

Assembling the crash test dogs

X-Large, Large, Medium and Small

CTDs are made from made from two halves of 85A vinyl filled with UTC foam and UHMW rod in the front leg as shown in this document. The two halves are glued together to hold properly in place.



- Trim the flashing on the edges of the vinyl skin

-Each half of each size of the dog vinyl skin weighs:

Small dog – 2 lbs. 8 oz.

Medium dog – 4 lbs. 11 oz.

Large dog – 6 lbs. 5 oz.



- Mark the circle where it's going to get cut . This will allow the polyethylene rod to slide through the inside of the leg and provide reinforcement



- The length and width of the polyethylene rods are as follows:
Big dog takes for each leg 17 1/8" in length of 1 5/16" wide rod.
Medium dog takes for each leg 13" in length of 7/8" wide rod.
Small dog takes for each leg 10 1/2" in length of 7/8" wide rod.

-Cut the marked circle but not all the way around, leaving enough material attached.



-Lift the vinyl flange from the cut area and slide in the polyethylene rod all the way down to the bottom of the leg.



-Fill just the leg with PT-70 urethane rubber to keep the rod in place and create more strength to the leg.



Seal the cut flange back up with some CA-40 Adhesive



-Insert the core reinforcement jig into the cavity.



-Cut a 1" hole at the top of the dog snout for the foam filling process. Spray mold release around the piece and apply the board on the flat side of the dog and fasten with either straps or tape. And fill the piece with UTC foam.



-After the foam is completely cured, trim the foam excess, remove the board and the core jig.



- Clean the whole flat surface of the dog and place the metal core into the cavity.
- For the small and the medium dog, you will need to trim the ends and the circles of the cavity in order to fit the metal core.

The total weight of the dog are as follows:

Small dog is 25 lbs. – 0% + 5%

Medium dog is 50 lbs. – 0% + 5%

Large dog is 75 lbs. – 0% + 5%

If the weight is a little off, add some steel balls mixed with urethane rubber and insert it into the cavity of the head to match up the weight that is required,



-At the end of the metal core, make sure to put the galvanized cable #PP1074 with a hex head nut and some Loctite into the threads. The large dog core takes two galvanized cables.



- Apply either gorilla pipe glue or VC-2 all over the flat surface of the dog on either the right half or the left half. Attach both halves and strap it together. After leaving it a few minutes to dry, apply more glue and strap it wherever else is necessary.



-After is completely dry , take all of the straps off and clean it.



- Only the large dog gets a 1" color matched custom made Velcro glued around the whole seam line of the two halves.

