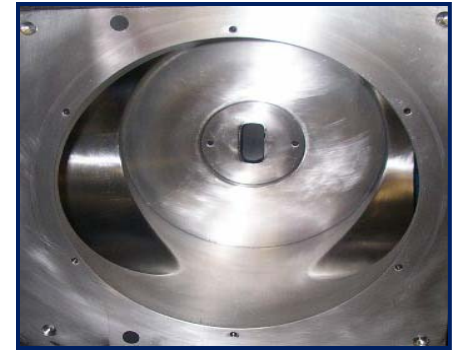


**BEFORE**



**AFTER**

## VACUUM CHAMBER PM TECHNIQUE EATON NV10-160 SOURCE CHAMBER

### OBJECTIVE:

TO EFFECTIVELY PM THE EATON NV10-160 SOURCE CHAMBER IN A TIMELY MANNER, WHILE SHOWING A REDUCTION IN COST/PM USING A SUPERIOR PM TECHNIQUE

#### Vacuum Chamber:

EATON NV10-160

#### Vacuum Chamber Process Residue:

SB & ASH3 BEAM DEPOSITION

#### Vacuum Chamber Components:

SOURCE CHAMBER

Old Procedure: 30 minutes using Scotch-Brite<sup>®</sup>, metal file, DI water, 100+ wipes  
**Recovery time: 4 to 6 Hours**

New Procedure: 15 minutes using Foamtec International's products with DI water  
**Recovery time: 1 to 2 Hours**

#### Vacuum Chamber Products:

##### **Eaton NV10-160 Source PM Kit**

##### **PM Kit P/N: HT4500 – NV160**

- (1) HT4754 UltraSOLV<sup>®</sup> Sponge
- (1) HT4522D-10 220 Grit Diamond ScrubPAD
- (1) HT5790S-5 MiraWIPE<sup>®</sup> Wipers (5pc)
- (1) FT1301 Pail, 1gal  
Not included in PM Kit



HT5790S MiraWIPES<sup>®</sup> not shown

**NOTE: INITIAL CLEAN MAY REQUIRE THE USE OF ADDITIONAL PRODUCTS TO EFFECTIVELY CLEAN CHAMBER BACK TO BARE METAL**

**RECOMMEND: PERFORM A ROUND OF 2-3 PM'S ON SAME TOOL TO ESTABLISH SUFFICIENT DATA FOR EVALUATION**

**EATON NV10-160 SOURCE CHAMBER CLEAN PM PROCEDURE:**

View "How to" instructional videos on <http://www.foamtecintlwcc.com/flash/>

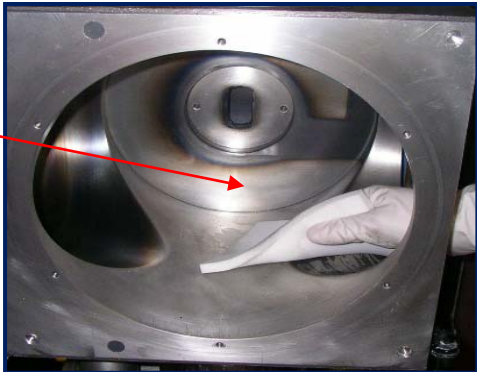
- Step 1:** Using proper procedures and **safety guidelines** prepare Eaton NV10-160 Source Chamber for wet clean
  
- Step 2:** Using an approved house vacuum, vacuum out the source chamber to remove excessive flakes prior to performing wet clean
  
- Step 3:** Fill the FT1301 container 1/3 full of DI water and stage next to source chamber (See Fig 1)

**Fig 1:** Foamtec International products staged for source chamber clean



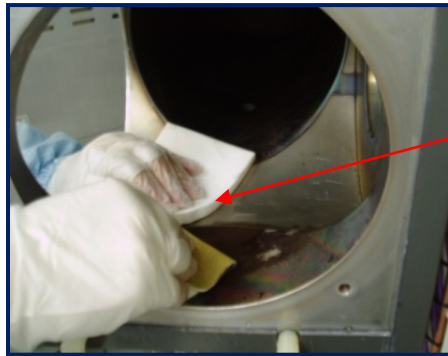
- Step 4:** Place HT4754 UltraSOLV<sup>®</sup> Sponge and 220 Grit Diamond ScrubPAD in container of DI water to moisten products
  
- Step 5:** Take dampened UltraSOLV<sup>®</sup> Sponge and pre-wipe source chamber removing any loose deposition or flakes. Continue to re-moisten the UltraSOLV<sup>®</sup> Sponge in container of DI water as necessary (See Fig 2)

**Fig 2:** Foamtec International UltraSOLV<sup>®</sup> Sponge pre-wiping source chamber



**EATON NV10-160 SOURCE CHAMBER CLEAN PM PROCEDURE (CONT'D):**

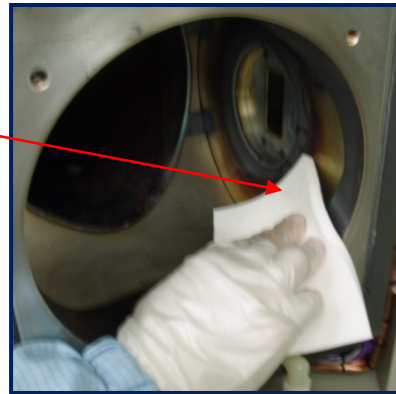
**Step 6:** Take dampened 220 Grit Diamond ScrubPAD and scrub source chamber free of deposition (See Fig 3)



**Fig 3:** Dampen 220 Grit Diamond ScrubPAD and scrub source chamber

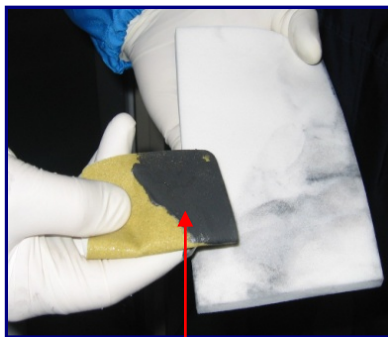
**Step 7:** As loose deposition begins to build up within the source chamber, take UltraSOLV<sup>®</sup> Sponge and wipe the area free of deposition (See Fig 4)

**Fig 4:** UltraSOLV<sup>®</sup> Sponge used to wipe out loosened deposition

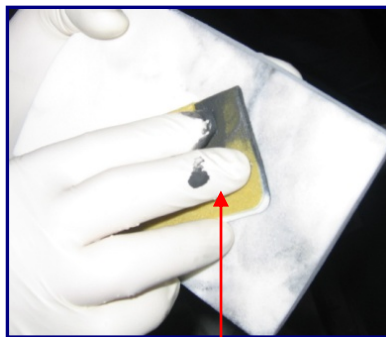


**Step 8:** Continue to rinse out sponge in container of DI water as necessary to free UltraSOLV<sup>®</sup> Sponge of excess deposition

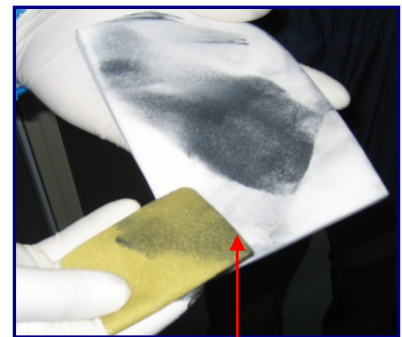
**Step 9:** As ScrubPAD loads up with deposition, pull across dampened UltraSOLV<sup>®</sup> Sponge to unload ScrubPAD (See Fig 5, 6 & 7)



**Fig 5:** ScrubPAD loaded with Deposition



**Fig 6:** Pull ScrubPAD across UltraSOLV Sponge



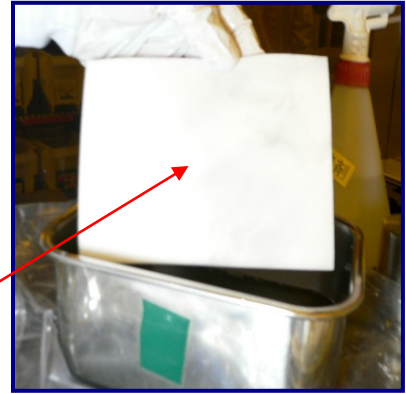
**Fig 7:** Unloaded ScrubPAD

**EATON NV10-160 SOURCE CHAMBER CLEAN PM PROCEDURE (CONT'D):**

**Step 10:** As UltraSOLV<sup>®</sup> Sponge becomes loaded with deposition, rinse in container of DI water (See Fig 8 & 9)



**Fig 8:** UltraSOLV<sup>®</sup> Sponge loaded with deposition



**Fig 9:** UltraSOLV<sup>®</sup> Sponge free of deposition after rinse in DI water

**Step 11:** Repeat steps 6 – 10, scrubbing the remaining areas of the source chamber, rinse out UltraSOLV<sup>®</sup> Sponge and unload 220 Grit Diamond ScrubPAD as necessary

**Step 12:** When deposition has been removed sufficiently throughout entire source chamber, rinse out UltraSOLV<sup>®</sup> Sponge with fresh DI water and re-wipe the entire source chamber in preparation for FINAL WIPE PROCEDURE

**Step 13:** Prior to performing source chamber final wipe, if available, take processed N<sub>2</sub> and blow out any moisture that may have accumulated in the tight corners or any of the hard to reach areas throughout the source chamber

**EATON NV10-160 SOURCE CHAMBER CLEAN PM PROCEDURE (CONT'D):**

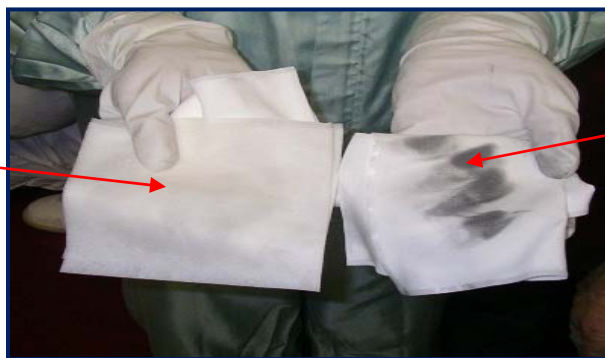
**FINAL WIPE PROCEDURE:**

**IMPORTANT NOTE**

**THE USE OF HT5790S MiraWIPES® DURING THE FINAL WIPE PROCEDURE IS A CRITICAL STEP TO EFFECTIVELY REMOVE PARTICLE DEFECTS FROM CHAMBER**

**NOTE:** Figure below shows how much more deposition the Foamtec International MiraWIPE® can remove from a critical surface compared to the standard fab wiper, making the MiraWIPE® FINAL WIPE PROCEDURE the most **CRITICAL STEP** of the PM procedure (See Fig 10a & 10b)

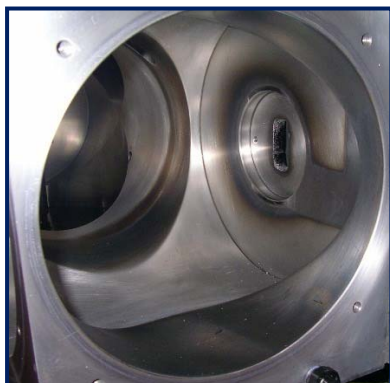
**Fig 10a:** Current fab wiper after completely wiping source chamber



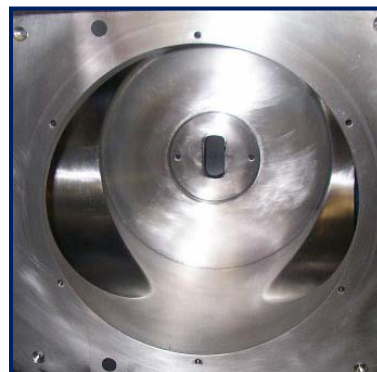
**Fig 10b:** Particles picked up using HT5790S MiraWIPES® after completely wiping source chamber with current fab wiper

**MiraWIPES® are the KEY STEP for DEFECT REDUCTION and IMPROVED TOOL RECOVERY**

**Step 14:** Using proper procedures and safety guidelines, return source chamber back to production



**BEFORE**



**AFTER**