

Many AATCC test methods, such as 88B, 88C, 124, 130, 135, 142, 143, 150, 172, 179, 188, 191, etc. require washers & dryers. Furthermore, more and more major retailers also need to conduct tests & regulations (e.g. CPSIA, ASTM F963, *SafGuard*, etc) after these AATCC laundry procedures. However, these washers and dryers recommended are not 100% in accordance with the specifications of AATCC test methods (shown as Table I & II).

The underlying reason is that from time to time the manufacturers of such washers and dryers have kept changing their own specifications, such as washing cycles or washing time and exhausted air temperature of dryers. Therefore, test reproducibility as well as repeatability cannot be achieved in line with AATCC requirements. That's why all leading independent labs have adopted these modified washers & dryers (or what're called AATCC Standard Testing Washing Machine Model WAS-135-2004-230V50 & AATCC Standard Testing Drying Machine Model DRY-135-2004-230V50).

Remark: 60Hz machines recommended by AATCC (e.g. Kenmore ones) are not suitable in Hong Kong, mainland China, European and many Asian countries where standard electrical supply is 50Hz /230V.

Table I – Washing Machine Conditions (Specifications) without Load for AATCC 135 - 2004:

	Normal	Delicate	Permanent Press
(A) Water Level	18 ± 1 gal	18 ± 1 gal	18 ± 1 gal
(B) Agitation Speed	179 ± 2 spm	119 ± 2 spm	179 ± 2 spm
(C) Washing Time	12 min ± 10 sec	8 min ± 10 sec	10 min ± 10 sec
(D) Spin Speed	645 ± 15 rpm	430 ± 15 rpm	430 ± 15 rpm
(E) Final Spin Time	6 min ± 10 sec	4 min ± 10 sec	4 min ± 10 sec

Table II – Dryer Setting Conditions (Specifications) for AATCC 135 - 2004:

	Normal (Cotton Sturdy)	Delicate	Permanent Press
1) Exhaust Temp.	High 66 ± 5 °C	Low < 60°C	High 66 ± 5 °C
2) Cool Down Time	10 min ± 20 sec	10 min ± 20 sec	10 min ± 20 sec

Fineetex (F-tex) is a group of textile test engineers specializing in supply of the Textile Testing Equipment, Quality Assurance Testing Consumables, Spare Parts, Maintenance Services, Calibration Services, etc.

Our company provides AATCC Standard Washer and AATCC Standard Dryer. The detail as follows:

i) **AATCC Standard Testing Washing Machine Model WAS-135-2004-230V50** (This is Modified AATCC Recommended Shrinkage Washing Machine 3XWTW5905)

***Remark : It is 100% guaranteed to conform the washing specifications, which include the speed of Agitation and Spin; the time of Washing and Final Spin for all washing cycles (Normal, Permanent Press & Delicate), shown as Tables III.**



Model WAS-135-2004-230V50

Specification :

- Top-Loading Washer
- Washing Capacity : 18LBs/8.2kg
- Microprocessor & PLC control for 3 Washing Programming Cycles (conform to AATCC Washing Specification, shown as Table I, includes Normal, Permanent Press and Delicate) + Handwash
- Providing Certificate of Calibration report per unit.
- End of Cycle Signal

Installation Washer Requirements :

- Electrical Connection : **230V ± 10V, 13A** so that the specifications of the above Table I can be achieved.
- Water Connection : Hot and cold fill. You must connect to both hot and cold water supplies with a minimum water pressure of 15 PSI.
- Machine Size: 760 x 660 x H1200 mm ; Shipping Weight : net 70 kg, gross 80kg in carton.

Table III - Comparison Table for AATCC Washer :

Comparison Parameters	Requirement	(Non Modified)	Modified
	AATCC 135	Whirlpool Washer	Whirlpool Washer
Model Number		Recommended Model 3XWTW5905	Standard Model WAS-135-2004-230V50
Water Level	18 ± 1gal	Medium : 18 ± 1 gal	Medium : 18 ± 1 gal
Normal			
Agitator Speed	179 ± 2 spm	<u>Two Speeds ;</u> Start: 180 spm, 5 min 13sec (=313sec) Follow: 120 spm, 6 min 7sec (=367sec)	180 spm
Washing Time	12 min	11 min 20sec (=680sec)	12 min (=720sec)
Spin Speed	645 ± 15 rpm	642 rpm	642 rpm
Final Spin Time	6 min	5 min 34sec (=334sec)	6 min (=360sec)
Delicate			
Agitator Speed	119 ± 2 spm	120 spm	120 spm
Washing Time	8 min	6 min 25 sec (=385sec)	8 min (=480sec)
Spin Speed	430 ± 15 rpm	426 rpm	426 rpm
Final Spin Time	4 min	2 min 29sec (=149sec)	4 min (=240sec)
Permanent Press			
Agitator Speed	179 ± 2 spm	<u>Two Speeds ;</u> Start: 180 spm, 5 min 24sec (=324sec) Follow: 120 spm, 3 min 3sec (=183sec)	180 spm
Washing Time	10 min	8 min 27sec (=507sec)	10 min (=600sec)
Spin Speed	430 ± 15 rpm	426 rpm	426 rpm
Final Spin Time	4 min	5 min 52sec (=352sec)	4 min (=240sec)

Red words = out of AATCC requirements. Therefore, AATCC Recommended Washer Model 3XWTW5905 is NOT fully conform the washing specifications.

ii) AATCC Standard Testing Drying Machine Model DRY-135-2004-230V50 (This is Modified AATCC Recommended Shrinkage Drying Machine 3XWED5705)

***Remark : It is 100% guaranteed to conform the drying specifications, which include the setting of temperature; high and low (Normal, Permanent Press & Delicate), shown as Tables IV.**



Model DRY-135-2004-230V50

Specification :

- Front-Loading Tumble Type
- Drying Capacity : 20LBs/9.2kg
- 3 Temperature Setting with Temperature Control Device (conform to AATCC drying Specification, shown as Table II, includes : high, medium and low)
- Providing Certificate of Calibration report per unit.
- End of Cycle Signal

Installation Dryer Requirements :

- Electrical Connection : **230V ± 10V, 20A** so that the specifications of the above Table II can be achieved.
- Venting : The dryer should be vented to avoid excessive build up of condensation in the room. The venting outlet on the dryer is a standard 100mm (4 inch) and does not require any special adapters to connect it to the dryer. Use metal ducting or a flexible metal hose.
- Machine Size: 760 x 660 x H1200 mm ; Shipping Weight : net 60 kg, gross 70kg in carton

Table IV - Comparison Table for AATCC Dryer :

Comparison Parameters	Requirement	(Non Modified)	Modified
	AATCC 135	Whirlpool Dryer	Whirlpool Dryer
Model Number		Recommended Model 3XWED5705	Standard Model DRY-135-2004-230V50
Normal			
Exhaust Temp.	High: 66 ± 5 °C	High: max. 75 °C.	High: 66 ± 5 °C
Cool Down Time	10 min ± 20 sec	9 min 46sec	9 min 46sec
Delicate			
Exhaust Temp.	Low: < 60°C	Low: max. 65 °C.	Low: < 60°C
Cool Down Time	10 min ± 20 sec	9 min 46sec	9 min 46sec
Permanent Press			
Exhaust Temp.	High: 66 ± 5 °C	Medium: max. 76 °C.	High: 66 ± 5 °C
Cool Down Time	10 min ± 20 sec	9 min 46sec	9 min 46sec

Red words = out of AATCC requirements. Therefore, AATCC Recommended Dryer Model 3XWED5705 is NOT fully conform the drying specification.

How to Order:

<u>Order Code</u>	<u>Description</u>	<u>Test Method</u>
LABAWAMA-0001	AATCC Standard Testing Washing Machine Model WAS-135-2004-230V50 (LAB-tex Brand) Electrical Connection : 230V ± 10V, 50Hz, 13A	AATCC 88B, 88C, 124, 130, 135, 142, 143, 150, 172, 179, 188, 191, etc.
LABADRMA-0001	AATCC Standard Testing Drying Machine Model DRY-135-2004-230V50 (LAB-tex Brand) Electrical Connection : 230V ± 10V, 50Hz, 20A	

Quality Assurance Testing Consumables:

<u>Order Code</u>	<u>Description Consumables</u>	<u>Unit</u>	<u>Supplier</u>	<u>Test Method</u>
AATC09145A	1993 AATCC Standard Reference Detergent	24 LB/drum	AATCC	AATCC 88B, 88C, 96, 124, 130, 135, 142, 143, 150, 179
AATC09145A-2LB	1993 AATCC Standard Reference Detergent	2 LB/box	AATCC	
AATC08803	2003 AATCC Standard Reference Liquid Detergent	3.5 gallon/drum	AATCC	AATCC 88B, 88C, 124, 143
AATC08375	AATCC Shrinkage Scale	1 unit	AATCC	AATCC 96, 99, 135, 150, 179
AATC08376A	Texpen Textile Marker, Fine Tip - yellow colour	1 unit	AATCC	Many AATCC Test Method
TESCDUMMY-I	AATCC Type-1 Dummy Wash Load (Ballast), 36"x36", Cotton Sheeting	16 pcs/pack, approx. 4 LB	Testfabrics	AATCC 88B, 88C, 96, 124, 130, 135, 142, 143, 150, 172, 179, 188, 191
TESCDUMMY-III	AATCC Type-3 Dummy Wash Load (Ballast), 36"x36", 50/50 Polyester/Cotton Plain Weave	16 pcs/pack, approx. 4 LB	Testfabrics	
AATC08353	AATCC 3D Smoothness Appearance Replicas	1 set	AATCC	AATCC 124, 143, ISO 7768, 15487, M&S P91, P134
AATC08373	AATCC Photographs for Seams (Includes Single Needle & Double Needle)	1 set	AATCC	AATCC 88B, 143, EN ISO 15487, ISO 7770
AATC08720	AATCC 3D Crease Appearance Replicas	1 set	AATCC	AATCC 88C, 143, ISO 7769, EN ISO 15487, M&S P134
LABAVIBO-0001	AATCC Viewing Board for evaluating crease retention	1 set	LAB-tex	AATCC 88B, 88C, 124, 128, 130, 143, 178, ISO 7768, 7769, 7770, 15487, JIS, etc