

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2007
DateRun: 06/04/2007
Experimenters: Jason Marshall
ClientType: Metal
ProjectNumber: Project #1
Substrates: Stainless Steel
PartType: Part
Contaminants: Lubricating/Lapping Oils
Cleaning Methods: Ultrasonics
Analytical Methods: Visual

Purpose: To evaluate top 5 products on supplied parts using ultrasonics cleaning.

Experimental Procedure: The five successful products from the previous trials were selected to test on the supplied parts. Each product was heated to 130 on a hot plate. The heated solutions were then poured into a tall cylinder (25 ml glass graduated cylinders) and placed in a heated ultrasonic tank. Each solution was degassed for five minutes.

Two dirty parts were immersed into the solutions. The parts were placed in the upright position and cleaned for 5 minutes using a Crest 40 kHz ultrasonic tank at 130 F. Parts were then rinsed in a DI Spray for 15 seconds at room temperature and dried with compressed air for 30 seconds also at room temperature. Visual observations were made on the cleaned parts. Parts were packaged to be sent back to client for final observations.

Results: Visually, all five products removed exterior soils. During cleaning, bubbles were observed coming out the tops of each of the parts which would signify that the cleaning solutions were getting into and out of the inner diameter of the parts. When the parts were being packaged, one of the five products - D Greeze 500 LO left a tacky residue on the parts.

Summary:

Substrates:		Stainless Steel				
Contaminants:		Lubricating/Lapping Oils				
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:	
AG Environmental Products	Soy Gold 1100	100		<input checked="" type="checkbox"/>		
Bio Chem Systems	Solsafe 245	100		<input checked="" type="checkbox"/>		
Buckeye International	Shopmaster RC	100		<input checked="" type="checkbox"/>		
Dysol	DS 108 Wipe Solvent	100		<input checked="" type="checkbox"/>		
Transene Company, Inc.	D Greeze 500 LO	100		<input type="checkbox"/>		

Conclusion: Four of the five products performed well based on the outside cleaning of the supplied parts. Finally, assessment of the inside diameters will be conducted by the client.