THE CLEVELAND MUSEUM OF ART

The Cleveland Museum of Art
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Improved Textile T-Mount

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This poster presentation outlines the latest iteration of the Cleveland Museum of Art's (CMA) "T" mount for garments, referred to as a "Y" mount. While many museums have developed and continue to use "T" mounts as a method for displaying garments such as Chinese robes, Cleveland's variation has several benefits. One advantage of the "Y" over the "T" is that the "Y" shape allows the museum to leave the neck opening of the garment unobstructed by any component of the mount. If the shoulders of the garment slope, the "Y" mount can be bent accordingly to conform to any shoulder slope. In addition, there is no floor flange, resulting in a clean look with only a single pipe extending to the case deck. The mount is modular; by changing the cardboard tubes a number of different textiles can use the same mount. Custom bent aluminum tubes can be fabricated for garments with curved shoulders.

T-Mount Fabrication

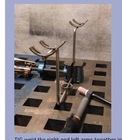
Depending on the weight and size of the textile, 5/16" or 3/8" diameter 304 stainless steel rod is used. The right and left arms are fabricated separately and then TIG welded together inside the collar of the inner mount tube.

The saddles are formed from 1/8" thick, ½" wide 304 stainless steel bar.

To cut the slots in the saddles that hold the cardboard tube, a milling machine is used.

Use the threaded piece of 304 stainless steel bar that will be positioned inside the cardboard tube to hold the saddles in position during TIG welding.

TIG weld a 1" long section of the outer mount tube over one end of the smaller inner mount tube to form a collar. After welding, trim the weld down on a metal lathe for aesthetics. Then drill the collar for the right and left rods.



TIG weld the right and left arms together in the center of the mount tube collar after welding the saddles to the arms.

This Pre-Columbian tunic (CMA 2016.267) is mounted directly to the wall.

This is the mount for the tunic above.

This is the wall mount tube.

Telescopic Tube Mounting System

TIG weld a 1 ½" stainless steel washer (McMaster #91525A132) to the top of the inner mount tube.

The bottom of the inner mount tube rests on a 1 ½" OD stainless steel washer (McMaster #91525A132). The washer prevents the tube from cutting into the case deck when the nuts are tightened. Silver braze a smaller washer 1 1/8" OD (McMaster #91525A131) that matches the ID of the inner mount tube to the top of the larger washer. This registers the washer with the bottom of the inner mount tube.

A hanger bolt (McMaster #90207A636) with a 3/8"-16 thread on one end and wood screw thread on the other is used to mount a tube to a platform or case deck where there is no access to the underside of the deck. The deck should be at least 1 ½" thick. Connect the hanger bolt to the 3/8"-16 threaded rod with a grade 5 steel coupling nut (McMaster #90977A160). When access to the underside of the deck is possible, mount the inner tube with a 5/8"-16 threaded rod through the deck.

Use 4-40 thread, 18-8 stainless steel thread-locking set screws (McMaster #90275A208) to adjust the tolerance between the tubes. The outer tube is smooth-bore seamless 304 stainless steel tubing, 1-3/8" OD, 0.049" wall thickness (McMaster #89895K781). The inner tube is smooth-bore seamless 304 stainless steel tubing, 1-1/4" OD, 0.065" wall thickness (McMaster #89895K776). To ensure that the mount tubes stand exactly perpendicular to the deck I use a metal lathe to "square" the ends of the tube. The set screws can also be used to micro adjust the outer tube so it is exactly perpendicular to the deck.

This mount can be used either on the wall or case deck.

This telescopic tube mounting system is used at CMA on all mounts that are supported with tubes, including heavy artifacts such as armor.

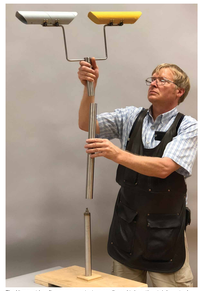
Detail of the Chinese robe to the left (1983.32) showing the neck area and the mount that does not span the neck opening.

Drill and tap two 10-32 threaded holes into 1/8" thick by ½" wide 304 stainless steel bars for the thumb screws that secure the cardboard tubes to the saddles. The bars are secured inside the cardboard tube with two 6-32 flat head screws.

The textile can also be easily transported upright on a deck mount and then moved to the installation mount tube.

Use BEVA 371b film to dry mount the fabric to the acid free cardboard tube.

The two sections of acid free cardboard tube are bayonet mounted to the slotted stainless steel saddles with two 10-32 thread stainless steel thumb screws (McMaster #98704A535) eliminating the need to use tools inside the textile.



The Y-mount has five components, two cardboard tubes, the stainless steel Y-mount, the outer stainless steel mount tube and the inner mount tube.