

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2001
 DateRun: 09/06/2001
 Experimenters: Carole LeBlanc, Jason Marshall, Off Site
 ClientType: General
 ProjectNumber: Project #1
 Substrates: Brass
 PartType: Part
 Contaminants: Paints, Oxides
 Cleaning Methods: Media Blasting
 Analytical Methods: Visual
 Purpose: To evaluate media blasting for paint removal

Experimental Procedure: Two parts were cleaned using a B.C.S. Company Model SB 2436 Soda Blaster. The selected parts were cleaned until all the paint had been removed. Parts were cleaned one at a time by holding the piece in one gloved hand inside the blasting chamber while the other hand was holding the blasting nozzle. The part was visually inspected every 15 seconds or so to determine the extent of the cleaning. The overall cleaning process lasted about 5 minutes. The system was operating at a pressure of approximately 50 psi. After cleaning one of the two parts was placed in a steel ball mill to improve the shine. Operating at room temperature, the part was milled for 10 minutes. A comparison of the two parts was made upon completion of the milling.

Results: The media blasting of the brass window parts was very successful. The steel ball milling did improve the shine of the brass more than the media did; however, the sodium bicarbonate was more successful in improving the shine than all of the aqueous and semi-aqueous products. The following figures show the difference between the two processes.

Summary:

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|--|----------------------|---------------|--------------------|-------------------------------------|----------------------|--|
| Substrates: | Brass | | | | | |
| Contaminants: | Paints, Oxides | | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| Armex Cleaning and Coating Removal Systems | Sodium Bicarbonate | 100 | | <input checked="" type="checkbox"/> | | |

Conclusion: Media blasting with baking soda was very effective in removing the paint from the brass parts. The process was also successful in improving the finish shine of the parts. It appears to be a viable alternative for cleaning the supplied parts.
 The system used for cleaning, including the compressor, vacuum vent and blasting apparatus costs around \$1500.