

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1995

DateRun: 08/22/1995

Experimenters: Donald Garlotta, Jay Jankauskas

ClientType: Lapping Job Shop

ProjectNumber: Project #1

Substrates: Steel

PartType: Part

Contaminants: Lubricating/Lapping Oils, Dirt, Films

Cleaning Methods: Low Pressure Spray

Analytical Methods: Visual

Purpose: Preliminary test to evaluate cleaners

Experimental Procedure:

PART #1
CLEANING PRODUCT: Oakite Inproclean #3800
CONCENTRATION: 10% by volume

PART #2
CLEANING PRODUCT: Cleaning Systems Inc. Release
CONCENTRATION: 15% by volume

PART #3
CLEANING PRODUCT: Calgon Corporation Geo-Guard #3015
CONCENTRATION: 10% by volume

PART #4
CLEANING PRODUCT: AW Chesterton KPC 820N
CONCENTRATION: 4% by volume

The purpose of this trial is simply to perform a preliminary test demonstration for Lapping Job Shop to show the effectiveness of various cleaners in removing lapping oils. For the various cleaners, cleaning will take place for five minutes at 110 F. All three parts will first be rinsed for one minute in a tap water bath set at 110 F. One of the parts will then be rinsed in a room temperature DI bath for 10 seconds. After rinsing the parts were then placed under the air knives for one minute and then blown dry with the heat gun. After drying the parts were observed for lapping compound residue and spotting. One part was then cleaned in the Graymills spray unit. Cleaning temperature was set at 100 F and cleaning took place for two minutes. The part was then rinsed under warm, running tap water for a few seconds.

Results: All four cleaners were successful in quickly removing the lapping compound from the parts. No spotting was noticed on the parts, so a DI rinse may not be necessary.

Summary:

Substrates:		Steel			
Contaminants:		Lubricating/Lapping Oils, Dirt, Films			
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Oakite Products	Inproclean 3800	10		<input checked="" type="checkbox"/>	
AW Chesterton	KPC 820 N	4		<input checked="" type="checkbox"/>	
Cleaning Systems	Release	15		<input checked="" type="checkbox"/>	
Calgon Corporation	Geo Guard 3015	10		<input checked="" type="checkbox"/>	

Conclusion: Preliminary tests show that all four cleaners and both mechanical methods are possible cleaning methods for Lapping Job Shop. Future testing should be done with a variety of substrates and on parts that are more heavily contaminated.