CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006

DateRun: 03/20/2006

Experimenters: Jason Marshall

ClientType: Metal

ProjectNumber: Project #2

Substrates: Aluminum

PartType: Part

Contaminants: Oxides

Cleaning Methods: Media Blasting

Analytical Methods: Visual

Purpose: To evaluate media blasting with CO2 snow or baking soda for aluminum finish improvements

Experimental Procedure: A Va-Tran Systems Sno Gun-II Cleaner was used in combination with compressed liquid carbon dioxide. The compressed cylinder was equipped with a syphon tube to facilitate the making carbon dioxide snow.

Additionally, a BCS Co Soda Blaster was used with Church & Dwight Baking Soda Maintenance Formula XL with SuperKleen rinse accelerator. The baking soda blasting was rinsed from the part using tap water and dried using air blow off.
The supplied aluminum plate was first photographed to record its initial appearance. The part was then cleaned with the CO2 snow for 2 minutes. The flow of the snow passed across the plate in a side to side and top to bottom pattern during the 2 minutes of cleaning. Only a half of the part was cleaned so that a direct comparison could be made with the original condition. The finish of the part also was compared to the desired finish on the back side of the part. A photograph was taken of the cleaning.

The process was repeated for 5 and 10 minutes of cleaning.
Baking Soda blasting was performed on the other half of the supplied part for 2 and 5 minutes.

Results: The surface finish was only slightly improved after 2 and 5 minutes of abrasive cleaning. There was not much improvement from 5 minutes to 10 minutes. Observations are listed in the table below.

Product	Time min		
CO2 Snow	2	5	10
	Slight change	Condensation build up	Not much change from
		Some improvement but not like side B	5 minutes
Baking Soda	Flat finish	No change from 2 min	Not evaluated.

Summary:

Substrates:	Aluminum
Contaminants:	Oxides

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Applied Surface Technologies	CO2 Snowflakes, Medium Flow	100	0.00	☑	marginal improvement
Armex Cleaning and Coating Removal Systems	Sodium Bicarbonate	100	0.00	☑	Flat finish

Conclusion: The final finish of both the CO2 and baking soda blasted surface did not match the appearance of the abrasive disc finish but did alter the appearance.