





# ABOUT ALMCO

ALMCO has been providing tailored solutions and a team approach for our customers since 1945. We offer an extensive range of products and services from vibratory finishing equipment, industrial parts washers and fully custom-designed equipment to meet our customers' specific needs. Services include onsite technical support, media and compound sales, job shop services, digital microscope and clean room and a fully furnished process lab to test parts and ensure our customers get the best results. Our equipment is Proudly Made in The USA and serves a wide variety of industries. Some examples include automotive, transportation, aerospace, medical, agricultural, construction, ammunition, firearms, fasteners, tool and die and industrial equipment manufacturers.



We take pride in ourselves and our strong work ethic. Being 100% employee owned we take that extra step above and beyond to ensure we are continually working to improve our products, services and the experience our customers get when they choose an ALMCO Product.

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ALMCO tubs are a perfect choice for deburring, burnishing or generating a pre-plate finish on a wide variety of parts. These machines may be stand-alone or designed into a custom system with conveyors and material handling equipment for automatic loading and unloading. The tub cross-section is designed to maximize the finishing action. These machines are robust, versatile and capable of processing parts in batches or in a through-feed mode using a wide variety of finishing media.

### Vibratory Finishing Tubs



Thru Feed





V Series



VB Series

## STANDARD FEATURES

- Wet or dry processing capabilities
- Sound Hood (VB Series)
- Variable amplitude for process adjustment
- Heavy duty polyurethane lining
- **Available Models:** V Series, VB-Series, and Continuous Thru-Feed.

## OPTIONS

- **Automatic Lubrication System:** Electric pump to periodically supply grease to critical bearings.
- **Flowmeter:** Measures the amount of process liquid flow into the tub.
- **Tub Divider:** A urethane-lined plate, bolted into the tub to form separate compartments in order to prevent part-on-part contact.
- **UL 508A Electrical Controls:** UL® 508A is an Underwriters Laboratories directive for components and wiring practices as they pertain to industrial control panels.
- **Air-Operated Discharge Door:** Media discharge door opened/closed via air cylinder to allow for automatic operation or manually via selector switch or pneumatic hand valve.
- **Sound Hood:** Steel cover lined with sound reducing foam that fits over the vibratory tub/bowl to reduce noise from the vibratory process. May be sliding or have spring-assisted lid for access to the machine. (Standard on VB Series.)
- **Available Sizes:** 2 ft<sup>3</sup>-110 ft<sup>3</sup>

ALMCO Vibratory Round Bowls offer great parts finishing action. They are available in several sizes and may be custom-configured with options for your specific application. From standard stand-alone models, to larger ultra-heavy-duty units, the family of Round Bowl products is large and diverse. When equipped with an air-operated discharge door, these machines may be used in an automated system, eliminating the need for most manual intervention.

- **SBB SERIES:** The newest generation of round bowl finishing machine. Features an inclined, helical, urethane-lined processing chamber with a continuous, curved parts retention baffle. Also, features a long internal screening section for part removal.
- **LR SERIES:** Long radius tub (versus cross-section) is useful for through-feed operation where the part is loaded near the discharge screen and is unloaded after making one pass around the tub. May also work better for delicate parts or long, narrow parts. Built-in internal separation for batch processing.
- **OR SERIES:** Original round bowl series with many options available. Works best for batch processing where parts are to be discharged onto an external screener for separation. Only round bowls series with dividers available to prevent part-on-part contact.
- **VM Series:** Economy round bowl series offering efficient processing and part unloading with completely manual operation of Start, Stop and separation gate. Features low-profile design, curved polyurethane-lined bowl and extended screen deck.

## Vibratory Round Bowls



LR Series

## STANDARD FEATURES

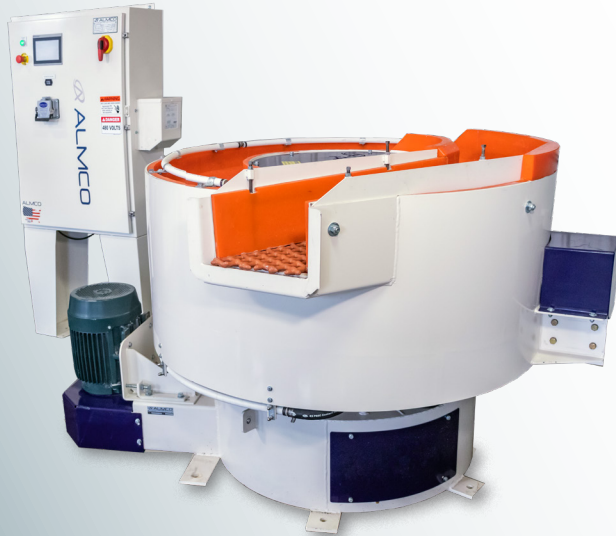
- Wet or dry processing capabilities
- Space-saving, low-profile design for easy load and unload
- Curved polyurethane-lined bowl for maximum finishing action
- Extended screening deck for more effective parts & media separation. Standard on the SBB, VM & LR Series. Optional on the OR Series.
- Variable speed motor for process flexibility
- **Available Models:** SBB Series, LR Series, OR Series, VM Series

## OPTIONS

- **Automatic Lubrication System:** Electric pump to periodically supply grease to critical bearings.
- **Flowmeter:** Measures the amount of process liquid flow into the tub.
- **Carousel and Tub Dividers:** Urethane lined plates, bolted to a rotating carousel to form separate compartments in order to prevent part-on-part contact.
- **Tachometer:** Digital readout showing the tub vibrator speed for accurate process repeatability.
- **Air-Operated Discharge Door:** Media discharge door opened/closed via air cylinder to allow for automatic operation or manually via selector switch on electrical enclosure.
- **Sound Hood:** Steel cover lined with sound reducing foam that fits over the vibratory tub/bowl to reduce noise from the vibratory process. May be sliding or have spring-assisted lid for access to the machine.
- **Gate Clearing Feature for Internal Separator:** The gate clearing feature reduces the chances of parts getting caught between the media gate and the screen frame. This option momentarily reverses the tub while raising the media gate to clear the area under the screen.
- **UL 508A Electrical Controls:** UL® 508A is an Underwriters Laboratories directive for components and wiring practices as they pertain to industrial control panels.
- **Available Sizes:** 3 ft<sup>3</sup>–40 ft<sup>3</sup>



OR Series



SBB Series



The ALMCO Spindle Machine is a high-speed, precision deburring machine for finishing single parts one at a time or several smaller parts on one fixture. The machine holds the part(s) on a rotating spindle that is lowered into a rapidly moving tub of abrasive media. The most common abrasive media used is a fine, granular aluminum oxide. Other choices for media are pre-shaped plastic, ceramic, steel, corn cob and walnut shell. The abrasive media swiftly flows over the part(s) as it rotates in the tub removing sharp edges and improving surface finishes. The media moves at up to 1000 surface feet per minute past the part. This is a very aggressive process and often cycle times are less than one minute per part per spindle. The "2SF" machine models have two spindles and may produce two parts per minute. These machines are available in a basic unit that must be loaded by hand or the "RA" series that is typically fully automated with a robotic loading system. Various applications include shafts, transmission components, gears, aerospace parts, medical parts, automotive parts, firearm components, bearing races, etc. These machines are custom configured to meet individual customer's requirements. The process is very repeatable, and these machines are often used for high-precision components.

### Spindle Machines



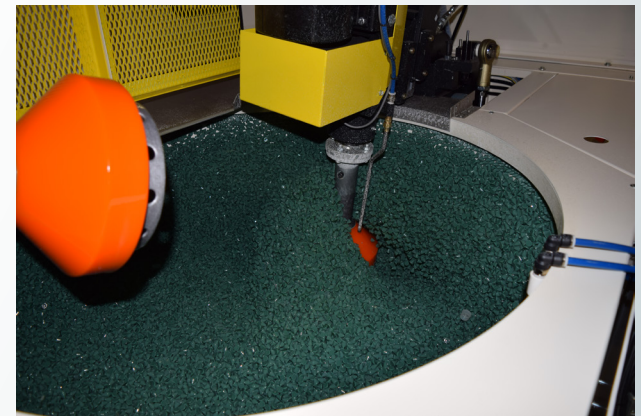
Model 2SF-48CRA

## STANDARD FEATURES

- Repeatable load and process positions allow for easy integration with robotic production lines.
- Easy to use operator touch screen controls (standard on “RA” models only).
- Spring-hold air-release tooling holds part to spindle.
- Variable speed tub featuring a perforated drain section for the removal of liquid sludge from the media.
- Adjustable part positioning for optimal process results.
- Available in eight different models.

## OPTIONS

- **Spindle Orientation:** This option is strongly recommended for automated operations as it positions the part very accurately at the end of each cycle in order to align the part with a robot gripper or other unloading device.
- **Spindle Flush Stations:** The spindle flush station option adds a complete stainless-steel rinse station to each spindle and a common tank to store and recirculate the rinse liquid separate from the process liquid. This spray is designed to remove media from the part and may also be used to spray rust-inhibiting solution to allow the parts to be stored for several days until the next process.
- **Safety Enclosure:** The spindle machine may be equipped with a sound hood that incorporates two sliding safety doors. These safety doors are each locked via a solenoid and will not open until the spindle is in the home position and ready to be unloaded. Once the door is opened, the safety switch prevents any operation of hazardous components.
- **UL 508A Electrical Controls:** UL® 508A is an Underwriters Laboratories directive for components and wiring practices as they pertain to industrial control panels.
- **Optional “RA” feature** provides spindle heads controlled by hydraulic pivot actuators to allow multiple position angles to achieve uniform coverage of all part surfaces during processing and ease of loading and unloading by an operator or robot.
- Hydraulically-actuated tooling to hold part(s).





The ALMCO Sutton Machines are aggressive, spindle-finishing units that are primarily designed to finish turbine disks, blades, blisks and impellers, with the capability of finishing many other types of parts. All Sutton machines are heavy-duty units that are designed for high production environments.

- **CF SERIES:** This machine is typically used for finishing turbine blades in a rotating tub of abrasive media. The machines have two spindles and each spindle holds one or two parts per cycle. These are similar to the ALMCO spindle machine, but even more aggressive.
- **CFT SERIES:** These machines turn a large diameter part that is attached to the spindle at a high speed while the part is submerged in a large, vibrating tub of abrasive media and processing liquid. The media and processing liquid flow through the part's features to deburr the edges and blend surfaces. Disks, blisks and impellers are typical parts processed in these machines.
- **CFCA SERIES:** These machines hold a large diameter part on an oscillating spindle that is lowered into a vibrating tub of abrasive media and processing liquid. The media and processing liquid flow through the part's features to deburr the edges and blend surfaces. The oscillation allows the abrasive slurry to access valleys that would be difficult to finish with the CFT Series machine. Disks, blisks and impellers are typical parts processed in these machines.

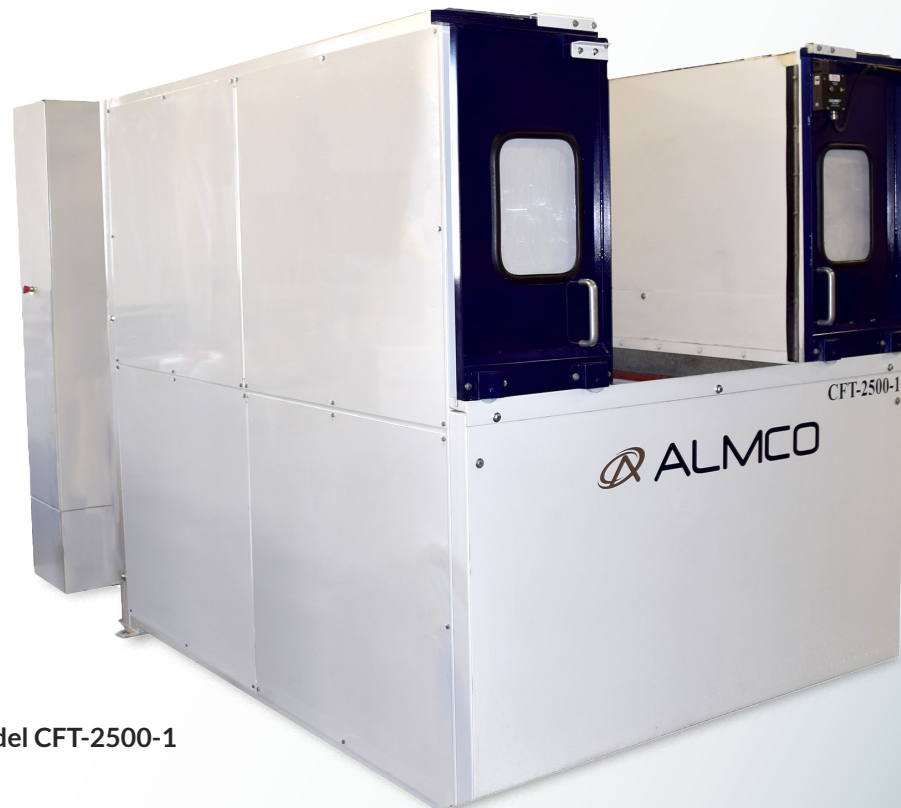
## Sutton Machines

### STANDARD FEATURES

- PLC Touch Screen Control
- **Automatic Lubrication System:** Electric pump to periodically supply grease to critical bearings.
- **Interlocking Safety Doors:** Consists of interlocking safety switches that prevent the machine from cycling if the doors are open.
- **Flowmeter:** Measures the amount of process liquid flow into the tub.

### OPTIONS

- **UL 508A Electrical Controls:** UL® 508A is an Underwriters Laboratories directive for components and wiring practices as they pertain to industrial control panels.
- **Compound Dispensing System:** Designed to feed a ratio of water and compound to the deburring machine.
- Hourmeter
- Operator Work Platform
- Tooling



Model CFT-2500-1

# Barrel Machines

## Compact & Deluxe Series

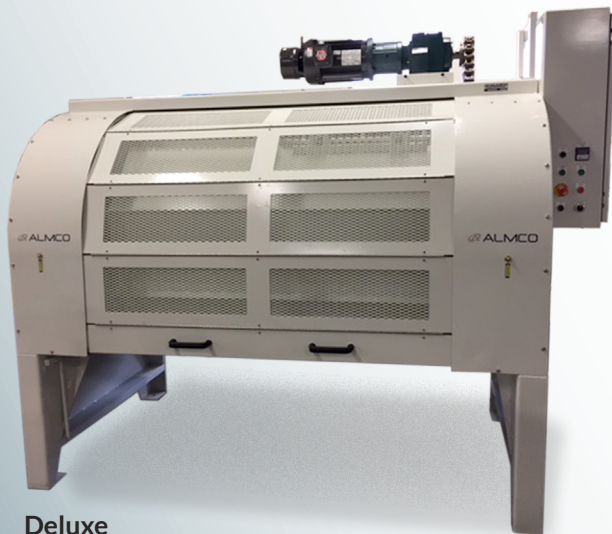
### STANDARD FEATURES

- ½" Thick urethane-lined barrel for long life
- Pressure-relief system to relieve barrel pressure prior to door removal
- Variable speed barrel for process flexibility
- Available with one or two compartments

### OPTIONS

- **Tachometer:** Indicates barrel speed in RPM. This speed is an important process setting.
- **Forward-Reverse Keylock Selector Switch:** This switch allows the operator to change the direction of the process barrel at regular intervals to even out wear and increase barrel life significantly.
- **Rotary Union Assemblies:** This option allows the operator to fill the barrel with water or other liquid by simply opening a hand valve at the side of the machine or via a solenoid valve. With this option, the operator does not need to fill the barrel with a hose or bucket.
- **UL 508A Electrical Controls:** UL® 508A is an Underwriters Laboratories directive for components and wiring practices as they pertain to industrial control panels.

The ALMCO Barrel Machine is a durable tumbling unit designed to finish batches of parts or larger individual parts. The machine processes parts by rotating them in a multi-sided, urethane-lined barrel that is also filled with processing media and liquid compound. The tumbling action inside the barrel deburrs the parts as the top section of media continuously slides down the incline created from the barrel rotation.



Deluxe



Compact

Centrifugal barrel finishing (CBF) systems from Mass Finishing offer high-speed surface improvement. They feature four hexagon shaped barrels that rotate on a drum in a planetary motion at a one-to-one ratio. MFI has eight standard size units to meet various part size and volume demands from 12 to 330 liter capacity. CBF systems are often referred to as high-energy solutions because they apply a force of 10-12g on media and parts. The system can use any type of media and can both deburr and polish parts. Surface finishes of less than 1 Ra can be achieved. Barrels can also be divided to separate individual parts to eliminate impingement.

## Centrifugal Barrel Finishing

### STANDARD FEATURES

- Variable speed drive for process flexibility
- Four to eight removable barrels on 40 liter and smaller unit
- Fixed barrels with barrel rotation motor on HZ-60 and larger unit
- Two button turret jog requirement for safety
- Safety interlocked doors during processing
- Semi-automated cover removal system
- ¼" Thick hot-poured, removable barrel liners

### OPTIONS

- Touchscreen HMI PLC Controls for increased automation
- Built-in media and parts separation
- Wastewater handling system
- Barrel dividers to eliminate part-on-part contact
- Processing station and sludge tank
- Safety light curtains





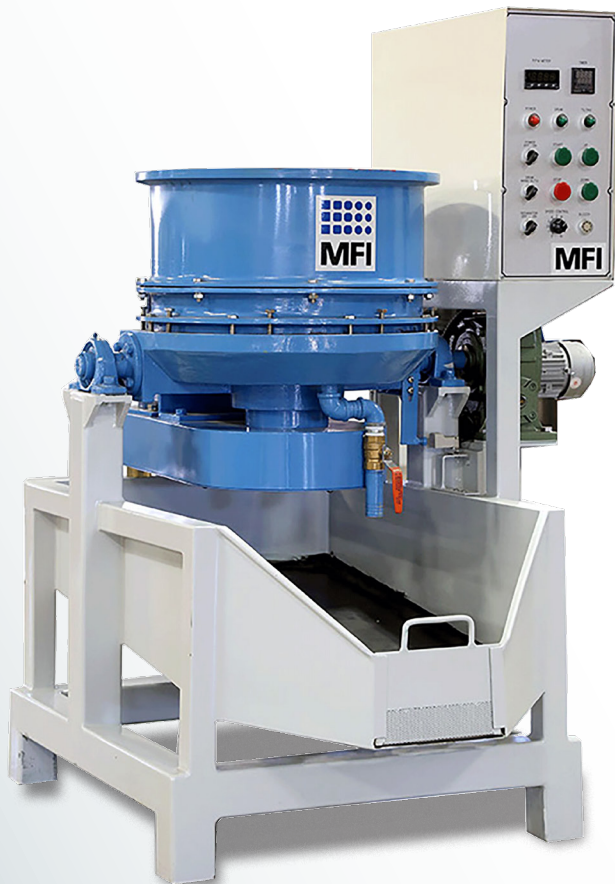
## Centrifugal Disc Finishing

### STANDARD FEATURES

- Variable speed drive for process flexibility
- Hot-poured polyurethane liners
- Twist gap adjustment method
- Flow through drainage system
- Semi-Automated unloading
- Process cycle timer

### OPTIONS

- Touchscreen HMI PLC Controls for increased automation
- Built-in media and parts separation
- Wastewater handling system
- Fully automated loading and unloading
- Automatic liquid compound dosing



Centrifugal Disc Finishers are high-speed machines that may be utilized for both deburring and polishing applications. Their open top loading and unloading features make them easy to automate into an inline production. 6 to 8 G forces are produced by the disc spinning at the bottom of the bowl and moving against the stationary side walls. A powerful vortex is created at the bottom of the finishing chamber helping to achieve fast finishing results.

Conveyor washers are available in three different types. Each type of washer can be modified or customized to match the exact application required.

- **INLINE WASHERS:** provides continuous, flow-through operation with wash, rinse, and blow-off. Rust inhibit and drying sections available. The belt may be a standard flat wire belt, rod belt, mesh covered belt or chain drive for moving parts directly or on pallets / tombstones. Many belt styles and widths are available, and the machines can be 100% custom designed for your application.
- **U-BEND WASHERS:** The design of this washer is perfect for use with a single operator or in an automated system where the direction of workflow needs to be changed. These washers offer all the custom design benefits of our inline units, but fewer belt options are available. Most units are built with a flat wire belt where the part is loose on top of the belt.
- **MONORAIL WASHERS:** These washers are designed to match up to your existing system. These systems are typically designed with split hoods to allow your existing hangers to be used through the wash system. These washers are custom-designed to match the existing plant monorail system and are available with a large selection of options.

## Conveyor Parts Washers



Inline Washer



### STANDARD FEATURES

- Multiple process stages configured for your application
- Variable speed, stainless steel conveyance system
- Removable stainless-steel chip tray in wash
- Adjustable spray nozzles for 360-degree coverage
- Heated wash and rinse tanks.

### OPTIONS

- Insulated wash and rinse tanks
- Vapor exhaust system
- Stainless steel filtration units
- Oil skimmer or coalescer
- Large variety of belt materials and widths
- Automatic water and compound replenishment
- PLC and touch screen controls
- **UL 508A Electrical Controls:** UL® 508A is an Underwriters Laboratories directive for components and wiring practices as they pertain to industrial control panels.
- **Standard belt sizes:** 12", 18", 24". Custom sizes available.



U-Bend Washer

Cabinet washers are available in four different types. These versatile parts washers are the perfect solution for your batch cleaning needs and can be incorporated into manufacturing work cells. Loading of these washers may be by hand or automatically via a robot or powered conveyor system.

- **ECW SERIES:** has one solution tank and one spray pump. The parts are placed directly or in baskets onto a turntable and rotate past a stationary spray pipe assembly.
- **RTW SERIES:** comes in several standard sizes. These washers have a lift-up lid and parts are placed on a turntable or fixture from overhead. These machines have several options and can be equipped with a powered lid for automation with a robotic loading system. The standard units have a turntable and manual start button with timer to control the cycle.
- **RPW SERIES:** feature a frontloading system onto a turntable or platform. These units can be configured for pass-through operation if they are to be placed in a continuous feed work cell and have powered, sliding doors that close once the part has been put in place to contain the spray.
- **RCW SERIES:** feature a front swing door that opens 180 degrees, allowing parts to be loaded by hand or via hoist onto a turntable. During the cycle the turntable rotates the part or basket to expose all sides to the spray and blow-off nozzles.

## Cabinet Spray Washers



Custom 80" RCW Series



RTW Series



ECW Series

## STANDARD FEATURES: RCW and RPW Series

- Heated wash tank
- Float switch for heater protection
- Standard 230V or 460V power source (380V or 575V optional)
- Six standard turntable sizes from 18" to 72". Custom sizes available
- Process timer for each wash cycle
- Safety interlock switch on lid & doors
- Rinse & blow-off stages may be added
- Removable stainless-steel chip tray in wash
- All stainless-steel construction
- Variable speed, stainless steel turntable/platform
- Vapor exhaust duct connections

## STANDARD FEATURES: RTW and ECW Series

- Heated wash tank
- Float switch for heater protection
- Standard 230V or 460V power source (380V or 575V optional)
- ECW standard size 24" turntable
- RTW standard sizes of 20", 25" and 36" turntables
- Process timer for each wash cycle
- Safety interlock switch on lid & doors
- Removable stainless-steel chip tray in wash
- All stainless-steel construction on the RTW
- Variable speed, stainless steel turntable/platform on RTW model
- All mild-steel construction on the ECW
- Variable speed, mild steel turntable/platform on ECW model

## OPTIONS: RCW, RTW and RPW Series

- Bag filter system
- Stainless steel bag filtration units
- Rinse and blow-off stages may be added
- Oil skimmer or coalescer
- Insulated wash and rinse tanks
- Vapor exhaust system
- Automatic water and compound replenishment
- PLC and touch screen controls
- **UL 508A Electrical Controls:** UL® 508A is an Underwriters Laboratories directive for components and wiring practices as they pertain to industrial control panels.



Immersion washers clean components by submersing them in an agitated cleaning solution. They are used to remove any contamination from the surfaces of parts exiting a production line or during a rebuild process.

- The EAW SERIES is a mild steel, painted unit that is used for solvent parts washing. This equipment cleans parts that are placed on a platform which is lowered into the tank and agitates up and down a distance of 4" at a rate of up to 30 times per minute. These cost-effective parts washers are ideal for small shops. This is an entry level machine, requiring minimum 110V power and 80 PSI air supply for operation.
- The PW SERIES are stainless-steel parts washers for cleaning parts using an aqueous cleaner. These have similar operation as the EAW Series but with heavy-duty agitation units. These washers may have powered rollers and be part of an automated production system with multiple stages and parts sensors for automatic operation.
- The PW ULTRASONIC SERIES operate the same as the PW Series but are also equipped with ultrasonic transducers to loosen debris that is hard to displace by agitation alone. These washers can reach blind holes and internal areas that a spray or agitation washer may not reach. These washers are built for the toughest applications.

## Immersion Washers

### STANDARD FEATURES

- Heated wash tank with aqueous models
- Float switch for heater protection when heated
- Available in 3-phase, single phase and air-powered if not heated
- Standard sizes with capacity up to 1000 lbs.
- All stainless-steel construction on most units
- Heavy-duty agitation system (PW & PW Ultrasonic Series only)
- Powered lid lift
- Timed operation

### OPTIONS

- Oil skimmer
- Insulated tank
- Vapor exhaust duct connections and vapor exhaust system
- Bag filter system
- Stainless steel bag filtration units
- Automatic water and compound replenishment
- PLC and touch screen controls
- **UL 508A Electrical Controls:** UL® 508A is an Underwriters Laboratories directive for components and wiring practices as they pertain to industrial control panels.
- Available options dependent on model



Agitation Washer

# Rotary Drum Washers

## STANDARD FEATURES

- Multiple process stages configured for your application
- Stainless-steel construction
- Variable speed drum with sizes from 18" to 36" diameter
- Processing drum with continuous weld on both sides of helix
- Removable stainless-steel chip tray in wash
- Heated tanks
- Float switch for heater protection



## OPTIONS

- Bag Filtration System (mild steel or stainless steel)
- Oil Skimmer or Coalescer
- Insulated wash and rinse tanks
- Vapor exhaust duct connections and vapor exhaust system
- Automatic water and compound replenishment
- PLC and touch screen controls
- **UL 508A Electrical Controls:** UL® 508A is an Underwriters Laboratories directive for components and wiring practices as they pertain to industrial control panels.

The ALMCO Rotary Drum washers are ideal for washing parts in a mass production application. These washers can accept parts in batches or continuously as they are produced in large numbers. As the parts are fed through the drum, they may pass through various soak, spray wash, drain, and spray rinse sections. Rust inhibit and drying sections available. The helix spacing and height is determined by the parts being washed. There are many drum material options making this type of washer ideal for small parts that would be difficult to wash in a belt, cabinet or agitation washer.



Many operations produce sediment or oil that must be removed from the process fluid prior to reuse or disposal. ALMCO offers several solutions for filtering your process fluids. All ALMCO Filtration Unit Tanks are constructed using heavy gauge stainless steel. These units are primarily used with finishing and washing equipment to remove solids (sediment tank) or oil (oil coalescer) from the process fluids.

### Sediment Tanks

The sediment tank is a cost-effective solution for deburring machines. These tanks may be used to allow solids to settle out prior to discharge into the drain or they may be equipped with a pump to recirculate liquid to the finishing machine for extended use of compound. This saves significant cost over discharging directly to the drain. The tanks are available with a variety of pump types and options, including bag filter housings to filter particles from the recirculating liquid.

#### STANDARD FEATURES

- Standard tank capacities 50-200 gallons
- Tank covers
- Compartment drain fittings
- Four cascading tank compartments provide three settling areas prior to final pump compartment

#### OPTIONS

- Variety of pump sizes and types
- Pump with bag filter housing(s)
- Stainless steel plumbing
- Caster wheels for mobility
- Quick disconnect fittings

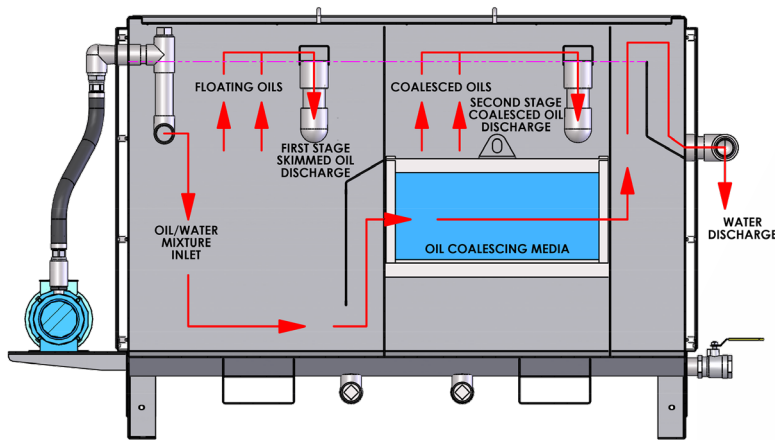


## Oil Coalescer

The Oil Coalescer is a unit that can receive process liquid from your washer, machining center, or other equipment and separate the oil from the process fluid. Once separated, the oil floats and is skimmed from the top of the coalescer tank. The Oil Coalescer is very effective at separating this oil, allowing the wash solution to be used for longer periods before it must be changed out. This unit also helps to keep your washer cleaner by preventing the build-up of oil in the wash unit.

### STANDARD FEATURES

- Adjustable skimmer height for control of oil removal
- Pump to draw liquid from process tank
- Washable coalescing media does not require replacement
- Available as a stand-alone unit



**ALMCO MODEL OC-150 OIL COALESCER**  
**150 GALLON CAPACITY**  
**MAX FLOW = 15 GPM**



ALMCO Material Handling Systems are designed to work with other equipment or as stand-alone components. These systems may be used to separate parts from media, to move media and/or parts from one location to another, or to transfer media back to a finishing machine after discharge. Whether moving parts or media, material handling systems add efficiency and safety by moving those materials without the manual labor.

### Parts Conveyors/Material Drag-Out

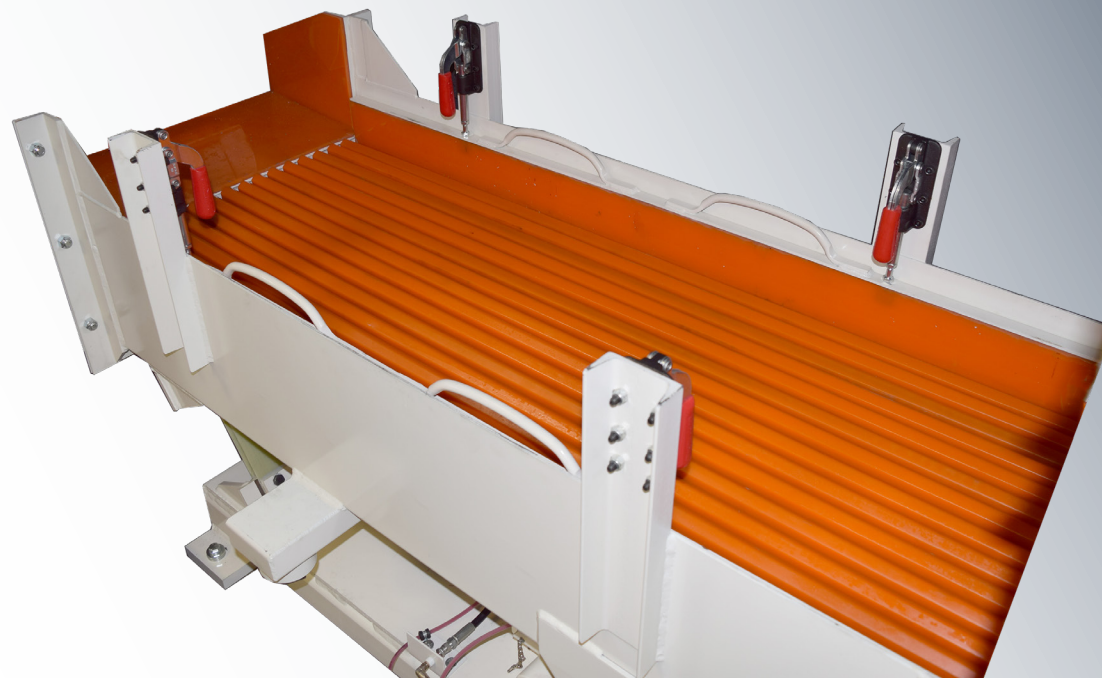
ALMCO designs and manufactures conveyors for many needs. Typical applications include transferring parts into or away from an ALMCO finishing or washing system. ALMCO conveyors may also be part of a drag-out system where parts are dropped into a tank of liquid for rinsing or rust-inhibiting and conveyed out of the tank into a bin or onto another conveyor. All ALMCO conveyors are custom designed for the application. We would be happy to quote a heavy-duty conveyor designed to fit your needs.





## Screeners

Oscillators and vibratory screeners are perfect for separating your parts and media following a deburring or finishing process. These units have positive forward motion and excellent separating ability. The screens are selected to match your process with the capability of designing custom-configured screens for your specific applications. ALMCO offers our design services to assist with developing a replacement oscillator or screener for your current separating equipment.



## Hoppers

Finishing systems that contain multiple machines are equipped with a hopper to store media after separating the parts on an external screener. These hoppers may be stationary, rotating or traveling depending on the system layout. These hoppers increase efficiency and safety by eliminating the manual labor involved with moving media. They are also convenient when using more than one type of media in a single machine.





ALMCO offers a complete line of finishing media. Ceramic, Plastic and Synthetic tumbling media stocked in many shapes and sizes. Non-stock shapes, sizes, and also specialty media are available. Call for pricing and delivery.

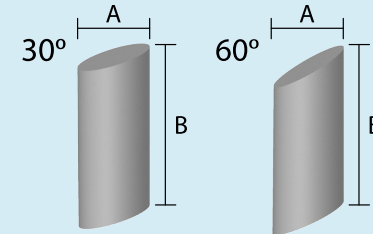
### Ceramic Media

- **Very Fine Burnishing (FB):** A ceramic media with no abrasive, FB is recommended for brightening, burnishing and polishing. This extremely hard and long-wearing media weighs approximately 85 lbs. per cubic foot and is off-white in color.
- **Light Deburring & Burnishing (F):** This media contains just the right amount of finely sized aluminum oxide abrasive for light deburring. When used with proper compounds, it will produce a very desirable burnished or polished finish. It weighs approximately 85 lbs. per cubic foot and is white in color.
- **Cutting & Fine Finishing (ECH):** A general purpose, media containing aluminum oxide abrasive. Intended primarily for medium cut applications, it will leave a smooth surface finish due to the size of the abrasive grain. This media is extremely efficient when the amount of metal removal is compared to the media wear. It weighs approximately 90 lbs. per cubic foot and is dark brown in color.
- **Cutting or Burnishing (C):** This media contains a coarser-grained aluminum oxide abrasive. Its rate of metal cut compared to media wear makes it very efficient and suitable for a wide variety of applications. It weighs approximately 90 lbs. per cubic foot and is blue-grey in color.
- **Aggressive Cutting (XC):** This media is like the C formula but uses a greater concentration of aluminum oxide for more aggressive removal of heavy burrs, flash or scale. Exceptional finishes can be obtained due to the finely sized aluminum oxide. It weighs approximately 90 lbs. per cubic foot and is olive green in color.
- **No Aluminum Oxide (SC):** This media is fast cutting and relatively fast wearing. It is recommended for use where exposure to fused aluminum oxide cannot be tolerated. Recommended for use on parts that include cemented carbides, high-alumina ceramics or parts that may be welded or brazed in a later operation. It weighs approximately 85 lbs. per cubic foot and is beige in color with blue/black grain.
- **High Density Abrasive Free (120):** This media is ideal for chemically accelerated processes; it is available in preforms for applications where size and shape are critical. It is an excellent choice for low surface finishes, burnishing or as a driver for loose abrasives. It is approximately 120 lbs. per cubic foot and is brown in color.
- **High Density Abrasive (120C):** This media's high density and low wear characteristics combine to create unmatched efficiency at its level of aggressiveness. It is approximately 120 lbs. per cubic foot and is brown in color.



## Ceramic Media Types

**Ceramic 30° and 60° Angle Cut Cylinders:** Angle Cut Cylinders are a uniquely designed tumbling media to improve finishes and cut costs. They reach into the most remote crevices and holes and virtually eliminate bridging or stacking.



### ANGLE CUT CYLINDERS

Degree	Part #	Composition	Dimension (A)	Dimension (B)
30°	F1-8	F	1/8"	11/32"
30°	F3-16	F	3/16"	11/32"
30°	F5-16	F	5/16"	9/16"
30°	F7-16	F	7/16"	25/32"
30°	F5-8	F	5/8"	1-1/8"
30°	ECH7-16	ECH	7/16"	25/32"
30°	ECH5-8	ECH	5/8"	1-1/8"
30°	ECH7-8	ECH	7/8"	1-1/2"
30°	C1-8	C	1/8"	11/32"
30°	C3-16	C	3/16"	11/32"
30°	C5-16	C	5/16"	9/16"
30°	C7-16	C	7/16"	25/32"

### ANGLE CUT CYLINDERS CONTINUED)

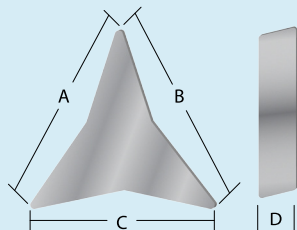
Degree	Part #	Composition	Dimension (A)	Dimension (B)
30°	XC1-8	XC	1/8"	11/32"
30°	XC3-16	XC	3/16"	11/32"
30°	XC5-16	XC	5/16"	9/16"
30°	XC7-16	XC	7/16"	25/32"
30°	XC5-8	XC	5/8"	1-1/8"
30°	XC7-8	XC	7/8"	1-1/2"
60°	F1-4A60	F	1/4"	9/16"
60°	C1-4A60	C	1/4"	9/16"
60°	C5-16A60	C	5/16"	9/16"
60°	C3-8A60	C	3/8"	9/16"



## Ceramic Media Types (continued)

### 20° ANGLE CUT STARS:

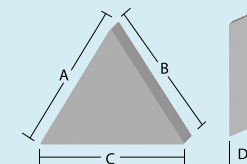
Angle Cut Stars may replace three or more sizes of other preform media and finish a wide variety of parts from simple to intricate shapes.



### ANGLE CUT STARS

Part #	Composition	Dimension (A)	Dimension (B)	Dimension (C)	Thickness (D)
C7-8S	C	7/8"	7/8"	7/8"	5/16"
C11-8S	C	1-1/8"	1-1/8"	1-1/8"	3/8"
XC5-8S	XC	5/8"	5/8"	5/8"	1/4"
XC7-8S	XC	7/8"	7/8"	7/8"	5/16"
XC11-8S	XC	1-1/8"	1-1/8"	1-1/8"	3/8"
ECH5-8S	ECH	5/8"	5/8"	5/8"	1/4"

**20° ANGLE CUT TRIANGLES:** Angle Cut Triangles reach into remote areas not accessible to regular square cut media. It is a very efficient media that retains its basic shape.



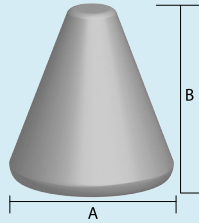
### ANGLE CUT TRIANGLES

Part #	Composition	Dimension (A)	Dimension (B)	Dimension (C)	Thickness (D)
F3-8T	F	3/8"	3/8"	3/8"	3/16"
ECH7-8T2	ECH	7/8"	7/8"	7/8"	5/8"
ECH7-8T3	ECH	7/8"	7/8"	7/8"	15/16"
ECH11-8T	ECH	1-1/8"	1-1/8"	1-1/8"	5/16"
ECH17-8T	ECH	1-7/8"	1-7/8"	1-7/8"	5/8"
C3-8T	C	3/8"	3/8"	3/8"	3/16"
C3-8T2	C	3/8"	3/8"	3/8"	3/8"
C5-8T	C	5/8"	5/8"	5/8"	3/16"
C5-8T2	C	5/8"	5/8"	5/8"	3/8"
C5-8T3	C	5/8"	5/8"	5/8"	9/16"
C7-8T	C	7/8"	7/8"	7/8"	5/16"
C7-8T3	C	7/8"	7/8"	7/8"	15/16"
C11-8T	C	1-1/8"	1-1/8"	1-1/8"	5/16"
C11-8T3	C	1-1/8"	1-1/8"	1-1/8"	15/16"
C13-8T	C	1-3/8"	1-3/8"	1-3/8"	1/2"
C17-8T	C	1-7/8"	1-7/8"	1-7/8"	5/8"

### ANGLE CUT TRIANGLES (CONTINUED)

Part #	Composition	Dimension (A)	Dimension (B)	Dimension (C)	Thickness (D)
XC3-16T3	XC	3/16"	3/16"	3/16"	3/4"
XC3-8T	XC	3/8"	3/8"	3/8"	3/16"
XC3-8T2	XC	3/8"	3/8"	3/8"	3/8"
XC5-8T	XC	5/8"	5/8"	5/8"	3/16"
XC5-8T2	XC	5/8"	5/8"	5/8"	3/8"
XC5-8T3	XC	5/8"	5/8"	5/8"	9/16"
XC7-8T	XC	7/8"	7/8"	7/8"	5/16"
XC7-8T3	XC	7/8"	7/8"	7/8"	15/16"
XC11-8T	XC	1-1/8"	1-1/8"	1-1/8"	5/16"
XC11-8T3	XC	1-1/8"	1-1/8"	1-1/8"	15/16"
XC13-8T	XC	1-3/8"	1-3/8"	1-3/8"	1/2"
XC17-8T	XC	1-7/8"	1-7/8"	1-7/8"	5/8"

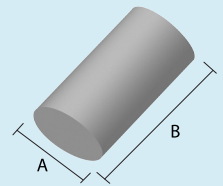
**CONES:** Cones are designed so they will easily separate from parts. Their unique shape enables them to reach into remote areas without lodging.



#### CONES

Part #	Composition	Dimension (A)	Dimension (B)
FB3-8CN	FB	3/8"	1/2"
FB11-16CN	FB	11/16"	3/4"
C3-4CN	C	3/4"	7/8"
XC3-4CN	XC	3/4"	7/8"

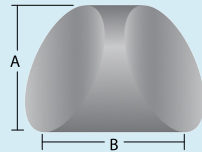
**ANGLE CUT ELLIPSES:** These angle cut ellipses combine the cutting action of flat triangles with the finishing action of cylinders. The unique shape can resolve lodging problems and are particularly effective on concave surfaces.



#### ELLIPSES

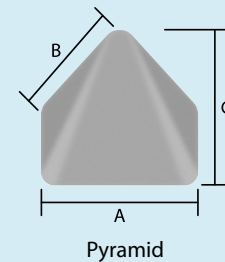
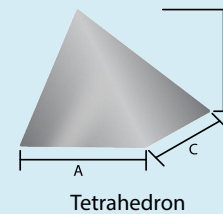
Part #	Composition	Dimension (A)	Dimension (B)
C3-4ELLP	C	3/4"	1"
C9-16ELLP	C	9/16"	25/32"

**CYLINDRICAL WEDGES:** The Cylindrical Wedges are one of our most versatile media products. They deliver the excellent surface finish of a cylinder, while the large flat sides provide maximum cutting area.



#### WEDGES

Part #	Composition	Dimension (A)	Dimension (B)
ECH5-8WG	ECH	5/8"	3/4"
ECH1-WG	ECH	1"	1-1/8"
ECH11-2WG	ECH	1-1/2"	1-5/8"
C1-WG	C	1"	1-1/8"
C11-2WG	C	1-1/2"	1-5/8"



**TETRAHEDRON AND PYRAMIDS MIX:** These two shapes combine the excellent tumbling qualities of Cylinders, Triangles, Cones and Star shapes. The flat sides provide the best in cutting surfaces and sharp points are designed to reach into holes and slots without lodging. They react well in vibratory processes and have extremely good orbital action in round bowls.

#### TETRAHEDRON PYRAMID

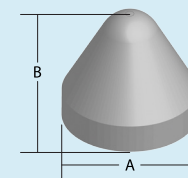
Part #	Composition	Dimension (A)	Dimension (B)	Dimension (C)
C11-4 TET/ PYR MIX	C	1-1/4"	1-1/4"	1-1/4"

# Plastic Media

- **LCP:** This media has extremely good wear and can be used for polishing or light deburring with the correct compounds. It is approximately 90 lbs. per cubic foot and is brown in color.
- **RG:** This media has exceptional wear and produces a matte finish for preplate or polish. It is approximately 70 lbs. per cubic foot and is gray in color.
- **Pre-Plate (V):** A light weight media that produces a very smooth finish. Excellent finish and wear. It is approximately 70 lbs. per cubic foot and light green in color.
- **General Purpose (X):** Used in most standard applications. Great for metal removal, minimal media loss. It is approximately 70 lbs. per cubic foot and dark green in color.
- **Fast Cut (XV):** This media is fast cutting and is capable of producing excellent finishes on parts that are being prepped for anodizing or plating. It is approximately 70 lbs. per cubic foot and blue in color.
- **XVI:** This media is aggressive for fast metal removal; media wear is good and produces a matte finish. It is approximately 70 lbs. per square foot and is dark brown in color.
- **Zircon (Z1):** This heavy media provides a fast cut, good wear, and excellent finishes all while reducing cycle times. It is approximately 95 lbs. per cubic foot and tan in color.

## Plastic Media Types

**CONES:** Cones are designed so they will easily separate from parts. Their unique shape enables them to reach into remote areas without lodging.

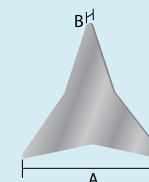


### CONE FORMULATIONS

Size (A" x B")	LCP	RG	V	X	XV	XVI	Z1
1/4 x 1/4 (NEW)	N	N	S	N	S	N	N
3/8 x 3/8	N	N	S	S	S	N	S
1/2 x 9/16	N	N	S	S	S	N	S
5/8 x 7/8	N	N	S	S	S	N	N
3/4 x 3/4	N	N	S	S	S	N	S
1 x 1	N	N	S	S	N	N	N
1-1/4 x 1-1/4	N	N	S	S	S	N	N
1-3/4 x 1-3/4	N	N	N	S	N	N	N
2-1/2 x 3	N	N	N	S	N	N	N

**S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)**

**TRISTAR:** Tristars may replace three or more sizes of other preform media and finish a wide variety of parts from simple to intricate shapes.



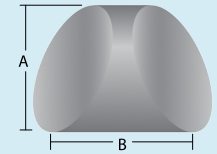
### TRISTAR FORMULATIONS

Size (A" x B")	LCP	RG	V	X	XV	XVI	Z1
1-3/4 x 1-3/4	N	N	N	S	S	N	N

**S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)**



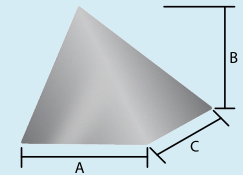
**CYLINDRICAL WEDGES:** The Cylindrical Wedges are one of our most versatile media products. They deliver the excellent surface finish of a cylinder, while the large flat sides provide maximum cutting area.



#### CYLINDRICAL WEDGES FORMULATIONS

Size (A" x B")	LCP	RG	V	X	XV	XV1	Z1
1/2 x 5/8	N	N	N	N	N	N	N
3/4 x 3/4	N	N	N	N	N	N	N
1-1/2 x 1-1/2	N	N	N	N	N	N	N
S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)							

**TETRAHEDRON:** The flat sides provide the best in cutting surfaces and sharp points are designed to reach into holes and slots without lodging. They react well in vibratory processes and have extremely good orbital action in round bowls.

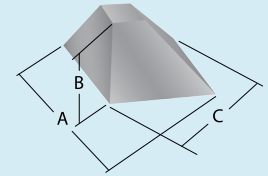


#### TETRAHEDRON FORMULATIONS

Size (A" x B" x C")	LCP	RG	V	X	XV	XV1	Z1
3/8 x 3/8 (NEW)	N	N	N	N	N	N	N
5/8 x 5/8 (NEW)	N	N	N	N	N	N	N
3/4 x 3/4 x 3/4	N	N	N	S	N	N	S
1-1/8 x 1-1/8	N	N	N	S	N	N	N
1-1/2 x 1-1/2	N	N	N	N	N	N	N
S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)							

## Plastic Media Types (continued)

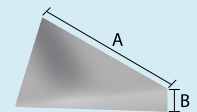
**PYRAMID:** The flat sides provide the best in cutting surfaces and sharp points are designed to reach into holes and slots without lodging. They react well in vibratory processes and have extremely good orbital action in round bowls.



### PYRAMID FORMULATIONS

Size (A" x B" x C")	LCP	RG	V	X	XV	XV1	Z1
1/4 x 1/4 x 1/4	N	N	S	S	S	N	N
5/16 x 5/16	N	N	S	S	N	N	N
3/8 x 3/8	N	N	S	S	S	N	N
3/8 x 5/8	N	N	S	S	S	N	S
1-5/8 x 1 x 1	N	N	S	S	S	N	N
2 x 1-1/8	N	N	N	S	N	N	N
2 x 1-1/2 x 1	N	N	N	N	N	N	N
2-1/2 x 1-7/8	N	N	N	N	N	N	N
S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)							

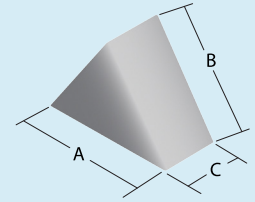
**WEDGE:** Wedges are one of our most versatile media products. They deliver the excellent surface finish of a cylinder, while the large flat sides provide maximum cutting area.



### WEDGE FORMULATIONS

Size (A" x B")	LCP	RG	V	X	XV	XV1	Z1
1 x 3/4	N	N	N	S	N	N	S
1-1/2 X 1	N	N	N	S	N	N	N
2 X 1-1/4	N	N	N	N	N	N	N
2-1/2 X 1-1/2	N	N	N	N	N	N	N
S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)							

**TRIANGLES:** Triangles reach into remote areas not accessible to regular square cut media. It is a very efficient media that retains its basic shape.



## TRIANGLE FORMULATIONS

Size (A" x B" x C")	LCP	RG	V	X	XV	XV1	Z1
5/8 x 3/8 x 1/2	N	N	S	S	S	N	N
1-1/4 x 5/8 x 7/8	N	N	N	S	S	N	N

**S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)**



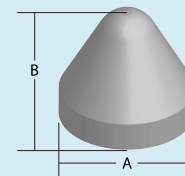


# Synthetic Media

- **Polish (SM):** This media delivers a bright polished finish. It is light weight, has excellent wear and works well in all types of finishing equipment. It is approximately 60 lbs. per cubic foot and is tan in color.
- **Pre-Plate (SV):** A long-lasting media that produces extremely fine finishes and excellent color. It is approximately 60 lbs. per cubic foot and is light green in color.
- **General Purpose (SX):** This media is formulated for high energy equipment. Good cutting ability yet leaves a finish that can be plated or painted. It is approximately 60 lbs. per cubic foot and is pink in color.
- **Fast Cut (SY-1):** A light weight, fast cutting media that leaves an excellent finish ready for anodizing or painting. It is approximately 60 lbs. per cubic foot and is tan in color.
- **Aggressive (SY):** This media is light weight and our most aggressive synthetic media formulation. An excellent choice when metal removal, radius's, or cycle times are primary concerns. It is approximately 60 lbs. per cubic foot and is tan in color.

## Synthetic Media Types

**CONES:** Cones are designed so they will easily separate from parts. Their unique shape enables them to reach into remote areas without lodging.

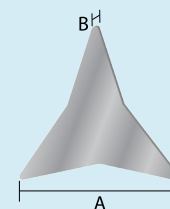


### CONE FORMULATIONS

Size (A" x B")	SM	SV-1	SV	SY-1	SY	SX
3/8 x 3/8	N	N	S	N	N	S
7/16 x 5/8	N	N	N	N	S	N
1/2 x 9/16	N	N	S	S	N	S
5/8 x 7/8	N	N	N	N	N	N
3/4 x 3/4	N	N	S	S	S	S
1-1/4 x 1-1/4	N	N	S	S	S	N
1-1/2 x 1-1/2	N	N	N	N	N	N

**S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)**

**Tristar:** Tristars may replace three or more sizes of other preform media and finish for a wide variety of parts from simple to intricate shapes.

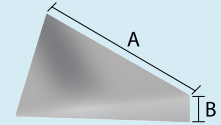


### TRISTAR FORMULATIONS

Size (A" x B")	SM	SV-1	SV	SY-1	SY	SX
2 x 1	N	N	N	N	N	N

**S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)**

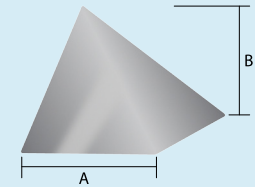
**Cylindrical Wedges:** The Cylindrical Wedges are one of our most versatile media products. They deliver the excellent surface finish of a cylinder, while the large flat sides provide maximum cutting area.



#### CYLINDRICAL WEDGES FORMULATIONS

Size (A" x B")	SM	SV-1	SV	SY-1	SY	SX
3/4 x 3/4	N	N	N	N	N	N
1-1/8 x 1	N	N	N	N	N	N
1-1/2 x 1-1/2	N	N	N	N	N	N
S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)						

**Tetrahedron:** The flat sides provide the best in cutting surfaces and sharp points are designed to reach into holes and slots without lodging. They react well in vibratory processes and have extremely good orbital action in round bowls.

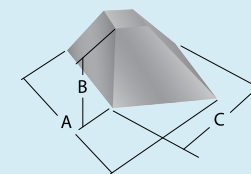


#### TETRAHEDRON FORMULATIONS

Size (A" x B")	SM	SV-1	SV	SY-1	SY	SX
3/4 x 3/4	N	N	N	N	N	N
1-1/8 x 1-1/8	N	N	N	S	S	N
2 x 2	N	N	N	N	N	N
3 x 3	N	N	N	N	N	N
S=Stock (No Minimum Order Required) N=Non-Stock (500 lbs. Minimum Order Required)						

## Synthetic Media Types (continued)

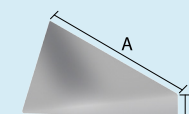
**Pyramid:** The flat sides provide the best in cutting surfaces and sharp points are designed to reach into holes and slots without lodging. They react well in vibratory processes and have extremely good orbital action in round bowls.



### PYRAMID FORMULATIONS

Size (A" x B" x C")	SM	SV-1	SV	SY-1	SY	SX
3/8 x 3/8	N	N	N	N	N	N
3/8 x 5/8	N	N	N	N	N	S
1-5/8 x 1 x 1	N	N	N	N	N	N
S=Stock (No Minimum Order Required) N=Non-Stock (500lbs. Minimum Order Required)						

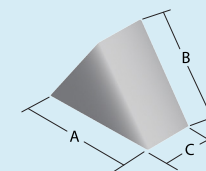
**Wedge:** Wedges are one of our most versatile media products. They deliver the excellent surface finish of a cylinder, while the large flat sides provide maximum cutting area.



### WEDGE FORMULATIONS

Size (A" x B")	SM	SV-1	SV	SY-1	SY	SX
1 x 3/4	N	N	N	N	N	S
1-1/2 x 1	N	N	N	S	S	N
2 x 1-1/4	N	N	N	N	N	N
S=Stock (No Minimum Order Required) N=Non-Stock (500lbs. Minimum Order Required)						

**Triangles:** Triangles reach into remote areas not accessible to regular square cut media. It is a very efficient media that retains its basic shape.



### TRIANGLE FORMULATIONS

Size (A" x B" x C")	SM	SV-1	SV	SY-1	SY	SX
5/8 x 3/8 x 1/2	N	N	N	N	N	N
1-1/4 x 7/8 x 5/8	N	N	N	N	N	N
S=Stock (No Minimum Order Required) N=Non-Stock (500lbs. Minimum Order Required)						



## Specialty Media

Along with the more commonly used ceramic and plastic medias, ALMCO also carries a wide selection of alternative medias to meet your finishing needs.



- **Carbon Steel and Stainless Steel:** A heavy, non-consumable media used for polishing, surface smoothing, pre-plate preparation and very light deburring.



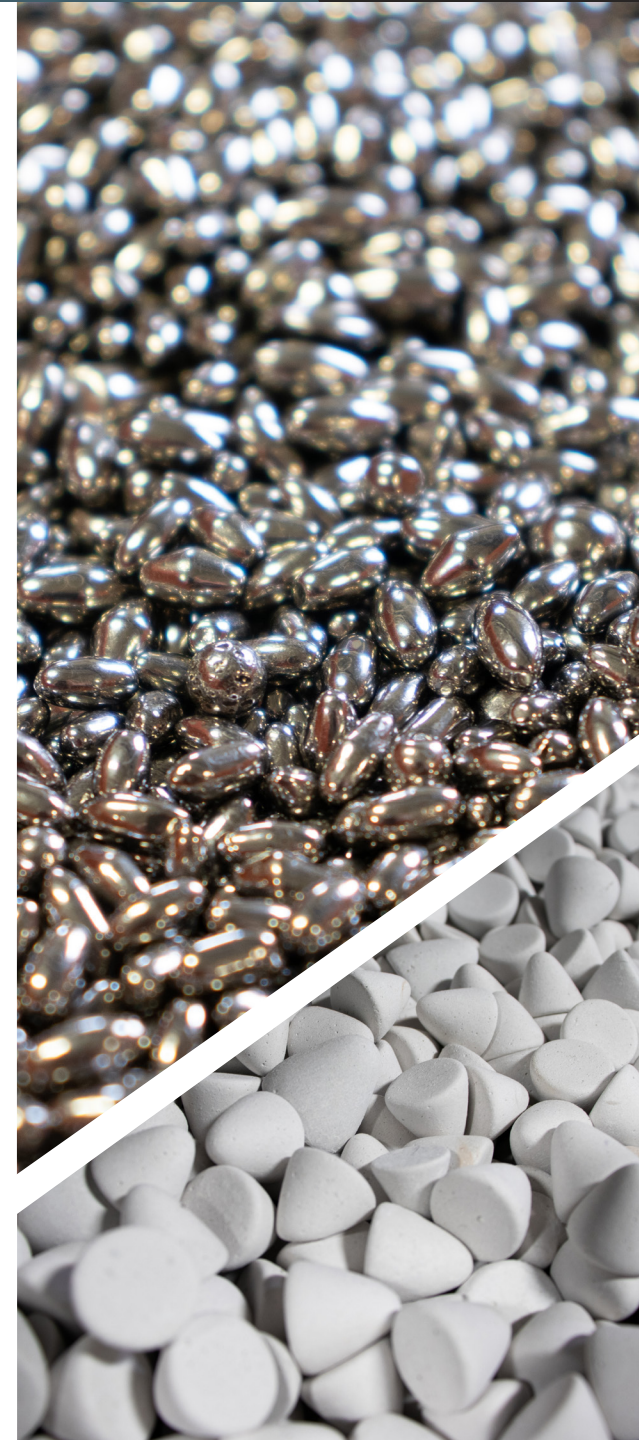
- **Corncob:** With a high level of moisture absorbency, this media is primarily used as a drying agent in vibratory and barrel tumbling operations. It can also be impregnated with polishing compound and used to impart a high gloss finish on parts. It is available from ALMCO in a variety of grit sizes.



- **Walnut Shell:** Ground walnut shell media is used mostly in dry tumbling and vibratory operations. In conjunction with various powders and polishing compounds, this media imparts a very fine finish on a variety of metals. It is available from ALMCO in a variety of grit sizes.



- **Aluminum Oxide and Silicon Carbide:** Random shapes of crushed aluminum oxide and silicon carbide are extremely aggressive medias used for heavy burr and metal removal in spindle finishing and blasting applications. They are available from ALMCO in a variety of grit sizes.





## Liquid Compounds

ALMCO offers a complete line of compounds, both powdered and liquid for specialized finishing applications. Call for pricing and delivery.

## Cleaning

ALMCO liquid cleaning compounds for both ferrous and non-ferrous materials. Phosphate-Free BIODEGRADABLE versatile series of cleaners, burnishing and rust inhibiting liquid compounds designed to be used in vibratory, spindle, parts washing and barrel finishing equipment. These high yield compounds meet all applicable EPA codes. Whether used in barrel, spindle or vibratory finishing equipment they provide better finishes in less time.

- **Alkaline (150X):** Concentrated low temp. cleaner for ferrous metals. Imparts high color and brightness to ferrous metals. For use in vibratory and spindle equipment but works well in spray washers and agitating tanks. Rust inhibiting if not rinsed. Low foaming.
  - **Alkaline (154X):** Heavy duty, caustic cleaner-descaler for ferrous metals. For use in barrel, vibratory, and spindle finish equipment. Rust inhibiting if not rinsed. For metals that cannot tolerate hydrogen embrittlement. Low foaming.
  - **Alkaline (2210):** Concentrated, moderately alkaline cleaner for ferrous and non-ferrous metals. For use in barrel, spindle and vibratory equipment and parts washers.
  - **Alkaline (2220):** Strongly alkaline cleaner for ferrous metals. Leaves no film or residue. For use in barrel, spindle and vibratory equipment and parts washers.
  - **Alkaline (2230):** Super concentrated alkaline cleaner for ferrous metals. For use with proportioning feeders, vibratory, spindle or barrel finishing equipment.
  - **Alkaline (2240S):** Alkaline cleaner, rust inhibitor, all metals. Excellent with plastic media.
  - **Alkaline (2250):** Super concentrated alkaline cleaner, low temp., for cleaning and deburring of aluminum die casting. Excellent for parts washers.
  - **Alkaline (2260D):** Alkaline cleaner, multi-purpose mass finishing compound cleans and colors in one operation. Works with all media in vibratory or barrel finishing equipment. Highly recommended for use with plastic medias.
  - **Alkaline (4230):** Alkaline cleaner/acid neutralizer for cleaning and degreasing ferrous metals in vibratory and barrel finishing equipment. Works well for rinsing, neutralizing acid operation and soils.
- 
- **Acid (15L):** Super concentrated multi-purpose organic acid cleaner, deburrs, descales, destains, derusts and polishes in one step for all metals. Use only in lined equipment.
  - **Acid (2510):** Mildly acidic liquid burnishing compound for maximum color on copper, brass and non-ferrous metals in barrel or vibratory equipment.
- 
- **Defoamer (H10):** Anti-foam emulsion can be used in a variety of industrial applications — distillation, boiling systems, paper & printing, textiles, chemical scrubbing. Controls foam in hot and cold aqueous systems. Contains 10% silicones.
  - **Defoamer (308):** Anti-foam emulsion can be used in a variety of industrial applications — distillation, boiling systems, paper & printing, textiles, chemical scrubbing. Controls foam in hot and cold aqueous systems. Contains NO silicones.

Application	ALKALINE									ACID		DEFOAMERS	
	150X	154X	2210	2220	2230	2240S	2250	2260D	4230	15L	2510	H10	308
Etches aluminum chemically	M	S		M	S				M				
Etches zinc chemically	S	S	SL	S	S		SL		S	S			
Removes rust and stain		X								X	X		
Heavy dripping oil & lubes on steel	X	X			X				X				
Heavy dripping oil & lubes on aluminum							X			X			
Light oil or processing soil on steel	X	X	X	X	X	X	X	X	X	X			
Light oil or processing soil on aluminum			X			X	X	X		X	X		
Good neutralizer for acid on steel	X	X	X	X	X				X				
Good neutralizer for acid on aluminum			X			X	X	X					
Good burnisher with steel media											X		
Rust inhibitor of steel when not rinsed	X	X	X	X	X	X	X	X					
Low foam products that can be used in spray washers	X		X	X			X						
Foam (Low, Mod, High)	L	M	L	L	M	L	L	L	M	M	M	N/A	N/A
<b>pH Values</b>													
Concentration 0.5%	11.8	12.6	10.6	11.5	12.5	7.8	9.9	8.4	12	3.7	5.3	7	7
Concentration 2.0%	12.8	13.3	12	12.7	13.3	8.1	11.3	9.3	12.5	2	4.4	7	7
X=Yes – SL=Slight – S=Severe – L=Low – M=Moderate – H=High													



## Burnishing

- **101A:** General purpose cleaning and burnishing, degreasing compound for all metals. Replaces alkaline cleaners.
- **2310:** Highly concentrated burnishing compound for all metals. For use in barrel, spindle and vibratory finishing equipment.
- **2320:** Super concentrated burnishing compound for all metals in vibratory equipment.
- **2330:** Mildly alkaline general-purpose burnishing compound for barrel, spindle and vibratory equipment. Produces high color & luster.
- **2350:** Excellent cleaning and burnishing compound for all metals. Maintains effectiveness for longer cycle times.
- **4320:** Burnishing compound for all metals in vibratory finishing equipment.

## Rust Inhibitors

- **503R-1:** General purpose rust inhibitor. Clear, leaves a dry film which need not be removed for plating or painting. Clear blue color.
- **506R:** Highly concentrated rust inhibitor for use during or following vibratory deburring, spindle deburring or barrel finishing applications. Also used in final wash stage to prevent cleaned parts from rusting. Clear green color.
- **506RD:** Cleaner and rust inhibitor in one product for use in vibratory deburring, spindle deburring or barrel finishing applications to eliminate additional rust inhibiting step after processing. Clear green color.
- **2420:** Mildly alkaline liquid concentrate rust inhibitor for cast iron and polished parts. Provides temporary rust inhibition. Clear amber color.

	BURNISHING						RUST INHIBITORS			
Application	101A	2310	2320	2330	2350	4320	503R1	506R	506RD	2420
Etches aluminum chemically										
Etches zinc chemically										
Removes rust and stain										
Heavy dripping oil & lubes on steel										
Heavy dripping oil & lubes on aluminum		X	X	X	X	X				
Light oil or processing soil on steel	X	X	X	X	X	X				
Light oil or processing soil on aluminum	X	X	X	X	X	X				
Good neutralizer for acid on steel	X									
Good neutralizer for acid on aluminum										
Good burnisher with steel media										
Rust inhibitor of steel when not rinsed	X	X	X	X	X	X	X	X	X	X
Low foam products that can be used in spray washers							X	X		X
Foam (Low, Mod, High)	H	H	H	H	H	H	L	N	N	L
<b>pH Values</b>										
Concentration 0.5%	8	8.8	9	8.4	8.5	8.5	8.6	7.3	7.7	8
Concentration 2.0%	9	9.1	9.3	9.1	9.1	9	8.9	7.4	7.8	8.4

X=Yes – N=None – SL=Slight – S=Severe – L=Low – M=Moderate – H=High

## Powdered Compounds

ALMCO powdered cleaning compounds for both ferrous and nonferrous materials are a Phosphate-Free, Biodegradable versatile series of cleaners, burnishing and rust inhibiting liquid compounds designed to be used in vibratory, spindle, parts washing and barrel finishing equipment. These high-yield compounds meet all applicable EPA codes. Whether used in barrel, spindle or vibratory finishing equipment they provide better finishes in less time.

### Cleaning

- **15:** Fast Descaling, acid base, restores true color, cleaning and light deburring of all metals. May be used as a secondary operation to remove oxidation, grinding & cutting oil stains. Parts should be rinsed then neutralized with an alkaline compound.
- **16:** Acid Descaler, deburrs, descales and polishes parts and restores true color from long grinding cycles. Eliminates manual cleaning of parts prior to finishing. Use with all media types. Minimizes risk of hydrogen embrittlement.

POWDERED COMPOUND CLEANING							
Product #	pH Range .05%-2%	Iron & Steel	Stainless Alloys	Copper, Bronze, Brass	Aluminum Alloys	Zinc	Magnesium
15	1.3-2.3	X	X	X			
16	1.3-2.3	X	X	X			

### Burnishing

- **10:** General Purpose, burnishing on all metals, for all types of abrasive media. Fast sudsing, long life.
- **20:** Stainless Alloys and Precious Metals, burnishes and cleans producing very fast viscous, long lasting suds for a lustrous finish, easily soluble and free rinsing.
- **101:** Concentrated Compound, burnishes aluminum, zinc and other ferrous metals to a high lustrous finish. Can produce finishes like hand buffing on die cast parts.
- **411:** High Lustrous, compound provides an extra high lustrous finish on ferrous and nonferrous metals, exceptionally long life. Use with all media and ball burnishing.
- **414:** Mildly Alkaline, compound specifically formulated for brass, copper and exotic metals. It produces ultra-high finishes on brass, silver, gold, nickel plate and copper when burnishing with hardened steel media; produces colors like those of hand-buffed finishes. Consistent, uniform results.

POWDERED COMPOUND BURNISHING							
Product #	pH Range .05%-2%	Iron & Steel	Stainless Alloys	Copper, Bronze, Brass	Aluminum Alloys	Zinc	Magnesium
10	9.1-10.1	X	X	X	X	X	X
20	9.0-10.0	X	X	X	X	X	X
101	8.1-9.1	X	X	X	X	X	X
411	8.6-9.6	X	X	X	X	X	X
414	8.5-9.0	X	X	X	X	X	X

## Deburring

- **Abrasive (3):** All Purpose, aggressive cutting, medium fine aluminum oxide for use with all types of media to increase material removal rate on flat surfaces and provides normal finishing on corners
- **Abrasive (5):** Fast Grinding, of all metals, normal life, quartz based, low foam, use with all media types, leaves a fine micro inch finish, moderately alkaline.
- **Abrasive (58):** Extra Heavy Duty, long life abrasive, medium fine grit aluminum oxide/silicon carbide to blend parting lines, remove stock and heavy burrs on all metals when long grinding cycles and large amounts of scale, burrs or stock is to be improved.
- **Abrasive (7A58):** Very Coarse, highly alkaline, 60 to 220 grit, rapid cutting aluminum oxide, low foaming, long life. Use with all types of media.
- **Abrasive (408):** Silica Flour Abrasive, for a very fine, ultra-low micro inch finish on all metals. No impregnation, leaves a light satin finish.
- **Abrasive (570S):** Aggressive Grinding, concentrated slightly alkaline compound, all purpose for use on any metals or media type, fast cutting. An economical alternative to aluminum oxide, low-foaming, long lasting, rinse free.
- **Abrasive (3SC):** Silicon Carbide Compound, medium fine, for use on all metals, fast cutting when mixed with all media types, recommended for stainless steel.
- **Non-Abrasive (2):** Neutral pH Compound, for cleaning, grinding and deburring all metals, retards rust, keeps media clean, prevents loading and glazing of abrasive media. Very effective on aluminum.
- **Non-Abrasive (2A):** Neutral pH Compound – Low Foam, same as No. 2. For vibratory use, very effective on non-ferrous metals.
- **Non-Abrasive (7A):** Heavy Duty, highly alkaline compound for grinding and cleaning operations. Non-foaming, producing high colors on ferrous metals and keeps media free from loading. Saponifies and emulsifies heavy fatty oils and greases, excellent rust inhibitor.

POWDERED COMPOUND DEBURRING							
Product #	pH Range .05%-2%	Iron & Steel	Stainless Alloys	Copper, Bronze, Brass	Aluminum Alloys	Zinc	Magnesium
3	8.5-9.5	X	X	X	X	X	X
5	10.0-11.0	X	X	X		X	
58	7	X	X	X	X	X	X
7A58	9.0-9.5	X	X	X	X	X	
408	7.8-8.5	X	X	X	X	X	X
570S	7.5-8.5	X	X	X	X	X	X
3SC	7.5-8.5	X	X	X	X	X	X
2	8.7	X	X	X	X	X	X
2A	8.7	X	X	X	X	X	X
7A	11.2-12.2	X	X				



## Service and Repair

### Spare Parts Inventory

We go to great lengths to make sure that we have a large inventory of service and repair parts to keep your equipment running smoothly. We have a dedicated customer service team that can help you diagnose problems and identify the right parts. With same day shipping on in-stock items, you will have what you need in a timely manner.

### Tub, Bowl and Barrel Relining

We have been lining bowls and tubs for over 50 years. Every bowl or tub that comes to us to be relined goes through a rigorous process and is fully inspected before being returned to you. We have one of the largest inventories of bowl and tub molds in the industry to serve a wide variety of machines and ensure your equipment will meet original factory specifications. Standard relines are processed quickly to get you back up and running in no time. Contact us today for a quote.

### Repair and Refurbish

Anyone who's owned a piece of our equipment knows that it's built to last, but all equipment wears down over time. If your machine needs repair, please contact our team and we will work with you to select the best option. This may include on-site service by one of our technicians or return of your equipment to ALMCO to be completely refurbished.

ALMCO has a dedicated in-house customer service team with excellent working knowledge of our entire product line. We also have drawing files and historical records of all machines going back decades. Our customer service team can provide you with replacement parts for nearly any ALMCO equipment. Please contact us with your service needs.

## Custom Solutions

Since 1945, we have designed and built a large variety of custom finishing and washing equipment systems. We can combine many of our standard machines into a fully integrated solution. If you're looking to deburr and wash or dry your parts in one system from a single source, we can do it. From the incoming conveyor to the exit conveyor, we can handle all the processes needed to finish your parts and provide all of the material handling between the machines. Our experienced staff can also recommend, supply, setup and program robots and related equipment for applications requiring robot loading.

**PLEASE CONTACT US TO SEE WHAT WE CAN DO FOR YOU.**

**WE OFFER**  
a wide variety of accessories. Some of these include dividers, auto-lubes, sound hoods, and compound dispensing systems to fit your needs. Many of these are in stock and ready to ship, call to get availability and pricing.

# ABOUT INNOVANCE

Innovance is the holding company for a family of five 100% employee-owned companies with the common goals of working together to grow our ESOP value and become the most respected companies in our communities. Our unique mix of industrial manufacturing capabilities assures our customers we are committed to providing a solution to any need they have.



Because all our employees have a 'seat at the table', there is a heightened level of ownership for every project that we work on to ensure the highest quality and on-time delivery.





# Employee Owned. American Made.

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