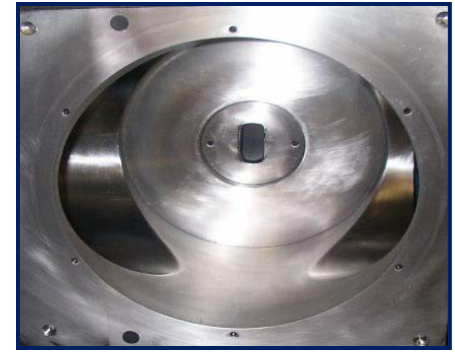


BEFORE



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[®], 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[®] Sponge
- (1) HT4522D-10 220 Grit Diamond ScrubPAD
- (1) HT5790S-5 MiraWIPE[®] Wipers (5pc)
- (1) FT1301 Pail, 1gal
Not included in PM Kit



HT5790S MiraWIPES[®] 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)

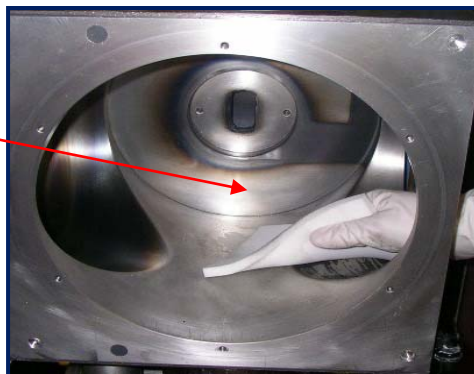
Fig 1: Foamtec International products staged for source chamber clean



Step 4: Place HT4754 UltraSOLV[®] Sponge and 220 Grit Diamond ScrubPAD in container of DI water to moisten products

Step 5: Take dampened UltraSOLV[®] Sponge and pre-wipe source chamber removing any loose deposition or flakes. Continue to re-moisten the UltraSOLV[®] Sponge in container of DI water as necessary (See Fig 2)

Fig 2: Foamtec International UltraSOLV[®] 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)

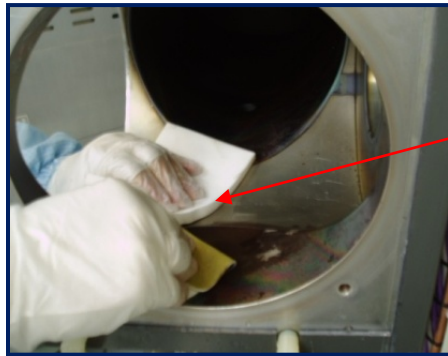
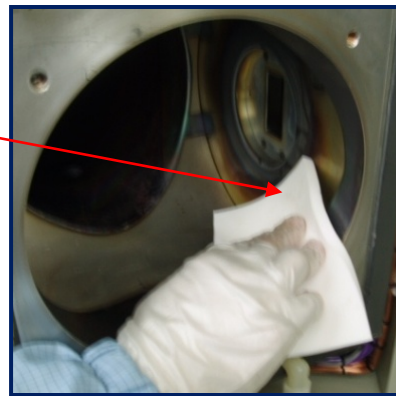


Fig 3: Dampen 220 Grit Diamond ScrubPAD and scrub source chamber

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

Fig 4: UltraSOLV[®] Sponge used to wipe out loosened deposition



Step 8: Continue to rinse out sponge in container of DI water as necessary to free UltraSOLV[®] Sponge of excess deposition

Step 9: As ScrubPAD loads up with deposition, pull across dampened UltraSOLV[®] Sponge to unload ScrubPAD (See Fig 5, 6 & 7)

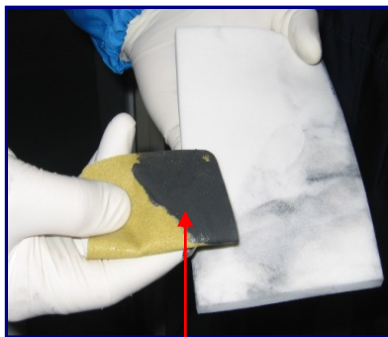


Fig 5: ScrubPAD loaded with Deposition

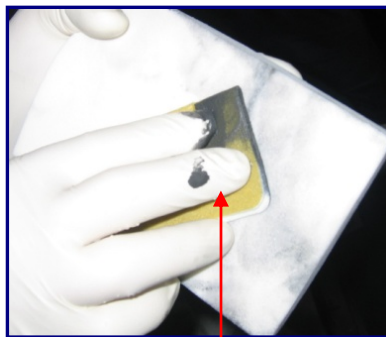


Fig 6: Pull ScrubPAD across UltraSOLV Sponge

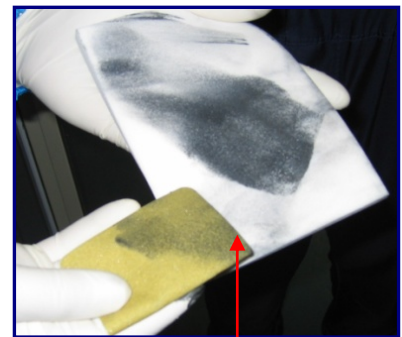


Fig 7: Unloaded ScrubPAD

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

Step 10: As UltraSOLV[®] Sponge becomes loaded with deposition, rinse in container of DI water (See Fig 8 & 9)



Fig 8: UltraSOLV[®] Sponge loaded with deposition

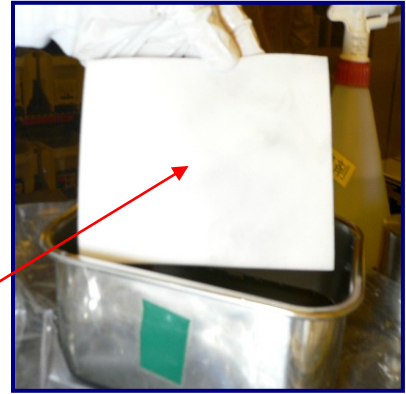


Fig 9: UltraSOLV[®] Sponge free of deposition after rinse in DI water

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

Step 12: When deposition has been removed sufficiently throughout entire source chamber, rinse out UltraSOLV[®] 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 N₂ 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

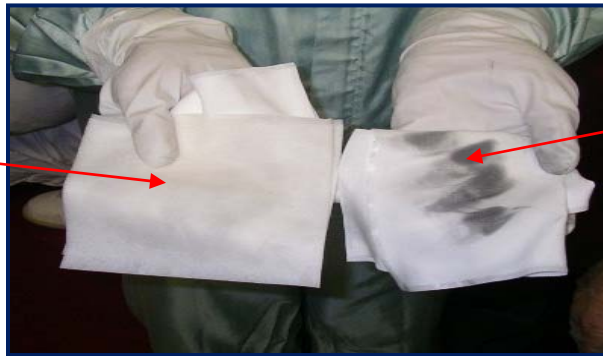
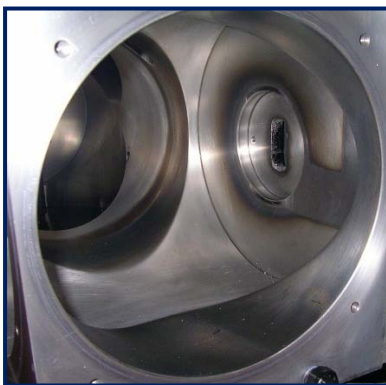


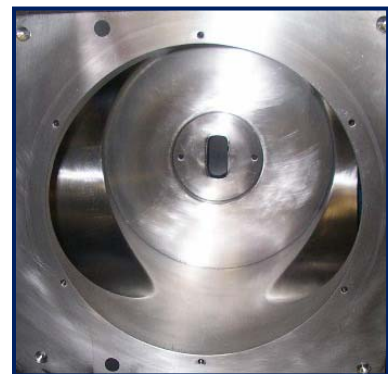
Fig 10b: Particles picked up using HT5790S MiraWIPES® after completely wiping source chamber with current fab wiper

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