



95MILLENNIUM

Model #978

VSA Item 1705 Build

\$59.75

MSRP



MODEL	Millennium 95G
LOAD RATING	335 lbs
ASSEMBLY WEIGHT	approx. 34.5 lbs
STACKING	10 High
LTL STACKING	8 High
TOTAL QUANTITY (53' TRUCK)	560

95MILLENNIUM

BUILT FOR TODAY'S COLLECTION NEEDS

Durability increased with "double-pinned" lid attachment

Longevity increased with contoured lid that reduces warp and water entrapment

Unique, contoured body designed for automated lifting equipment

Molded foot access and large handle make maneuvering easier, even with heavy loads in place

Sanitary, easy-open lift lip

Lasts longer with UV resistant plastic for long-term exposure to sunlight

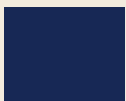
Corrosion-resistant hardware protects and increases durability

Engineered for stability: able to resist tipping and does not blow over – even in 40 mph winds



AVAILABLE COLORS

The Millennium container is available in eight standard colors. Over 80 custom colors available upon request.



68 - Dark Blue



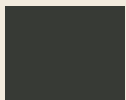
51 - Light Blue



56 - Green



65 - Forest Green



50 - Dark Gray



57 - Light Gray



63 - Brown



60 - Black

YOUR CART YOUR WAY!

Your cart is your billboard; every trash day passersby see your company name. Take the opportunity to stand out from the rest.

At Otto, we work with you to design your carts so you get the most from your investment.

Customize your cart with color logos, lid graphics, or custom color. We can also include serialization, RFID, barcodes, and more.

Make your carts, **Truly Your Carts.**

Contact your Area Sales Manager to explore your options.

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MSD-95M "Millennium" Container

The Otto Multi-System Design MSD-95M "Millennium" rollout container consists of injection-molded, high density polyethylene plastic body, hinged lid, two (2) hinge pins, two (2) plastic wheel assemblies, and a solid steel axle.

The Otto MSD-95M rollout refuse container is compatible with fully automated arm lifter systems and standard, semi-automated bar lifter systems.

This container complies with ANSI Z245.30-2008 and ANSI Z245.60-2008 standards for Container Safety and Compatibility Requirements.

VOLUME CAPACITY:

The total actual volume of the Otto MSD-95M container is 99.9 gallons (per ANSI Z245.30-1999, Appendix A, Volumetric Loading Capacity).

Base: 95.8 gal Lid: 4.1 gal

LOAD RATING:

Per the ANSI Z245.30-2008 Standard, the Otto MSD-95M rollout refuse container is capable of accommodating a load of 335 lbs.

WEIGHT:

The completed assembly weight of the Otto MSD-95M container is 34.5 lbs. when equipped with Otto's 10" injection molded wheels. Other wheel options are available.

DIMENSIONS:

Overall Height: 41.25"
Loading Height: 39.25"
Overall Width: 29.38"
Overall Depth: 33.88"
Minimum Grip Diameter: 28.2"

CONTAINER BODY:

The Otto MSD-95M Container Body is injection-molded from High Density Polyethylene (HDPE). The container body has smooth surfaces both on the interior and exterior. The



interior is free of crevices and recesses where refuse could become trapped, in order to allow complete emptying. The wall thickness is up to 0.19". The high-density polyethylene has a density of 0.945 to 0.954 grams cm³. The Melt Index (MI) of the HDPE is 3.5 to 6.0.

The top of the container body is reinforced with a rim around its entire perimeter. This feature adds structure and stability to the container and provides a flat surface for the lid to close on. The top of the rim has a rain lip to prevent water from entering the container with the lid closed. The handles are integrally molded into the container body at the top rim. The underside of the rim on the Otto MSD-95M is reinforced with a total of forty (40) integrally molded-in gussets spaced around the entire circumference of the container.

The front of the container has a molded recess that provides for the front "catch," or lower lift bar. The MSD-95M container is offered with a 1" rotating steel catch bar. The clip-style metal lower lift bar is freely rotating, 1" OD (outside diameter) roll-formed steel with formed ends for added strength. The wall thickness of this bar is .050", hot rolled steel with an iron zinc clear chromate top coat shielding for corrosion protection. The clip-style metal catch bar allows for speedy installation of the bar from the outside of the container without requiring the use of any hand tools. Metal spring clips are compressed during installation and spring back once inside the container for a solid stop once installed.

The bottom of the container has molded-in wear ridges that extend around its perimeter. The wear ridges provide additional protection against abrasive wear if the container is slid on asphalt or pavement and improve impact resistance of the bottom of the container. There is a recessed area molded above the middle of the axle which allows a person's foot to be placed directly upon the axle to allow the container to be easily tilted, even with a full load.

The inside bottom of the container has a spherically shaped energy absorbing detail, approximately 8" in diameter, integrally molded into its floor. This detail has been engineered to protect the floor of an empty container from impact when being loaded with heavy objects.

The Otto MSD-95M rollout container has an integrally molded front "pouch" to facilitate semi-automated lifting. This upper pouch is reinforced with a pattern of eight (8) internal ribs. These ribs add strength and structure to the lifting pouch and front of the container.

Otto containers are designed for nesting and easy stacking for shipment and storage. Stacking ribs are molded onto the top rim to prevent containers from becoming wedged together during shipment.

The weight of the container body is 24.1 lbs. This weight does not include any other components.



LID:

The Otto MSD-95M container Lid is injection-molded from HDPE and is attached to the container body using two (2) HDPE snap-lock hinge pins. The lid rotates freely about the hinge a full 270 degrees. The lid, when closed, rests on the top rim of the container body, providing a secure tight fit around the entire perimeter between the lid and base. This prevents rain, insects and vermin from entering the container, as well as preventing the escape of most odors when the lid is closed.

The lid is molded with a hand-hold lip that extends across the full width of the front of the cart and wraps around both corners. This allows the lid to be easily opened from three sides without contact with refuse or residue.

The minimum material thickness in the lid is 0.120".

The weight of the lid is 4.1 lbs.

HINGE PIN:

The Otto MSD-95M lid Hinge Pins are injection-molded from HDPE. The hinge pins secure the lid to the integrally molded lid hinge and handle detail. Two (2) hinge pins are used to secure the lid. The hinge pins are installed at the factory using a rubber mallet. At installation, the truncated conical end of the hinge pin compresses and snaps into the pocket detail in the handle detail. This prevents vandalism and securely fastens the lid to the container base. The hinge pins can be removed with a special tool available from Otto.

LID HINGE AND HANDLE DETAIL:

The Otto MSD-95M Lid Hinge is integrally molded to the container body. The handle's diameter is 1.0" and provides 1.375" clearance for gloved hands.

AXLE:

The Otto MSD-95M machined solid steel Axle has a 27/32" diameter. The axle is zinc plated to protect against rust and corrosion. The large diameter of the axle allows the container prevents bending which can cause wheel rub and supports a fully loaded container. The axle will withstand a 375-lb. load without permanent deformation. The weight of the axle is 3.9 lbs.

WHEELS:



The Otto MSD-95M container may be fitted with various 10" Wheels.

	<u>PLASTIC BLOW- MOLDED</u>	<u>SNAP-ON BLOW- MOLDED</u>	<u>CUSHION- TREAD</u>	<u>SOLID RUBBER TIRE</u>	<u>INJECTION MOLDED 10"</u>
Description	HDPE, blow-molded, separate spacers.	HDPE, blow-molded, integrated spacers.	Injection-molded hub (HDPE) with rubberized cushion tread, separate spacers.	Injection-molded hub (HDPE) with pressed-on solid rubber tire, integrated spacers.	Injection-molded hub (HDPE), integrated spacers.
Wheel Diameter	10" diameter	10" diameter	10" diameter	10" diameter	10" diameter
	1.75" width	1.75" width	1.75" width	1.75" width	1.75" width
Load Rating	200 lbs.	200 lbs.	200 lbs.	200 lbs.	200 lbs.
Attachment	Zinc-plated palnut end caps.	Internal "snap-lock" attachment.	Internal "snap-lock" attachment.	Internal spring-loaded steel detent for snap-on.	Internal spring-loaded steel detent for snap-on.
Weight (per wheel assembly)	1.27 lbs. (10")	1.27 lbs. (10")	1.48 lbs. (10")	1.88 lbs. (10")	1.39 lbs. (10")

MARKINGS:

All Otto MSD-95M carts are hot stamped with a unique sequence serial number to facilitate distribution and control. The customer's name or logo can be hot stamped on the container's lid or body. The containers are permanently marked with the month and year of production, mold number, material identification, patent number, and manufacture's insignia.

WORKMANSHIP:

The Otto MSD-95M plastic material — high-density polyethylene — is manufactured from virgin raw materials by major petrochemical companies, (e.g., Exxon, Chevron-Phillips, Quantum) and includes no recycled or regenerated plastic or foreign material. Up to 50% recycled material (PCR) content may be available upon request on particular colors, where suitable feedstock is available.



COLOR:

Otto's standard colors are Dark Blue, Light Blue, Green, Forest Green, Dark Gray, Light Gray, Brown, and Black. Other colors are available to special order.

All injection-molded parts are specifically prepared to be colorfast so that the plastic material does not alter appreciably in normal use. Due to the use of UV (ultraviolet) stable pigment and injection molding process, Otto containers have excellent color fastness.

UV LIGHT STABILIZATION:

The Otto MSD-95M container is stabilized against ultraviolet degradation with not less than 0.3% UV additives. This is a state-of-the-art package that meets or exceeds older systems requiring 0.5% UV additive by weight and provides product viability for a minimum of 10 years of outdoor exposure.

RECYCLABILITY:

The Otto MSD-95M Gallon Container is produced with a fully recyclable thermoplastic High Density Polyethylene (HDPE) resin. This allows the material to be recycled and reused after the useful life of the container

QUALITY ASSURANCE PROCEDURES AND PERFORMANCE TESTING:

The Otto MSD-95M Container is designed to withstand the following series of performance tests. The performance test requirements were designed to simulate the type of situations encountered in actual use. The severity of some tests was scaled to anticipate an expected 10-year life.

<u>Test Description</u>	<u>Test Requirements</u>
Semi-Automated Lifter Life Cycle	ANSI Z245.30-2008
Fully-Automated Lifter Life Cycle	ANSI Z245.30-2008
Drop Test (335 Lb. @ 12 Feet)	10 Drops without Damage
Wind Test	See 3 rd party wind resistance testing
Axle Durability (Bend) Test	ANSI Z245.30-2008
Durability During Pulling Test	ANSI Z245.30-2008



The following Quality Assurance tests are performed according to ASTM procedures.

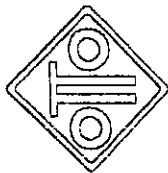
Material Testing

1. Melt Flow Index Test: To check that the polymer batch matches the supplier certification. This is testing procedure ASTM D1238.
2. Colorant Color Match: Compare lot based color chips to the color chip master to ensure consistency.

In-Process Quality Tests

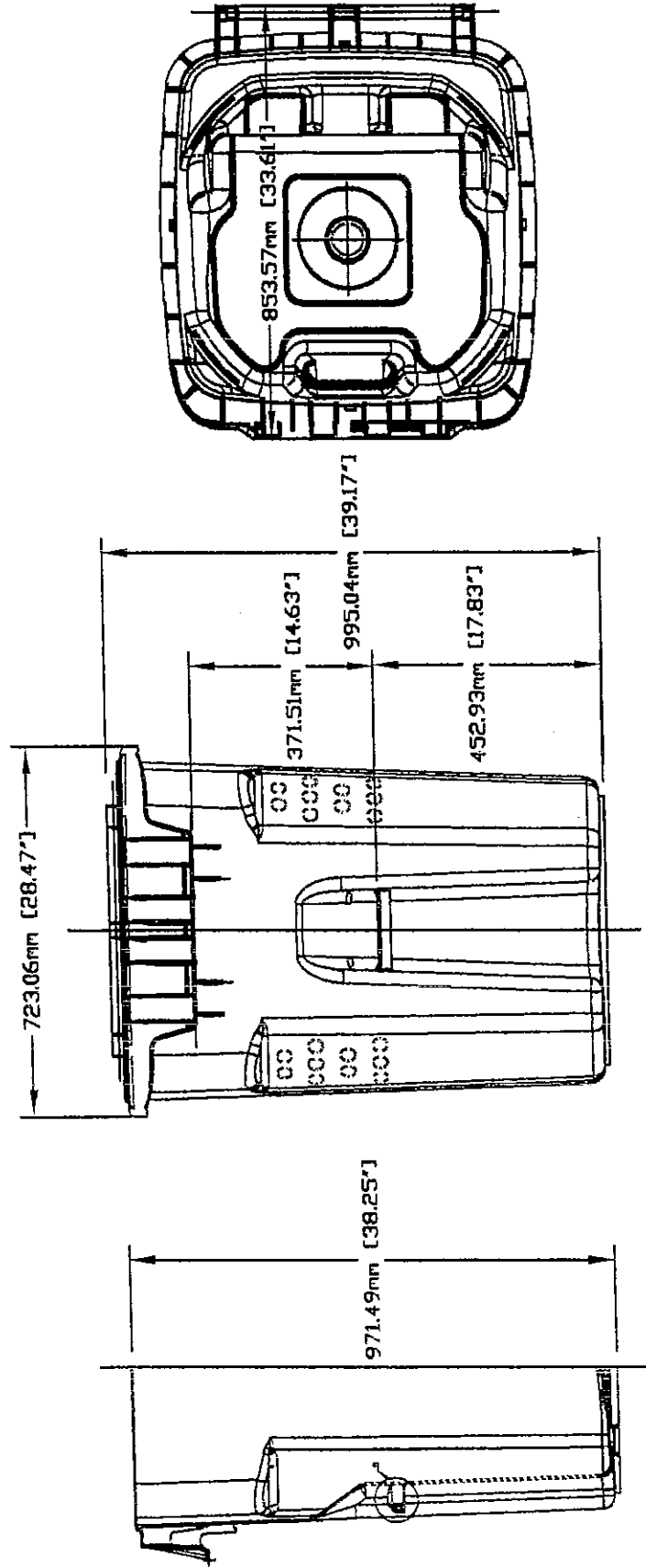
1. Drop Test: Cart is raised 12' under load and dropped 4 consecutive times. This provides that there is not a processing issue.
 - a. 95 gallon- 335lbs
2. Bib Pull Test: Bib pulled to failure to evaluate brittleness. Bib should break tensile.
3. Bar Pull Test: Bar pulled to failure. Determines if there is weakness at knit line at center of plastic bar. Bar should break off center.
4. Fit Checks: Mating components (axle, lift bar, lid) installed onto carts after cooled to ensure proper fit, form & function.
5. Weight & Thickness Checks: Evaluates molding process.

All designs, specifications, and components are subject to change at the manufacturer's sole discretion at any time without notice. Data published herein is informational in nature and shall not be construed to warranty suitability of the unit for any particular purpose as performance may vary with the conditions encountered.



OTTO MILLENNIUM SERIES

972, 973, 975, 976
95 GALLON



** FOR REFERENCE ONLY **

8/30/02
REV 1
BY TIM O'HARE