

Instruction Manual

*AUTO 306 accessories:
Rotary Workholder*

Volume 2 - Operating Instructions

Description

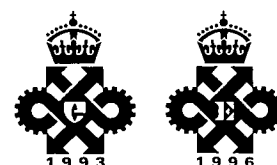
Item Number

Rotary Workholder

E090-49-000



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1 INTRODUCTION

1.1 Scope and definitions

This manual is supplied in two volumes; Volume 1 provides installation and maintenance instructions for the Rotary Workholder for the AUTO 306, Volume 2 provides operating instructions. You must use the Rotary Workholder as specified in this manual.

Read this volume of the manual before you use the Rotary Workholder. Important safety information is highlighted as WARNING and CAUTION instructions; you must obey these instructions. The use of WARNINGS and CAUTIONS is defined below.

WARNING

Warnings are given where failure to observe the instruction could result in injury or death to people.

CAUTION

Cautions are given where failure to observe the instruction could result in damage to the equipment, associated equipment and process.

2 OPERATION

2.1 Operator safety

WARNING

Obey the safety instructions given below and take note of appropriate precautions. If you do not, you can cause injury to people and damage to equipment.

- Read all of the relevant instructions before you operate any accessories.
- Surfaces within the AUTO 306 may be very hot or very cold. Do not touch hot or cold surfaces such as the pump body, source holders, vacuum chamber and components associated with Plasmaglo and other HT discharge processes.

2.2 Unload/load substrates

CAUTION

Ensure that the workholder plate is correctly fitted to the rotary leadthrough. If you do not, substrates can be 'shadowed' and may not be fully covered by evaporant.

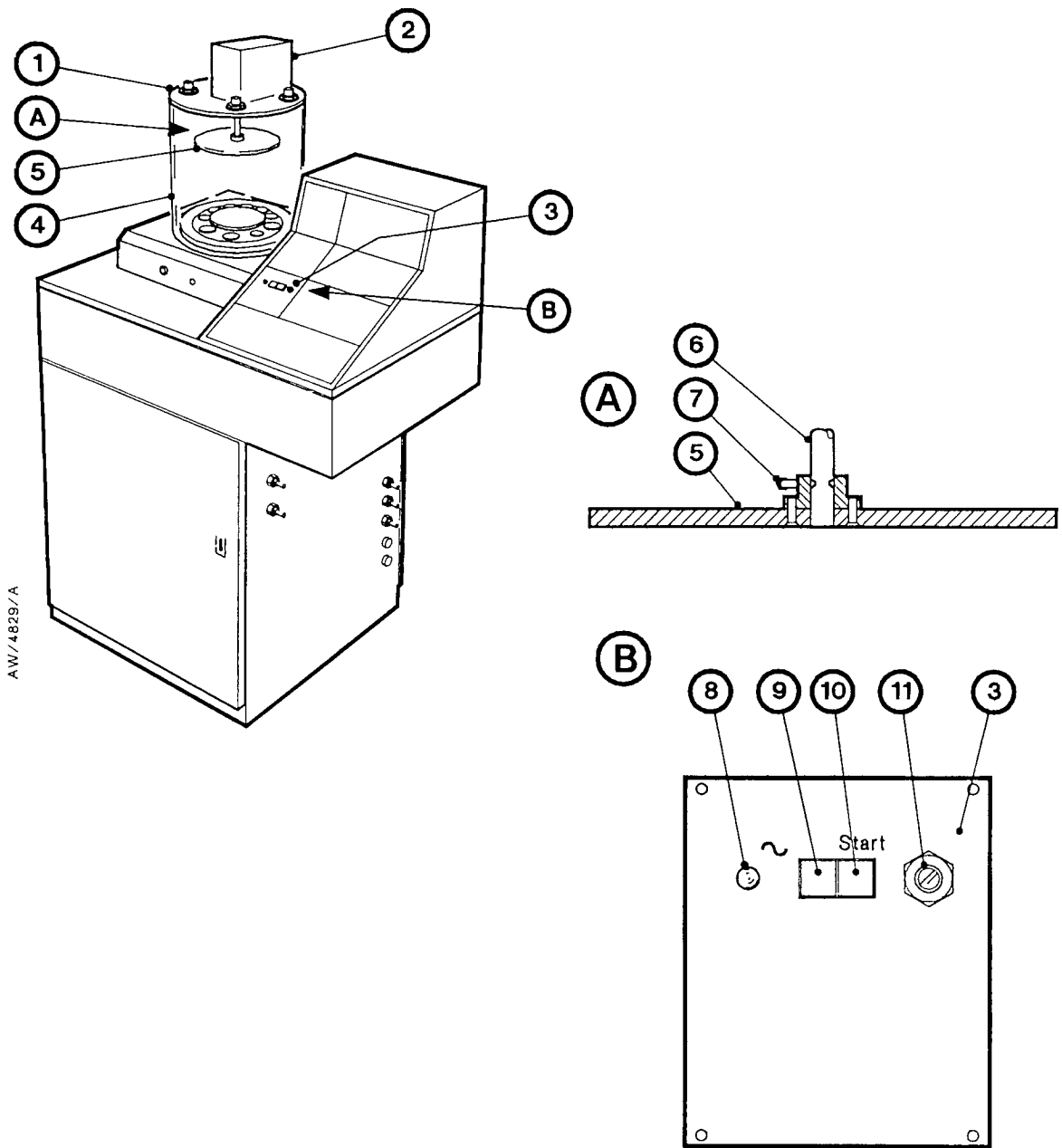
1. Remove the chamber top-plate or open the chamber door, as appropriate.
2. Refer to Figure 1. If required, undo the screw (7) and remove the workholder plate (5) from the rotary leadthrough shaft (6).
3. If you have already deposited evaporants onto substrates, remove the substrates from the workholder plate (5).
4. If required, fit new substrates to the workholder plate. Note that you can machine the workholder plate if required.
5. If necessary, refit the workholder plate (5) to the end of the rotary leadthrough shaft (6) and secure with the screw (7): ensure that the lower surface of the workholder plate (5) is level with the end of the rotary leadthrough shaft (6).
6. Refit the chamber top-plate or close the chamber door, as appropriate.

2.3 Switch on and start the Rotary Workholder

WARNING

Do not press the On(off) button or break the AUTO 306 safety interlocks when the Rotary Workholder is rotating. If you do, the Rotary Workholder will stop immediately and substrates may fall off of the workholder plate.

1. Refer to Figure 1. Press the On(off) button (2) and check that the green On lamp (8) goes on. If the lamp does not go on, refer to the Fault finding section of Volume 1.
2. Press the Start button (10) to start workholder plate rotation. After a small delay, the workholder plate will accelerate to its full rotation speed.
3. If required, adjust the rotation speed of the workholder plate: refer to Section 2.4.
4. Start evaporation, and stop evaporation when appropriate: refer to the instruction manual supplied with your evaporation accessory.
5. Press the Start button (10) again to stop workholder plate rotation.
6. When the workholder plate has stopped rotating, press the On(off) button (9) to switch off the Rotary Workholder. The green On lamp (8) will go off when you switch off the Rotary Workholder.
7. Unload the substrates and load new substrates if required: refer to Section 2.2.



AW/4829/A

- | | |
|-----------------------------|-------------------------|
| 1. Chamber top-plate | 7. Screw |
| 2. Workholder drive | 8. On lamp |
| 3. Control box | 9. On(off) button |
| 4. Cylindrical Chamber | 10. Start button |
| 5. Workholder plate | 11. Speed potentiometer |
| 6. Rotary leadthrough shaft | |

Figure 1 - Components of the Rotary Workholder (shown with Cylindrical Chamber accessory)

2.4 Adjust the rotation speed (optional)

Note: The acceleration and deceleration rates of the Rotary Workholder are preset when supplied. If you want to change the acceleration and deceleration rates, contact your supplier or Edwards.

As supplied, the rotation speed of the workholder plate is preset to approximately 60 rev.min^{-1} ; you can adjust this rotation speed to be any speed between approximately 0 and 60 rev.min^{-1} . To adjust the rotation speed, use an insulated screwdriver and turn the rotation speed potentiometer (Figure 1, item 11) as follows:

- Turn the potentiometer anticlockwise to reduce the rotation speed.
- Turn the potentiometer clockwise to increase the rotation speed.

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