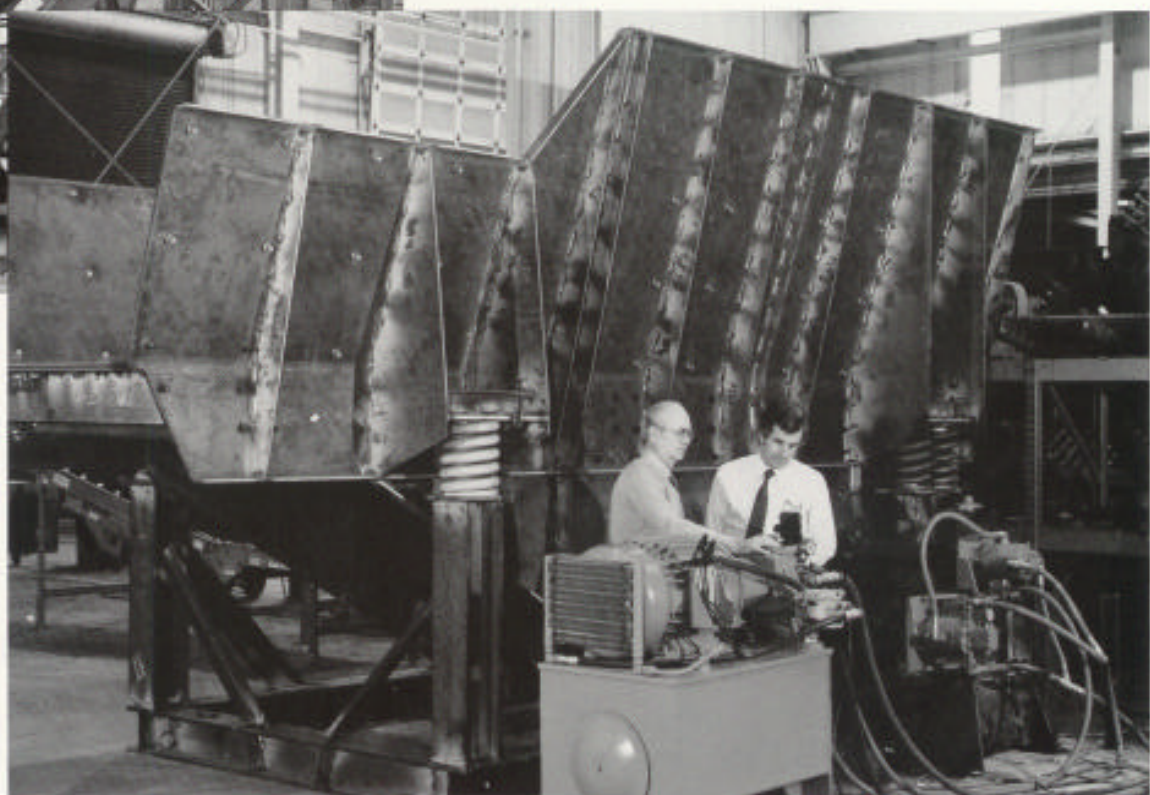


## **AUTOMATED HANDLING OF ALUMINUM BRIQUETTES**

Feeders, Conveyor, Pushoff Table and  
Tray Elevator System clean up problems at  
Aluminum Plant.



**Carrier**

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**SUBJECT:** ALUMINUM BRIQUETTE HANDLING

**SYSTEM:** HTE Primary Feeder, 60" wide x 60" deep x 20'0" long  
FP Secondary Feeder, 20" wide x 6" deep x 9'2" long  
H Conveyor, 20" wide x 6" deep x 61'8" long  
Pushoff Table, 20" x 22"  
Tray Elevator, 19" wide trays x 17'3" shaft centers

**PRODUCT SPECIFICATIONS:** MATERIAL: Compressed Aluminum Briquettes  
SIZE: 12" x 12" x 8" nominal  
12" x 8" x 4" minimum  
18" x 18" x 14" maximum  
WEIGHT: Varies: 15# minimum to 150# maximum each  
QUANTITY: 720 briquettes per hour maximum  
(1 every 5 seconds)

**APPLICATION:** Briquettes are received at plant, banded to 4' x 4' skid, approximately 140 briquettes per skid. Bands are cut and two skids full are dumped into the primary feeder at one time, and then periodically thereafter, as required. Briquettes are discharged in batches into the secondary feeder, on which they begin to level out and orient; then discharged into the conveyor, where a special 15' long load section completes briquette separation and orientation. This conveyor discharges briquettes onto a transfer table having three air operated cylinders for trapping briquettes, tilting the table, and pushing off a briquette, one at a time. The briquette is pushed into the receiving platen of the tray elevator, where it is picked up by the next passing tray and elevated into the loading hopper of a melting furnace.

**REASON FOR PURCHASE:** In manually loading the furnace heretofore, several briquettes were dropped into the furnace at one time. This caused a great deal of smoke and dust contaminants to enter the air, thereby creating an air pollution problem.

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**FEATURES**

**BENEFITS**

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System works automatically after briquettes are loaded into the primary feeder.

Reduces hazards associated with manual loading; frees manpower for the other plant section needs.

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Tray elevator speed is adjustable.

Allows furnace loading at a rate commensurate with production requirements.

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The elevator feed portion of system is keyed off the elevator speed rate.

Automatically controls feed rate of system without any manual control adjustment or synchronization of preceding units.

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Briquettes are fed into the furnace singly, at a predetermined rate.

Eliminates excessive air pollution, and provides a safer, cleaner working environment.

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