

MASTER-LEE ENGINEERED PRODUCTS, INC.



RV STUD HOLE CLEANER

USERS MANUAL & ASSEMBLY INSTRUCTIONS

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7" MODEL - E1348-R2
6.5" MODEL – E3122-R0
6" MODEL – E2162-R0

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INTRODUCTION

The Master-Lee Engineered Products *RV Stud Hole Cleaner* is an excellent tool for quick and easy cleaning the reactor vessel stud holes in preparation for reassembly.

DESCRIPTION

Electrically operated, the Stud Hole Cleaner requires minimal effort to effectively operate. It utilizes nylon brushes to clean the threads, which from a FME standpoint are superior to stainless steel brushes. Stainless steel brushes are available if the utility so desires. The Stud Hole Cleaner has a port to connect a HEPA vacuum, to contain any dust which may be generated.

Assembly of the Stud Hole Cleaner is limited to Brush installation, and maintenance is minimal with proper handling, care, and storage. The Stud Hole cleaner is of anodized aluminum construction to provide corrosion resistance and to reduce the overall weight to approximately 35 pounds.



PARTS LIST

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>QUANTITY</u>
1	RV STUD HOLE CLEANER	1
2	BRUSHES (Pt# E1348H17)	4
3	SPARE BRUSHES (Pt# E1348H17)	8

NOTE: ITEMS MAY BE REUSED IF NO VISUAL SIGNS OF DEGRADATION, CRACKING, CORROSION, OR ABNORMAL WEAR ARE EVIDENT. REPLACE ITEMS AT THE FIRST SIGN OF DETERIORATION/DAMAGE. BRUSHES SHOULD BE REPLACED EVERY OUTAGE FOR BEST PERFORMANCE.

REQUIRED TOOLS (OPTIONAL FOR DISASSEMBLY)

- (1) 3/8" Allen Hex Key
- (1) 5/16" Allen Hex Key
- (1) 1/4" Allen Hex Key
- (1) 3/16" Allen Hex Key
- (1) 9/64" Allen Hex Key
- (1) Snap Ring Pliers

1. ASSEMBLY INSTRUCTIONS

1. Remove Socket Head Cap Screw and Nord-Lock Washer set. Slide Brush into slot on the Brush Holder Block. (Figure 1)
2. Ensure Brush is fully seated in dovetail slot and install one 1/4"-20 x 1/2" long Socket Head Cap Screw with Nord-Lock Washer set. (Figure 1)
3. Repeat above for the remaining three Brushes.
4. The Stud Hole Cleaner is shipped fully assembled and ready to use.

2. OPERATION INSTRUCTIONS

1. Check the Brushes to make sure they are in good working order, and ensure all Socket Head Cap Screws are wrench tight.

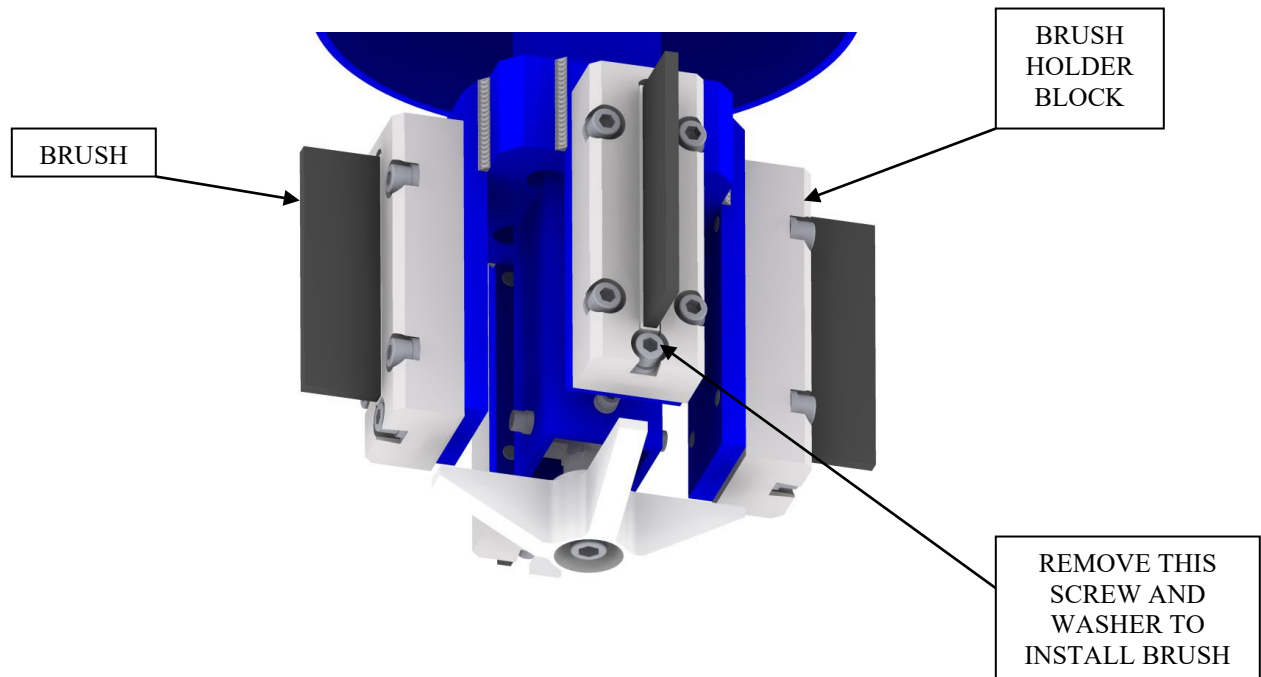
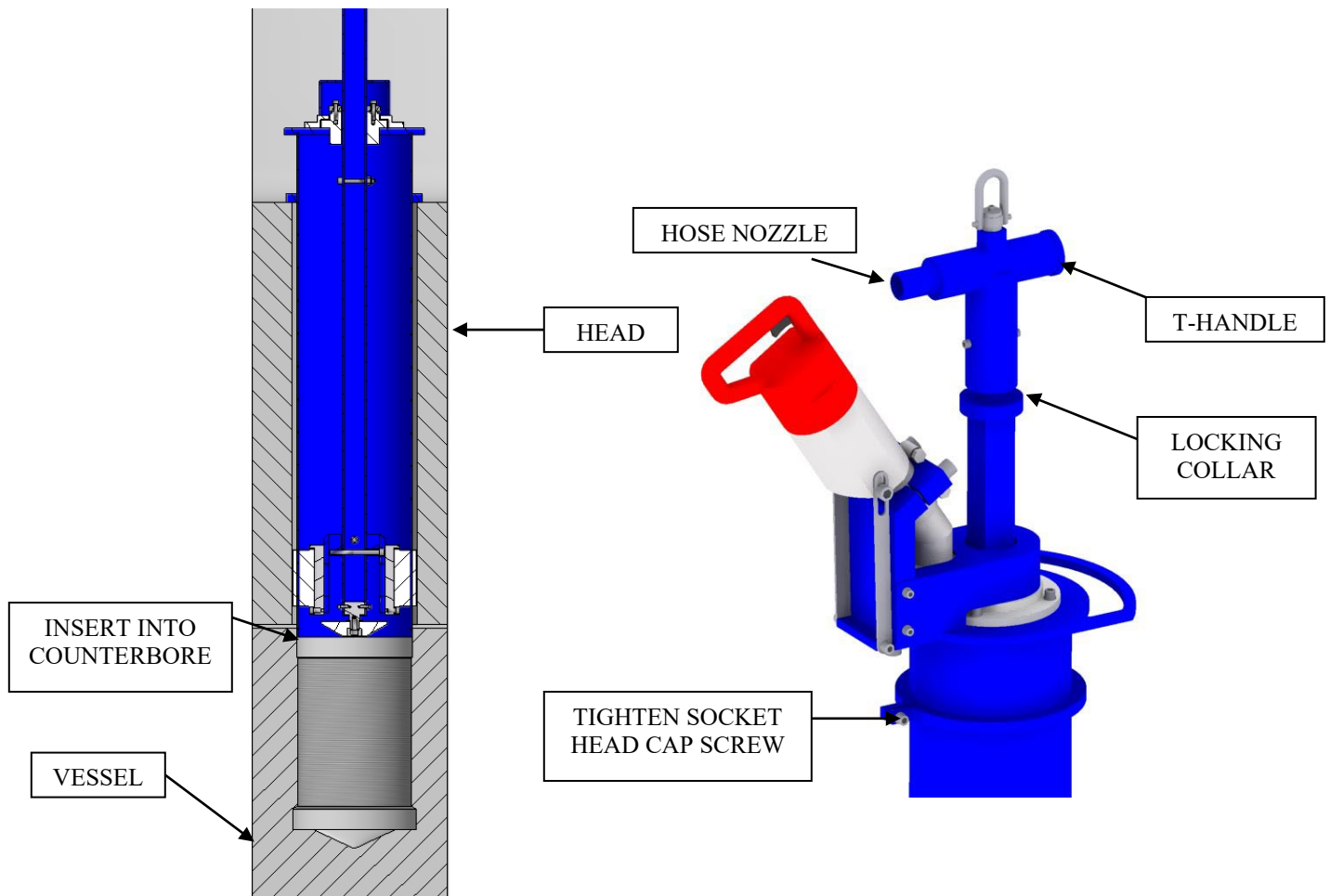


FIGURE 1: Stud Hole Cleaner Bottom End

2. Ensure all other fasteners are snug and inspect for damaged parts. Replace damaged parts as needed.
3. Insert Stud Hole Cleaner into Stud Hole thru the RV Head.
4. Adjust Stop Ring on the Brush Tube so that the bottom of the tube is inserted approximately 1/2" into the counterbore of the Stud Hole. The end of the Brush Tube should not touch the top of the threads of the Stud Hole. (Figure 2)
5. Tighten Socket Head Cap Screw on Stop Ring wrench tight. (Figure 3)

NOTE: This step only needs to be performed once to set depth of Brush Tube.

6. Attach HEPA vacuum hose to 1.25" diameter Hose Nozzle. (Figure 3)



*FIGURE 2 : Cross Section of
Stud Hole Cleaner
Inserted into Stud Hole*

*FIGURE 3 : Stud Hole Cleaner
Upper End*

7. Plug Drill Motor cable into 120V outlet.
8. Pull Drive Shaft upward till it hits the internal hard stop, the brushes will be inside the Brush Tube.
9. Toggle switch on Drill Motor to the “D” position to drive the brushes down.
(Figure 4)
10. Pull trigger on Drill Motor to spin the brushes, (Drive Shaft will rotate Clockwise)
push down on T-Handle to clean the threads.

CAUTION: Keep hands away from rotating shaft.

11. Once the brushes reach the bottom of the threads the Drive Shaft will not lower any deeper. Stop the Drill Motor and position the toggle switch on the Drill Motor to the “U” position to extract the brushes from the Stud Hole. (Figure 5)



FIGURE 4 : Switch at Down Position

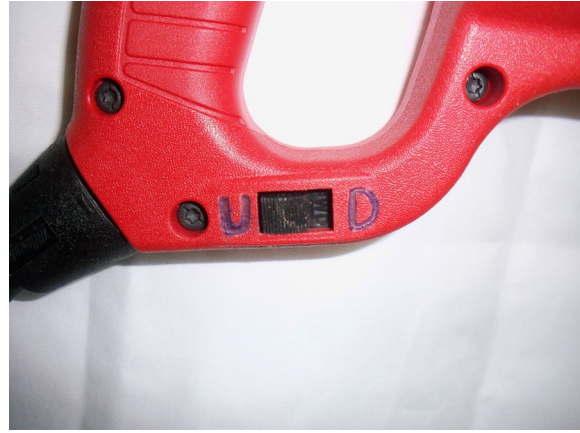


FIGURE 5 : Switch at Up Position

12. Pull trigger to spin the brushes, (Drive Shaft will rotate Counter Clockwise) pull up on the T-Handle to clean the threads.
13. Once the brushes have been pulled out of the threads stop the Drill Motor and repeat steps 9-12 as needed. Master-Lee recommends at least two complete passes for cleanliness.
14. Once cleaning is complete pull up on Drive Shaft till it hits its hard stop and remove from stud hole and proceed to next location repeating steps 9-14. Locking Collar on the Drive Shaft can be used to hold the Drive Shaft up if desired.
15. Once the Stud Hole Cleaning evolution is complete, Master-Lee recommends removing the Nylon Brushes and discarding. New Brushes should be installed just prior to next outages Stud Hole Cleaning. This will help prevent deformation of brushes. If brushes are stored in the cleaning tube they will become deformed.