

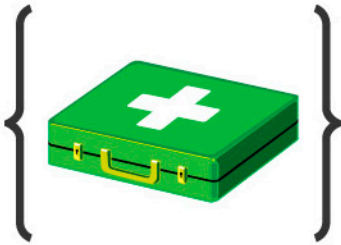


# BEST PRACTICE

of mechanical / flammability tests to ensure products integrity is to also conduct these [SAFETY TESTS AFTER HOME LAUNDERING PROCEDURES](#) such as AATCC, CPSIA methods...

# BEST PRACTICE

Satisfied Customers



Test of toys, children wear & baby products to expose potential hazards that would result from their normal use or reasonably foreseeable damage or abuse by children.

However, if safety tests are not conducted through end-use environments, such tests are not meaningful enough. Besides, home laundering (washing & drying...) is a very basic end-use environment!

So, it is a Best Practice if all safety tests are done **after** home laundering procedures.

We can supply test instruments meeting the latest CPSC & other regulations & standards such as CPSIA, ASTM F963 & EN 71 standard technical requirements for test equipment.

## PART A: Physical and Mechanical Test Equipment

### SafTest Universal Mechanical Safety Tester

This tester provides standard mechanism that increases test capability and repeatability / reproducibility.

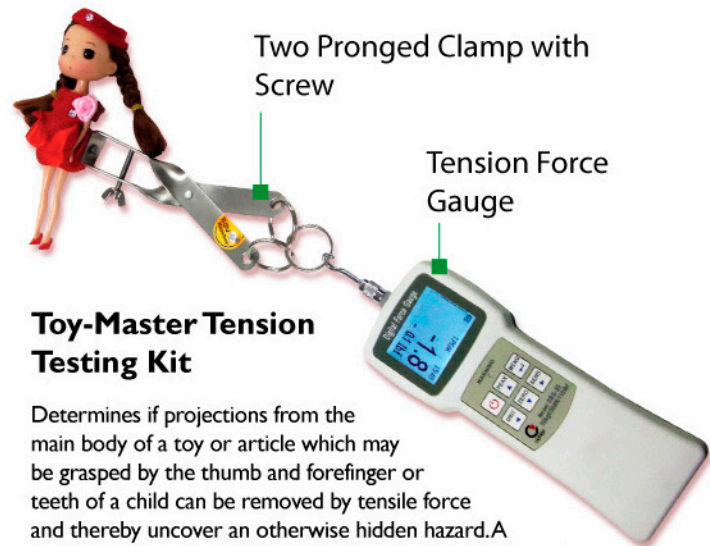
After a fabric attached with an accessory is fixed by lower fabric clamp, a small interspace will be formed between the accessory and the fabric. Then, the prongs are inserted and located into the interspace, thus holding the bottom end of the accessory to pull it.

When the prongs are pulled by the external force, they will move into the interspace. And the prongs will stop automatically after they further move into the interspace. In this way, it is to ensure that the test is conducted by holding the bottom end of the accessory.

Others tools are also available for zipper, torque tests... in line with market needs.

Professional custom engineering is available upon request!

**Applicable Standard:**  
mainly for *the latest CPSC regulation, ASTM F963 & EN 71 standard*



### Toy-Master Tension Testing Kit

Determines if projections from the main body of a toy or article which may be grasped by the thumb and forefinger or teeth of a child can be removed by tensile force and thereby uncover an otherwise hidden hazard. A Force gauge is used in conjunction with a clamp to record the force applied.

#### Tooling:

- ◆ Digital Force Gauge, max. capacity: 50kgf / 110 lbf / 500N
- ◆ Three Pronged Grip
- ◆ Two Pronged Grip
- ◆ Long Nose Vise Grip with screw hook
- ◆ ASTM-F963 Seam Test Clamp with screw hook (with Hole)
- ◆ ASTM-F963 Compression Head M6
- ◆ Optional Calibration Certificate for Digital Force Gauge

**Applicable Standard :**  
16 CFR CPSC USA, ASTM F963, EN71, etc.





## Toy-Master Sharp Edge Tester

Used to rule out articles that present an unreasonable risk of injury by avulsion or laceration due to sharp metal or glass edges. A self adhesive PTFE tape is attached to a mandrel, which is then rotated for a single 360 degree revolution along the accessible edge being tested. If the tape is cut in half or longer in length (approx. 13mm), the edge is identified as a hazardous sharp edge.

### Tooling:

- ◆ Sharp Edge Tester with PTFE Teflon Tape
- ◆ Optional Calibration Certificate for ASTM and EN Sharp Edge

### Applicable Standard :

16 CFR 1500.49, ASTM F963, EN71, etc.



## Toy-Master

### i) Accessibility Probe A ii) Accessibility Probe B

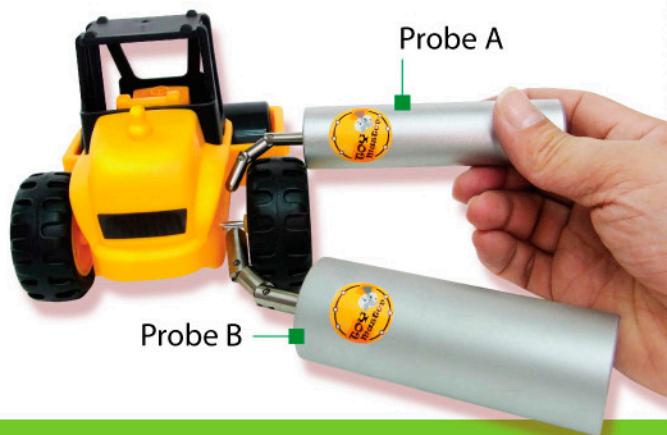
The probe simulates a finger of an infant or child touching the accessible points or edges of a toy, which may then be subject to tests of sharp points or sharp edges. Using the probe to determine where is accessible. Belonging to the test item of the toy safety is all foundations that the toys test.

### Tooling:

- ◆ Accessibility Probe A for 0-36 months
- ◆ Accessibility Probe B for 37 to 96 months
- ◆ Extension Rod for Accessibility Probe A
- ◆ Extension Rod for Accessibility Probe B

### Applicable Standard :

16 CFR CPSC USA, ASTM F963, EN71, etc.



## Toy-Master Sharp Point Tester

Aids in determining items that pose a risk of injury by puncture or laceration due to nonfunctional sharp points. If the accessible sharp point penetrates a specified depth into the small rectangular opening of the tester, the LED lamps is illuminated to indicate that the point is unacceptably sharp.

### Tooling:

- ◆ ASTM-F963 Sharp Point Tester with Weight Mass
- ◆ EN-71 Sharp Point Tester with Weight Mass
- ◆ Optional Calibration Certificate for ASTM or EN Sharp Point Tester

### Applicable Standard :

16 CFR 1500.48, ASTM F963, EN71, etc.



## Toy-Master Small Parts Cylinder

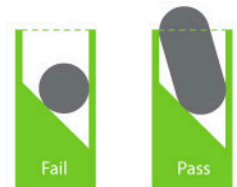
This tester made of metal is utilized in identifying toys or other articles that present a choking, aspiration, or ingestion hazard because of small parts. If any objects can fit completely into the cylinder without compressing & in any orientation, it is defined as a "Small Part".

### Tooling:

- ◆ Small Parts Cylinder (Metal Type)
- ◆ Small Parts Cylinder (Plastic Type, for reference only)
- ◆ Optional Calibration Certificate for Metal Small Parts Cylinder

### Applicable Standard :

16 CFR 1501, ASTM F963, EN 71, etc.



Cross Section of Small Parts Cylinder

## Toy-Master Flexure Tester

To determine whether metallic wires or materials used for stiffening or retention of form in toys can be easily bent or broken. Potential hazards of sharp points & sharp edges.

### Tooling:

- ◆ ASTM-F963 Flexure Tester
- ◆ EN-71 Flexure Tester
- ◆ Optional Calibration Certificate for Flexure Tester

### Applicable Standard :

16 CFR CPSC USA, ASTM F963, EN71, etc.





# THE LATEST REGULATIONS AND STANDARDS



## Toy-Master Bite Test Clamp

Identifies hazards associated with a toy (or component, or any accessible portion thereof) that has certain external dimensions and a design configuration that would permit a child to insert a portion into the mouth, in any orientation. Bite Test Clamp simulates the teeth of an infant or child biting the accessible area of toys.

### Tooling:

- ◆ Bite Test Clamp
- ◆ Optional Calibration Certificate for Bite Test Clamp

### Applicable Standard :

16 CFR CPSC USA, ASTM F963, EN71, etc.



## Toy-Master Torque Test Kit

Determines if projections from the main body of a toy or article which may be grasped by the thumb and forefinger or teeth of a child can be removed by a certain torque force and thereby uncover an otherwise hidden hazard. A torque-measuring device is used in conjunction with a torque clamp to record the applied force.

### Tooling:

- ◆ Torque Gauge, capacity range: 1-9 kgf.cm
- ◆ Torque Test Grip (Standard)
- ◆ Torque Test Grip (Central Screw Type)
- ◆ Table Vise Clamp
- ◆ Optional Calibration Certificate for Torque Gauge

### Applicable Standard :

16 CFR CPSC USA, ASTM F963, EN71, etc.



## Toy-Master ASTM Impact Media (without concrete)

A standardized surface onto which a toy can be dropped from a certain height to simulate possible damage which may occur by falling from a crib, table or counter top or other impact situations. After testing, the toy is examined for possible hazards

such as sharp edges, sharp points and small parts.

### Tooling:

- ◆ ASTM-F963 Impact Medium (Set of 9 pcs)
- ◆ EN-71 Impact Medium (Size : 60x60cm)
- ◆ Optional Calibration Certificate for Impact Medium

### Applicable Standard :

16 CFR CPSC USA, ASTM F963, EN71, etc.



## Toy-Master Rattle Test Fixture

Used to determine if rattles may cause choking or suffocation because their design permits them to enter an infant's mouth and become lodged in the throat. If any part of the rattle can pass through the opening without being pushed or pulled, the rattle has failed. For other rattles incorporating nearly spherical, hemispherical or circular flared ends, a Supplemental Rattle Test Fixture is available.

### Tooling:

- ◆ Rattle Test Fixture (Oval)
- ◆ Supplemental Rattle Test Fixture (Circular)
- ◆ Optional Calibration Certificate for Rattle Test Fixture

### Applicable Standard :

16 CFR 1510, ASTM F963, EN 71, etc.



## Toy-Master Pacifier Test Fixture

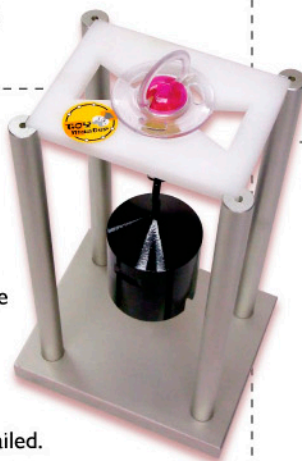
Identifies pacifiers that may cause choking or suffocation because their design permits them to enter an infant's mouth and become lodged in the throat. A pacifier is placed centrally in the opening of test fixture. The nipple is subjected to a tensile force of 2 lbs and held for 10 seconds. If the shield is pulled through the fixture, the pacifier has failed.

### Tooling:

- ◆ ASTM-F963 Pacifier Test Fixture
- ◆ Optional Calibration Certificate for Pacifier Test Fixture

### Applicable Standard :

16 CFR 1511, ASTM F963, EN 71, etc.



## Toy-Master Small Ball Test Fixture

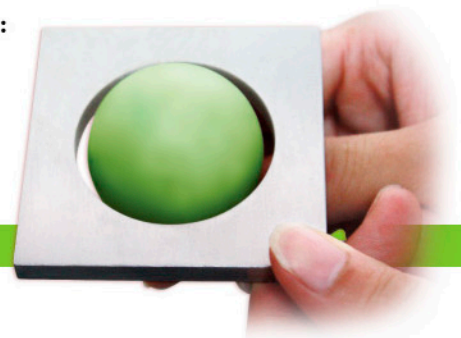
Identifies small balls and marbles that could cause a choking or suffocation hazard. A ball which can pass through the test fixture is determined to be a "Small Ball".

### Tooling:

- ◆ Small Ball Test Fixture
- ◆ Optional Calibration Certificate for Small Ball Test Fixture

### Applicable Standard :

16 CFR CPSC USA, ASTM F963, EN71, etc.





## PART B: Flammability Testing Equipment

### Labtex 45° Flammability Tester (Apparel Textiles) Model:TC45-1610

Mandatory tester for all USA apparel fabrics. Measures rate of burning. Also specified for upholstery component.

**Feature:**

- ◆ Fully automatic and adjustable timing control (solid state) in 0.1 second increments
- ◆ User-Friendly control panel, operate easily
- ◆ LCD display - both English and Chinese Language can be choose by user
- ◆ Automatic recording for 5 set of flam-spread time

**Applicable Standard:**

16 CFR 1610, ASTM D1230, F963, CATB 117C and E, NFPA 702, etc



### Labtex 45° Flammability Tester (Vinyl Plastic Film) Model:TC45-1611

Mandatory U.S.A. tester for all vinyl apparel materials sold in the USA.

**Feature:**

- ◆ Fully automatic and adjustable timing control (solid state) in 1 second increments
- ◆ Fully automatic Microswitches activate and record ignition time and burn time
- ◆ Ignition time and burn time recorded by electric timers

**Applicable Standard:**

16 CFR 1611



### Labtex Vertical Flammability Tester (Children's Sleepwear) Model:TC90-1615

Measures ignition resistance properties of children's sleepwear, draperies, cubicle curtains, upholstery foams, tents.

**Feature:**

- ◆ Stainless steel test cabinet
- ◆ Burner moves on a sliding track and is held in place for the prescribed ignition time, and is then removed

**Applicable Standard :**

16 CFR 1615 & 1616, CATB 117 A and B, NFPA 701, etc



## PART C: Laundering / Washing Testing Equipment

### Testing Washing and Drying Machine

Many AATCC & BS EN ISO test method require washer and dryer. Furthermore, more and more major U.S. and Europe Retailers also need to conduct tests & regulations after home laundry procedures.



# INSTRUMENTS MEETING THE LATEST REGULATIONS AND STANDARDS



If you are interested, please reply us which you need as follow by ticking:

| Item   | CPSC<br>16 CFR           | ASTM<br>F963             | EN<br>71                 | Other Standard OR<br>Customer Requirements<br>(Please specify) | Request a<br>Calibration<br>Certificate |
|--|--------------------------|--------------------------|--------------------------|--|---|
| 1 Universal Mechanical Safety Tester                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 2 Tension Testing Kit                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 3 Sharp Point Tester                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 4 Sharp Edge Tester                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 5 Accessibility Probe A & Probe B                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 6 Small Parts Cylinder                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 7 Flexture Tester                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 8 Bite Test Clamp                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 9 Torque Test Kit                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 10 Impact Media  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 11 Rattle Test Fixture                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 12 Pacifier Test Fixture                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 13 Small Ball Test Fixture                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 14 Flammability Tester (Apparel Textiles)              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 15 Flammability Tester (Vinyl Plastic Film)            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 16 Vertical Flammability Tester (Children's Sleepwear) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |
| 17 Washer & Dryer                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _____                                 | <input type="checkbox"/>                |

|  |                        |
|--|------------------------|
| Company Name: _____<br>Contact: _____<br>Title: _____<br>Email: _____<br>Tel: _____<br>Fax: _____<br>Address: _____<br>_____<br>_____<br>we need to know more details:<br>Product name: _____ Standard(s) related: _____ | <b>Distributed by:</b> |
|--|------------------------|

\* Subject to continuous product development, specifications change without prior notice.