

VSM FM Intervention Team observations and actions

Tool – 216v

Objective - FM Intervention (Deep dive)

Findings:

RESOLVER HOUSING

Q3 Testing in Resolver Section

Pre- measurement was performed with the Q3 after full scrub and cleans with IPA and Tec wipes. In each case clean was performed until Tec wipe did not show any residual.

Post Q3 measurement was performed using the MiraWIPE[®] until residuals not visual on wipe.

Below are the results:

Cooled Aperture Section		Flag Section		EMR Section	
AFTER TEC	AFTER MIRAWIPE	AFTER TEC	AFTER MIRAWIPE	AFTER TEC	AFTER MIRAWIPE
Pre	Post	Pre	Post	Pre	Post
454	272	131	32	1663	158
9066	271	1160	249	368	90
930	510	75	27		
310	41				

Note:

All Q3 particle data is at the .3 micron

PROCESS CHAMBER

Q3 Testing in Process Chamber Section

Note:

Pre- measurement was performed with the Q3 after full scrub and cleans with IPA and Tec wipes. In each case clean was performed until Tec wipe did not show any residual.

Post Q3 measurement was performed using the micro fiber cloth (MiraWIPE) until residuals not visual on wipe.

Below are the results:

Q3 Testing, Process Chamber Door	
AFTER TEC	AFTER MIRAWIPE
Pre	Post
85	37
312	27
54	20
459	7
179	36
37	30
85	47
57	12

Note:

All Q3 particle data is at the .3 micron.

Q3 Testing on Process Clam Shell. After Maint. clean	Q3 Testing After Micro Clean	Pad Number	Q3 Testing on Disk Pads With Normal Wipe	Q3 Testing After Tape Clean
AFTER TEC	AFTER MIRAWIPE		AFTER TEC	AFTER MIRAWIPE
Pre	Post		Pre	Post
184	13	13	34*	38
25	58	12	265	19
144	4	11	444	11
125	11	10	271	23
165	19	9	218	4
119	12	8	250	14
509	35	7	272	14
63	9	6	90	6
56	33	5	137	6
143	142	4	205	4
339	22	3	132	8
1469	10	2	329	15
		1	310	10

*Pad 13 had been previously cleaned as an example before test was performed.

Note:

All Q3 particle data is at the .3 micron.

As a test each side of pad 13 and 12 were cleaned (disk surface) with the tape as well. Also Tape clean was performed on the large center hub of the disk proceeded by the MiraWIPE clean. Q3 data is below

Center Hub of Disk		Left side of pad 13		Right side of pad 12	
AFTER TEC	AFTER MIRAWIPE	AFTER TEC	AFTER MIRAWIPE	AFTER TEC	AFTER MIRAWIPE
Pre	Post	Pre	Post	Pre	Post
1268	5	23	1	90	4
659	32				
		Right side of pad 13		Right side of pad 12	
		AFTER TEC	AFTER MIRAWIPE	AFTER TEC	AFTER MIRAWIPE
		65	2	31	3