



MODEL:  
HFF-24



Manufacturing Mass Finishing Solutions

# High Frequency Finisher

## Overview

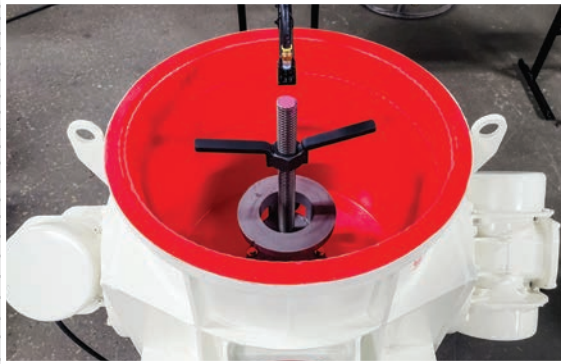
High frequency finishers (HFF model) are highly versatile and efficient vibratory finishing machines that are ideal for precise surface refinement (low Ra) and mirror-like polishing of delicate parts with intricate shapes and contours, such as high-value automotive wheels, aerospace blisks, bearing races, windmill pinions and shafts, forging mold refurbishment and medical devices. Unlike standard vibratory finishers that rely on amplitude and feed to create a rolling action to finish parts, high frequency finishers generate a unique process that uses less amplitude, more frequency and a lapping style action. The result is complete part coverage, repeatability, fine polish, superior surface refinement and no part impingement, as parts are fixtured within the work chamber. HFF machines can be fully automated and easily adjusted to the most sensitive and delicate finishing tasks.

The HFF machine utilizes high frequency and low amplitude to create an optimal motion for smoothness and polishing. The vibratory motors that create this motion are mounted on easily adjustable indexing plates that allow for

many orientations. This orientation adjustment changes the direction of amplitude which in turn modifies the flow of the media. The motion of the media inside the work chamber is isotropic (random), which eliminates directional or patterned finishing problems such as “leading edge” or “shadowing” effects. It is even capable of getting work done on internal surfaces, which is not possible with conventional finishers.

The construction consists of a heavy duty, interlocking structural design forming a cylindrical-shaped chamber, with a premium polyurethane lining and drain(s), mounted on vibration isolators and base frame. The finishers are driven with two (indexable) vibratory motors with easily adjustable weights, to increase or decrease the aggression of the machine. For further adjustment, the standard control panels have two variable frequency drive(s) to refine the process further by raising or lowering the machine’s frequency. These tools allow for a precise process that covers a wide spectrum of finishes.

Optimized Floor Space | Labor Efficiencies | Improved Quality



## Advantages

- The amount of force or energy transmitted on the part is far greater than that produced by standard vibratory systems.
- Desired results are achieved in far shorter cycle times.
- High-energy equipment is an effective solution for parts of high value or that require a high polish or cut that cannot be generated by standard vibratory or tumble machines.
- Features a gentler process ideal for smoothing sensitive parts.

## Results

CLM Vibetech, Inc. high frequency finishers feature an innovative, professionally engineered design with an exceptionally high-quality output. They allow for delicate, sensitive more complex parts, which have traditionally been finished manually, to now receive an automated vibratory finish, which creates labor efficiencies and enhanced part quality. Finally, their small footprint optimizes floor space.

## Specifications

MODEL	Inside Diameter	Inside Depth	Cu. Ft. Capacity	Machine Height	Media Discharge Height
HFF-24	24"	19.5"	4.8	48.5"	24"
HFF-30	30"	23.5"	9.4	52.5"	24"
HFF-36	36"	25"	14.5	58"	28"
HFF-48	48"	30"	31	69"	34"
HFF-60	60"	36"	57	82"	40"

## Key Features

- Premium polyurethane lining
- Mounted on vibration isolators
- Premium efficiency motor
- Adjustable weights
- Complete part coverage and repeatability
- Fine polish, superior surface refinement
- Less amplitude, more frequency, lapping style action
- Parts are fixtured within the work chamber

Proudly built in the USA

