

Automatic Scratch/Scribe Maker

Thank you for purchasing an Automatic Scratch/Scribe Maker from Ascott. Please read these instructions carefully and retain for future reference.



Important Information

This equipment should only be used as intended by suitably qualified and trained personnel.

These instructions should be always readily available to such personnel.

Normal common-sense safety precautions must be taken at all times to avoid the possibility of accidents. We recommend that users produce their own risk assessment for the entire testing process for which this equipment will be used.

1.0 Introduction

The Automatic Scratch/Scribe maker has been designed to meet the requirements of corrosion testing plate scratches.

In the corrosion testing of different coatings (such as Determination of resistance to neutral salt spray of heavy-duty coatings), it is necessary to prepare specific scribe marks on the coating surface. Manual cutting often leads to defects, such as non-straight scribe marks, damaged edges of the scribe marks, inconsistent damage to the substrate. These defects can influence the test results as the repeatability is compromised. Moreover, when making scribe marks on multilayer coatings, manual operation becomes more difficult, taking more time and difficulty to obtain a uniform scribe mark.

- 2mm wide vertical scratch, for strict compliance with testing standards
- The cutting blade uses a rotary cutting principle to ensure the edge of the prepared scratch is neat and without damage.
- The cutting blade has a floating design, enabling the load of different thickness test panels, and minimizing damage to the substrate.
- Permanent magnetic working platform, making it easy to load magnetic substrates.
- With a scale indication, simplifying the cutting of different size scratches.

2.0 Structure



Cutting blade and load adjusting nut: standard with 2mm diameter cutting blade, can replace cutting blade with diameter (1~4) mm; with load adjusting nut above the top can adjustable cutting blade workload, details show as 4.2.3

Working platform: there are two rows of adjusting screw holes on the working platform. The user can move the fixing block to the required position according to the size of the test panel, and then lock the locknut after aligning with the screw hole to fix the test panel. scale is provided on the right and back sides of the working platform to control the scratch length.

Control button: From right to left: power button ,rotary button, back button, forward button

power button: Controls the total power supply of the instrument, press it to turn on or off the instrument.

rotary button: Controls the running and stopping of the motor above the cutting blade.

back button: Controls the cutting blade backward movement and stop, open the back button, the cutting blade backward movement.

Forward button: open it, the cutting blade move forward

3.0 Parameters

Working Distance: 0-150mm Scribe

Mark Depth: 0-2000 μ m

Test panel Thickness:0-5mm(including the thickness of the coating)

Overall Size: 374mm \times 320mm \times 410mm

Working Platform Size:250mm \times 125mm

4.0 Preparation

Put the instrument on a stable, flat surface, facing the operator. Insert the adapter into the power jack on the right-hand side of the instrument, and connect to the power supply.

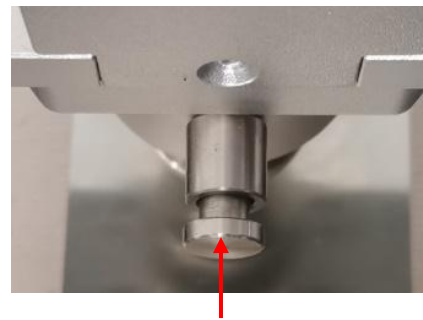
4.1 Cutting blade installation and pressure adjustment

Note: Keep the power off during the installation or disassembly of the cutting blade

4.2.1 Release the hand screw on both sides to tilt the whole rack back; it is recommended to place 1-2 sheets of A4 paper or other thin substrate (thinner than the plate to be tested) on the platform to avoid the cutter scraping the platform.



4.2.2 Place the cutting blade in the cutting blade connection, then straighten the cutting blade holder, let the blade fall freely and contact the substrate, then press down the fix stopper and rotate the cutting blade connection; after rotating to the card slot, the inner fixing can be completely pressed, while holding down the fixing stopper, at the same time, use the standard wrench to lock the connecting, and re-lock the 2 hand screws (shown in 4.2.1), the cutting blade set up.

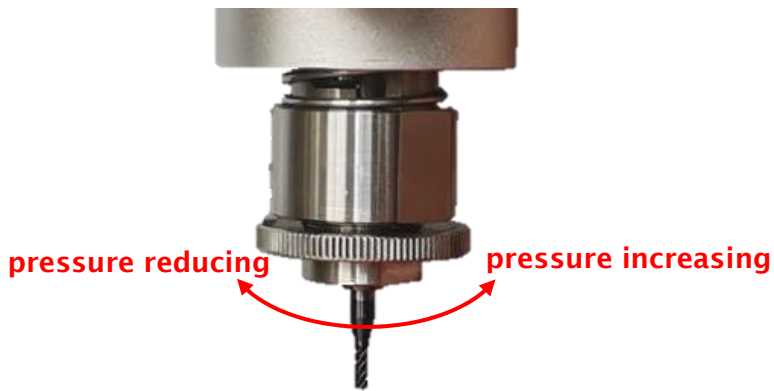


Fix stopper



4.2.3 Pressure adjustment: after fastening the coupling sleeve with a wrench, rotate the nut of loading adjustment and the positioning nut by hand; When rotating counterclockwise, moving the nut of loading adjustment upward to increase the pressure; When rotating clockwise, moving the nut of loading adjustment down to reduce the pressure. After the adjustment is in place, re-lock the positioning nut. When you scratch a regular test panel, it is recommended to adjust the load nut to the bottom first, the pressure is gradually increased when the milling cutter can't completely cut through the test panel.

Ascott Analytical Equipment Limited
 6-8 Gerard, Lichfield Road Industrial Estate, Tamworth, Staffordshire, B79 7UW, Great Britain
 T +44 (0) 1827 318040 F +44 (0) 1827 318049 E info@ascottshop.com W www.ascottshop.com



4.2.3 Lifting the milling cutter: press the inner shaft fixing pin and lift the coupling sleeve of the milling cutter at the same time, and then rotate the coupling sleeve counterclockwise, the milling cutter can be lifted to facilitate the replacement of the test panel.



4.3 Test panel placement: Move the fixing block to the required position according to the size of the test panel, and then lock the locknut after aligning with the screw hole to fix the test panel.



Adjusting screw hole



4.4 Turn on: Make sure the milling cutter is securely installed, put down the milling cutter and contact the surface of the test panel (4.2.3 the reverse step), and then press the power button to switch on the power supply

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4.5 Scratch: Press the milling cutter rotation button, the milling cutter starts to rotate and the milling groove is left at the contact position of the test panel; If the milling groove depth is insufficient to cut through the coating surface to expose the substrate, increase the milling cutter pressure appropriately (when adjusting the pressure, turn off the power supply first, refer to 4.2.3 for details).

Press the forward button, the milling cutter begins to move forward, until reaching the limit position automatically stop; If you need to stop moving halfway, press the forward button again.

Press the back button, the milling cutter moves backward until it stops automatically after reaching the limit position; If you need to stop moving halfway, press the back button again. Note: when starting the instrument, you must first open the rotation button, and then open the forward/backward button; When stopping the scratch, the forward/back button must be closed first, and then the rotation button must be closed to prevent the milling cutter from rubbing against the surface of the test panel in a non-rotating state and causing edge breakage.

4.6 Scratch completion: After scratch completion, close the rotation button, lift the milling cutter (refer to 4.2.3 details), close the permanent magnet platform, and then take out the test panel.

5.0 Important Notes

5.1 In the process of installing or disassembling the milling cutter, please keep the power off to avoid accidents caused by accidentally touching the power button.

5.2 When starting the instrument, the rotation button must be opened first, and then the forward/backward button must be opened; When stopping the scratch, the forward/back button must be closed first, and then the rotation button must be closed to prevent the milling cutter from rubbing against the surface of the test plate in a non-rotating state and causing edge breakage.

5.3 When installing the milling cutter, you are advised to place one or two sheets of A4 paper or other thin substrate (thinner than the panel to be tested) on the platform and adjust the height of the milling cutter to avoid scratching the platform.

If you have any queries regarding your new equipment, or require any additional accessories or consumables, please contact info@ascottshop.com or telephone +44 (0)1827 318040. If you wish to contact us by post, our full mailing address is 6-8 Gerard, Tamworth, Staffordshire, B79 7UW