

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 02/07/2002

Experimenters: Heidi Wilcox

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Lubricating/Lapping Oils

Cleaning Methods: Media Blasting

Analytical Methods: Visual

Purpose: Laboratory evaluations of alternative cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning. Cleaning: Blast coupon with CO2 crystals ~ (-109 F) at varying flow rates in room temp ~ 68 F. Bursts were 2 seconds each, 3 per coupon in a sweeping motion. Gun was aimed at coupon, perpendicular to surface. Contaminant: Oil - WD - 40 Company, WD 40 oil/lube petroleum distillate (8052-41-3 50, 68476-85-7, 64742-65-0)

Results:

Summary:

Substrates:		Stainless Steel			
Contaminants:		Lubricating/Lapping Oils			
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Applied Surface Technologies	CO2 Snowflakes, Low Flow	100	7.25	<input type="checkbox"/>	Low flow
Applied Surface Technologies	CO2 Snowflakes, Medium Flow	100	26.71	<input type="checkbox"/>	Medium flow
Applied Surface Technologies	CO2 Snowflakes,High Flow	100	34.24	<input type="checkbox"/>	High flow
Applied Surface Technologies	CO2 Snowflakes, Low Flow	100	13.17	<input type="checkbox"/>	Low flow, flakes
Applied Surface Technologies	CO2 Snowflakes, Medium Flow	100	22.51	<input type="checkbox"/>	Medium flow, flakes
Applied Surface Technologies	CO2 Snowflakes,High Flow	100	35.36	<input type="checkbox"/>	High flow, flakes
Applied Surface Technologies	CO2 Snowflakes, Low Flow			<input type="checkbox"/>	
Applied Surface Technologies	CO2 Snowflakes, Medium Flow			<input type="checkbox"/>	
Applied Surface Technologies	CO2 Snowflakes,High Flow			<input type="checkbox"/>	

Conclusion:

None of the flow rate, delivery combinations with the CO2 snow gun were effective. An increase in effectiveness was an increase in flow rate of the CO2 with both the crystal producing nozzles and the flake producing adapter and tube.