

## Male Urinal



**Molder:** Medline Industries

**Moldmaker:** Knight Tool Works, Inc

**Designer:** Lincoln Bottle Works, Inc

### **Product Description**

This patented 1000cc Male Urinal is designed as a system that is vastly superior to the existing products on the market. The system utilizes blow molding, injection molding, robotics, and simple compression molding to create a leak resistant, operator friendly, and light weight



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product. The overall system also resulted in a 20% increase in packaging efficiency. This new design is superior to the current products in form, feel, and function. The weight reduction had no impact in user feel due to the structural design components used in the process. The blow molded urinal is 20% lighter in weight than some of the current products. The injection molded lid is also a significant improvement to the current lids on the market. The use of specific manufacturing methods resulted in the leak resistant lid. The area where the lid and the urinal are connected is a small compression molded section on the urinal. The design also incorporates a feature that holds the lid securely attached to the urinal and allows for the lid to be held out of the way during use.

## **Why is the product innovative?**

This patented 1000cc Male Urinal is designed as a system that is vastly superior to the existing products on the market. The system utilizes blow molding, injection molding, robotics, and simple compression molding to create a leak resistant, operator friendly, and light weight product. The overall system also resulted in a 20% increase in packaging efficiency. The result of this is substantial savings in delivery costs and space savings at our customer's location. This new design is superior to the current products in form, feel, and function. The weight reduction had no impact in user feel due to the structural design components used in the process. The blow molded urinal is 20% lighter in weight than some of the current products. The location, size, and shape of the structural components were developed through testing of weak points once the new design was light weighted. In addition, the structural parts were developed to help the hospital staff and patients hold the urinal during use. The injection molded lid is also a significant improvement to the current lids on the market. The use of understanding and combining specific manufacturing methods resulted in the leak resistant lid. The lid is also an area of weight reduction through design. The tether system for attaching the lid results in a lid that cannot be separated unless significant deformation of the tether occurs. Thus, during shipment and distribution, the lids are always attached. The area where the lid and the urinal are connected is a small compression molded section on the urinal. The design also incorporates a feature that holds the lid in a few specific locations. This design concept was incorporated to keep the lid out of the way while the patient was using the product. In past designs, the lid could get in the way during use. Overall, this product incorporates multiple significant product improvements. Each of these improvements was created from years of feedback and customer complaints on the other styles. The system developed to manufacture these products is a closed cell which incorporates major plastic molding equipment with robotics and quality control processes.