

Hose Cleanliness Evaluation Report



Company: Ultra Clean Technologies Corp. Address: 746 Shiloh Pike City: Bridegeton State: NJ Zip: 08302 Telephone: 1-800-791-9111 Fax: 856-453-4975 Contact: Bruce Riley Title: President E-mail: briley@ultracleantech.com	Test Date: September 5, 2006 New Oil for Evaluation: AW46 Hydraulic Oil Hose Type: Aeroquip FC-659-16 Assembly type: 28" OAL with 1BA16MP16 fittings Note: 6 Hoses were sent for evaluation after cleaning by Ultra Clean Projectiles for Waste Management Corp.
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Dear Bruce

Test Procedure

1. The hose was rinsed with new hydraulic oil several times with non-contact flow technique.
2. The hose is washed with the same oil quantity of new oil each time
3. New hydraulic oil is AW46 viscosity grade and filtered to a low ISO code cleanliness before testing.
4. Laser light particle count is used as particle count analysis. Particle counter is made by HIAC/ROYCO and uses the ISO:4406-99 standard for particle count method. Special quality control for particle count testing is made to make sure that the particle count shows accurate reading.
5. All oil samples were tested twice to make sure that particle count reading confirms accuracy.

We hope that this test data will provide sufficient information regarding hose cleanliness evaluation.

Yours sincerely,

Vichai Srimongkolkul
 Technical Director

Item No.	Hose I. D.	Hose Descriptions	Solid Contamination Particle Count in 1 cc						ISO Code
			4μ	6μ	14μ	20μ	30μ	40μ	
1	NEW	New AW 46 Hydraulic Oil as base line comparison	214	64	23	9	1	0	15 / 13 / 12
2	A1	Chop saw with abrasive wheel - no cleaning	99,999	99,999	92,618	67,576	29K	15K	24 / 24 / 24
3	A2	Chop saw with abrasive wheel - 10 second air blow	96,508	52,827	4,546	1,013	53	13	24 / 23 / 19
3	A3	Chop saw with abrasive wheel - Ultra Clean	1,824	511	54	20	2	0	18 / 16 / 13
4	A4	Chop saw with metal scalloped blade - no cleaning	99,999	99,999	54,879	29,617	6.4K	2.5K	24 / 24 / 23
5	A5	Chop saw with metal scalloped blade - 10 second air blow	99,999	84,470	18,639	5,725	752	247	24 / 24 / 21
6	A6	Chop saw with metal scalloped blade - Ultra Clean	2,354	638	73	22	5	1	18 / 16 / 13