



Kelso Eduction Tube Installation Instructions

****SAMPLE****

Important Note:

The following procedure is noted as "sample" in that it is designed for an eduction tube which hangs vertically and has 1 ½ clearance from the tank floor. This assumes no blind sump or securement. To that end, Kelso offers variable eduction tube lengths and configurations and Car Owners have variable requirements for securement and clearance (including bend). Always refer to the Car Owner for definitive installation requirements and contact Kelso for assistance as needed.

1. Measure the interior distance from the top of the eduction pipe flanged nozzle on the top of the tank car, or the eduction pipe flanged nozzle on the manway cover, to the floor of the tank car. This eduction tube is designed to be installed so that the bottom of the tube is 1-1/2" from the tank car floor.
2. Take the measurement from above and subtract 1-3/4", use this dimension to mark the Kelso Eduction Tube. Measure from the bottom of the tube flange (Figure 1) toward the end of the eduction tube, this dimension will fall within the flexible portion (Figure 2).

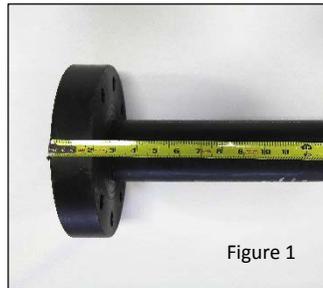


Figure 1

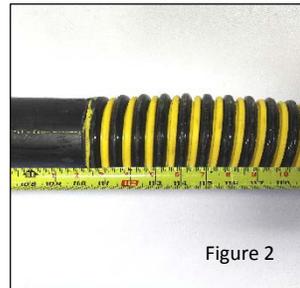


Figure 2

3. The subtracted 1-3/4" accounts for 1-1/2" above the tank car floor and a 1/4" for the end cap. Verify dimensions and markings are correct before cutting the eduction tube.
4. Cut the Kelso Eduction Tube as marked. The flexible portion of the eduction tube can be cut using a reciprocating saw, hack saw, etc. Make a clean, smooth cut and deburr if necessary (Figure 3).



Figure 3

5. Install the end cap at the cut end of the Kelso Eduction Tube. Once installed the end cap cannot be removed. Insert the cap into the flexible section, use a block and hammer to drive the end cap into the tube (Figure 4). The end cap should be fully inserted in the flexible portion of the eduction tube (Figure 5).

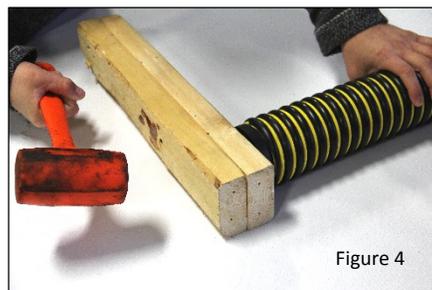


Figure 4

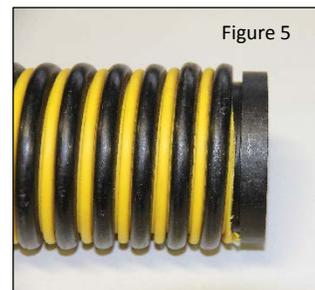


Figure 5

6. The Kelso Eduction Tube can now be installed in the tank car.
7. Assemble car, fittings and perform a leak test per the car owner instructions to ensure that the car is properly sealed and secured for transportation.

Kelso Technologies (USA) Inc. Detailed designs are subject to change without notice.

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