

High-Speed Cellular Deburring and Polishing

Bel Air Finishing Supply's two-in-one centrifugal disc finishers save time and money while increasing quality by polishing and deburring. The design produces 10 times the g-force of a vibratory bowl finisher.



Bel Air Finishing Supply's FinishMaster Stream Liner (FMSL) centrifugal disc finisher produces at least five times the output of manual deburring operations.

Bel Air Finishing Supply Inc. (North Kingston, RI) centrifugal disc finishers help manufacturers increase throughput, decrease cost, and increase part quality by polishing and deburring a wide range of materials including aluminum, brass, copper, kovar, stainless steel, steel, and titanium. In addition to eliminating 80% of the handwork involved in manual deburring operations, they drastically reduce surface roughness (Ra) of parts for the aerospace, automotive, medical, and other industries.

Sizes range from 4 liters to 60 liters and most models come with a mobile frame, ideal for cellular and just-in-time production. Options include integrated ultrasonic cleaners, on-board media storage, a direct compound feed system, and parts separation.

How it works: The bowl-shaped finishing chamber consists of a fixed upper bowl and spinning bottom disc. The disc rotates both the media and parts within the chamber, forcing the mass to the stationary outside wall. The mass of part(s) and media then folds back to the center. This process is repeated, creating a 3-D, toroidal action similar to a vibratory bowl finisher but with 10 times the g-force.

While this is happening, water and finishing compounds are added into the mix to keep the media and parts clean. Effluent containing the broken-down parts of media, small amounts of part materials, and water mixed with compounds flow through the gap, wearing it down. Unlike more traditional disc finishers, the adjustable gap system on Bel-Air's machine extends service life by allowing the gap to be closed as it wears.

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