illustration 7B) against the paint channel of the spray-gun. Pull the triggers on the spray- and rinse-guns simultaneously. Then rinse the outside of the spray-gun with the rinse-gun.

The brush and rinse-gun in the sink can be used independently of the automatic washer at any time.

Connect the spray-gun to the air-line on the left side of the machine (item 4 illustration 1), and blow out the spray-gun through the funnel in the sink (item 3 illustration 7B). By using this funnel, you prevent the fumes from spreading within the premises.

Finally, the spray-gun can be blown dry by using the air-gun on the right side of the unit (item 12 illustration 1).

Close the lid after cleaning.

OPERATION WITHOUT TAP-WATER CONNECTION

If tap water is not available at the site of the gun-cleaner, you have the option to use recycled water (obtained from the filtering process) for the rinse-gun as well as the cleaning brush

In that case the machine should be reconnected as follows:

Disconnect the hose for the rinse-gun (item 1 illustration 9) from the valve-panel, remove the red plug from the cross-junction on the pump (item 2 illustration 9) and fit the hose in it's place.

The wash-brush as well as the rinse-gun in the sink will now both operate with recycled water by pressing foot-valve 10B illustration 2.

When using the rinse-gun, the valve on the wash-brush (item 6 illustration 7B) must be closed.

THE COAGULATION PROCESS

1. EMPTYING THE FILTRATE CONTAINER

When the water level reaches the level of the working platform (item 4 illustration 7B), it is time to perform the coagulation process. The filtrate container (item 7 illustration 2) must however first be completely drained of its remaining content.

Remove the front panel (item 5 illustration 1) by lifting it up-and-out.

Turn the lever (item 9 illustration 2) to open position, turn the lever on the cleaning-brush in the sink to a closed position and start the draining by opening the valve for the pump (item 8 illustration 2). The pump will now completely drain the filtrate container through the drain hose and into the regular drain-water system.

You will be able to tell when the filtrate container is empty, since the pump will start to run faster. Then close the valve for the pump as well as for the drain hose.

2. COAGULATION

N.B.: IT IS ABSOLUTELY VITAL THAT THE COAGULATION PROCESS IS CARRIED OUT WITH THE GREATEST CARE, SO THAT LARGE FLOCKS OF COAGULATED PAINT ARE FORMED. OTHERWISE THE FILTERS WILL IMMEDIATELY BECOME OBSTRUCTED, AND CANNOT BE RE-USED.

A: Remove the working platform (item 4 illustration 7B).

B: Open the valve for the water agitator (item 5 illustration 7B).

C: Add the coagulation powder as recommended by the paint manufacturer.

D: Stir the powder with a stick for a moment to avoid that it sinks down to the bottom in lumps.

D: Allow the agitator to run for a few minutes.

E: Stop the agitator occasionally for around 30 seconds since this improves the coagulation process. The total coagulation time is around 5-10 min, depending on the amount of powder, the level of contamination, etc.

When this is done, close the valve for the agitator.

3. FILTRATION

Open the drain-valve (item 10 illustration 2) and drain the wash-basin completely into the filter (item 11 illustration 2). Clean the inside of the wash-basin thoroughly with the cleaning brush (i.e. with recycled water), so that any remains of residual flocks are completely drained into the filter.

When this is done, close the drain-valve

CHANGING THE FILTER

N.B.: MAKE SURE THAT YOU USE ORIGINAL DRESTER FILTERS, NR. 8701 (MAIN FILTER), AND NR. 8702 (PRIMARY FILTER). THESE FILTERS HAVE BEEN TESTED AND APPROVED BY THE PAINT MANUFACTURERS.

The primary filter (item 2 illustration 11) collects most of the coagulated sludge, while the main filter (item 1 illustration 11) collects the finer paint particles.

Remove the sludge from the primary filter after each coagulation process (once it is completely dry, the sludge is easy to remove from the filter). By doing so the primary filter can be re-used up to 10 times.

The main filter will gradually become blocked after trapping the finer paint particles. In general, the main filter can be used for up to 5 coagulation processes. The main filter must however be changed every 1-2 months, otherwise there is a risk that mould will develop.

N.B.: THE COAGULATION SLUDGE MUST BE HANDLED IN ACCORDANCE WITH REGULATIONS FROM THE

APPROPRIATE AUTHORITY. INFORMATION FROM THE PAINT SUPPLIER MAY BE NECESSARY.