

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2009  
 DateRun: 02/03/2009  
 Experimenters: Heidi Wilcox, Johanna Oviedo  
 ClientType: Machine Construction Company  
 ProjectNumber: Project #2  
 Substrates: Steel  
 PartType: Part  
 Contaminants: Greases, Oil  
 Cleaning Methods: Immersion/Soak  
 Analytical Methods: Visual

Purpose: To evaluate top cleaning products without rinsing.

Experimental Procedure: The top two products were selected from the previous trials based on success on removing the supplied soils using heated immersion cleaning. Both were used at full strength based on vendor recommendations. Beakers were heated to 130 F on a hot plate. Steel parts supplied by the client that had grease and oils caked on it. One or two parts were cleaned in each solution for 5, 10 and 15 minutes using stir bar agitation. Coupons were not rinsed but were dried using compressed air at room temperature for 30 seconds. Parts were visually inspected and pictures were taken.

Results: Both products were able to remove over 85% of the three soils using immersion cleaning without rinsing. The Bean-e-doo removed over 92%. The table lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	5 minutes	10 minutes	15 minutes
Smart Solve 605	Looks best out of the three times.	One part still half caked with soil. Some paint on part and soil in grooves	Better than Bean-e-doo. But soil still in grooves
Bean-e-doo	Looks best of 3 times. Some soil still on part	One part still half caked with soil	Not as good as Smart Solve. Soil still in grooves

Summary:

<b>Substrates:</b>		Steel				
<b>Contaminants:</b>		Greases, Oil				
Company Name:		Product Name:	Conc.:	Efficiency:	Effective:	Observations:
United Laboratories International		Smart Solve 605	100		<input checked="" type="checkbox"/>	
Franmar Chemical		Bean-e-doo (Parts Washer Solvent)	100		<input checked="" type="checkbox"/>	

Conclusion: Piloting of the two cleaning products should be arranged at the company as the next step.