



Tony International (HK) CO., LTD

No.809 the Center Point Business Center Dongzhong road, Guan cheng Zone, Dongguan City
Tel: 86-769-23010657 Fax:86-769-23010667 Email:tony@tonyhk.hk

English Manual

AATCC Rotary Crockmeter



Model: TF-002

Production introduction

Much appreciated that you buying our products, we provide the high quality goods and reliable after-sales service.

To ensure the personnel safety and equipment integrity, read the operation manual carefully and pay attention to the precautions of using before operation. This manual details the design principles, standards, structure, operation, calibration, maintenance, possible faults and solution, electrical diagram and so on. The “test rule”, “standard” mentioned in the manual are only for reference, if your company disagrees, just review the standards or data on you own.

Special Statement :

- This manual can not be used as the basis for any request to our company.
- Our company keeps the final interpretation right of this manual.

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Safety Attention


1. Safety Sign:

To prevent accidents and body injury, pay attention to the following warning notices:


Danger: This shows if not do as requirement, the operator will be hurt.





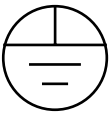
Attention: The project with this sign means that it may affect the test results and quality control.



【note】 the project with this mark means that the auxiliary use



2. The warning and attention sign of instrument.

	warning sign	this mark indicates the place that it need to follow the manual book to operate.
	dangerous voltage	high voltage.
	earth protection	ground terminal

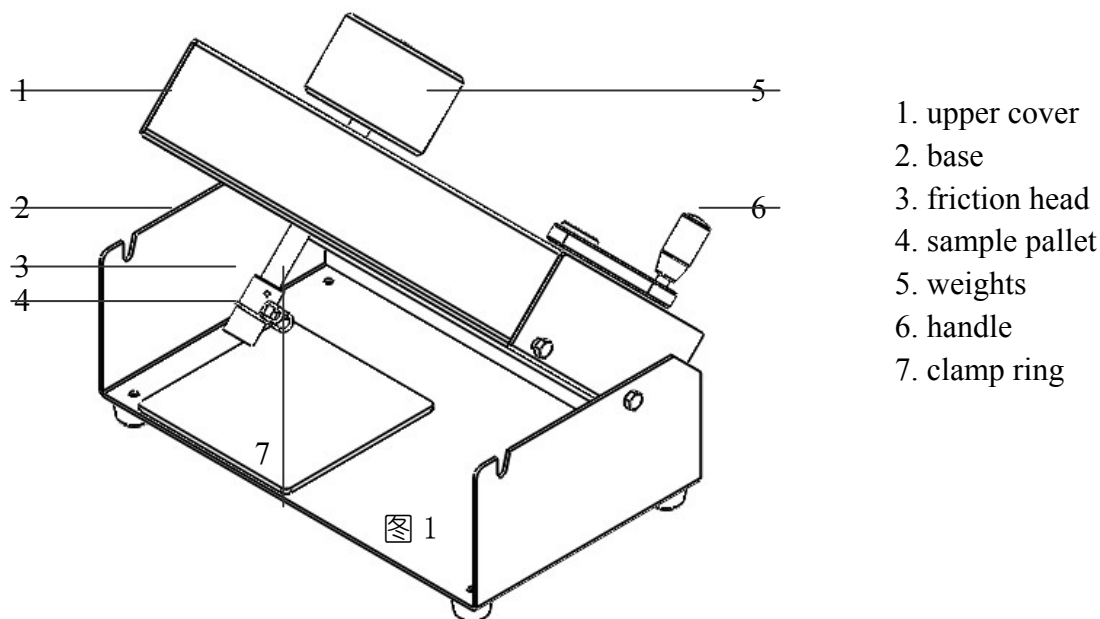
I Introduction

- 1.Purpose: This instrument is used for testing the dry / wet rubbing fastness of fabrics especially printing fabrics.
- 2.Principle: Make the sample doing spin friction with the white cotton cloth at a certain pressure, after that compare the staining of white cotton cloth with the gray scale to assess the decoloration level, so it can provide the basis for the improved fabric dyeing.
- 3.Applied standards: The instrument manufactured according to AATCC116 standard.

II Instrument description

一、 physical construction:

1. physical construction: (figure 1)



2.function description:

Upper cover: drive mechanism

Friction head: cover with the white cotton cloth for rubbing the sample.

Sample pallet: for laying down the sandpaper and the sample fabric, to prevent its movement during the test location

weights: load the sample a certain pressure.

handle: repeatedly reversing the friction head shake to create friction on the specimen

clamp ring: grip the white cloth on the friction head.

二、 Instrument specification(table 1):

items	specification
Test method	the friction head rotates alternately clockwise and counterclockwise
Friction head	diameter 16mm
load	11.1N±10%
dimension(W*D*H)	26*15*21cm
weight(Kg)	≈5.5Kg

Table1

三. spare parts:

white cotton cloth (another purchase) : 50*50mm
 staining grey scale card (another purchase)

III Instrument installation

1. Operation environmental requirement: room temperature.
2. The machine must be placed in a level and stable platform for installation.

IV Operation Specification

一、 Sample prepared:

1. Clipping size 100mm×100mm from the position of at least 5mm width of the test fabric edge, get six specimens ea with long side parallel to the fabric warp or weft, three specimens of each direction for dry-crocking test, another three specimens of each direction for wet-crocking test.

2 · sampe and white cotton cloth prepared steps :

For dry crocking test: put white cotton cloth and the prepared sample at the environment of a temperature of 21 ± 1 °C and relative humidity of $65 \pm 2\%$ for the processing at least 4 hours.

For wet crocking test: put the specimen and friction cloth respectively soaked in pure distilled water, then take out the specimen and friction cloth and use the rolling waterwheel (optional) or a similar method to put the sample and the white cotton cloth on absorbent paper for squeezing until the humidity reaches $65 \pm 2\%$.

二、 Operation steps:

1. Things should be confirmed before operation:

1.1 Make sure the machine is working well.

1.2 make sure the sandpaper surface in good condition and affix on the pallet.

2. Sample and white cotton cloth installation

2.1 Life up the upper part of the friction head with left hand so that the friction head leave the sample pallet, hand cocked up the upper cover to the upright position with right hand;

2.2 Put the prepared sample on the sample pallet and keep it smooth;

2.3 Make the friction head wrapped in white cotton and fix it with the clamp ring.

3. Test start:

3.1 Lift up the friction head with left hand, gently put down the upper cover with right hand, and then gently put the friction head in the specimen;

3.2 Put the weight on the friction head to providing 11.1N load on the specimen;

3.3 Turn the handle to test, stop the testing after 20 turns;

3.4 Machine will be automatically stop when times is over;

3.5 Lift up the upper cover and take out the specimen and white cotton cloth.

三. Result judgement and record:

1. Result judgement: Compare the white cotton cloth with the gray scale to evaluate the test result.

Grade 5ó negligible or no color transfer.

Grade 4.5ó color transfer equivalent to step 4-5 on the Gray Scale

Grade 4ó color transfer equivalent to step 4 on the Gray Scale

Grade 3.5ó color transfer equivalent to step 3-4 on the Gray Scale

Grade 3ó color transfer equivalent to Step 3 on the Gray Scale

Grade 2.5ó color transfer equivalent to step 2-3 on the Gray Scale

Grade 2ó color transfer equivalent to step 2 on the Gray Scale

Grade 1.5ó color transfer equivalent to step 1-2 on the Gray Scale

Grade 1ó color transfer equivalent to step 1 on the Gray Scale

Record the average level of three samples in each test.


2. Result judgement: at least two or more people together judge the final result.

3. Test Report: the test report should have the items as follow:

Report test type: dry/wet crocking fastness test

Report test result: the average level of the dry/wet crocking fastness test

Report the gray scale card that used for comparation

 **【 Remark 】** the notes above are only for reference, please refer to relevant standard documents for more details.

V Maintenance

1. Daub the lubricating oil on the reducer and rotating part of machine every three months so that the machine runs smoothly.

2. Machine should be clean every day before and after each test, and the clamps holder should spray anti-rust oil regularly.

VI Malfunction solution

malfunction	reasons	solution
Turn the handle, friction head is not rotating	a) handle loose b) the internal drive parts loose c) gear damage	a)tighten the screw of handle b)Open the upper cover and installed loose parts. c)replace the same size of the gear

VII Quality Assurance

1. The maintenance service is free for one year(consumables is not free, excluding travel expenses).
2. Free service mainly vouchers: Warranty card issued by our company is the most important certification when the service is controversial.
Thus: a) please keep your warranty card well, if loss within a month, please contact our customer service department.
b) the card is invalid if any altered or no stamp added of our company.
3. Case of the following circumstance, we will also charge for technic and materials as appropriate in the warranty period:
 - a) the nature disaster
 - b) wrong operation or the user's fault
 - c) do not use the power as required
 - d) dismantle and repair without permission.
 - e) error cause by lending to others
 - f) make alterations
 - g) self-correction that failed
 - h) transfer or delivery carelessly

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