

### ABOUT ALMCO

For more than 75 years, companies of all sizes in a wide variety of industries have trusted ALMCO equipment with their important parts finishing and parts washing projects. The reliable and robust ALMCO equipment itself only tells part of the story. ALMCO finishing experts will create the right formula to produce the exact finish required. That is a guarantee.

ALMCO MADE IN THE USA

When using the recommended finishing formula of ALMCO equipment, media, and compound; ALMCO guarantees the industrial finishing solution that was created and proved in our process lab for your parts, will yield the same results in your manufacturing facility.

We believe being 100% Employee-Owned gives our customers the very best overall experience.



### CONTENTS

#### **DEBURRING & FINISHING**

Vibratory Finishing Tubs02	
Vibratory Round Bowls04	
Spindle Machines06	
Sutton Machines	
Barrel Machines	
Centrifugal Barrel Finishing10	
Centrifugal Disc Finishing11	

#### **PARTS WASHING & DRYING**

Conveyor Parts Washers12
Cabinet Parts Washers14
Immersion Parts Washers16
Rotary Drum Parts Washers17

#### **FILTRATION**

Sediment Tanks

Oil Coalescer	19
MATERIAL HANDLING	
Parts Conveyors/Material Drag-Out	20
Screeners	21

18

#### **MEDIA & COMPOUNDS**

Ceramic Media	22
Plastic Media	26
Synthetic Media	28
Specialty Media	29
Liquid Compounds	30
Powdered Compounds	33

#### **OTHER SERVICES**

Service and Repair	35
Custom Solutions	35
About Innovance	36

ALMCO Vibratory Tubs are ideal for a wide variety of part geometries and offer consistent finishing from part to part. They are available in various sizes and are capable of processing parts in batches or in a through-feed mode. The average part size they can accommodate is 60"diameter or smaller. Tubs may be stand-alone or designed into a custom system with conveyors and material handling equipment for automatic loading and unloading.

**VB Series:** An economy series vibratory tub.

**V Series:** Heavy-duty series with many optional configurations.

**Continuous Thru-Feed:** Offer continuous parts processing and known for their ability to process parts at a high production volume.

#### **Finishing Capabilities**

- Burnish
- · Clean
- Deburr
- Descale
- Polish
- Pre-Plating
- · Radius

#### **Average Equipment ROI Time**

· 12 to 18 Months



#### 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-onpart contact.
- 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 springassisted lid for access to the machine. (Standard on VB Series.)
- Available Sizes: 2 ft<sup>3</sup>–110 ft<sup>3</sup>
- UL 508A Electrical Controls







#### INDUSTRIAL FINISHING WHITE PAPER

NOT SURE WHAT INDUSTRIAL FINISHING EQUIPMENT IS RIGHT FOR YOUR APPLICATION?

Make sense of the available finishing options within the industry and learn **What You Need to Know Before Buying Any Industrial Parts Finishing Equipment**, in our 7-page white paper.

Scan Here to Download





are ideal for a wide variety of part geometries and offer consistent finishing from part to part. They are available in various sizes and may be custom configured with options for your specific application. The average part size they can accommodate is 14"diameter or smaller. 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 a spiral bottom bowl and long internal screening section for part removal.

**LR Series:** Has the largest circumference. Best for delicate or long, narrow parts or useful in a through feed operation.

**OR Series:** The only round bowl series with dividers available to prevent part-on-part contact.

**AB Series:** An economy series round bowl.

#### **Finishing Capabilities**

- Burnish
- · Clean
- Deburr
- Descale
- Polish
- Pre-Plating
- Radius

#### **Average Equipment ROI Time**

· 12 to 18 Months

## **Vibratory Round Bowls**









#### 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

#### SBB SERIES ROUND BOWL VIDEO

View the SBB in action by scanning the QR code below.





#### **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.
- Available Sizes: 3 ft³-40 ft³
- UL 508A Electrical Controls







ALMCO Spindle Machines are known for high-speed precision deburring. Custom fixtures attach one or multiple parts to a spindle. The rotating spindle is lowered into a rapidly moving tub of abrasive media to achieve a consistent finish on a part. Spindle machines are primarily designed to finish small to medium-sized precision parts. These machines are custom configured to meet individual customer's requirements and create a very repeatable process.

#### Ideal for finishing:

- · Smaller to medium sized parts
- · Parts with tight tolerances
- · Parts with hard-to-reach areas
- · Parts with long finishing times
- · Parts that can't be finished by hand
- · Where part consistency is important

#### **Finishing Capabilities**

- Deburr
- Descale
- Polish
- Radius

#### **Average Equipment ROI Time**

· 12 to 36 Months

# **Spindle Machines**







Machine	Part Diameter	Part Height	Part Weight
Spindle	Under 12" dia	4" tall	<50 lbs

Maximum part height and diameter will vary depending on specific model of machine.

#### 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.

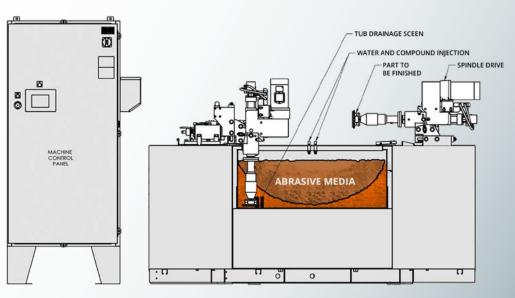


#### **OPTIONS**

- 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.

- 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
- UL 508A Electrical Controls





#### DEBURRING AND FINISHING

ALMCO Sutton Machines are specialized heavy-duty machines designed for high production environments. They are similar to a Spindle but are primarily designed to finish large parts that would be otherwise difficult to finish by hand such as turbine blades, disks, blisks, and impellers.

#### Ideal for finishing:

- · Large parts
- · Parts with tight tolerances
- · Parts with hard-to-reach areas
- · Parts with long finishing times
- · Parts that can't be finished by hand
- · Where part consistency is important

**CF Series:** The speed of the rotating tub forces the abrasive media to the outer wall, causing more friction on the part. More aggressive than a Spindle machine.

**CFT Series:** The spindle rotates the part at a high speed and at various angles within the tub of vibrating media to finish the part.

**CFCA Series:** The spindle quickly oscillates back and forth in a 79-degree arc through a tub of vibrating media. Similar to the movement of a washing machine with an agitator.

#### **Finishing Capabilities**

- Deburr
- · Descale
- Polish
- · Radius

#### **Average Equipment ROI Time**

• 12 to 36 Months

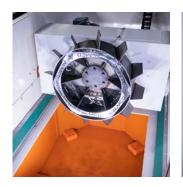
### **Sutton Machines**





#### STANDARD FFATURES

- 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**

- Compound Dispensing System: Designed to feed a ratio of water and compound to the deburring machine.
- Hourmeter
- Operator Work Platform
- Tooling
- UL 508A Electrical Controls

Machine	Part Diameter	Part Height	Part Weight	
Sutton	Up to 55" dia	12" Tall	Hundreds of lbs	

Maximum part height and diameter will vary depending on specific model of machine.

### **Barrel Machines**

#### 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









ALMCO Barrel Machines are durable tumbling units 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.

**Compact Series:** Designed for small runs and smaller parts.

**Deluxe Series:** Designed to give added versatility for parts and larger finishing capacity.

#### **Finishing Capabilities**

- Burnish
- · Clean
- Deburr

**Average Equipment ROI Time** 

· 9 to 15 Months

**Centrifugal Barrel Finishing Machines** 

(CBF) from Mass Finishing Inc. offer high-speed surface improvement. CBF systems are often referred to as high-energy solutions because they apply a g-force of 10–12 on media and parts. They feature four hexagonshaped 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. The system can use any type of media and can achieve surface finishes of less than 1 Ra.

#### **Finishing Capabilities**

- Burnish
- Clean
- Deburr
- Descale
- Polish
- Pre-Plating
- Radius

#### **Average Equipment ROI Time**

· 12 to 18 Months



MFI and ALMCO are both part of the Innovance family of companies and ALMCO is an authorized distributor for the full line of MFI products.

# 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
- Built-In Media and Parts Separation
- Wastewater Handling System
- Barrel Dividers
- 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
- Built-in Media and Parts Separation
- Wastewater Handling System
- Fully Automated Loading and Unloading
- Automatic Liquid Dompound Dosing









Centrifugal Disc Finishers are high-speed machines. Their open top loading and unloading features make them easy to automate into an inline production. A g-force of 6-8 is produced on the media and parts by the disc spinning at the bottom of the bowl and moving against the stationary side walls. This creates a powerful vortex at the bottom of the finishing chamber which helps achieve fast finishing results.

#### **Finishing Capabilities**

- · Burnish
- · Clean
- · Deburr
- · Descale
- Polish
- Pre-Plating
- · Radius

#### **Average Equipment ROI Time**

· 12 to 18 Months

ALMCO Conveyor Parts Washers are designed to be used for continuous flow parts washing and/or drying. These part washers are extremely versatile and are designed in either one stage, or multiple stages depending on your cleaning needs.

**Inline Washers:** Operate in a straight line and provide continuous, flowthrough operation.

**U-Bend Washers:** Operate in a "U" shape and discharge parts at the same side at which they are fed into the machine. Designed for single operator use or in an automated system where the direction of workflow needs to be changed.

Monorail Washers: Custom designed to match an existing plant monorail system and are typically used for washing within paint lines and powder coating processes.

#### **Process Stages**

Usually 2-5 stages:

- Wash
- Rinse
- · Blow-Off
- Dry
- · Cool-Down

#### **Average Equipment ROI Time**

· 12 to 24 Months

### **Conveyor Parts Washers**











#### 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 Wompound Replenishment
- PLC and Touch Screen Controls
- UL 508A Electrical Controls
- **Standard Belt Sizes:** 12", 18", 24". Custom sizes available.

#### **INLINE & U-BEND VIDEOS**

View the Inline & U-Bend in action by scanning the QR code below.





Inline Washer Video





U-Bend Washer Video

#### PARTS WASHING WHITE PAPER

# YOU NEED A MACHINE THAT WILL EFFECTIVELY AND EFFICIENTLY CLEAN YOUR PARTS

Make the best equipment decision for your company with the help of our white paper, *Key Criteria in Selecting the Right Industrial Parts Washing Equipment*. Our side-by-side equipment comparisons and overview of available cleaning stages makes deciding the best fit for your application easier!

Scan Here to Download





ALMCO Cabinet Parts Washers are compact units designed to be used for general purpose cleaning of low-volume or small batch parts. During the wash cycle the turntable rotates the part, basket, or fixture to expose all sides to the spray and blow-off nozzles. Cabinet Parts Washers are often incorporated into manufacturing work cells. Loading of these washers may be by hand, by hoist, or automatically via a robot or powered conveyor system.

**ECW Series:** An economy series rotary cabinet washer.

**RCW Series:** Features a front swing door that opens 180 degrees to load parts by hand or via hoist.

**RTW Series:** A top-loading cabinet washer. Can be equipped with a powered lid for automation with a robotic loading system.

**RPW Series:** A frontloading cabinet washer with powered sliding doors, similar to a guillotine. Can be configured for pass-through operation for a continuous feed work cell.

#### **Process Stages**

1-3 Stages:

- Wash
- Rinse
- · Blow-Off

#### **Average Equipment ROI Time**

• 6 to 12 Months





#### 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
- 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

ALMCO Immersion Parts Washers are ideal for either single or batch cleaning of a variety of parts sizes and weights and clean components by submersing them in an agitated cleaning solution. They are used to remove contamination from the surfaces of parts exiting a production line or during a rebuild process. Immersion Parts Washers can penetrate cracks and crevices, and clean interior part surfaces

**EAW Series:** An economy series immersion washer ideal for small shops.

**PW Series:** A heavy-duty agitation unit. May have powered rollers and be part of an automated production system with multiple stages and parts sensors for automatic operation.

**PW Ultrasonic Series:** Operates similarly to the PW Series but equipped with ultrasonics/ultrasonic technology totransmithigh-energy, high-frequency sound waves to loosen debris that is hard to displace by agitation alone.

#### **Process Stages**

1 Stage:

Wash

#### **Average Equipment ROI Time**

- · Standard: 6 to 12 Months
- Ultrasonic: 12 to 24 Months

### **Immersion Parts 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
- Available Options Dependent on Model

### **Rotary Drum Parts 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

#### **ALMCO Rotary Drum Parts Washers**

are ideal for washing parts in a mass production application. Parts can be washed in batches, or used in a complete through-feed operation, which allows parts to be fed directly from the washer section to a rotary drying system if required. Rotary Drum Washers are ideal for small parts cleaning and drying when other types of conveyor belts or basket applications won't work.

There is one main style of Rotary Drum Washer, however the length of the drum can be fully customized based on the customer's preference.

#### **Process Stages**

Up to 5 Stages:

- Wash
- Rinse
- · Blow-Off
- Dry
- · Cool-Down

#### **Average Equipment ROI Time**

· 12 to 24 Months

#### **FILTRATION**

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





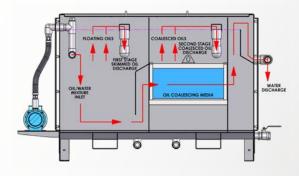


### Oil Coalescer

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.





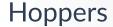
# Parts Conveyors/Material Drag-Out

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.



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.

#### **SALES CONTACT**

Media & Compound Sales sales@almco.com 507.377.4401





# Ceramic Media Composition Guide

- Very Fine Burnishing (FP): 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

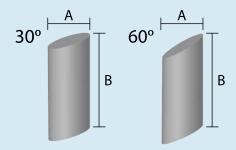
- due to the finely sized aluminum oxide. It weighs approximately 90 lbs. per cubic foot and is olive green in color.
- No Aluminum Oxide (SC): This media is fast cutting and relatively fast wearing. It is recommended for use where exposure to fused aluminum oxide cannot be tolerated. Recommended for 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.

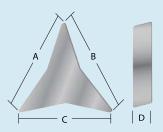


ANGLE CUT CYLINDERS						
Degree	Part #	Composition	Dimension (A)	Dimension (B)		
30°	F1-8	F	1/8"	11/32"		
30°	F3-16	F	3/16"	11/32"		
30°	F5-16	F	5/16"	9/16"		
30°	F7-16	F	7/16"	25/32"		
30°	F5-8	F	5/8"	1-1/8″		
30°	ECH7-16	ECH	7/16"	25/32"		
30°	ECH5-8	ECH	5/8"	1-1/8″		
30°	ECH7-8	ECH	7/8"	1-1/2"		
30°	C1-8	С	1/8″	11/32"		
30°	C3-16	С	3/16"	11/32"		
30°	C5-16	С	5/16"	9/16"		
30°	C7-16	С	7/16"	25/32"		
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	С	1/4"	9/16"		
60°	C5-16A60	С	5/16"	9/16"		
60°	C3-8A60	С	3/8"	9/16"		

# Ceramic Media Types (continued)

#### 20° ANGLE CUT STARS:

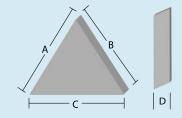
Angle Cut Stars may replace three or more sizes of other preform media and finish a wide variety of parts from simple to intricate shapes.



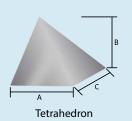
ANGLE CUT STARS						
Part #	Composition	Dimension (A)	Dimension (B)	Dimension (C)	Thickness (D)	
C7-8S	С	7/8"	7/8"	7/8"	5/16"	
C11-8S	С	1-1/8"	1-1/8"	1-1/8"	3/8"	
XC5-8S	XC	5/8"	5/8"	5/8"	1/4"	
XC7-8S	XC	7/8"	7/8"	7/8"	5/16"	
XC11-8S	XC	1-1/8"	1-1/8"	1-1/8"	3/8"	
ECH5-8S	ECH	5/8"	5/8"	5/8"	1/4"	

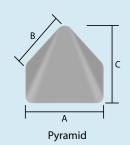
**20° ANGLE CUT TRIANGLES:** Angle Cut Triangles reach into remote areas not accessible to regular square cut media. It is a very efficient media that retains its basic shape.

ANGLE CU	T 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	С	3/8"	3/8"	3/8"	3/16"
C3-8T2	С	3/8"	3/8"	3/8"	3/8"
C5-8T	С	5/8"	5/8"	5/8"	3/16"
C5-8T2	С	5/8"	5/8"	5/8"	3/8"
C5-8T3	С	5/8"	5/8"	5/8"	9/16"
C7-8T	С	7/8"	7/8"	7/8"	5/16"
C7-8T3	С	7/8"	7/8"	7/8"	15/16"
C11-8T	С	1-1/8"	1-1/8"	1-1/8"	5/16"
C11-8T3	С	1-1/8"	1-1/8"	1-1/8"	15/16"
C13-8T	С	1-3/8"	1-3/8"	1-3/8"	1/2"
C17-8T	С	1-7/8"	1-7/8"	1-7/8"	5/8"



ANGLE CL	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"			

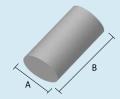




**TETRAHEDRON AND PYRAMIDS MIX:** These two shapes combine the excellent tumbling qualities of Cylinders, Triangles, Cones and Star shapes. The flat sides provide the best in cutting surfaces and sharp points are designed to reach into holes and slots without lodging. They react well in vibratory processes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

TETRAHEDRON PYRAMID										
Pa	rt#	Composition	Dimension (A)	Dimension (B)	Dimension (C)					
C11-4 T	ET/PYR 11X	С	1-1/4"	1-1/4"	1-1/4"					

**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	С	3/4"	]"
C9-16ELLP	С	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	]"	1-1/8"
ECH11-2WG	ECH	1-1/2"	1-5/8"
C1-WG	С	]"	1-1/8"
C11-2WG	С	1-1/2"	1-5/8"

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



CONES				
P	art #	Composition	Dimension (A)	Dimension (B)
FP:	3-4CN	FP	3/4"	7/8"
FP	71-2CN	FP	1/2"	5/8"
C3	3-4CN	С	3/4"	7/8"
XC.	3-4CN	XC	3/4"	7/8"

# Plastic Media Composition Guide

LCP: This media has extremely good wear and can be used for polishing or light deburring with the correct compounds.

RG: This media has exceptional wear and produces a matte finish for preplate or polish.

**Pre-Plate (V):** A light weight media that produces a very smooth finish. Excellent finish and wear.

General Purpose (X): Used in most standard applications. Great for metal removal, minimal media loss.

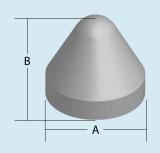
Fast Cut (XV): This media is fast cutting and is capable of producing excellent finishes on parts that are being prepped for anodizing or plating.

**XV1:** This media is aggressive for fast metal removal; media wear is good and produces a matte finish.

**Zircon (Z1):** This heavy media provides a fast cut, good wear, and excellent finishes all while reducing cycle times.

### Plastic Media Types

### CONE **FORMULATIONS** Size (A" x B") $1/4 \times 1/4 \text{ (NEW)}$ $3/8 \times 3/8$ 1/2 x 9/16 5/8 x 7/8 $3/4 \times 3/4$ 1×1 $1-1/4 \times 1-1/4$ $1-3/4 \times 1-3/4$ $2-1/2 \times 3$

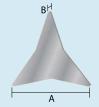


**CONES:** Cones are designed so they will easily separate from parts. Their unique shape enables them to reach into remote areas without lodging.

Compositions: LCP, RG, V, X,XV, XV1, Z1

#### **TRISTAR FORMULATIONS** Size (A" x B")

 $1-3/4 \times 1-3/4$ 



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

Compositions: LCP, RG, V, X,XV, XV1, Z1

#### **PYRAMID FORMULATIONS**

Size (A" x B" x C")

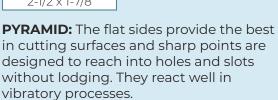
 $1/4 \times 1/4 \times 1/4$ 5/16 x 5/16  $3/8 \times 3/8$ 

 $3/8 \times 5/8$ 

1-5/8 x 1 x 1 2 x 1-1/8

 $2 \times 1 - 1/2 \times 1$ 

2-1/2 x 1-7/8

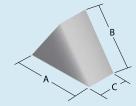


Compositions: LCP, RG, V, X,XV, XV1, Z1

#### **TRIANGLE FORMULATIONS**

Size (A" x B" x C")

5/8 x 3/8 x 1/2  $1-1/4 \times 5/8 \times 7/8$ 



**TRIANGLES:** Triangles reach into remote areas not accessible to regular square cut media.

It is a very efficient media that retains its basic shape.

Compositions: LCP, RG, V, X,XV, XV1, Z1

# TETRAHEDRON FORMULATIONS

Size (A" x B" x C")

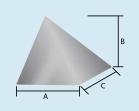
3/8 x 3/8 (NEW) 5/8 x 5/8 (NEW)

7/, 7/, 7/,

3/4 × 3/4 × 3/4

1-1/8x 1-1/8

1-1/2 × 1-1/2



**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.

Compositions: LCP, RG, V, X,XV, XV1, Z1

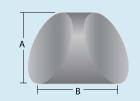
# CYLINDRICAL WEDGES FORMULATIONS

Size (A" x B")

1/2 x 5/8

3/4 x 3/4

1-1/2 x 1-1/2



**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.

Compositions: LCP, RG, V, X,XV, XV1, Z1



#### WEDGE FORMULATIONS

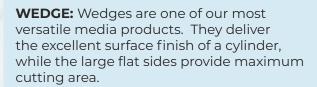
Size (A" x B")

1 x 3/4

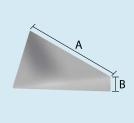
1-1/2 X 1

2 X 1-1/4

2-1/2 X 1-1/2



Compositions: LCP, RG, V, X,XV, XV1, Z1







# Synthetic Media Composition Guide

**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

# CONE FORMULATIONS

Size (A" x B")

3/8 x 3/8 7/16 x 5/8

1/2 x 9/16

5/8 x 7/8

3/4 x 3/4

1-1/4 x 1-1/4 1-1/2 x 1-1/2 B A

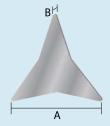
**CONES:** Cones are designed so they will easily separate from parts. Their unique shape enables them to reach into remote areas without lodging.

Composition: SM, SV-1, SV, SY-1, SY, SX

#### TRISTAR FORMULATIONS

Size (A" x B")

2 x 1



**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.

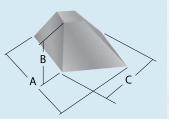
Composition: SM, SV-1, SV, SY-1, SY, SX

# PYRAMID FORMULATIONS

Size (A" x B" x C")

3/8 x 3/8 3/8 x 5/8

1-5/8 x 1 x 1



**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.

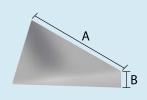
Composition: SM, SV-1, SV, SY-1, SY, SX

# CYLINDRICAL WEDGES FORMULATIONS

Size (A" x B")

3/4 x 3/4

1-1/8 x 1 1-1/2 x 1-1/2



**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.

Composition: SM, SV-1, SV, SY-1, SY, SX

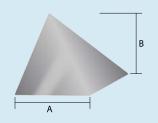
#### **TETRAHEDRON FORMULATIONS**

Size (A" x B")

 $3/4 \times 3/4$ 

1-1/8 x 1-1/8 2 x 2

 $3 \times 3$ 



**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.

Composition: SM, SV-1, SV, SY-1, SY, SX

#### WEDGE **FORMULATIONS**

Size (A" x B")

 $1 \times 3/4$ 

 $1-1/2 \times 1$ 

 $2 \times 1 - 1/4$ 



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.

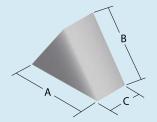
Composition: SM, SV-1, SV, SY-1, SY, SX

#### **TRIANGLE FORMULATIONS**

Size (A" x B" x C")

5/8 x 3/8 x 1/2

1-1/4 x 7/8 x 5/8



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

Composition: SM, SV-1, SV, SY-1, SY, SX

# Specialty Media

Along with the more commonly used ceramic and plastic medias, ALMCO also carries a wide selection of specialty 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.







# **ALMCO Compounds**

ALMCO offers a complete line of compounds, both liquid and powdered for specialized finishing and cleaning applications. These compounds are phosphate-free, biodegradable, and developed for ferrous and non-ferrous materials.

ALMCO liquid and powder compounds are specifically formulated and designed to remove contaminants and enhance the finishing action of the media, providing better finishes in less time.

# Liquid Compounds

ALMCO Liquid Compounds include a variety of Cleaning, Burnishing, and Rust Inhibiting solutions. They are versatile and can be used in various types of industrial finishing and parts washing equipment.



### **Liquid Cleaning**

- **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, multipurpose 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.

LIQUID COMPOUND CLEANING	ALKA	LINE								ACID		DEFOAM	ERS
Application	150X	154X	2210	2220	2230	22405	2250	2260D	4230	15L	2510	Н10	308
Etches aluminum chemically	М	S		М	S	•			М		•		
Etches zinc chemically	S	S	SL	S	S		SL		S	S	•		
Removes rust and stain		Χ								Χ	Χ		
Heavy dripping oil & lubes on steel	X	Χ			Χ				Χ				
Heavy dripping oil & lubes on aluminum							Χ			Χ			
Light oil or processing soil on steel	X	Χ	Χ	Χ	Χ	Χ	Χ	X	Χ	Χ			
Light oil or processing soil on aluminum			Χ	•		Χ	Χ	X		Χ	Χ		
Good neutralizer for acid on steel	X	X	Χ	Χ	Χ				Χ				
Good neutralizer for acid on aluminum			X	•		Χ	Χ	X					
Good burnisher with steel media			•	•							Χ		
Rust inhibitor of steel when not rinsed	X	X	Χ	Χ	Χ	Χ	Χ	X					
Low foam products that can be used in spray washers	X		Χ	Χ			Χ						
Foam (Low, Mod, High)	L	М	L	L	М	L	L	L	М	М	М	N/A	N/A
pH Values													
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

### Liquid 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.

### **Liquid 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.

LIQUID COMPOUND	BURNISH	HING					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	Χ	X	Χ	Χ		· · ·		
Light oil or processing soil on steel	Χ	Χ	Χ	Χ	Χ	Χ	<u>:</u>	•		
Light oil or processing soil on aluminum	X	X	X	X	X	Χ	:			
Good neutralizer for acid on steel	Χ									
Good neutralizer for acid on aluminum			:			•		•		
Good burnisher with steel media					:	· · ·		· · ·		
Rust inhibitor of steel when not rinsed	Χ	X	Χ	X	Χ	Χ	Χ	Χ	Χ	Χ
Low foam products that can be used in spray washers			:			· · ·	Χ	Χ		Χ
Foam (Low, Mod, High)	Н	Н	Н	Н	Н	Н	L	Ν	Ν	L
pH Values										
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=Sev	/ere — L	=Low —	M=Moder	ate — H	=High			

### **Powdered 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	Χ	Χ	Χ			
16	1.3–2.3	Χ	X	Χ			

### **Powdered 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 handbuffed finishes. Consistent, uniform results.

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

# **Powdered Compounds**

**ALMCO Powdered Compounds** include a variety of Cleaning, Burnishing, and Deburring blends. They are versatile and can be used in various types of industrial finishing and parts washing equipment.





### Powdered 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, lowfoaming, 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 CC	MPOUND DEBURRING						
Product #	pH Range .05%–2%	Iron & Steel	Stainless Alloys	Copper, Bronze, Brass	Aluminum Alloys	Zinc	Magnesium
3	8.5–9.5	Χ	Χ	Χ	Χ	Χ	Χ
5	10.0–11.0	Χ	X	X		Χ	
58	7	Χ	X	X	X	Χ	Χ
7A58	9.0–9.5	Χ	X	X	X	Χ	
408	7.8–8.5	Χ	Χ	X	X	Χ	Χ
570S	7.5–8.5	Χ	Χ	X	X	Χ	Χ
3SC	7.5–8.5	Χ	Χ	X	X	Χ	Χ
2	8.7	Χ	Χ	X	X	Χ	Χ
2A	8.7	Χ	Χ	X	X	Χ	Χ
7A	11.2–12.2	Χ	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 instock items, you will have what you need in a timely manner.



### Tub, Bowl, and Barrel Relining

Our strip and reline service offers customers a lower-cost alternative to purchasing a new fabrication tub by providing new linings to worn equipment. 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.



### Repair and Refurbish

Anyone who's owned a piece of ALMCO equipment knows that it's built to last, but years of use can slowly wear down your equipment over time. If your machine is in need of some TLC, we encourage you to reach out to our team for on-site or in-house service, repair, and maintenance.



# Free Parts Processing



An essential step in determining the right equipment for your part is running samples in our lab. ALMCO offers free parts processing with no commitment. For no cost or obligation to you, ALMCO offers:

- Sample parts testing and process development in our lab
- Parts are returned with a detailed lab report within 2 weeks of arrival.
- With purchase of recommended equipment, media, and compound; ALMCO process results are guaranteed.

Let us show you what we can do for your operation. Contact us today for free sample processing at **1.800.521.2740** or email us at **sales@almco.com** to discuss your project with our team!

#### **SALES CONTACT**

Parts & Service Sales sales@almco.com 507.377.4412



### ABOUT INNOVANCE

Innovance is the holding company for a family of five, 100% employee-owned manufacturing brands located in Minnesota and Wisconsin. Formed in 2004, the Innovance name comes from two defining characteristics of the organization; innovation and performance. Our 400+ employee-owners, strive to make every customer interaction a great one.

#### **Mission Statement**

To lead, nurture, and grow a team of industrial manufacturing companies committed to making our OEM customers' products better.



















Employee Owned. American Made.

