



**CASCADE**  
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*shaping ideas in plastics™*

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SOLID WASTE SOLUTIONS



- Drop
- Wheel
- Grabber Tests
- Two Bar Lift
- Two-Yard Packer

*Cascade Engineering uses an extensive research, development and testing laboratory that meets all ANSI standards. This in-house testing ensures our customers are provided with the highest quality, most durable containers available in the solid waste industry.*

# OUR PRODUCT TESTING

*In addition to the ANSI-Z245.30-1999 requirements, our internal laboratory offers the following durability tests:*

## DROP TEST:

**Purpose:** The carts are loaded with 160 pounds and dropped at a minimum of ten feet. After the test the carts must be able to hold water.

### Procedure:

- Condition carts and weight for 24 hours at negative 22 degrees F
- Load cart with 160 pounds
- Attach cart to hoist
- Lower cart to 15 feet and release (carts are dropped one time)
- If cart passes, increase drop height by one foot
- If cart fails, decrease drop height by one foot
- Continue until all ten carts have been dropped

### Pass Criteria:

- Carts must be able to hold water

## WHEEL TEST:

**Purpose:** This test is to simulate rolling a full cart down a 75-foot driveway and dropping it off a curb. The full test simulates rolling a cart 15 miles and 10,000 drops. After the test the cart must be fully functional.

### Procedure:

- Attach speed bumps to test drum
- Set handles at center of balance
- Load cart with rated load
- Rolls 15 miles and drops every 75 feet

### Pass Criteria:

- The cart's wheels and axles must remain functional and roll freely



## FULLY AUTOMATED GRABBER TEST ONE:

**Purpose:** The cart must cycle 1650 times. The cart is tested empty because that is when it is most susceptible to damage. After the test, the cart must be able to hold water.

### Procedure:

- Test cart empty
- Cycle 1650 cycles (3 life times)

### Pass Criteria:

- The cart must remain functional
- The cart must be able to hold water

## FULLY AUTOMATED GRABBER TEST TWO (CUROTTO - CAN):

**Purpose:** The cart must cycle 1650 times: the cart is grabbed, lifted and tipped, then dropped. The cart is tested empty because that is when it is most susceptible to damage. After the test, the cart must be able to hold water.

### Procedure:

- Test cart empty
- Cycle 1650 cycles (3 life times)

### Pass Criteria:

- The cart must remain functional
- The cart must be able to hold water



## SEMI-AUTOMATED TWO BAR LIFT TEST:

**Purpose:** The cart is loaded at rated load, then tipped 1650 times, with a double pump at the top of each cycle. After the test, the cart must be able to hold water.

### Procedure:

- Load cart with rated load
- Seal cart lid
- Double pumped at top of lifter cycle
- Cycle 1650 cycles (3 life times)

### Pass Criteria:

- The cart must remain functional
- The cart must be able to hold water

## TWO-YARD PACKER TEST:

**Purpose:** The container is lifted and tipped 3650 cycles with 1000 pounds sealed inside. After the test, the container and components must remain functional.

### Procedure:

- Load 1000 pounds into container
- Seal lids shut
- Cycle container 3650 times

### Pass Criteria:

- The container and components must remain functional
- The container must be able to hold water

