

1. Preface

The Qad system was developed in conjunction with various lacquer manufacturers and is primarily suitable for drying water-soluble lacquers. Because of changes in legislation spray paint companies in countries within Europe, are increasingly applying water-soluble coatings. This has resulted in a growing demand for a successful drying system for water-soluble lacquers.

Practical applications have shown that Qad is the best drying system for this type of lacquer. It is universally applicable to almost any type of existing or new spray booth and hardly takes up any space.

Further tests with various lacquers have also shown that the Quad system is advantageous when drying 2K lacquers, including clear and solid-colour lacquers.

The use of a Qad system during the drying process ensures that considerably shorter drying times are achieved, with even better results.

Chemicar would like to congratulate you on your decision to purchase a Qad system – we are convinced that you have made an excellent investment.

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2. Qad System Operation

Filtered air is sucked in by two fans from above the filter ceiling.

The air is sent through channels to the four corners of the spray booth and injected back into the booth at an accelerated speed via 8 or 10 adjustable nozzles.

As the accelerated air mixes with the descending air from the filter ceiling, a continuous airflow is created across the surface of the vehicle. This guarantees a faster and more even drying process.

When the protective doors open, the fans switch on and the burner in the spray booth is activated.

All this is set in motion by simply pressing the green button on the Qad control panel!

3. Operation

- 3.1 When operating the Qad system ensure that the spray booth is set to spray position. This will ensure optimum airflow from the nozzles as a result of the overpressure above the filter ceiling.
- 3.2 Ensure that the Qad doors are closed at all times during spraying, to prevent pollution of the nozzles.
- 3.3 Ensure that the vehicle entering the spray booth is clean, to prevent dust from being blown about.
- 3.4 If plastic or paper masking has been applied, ensure that it is cleaned (air hosed) outside the booth and that it has been properly secured to prevent it from being blown free.
- 3.5 Thoroughly degrease and clean the areas to be sprayed and check again that the masking material is properly secured.
- 3.6 Ensure that the doors to the spray booth are closed during spraying and wear dustproof clothing.
- 3.7 Leave the spray booth after applying the first layer of water-soluble lacquer and press the green button on the Qad control panel. The Qad will then start automatically and generate a signal at the end of the set period (see setting 4), when the spray booth can be entered for the next application. Ensure that no one enters the spray booth when the Qad system is active, to prevent dust problems.

- 3.8 The airflow of the Qad system must not be blocked in any way to prevent dust and swirling.
- 3.9 Once the next water soluble layer has been applied the system can be reactivated (item 3.7)
- 3.10 The system should only be used to dry water-soluble lacquers. Consult the lacquer manufacturer for other applications.**

4. Qad System Settings

4.1 Nozzle adjustment:

The nozzles of the Qad system are set to standard during installation. If the nozzles have been adjusted differently for any reason, they can be returned to their original position on the basis of the following drawings, using the aluminium rod supplied. Do not use other tools, as this could result in damage to the system.

Front of vehicle!

Warning! If the nozzles are set incorrectly the assumed drying times/results may not be achieved. A charge will be made if our technician has to be called out/consulted as a result.

Rear of vehicle!

The enclosed poster also includes the above-mentioned drawings in colour!

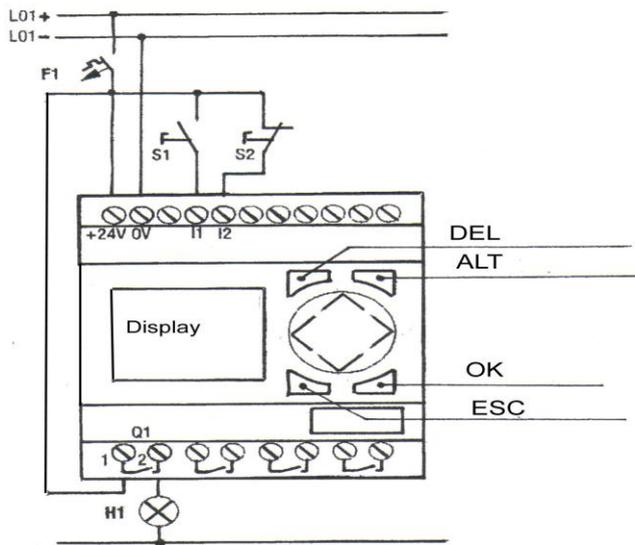
4.2 Temperature adjustment:

The front of the Qad control panel is equipped with an Ascom M4 temperature controller. The temperature on the Ascom M4 can only be adjusted when the Qad system has been activated, by pressing the green button. The temperature is lowered with the ↓ and raised with the ↑. The ideal drying temperature for water-soluble lacquers is 38°C. It should be noted that, during the warmer summer months, this could be too high as the spray booth no longer cools down to the spray temperature of 24°C. In that case it is advisable to set a slightly lower temperature, ensuring however that the set temperature is always +/- 5 degrees higher than the outside temperature, to lower the humidity. The maximum acceptable temperature is 45°C, to prevent the vehicle's

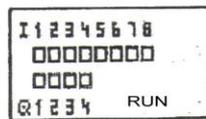
temperature from rising excessively. For any other changes to the Ascom M4 consult your lacquer supplier.

4.3 Qad system drying time adjustment:

The Easy controller is located inside the Qad control panel, on the left hand side.



Starting point display
 "Easy" shows after activation the status indication on the display. This status indication offers information about the switch conditions of the ins and outs and indicates with 'run' that 'easy' is active. Switch with OK back to main menu



u.

⇐ Display

The following information appears on the Display once OK is pressed:

Program
Stop
Parameters

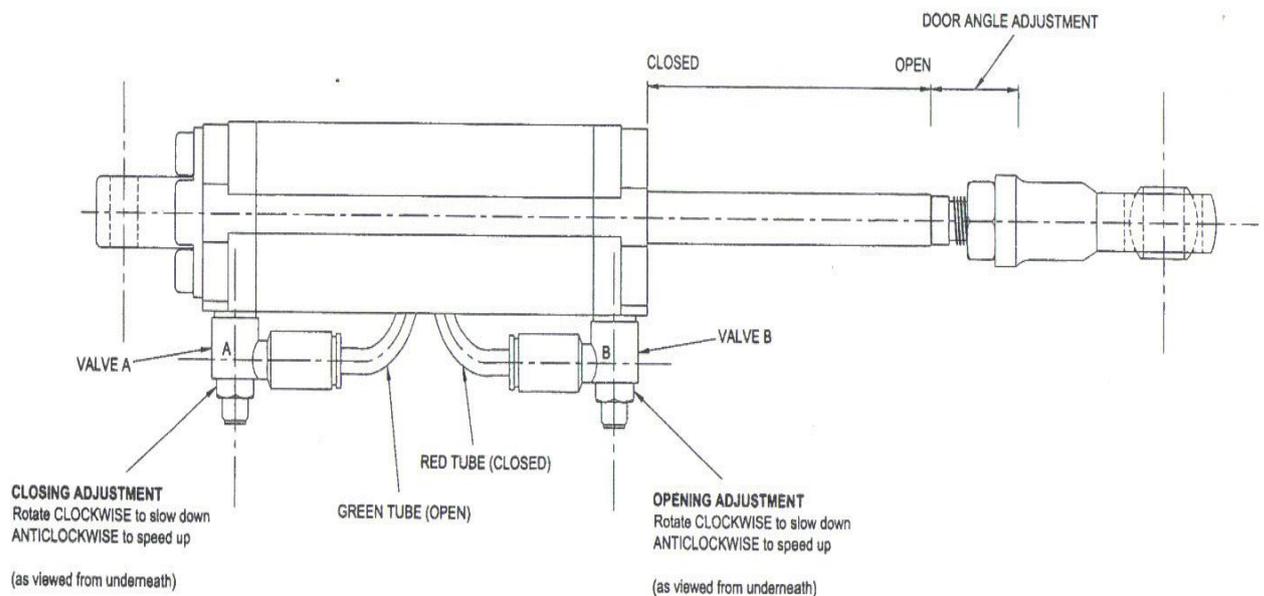
To change the times press the operating switch down twice until **Parameters** flashes. Press OK to proceed to a new program. The cursor flashes on T2, the burner control timer. To change the time press left twice and right once. This brings you to the set time. The time is shortened or lengthened by pressing the arrow on the operating switch up or down. Press OK once the correct time is set. The cursor will move back to T2. To change the total set time press down the operating switch until the cursor is on T3 and repeat the procedure applicable to T2. Once all the times have been set correctly press ESC to return to the starting point display.

Ensure that there is a minimum interval of 2 minutes between T2 and T3 to allow for aftercooling of the spray booth to the normal spray temperature.

Warning! If the nozzles are set incorrectly the assumed drying times/results may not be achieved. A charge will be made if our technician has to be called out/consulted as a result.

5. Qad System Maintenance

- 5.1 Ensure that the nozzles are kept clean. Clean them once a week with a damp, lint free cloth.
- 5.2 Once a month check that the opening/closing mechanism of the Qad doors is operating correctly. If not, use the set screws at the end of the cylinder to adjust the opening/closing speed (see drawing below).



- 5.3 Replace the two filters above the filter ceiling on a regular basis, at least every time the filter ceiling of the spray booth is replaced. Ensure that the printing on the filter is to the inside.

Filters available in sets of 2 (QAD 51). Please contact your lacquer supplier to order them.

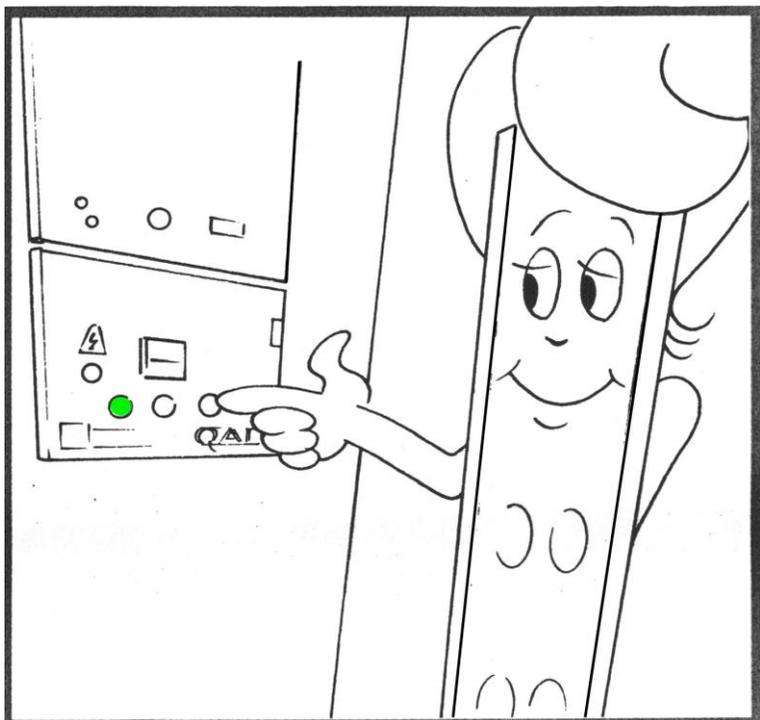
6. Problem solving

| Problem Description | Solution |
|--|--|
| The Qad system doors are not opening/closing properly. | Use very small screw driver to adjust the valves at the end of the cylinder. See drawing with item 5.2 |
| No or insufficient, air is emanating from two of the Qad corners (and Q2). | Open the Qad control panel and check that both motor protection switches have been activated. |
| Insufficient air is emanating from all four corners of the Qad. | Check the filters above the filter ceiling for pollution. Replace them if they are polluted. Order the filters via your lacquer supplier. |
| The system does not react when the green button is pressed. | Check that the spray booth is activated in spray position and check the Qad control panel to ensure that the easy controller is set to run. If not, check that relay Q3 on the Qad control panel is switched on. |
| All sections of the vehicle are not drying at the same speed. | Check the adjustment of the nozzles. Refer to chapter 4 of the manual. |
| Excessive dust. | Ensure that the nozzles are adjusted correctly. Check the filters for pollution. Ensure that the vehicle entering the booth is clean. Do not enter the booth whilst the Qad system is active. |
| | |

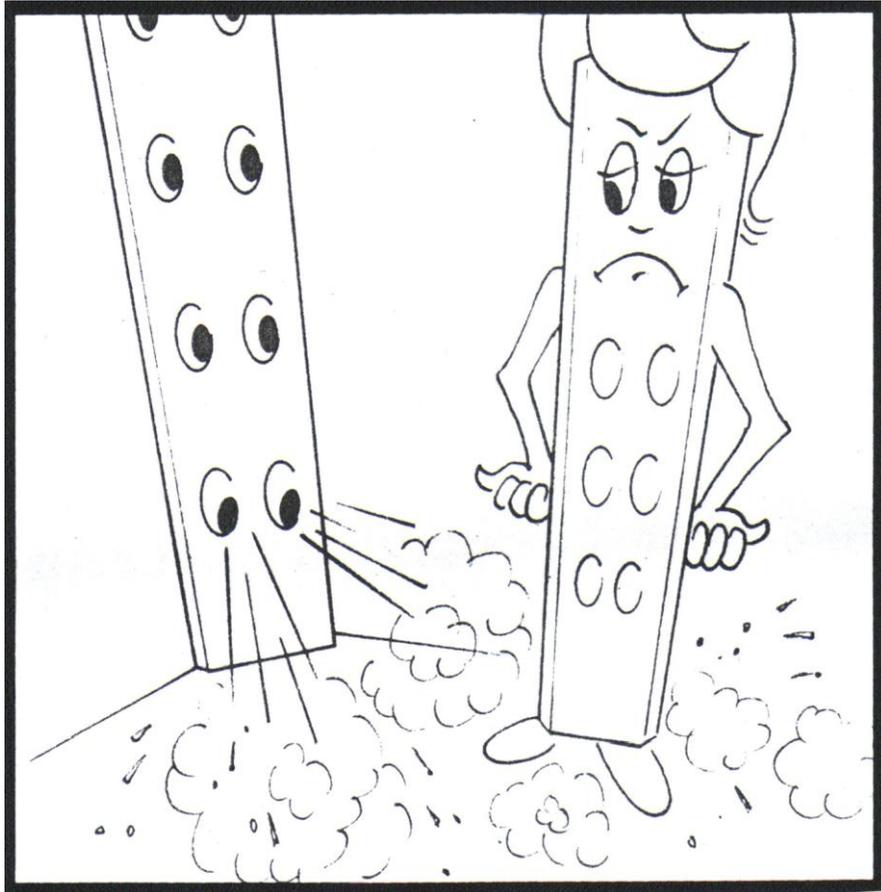
If none of the above solutions prove to be effective, contact:
 Chemicar Europe NV
 Tel. 00 32 3 707 00 20
 Ask for the Qad Service Department.

7. Warranty Conditions

The warranty conditions are included in the enclosed Warranty Conditions Qad/ Qad SN/ Qad On Bake document.
 A charge will be made if changes have been made to the electricity supply, which result in incorrect or non functioning of the system.

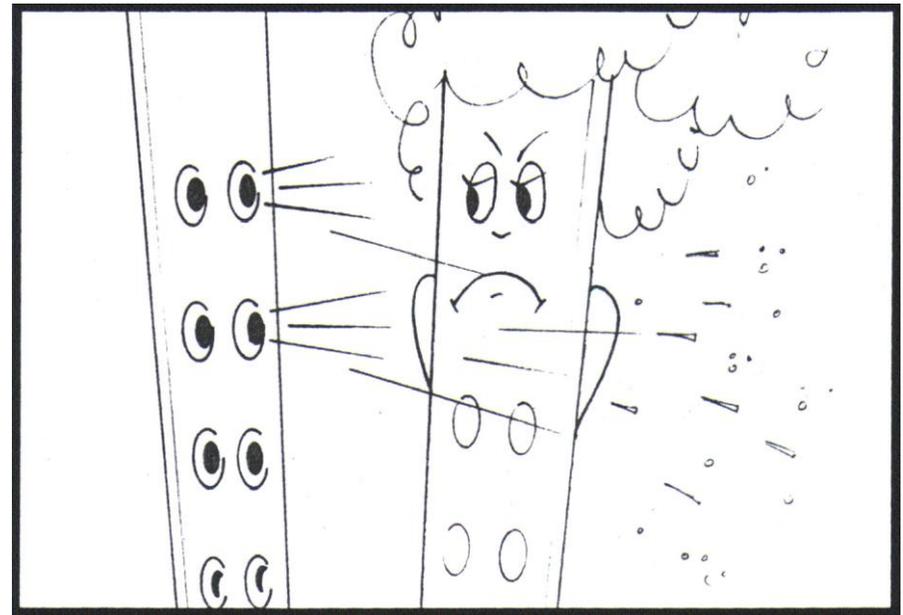


Providing all adjustments have been made properly, the only action required to activate the system is to press the green button on the display!

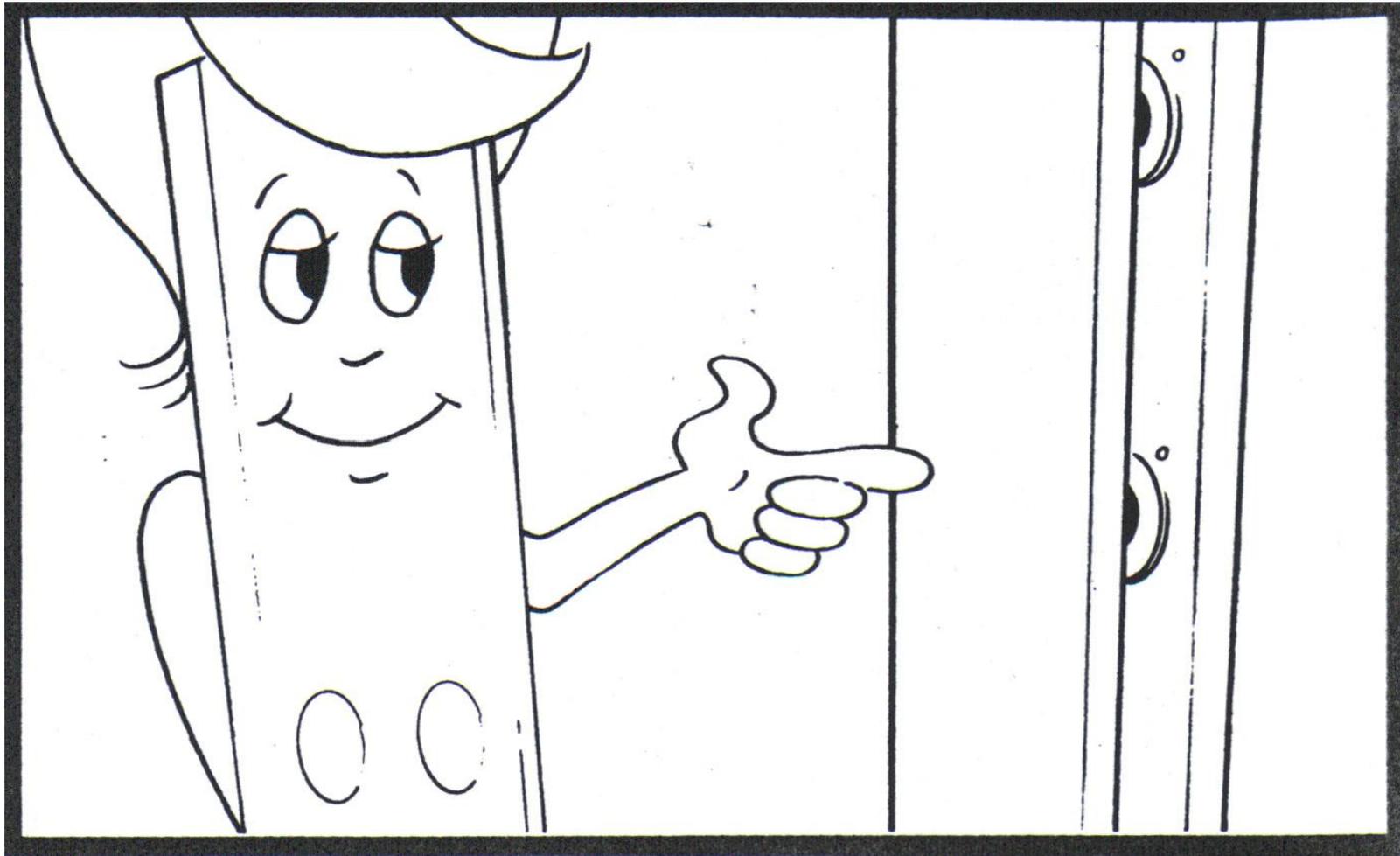


Do not walk in front of the nozzles, when the Qad system is operating!

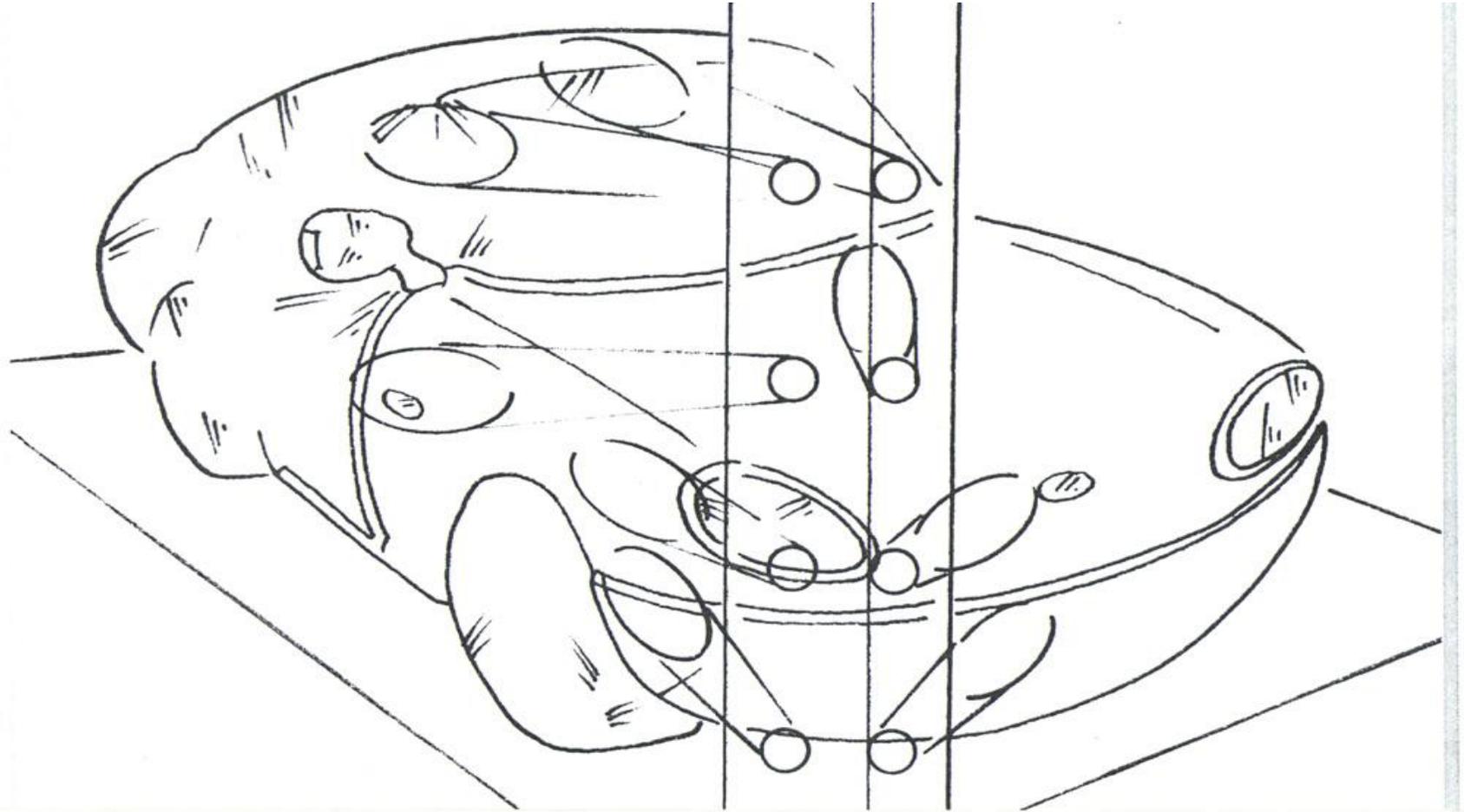
When adjusting the nozzles, ensure that they are not pointing downwards to prevent stirring up any dust.



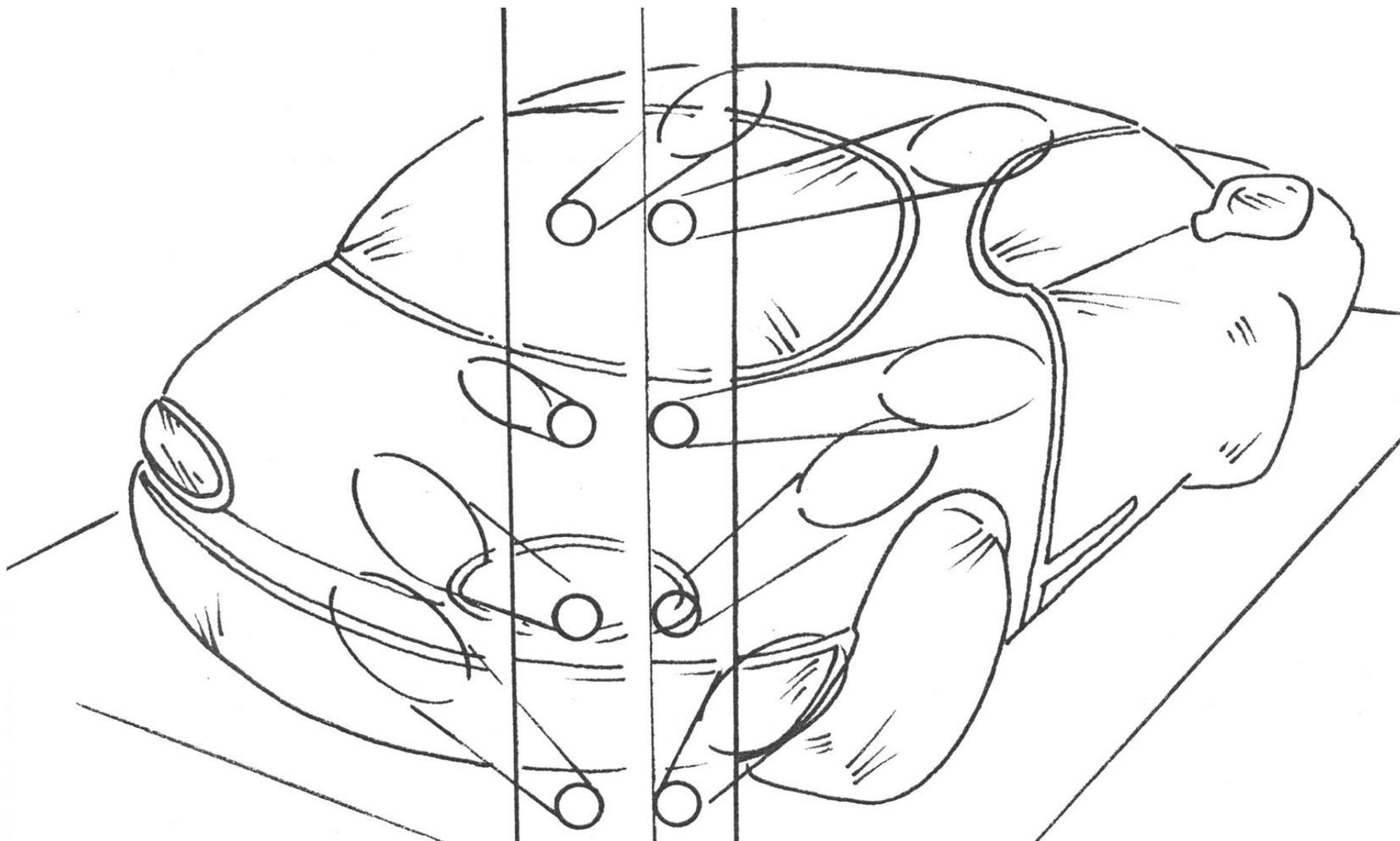
In order to prevent pollution make sure that the Qad doors are always closed when working in the spraybooth!



Adjustment of the nozzles at the front of the vehicle.



Adjustment of the nozzles at the rear of the vehicle



It is advisable to clean the vehicle to be sprayed thoroughly before masking.
This will help prevent dust problems!

