SIRTAKI

Hair Combing Machine

Abrasion & hair strength testing
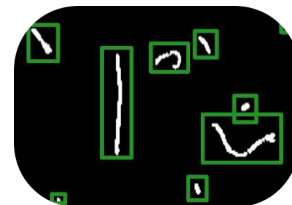
Automatic fine combing

Adjustable combing speed

Automatic single fiber counting

Automatic combing to analyze abrasion resistance and hair strength is an essential tool for Hair Care R&D laboratories.
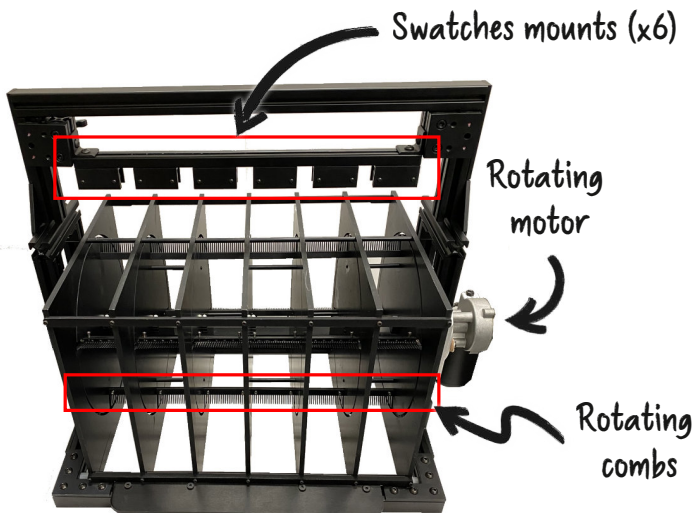
The SIRTAKI combing machine provides an adjustable combing rate - from 10 to 40 rpm with a steady, even torque - for up to 6 swatches at a time.

Swatches mounts (x6)

Rotating motor

Rotating combs

A back-lit tray under the combing mechanism will be automatically slid open to identify and analyze the collected broken hair fibers.

Each slot is fitted with up to 4 evenly spaced and easily replaced combs (or brushes as an option).

The swatch mounts are attached to a height-adjustable bar for maximum adaptability. Hair swatches can be easily removed and attached with the thumb screws mechanisms.
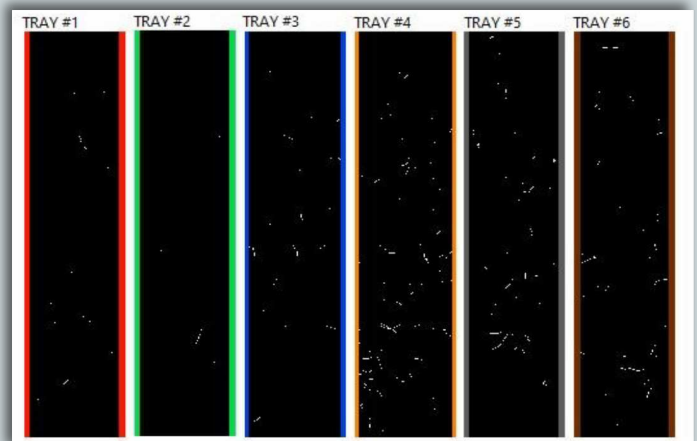
IMAGE PROCESSING

Periodically, the system will acquire images of the tray containing the broken fibers for analysis.

The system can automatically provide the fiber coverage (global fiber surface) of each tray, and its evolution over time.

It can also provide an automatic fiber count and length distribution for separated fibers, coupled with user-friendly analysis for more complex geometries. The most difficult fibers to analyse can be manually inspected and processed to have a complete count of the fiber breakage.

This process can be done with cumulative or non-cumulative measurements. With the cumulative measurement, broken fibers stay in the trays and accumulate over consecutive inspections. With the non-cumulative measurement, the system require the user to clean the trays after each inspection, but it improves the precision, decrease the need for additional manual analysis.

HUMIDITY BOX

Humidity has a remarkable bearing on hair quality and its effect on hair breakage and combing is not to be overlooked.
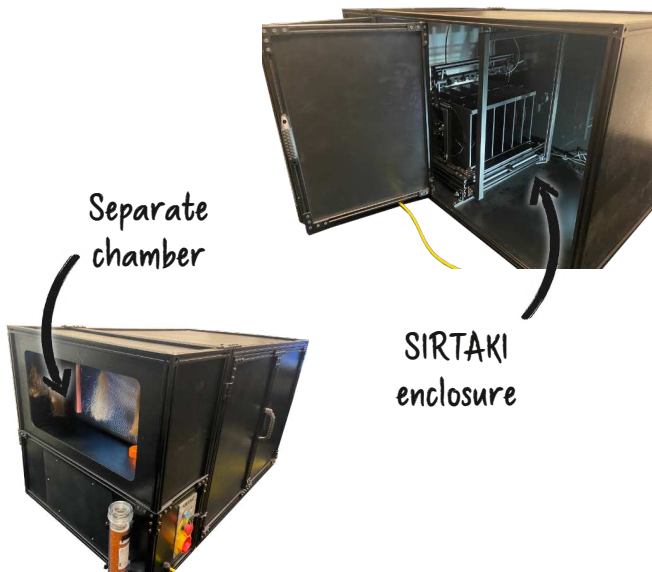
As an option we can provide the SIRTAKI with its dedicated humidity chamber. By removing the front window, the SIRTAKI can easily be integrated into the Humidity box, allowing the combing to be carried out in a humidity controlled environment.

The humidity range can be set between 50% to up to 95%.

Settings are easily controlled via software which also provides a live humidity and temperature reading inside the box. Humidity and temperature readings can be recorded.

SIRTAKI SHIELD

If you are looking for the best option to get the most out of your SIRTAKI, the SIRTAKI SHIELD is our most comprehensive offer.

It includes a humidity-controlled enclosure for the SIRTAKI with a separate humidity-controlled chamber for storage (limited range between 70% to 95%)

Separate chamber

SIRTAKI enclosure

The enclosure is locked during the measurement process for additional safety.

The SHIELD also possess its own electrical saftey system for a fully CE compliant offer.

SPECIFICATIONS

	SIRTAKI	HUMIDITY BOX XL	SIRTAKI SHIELD
COMBING	6 combing trays with 4 rotating combs (optional : brushes) for each tray		
	Adjustable speed Combing speed from 130 to 500 mm/s (from 10 to 40 rpm)		
	Combing length : up to 6" cm (15 cm)		
HAIR SWATCHES	Any color / type		
	Length from 5" to 10" (13 cm to 25 cm)		
	Swatch width : up to 2" (5 cm)		
VISION	Camera resolution : 3840 px x 2160 px FoV : 576 mm x 324 mm		
	Tray resolution : 433 px x 2100 px Tray image size : 65 mm x 315 mm		
DATA	Raw images - 8 bits monochrome (Full field and individual trays)		
	Processed images - Fibers mask (Individual trays)		
	Fiber coverage (global fiber surface) per tray Coverage evolution over time		
	Fiber count per tray Fiber length / distribution of length per tray Evolution over time		
SOTWARE	SIRTAKI 2.00 Automatic single fiber counting Automatic fiber coverage measurement Cumulative and non-cumulative fiber counting / coverage	Humidity Control software Software-controlled humidity level Humidity range from 50% to 95%	
SYSTEM	Camera to computer : USB 3.00 SIRTAKI controller to computer : USB 2.00	Humidity controller to computer : USB 2.00	
	Width : 27" (67.5 cm) *Height :* 22" (55 cm) tall *Length (Drawer closed) :* 22" (55 cm) *Length (Drawer open) :* 36" (92 cm)	*Width :* 29" (74 cm) *Height :* 27" (68 cm) tall *Length :* 22" (55 cm)	*Width :* 254" (137 cm) *Height :* 30" (76 cm) tall *Length :* 32" (81cm)
	Weight : 67 lbs. (30 kg)	Weight : 71 lbs. (32 kg)	Weight : 220 lbs. (100 kg)
	110/220 VAC 50/60 Hz		