



SUBJECT BLASTING METAL CONES
 Process Specification

SUPERSEDED DATE

This specification covers the process for aluminum oxide blasting of chrome iron metal cone sealing surfaces.

1. EQUIPMENT

- a. Pangborn Sandblaster, Type ES-348.
- b. Pangborn Blast Cleaning and Dust Control Equipment.
- c. Electric Hammer - for removing glass from salvage cones.

Equipment Description: The sandblaster described herein is a 6-position rotary machine. The index time is regulated by a multiflex timer. Position 1 is for loading, unloading and inspection. Position 4 is the initial blast position with three nozzles trained upon the face shoulder of the cone. Position 5 is the secondary blast position with four nozzles trained upon the face shoulder and one from below on the neck ridge. Positions 4 and 5 operate when blasting both new and salvage cones. Positions 3 and 6 are isolating chambers from the operations performed on positions 4 and 5. This insulating is done with rubber aprons. A circulating system draws out the dust and deposits the remaining good abrasive in the hopper for re-use. Therefore, the change is maintained by simply adding new abrasive to the hopper as needed to maintain a level up to overflow funnel.

The electric hammer machine consists of a heavy plate which serves as a supporting table for the cones, and a syntron, model 16, electric hammer. The hammer and plate are mounted so that the hammer tool will rest on the outside lip of the cone when cone rests in the base plate. The hammer is operated by a foot switch and the operator rotates the cone by hand.

Safety Devices: A band across Position 2 operates two switches for immediate stopping of index. Upon the opening of either of the side doors a control switch is thrown which stops index and also cuts off air pressure. Before the machine can be indexed the operator must press two buttons on the front of the machine when the index light is on preventing the operator from getting hands and arms in the way of machine movement.

2. MATERIALS

A622 Aluminum Oxide Grain (Grit No. 46WPM Aloxite).

3. PROCEDURE

a. Charging Machine

(1) Fill hopper with blasting grain to overflow level and maintain at this level while operating.

b. Starting Machine

- (1) Open valve to pressure gage No. 1 and check air line pressure. The pressure should be 85 lb. or more to operate machine.
- (2) If pressure is above 85 lb., open valve to "Low-Pressure Mercury Switch".
- (3) Turn on Main Power Switch.
- (4) On fan starter box, turn rapper fan switch to "Fan".
- (5) Start separator and elevator with push button switch below separator starter box.
- (6) Start work chuck rotation with push button switch below work chuck starter box. Note: There are three interlocks in this circuit, one in each of the doors and in the mercury switch. All must be closed before chucks will rotate.

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3. PROCEDURE (Cont.)

b. Starting Machine (Cont.)

- (7) Open "main 6x6 air valve".
- (8) Select "New or Salvage" on timer selector switch.
- (9) Turn index switch to "Hand" for one index, then quickly flip to automatic.

c. Loading & Unloading Cones.

- (1) Loading, unloading, and inspection shall be done at Position 1. Cones with loose scale, glass, and other surface imperfections shall be recycled. It is necessary that blasted surfaces be free of finger prints. Blasted cones shall be handled only with clean, cotton gloves.

d. Stopping Machine

- (1) Turn index switch to off position (center).
- (2) Close main air valve.
- (3) Stop work chuck rotate (push-button).
- (4) Stop elevator and separator (push-button).
- (5) Throw Main Power Switch off.

e. Operating Rapper

- (1) The dust collector should be "rapped" at least once every eight hours of operation.
- (2) To turn on the rapper all other switches and motors should be off.
- (3) Turn "Rapper-Fan" switch to "Rapper", than turn on Main Power Switch.

ENGINEERING SECTION
STANDARDIZING

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