

# HOW YOUR ALMCO EQUIPMENT WORKS

Your Almco V-Series vibratory finishing machine has been designed to be a versatile performer capable of processing batches of parts using a wide variety of finishing media. Standard features such as variable vibrational frequency and variable amplitude make this machine ideal for deburring parts at individual work stations.

The machine consists of: (1) the structural framework; (2) the vibratory tub; (3) the unbalanced vibratory shafts; (4) the automatic lubricator; (5) the drive unit; (6) the CIC16 media return conveyor; (7) the PC8-46-TF conveyor; (8) the OS-17AT oscillator assembly; and (9) the electrical controls.

In operation, the motor turns the unbalanced shaft which is attached to the underside of the tub. The unbalance in the shaft causes the tub to vibrate on its springs with a frequency proportional to shaft RPM. The amplitude of this vibration can be controlled by changing the amount of unbalance (counterweight) on the shaft, while frequency of vibration can be changed on the touchscreen on the front of the main electrical enclosure.

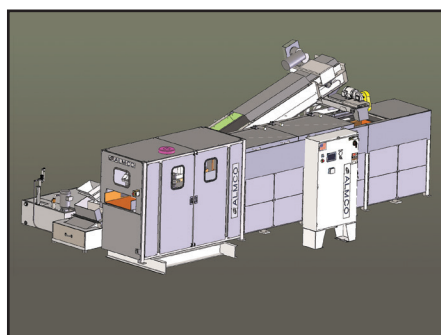
When parts and media are placed in the tub, the vibrating action is transmitted to the contents of the tub, causing the parts and media to undergo millions of small

collisions. Since the vibratory media is an abrasive, these collisions result in the removal of small amounts of material from the parts, particularly along their corners and edges.

The material removal process is enhanced by slowly adding a mixture of water and finishing compound to the tub as it vibrates. This mixture washes away the residual particles created by the colliding parts and media, carrying the particles through a drain plate in the bottom of the tub and on to sewer.

An angled chute is located at the discharge end of the tub, allowing parts and media to flow through the tub onto the vibratory screener. The discharge chute has interchangeable segments to change the discharge height and shape, providing control of the time the parts remain in the tub.

On the vibratory screener, the parts are discharged from the end, while the media falls through the screen and is again screened to remove any unwanted fines. The media is then conveyed to the media return conveyor, which continuously moves the media to the inlet end of the tub to provide the continuous thru-feed process.



**Almco V-14120 Thru-Feed Vibratory Finishing System (Serial Number 0222003)**

# SPECIFICATIONS

**NOTE:** The following are for the base machine less options. Dimensions are provided to give a general idea of the space requirements needed for the machine and are not intended to be used for installation purposes.

## General Specifications

Tub Working Capacity (approx.)	13.8 cu. ft.
Main Fuse Rating (460 volt)	60A
Full Load Amp Draw (460 volt)	35.1 FLA
Tub Drive Motor Horsepower	10 HP
Tub Drive Motor Amp Draw	12.4A
Tub Vibratory Frequency	1075–2300 RPM
Blow-Off Blower Motor Horsepower	5 HP
Blow-Off Blower Motor Amp Draw	5.8A
Separator Motor Horsepower	2 HP
Separator Motor Amp Draw	2.5A
Media Conveyor Motor Horsepower	2 HP
Media Conveyor Motor Amp Draw	3.4A
ST-4 Tank Motor Horsepower	2 HP
ST-4 Tank Motor Amp Draw	2.7A
Recirc Pump Motor Horsepower	1 HP
Recirc Pump Motor Amp Draw	1.2A
Transfer Conveyor Motor Horsepower	1/2 HP
Transfer Conveyor Motor Amp Draw	0.6A
Maximum Number of Counterweight Segments (Part #A129757A, each 1/4" thick steel)	24 (3 per Cwt.)

## Machine Dimensions

Length (approx.)	279.74"
Width (approx.)	118.89"
Height (approx.)	98.35"
Product Load Height (overall, approx.)	57.01"
Product Discharge Height (overall, approx.)	34.52"

## **Tub Inside Dimensions**

Length (approx.)	120"
Width (approx.)	14"
Height (approx.)	15-1/2"