













#### **About Salem**

We are more than a fabrication machinery and tooling distributor or supplier. Salem Fabrication Technologies Group, Inc. (SFTG) has built our reputation on over 90 years of experience and wealth of product and process knowledge—expertise unique to a single company. The Salem team takes a guided approach to preparing glass fabricators and glazing professionals for peak performance with quality tooling, material handling equipment, supplies and machinery solutions.

Our company is structured into several divisions to better serve the changing needs of our customer — Salem Fabrication Supplies, HHH Equipment Resources and K&W Grinding. Salem Fabrication Supplies handles the tooling and supply side of the glass industry and is the strategic partner you need for your production process goods and materials. HHH Equipment Resources provides innovative technology through a full line of glass processing equipment as well as unmatched technical support and service. K&W Grinding offers professional diamond tooling re-profiling and restoration, extending the life and performance of your tools.

With field experience, process expertise, commitment to serving fabricator needs and strong manufacturer relationships, we source only top-notch equipment, tooling and supplies to help glass fabricators, glazing professionals and others edge ahead. Thanks to deep tooling knowledge, easy ordering, inventory management and accountable customer service, partnering with Salem eliminates many business road blocks.

As a 100% employee-owned, Americanbased company, our dedicated Salem team has a vested interest in helping your business achieve success and GO BEYOND THE EDGE for years to come.

#### Salem's Core Focus:

Enriching the quality of our Owners' lives by helping our customers succeed. We do this through delivering world class glass fabricating machines, tooling, supplies and service.

#### Salem's Core Values:

- Customer Focused
- Accountable
- Do the Right Thing
- Hungry for Achievement
- Humbly Confident





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# DIAMOND PRODUCTS

#### **Diamond Wheels**

Through partnerships with diamond wheel manufacturers, equipment manufacturers and users, Salem Fabrication Supplies is the top qualified choice to assist customers in their search for increased diamond wheel productivity. The latest manufacturing technologies are utilized to build speed, quality finish, and long life into all of our diamond wheels. Salem offers premium diamond wheels for edgers and bevelers across a wide range of popular machinery lines. If you require a special wheel, Salem is uniquely capable of providing the proper configuration, diamond grit size, exact degree of bond hardness, and depth of diamond to meet your requirements.

See our Suggested Tooling Setup section starting on page 12 to learn more.



The cutting surface of a diamond wheel is composed of diamond particles impregnated into a bonding matrix. This bonding matrix is the one variable that most greatly influences the cutting characteristics of any diamond wheel. The flat glass industry employs two types of basic bonds: resin and metal.



#### **Metal Bonded**

Metal bonded diamond wheels utilize bronze, iron or steel with fillers to generate free cutting action. It has exceptional durability and is normally used in primary grinding stations where high stock removal is required. Available with different hardnesses and in both cup and peripheral configurations.



#### **Resin Bonded**

Resin bonded wheels are constructed from a thermo-set phenolic or high temperature resin. Resin bonds are readily formed, trued and are free cutting and typically used in secondary (pre-polish) grinding stations. The function at these positions is to remove sub-surface damage and to re-orient the scratch pattern from the metal bond wheels, and thereby present a blended surface to the polishing section. Available with different hardnesses in cup configurations.

#### **Cup Wheels**

Cup wheels are used for grinding bevels and flat edges. The cup wheel configuration allows for total grinding surface contact with the glass surface. This alignment greatly reduces the need for retruing and increases the processing capabilities of a wider range of glass thicknesses.



#### **Peripheral Wheels**

Peripheral wheels are primarily used for producing pencil, and ogee shapes, as well as flat edges. Due to the orientation of the diamond wheel to the glass edge, peripheral wheels will wear in a non-uniform manner. With proper maintenance and wheel selection, the severity of this wear can be minimized.



Typically, synthetic diamonds are used in industrial applications. Manufacturers of synthetic diamonds are able to control overall particle integrity. The diamonds produced have a monocrystalline structure, produced under high pressure and temperature. The particles have a strong blocky cubo-octohedral shape with pronounced cutting edges. This whole crystal offers the ultimate in abrasive strength and is developed with a multi-edge cutting surface that refuses to peel away into worthless small diamond particles.

#### **Basic Technology**

Diamond wheels are used for grinding edge profiles, bevels and for any other shaping process in the fabrication of glass components and products.

Diamond tooling refers to core drills and router bits that are also used in many glass fabrication applications.

Both of these diamond product lines (wheels and tools) utilize industrial diamond particles fixed in place by either metal or resin bonding. The metal or resin bonded diamond sections are permanently attached to hubs or adapters that facilitate mounting to a particular machine.

#### Wheel Dimensions

The key dimensions of a diamond wheel usually include:

- Outside diameter
- Total thickness
- Arbor hole diameter
- Diameter and location of pin holes, if present
- Thickness/width of the bond section

#### Wheel Components

Diamond wheels have two primary parts: the metal or plastic hub, for attachment to a grinding spindle, and the bond section with diamonds precisely distributed throughout.

Coarse wheels, designed for high stock removal, have diamonds in the 60-100 grit range, while fine wheels, to produce a polish-ready finish, have diamonds as fine as 15-20 microns.

#### Wheel Shape

Diamond wheels are made in either a cup or peripheral configuration.



The listing of the key dimensions usually follows the DTH convention – Diameter x Thickness x Hole. For example, a wheel has an 150 mm diameter, is 45 mm thick, with a 22 mm arbor hole would be shown as  $150 \times 45 \times 22$  mm. Some prefer to add "ah" to emphasize that the final dimension denotes the arbor hole, e.g.,  $150 \times 45 \times 22$  mm ah. Others may omit the units and just show  $150 \times 45 \times 22$ ah.

#### **Bond Width**

Resin wheels use a standard 15 mm bond width and a narrow-bond 10 mm width. Narrow-bond wheels cut faster but yield shorter life. They are typically used to produce  $\frac{1}{2}$  and other narrow bevels.

#### **Bond Depth**

Standard bond depth for resins is 10 mm, but 15 mm depth bonds are available for longer life.

#### Slots

Resin bonds are available with a solid bond or a bond with slots that go partially across the bond surface. Wheels with slots that start at the inner edge of the bond are referred to as "slotted". Slotted wheels are often used in the final one or two positions to improve the finish quality.

Open Segment: If the slot starts at the outer edge of the bond, the wheel is called Open-Segment.

**Turbo:** Typically there are only 5 or 6 slots. Wheels with more than 6 or 7 slots are called Turbo wheels.

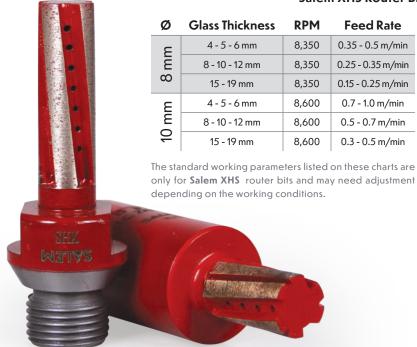
Superior: Wheels that feature a "S" pattern on the cutting band are part of our Superior line. This pattern allows for the wheel to have a different point of contact while rotating, and was specifically designed for the removal of interlayer when processing laminated glass. These wheels also perform very well on monolithic glass.



#### Salem XHS Premium High-Speed Router Bits

This new line of high-speed routers, developed exclusively for Salem Fabrication Supplies, provides unbeatable performance in high production environments. The XHS line is capable of speeds of up to 1 meter/minute and helps improve process times and production capabilities.

#### Salem XHS Router Bits Standard Parameters



Ø	Glass Thickness	RPM	Feed Rate
Ε	4 - 5 - 6 mm	9,300	0.7 - 1.0 m/min
12 mm	8 - 10 - 12 mm	9,300	0.5 - 0.7 m/min
12	15 - 19 mm	9,300	0.3 - 0.5 m/min
Ε	4 - 5 - 6 mm	8,000	0.7 - 1.0 m/min
14 mm	8 - 10 - 12 mm	8,000	0.5 - 0.7 m/min
1	15 - 19 mm	8,000	0.3 - 0.5 m/min
Ε	4 - 5 - 6 mm	7,500	0.7 - 1.0 m/min
15 mm	8 - 10 - 12 mm	7,500	0.5 - 0.7 m/min
15	15 - 19 mm	7,500	0.3 - 0.5 m/min
E	4 - 5 - 6 mm	7,000	0.7 - 1.0 m/min
16 mm	8 - 10 - 12 mm	7,000	0.5 - 0.7 m/min
16	15 - 19 mm	7,000	0.3 - 0.5 m/min
E	4 - 5 - 6 mm	5,600	0.7 - 1.0 m/min
20 mm	8 - 10 - 12 mm	5,600	0.5 - 0.7 m/min
20	15 - 19 mm	5,600	0.3 - 0.5 m/min

#### **Mill Router Bits**

Size	Segments	Item #
10 x 22 mm	4	DR940P
10 x 27 mm	3	DR103P
10 x 27 mm	3	DRG10
10 x 30 mm	3	DRG103XHSDD
14 x 40 mm	4	DR14P
14 x 40 mm	4	DRG14
14 x 45 mm	4	DRG144XHSDD
20 x 40 mm	4	DR20P
20 x 40 mm	6	DRG20
20 x 40 mm	6	DR206P
20 x 45 mm	6	DRG206XHSDD



Additional options available. Contact Salem for more information.

Highlighted items are from our Salem XHS premium line.

### **Trap Router Bits**

Ø	<b>Glass Thickness</b>	Item#
10 mm	6 mm	DR149TRP
14 mm	6 mm	DR141TRP
14 mm	10 mm	DR143TRP
14 mm	12 mm	DR144TRP
14 mm	19 mm	DR145TRP



Additional options available. Contact Salem for more information.



#### **CNC Trap Router Combinations**

Our CNC trap router combinations are for routing, edging and seaming out small notches and holes in glass. Trap routers are primarily used on shower doors for notching and edging hinge cut outs on CNC equipment at high RPM's. To ensure excellent grinding and finishing, RPM rates could vary depending on the thickness of the material.

Ø	Mill Router Length	Segments	<b>Glass Thickness</b>	Item#
12 mm	25	3	10 mm	DR920TRCP
12 mm	25	3	12 mm	DR896TRCP
15 mm	25	4	10 mm	DR814TRCP

Additional options available. Contact Salem for more information.

#### **Forvet**

Our tooling suppliers possess a wealth of experience enabling them to develop innovative solutions for specialized glassworking machinery. In an economy where every dollar counts, you won't find a better value in diamond tooling for your Forvet equipment. Our router bits deliver the highest return for your tooling investment with more speed, more life and more production.



#### Mill Router Bits Forvet

Size	Segments	Item#
12 x 20 mm	3	DRG123
15 x 20 mm	6	DRG156
15 x 27 mm	6	DR15FDD
16 x 20 mm	4	DRG164
16 x 20 mm	4	DR161P
20 x 20 mm	4	DRG204
20 x 20 mm	4	DR204P
20 x 20 mm	6	DRG206



Additional options available. Contact Salem for more information.

**Highlighted items** are from our Salem XHS premium line.

### Trap Router Bits Forvet

Ø	Glass Thickness	Item #
15 mm	6 mm	DR200TRFLP
15 mm	10 mm	DR201TRFLP
15 mm	12 mm	DR212TRFLP
20 mm	10 mm	DR205TRFLP
20 mm	12 mm	DR204TRFLP
25 mm	6 mm	DR208TRFLP



Additional options available. Contact Salem for more information.

#### **Core Drill Bits**

Of all the variables that influence diamond core drill performance, surface speed (RPM) and the condition of the drill bit cutting surface have the greatest effect. Selecting the optimum speed is essential to diamond core drill performance and life. Utilizing the proper drill speed will increase productivity by reducing cycle times, breakage and down time for bit replacement. Drilling at the proper RPM will also extend the life of the core drill by allowing it to wear at the optimal rate. Contact Salem for the manufacturer recommended RPM for your drill.

Salem offers 69, 75 and 95 mm OAL core drills in a wide variety of diameters. Contact us for additional sizes and availability.



### 69, 75 and 95 mm Overall Length

Size (mm | inch)

3.15 mm   1/8"	16 mm	35 mm	64 mm
3.5 mm	17.5 mm   11/16"	36 mm	67 mm
4.7 mm   3/16"	19 mm	36.5 mm	70 mm
5 mm	19.05 mm   3/4"	38 mm	76 mm
6.3 mm	19.5 mm	40 mm	78 mm
6.35 mm   1/4"	20 mm	41.25 mm   1-5/8"	83 mm
7 mm	21 mm	42 mm	85.3 mm
8 mm	22.3 mm - 7/8"	45 mm	89 mm
9 mm	23 mm	46 mm	90 mm
9.5 mm   3/8"	23.8 mm   15/16"	47.5 mm	100 mm
10 mm	25 mm	48 mm	102 mm   4"
11 mm	25.4 mm   1"	50 mm	104 mm
12 mm	26 mm	50.8 mm   2"	108 mm
12.7 mm   1/2"	27 mm	51 mm	114.3 mm   4-1/2"
13 mm	28 mm	54 mm	125 mm
14 mm	28.6 mm   1-1/8"	57 mm   2-1/4"	135 mm
15 mm	30 mm	60 mm	140 mm
15.9 mm   5/8"	30.16 mm   1-3/16"	63.5 mm   2-1/2"	160 mm

 $Contact\, Salem\, for\, additional\, sizes\, and\, availability.$ 

#### **Core Drill Bits - Standard Diameters**

Salem offers top-quality core drill bit options, from Italian manufacturers, in a wide variety of diameters.

Additional options available including 69 mm OAL and other size configurations. Contact Salem for more information.



#### Standard Diameters (75 mm OAL)

Ø	Item#
4.7 mm	DD4.7
6.35 mm	DD6.35
8 mm	DD8
9.5 mm	DD9.5
10 mm	DD10
12.7 mm	DD12.7
14.3 mm	DD14.3
15.9 mm	DD15.9
19.05 mm	DD19.05
22.3 mm	DD22.3
25.4 mm	DD25.4
50 mm	DD50

#### Standard Diameters (95 mm OAL)

Ø	Item#
4.7 mm	DD4.7L
6.35 mm	DD6.35L
8 mm	DD8L
9.5 mm	DD9.5L
10 mm	DD10L
12.7 mm	DD12.7L
14.3 mm	DD14.3L
15.9 mm	DD15.9L
19.05 mm	DD19.05L
22.3 mm	DD22.3L
25.4 mm	DD25.4L
50 mm	DD50L

Additional options available. Contact Salem for more information.





#### **Adapter**

Precision machined core drill adapter allows Belgium Mount core drills to be used with conventional drill press chuck. (3/8" min.) Increases overall length of core drill by approximately 11/8".

......ADAPT-02-3

#### Countersinks

0-35 mm – countersink cone – 90°	
75 mm OAL	DD35V
95 mm OAL	DD35VL
0-60 mm – countersink cone – 90°	
75 mm OAL	DD60V
05 041	DD40\/I



#### **Extension**

Solid brass, precision machined core drill extensions increase the overall length of any Belgium Mount core drill by 20 mm.

.....ADAPT-02-2

### **Diamond Tool Dressing Procedure**

- Soak dressing stick or block in coolant
- 2 Turn off coolant supply to diamond tool
- 3 Turn on diamond tool and allow to reach full-speed
- 4 Turn off diamond tool

Apply dressing stick to coasting diamond tool, or in the case of core drills, lower bit into dressing block with enough pressure to slowly bring to a complete stop





#### Feel the Power of the Storm

The Thunder Cut from Salem Fabrication Supplies is now back by popular demand! As part of our Storm Series of products, our new and improved, premium, highspeed, self-dressing diamond core drills have an increased feed rate of up to 1.8 mm/s and significantly reduced cycle times. The Thunder Cut's specific bond design has achieved 3x-4x the life expectancy of standard drills resulting in reduced maintenance and replacement costs. Our Thunder Cut core drills are available in both 75 mm and 95 mm overall lengths.

# Thunder Cut Premium Self-Dressing Diamond Core Drills

Salem's premium Thunder Cut core drills, back by popular demand, are designed for heavy industrial use on CNC and Forvet™ machinery and are available in both 75 mm and 95 mm overall lengths.

#### **Benefits:**

- Ultra-high feed rate at 1.8 mm/s
- 3x-4x the life of standard core drills
- Self-dressing, no need for dressing during normal operation
- Heavy duty diamond
- Reduced production costs with:
  - Longer life
  - Less maintenance/downtime, fewer changeouts
  - Higher quality and more consistent holes

#### **Usage Instructions:**

- Self-sharpening -no dressing required
- No "break in" operation needed
- Safe to dress if needed to extend life

#### Thunder Cut – Standard Parameters (75 mm OAL)

Ø	RPM	Feed Rate	Item #	
6.35 mm	6,800	1.0 - 1.8 mm/s	DD6.35AW	
9.5 mm	4,600	1.0 - 1.8 mm/s	DD9.5AW	
10 mm	4,400	1.0 - 1.8 mm/s	DD10AW	
11 mm	4,200	1.0 - 1.8 mm/s	DD11AW	
12.7 mm	3,600	1.0 - 1.8 mm/s	DD12.7AW	
14.28 mm	3,200	1.0 - 1.8 mm/s	DD14.28AW	
15.9 mm	2,900	1.0 - 1.8 mm/s	DD15.9AW	
19.05 mm	2,400	1.0 - 1.8 mm/s	DD19.05AW	
22.3 mm	2,100	1.0 - 1.8 mm/s	DD22.3AW	
25.4 mm	1,850	1.0 - 1.8 mm/s	DD25.4AW	

#### Thunder Cut – Standard Parameters (95 mm OAL)

Ø	RPM	Feed Rate	Item #
6.35 mm	6,800	1.0 - 1.8 mm/s	DD6.35AWL
9.5 mm	4,600	1.0 - 1.8 mm/s	DD9.5AWL
10 mm	4,400	1.0 - 1.8 mm/s	DD10AWL
11 mm	4,200	1.0 - 1.8 mm/s	DD11AWL
12.7 mm	3,600	1.0 - 1.8 mm/s	DD12.7AWL
14.28 mm	3,200	1.0 - 1.8 mm/s	DD14.28AWL
15.9 mm	2,900	1.0 - 1.8 mm/s	DD15.9AWL
19.05 mm	2,400	1.0 - 1.8 mm/s	DD19.05AWL
22.3 mm	2,100	1.0 - 1.8 mm/s	DD22.3AWL
25.4 mm	1,850	1.0 - 1.8 mm/s	DD25.4AWL

The standard working parameters listed on this chart is only for **Thunder Cut** core drills and may need adjustment depending on the working conditions.

Higher feeds are possible, but may require an incremental increase of RPM.

#### **Lightning Cut Premium Diamond Core Drills**

The Lightning Cut from Salem Fabrication Supplies is a premium line of high-speed, self-dressing diamond core drills. This line is part of our Storm Series of products and provides very smooth finish quality – even at higher feed-rates than those offered by industry standard core drills.

The Lightning Cut features a stainless steel body for extra durability. And, with fast drill speeds, long life and consistent performance, this easy to use, operator friendly core drill will reduce the production costs of your facility.

Our premium Lightning Cut core drills are available in both 75 mm and 95 mm overall lengths and are designed for rigorous use on CNC and Forvet™ machines.



#### Lightning Cut – Standard Parameters (75 mm OAL)

Ø	RPM	Feed Rate	Item #
6.35 mm	4,300	1.0 - 1.8 mm/s	DD6.35LCP
9.5 mm	2,900	1.0 - 1.8 mm/s	DD9.5LCP
10 mm	2,700	1.0 - 1.8 mm/s	DD10LCP
11 mm	2,500	1.0 - 1.8 mm/s	DD11LCP
12.7 mm	2,200	1.0 - 1.8 mm/s	DD12.7LCP
14.28 mm	2,000	1.0 - 1.8 mm/s	DD14.28LCP
15.9 mm	1,750	1.0 - 1.8 mm/s	DD15.9LCP
19.05 mm	1,450	1.0 - 1.8 mm/s	DD19.05LCP
22.3 mm	1,250	1.0 - 1.8 mm/s	DD22.3LCP
25.4 mm	1,150	1.0 - 1.8 mm/s	DD25.4LCP

Lightning Cut – Standard Parameters (95 mm OAL)

Ø	RPM	Feed Rate	Item #
6.35 mm	4,300	1.0 - 1.8 mm/s	DD6.35LCLP
9.5 mm	2,900	1.0 - 1.8 mm/s	DD9.5LCLP
10 mm	2,700	1.0 - 1.8 mm/s	DD10LCLP
11 mm	2,500	1.0 - 1.8 mm/s	DD11LCLP
12.7 mm	2,200	1.0 - 1.8 mm/s	DD12.7LCLP
14.28 mm	2,000	1.0 - 1.8 mm/s	DD14.28LCLP
15.9 mm	1,750	1.0 - 1.8 mm/s	DD15.9LCLP
19.05 mm	1,450	1.0 - 1.8 mm/s	DD19.05LCLP
22.3 mm	1,250	1.0 - 1.8 mm/s	DD22.3LCLP
25.4 mm	1,150	1.0 - 1.8 mm/s	DD25.4LCLP

The standard working parameters listed on this chart is only for **Lightning Cut** core drills and may need adjustment depending on the working conditions. Higher feeds are possible, but may require an incremental increase of RPM.



# SUGGESTED TOOLING SETUPS

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# REDEFINE PRODUCTIVITY

# Premium Line of Fabrication Machinery from HHH Equipment Resources

Over 100 years of glass processing equipment and supplies knowledge and expertise come together to bring you the KODIAK® line of glass fabrication machinery. This line of high-quality edgers, edger/miterers and bevelers offers exceptional edge quality, competitive production speeds and a proven track design.

Built for continuous operation, the KODIAK® machinery line, along with our robust premium tooling setups, will redefine your standards of productivity.

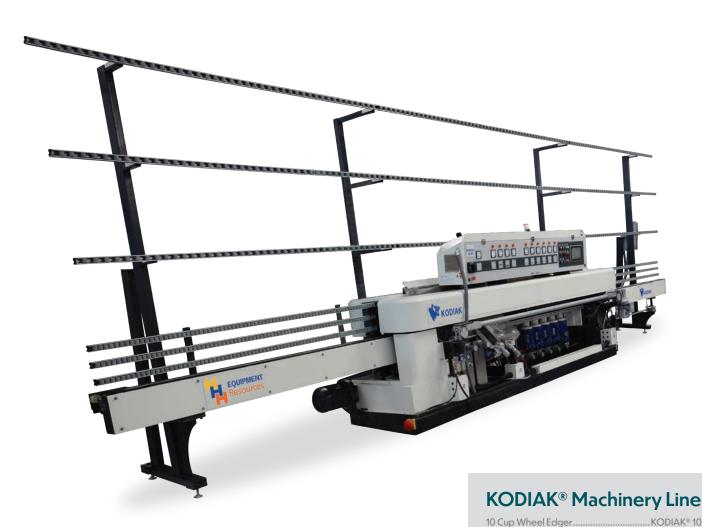
Contact us today to learn more about this exciting line of machinery!

HHH Equipment Resources is a division of Salem Fabrication Technologies Group, Inc.

For a more detailed look at the new KODIAK® machinery line see page 83.

Contact us today for more information.





# w/Auto Flex System.......KODIAK® 10-45 AFS 12 Cup Wheel High-Speed Edger ....KODIAK® 12HS 14 Cup Wheel Edger/Miterer ......KODIAK® 14-45 11 Wheel Beveler.....KODIAK® 371

10 Cup Wheel Edger/Miterer.....KODIAK® 10-45

# **KODIAK®**

### KODIAK® 10 flat

	Description	Premium			
_	Diamond Cup Wheel – Metal (segmented) 150x45x22ah   100/120 grit	DCT1SC	0	•	
7	Diamond Cup Wheel – Metal (segmented) 150x45x22ah   170/200 grit	DCT2SC			Flat
m	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   200 grit	DCT23LFC		•	
4	Diamond Cup Wheel – Metal Arris (continuous)  150x45x22ah   325 grit	DCT1AA		•	
2	Polishing Cup Wheel - Arris 150x50x22ah	W1B6C	0		Arris
9	Diamond Cup Wheel – Metal Arris (continuous)  150x45x22ah   325 grit	DCT1AA			AIIIS
7	Polishing Cup Wheel - Arris 150x50x22ah	W1B6C	0	•	
ω	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   400 grit	DCT24LFC	TO TO	•	
6	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT25LFC			Flat
10	Polishing Cup Wheel – Vero Cerium 150x40x22ah	FC5104	0	•	

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our premium tooling line.}$ 



### KODIAK® 10-45 flat and miter

	Description	Premium			
	Diamond Cup Wheel - Metal (segmented) 150x45x22ah   100/120 grit	DCT1SC		•	
2	Diamond Cup Wheel – Metal (segmented) 150x45x22ah   170/200 grit	DCT2SC			
~	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   200 grit	DCT23LFC			Flat and Miter
4	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   400 grit	DCT24LFC	TO THE REAL PROPERTY OF THE PR		riai and Miller
2	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT25LFC			
9	Polishing Cup Wheel – Vero Cerium 150x40x22ah	FC5104	0	•	
7	Diamond Cup Wheel – Metal Arris (continuous)  150x45x22ah   325 grit	DCT1AA		•	
ω	Polishing Cup Wheel – Arris 150x50x22ah	W1B6C	0		Arris
6	Diamond Cup Wheel – Metal Arris (continuous) 150x45x22ah   325 grit	DCT1AA			Arris
10	Polishing Cup Wheel – Arris 150x50x22ah	W1B6C	0	•	

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our premium tooling line.}$ 



Contact Salem for our suggested tooling setups for our 14 cup wheel edger/miterer – the KODIAK® 14-45, our 12 cup wheel high-speed edger – the KODIAK® 12HS and our 11 wheel beveler – the KODIAK® 371.

# **BOVONE**

# ELB 102 flat

	Description	Standard	Premium			
_	Diamond Cup Wheel - Metal (segmented) 150x45x22ah   100/120 grit	DCT1FSA	DCT1SC	0	•	
2	Diamond Cup Wheel – Metal 150x45x22ah   170/200 grit	DCT2FA DCT2FSA	DCT2SC			
m	Diamond Cup Wheel – Resin 150x45x22ah   400 grit	DCT4FA	DCT24LFC	The state of the s		Flat
4	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC			riai
2	Polishing Wheel NOVAFelt Felt or Cerium	FN6* FN6P* (ready-mount)	WEA60PS WC92CP			
9	Polishing Wheel NOVAFelt Felt or Cerium	FN6* FN6P* (ready-mount)	WEA60PS WC92CP		•	
7	Diamond Cup Wheel – Arris 150x45x22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC		•	
ω	Polishing Cup Wheel – Arris 150x50x22ah	W1B6C	W1B6C	0		Arris
6	Diamond Cup Wheel - Arris 150x45x22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC			AIIIS
10	Polishing Cup Wheel – Arris 150x50x22ah	W1B6C	W1B6C	0	•	

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our premium tooling line.}$ 

<sup>\*</sup>Axion glass polish is recommended for use with felt wheels on Bovone machines.



### ELB 10 flat

	Description	Standard	Premium			
_	Diamond Cup Wheel - Metal (segmented) 150x45x22ah   100/120 grit	DCT1FSA	DCT1SC	0	•	
7	Diamond Cup Wheel – Metal 150x45x22ah   170/200 grit	DCT2FA DCT2FSA	DCT2SC			Flat
m	Diamond Cup Wheel – Resin 150x45x22ah   200 grit	DCT3FA	DCT23LFC		•	
4	Diamond Cup Wheel – Arris 150×45×22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC		•	
2	Polishing Cup Wheel - Arris 150x50x22ah	W1B6C	W1B6C	0		Arris
9	Diamond Cup Wheel – Arris 150x45x22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC			Arris
7	Polishing Cup Wheel – Arris 150x50x22ah	W1B6C	W1B6C	0	•	
ω	Diamond Cup Wheel – Resin 150x45x22ah   400 grit	DCT4FA	DCT24LFC		•	
6	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC			Flat
10	Polishing Wheel NOVAFelt Felt or Vero Cerium	FN71* FN71P* (ready-mount)	FC5104** FC7015** FC7016**	0	•	

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our premium tooling line.}$ 

# **Vero Wheel Sizes**

150x40x22ahFG	25104
175x35x60ahFG	C7015
175x35x70ahFG	C7016



 $<sup>{}^*\!</sup>Axion\,glass\,polish\,is\,recommended\,for\,use\,with\,felt\,wheels\,on\,Bovone\,machines.$ 

<sup>\*\*</sup>See dimensions for Vero cerium wheels below.

# **BOVONE**

# ELB 10/45 flat and miter

	Description	Standard	Premium			
_	Diamond Cup Wheel – Metal (segmented) 150×45×22ah   100/120 grit	DCT1FSA	DCT1SC	0	•	
7	Diamond Cup Wheel – Metal 150×45×22ah   170/200 grit	DCT2FA DCT2FSA	DCT2SC			
m	Diamond Cup Wheel – Resin 150x45x22ah   200 grit	DCT3FA	DCT23LFC			Flat and Miter
4	Diamond Cup Wheel – Resin 150x45x22ah   400 grit	DCT4FA	DCT24LFC			Flat and Mitter
2	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC			
9	Polishing Wheel NOVAFelt Felt or Vero Cerium	FN71* FN71P* (ready-mount)	FC5104** FC7015** FC7016**	0	•	
7	Diamond Cup Wheel - Arris 150×45×22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC		•	
ω	Polishing Cup Wheel – Arris 150x50x22ah	W1B6C	W1B6C	0		Arris
6	Diamond Cup Wheel – Arris 150x45x22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC			WLL12
10	Polishing Cup Wheel - Arris 150x50x22ah	W1B6C	W1B6C	0	•	

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \ \text{are from our premium tooling line}.$ 



 $<sup>^*</sup>$ Axion glass polish is recommended for use with felt wheels on Bovone machines.

 $<sup>\</sup>ensuremath{^{**}\text{See}}$  dimensions for Vero cerium wheels on page 17.

# Bovone ELB 11/45 flat and miter

	Description	Standard	Premium			
_	Diamond Cup Wheel - Metal (segmented) 150x45x22ah   100/120 grit	DCT1FSA	DCT1SC	0	•	
2	Diamond Cup Wheel – Metal 150x45x22ah   170/200 grit	DCT2FA DCT2FSA	DCT2SC			
m	Diamond Cup Wheel – Resin 150x45x22ah   200 grit	DCT3FA	DCT23LFC			
4	Diamond Cup Wheel – Resin 150x45x22ah   400 grit	DCT4FA	DCT24LFC	TO STATE OF THE PARTY OF THE PA		Flat and Miter
2	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC			
9	Polishing Cup Wheel – Vero Cerium	FC5104** FC7016**	FC5104** FC7016**	0		
7	Polishing Cup Wheel – Vero Cerium	FC5104** FC7016**	FC5104** FC7016**	0	•	
ω	Diamond Cup Wheel - Arris 150x45x22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC		•	
6	Polishing Cup Wheel - Arris 150x50x22ah	W1B6C	W1B6C	0		Arris
10	Diamond Cup Wheel – Arris 150x45x22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC			AIIIS
11	Polishing Cup Wheel – Arris 150x50x22ah	W1B6C	W1B6C	0	•	

Additional options available. Contact Salem for more information.



<sup>\*\*</sup>See dimensions for Vero cerium wheels on page 17.

# **BOVONE**

# ELB 12 flat

	Description	Premium	
7	Diamond Cup Wheel – Metal (continuous) 150x45x22ah   80/100 grit	DCT121FC	
2	Diamond Cup Wheel – Metal (continuous) 150x45x22ah   120/140 grit	DCT122FC	
8	Diamond Cup Wheel – Metal (continuous) 150x45x22ah   170/200 grit	DCT123FC	Flat
4	Diamond Cup Wheel – Metal (continuous)  150x45x22ah   230 grit	DCT124FC	Fidi
2	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   400 grit	DC124LFC	
9	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT25LFC	
7	Diamond Cup Wheel – Arris 130x45x22ah   325 grit	DCF2AHDA ELB14-AD	
ω	Polishing Cup Wheel - Arris 150x50x22ah	W1B6C	Arris
6	Diamond Cup Wheel - Arris 130×45×22ah   325 grit	DCF2AHDA ELB14-AD	Ams
10	Polishing Cup Wheel - Arris 150x50x22ah	W1B6C	
11	Polishing Cup Wheel – Vero Cerium 150x40x22ah	FC5104	Flat
12	Polishing Cup Wheel – Vero Cerium 150x40x22ah	FC5104	ridi

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our premium tooling line.}$ 

ELB 14 flat

	Description	Standard	Premium			
_	Diamond Cup Wheel – Metal (segmented) 150×45×22ah   100/120 grit	DCT1FSA	DCT1SC	0	•	
2	Diamond Cup Wheel – Metal	DCT2FA DCT2FSA	DCT2SC	(3)		Elst
m	Diamond Cup Wheel – Resin 150x45x22ah   200 grit	DCT3FA	DCT23LFC			Flat
4	Diamond Cup Wheel – Resin 150x45x22ah   400 grit	DCT4FA	DCT24LFC		•	
2	Diamond Cup Wheel - Arris (continuous) 130×22ah   325 grit	ELB14-AD	ELB14-ADC		•	Arris
9	Diamond Cup Wheel - Arris (continuous) 130x22ah   325 grit	ELB14-AD	ELB14-ADC	(X)	•	Arris
7	Diamond Cup Wheel – Resin 150x45x22ah   400 grit	DCT4FA	DCT24LFC	<b>S</b>	•	Flat
ω	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC		•	Fidi
6	Diamond Cup Wheel – Resin Arris (slotted)  130x45x22ah   600 grit	ELB14-ART*	DCT20AFC	O	•	
10	Diamond Cup Wheel – Resin Arris (slotted) 130x45x22ah   600 grit	ELB14-ART*	DCT20AFC			Avvia
11	Polishing Wheel – Arris NOVAFelt Felt or Vero Cerium	FN5**	FC3050	0		Arris
12	Polishing Wheel – Arris NOVAFelt Felt or Vero Cerium	FN5**	FC3050	0	•	
13	Polishing Wheel NOVAFelt Felt or Vero Cerium	FN6** FN6P** (ready-mount)	FC5104	0	•	E1-4
14	Polishing Wheel NOVAFelt Felt or Vero Cerium	FN6** FN6P** (ready-mount)	FC5104	0		Flat

Additional options available. Contact Salem for more information.

<sup>\*</sup>Wheel pictured in positions 9 and 10.

<sup>\*\*</sup>Axion glass polish is recommended for use with felt wheels on Bovone machines.

# **BOVONE**

# ELB 14/45 flat and miter

	Description	Standard	Premium			
_	Diamond Cup Wheel - Metal (segmented) 150×45×22ah   100/120 grit	DCT1FSA	DCT1SC	0	•	
7	Diamond Cup Wheel – Metal 150×45×22ah   170/200 grit	DCT2FA DCT2FSA	DCT2SC			
m	Diamond Cup Wheel – Resin 150x45x22ah   200 grit	DCT3FA	DCT23LFC			Flore JMTs
4	Diamond Cup Wheel – Resin 150x45x22ah   400 grit	DCT4FA	DCT24LFC			Flat and Miter
2	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC	<b>S</b>		
9	Polishing Wheel NOVAFelt Felt or Vero Cerium	FN71* FN71P* (ready-mount)	FC5104** FC7015** FC7016**	0	•	
7	Diamond Cup Wheel – Metal (continuous) 150x45x22ah   100/120 grit	DCT1FA	DCT1FA		<b>←</b>	Flat
ω	Diamond Cup Wheel – Arris 150x45x22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC		•	
6	Polishing Cup Wheel – Arris 150x50x22ah	W1B6C	W1B6C	0		Auria
10	Diamond Cup Wheel – Arris 150×45×22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC			Arris
11	Polishing Cup Wheel - Arris 150x50x22ah	W1B6C	W1B6C	0	•	
12	Diamond Cup Wheel – Resin 150x45x22ah   200 grit	DCT3FA	DCT23LFC		•	
13	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC		_	Flat
14	Polishing Wheel NOVAFelt Felt or Vero Cerium	FN71* FN71P* (ready-mount)	FC5104** FC7015** FC7016**	0	•	

 $\label{lem:contact} \mbox{Additional options available. Contact Salem for more information.}$ 

<sup>\*</sup>Axion glass polish is recommended for use with felt wheels on Bovone machines.

<sup>\*\*</sup>See dimensions for Vero cerium wheels on page 17.

# ELB 17/45 flat and miter

	Description	Standard	Premium			
_	Diamond Cup Wheel - Metal (segmented) 150x45x22ah   100/120 grit	DCT1FSA	DCT1SC	(3)	•	
7	Diamond Cup Wheel – Metal 150×45×22ah   170/200 grit	DCT2FA DCT2FSA	DCT2SC			
<b>M</b>	Diamond Cup Wheel – Resin 150x45x22ah   200 grit	DCT3FA	DCT23LFC			- Flat and Miter
4	Diamond Cup Wheel – Resin 150x45x22ah   400 grit	DCT4FA	DCT24LFC	TO TO		riai and Miler
2	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC			
9	Polishing Wheel NOVAFelt Felt or Vero Cerium	FN6* FN6P* (ready-mount)	FC5104** FC7015** FC7016**	0	•	
7	Diamond Cup Wheel – Metal (continuous) 150×45×22ah   100/120 grit	DCT1FA	DCT1FA		•	- Flat
ω	Diamond Cup Wheel – Arris 150x45x22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC		•	- Arris
6	Diamond Cup Wheel – Arris 150x45x22ah   270/325 grit	DCT1AA DCT1AWA	DCTAFC		•	Ams
10	Diamond Cup Wheel – Resin 150x45x22ah   200 grit	DC13FA	DCT23LFC		•	- Flat
1	Diamond Cup Wheel – Resin (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC		•	Tidi
12	Diamond Cup Wheel – Resin Arris (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC		•	
13	Diamond Cup Wheel – Resin Arris (slotted) 150x45x22ah   600 grit	DCT5FLA	DCT25LFC			- Arris
14	Polishing Wheel – Arris NOVAFelt Felt or Vero Cerium	FN6* FN6P* (ready-mount)	FC5104	0		Ams
15	Polishing Wheel – Arris NOVAFelt Felt or Vero Cerium	FN6* FN6P* (ready-mount)	FC5104	0	•	
16	Polishing Wheel NOVAFelt Felt or Vero Cerium	FN6* FN6P* (ready-mount)	FC5104** FC7015** FC7016**	0	•	- Flat
17	Polishing Wheel NOVAFelt Felt or Vero Cerium	FN6* FN6P* (ready-mount)	FC5104** FC7015** FC7016**	0	•	riai

Wheels pictured are from our premium tooling line. | \*Axion glass polish is recommended for use on Bovone machines. | \*\*See dimensions for Vero wheels on page 17.

# **BOVONE**

### 200 Series bevel

	Description	Standard	Premium	
1	Diamond Cup Wheel - Metal (continuous) 150x45x22ah	DC1A	DC1DC	
2	Diamond Cup Wheel - Metal (continuous) 150x45x22ah	DC2A	DC2DC	(8)
8	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC3RA	DC3RC	
4	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC5A	DC5HC	
2	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC6A	DC6HC	
9	Diamond Peripheral Wheel (pencil edge)  150x22ah   6 mm groove	DP616A	DP700C	8
7	Polishing Wheel – NOVAFelt Felt 150x25x70ah	FN6* FN6P* (ready-mount)	FN6* FN6P* (ready-mount)	Ó
ω	Polishing Wheel – NOVAFelt Felt 185x25x115ah	FN7* FN7P* (ready-mount)	FN7* FN7P* (ready-mount)	

 $\label{lem:contact} \mbox{Additional options available. Contact Salem for more information.}$ 

Wheels pictured are from our premium tooling line.

\*Axion glass polish is recommended for use with felt wheels on Bovone machines.



### 300 Series bevel

	Description	Standard	Premium	
1	Diamond Cup Wheel – Metal (continuous) 150x45x22ah	DC1A	DC1DC	
2	Diamond Cup Wheel – Metal (continuous) 150x45x22ah	DC2A	DC2DC	(8)
3	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC3RA	DC3RC	
4	Diamond Peripheral Wheel (pencil edge) 150×22ah   6 mm groove	DP616A	DP700C	
2	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC4A	DC4HC	
9	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC5A	DC5HC	
7	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC6A	рс6нс	
ω	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC7A	рс7нс	
6	Polishing Wheel – NOVAFelt Felt 150x25x70ah	FN6* FN6P* (ready-mount)	FN6* FN6P* (ready-mount)	Ó
10	Polishing Wheel – NOVAFelt Felt 150x25x70ah   FN6 185x25x115ah   FN7	FN6* FN6P* (ready-mount) FN7* FN7P* (ready-mount)	FN6* FN6P* (ready-mount) FN7* FN7P* (ready-mount)	
11	Polishing Wheel – NOVAFelt Felt 150x25x70ah	FN6* FN6P* (ready-mount)	FN6* FN6P* (ready-mount)	Ó

Additional options available. Contact Salem for more information.

 $<sup>^*</sup>$ Axion glass polish is recommended for use with felt wheels on Bovone machines.

# **BOVONE**

### 400 Series bevel

	Description	Standard	Premium	
1	Diamond Cup Wheel – Metal (continuous) 150x45x22ah	DC1A	DC1DC	
2	Diamond Cup Wheel – Metal (continuous) 150x45x22ah	DC2A	DC2DC	(8)
3	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC3RA	DC3RC	
4	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC4A	DC4HC	0
2	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC5A	DC5HC	
9	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC6A	DC6HC	
7	Diamond Cup Wheel – Resin (solid) 150x45x22ah	DC7A	рс7нс	
æ	Diamond Peripheral Wheel (pencil edge) 150x22ah   6 mm groove	DP616A	DP700C	8
6	Polishing Wheel – NOVAFelt Felt 150x25x70ah	FN6* FN6P* (ready-mount)	FN6* FN6P* (ready-mount)	Ó
10	Polishing Wheel – NOVAFelt Felt 150x25x70ah	FN6* FN6P* (ready-mount)	FN6* FN6P* (ready-mount)	Ó
11	Polishing Wheel – NOVAFelt Felt 150x25x70ah	FN6* FN6P* (ready-mount)	FN6* FN6P* (ready-mount)	Ó
12	Polishing Wheel – NOVAFelt Felt 150x25x70ah	FN6* FN6P* (ready-mount)	FN6* FN6P* (ready-mount)	Ó

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our premium tooling line.}$ 

 $^*$ Axion glass polish is recommended for use with felt wheels on Bovone machines.

# BAVELLONI / GLASTON

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45   J40   170/200 grit	BM2SC	Walley Control of the
7	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	
m	Polishing Cup Wheel - Arris 150×45   J40	<b>W1B8C</b> I15045105	
4	Polishing Cup Wheel – Arris 150×45   J40	<b>W1B8C</b> I15045105	
2	Polishing Cup Wheel 150×45   J40   9RS60	WS8J6	0
9	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

## 

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45   J40   170/200 grit	BM2SC	The state of the s
2	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	
m	Diamond Cup Wheel Resin Arris (slotted) 150×45   J40   270/325 grit	BRA2FC	
4	Diamond Cup Wheel Resin Arris (slotted) 150×45   J40   270/325 grit	BRA2FC	
2	Polishing Cup Wheel – Arris 150×45   J40	l15045105	
9	Polishing Cup Wheel – Arris 150×45   J40	l15045105	
7	Polishing Cup Wheel 150×45   J40   9RS60	WS8J6	0
ω	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	

Additional options available. Contact Salem for more information.



# BAVELLONI / GLASTON

# 

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150×45   J40   170/200 grit	BM2SC	The state of the s
2	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	
<b>ش</b>	Polishing Cup Wheel 150×45   J40   9RS60	W2816	0
4	Diamond Cup Wheel Resin Arris (slotted) 150×45   J40   270/325 grit	BRA2FC	
2	Diamond Cup Wheel Resin Arris (slotted) 150×45   J40   270/325 grit	BRA2FC	
9	Polishing Cup Wheel – Arris 150×45   J40	l15045105	
7	Polishing Cup Wheel – Arris 150×45   J40	l15045105	0
ω	Polishing Cup Wheel 150x45   J40   9RS60	WS8J6	0
6	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.



	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45   J40   100/120 grit	BM1CSC	A TOWN
2	Diamond Cup Wheel Metal (segmented) 150x45   J40   170/200 grit	BM2SC	
m	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	
4	Diamond Cup Wheel Resin Arris (slotted) 150x45   J40   270/325 grit	BRA2FC	
2	Diamond Cup Wheel Resin Arris (slotted) 150x45   J40   270/325 grit	BRA2FC	
9	Polishing Cup Wheel – Arris 150x45   J40	I15045105	
7	Polishing Cup Wheel - Arris 150x45   J40	l15045105	
ω	Polishing Cup Wheel 150×45   J40   9RS60	WS8J6	0
6	Polishing Cup Wheel 150×45   J40   10S80	W26J8	0
10	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	
Ξ	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	

 $\label{lem:contact} \mbox{Additional options available. Contact Salem for more information.}$ 

# VE 500 V10 / Gemy V10 / Hiyon V10 flat and miter

	Description	Premium	
1	Diamond Cup Wheel Metal (segmented) 150×45   J40   100/120 grit	BM1CSC	The state of the s
2	Diamond Cup Wheel Metal (segmented) 150×45   J40   170/200 grit	BM2SC	The state of the s
3	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	
4	Polishing Cup Wheel 150×45   J40   9RS60	WS8J6	
2	Polishing Cup Wheel 150×45   J40   10S80	WS6J8	0
9	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	
7	Diamond Cup Wheel Resin Arris (slotted) 150×45   J40   270/325 grit	BRA2FC	
æ	Diamond Cup Wheel Resin Arris (slotted) 150×45   J40   270/325 grit	BRA2FC	
6	Polishing Cup Wheel – Arris 150×45   J40	l15045105	
10	Polishing Cup Wheel – Arris 150×45   J40	l15045105	

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

# VE 500 V14 / Gemy V14 / Hiyon V14 flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45   J40   170/200 grit	BM2SC	The state of the s
2	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	
m	Diamond Cup Wheel Metal (segmented) 150x45   J40   100/120 grit	BM1CSC	A COUNTY
4	Diamond Cup Wheel Metal (segmented) 150×45   J40   170/200 grit	BM2SC	The state of the s
2	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	250
9	Polishing Cup Wheel 150×45   J40   9RS60	WS8J6	0
7	Polishing Cup Wheel 150×45   J40   10S80	WS6J8	0
8	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	
6	Diamond Cup Wheel Resin Arris (slotted) 150x45   J40   270/325 grit	BRA2FC	
10	Diamond Cup Wheel Resin Arris (slotted) 150×45   J40   270/325 grit	BRA2FC	
11	Polishing Cup Wheel – Arris 150×45   J40	I15045105	
12	Polishing Cup Wheel – Arris 150×45   J40	I15045105	
13	Polishing Cup Wheel 150×45   J40   9RS60	WS8J6	
14	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	

 $\label{lem:Additional options available. Contact Salem for more information. \\$ 

# BAVELLONI / GLASTON

### B73 / B74 / B75 bevel

	Description	Standard	
_	Diamond Cup Wheel Metal (continuous) 150×45   J40	B50-02-1HS	
7	Diamond Cup Wheel Metal (continuous) 150x45   J40	B50-02-2HS	8
m	Diamond Cup Wheel Resin (slotted – turbo) 150x45   J40	в50-02-4НН	
4	Diamond Cup Wheel Resin (slotted – turbo) 150x45   J40	в50-02-6НН	
2	Diamond Peripheral Wheel (pencil edge) 175x90ah   6 mm groove	DP7525C	
9	Polishing Wheel – HPB Plus Felt 150x40x70ah	FPB64	Ó
7	Polishing Wheel – HPB Plus Felt 150x40x70ah	FPB64	Ó

Additional options available. Contact Salem for more information.

Wheels pictured are from our standard tooling line.



### MAX 50 / MAX 60 / MAX 80 bevel

	Description	Standard	
_	Diamond Cup Wheel Metal (continuous) 150x45   J40	B50-02-1HS	
2	Diamond Cup Wheel Metal (continuous) 150x45   J40	B50-02-2HS	
m	Diamond Cup Wheel Resin (slotted – turbo) 150x45   J40	B50-02-3HH	
4	Diamond Cup Wheel Resin (slotted – turbo) 150x45   J40	в50-02-4НН	
2	Diamond Cup Wheel Resin (slotted – turbo) 150x45   J40	B50-02-5HH	
9	Diamond Cup Wheel Resin (slotted – turbo) 150x45   J40	в50-02-6НН	
7	Diamond Peripheral Wheel (pencil edge) 175×25ah   6 mm groove	DP7159E	
ω	Polishing Wheel – HPB Plus Felt 150x40x70ah	FPB64	
6	Polishing Wheel – HPB Plus Felt 150x40x70ah	FPB64	Ô
10	Polishing Wheel – HPB Plus Felt 150×40×70ah	FPB64	Ó

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \ \text{are from our standard tooling line}.$ 

#### VB 350 CN bevel

	Description	Standard	
_	Diamond Cup Wheel Metal (continuous) 150×45   J40	B50-02-1HS	
7	Diamond Cup Wheel Metal (continuous) 150x45   J40	B50-02-2HS	8
8	Diamond Cup Wheel Resin (slotted – turbo) 150×45   J40	В50-02-3НН	
4	Diamond Cup Wheel Resin (slotted – turbo) 150×45   J40	В50-02-4НН	
2	Polishing Cup Wheel – Arris 100×45   J40	110045105	0
9	Polishing Wheel HPB Plus Felt (w/plate) 150×25×70ah   J40   CW spiral	FPB62P	
7	Polishing Wheel HPB Plus Felt (w/plate) 150x25x70ah   J40   CW spiral	FPB62P	

Additional options available. Contact Salem for more information.

Wheels pictured are from our standard tooling line.

### VB 500 CNS bevel

	Description	Premium	
_	Diamond Cup Wheel Metal (continuous) 150×45   J40	B50-02-1HS	
7	Diamond Cup Wheel Metal (continuous) 150×45   J40	B50-02-2HS	8
8	Diamond Cup Wheel Resin (slotted – turbo) 150×45   J40	В50-02-3НН	The state of the s
4	Diamond Cup Wheel Resin (slotted – turbo) 150×45   J40	В50-02-4НН	The state of the s
2	Diamond Cup Wheel Resin (slotted – turbo) 150x45   J40	В50-02-5НН	The state of the s
9	Diamond Cup Wheel Resin (slotted – turbo) 150x45   J40	В50-02-6НН	The state of the s
7	Polishing Cup Wheel – Arris 100×45   J40	110045105	
8	Polishing Wheel HPB Plus Felt (w/plate) 150×25×70ah   J40   CW spiral	FPB61P	0
6	Polishing Wheel HPB Plus Felt (w/plate) 150x25x70ah   J40   CW spiral	FPB61P	0
10	Polishing Wheel HPB Plus Felt (w/plate) 150x25x70ah   J40   CW spiral	FPB61P	0
11	Diamond Peripheral Wheel (pencil edge) 175x90ah   6 mm groove	DP7525C	
12	Polishing Peripheral Wheel BD Clay 200x15x90ah	WB81	0

Additional options available. Contact Salem for more information.

Wheels pictured are from our standard tooling line.

# **NEPTUN**

### Rock 8 flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150×45   J40   170/200 grit	BM2SC	The state of the s
2	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	200
<b>C</b>	Diamond Cup Wheel Resinmetal Arris (solid) 100×45   J40   270/325 grit	BAVCR1111/ARM	
4	Polishing Cup Wheel – Arris 100×45   J40	I10045105	0
2	Diamond Cup Wheel Resinmetal Arris (solid) 100×45   J40   270/325 grit	BAVCR1111/ARM	
9	Polishing Cup Wheel – Arris 100×45   J40	I10045105	0
7	Polishing Cup Wheel 150×45   J40   9RS60	W2816	
ω	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

# Rock 10-45 flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45   J40   100/120 grit	BM1CSC	The state of the s
7	Diamond Cup Wheel Metal (segmented) 150x45   J40   170/200 grit	BM2SC	The state of the s
m	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	200
4	Polishing Cup Wheel 150×45   J40   9RS60	W2816	0
2	Polishing Cup Wheel 150x45   J40   10S80	WS618	
9	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	
7	Diamond Cup Wheel Resinmetal Arris (solid) 100×45   J40   270/325 grit	BAVCR1111/ARM	
ω	Polishing Cup Wheel – Arris 100×45   J40	110045105	0
6	Diamond Cup Wheel Resinmetal Arris (solid) 100×45   J40   270/325 grit	BAVCR1111/ARM	
10	Polishing Cup Wheel – Arris 100×45   J40	l10045105	

 $\label{lem:contact} \mbox{Additional options available. Contact Salem for more information.}$ 

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our premium tooling line.}$ 



### Rock 11 flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45   J40   100/120 grit	BM1CSC	The state of the s
2	Diamond Cup Wheel Metal (segmented) 150x45   J40   170/200 grit	BM2SC	
m	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	
4	Diamond Cup Wheel Resinmetal Arris (solid) 100x45   J40   270/325 grit	BAVCR1111/ARM	
2	Polishing Cup Wheel – Arris 100×45   J40	I10045105	0
9	Diamond Cup Wheel Resinmetal Arris (solid) 100×45   J40   270/325 grit	BAVCR1111/ARM	
7	Polishing Cup Wheel – Arris 100×45   J40	110045105	0
ω	Polishing Cup Wheel 150×45   J40   9RS60	W2816	0
6	Polishing Cup Wheel 150×45   J40   10S80	W26J8	0
10	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	
11	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

#### Rock 14-45 flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45   J40   170/200 grit	вм25С	The state of the s
7	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	
m	Diamond Cup Wheel Metal (segmented) 150x45   J40   100/120 grit	BM1CSC	A THE REAL PROPERTY OF THE PARTY OF THE PART
4	Diamond Cup Wheel Metal (segmented) 150x45   J40   170/200 grit	вм25С	Control of the second
2	Diamond Cup Wheel Resin (slotted) 150x45   J40   200 grit	BR3LFC	
9	Polishing Cup Wheel 150x45   J40   9RS60	W2816	0
7	Polishing Cup Wheel 150×45   J40   10S80	W2618	0
8	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	
6	Diamond Cup Wheel Resinmetal Arris (solid) 100x45   J40   270/325 grit	BAVCR1111/ARM	
10	Polishing Cup Wheel – Arris 100×45   J40	110045105	0
11	Diamond Cup Wheel Resinmetal Arris (solid) 100x45   J40   270/325 grit	BAVCR1111/ARM	
12	Polishing Cup Wheel – Arris 100x45   J40	110045105	0
13	Polishing Cup Wheel 150×45   J40   9RS60	W2816	0
14	Polishing Cup Wheel – Cerium 150   J40	WEA62PS WC36J4	

Additional options available. Contact Salem for more information.

# **BESANA**

### **R8T** flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x40x25ah   170/200 grit	DCTB2SC	
7	Diamond Cup Wheel Resin (slotted) 150x40x25ah   200 grit	DCTB23LFC	
<b>C</b>	Diamond Cup Wheel Metal Arris (continuous) 125x40x25ah   270/325 grit	BESR15-02-AM	
4	Diamond Cup Wheel Metal Arris (continuous) 125x40x25ah   270/325 grit	BESR15-02-AM	
2	Polishing Cup Wheel – Arris 125x25ah	WB58C WR56C	0
9	Polishing Cup Wheel – Arris 125x25ah	WB58C WR56C	0
7	Polishing Cup Wheel 150x40x25ah   9R60	WR67C	0
ω	Polishing Cup Wheel – Cerium 150x25ah	<b>WEA65PS</b> WC367C	

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

### R9 flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x40x25ah   170/200 grit	DCTB2SC	
7	Diamond Cup Wheel Resin (slotted) 150x40x25ah   200 grit	DCTB23LFC	
m	Diamond Cup Wheel Metal Arris (continuous) 125x40x25ah   270/325 grit	BESR15-02-AM	
4	Diamond Cup Wheel Metal Arris (continuous) 125x40x25ah   270/325 grit	BESR15-02-AM	
2	Polishing Cup Wheel – Arris 125x25ah	WB58C WR56C	0
9	Polishing Cup Wheel – Arris 125x25ah	WB58C WR56C	0
7	Polishing Cup Wheel 150x40x25ah   9R60	WR67C	0
ω	Polishing Cup Wheel 150x40x25ah   9R80	WR671C	0
6	Polishing Cup Wheel – Cerium 150x25ah	WEA65PS WC367C	

 $\label{lem:contact} \mbox{Additional options available. Contact Salem for more information.}$ 



## R11 flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x40x25ah   100/120 grit	DCTB1SC	
2	Diamond Cup Wheel Metal (segmented) 150x40x25ah   170/200 grit	DCTB2SC	
8	Diamond Cup Wheel Resin (slotted) 150x40x25ah   200 grit	DCTB23LFC	
4	Diamond Cup Wheel Metal Arris (continuous) 125×40×25ah   270/325 grit	BESR15-02-AM	
2	Diamond Cup Wheel Metal Arris (continuous) 125x40x25ah   270/325 grit	BESR15-02-AM	
9	Polishing Cup Wheel – Arris 125x25ah	WB58C WR56C	0
7	Polishing Cup Wheel – Arris 125x25ah	WB58C WR56C	0
ω	Polishing Cup Wheel 150x40x25ah   9R60	WR67C	0
6	Polishing Cup Wheel 150x40x25ah   9R80	WR671C	0
10	Polishing Cup Wheel 150x40x25ah   9R80	WR671C	
11	Polishing Cup Wheel – Cerium 150x25ah	WEA65PS WC367C	

 $\label{lem:Additional options} Additional\ options\ available.\ Contact\ Salem\ for\ more\ information.$ 

Wheels pictured are from our premium tooling line.

### R15 flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x40x25ah   100/120 grit	DCTB1SC	
2	Diamond Cup Wheel Metal (segmented) 150x40x25ah   170/200 grit	DCTB2SC	
<b>C</b>	Diamond Cup Wheel Resin (slotted) 150x40x25ah   200 grit	DCTB23LFC	
4	Polishing Cup Wheel 150x40x25ah   9R60	WR67C	0
2	Polishing Cup Wheel 150x40x25ah   9R80	WR671C	0
9	Polishing Cup Wheel 150x40x25ah   9R80	WR671C	0
7	Polishing Cup Wheel – Cerium 150x25ah	<b>WEA65PS</b> WC367C	
ω	Diamond Cup Wheel Metal (segmented) 150x40x25ah   100/120 grit	DCTB1SC	
6	Diamond Cup Wheel Metal (segmented) 150x40x25ah   170/200 grit	DCTB2SC	
10	Diamond Cup Wheel Metal Arris (continuous) 125x40x25ah   270/325 grit	BESR15-02-AM	
11	Diamond Cup Wheel Metal Arris (continuous) 125x40x25ah   270/325 grit	BESR15-02-AM	
12	Polishing Cup Wheel – Arris 125x25ah	WB58C WR56C	0
13	Polishing Cup Wheel – Arris 125x25ah	WB58C WR56C	0
14	Polishing Cup Wheel 150x40x25ah   9R80	WR671C	0
15	Polishing Cup Wheel – Cerium 150x25ah	<b>WEA65PS</b> WC367C	

 $\label{lem:Additional options} Additional\ options\ available.\ Contact\ Salem\ for\ more\ information.$ 

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our premium tooling line.}$ 

## **BOTTERO**

**110** flat

	Description	Premium	
1	Diamond Cup Wheel Metal (segmented) 150x30x50ah   100/120 grit	DCB1SC	
2	Diamond Cup Wheel Metal (segmented) 150x30x50ah   170/200 grit	DCB2SC	
3	Diamond Cup Wheel Resin (slotted) 150x30x50ah   200 grit	DCB230LFC	
4	Diamond Cup Wheel Resin Arris (slotted) 150x30x50ah   270/325 grit	DCBAFC	
2	Polishing Cup Wheel – Arris 150x40x51ah	WR650PHS WRR63PS	
9	Diamond Cup Wheel Resin Arris (slotted) 150x30x50ah   270/325 grit	DCBAFC	
7	Polishing Cup Wheel – Arris 150x40x51ah	WR650PHS WRR63PS	<b>O</b>
ω	Polishing Cup Wheel 150x40x51ah   9RS40	WR652PHS	
6	Polishing Cup Wheel 150x40x51ah   9RS80	WR62PS	
10	Polishing Cup Wheel Status Cerium 150x37.4x50ah	WEA61PS	(0)

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

810 flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x30x50ah   100/120 grit	DCB1SC	
2	Diamond Cup Wheel Metal (segmented) 150x30x50ah   170/200 grit	DCB2SC	
8	Diamond Cup Wheel Resin (slotted) 150x30x50ah   200 grit	DCB230LFC	
4	Polishing Cup Wheel 150×40×51ah   9RS40	WR652PHS	0
2	Polishing Cup Wheel 150x40x51ah   9RS80	WR62PS	
9	Polishing Cup Wheel Status Cerium 150x37.4x50ah	WEA61PS	
7	Diamond Cup Wheel Resin Arris (slotted) 150x30x50ah   270/325 grit	DCBAFC	
ω	Polishing Cup Wheel – Arris 150x40x51ah	WR650PHS WRR63PS	0
6	Diamond Cup Wheel Resin Arris (slotted) 150x30x50ah   270/325 grit	DCBAFC	
10	Polishing Cup Wheel – Arris 150×40×51ah	WR650PHS WRR63PS	

 $\label{lem:contact} \mbox{Additional options available. Contact Salem for more information.}$ 

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \ \text{are from our premium tooling line.}$ 



### 815BC flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x30x50ah   100/120 grit	DCB1SC	
7	Diamond Cup Wheel Metal (segmented) 150x30x50ah   170/200 grit	DCB2SC	
8	Diamond Cup Wheel Resin (slotted) 150x30x50ah   200 grit	DCB230LFC	
4	Polishing Cup Wheel 150x40x51ah   9RS40	WR652PHS	
2	Polishing Cup Wheel 150x40x51ah   9RS80	WR62PS	
9	Polishing Cup Wheel Status Cerium 150x37.4x50ah	WEA61PS	
7	Diamond Cup Wheel Metal (segmented) 150x30x50ah   170/200 grit	DCB2SC	
ω	Diamond Cup Wheel Resin Arris (slotted) 150x30x50ah   270/325 grit	DCBAFC	
6	Polishing Cup Wheel – Arris 150x40x51ah	WR650PHS WRR63PS	0
10	Diamond Cup Wheel Resin Arris (slotted) 150x30x50ah   270/325 grit	DCBAFC	
11	Polishing Cup Wheel – Arris 150x40x51ah	WR650PHS WRR63PS	
12	Polishing Cup Wheel 150x40x51ah   9RS80	WR62PS	
13	Polishing Cup Wheel Status Cerium 150x37.4x50ah	WEA61PS	
14	Polishing Cup Wheel Status Cerium 150x37.4x50ah	WEA61PS	(0)
15	Polishing Cup Wheel Status Cerium 150x37.4x50ah	WEA61PS	

 $\label{lem:contact} \mbox{Additional options available. Contact Salem for more information.}$ 

Wheels pictured are from our premium tooling line.

### Vision 910P bevel

	Description	Standard	
1	Diamond Cup Wheel Metal (continuous) 150x30x50ah	DCB9101C	
2	Diamond Cup Wheel Metal (continuous) 150x30x50ah	DC9102C	
3	Diamond Cup Wheel Resin (solid) 150x34x50ah	DC9103C	
4	Peripheral Wheel (pencil edge) 175x50ah w/ 3 pin holes 200/230 grit   6 mm groove	DP7880P	
2	Diamond Cup Wheel Resin (solid) 150x34x50ah	DCB9104C	
9	Diamond Cup Wheel Resin (solid) 150x34x50ah	DC9105C	
7	Diamond Cup Wheel Resin (solid) 150x34x50ah	DCB9106C	
ဆ	Polishing Wheel NOVAFelt Felt 150x25x70ah	FN6	Ó
6	Polishing Wheel NOVAFelt Felt 150x25x70ah	FN6	Ô
10	Polishing Wheel NOVAFelt Felt 150x25x70ah	FN6	Ó

 $\label{lem:Additional options} Additional options available. Contact \, Salem \, for \, more \, information.$ 

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our standard tooling line.}$ 

## **DEWAY**

## DJ252 flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45x13ah   J40   100/120 grit	DWM1CSC	
7	Diamond Cup Wheel Metal (segmented) 150x45x13ah   J40   170/200 grit	DWM2SC	
m	Diamond Cup Wheel Resin (slotted) 150x45x13ah   J40   200 grit	DWR3LFC	
4	Polishing Cup Wheel 150x44x13ah   J40   9RS60	WS8J6D	0
2	Polishing Cup Wheel - Cerium 150x13ah   J40	WEA66PS WC36J4D	00
9	Diamond Cup Wheel Resin Arris (solid) 130x40x13ah   J40   270/325 grit	DCTDWARFC	0
7	Polishing Cup Wheel – Arris 130×40×13ah   J40	11304013	0
ω	Diamond Cup Wheel Resin Arris (solid) 130x40x13ah   J40   270/325 grit	DCTDWARFC	0
6	Polishing Cup Wheel – Arris 130×40×13ah   J40	11304013	0

Additional options available. Contact Salem for more information.

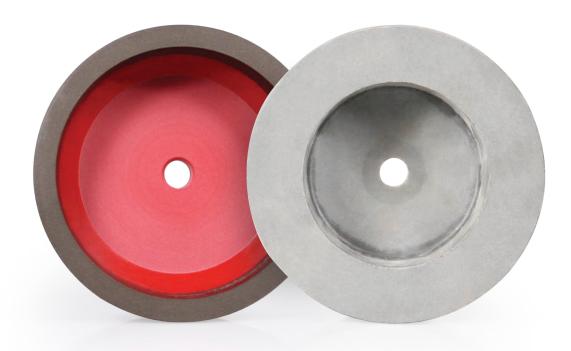
Wheels pictured are from our premium tooling line.

## DJM9L flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45x13ah   J40   100/120 grit	DWM1CSC	
2	Diamond Cup Wheel Metal (segmented) 150x45x13ah   J40   170/200 grit	DWM2SC	
m	Diamond Cup Wheel Resin (slotted) 150x45x13ah   J40   200 grit	DWR3LFC	
4	Polishing Cup Wheel 150x44x13ah   J40   9RS60	WS8J6D	
2	Polishing Cup Wheel – Cerium 150x13ah   J40	WEA66PS WC36J4D	
9	Diamond Cup Wheel Resin Arris (solid) 130x40x13ah   J40   270/325 grit	DCTDWARFC	<b>O</b>
7	Polishing Cup Wheel – Arris 130×40×13ah   J40	11304013	0
ω	Diamond Cup Wheel Resin Arris (solid) 130x40x13ah   J40   270/325 grit	DCTDWARFC	0
6	Polishing Cup Wheel – Arris 130×40×13ah   J40	11304013	0

 $\label{lem:contact} \mbox{Additional options available. Contact Salem for more information.}$ 

Wheels pictured are from our premium tooling line.



## HISENG

### **9441S** flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45x13ah   J40   100/120 grit	DWM1CSC	
7	Diamond Cup Wheel Metal (segmented) 150x45x13ah   J40   170/200 grit	DWM2SC	
8	Diamond Cup Wheel Resin (slotted) 150x45x13ah   J40   200 grit	DWR3LFC	
4	Polishing Cup Wheel 150x30x70ah   10S80	WS69C	0
2	Diamond Cup Wheel Resin Arris (solid) 130x40x13ah   J40   270/325 grit	DCTDWARFC	<b>O</b>
9	Polishing Cup Wheel – Arris 130×40×13ah   J40	11304013	0
7	Diamond Cup Wheel Resin Arris (solid) 130x40x13ah   J40   270/325 grit	DCTDWARFC	<b>O</b>
ω	Polishing Cup Wheel – Arris 130x40x13ah   J40	11304013	0
6	Polishing Cup Wheel – Cerium 150x13ah   J40	WEA66PS WC36J4D	

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

## 9540S flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45x13ah   J40   100/120 grit	DWM1CSC	
2	Diamond Cup Wheel Metal (segmented) 150x45x13ah   J40   170/200 grit	DWM2SC	
~	Diamond Cup Wheel Resin (slotted) 150x45x13ah   J40   200 grit	DWR3LFC	
V	Polishing Cup Wheel 150x30x70ah   10S80	WS69C	0
ĸ	Polishing Cup Wheel – Cerium 150x13ah   J40	WEA66PS WC36J4D	
V	Diamond Cup Wheel Resin Arris (solid) 130x40x13ah   J40   270/325 grit	DCTDWARFC	0
7	Polishing Cup Wheel – Arris 130×40×13ah   J40	11304013	0
α	Diamond Cup Wheel Resin Arris (solid) 130x40x13ah   J40   270/325 grit	DCTDWARFC	
0	Polishing Cup Wheel – Arris 130×40×13ah   J40	11304013	0

 $\label{lem:contact} \mbox{Additional options available. Contact Salem for more information.}$ 

Wheels pictured are from our premium tooling line.

## **SCHIATTI**

## FPS15S9 flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x35x25ah   100/120 grit	DCTS1SC	
7	Diamond Cup Wheel Metal (segmented) 150x35x25ah   170/200 grit	DCTS2SC	
m	Diamond Cup Wheel Resin Arris (solid) 130x35x20ah   270/325 grit	DCSARC	
4	Diamond Cup Wheel Resin Arris (solid) 130x35x20ah   270/325 grit	DCSARC	
2	Polishing Cup Wheel – Arris 125x35x22ah	<b>W1B55C</b> WS55C	0
9	Polishing Cup Wheel – Arris 125x35x22ah	<b>W1B55C</b> WS55C	0
7	Diamond Cup Wheel Resin (slotted) 150x35x25ah   200 grit	DCTS23LFC	
ω	Diamond Cup Wheel Resin (slotted) 150x35x25ah   600 grit	DCTS25LFC	TO STATE OF THE PARTY OF THE PA
6	Polishing Cup Wheel – Cerium 150x22ah	WEA60PS FC5116ES	

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.



### FPS20RS flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x35x25ah   100/120 grit	DCTS1SC	
2	Diamond Cup Wheel Metal (segmented) 150x35x25ah   170/200 grit	DCTS2SC	
m	Diamond Cup Wheel Resin (slotted) 150x35x25ah   200 grit	DCTS23LFC	
4	Diamond Cup Wheel Resin Arris (solid) 130x35x20ah   270/325 grit	DCSARC	
2	Diamond Cup Wheel Resin Arris (solid) 130x35x20ah   270/325 grit	DCSARC	
9	Polishing Cup Wheel – Arris 125x35x22ah	<b>W1B55C</b> WS55C	0
7	Polishing Cup Wheel – Arris 125x35x22ah	<b>W1B55C</b> WS55C	0
ω	Polishing Cup Wheel 150x40x68ah   9R60	WR660C	0
6	Polishing Cup Wheel 150x40x68ah   9R60	WR660C	0
10	Polishing Cup Wheel – Cerium 150x22ah	WEA60PS FC5116ES	

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \text{ are from our premium tooling line.}$ 

## SME10 flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x35x25ah   100/120 grit	DCTS1SC	
7	Diamond Cup Wheel Metal (segmented) 150x35x25ah   170/200 grit	DCTS2SC	
m	Diamond Cup Wheel Resin (slotted) 150x35x25ah   200 grit	DCTS23LFC	
4	Polishing Cup Wheel 150x40x68ah   9R60	WR660C	0
2	Polishing Cup Wheel 150x40x68ah   9R60	WR660C	0
9	Polishing Cup Wheel – Cerium 150x22ah	WEA60PS FC5116ES	
7	Diamond Cup Wheel Resin Arris (solid) 130x35x20ah   270/325 grit	DCSARC	
æ	Diamond Cup Wheel Resin Arris (solid) 130x35x20ah   270/325 grit	DCSARC	
6	Polishing Cup Wheel – Arris 125x35x22ah	<b>W1B55C</b> WS55C	0
10	Polishing Cup Wheel – Arris 125x35x22ah	<b>W1B55C</b> WS55C	0

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

### FPS50 flat

	Description	Premium	
1	Diamond Cup Wheel Metal (segmented) 150x35x25ah   100/120 grit	DCTS1SC	
2	Diamond Cup Wheel Metal (segmented) 150x35x25ah   170/200 grit	DCTS2SC	
3	Diamond Cup Wheel Resin (slotted) 150x35x25ah   200 grit	DCTS23LFC	
4	Diamond Cup Wheel Resin Arris (solid) 130x35x20ah   270/325 grit	DCSARC	
2	Diamond Cup Wheel Resin Arris (solid) 130x35x20ah   270/325 grit	DCSARC	
9	Polishing Cup Wheel – Arris 125x35x22ah	<b>W1B55C</b> WS55C	0
7	Polishing Cup Wheel – Arris 125x35x22ah	<b>W1B55C</b> WS55C	0
ω	Polishing Cup Wheel 150x40x68ah   9R60	WR660C	0
6	Polishing Cup Wheel 150x40x68ah   9R60	WR660C	0
10	Polishing Cup Wheel	WR660C	0
11	Polishing Cup Wheel Cerium Arris 150x22ah	WEA60PS FC5116ES	
12	Polishing Cup Wheel Cerium Arris 150x22ah	WEA60PS FC5116ES	
13	Polishing Cup Wheel – Cerium 150x22ah	WEA60PS FC5116ES	

 $\label{lem:additional} \mbox{ Additional options available. Contact Salem for more information.}$ 

Wheels pictured are from our premium tooling line.

## **LATTUADA**

## TLR 10 AV flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x35x22ah   100/120 grit	DCTL1SC	
7	Diamond Cup Wheel Metal (segmented) 150x35x22ah   170/200 grit	DCTL2SC	
<b>C</b>	Diamond Cup Wheel Resin (slotted) 150x30x22ah   200 grit	DCTL23LFC	200
4	Polishing Cup Wheel 150x30x70ah   10S40	WS65C	0
2	Polishing Cup Wheel 150x30x70ah   10S80	WS69C	0
9	Polishing Cup Wheel – Cerium 150x30	WEA72PS WC362C	
7	Diamond Cup Wheel Resin Arris (slotted) 130x40x8.5ah   230/270	DCTLAFC	
ω	Polishing Cup Wheel – Arris 130x35x50ah	WAR17C	0
6	Diamond Cup Wheel Resin Arris (slotted) 130x40x8.5ah   230/270	DCTLAFC	
10	Polishing Cup Wheel – Arris 130x35x50ah	WAR17C	0

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

## TL 11 flat

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x35x22ah   100/120 grit	DCTL1SC	
7	Diamond Cup Wheel Metal (segmented) 150x35x22ah   170/200 grit	DCTL2SC	
m	Diamond Cup Wheel Resin (slotted) 150x30x22ah   200 grit	DCTL23LFC	200
4	Diamond Cup Wheel Resin Arris (slotted) 130x40x8.5ah   230/270	DCTLAFC	
2	Polishing Cup Wheel – Arris 130x35x50ah	WAR17C	0
9	Diamond Cup Wheel Resin Arris (slotted) 130x40x8.5ah   230/270	DCTLAFC	
7	Polishing Cup Wheel – Arris 130x35x50ah	WAR17C	0
8	Polishing Cup Wheel 150x30x50ah   9RS60	WR650CS	O
6	Polishing Cup Wheel 150x30x50ah   9RS60	WR650CS	O
10	Polishing Cup Wheel 150x30x50ah   10S60	W\$52C	O,
11	Polishing Cup Wheel – Cerium 150x30	WEA72PS WC362C	

Additional options available. Contact Salem for more information.

Wheels pictured are from our premium tooling line.

### TLR 13 AV C flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x35x22ah   100/120 grit	DCTL1SC	
2	Diamond Cup Wheel Metal (segmented) 150x35x22ah   170/200 grit	DCTL2SC	
8	Diamond Cup Wheel Resin (slotted) 150x30x22ah   200 grit	DCTL23LFC	202
4	Diamond Cup Wheel Resin (slotted) 150x30x22ah   400 grit	DCTL24LFC	200
2	Diamond Cup Wheel Resin (slotted) 150x30x22ah   600 grit	DCTL25LFC	200
9	Polishing Cup Wheel 150x30x50ah   10S40	WS51C	
7	Polishing Cup Wheel 150x30x50ah   10S60	WS52C	O,
ω	Polishing Cup Wheel – Cerium 150x30	WEA72PS WC362C	
6	Polishing Cup Wheel – Cerium 150x30	WEA72PS WC362C	
10	Diamond Cup Wheel Resin Arris (slotted) 130x40x8.5ah   230/270	DCTLAFC	
11	Polishing Cup Wheel – Arris 130×35×50ah	WAR17C	0
12	Diamond Cup Wheel Resin Arris (slotted) 130x40x8.5ah   230/270	DCTLAFC	
13	Polishing Cup Wheel – Arris 130x35x50ah	WAR17C	0

 $\label{lem:additional} \mbox{ Additional options available. Contact Salem for more information.}$ 

Wheels pictured are from our premium tooling line.

### Gamma 10 bevel

	Description	Standard	
1	Diamond Cup Wheel Metal (continuous) 150x40x22ah   80/100 grit	DCL1C	
2	Diamond Cup Wheel Metal (continuous) 150x40x22ah   140/170 grit	DCL2C	
8	Diamond Cup Wheel Resin (solid) 150x40x22ah   170 grit	DCL3RC	<b>(</b> )
4	Diamond Cup Wheel Resin (solid) 150x40x22ah   230 grit	DCL4RC	
2	Diamond Cup Wheel Resin (solid) 150x40x22ah   400 grit	DCL5RC	0
9	Diamond Cup Wheel Resin (solid) 150x40x22ah   600 grit	DCL6RC	0
7	Polishing Cup Wheel 100x35x30ah	W2B1C	0
8	Polishing Wheel NOVAFelt Felt 150x25x70ah	FN6	Ó
6	Polishing Wheel NOVAFelt Felt 150x25x70ah	FN6	Ô
10	Polishing Wheel NOVAFeIt FeIt 150x25x70ah	FN6	S

 $\label{lem:Additional options} Additional options available. Contact \, Salem \, for \, more \, information.$ 

Wheels pictured are from our standard tooling line.

## **FUSHAN**

### FJM10-45 flat and miter

	Description	Premium	
_	Diamond Cup Wheel Metal (segmented) 150x45x22ah   100/120 grit	DCT1SC	(3)
2	Diamond Cup Wheel Metal (segmented) 150x45x22ah   170/200 grit	DCT2SC	(3)
3	Diamond Cup Wheel Resin (slotted) 150x45x22ah   200 grit	DCT23LFC	
4	Diamond Cup Wheel Resin (slotted) 150x45x22ah   400 grit	DCT24LFC	ST.
2	Polishing Cup Wheel 150x30x70ah   10S80	WS69C	0
9	Polishing Cup Wheel X5000 Cerium 150x30x70ah	WC5C	0
7	Diamond Cup Wheel Resinmetal Arris (solid) 130x35x22ah   200/230 grit	DCFARC	
ω	Polishing Cup Wheel – Arris 125x35x22ah	W1B55C	0
6	Diamond Cup Wheel Resin/Metal Arris (solid) 130x35x22ah   200/230 grit	DCFARC	
10	Polishing Cup Wheel – Arris 125x35x22ah	W1B55C	0

Additional options available. Contact Salem for more information.

 $\label{lem:wheels pictured} \textbf{Wheels pictured} \ \text{are from our premium tooling line.}$ 

## **ZANETTI**

### Bismatic II bevel

	Description	Standard	
1	Diamond Cup Wheel Metal (continuous)	891-02	
	150x30ah		
	Diamond Cup Wheel		
7	Resin (solid)	892-02	(C)
	150x30ah		
	Diamond Cup Wheel		
7	Resin (speed cut)	892-02-SC	
	150x30ah		
	Diamond Cup Wheel		
	Resin (triple band)	891-02-TBT	ECA.
_	150x30ah		
	Polishing Cup Wheel		
m	Artifex Composition*	WAR61E	(0.00)
	150x30x30/125ah   46 grit		0
	Polishing Cup Wheel		
m	Marrose Composition*	WKT6P	
	150x35x30ah   46 grit		He.

Additional options available. Contact Salem for more information.

Wheels pictured are from our standard tooling line.

\*Composition wheels mounted on disposable hubs.



## **CNC AND MANUAL SHAPE MACHINES**

### **Diamond Peripheral Wheels**

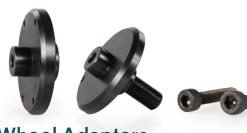
ø	Glass Thickness	Flat Segmented	Trap	Pencil Edge
	3 mm	C DP4233P	C DP585HSP F DP577HSP	M DP404P F DP403P
	4 mm	C DP4233P	M DP4227P F DP4226P	M DP4124P
	5 mm	C DP4233P	C DP4012P M DP4257P F DP4015P	C DP4118P M DP4120P F DP4123P
he	6 mm	C DP4233P	C DP4330P M DP4232P F DP4231P	C DP4290P M DP4291P F DP4292P
100×22ah	8 mm	C DP4310P	C DP4441P M DP4235P F DP4443P	C DP4010P M DP4011P
10	10 mm	C DP4282P	C DP4331P M DP4238P F DP4237P	C DP4283P M DP4107P F DP4108P
	12 mm	C DP4262P	C DP4332P M DP4241P F DP4240P	C DP4342P M DP4961P F DP4341P
	15 mm	C DP4354P	C DP4461P M DP4152P F DP4153P	C DP21P M DP427P F DP4229P
	19 mm	C DP4248P	C DP4333P M DP4247P F DP4246P	C DP419P M DP420P F DP421P
	5 mm	C DP6601P	M DP6050P F DP6051P	C DP6207P M DP6208P F DP6209P
	6 mm	C DP6601P	M DP6060P F DP6061P	C DP6211P M DP6213P F DP6214P
qe	8 mm	C DP6611P	M DP6080P F DP6081P	M DP6168P F DP6269P
150×22ah	10 mm	C DP6090P	M DP6100P F DP6101P	C DP6272P F DP6273P
15	12 mm	C DP6120P	M DP6125P F DP6126P	C DP6274P F DP6275P
	15 mm	C DP6500P	M DP6150P F DP6151P	
	19 mm	C DP6189P	M DP6190P F DP6191P	C DP7044P M DP7045P F DP7046P



## **Diamond Peripheral Wheels**

Peripheral wheels are primarily used for producing pencil and trap shapes, as well as flat edges. Due to the orientation of the diamond wheel to the glass edge, peripheral wheels will wear in a non-uniform manner. With proper maintenance and wheel selection, the severity of this wear can be minimized. Contact Salem to take your production to the next level.

Contact us for additional options and availability.



## Wheel Adapters

22 mm ah wheel adapter	D5121
Screws:	
5 x 25 mm	



Additional options available.

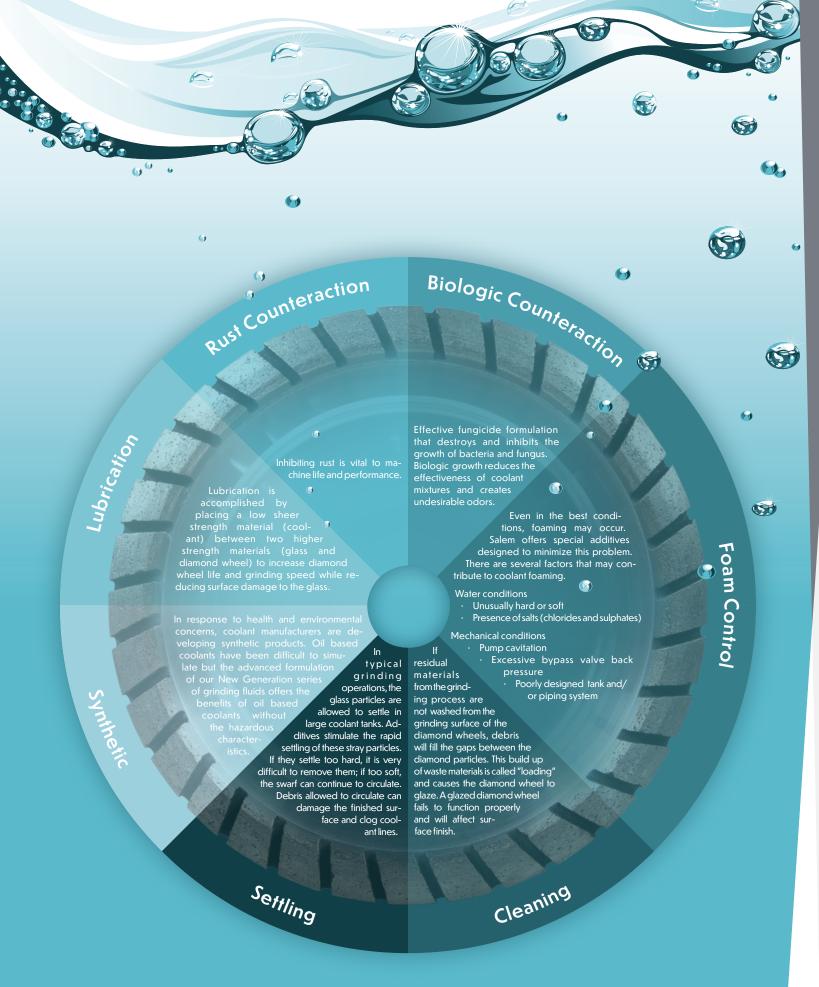
## **COOLANTS**

#### **New Generation Coolants**



## Optimum Concentrations for the Majority of Beveling & Edging Applications







Maintaining strict controls on coolant mixtures is imperative to maximizing any coolant application. Proper coolant concentrations will:

#### **Extend Diamond Tool Life**

### **Optimize Diamond Tool Performance**

#### Reduce Subsurface Damage

#### Protect Machinery (Inhibit Rust)

The recommended coolant concentrations (water to coolant ratio) listed in the catalog are to be used as "starting points". There are many external variables that affect coolant performance (water conditions, temperatures, materials being processed, processing speeds etc.) Due to these variables, the optimum concentration will vary from plant to plant and even from job to job. Defining and maintaining the "target" concentration for a particular application will greatly enhance diamond grinding efficiency.

### The Following Will Aid in Determining Optimum Coolant Concentrations

#### Volume (in gallons) for a Square Tank

L x W x H (inside dimensions*)	=	Volume (in cubic inches)
Volume (in cubic inches) 231	=	<b>Volume</b> (in gallons)



L = Length (in inches)
W = Width (in inches)
H = Height\* (in inches)

\*Height (in inches) should be measured as the depth of the coolant mixture not the overall height of the tank.

#### Volume (in gallons) for a Cylindrical Tank

$\pi \times \mathbb{R}^2 \times \mathbb{H}$ (inside dimensions*)	=	Volume (in cubic inches)
Volume (in cubic inches) 231	=	<b>Volume</b> (in gallons)



π = 3.142

R = Radius (in inches) = diameter (in inches)

H = Height\* (in inches)

\*Height (in inches) should be measured as the depth of the coolant mixture not the overall height of the tank.

#### **Coolant Additives**

No matter how well a coolant works, conditions can arise where it is necessary to add chemicals at the tank.

Biocide - If foul odor develops in cooling water, the addition of a biocide tank-side will kill the odor-causing bacteria. However, the bacteria that cause coolant odor are anaerobic and cannot survive in an oxygen-rich environment. They often breed in the swarf of a cooling-water tank that stands idle for one or more days during production lapses. It is often possible to eliminate coolant odor by running the re-circulation pump at least once a day during down times to aerate the coolant. If that does not suffice, adding a biocide usually cures the problem quickly.

**Defoamer** - Any contaminants to the coolant may cause some form of increased foam or entrained air. Additions of a defoamer will mitigate any negative consequences to coolant contamination, such as oil, cleaners and high levels of suspended solids. Defoamer will help maintain the current coolant performance without having to dump an entire tank when foam or entrained air builds over time.

Flocculant - In glass grinding applications, the presence of glass particles suspended in the coolant reduces the overall grinding efficiency, diamond wheel performance and both diamond wheel and coolant life. Flocculants are chemical compounds used to settle suspended glass particulate, and other solids, to ensure the optimal performance of both the coolant and the diamond wheels.

#### Grotan biocide

A broad spectrum bactericide/fungicide used extensively to prevent microbial contamination in coolant solutions. This fast acting bactericide will extend coolant life by eliminating foul smelling bacteria and fungi. Grotan can be used in individual sumps as well as large central systems.

5 gallon Pail ......M804-P

#### STM720 defoamer

A highly effective, non-silicone tank-side defoamer. It is used in very small quantities and maintains long lasting performance. Treatment recommendations are 4 - 8 oz per 250 gallons. STM720 is fully washable under typical industrial cleaning and rinsing practices and allows for subsequent painting after washing, without defect.

1 gallon jug	.STM720-G
5 gallon pail	STM720-P

#### Ultra Clean flocculant

A flocculant to stimulate rapid yet soft settling of glass particulate suspended in coolant solutions. Maximizes coolant life and retards glass build-up (glazing) on diamond wheels. Reduces coolant line clogging and diamond wheel dressing. Does not require dilution - use at 100%.

5 gallon pail	M916P
55 gallon drum	M916D

### **Synthetic Coolants**

Salem's line of synthetic coolants are mineral and petrochemical free while providing rust protection and lubricity to the grinding wheels. The STM line is compatible with polishing wheels including the industry's premier polishing wheel, the Vero wheel.

#### STM990 synthetic coolant

STM990 is a high performance, synthetic coolant designed to work specifically with flocculant dosing systems - like the ChemWest. The formulation effectively manages the glass swarf by readily combining with an injected flocculant to eliminate diamond wheel glazing, clogged coolant lines and to ensure thorough yet soft settling. The advanced lubricity of STM990 yields optimal grinding performance by promoting high stock removal rates and producing excellent surface finishes. This comprehensively formulated coolant also exhibits low foaming as well as a biocide to minimize odor created by bacterial growth and is stable throughout a broad range of water conditions (hard to soft).

5 gallon pail	STM990-P
55 gallon drum	STM990-D
275 gallon tote	STM990-T

#### STM984 synthetic coolant

STM984 is a synthetic coolant formulated for glass grinding and beveling with the worker and environmental health in mind. The chemistry in STM984 discourages glass fines from building up in lines, on machinery and in tanks. The formulation excels in centrifuges and conventional settling tanks, and aids in bowl evacuation. Special additives impede the glass fines from re-curing, which inhibits hard settling that occurs with other coolants. STM984 resists biologic attack and water spotting, and is an oil rejecting fluid which promotes cleaner coolant and machinery, and an extended coolant life. A tank side administered defoamer is rarely required, so STM984 is the best choice for most grinding applications -including high speed.

5 gallon pailSTM984-P	
55 gallon drum STM984-D	
275 gallon tote STM984-T	

#### STM980 synthetic coolant

STM980 is a Salem exclusive synthetic coolant that features a proprietary lubricant and flocculant formulation to optimize the glass grinding process. It is the perfect choice for settling tanks, centrifuges and filter press systems. The advanced lubricity of STM980 yields optimal grinding performance by promoting high stock removal rates and producing excellent surface finishes. The flocculant package manages the swarf to eliminate diamond wheel glazing, clogged coolant lines and to ensure soft settling. This comprehensively formulated coolant also exhibits low foaming as well as a biocide to minimize odor created by bacterial growth and is stable throughout a broad range of water conditions (hard to soft).

5 gallon pail	.STM980-P
55 gallon drum	STM980-D
275 gallon tote	T_089MT2

## Sahara Dry synthetic coolant

One pound of Sahara Dry Powder converts 100 gallons of tap water into a state-of-the art grinding fluid. Sahara Coolant provides benefits superior to most other synthetic coolants. It provides good lubricity for smooth grinding and longer diamond-wheel life. This coolant does not foam and causes swarf to settle softly for easier and faster tank cleaning.

......

40 lb pail ...... MSDB-F

#### STMSETTLE-19 flocculant

STM SETTLE-19 is a high molecular weight flocculant that is highly effective in the flocculation of many types of total suspended solids (TSS) in liquid coolant systems, including glass, and is ideal for ChemWest particle removal systems. STM SETTLE-19 is concentrated and requires a high dilution of 500:1 (0.2%) before being added to the solids separation system. This flocculant has a very mild pH, which will eliminate the acid-caused corrosion on ferrous metal and aluminum found with the use of many coagulants additives (i.e. Polyaluminum Chloride-PAC).

1 gallon jug ......STMSETTLE19-G

#### STMSETTLE-28 flocculant

STM SETTLE-28 is a blend of organic and inorganic coagulants, that is highly effective in the flocculation of many types of total suspended solids (TSS) in liquid systems, including glass, and is ideal for a variety of solids separators, such as the "CLEAN 20" type systems, as well as industrial centrifuges. STM SETTLE-28 should be added at fullstrength directly into the system prior to the dirty return area. Recommended treatment levels will be 200 to 600ppm, depending on TSS load. This flocculant has a moderate pH, which will not exhibit the aggressive acidcaused corrosion on ferrous metal and aluminum found with the use of many coagulants additives (i.e. Polyaluminum Chloride-PAC).

1 gallon jug	STMSETTLE28-G
5 gallon pail	. STMSETTLE28-P
55 gallon drum	CTMCETTLE38 D



## POLISHING PRODUCTS

Cerium Science & Preparation	5′
Cerium	54
Felt Polishing Wheels	56
Composition Polishing Wheels	58



57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Lanthanide	Cerium	Praseodymium	Neodymium	Promethium	Samarium	Europium	Gadolinium	Terbium	Dysprosium	Holmium	Erbium	Thulium	Ytterbium	Lutetium
138.91	140.12	140.907	144.24	(145)	150.35	151.96	157.25	158.924	162.50	164.930	167.26	168.934	173.04	174.97

58 Ce Cerium 140.12 The abundant metallic elements of atomic numbers 57 through 71 (Lanthanide series) are known as rare earths, so called because they were originally thought to be rare. Cerium oxide (atomic number 58) is the most abundant of the rare earth compounds. Cerium oxide in a water slurry is the best polishing agent for glass in regards to the rate of removal and ultimate surface finish.

## Polishing Theory

Polishing is the act of producing a sufficient degree of surface smoothness so that light, transmitted through or reflected at that surface, is not disturbed by surface irregularities. The polishing mechanism is still poorly understood at the chemical/molecular level. Polishing results in glass removal and does show a dependence on chemical properties of the glass. The nature of the liquid present during polishing is crucial. Active hydroxyl groups, as found especially in water, must be present for the polishing phenomenon to happen.

When a glass material, typically an alkalis silicate, comes in contact with cerium oxide in a water slurry, a complicated series of steps take place; ion exchange, dissolution of glass constituents and possible structural changes. The surface of the glass is chemically modified and it is this softer hydrated layer that is mechanically removed during the polishing process.

## Polishing Performance

#### Selection

Polishing performance is dependent upon the chemical properties of the specific type of glass being polished. Glass materials vary in degree of reactivity to cerium oxide polishing slurries. Manufacturers engineer polishes to be more chemically or mechanically active to optimize polishing performance on a particular glass. For example, BK7 is a relatively hard optical glass (Knoop 520) and reacts readily to the chemical process of polishing. The polish used would be one that was processed to be more chemically reactive. On the other hand, Crown optical glass is not as hard (Knoop 450) but is more chemically durable. In this case, the polish used would be one that had been thermally treated to increase particle hardness to maximize the mechanical characteristics.

See the next page for a detailed instruction process.

# Polishing Performance

### Preparation

Optimum results can only be achieved by careful slurry preparation and maintenance. The following is a proven method that will ensure consistent and dependable cerium oxide polishing – job after job.

- Measure 3/4 of the water required for a charge. Only use water between 90 -95°F. Ordinary tap water can be used, but in some areas and applications optimum results are obtained by using treated water.
- While stirring the water, vigorously sprinkle the cerium oxide compound into the water. To minimize agglomeration of the particles, avoid adding the compound too quickly. This will ensure maximum suspension and complete "wetting".
- Continue to stir the slurry for approximately 5 minutes after all the compound has been added. The stirring time will vary from application to application depending upon the type of cerium oxide compound being used and the target concentration (Baumé).
  - Allow the slurry to set for several hours or overnight to allow for optimum wetting.
  - Before adding the prepared slurry into the machine, re-stir vigorously and add the remaining water to achieve the required Baumé. Verify the Baumé and make adjustments if necessary.
  - Monitor the Baumé every 2 hours during the polishing cycle and make adjustments accordingly.
  - Check the temperature of the slurry regularly. In most applications, optimum results are obtained with slurry temperatures between 86-95°F.
  - Check the pH of the slurry when used over a prolonged period.
     Optimum polishing speeds and finishes are obtained when the pH is between 7.0 and 9.0.

<b>Baumé</b> (°Bé)	Ounces of Cerium per Gallon of Water				
1	1.6				
2	2.4				
3	4.0				
4	5.6				
5	7.2				
6	8.0				
7	9.6				
8	11.2				
9	12.8				
10	14.4				
11	15.2				
12	17.6				

This chart reflects typical relationships. Actual amounts will vary depending upon the specific polish utilized.



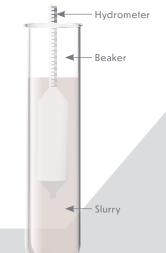
	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
ı	Lanthanide 138.91		Praseodymium 140.907	Neodymium 144.24	Promethium (145)	Samarium 150.35	Europium 151.96	Gadolinium 157.25	Terbium 158.924	Dysprosium 162.50	Holmium 164.930	Erbium 167.26	Thulium 168.934	Ytterbium 173.04	Lutetium 174.97

#### Concentration

When recharging the system always thoroughly clean the slurry tanks.

Maintaining the proper cerium concentration (solids to liquid ratio) is vital to efficient glass polishing. Studies show that companies not systematically monitoring cerium concentrations are using up to 50% too much cerium oxide. Using more cerium than the optimum amount does not increase polishing performance, but only adds to production costs. Too much cerium oxide will cause the polishing pad to load and glaze, dramatically reducing polishing effectiveness. Optimizing the slurry concentration reduces "carry-out," resulting in lower cerium consumption while yielding a cleaner glass surface.

- Determine the target concentration. This will vary depending upon application, type of cerium, etc.
- Schedule routine checks of the slurry throughout a shift and make necessary adjustments to maintain the slurry at the optimum concentration.
- The concentration of cerium oxide in a polishing slurry is normally measured with a float hydrometer, reading in degrees Baumé.
- A sample of slurry is poured into a beaker.
- The hydrometer is then gently lowered into the liquid until it floats freely.
- The point where the surface of the liquid touches the graduated scale of the hydrometer is noted and then accurate adjustments to the slurry can be made.



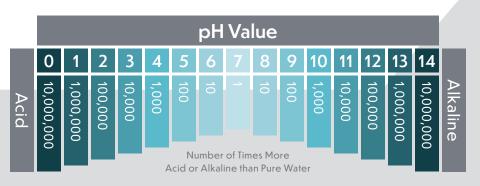
## **Hydrometers**

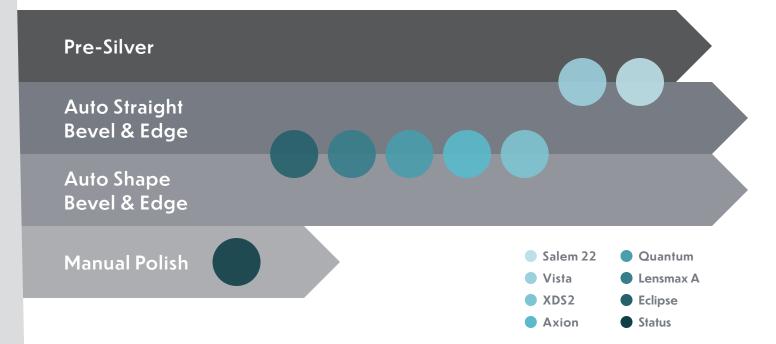
KIT (M307 hydrometer + M313 test tube)MK307						
0-26° Glass Hydrometer (6.5") M3	07					
Plastic Cylinder w/base (14")M3	09					
Glass Test Tube w/cap (8")	313					
KIT (M308 hydrometer + M309 cylinder)MK3	808					
0-25° Glass Hydrometer (12")	808					



pH is a measurement of the hydrogen ion concentration of a solution, or the acidity of the solution. Alkalinity depends upon the concentration of hydroxyl ions and could be expressed in a similar pOH scale. However, since the sum of hydrogen ions and hydroxyl ions is constant in a water solution, two scales are not necessary, and pH values are used to express alkalinity as well as acidity. In order to convey some idea of the degree of acidity relating to various pH values, a solution with a pH of 5.0 is ten times as acidic as a solution with a pH of 6.0; a solution with a pH of 4.0 is ten times as acidic as one with the pH of 5.0. Thus a pH of 4.0 indicates an acidity one hundred times greater than a pH of 6.0. Similar relationships also hold true on the alkaline side of the scale. This relationship is represented by the chart.

- Stock removal rates can be affected by pH. It is important to know the optimum pH and control it.
- Some polishing compounds lose their suspension properties and settle hard when the proper pH is not maintained.
- Some types of glass may be etched when the proper pH level is not maintained.
- Glass by its composition is alkaline. During the polishing cycle, surface residues from the glass leach into the
  polishing slurry, gradually increasing the alkalinity of the polish.
- A too high or too low pH may cause operator discomfort.







## Salem 22

Salem 22 contains an unusually high cerium content for its economical price. It exhibits good stock removal and polishing times at low concentrations. Salem 22 is highly recommended for processes from pre-silvering scrubs to shape bevel polishing. It is compatible with all synthetic and natural polishing wheel materials.

20 kilogram pail (4 - 5 kilogram bags) - 27 pails/pallet.......CS22K20

Average Particle Size	pH Factor	Cerium Oxide %
2.0 µm	7.0	75 ± 5



#### Vista

Vista is a versatile, competitively priced cerium oxide glass polishing compound. This white polishing compound is equally effective in production glass polishing applications as well as glass cleaning in pre-silvering scrubs. Vista's formulation exhibits a free-flowing sheeting action that reduces both carry-out and the necessity for post polish cleaning of glass and equipment.

Average Particle Size	pH Factor	Cerium Oxide %	
1.5 - 3.0 µm	7.5	65 ± 5	



#### XDS2

XDS2 premium glass polish is recommended for edging and beveling in the flat glass and mirror Industry. It is very effective at lower concentrations due to advanced particle treatment and an efficient suspension package. A high percentage of cerium oxide produces aggressive stock removal and a bright polish. XDS2, at the recommended concentrations, is easily cleaned off the glass after processing as well as the machinery.

20 kilogram pail ......XDS2

Average Particle Size	pH Factor	Cerium Oxide %
3.2 µm	7.2	77 - 80



#### Axion

Axion is a high production grade white cerium oxide polishing compound. It features consistent particle hardness and size as well as a highly effective chemical supporting package. It is formulated to effectively polish at lower concentrations, stays in suspension during use, settles slowly and softly when idle, and totally re-suspends within minutes of agitation.

Average Particle Size	pH Factor	Cerium Oxide %	
3.4 µm	7.5	62 ± 3	



#### Quantum

Quantum provides high stock removal at high-speeds with minimal usage. This new polish features a suspension treatment that settles softly and resists the effects of cooling water intrusion. Quantum produces bright finishes at reduced pressures that will also improve the life of the polishing wheels.

20 kilogram box ......CQ1K20

Cerium Oxide %	pH Factor	Cerium Oxide %
2.45 µm	6.2	64



## Lensmax A

Lensmax A is a medium grade tan colored cerium oxide based glass polishing compound. It is formulated to exhibit good suspension and stock removal rates. Compared to other medium grade cerium based polishes, Lensmax A yields lower carry-out with exceptional ease of cleaning.

Average Particle Size	e Particle Size pH Factor	
1.5 µm	7.5	55



## Eclipse

Eclipse is recommended for glass polishing applications in both the flat glass and mirror industry and for the precision optical industry. It provides high removal rates combined with outstanding finish quality for a broad range of applications. The suspension characteristics maintain consistent Baumé levels for recirculating systems.

20 kilogram pail ......CE209

Average Particle Size	pH Factor	Cerium Oxide %
3.4 µm	7.0	60 ± 5



## Status

Status is a premium grade white cerium oxide based glass polishing compound. This high-quality polish is not suspension treated. Its special formulation makes it effective with both brush-on and scratch removal applications. Status yields extremely high stock removal while producing pristine surface finishes.

20 kilogram pail ...... CE410

Average Particle Size	pH Factor	Cerium Oxide %	
2.05 µm	7.0	65 ± 3	



#### **NOVAFelt**

NOVAFelt is the latest development in synthetic polishing wheel technology. The yellow color is not the only thing unique about NOVAFelt. The base construction of this wheel is a polyester fiber that is impregnated utilizing state-of-the-art polymer technology. The uniquely engineered fiber structure sets this wheel apart from all other competitive products. The NOVAFelt fiber architecture yields an open pore structure that will readily accept a cerium charge but resist "loading" and glazing. This allows NOVAFelt to polish more like natural wool but with all the positive characteristics of a synthetic material.

420 25 70   110) (45  :	ENIE
130x25x70ah - NOVAFelt - yellow	FN5
Ready-Mount	FN5P
150x25x70ah - NOVAFelt - yellow	FN6
Ready-Mount	FN6P
150x25x105ah = NOVAFelt = vellow	FN65

150x40x70ah - NOVAFelt - yellow	FN63
170x25x70ah - NOVAFelt - yellow	FN71
Ready-Mount	FN71P
185x25x115ah - NOVAFelt - yellow	FN7
Ready-Mount	FN7P

#### **HP**

The HP is a high performance synthetic, vertically fiber oriented polishing wheel. These wheels feature a high density yet extremely absorbent construction to yield long wear life and an excellent polish. The high absorbency and fiber orientation allow for efficient polishing on all types of automatic polishing equipment.

130×25×70ah – HPV Solid – white	. FHV53
150x25x100ah – HPV Solid – white	.FHV68
190×25×118ah – HPV Solid – white	. FHV75
200x25x90ah - HPV Solid - white	FHV83

Can be made ready-mount upon request.



#### **HPB Plus**

The HP Plus is a synthetic, spiral wound polishing wheel used to increase absorbency and maximize polishing action. Special construction techniques align the fibers into an optimum position to increase absorbency. This fiber orientation facilitates quick and thorough "wetting" to ensure high-performance polishing even with low polish flow rates. The HP Plus is treated with a proprietary polishing enhancer to allow it to polish at lower pressures extending wheel life and minimizing spindle wear.

150x25x70ah - HPB Plus - white	FPB6
Ready-Mount	FPB6P
150x40x70ah - HPB Plus - white	FPB64
Ready-Mount	FPB64P
170x25x70ah – HPB Plus – white	FPB76
Ready Mount	FPB76P
185×25×115ah – HPB Plus – white	FPB7
Ready-Mount	FPB7P
150x25x10.5/70ah – HPB Plus – CCW spiral	FPB62P
150x25x10.5/70ah - HPB Plus - CW spiral	FPB61P



### **Ready-Mount**

Ready-Mount is an ingenious way to eliminate the costly, time consuming and environmentally unfriendly chore of gluing felt polishing wheels to the hub.

Currently, the Ready-Mount System is available for use on Bovone beveling and edging machines. This includes any Salem felt wheel in 150mm, 170mm and 185mm sizes.

The felt wheels are pre-mounted to steel plates that have been specially treated to inhibit rust and to facilitate permanent adhesion. The mounting plates are die stamped producing a perfectly centered pilot hole and 3 bolt holes to ensure quick and accurate mounting. The pre-mounted felt wheels bolt to modified Bovone hubs. The hubs are precision machined to readily accept the pre-mounted wheels.

Kits are available to get started and include the appropriate type of mounting plate and amount of stainless steel bolts to mount the felt wheels. The premounted felt wheels are sold separately.



### **OEM and Ready-Mount Polishing Wheel Hubs**

Machine	Description	OEM Felt Hub Item #	Ready-Mount Hub	Ready-Mount Hub Kit
Beveler 200 Series	#1 Felt – 150 mm	E511327	E511327A	E511327AKR E511327AKF
	#2 Felt – 185 mm	E514018	N/A	N/A
Beveler 300 Series	#1-2-3 Felts – 150 mm (old style)	E504061	E504061A	E504061AK
	#1-2-3 Felts – 150 mm	E504342	E504342A	E504342AK
	#2 Felt – 185mm	E500056	E500056A	E500056AK
Beveler 400 Series	#1-2-3-4 Felts – 150 mm	50001606040	50001606040A	N/A
Edger ELB 10	Flat Edge – 170 mm	E511132	E511132A	E511132AK
Edger ELB 10/45	Flat/Miter – 170 mm	E511132	E511132A	E511132AK
Edger ELB 14	Front & Back Seam – 130 mm	E509498	E594984A	E594984AK
	Flat Edge – 150 mm	E505020	E505020A	E505020AK
Edger ELB 17/45	Flat/Miter – 170 mm	E511132	E511132A	E511132AK
	Front & Back Seam – 150 mm	E511327	E511327A	E511327AKR E511327AKF
	Flat Edge – 150 mm	E505020	E505020A	E505020AK



See our Suggested Tooling Setup section or call our knowledgeable staff for more polishing wheel options.

## Mounting Nuts

Front	E500304A
Back	E500305A



We offer a complete line of high performance value packed composition polishing wheels. With 20 different types, peripheral and cup configurations, mounted and unmounted - there is a wheel to maximize your specific application. Please reference our Suggested Tooling Sheet Section, starting on page 12, for applications.

### **Cup Polishing Wheels**

Cup type composition wheels are manufactured with a metal, plastic, or a composite mounting plate bonded to a ring-shaped composition wheel to form a cup configuration. Cup type composition wheels use their "face" surface to exclusively polish flat surfaces. This configuration maximizes wheel life by exposing the maximum polishing wheel surface area to the glass.



### Cerium Impregnated Cup Wheels

The latest generation of cerium impregnated composition wheels are capable of producing edge finishes comparable to those produced with felt wheels and cerium oxide. The Salem Vero and the Salem Status cerium composition wheels are available in configurations to fit most production edging machines.



#### Salem Vero Wheels

The Salem Vero wheel is the highest quality flat and miter edge polishing wheel on the market. The unique composition of the polishing layer is very durable while achieving a very high quality polish. To produce a higher quality polish would require cerium oxide and felt wheels. Vero wheels excel with fixed spindle configurations with no or very little air pressure and are compatible with straight water or STM Coolants.



#### Salem Status Wheels

The Salem Status wheel excels on edgers using air assisted spindles. These wheels have a porous, non-loading structure that is wear resistant, easy to use and produces nearly optically clear surfaces. Status wheels utilize a very high grade of cerium oxide at a high concentration to achieve these results. Available for many machine and spindle configurations, Status wheels are compatible with straight water and STM Coolants.



#### FinishLine Wheels

The FinishLine cerium impregnated polishing wheel delivers industry-leading polish quality, up to 50% increased lifespan, and unmatched versatility for glass fabricators using automated or stand-alone machinery. Designed with a natural rubber backing, it provides superior durability and performance at both low and high pressures and works seamlessly with a wide range of manufacturers' coolants.

## Peripheral Polishing Wheels

Peripheral wheels utilize their peripheral surface to polish edge profiles. Diamond wheels produce the shape of the edge profile of the glass. The peripheral type composition polishing wheel quickly assumes the diamond generated shape to adequately polish the edge. Polishing wheels can be pre-profiled with a hand held diamond tool to reduce break-in time.



## **Edge Deletion Wheels**

Edge deletion wheels feature a special composition to efficiently remove the Low-E coating from the periphery of glass panels to ensure optimum butyl adhesion. Each element of the composition affects the performance of the wheel.





#### Salem Auto Series Wheels

Salem's new Auto series of Edge Deletion Wheels provides higher removal cutting capacity over the polyurethane bonds and extended longevity above the standard products being used in the industry today. These products are lightweight and require very little pressure to operate efficiently.

## **ABRASIVES**

## **Sanding Belts**

Industrial Cloth Backing

Size

Type

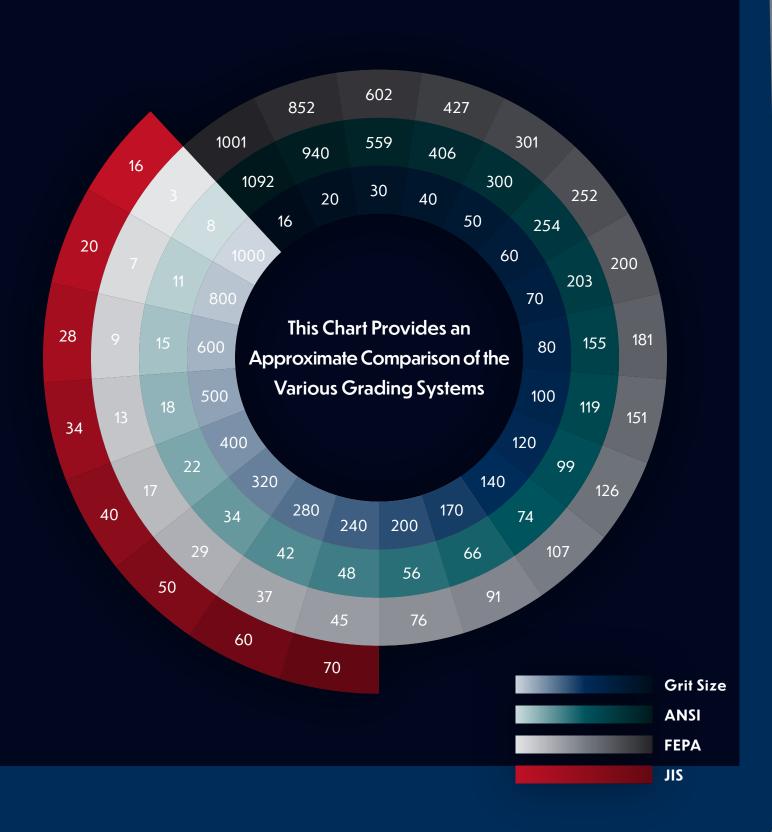
Grit

60 80

## **Sanding Belts & Discs**

Salem's abrasive belts and discs are specifically designed for grinding glass. In all of these grinding applications, our belts and discs improve productivity by increasing

these grinding applications, our belts and discs improve productivity by increasing the number of inches ground per belt or disc. They reduce surface damage and scratch patterns and do not deteriorate as quickly as other products. You not only receive more productivity from the abrasive itself but they also allow you to use your equipment more efficiently. There are fewer belt changes – less down time.  We have listed the most popular industry standard \$181 sizes.					1×30″	100 120 220 400 600		
Sanc		Discs or Hole Grit	es are available u		Discs Grit		11/8 × 21"	60 80 100 120 220 400
	5 × 7/8"	60 80 100 120 220 400 600 CORK	Wet/Dry	5″	60 80 100 120 220 400 600 CORK		3×21"	60 80 100 120 220 400 600
WET/DRY	6 x 3/4"	60 80 100 120 220 400 600 CORK	Wet	,,9	60 80 100 120 220 400 600	Wet/Dry	3×24"	60 80 100 120 220 400 600
WET,	60 80 100 100 × 220 400 600 CORK		4×84"	CORK 60 80 100 120 220 400 600				
	7 × <sup>7</sup> /8"	60 80 100 120 220 400 600 CORK					4×106"	CORK 60 80 100 120 220 400 600 CORK



ANSI	FEPA	JIS
American National	Federation of European	Japanese Industrial
Standards Institute	Producers of Abrasives	Standard

**Grit Size** – the grit size, or particle size, is determined by the approximate number of openings in the final screen used to size the grain. Grit is approximately equal to the number of grains that when laid end to end will equal one inch. On grit numbers, the larger the number, the smaller the particle size.

**Micron Size** – The micron number is an actual measurement of the particle. One micron is equal to one millionth of a meter. On micron numbers, the smaller the number, the smaller the particle size.

## **Dressing Sticks**

#### For metal bond diamond tools

Dressing sticks are vital to efficient diamond tool performance. We offer a complete line of dressing sticks, blocks and pumice stones to optimize the cutting or drilling characteristics of your diamond tooling. We also offer special tools to reshape composition polishing wheels.



## **Dressing Tool**

For dressing and shaping composition polishing wheels

A versatile hand tool used to redress and shape composition polishing wheels.

 $7/16" \times 12"$  – nib style dressing tool ....... 2050-02-N  $6" \times 2" \times 1/4"$  – wheel dressing tool......DT6214D



## **Dressing Blocks**

For metal bond diamond tools

	3/16 × 2 × 8"	150	944-02T
	1/4 × 2 × 8"	150	941-02T
ge Qe	3/8 × 2 × 8"	320	949-021
Aluminum Oxide	9	150	940-021
шn	(1/2 ×	220	960-02T
umir	72.)	400	922-02T
Alı	1/2×8×12" 1/2×1/2×6"	80	81212-02
	3/4 x 3/4 x 2"	220	947-02
	1/2 × 1/2 × 6" 3/4 × 4 × 12" 3/4 × 3/4 × 2"	150	951-02
Silicon Carbide	1/2 × 1/2 × 6"	80	925-02

Type

Size

Grit

Item#

Туре	Size	Grit	Item#
	6×10×1⁄4"	120	61014-02
n Oxide	6 × 10 × <sup>3</sup> /8"	120	61038-02
Aluminum Oxide	6×10×1/2"	120	61012-02
	6 × 10 × 3/4"	120	61034-02

Custom and larger sizes available in different grit sizes.

## **Diamond Tool Dressing Procedure**

- Soak dressing stick or block in coolant
- Turn off coolant supply to diamond tool
- Turn on diamond tool and allow to reach full-speed
- Turn off diamond tool
  - Apply dressing stick to coasting diamond tool, or in the case of core drills, lower bit into dressing block with enough pressure to slowly bring to a complete stop





#### **Pumice Stones**

#### For surfacing resin bond diamond and polishing wheels

Compressed white blocks of pumice used to dress and clean resin bond diamond wheels, composition and felt polishing wheels. The extreme friability of the pumice particles makes them ideal to gently but effectively remove embedded and glazed debris from the grinding or polishing surfaces of wheels.





## Aluminum Oxide

A select group of precision graded fused aluminum oxide abrasive powders. Salem Alpha Aluminas are processed to extremely close tolerances to ensure uniform particle distribution and particle shape. These durable, sharp grains are proven in many industrial applications where superior finish and close dimensional controls are required. Salem Alpha Alumina is recommended for industrial lapping and pressure blasting applications and is the preferred abrasive for recirculating systems like Fratelli Pezza sandblasting machines.

Also available in a bag or drum.

#### **Typical Chemical Analysis**

Aluminum Oxide	95.00%
Silica	0.02%
Iron Oxide	0.05%
Titania	0.04%

#### **Specifications**

Crystal Structure	Blocky
Hardness - Mohs	9.0

em#
F106
F108
F110
F112
F115
F118
F122
F124
F132
F140
F160

#### Salem Carbosil

#### Silicon Carbide

Salem Carbosil is an extremely hard and sharp high quality silicon carbide abrasive. Accurate milling and precise classification system yields a uniform grain shape and produces closely controlled particle size distribution curves. Carbosil fractures readily during use to provide new cutting surfaces resulting in fast stock removal rates on hard materials. Carbosil is recommended for industrial lapping and non-recirculating blasting applications.

Also available in a bag or drum.

#### **Typical Chemical Analysis**

Silicon Carbide	98.00%
Free Silicon	1.00%
Iron Oxide	0.10%
Carbon	0.40%
Free Silica	0.02%

#### **Specifications**

Crystal Structure	Hexagonal
Hardness - Mohs	9.5

Qty	Grit	Item#
	40	AS204
	60	AS206
	80	AS208
	100	AS210
	120	AS212
<u> </u>	150	AS215
Pails	180	AS218
의 (	220	AS222
50	240	AS224
	320	AS232
	400	AS240
	500	AS250
	600	AS260
	1000	AS290

## **GLASS CUTTING**















## **TruCut - Premium Cutting Wheels**

Introducing TruCut, Salem's NEW premium line of glass cutting wheels.

- Unlike mass-produced alternatives, TruCut wheels are meticulously crafted with micro-infused tungsten carbide using CNC robots, ensuring exceptional durability and superior performance.
- TruCut wheels deliver clean breakouts with minimal pressure, reducing scrap and rework.
- TruCut wheels offer a longer lifespan, providing unmatched reliability and cost-effectiveness.

TruCut - 1.4 ID x 1.08 T

Ø	Angle	Item#	Glass Thk
	125°	KS-CW4-125	2 mm
	130°	KS-CW4-130	3 - 5 mm
_	135°	KS-CW4-135	5 - 6 mm
m	140°	KS-CW4-140	5 - 7 mm
4.0 mm	145°	KS-CW4-145	8 mm
4	150°	KS-CW4-150	10 - 12 mm
	155°	KS-CW4-155	12 - 14 mm
	160°	KS-CW4-160	14 mm +
	125°	KS-CW56-125	2 mm
	130°	KS-CW56-130	3 - 5 mm
E	135°	KS-CW56-135	5 - 6 mm
.6 mm	140°	KS-CW56-140	5 - 7 mm
5.0	145°	KS-CW56-145	8 mm
	155°	KS-CW56-155	12 - 14 mm
	160°	KS-CW56-160	14 mm +

TruCut - 1.4 ID x 1.08 T - w/ Microteeth

Ø	Angle	Item#	Glass Thk
	140°	WD-CWM141-140	5 - 7 mm
шш	145°	WD-CWM141-145	8 mm
0 п	155°	WD-CWM141-155	12 - 14 mm
4.	160°	WD-CWM141-160	14 mm +
	165°	WD-CWM141-165	14 mm +
	140°	WD-CWM156-140	5 - 7 mm
mm	145°	WD-CWM156-145	8 mm
6 m	155°	WD-CWM156-155	12 - 14 mm
5.6	160°	WD-CWM156-160	14 mm +
	165°	WD-CWM156-165	14 mm +

Dimensions = Overall  $\emptyset$  x Internal  $\emptyset$  x Thickness (mm)

Wheels sold in packages of 10.

Separate wheel holders and axle pins available.

The glass thickness listed is only the **suggested** thickness of glass that the corresponding wheel should be used on.

TruCut - 5.6 OD x 1.4 ID x 1.08 T - Plastic Holder w/ Tungsten Carbide Wheel, S-Clip & BOS-Clip

















Angle	130°	135°
Color	Yellow	White
Item#	KS-PHTCW-Y130	KS-PHTCW-W135

140°	145°
Red	Black
S-PHTCW-R140	KS-PHTCW

150° Green

155°	
Orange	

160° 1659 Purple Brown -B145 KS-PHTCW-G150 KS-PHTCW-O155 KS-PHTCW-P160 KS-PHTCW-B165

 $Dimensions = Overall \ \emptyset \ x \ Thickness \ (mm) \ | \ Sold \ in \ packages \ of \ 10. \ | \ \textbf{Machines:} \ North Glass, \ Bavelloni, \ Bottero, \ Grenzebach, \ Intermac, \ Maco Tec \ and \ More \ Maco Technologies \ (mm) \ | \ Sold \ in \ packages \ of \ 10. \ | \ \textbf{Machines:} \ North Glass, \ Bavelloni, \ Bottero, \ Grenzebach, \ Intermac, \ Maco Technologies \ (mm) \ | \ Sold \ in \ packages \ of \ 10. \ | \ \textbf{Machines:} \ North Glass, \ Bavelloni, \ Bottero, \ Grenzebach, \ Intermac, \ Maco Technologies \ (mm) \ | \ Sold \ in \ packages \ of \ 10. \ | \ \textbf{Machines:} \ North Glass, \ Bavelloni, \ Bottero, \ Grenzebach, \ Intermac, \ Maco Technologies \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in \ packages \ (mm) \ | \ Sold \ in$ 

## **Approved Cutting Fluids**

Salem's line of cutting fluids are approved by both Guardian and Vitro for use on all of their Low-E coatings.

## STMCUT-14 cutting fluid

1 quart bottle	STMCUT14-Q
1 gallon jug	.STMCUT14-G
5 gallon pail	STMCUT14-P
55 gallon drum	. STMCUT14-D

## STMCUT-8 cutting fluid

STMCUT8-Q
STMCUT8-G
STMCUT8-P
STMCUT8-D

See more about our Approved Cutting Fluids on page 71.



## **GLAZING SUPPLIES**

#### Salem Seal

Salem Seal is a high performance, non-staining 100% silicone sealant designed for interior and exterior glass applications.

- Great adhesion
- Non-sag
- Smooth consistency
- Excellent weather, ozone and chemical resistance
- Long life reliability
- Mildew resistant
- Low temperature flexibility and high temperature performance
- Meets FDA Regulation No. 21 CFR 177.2600, Federal Spec TT-S-00230C, NSF Standard 51, MIL-A-46106A Amend.2 and ASTM C-920

Aluminum	GS929CA
Black	GS929CBL
Clear	GS929CC
White	GS929CW
Clear – anti-mild	ewGS929MRCC
	Nozzle 929-18-NZ

Gray, Bronze and other colors available upon request.
All silicones are sold in case quantities only.



## **Gunther Ultra Bond Mirror Mastic**

A high quality adhesive formulated to provide a strong, permanent bond between electro-copperplated glass mirror and various substrates.

Gunther Ultra Bond Mirror Mastic......GM900C

## Nitty Gritty Gloves

Combining the industry's first wrinkle-finished, natural rubber-coated glove design with a Kevlar® liner, Nitty Gritty gloves are ideal for cut-resistant applications across a wide range of industries.







EN 420:2003 | General requirements for gloves

EN 388:2003 | Protective gloves against mechanical risks

 $Numbers\ identify\ the\ performance\ level\ for\ abrasion,\ blade\ cut,\ tear,\ and\ puncture\ resistance\ respectively$ 

## Impacto<sup>®</sup> Blackmaxx Blade

Offers a cost effective solution to vibration protection while incorporating superior slash protection. 60% Kevlar® and 40% cotton seamless knit material (7 gauge liner) with black chloroprene palm coating. Optimum dexterity and light-weight feel make Blackmaxx gloves ideal for use with sanders, grinders and materials with sharp edges glass and metal.

Medium	 	 GLB0
Large	 	 GLB1
VΙ		GLBS

## **Black Foam Tape**



## **Black Butyl Tape**

25 ft roll - 1/8" x 1/2" ......GTB206B



#### **Green Felt Tabs**

30,000/roll - 5/8" square x 1/16" thick ...... FWT62-30



#### **Cork Tabs**

25,000/roll - 3/4" square x 1/8" thick......FCT3418 11,667/roll - 3/4" square x 1/4" thick..............FCT3414



#### **Fletcher Hand Cutters**

Professional quality, with hardened steel cutting wheel. 120-degree cutting angle for easier scoring of single or double strength glass, built-in break-out notches & tapping ball.

Fletcher #2 Gold Tip Ball End......GC616 Fletcher #1 Gold Tip Straight End......GC615



#### **TOYO Hand Cutter**

TOYO Brass Straight Cutting Head......GC601
Replacement Head......GC602





#### **Razor Blades**

Single edged, individually wrapped and oil free.

100/box.....MR8

## **Diamond Hand Pads**

#### For touch-up work on glass

Perfect for hand lapping your glass surfaces for easy control and quick surface prep. The thick foam backing provides a comfortable ergonomic grip for long term grinding without fatigue.

70	D070-02
120	D120-02
220	D220-02
400	D400-02

### Rapid Rabbit

The Rapid Rabbit is a ruggedly built, versatile portable polisher. This high quality tool was built for years of trouble free operation in the shop or on the job site. The Rapid Rabbit is built from a powerful  $\frac{3}{4}$  hp Milwaukee frame and is equipped with a 7'' all natural felt wheel for polishing with cerium oxide.

Rapid Rabbit ......030-11







#### Status

Status is a premium grade white cerium oxide based glass polishing compound. This high-quality polish is not suspension treated. Its special formulation makes it effective with both brush-on and scratch removal applications. Status yields extremely high stock removal while producing pristine surface finishes.

1 kilogram container.....CE410K



## Scratch Removal Polishing Pad

Felt disc with hook and loop backing.

4" x .375" – 10 mm AH..... FD4VS

#### **Glass Corner Protectors**

This kind of inexpensive protection will pay for itself immediately by dramatically reducing glass breakage during handling, storage and shipping. Corner protectors are available in flexible and rigid styles and in color coded sizes to fit common glass sizes:  $\frac{1}{8}$ " to  $\frac{3}{4}$ ".



1/8" Black - 3300/box - rigid	.118
1/4" Black - 2500/box - rigid	.114



3/8" Royal Blue - 1000/bag - flexible ......220927



1/8" Black - 1000/bag - flexible ....... 204048



1/2" Red - 1000/bag - flexible........... 206338



..207763 3/16" Yellow - 1000/bag - flexible .....







1/4" Clear - 1000/bag - flexible......220926



1" Gray - 1000/bag - flexible ......220092

## Invisible Shield® PRO 15 Nano-Scale Glass Coating

Invisible Shield® PRO 15 nano-scale glass coating represents a major breakthrough in glass coating technology. It is a proprietary formula, ultra-hydrophobic glass coating that was developed after years of research to offer unmatched glass protection, durability and performance.

As a professional-grade, high performance, poly-siloxane, ultra-hydrophobic coating, PRO 15 durably seals and protects interior and exterior glass against wear, corrosion and degradation from environmental exposure. It was designed to be applied "in-line" by glass manufacturers and covalently bonds to flat glass, quickly and efficiently, to preserve and maintain the glass and prevent costly corrosion, degradation and damage.

32 ounce bottleUIS54215
5 gallon jug
54 gallon drumUIS53067

#### **Features and Benefits:**

- Repels Water, Soil, Rust, Acid Rain, Minerals and Pollutants
- Prevents Excess Soiling, Staining & Corrosion
- Prevents Scratches up to 92.9%\*
- Makes Cleaning Faster, Easier and More Efficient
- Improves Glass Appearance and Clarity
- Saves Work, Repairs & Replacements
- \* Eliminates the Need for Chemicals and Abrasives (Green Cleaning Alternative-Use Water Only)
- UV & Abrasion Resistant
- Surfaces: Applicable for all types of glass: Windows, facades, partitions, doors, skylights, atriums, glass block, shower glass, mirrors, windshields and photovoltaic panels.





In partnership with:



<sup>\*</sup>Test data available

## LAMINATING SUPPLIES

## **■ VISTASAFE** TM

#### **EVA Interlayer Film**

**VISTASAFE™** is a series of innovative EVA copolymer-base interlayers developed specifically for the laminated safety glass industry. Made from world class quality EVA resins, **VISTASAFE™** is formulated for ease in processability, excellent optical properties, and long term stability.

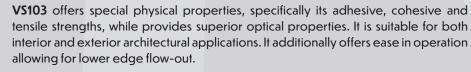


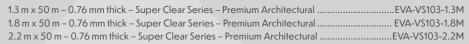
#### VS102 Standard

**VS102** offers good fluidity, which works well with patterned glass and fabric insert application. It additionally offers high clarity, excellent adhesive strength and long term durability suitable for both interior and exterior applications.

1.8 m x 50 m - 0.76 mm thick - Super Clear Series - Standard	EVA-VS102-1.8M
2.2 m x 50 m - 0.76 mm thick - Super Clear Series - Standard	EVA-VS102-2.2M

#### VS103 Premium Architectural





Additional options available upon request. Contact Salem for more information.



#### VS104 – PDLC Lamination

VS104 is engineered for PDLC lamination with good fluidity, excellent adhesive strength and clarity.

Contact Salem for more information.

### VS301 & VS401 - Premium Architectural

The White Series offer winter white (VS301) and sandblast (VS401) visuals, allowing for varying degree of privacy.

Contact Salem for more information.

#### VS601 – Ultra Cool Series

**VS601** has high adhesive strength to glass, which allows for long-term durability through year-long weathering impacts. It has high clarity, high light transmission and good impact resistance properties. It also blocks UV and infrared radiation, providing an excellent choice for Energy-Efficient, Temperature -Controlled Buildings.

Contact Salem for more information.



### **EVA Tape**

High-temperature polyester film tape used to mask off areas that don't require coating.

1" x 72 yrd	PC30-1000
1-1/2" x 72 yrd	PC30-1500
2" x 72 yrd	PC30-2000
3" x 72 yrd	PC30-3000

# WINDOW GLASS PRODUCTS

### **Approved Cutting Fluids**

Salem's line of cutting fluids are approved by both Guardian and Vitro for use on all of their Low-E coatings.

### STMCUT-14 cutting fluid

STM CUT-14 is a fast evaporative cutting fluid for use where very little to no residue is required. It is perfect for continuous cutting lines where the scored glass will be broken out immediately. STM CUT-14 is better suited for thinner window glass applications and Low-E coatings and it is clear in color. Both Guardian and Vitro have approved STM CUT-14 for all of their Low-E coatings.

1 quart bottle	STMCUT14-Q
1 gallon jug	STMCUT14-G
5 gallon pail	STMCUT14-P
55 gallon drum	STMCUT14-D

### STMCUT-8 cutting fluid

STM CUT-8 is an evaporative cutting fluid for use where very little to no residue is desired. It is formulated for use mainly in the window industry where Low-E cuttings are utilized. STM CUT-8 is considered a medium-to-medium-fast evaporative cutting fluid and is clear in color. Both Guardian and Vitro have approved STM CUT-8 for all of their Low-E coatings.

1 quart bottle	STMCUT8-Q
1 gallon jug	STMCUT8-G
5 gallon pail	. STMCUT8-P
55 gallon drum	.STMCUT8-D





### **Edge Deletion Wheels**

Edge deletion wheels feature a special composition to efficiently remove the Low-E coating from the periphery of glass panels to ensure optimum butyl adhesion.

203x11x76.2ah – AR80 auto series WA111P	
203x20x76.2ah – AR80 auto seriesWA113P	
203x10x76.2ah – B80 seriesW8B81	
203x12x76.2ah – B80 seriesW8B82	

Additional options available. Contact Salem for more information.

See more about our Edge Deletion Wheels on page 59.

### **Material Handling**

Full lines of glass transportation and storage solutions from Wood's Powr-Grip $^{\text{\tiny{M}}}$ , Groves Incorporated, Omni Cubed $^{\text{\tiny{@}}}$  and Gorbel $^{\text{\tiny{@}}}$ .

Below we have featured a few of our popular solutions. Contact Salem for more information on all of our material handling offerings –including our Reinforcement Systems and Seamers from Omni Cubed® and our Jib and Overhead Crane Systems from Gorbel®.



### Vacuum Hand Cups

Wood's Powr-Grip™ vacuum hand cups help you safely move glass and other awkward loads, while protecting the material's surface from damage.

8" Flat – ABS (plastic) handle – 125 lb	.GN4000
8" Flat – metal handle – 125 lb	.GN4950
9" Flat – metal handle – 150 lb	.GN5450
10" Concave - metal handle - 175 lb	.GN6450

Ask about our Wood's cup exchange program.



### MRT4 Lifter Series

With three frame configurations,  $90^{\circ}$  tilt and continuous  $360^{\circ}$  rotation, this Wood's Powr-Grip<sup>M</sup> vacuum lifter delivers maximum versatility and range of motion in the shop or at the construction site.

Rotator/Tilter 500 (DC)	MR149D0
Rotator/Tilter 700 (DC)	MRT411LD0
w/ Intelli-Grip™	MRT411LDC



### Harp Rack

This Groves Incorporated harp rack has a gray powder coated finish and uses thick, high density polyethylene on the floor to provide easy sliding of glass and a non-stick surface for insulated glass. It includes 4 non-marking swivel casters, rated at 1000 lbs. capacity each, and 2 front foot locks for stability.

80" W x 48" D ...... HR-4860

### **Dual-Belt Glass Seamers**

Complete your glass tempering and fabrication line with a dual-belt glass seamer from Salem Fabrication Supplies. Expedite the fabrication process by seaming rough glass edges quickly and cleanly before starting the tempering processes. We have options for both wet and dry applications.

4x106 in – wet ...... KS-HHH106W 4x106 in – dry ...... KS-HHH106D

Optional ball caster table available. Contact Salem for more information.

### **Specifications:**

Working Envelope: 26x73x50 in

• Weight: 557 lbs

Working Height: 33-37 in

Belt Size: 4x106 in

Power Supply:

AP 220/440V 1P 50/60Hz

See more about our Dual-Belt Glass Seamers on page 80.





### **Sanding Belts & Discs**

Salem's abrasive belts and discs are specifically designed for grinding glass. In all of these grinding applications, our belts and discs improve productivity by increasing the number of inches ground per belt or disc. They reduce surface damage and scratch patterns and do not deteriorate as quickly as other products. You not only receive more productivity from the abrasive itself but they also allow you to use your equipment more efficiently. There are fewer belt changes – less down time.

We carry a full line of industry standard S181 sizes as well as custom sizes available upon request. See more on page 60.

### Full Insulated Glass Line and Tempering Furnaces

Our **HHH Equipment Resources** machinery division offers a comprehensive line of machinery from manufacturers with a worldwide proven track record of performance and value. Optimize efficiency and functionality with our premium Tempering Furnaces along with our full Insulated Glass Line. Our machinery is specifically designed to reduce downtime, improve quality and upgrade your expectations for productivity.

Our **HHH Equipment Resources** team is driven by our commitment to exceeding customer expectations. When you partner with us, you receive a powerful combination of high-quality equipment and machinery, and unmatched service and support.

Below we have featured select equipment from our insulated glass line. See more about our HHH Equipment Resources division and our full line of machinery starting on page 82.



### **Vertical Washer**

This 3-in-1 washer loads, washes and dries insulated glass. It automatically detects glass thickness and adjusts accordingly. Three pairs of brushes and air-knives work with the high-pressure blower to remove all contaminants for impeccable glass.



### **Desiccant Filling Station**

This filling station offers a fully automated drilling, filling and butyl sealing process. Additionally, the operation panel enables you to adjust height and select from two head types.



### **Butyl Extruder**

Precision temperature control reduces pre-heat and discharge time while also saving on power consumption. Glass is kept clean with circular, coated rollers.

# MATERIAL HANDLING

### Wood's Powr-Grip™ Vacuum Hand Cups

Our Wood's Powr-Grip™ (WPG) vacuum hand cups help you move production materials, hard-to-handle appliances and other awkward loads, while protecting the material's surface from damage. These hand-held WPG cups employ the force of atmospheric pressure to grip a surface. A finger-operated vacuum pump removes the air from between the load and the rubber vacuum pad; atmospheric pressure then holds the vacuum cup in place with incredible force. Whatever the job is, you can work with confidence because WPG's patented red-line indicator shows when a vacuum cup is securely attached to the material and will alert you if the vacuum level decreases.







8" Flat Vacuum Hand Cup – ABS (plastic) handle – 125 lb capacityGN4000	
8" Flat Vacuum Hand Cup – metal handle – 125 lb capacity	
9" Flat Vacuum Hand Cup – metal handle – 150 lb capacity	
10" Concave Vacuum Cup – metal handle – 175 lb capacity GN6450	

Salem Fabrication Supplies offers an **exchange service** to keep cups in top operating condition. Regardless of its condition, a cup may be returned to Salem in exchange for a re-manufactured vacuum cup of the same model at a reduced cost (note that the GN4000 ABS handle would be exchanged for E4950 metal handle). This service relies on a continued source of parts to recondition so a re-manufactured vacuum cup is only available in exchange for another cup. Re-manufactured (exchanged) vacuum cups meet exacting factory specifications and pass the same tests as a new product.

### EXCHANGE PROGRAM:

8" Flat Vacuum Hand Cup – metal handle – 125 lb capacity	E4950
9" Flat Vacuum Hand Cup – metal handle – 150 lb capacity	E5450
10" Concave Vacuum Cup – metal handle – 175 lb capacity	E6450





### **MRT Dolly**

Designed for use with a Wood's Powr-Grip™ model MRT4 or MRTA8 lifter, this option provides an easy way to move the lifter around a job site.

- Lifter and Extension Arm Mounts: Hold equipment in place securely with cotterless hitch pins
- Compact Design: Allows storage of a lifter in tight spaces
- Solid-Core Tires: Hold up to the rigors of regular use and require minimal maintenance – won't go flat!
- Built-In Handles: Make it easier to lift into or out of a vehicle when not in use the fixed axle can be used as a handle, too

MRT Dolly......98790



California Residents:



WARNING Cancer and/or Reproductive Harm – www.p65Warnings.ca.gov

### Intelli-Grip™

Employing state-of-the-art technology, Intelli-Grip™, by Wood's Powr-Grip™, automatically monitors vacuum and power systems to:

- 1. Maximize productivity
- 2. Help reduce human error
- 3. Simplify maintenance and repairs
- 4. Protect employees and property from harm
- Automatic self-testing ensures lifter is ready for use, every lift.
- Color display provides critically relevant information at a glance.
- · Anticipates threats and alerts operator beforehand with clearly visible and audible warnings.
- Smart power management enables lifter to work longer on a single charge.
- Continuously monitors battery and prevents lifter from attaching to loads if energy is hazardously low.
- Multiple alarm levels plainly identify the severity of hazards.







This lifter's Dual Vacuum System features two completely independent vacuum circuits, allowing the vacuum lifter to maintain the vacuum level for one circuit even if an unexpected vacuum loss occurs in the other one.

Quadra-Tilt™ Rotator 1400 (DC) w/ Intelli-Grip™ ...... MRTA811LDC3

### Quadra-Tilt™ Rotator 1400 (DC)

In addition to Intelli-Grip™ technology and Wood's Powr-Grip™ innovative Quadra-Tilt™ linkage, this DC-powered vacuum lifter features a dual vacuum system and power loss warning buzzer for added safety, a high-flow vacuum pump and blow-off for greater productivity, and reduced power consumption for extended time on the job site.

The Quadra-Tilt™ vacuum lifters feature an innovative fourbar tilt mechanism that significantly reduces the effort of tilting heavy loads between flat and upright positions. The MRTA811LDC3 vacuum lifter also features Powr-Grip's dual vacuum system, 360° manual rotation, (re)movable vacuum pads and extension arms that accommodate a variety of load sizes and shapes.



### Low-Profile Manual Rotator/Tilter 1100 (DC)

Along with DC power, a dual vacuum system and Intelli-Grip™ technology, this Powr-Grip™ rotator/tilter features a highly adaptable pad frame and a remarkably low profile, for maximum flexibility in handling loads between buildings and scaffolding or similar tight work locations.

Low Profile Manual Rotator/Tilter ... MRTAI P811I DC3 1100 (DC) w/Intelli-Grip™......







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California Residents:



WARNING Cancer and/or Reproductive Harm – www.p65Warnings.ca.gov

### **MRT4** Lifter Series

With three frame configurations, 90° tilt and continuous 360° rotation, this Wood's Powr-Grip™ vacuum lifter delivers maximum versatility and range of motion in the shop or at the construction site.

Dual vacuum models are now available with Intelli-Grip™ technology, automatically monitoring vacuum and power systems to maximize safety and efficiency while simplifying maintenance and repairs.

Rotator/Tilter 500 (DC)		MRT49D0
Rotator/Tilter 700 (DC)		MRT411LD0
Rotator/Tilter 700 (DC)	w/Intelli-Grip™	MRT411I DC











### P1 Lifter Series

In addition to a modular design, this Wood's Powr-Grip  $^{\text{M}}$  vacuum lifter provides 180° rotation and 90° tilt, for expandability and a full range of load motion at the installation site or on the shop floor.

Channel Lifters are comprised of one or more Pad Channels and interchangeable Lift Frames for manually rotating and tilting materials. These vacuum lifters may be ordered as complete units or as individual components to expand existing Channel Lifter systems. Lift Frames are available in single-channel or double-channel styles. Pad Channels can be switched from one frame to another in minutes.

Dual vacuum models are now available with Intelli- $Grip^{\mathsf{m}}$  technology, automatically monitoring vacuum and power systems to maximize safety and efficiency while simplifying maintenance and repairs.

Channel Lifter 700 (DC)	P11104DC
Channel Lifter 700 (DC) w/Intelli-Grin™	P11104DC3

### Low-Profile Manual Rotator/ Tilter 1100 (DC) w/ Pad Channel

With a dual vacuum system, 1100 lbs (500 kg) load capacity, removable pad frame extensions and a remarkably low profile, this Wood's Powr-Grip™ rotator/tilter provides maximum versatility and ease of use in tight work locations.

This lifter is now available with Intelli-Grip™ Technology, automatically monitoring vacuum and power systems to maximize safety and efficiency while simplifying maintenance and repairs. Its Dual Vacuum System features two independent air-line circuits to reduce risk of workplace accidents.

Low-Profile Manual Rotator/Tilter
1100 (DC) w/ Pad Channel and Intelli-Grip™................. MRTALPCH611LDC3





WARNING Cancer and/or Reproductive Harm – www.p65Warnings.ca.gov

# Manual Rotator/Power Tilter (AC)

Equipped with powered 90° tilt and continuous 360° manual rotation, this Wood's Powr-Grip™ rotator/power tilter features 1000 lbs load capacity and blow-off for quick release (approx. 3 sec.), and can perform 60 tilts per hour (approx. 9 sec. for a 90° tilt).

The MRPT89AC vacuum lifter is shown with optional telescoping pad arms, vacuum loss warning buzzer and individual pad shutoffs.

Manual Rotator/Power Tilter 1000 (AC) ...... MRPT89AC





Gorbel® has over 30 years experience providing overhead handling solutions to customers in a wide range of industries. We have a comprehensive line of Crane Technology products, including work station bridge cranes, patented track cranes, I-beam jib cranes, gantries, and work station jib cranes. We also have an exciting line of Ergonomic Lifting products, featuring our G-Force® Intelligent Lifting Device, our Easy Arm® Intelligent Lifting Arm, and our G-Jib®. Finally, our Tether Track™ Fall Arrest Safety Systems provide a turn-key fall protection solution that exceeds OSHA safety standards.

Salem represents the complete line of Gorbel® crane systems.

### **Work Station Bridge Cranes**

Free Standing Ceiling Mounted Enclosed Track Monorail



### **Cleveland Tramrail Cranes**

Free Standing Tarca® Systems
Ceiling Mounted Tarca® Systems
Cleveland Tramrail® Underhung Systems
Cleveland Tramrail® Monorails



### **I-Beam Jib Cranes**

Free Standing Mast Type



### **Enclosed Track Jib Cranes**

Free Standing



### **Articulated Jib Cranes**

Free Standing Ceiling Mounted Free Standing PIVOT PRO



### **Gantry Cranes**

Fixed Height Adjustable Height Aluminum



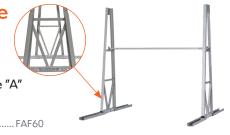


### Foldable A-Frame

- Heavy duty powder coated finish
- Ledge Length 20.5"
- 6" spread on top of the "A"

24,000 lb capacity

60"Lx60"Wx58"H.



### Six Wheeled **Fabrication Cart**

- Heavy duty rubber is mounted on the base and the uprights to help prevent slipping and damage to the material
- Ratchet straps are provided to secure material to the cart
- Heavy duty powder coated finish



3,200	lb	capacity	
-------	----	----------	--

48" L x 28'	" W x 47" H	FC-48
82" L x 28'	" W x 73" H	FC-82

### **Heavy Duty Transport Rack**

- Four hold down ratchet straps secure load
- Four adjustable safety posts provide for safe removal of unstrapped loads that may shift unexpectedly
- Safety posts are stored at the end of the A-Frame during transport

10,000 lb capacity	
96" L x 48" W x 88" H	TR-10
Optional caster kit	CK-8000

### Multi-Purpose Glass Storage System

- Store loose lites, insulated glass, tempered glass, plastic sheets, shower doors and more - the center rail with easy slide must be used to support the glass when sliding individual pieces in and out of the racks
- Optional Easy Slide, a low friction material, is mounted to the rails and posts for ease of sliding products in and out
- Outside rails have 2" square holes spaced 4" apart on the top and a steel plate with identical holes is welded and boxed inside the rails, 1" up from the bottom
- 2" square tube posts

OPENIN	<b>IGS</b>	PART#
5 ft	4	4PAK
10ft	9	9PAK
20ft	19	19PAK
50ft	. 49	49PAK
5 ft	4	4PAKES
10ft	9	9PAKES
20ft	19	19PAKES
50ft	. 49	49PAKES



### Glass Cutting Table

- Plywood will be mounted to the top and bottom shelf
- Two rigid and two swivel brake 5" casters
- Gray powder coat finish
- Shelf height is 16" from the floor

84" L x 48" W x 36" H......GCT-4884



### **Transport Rack**

- Designed for transporting and storing product in your shop or on the job
- Fork lift hoops mounted on sides
- Bottom pads and uprights have full length rubber strips
- Quick release mounting pins change the Transport Rack from mobile to stationary in less than a minute with the optional CK-4 Caster Kit
- Hot dip galvanized finish

- Hoi dip gaivanized iinish	
<b>4,000 lb capacity</b> 82" L × 44" W × 58" HTR-4482 96" L × 44" W × 70" HTR-4496	
Optional Caster KitCK-4	

\*Shown with optional caster kit CK-4

and a stan

### **Economy Transport Rack**

- Fork lift hoops mounted on sides
- Includes hold down straps to secure material to cart
- Bottom pads and uprights have full length rubber strips
- Heavy duty powder coated finish

3,600 lb capacity	€		-
84" L x 36" W x 57" H ETC-8448	A V A	A V A	II V
84" L x 35" W x 67" H ETC-8460			
	R/R	NAN	# /
	IV II	IV VII	$M\Lambda$
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e e	7		110



### **Heavy Duty Shop Cart**

- The HDSC48 uses 5" casters, two rigid and two swivel with brake, rated at 1,000 lbs. each
- Ratchet straps are included to secure load
- Pull handle mounted on one end for maneuverability
- Heavy duty powder coated finish for long lasting durability

4,000 lb capacity	
54" L x 38" W x 48" H	HDSC48
84" L x 40" W x 48" H	. HDSC8448
84" L x 40" W x 72" H	HDSC8472



### Single Sided Shop Cart

- 36" load height
- 7" ledge depth
- 10" diameter semi-pneumatic tires and 5" diameter swivel locking casters
- Neoprene rubber on uprights and base
- Heavy duty powder coated finish

2,000 lb capacity	
40" L x 24" W x 45" HSSSC	-4036
40" L x 24" W x 41" H	BB-40

### **Fabrication Table**

- Rubber is mounted to the top of the table to protect material during fabrication
- Two built-in end clamps hold the tables together
- Four heavy duty 5" diameter swivel casters
- Four foot operated locks hold the table in place
- Heavy duty powder coated finish for long lasting durability

**600 lb capacity** 60" L x 25" W x 42" H ......DT2560





### **Tilt Table Cart**

- Four swivel 5" diameter casters
- Four heavy duty foot operated locks prevent movement while fabricating
- Heavy duty powder coated finish

600 lb capacity

72" L x 32" W x 36" - 42" adj. height....... TT3272

### Harp Rack

- Uses thick High Density Polyethylene on the floor for easy sliding of glass and provides a non-stick surface for insulated glass
- Includes 4 non-marking swivel casters rated at 1000 lbs. capacity each
- Two foot locks mounted in front for stability
- Gray powder coated finish

80" W x 48" D ......HR-4860



### **Fork Lift Boom**

- Boom is designed for use on forklift trucks
- When fully extended, the boom has a reach of 98"

62"L x 22"W x 15"H when retracted & 102"L x 22"W x 18"H when extended ...... FLB





### Glass Slings

- Workloads are rated 9,600 lbs. per sling in a vertical lift
- The inside of slings and horizontal straps are covered with reinforced PVC coated material to help prevent cutting
- Made with 3" wide polyester webbing which minimizes elongation to 3% or less
- Velcro straps prevent slings from shifting on beam when not under load

78" long sling for glass 36" - 54" high	785
108" long sling for glass 60" - 84" high	.108N
124" long sling for glass 72" - 100" high	1241
160" long sling for glass 130" - 204" high	160





### Pro-Dolly<sup>™</sup> HD1

Effortlessly portable and maneuverable, this low-profile dolly is your perfect graband-go solution for navigating both shop floors and doorways with ease.

- Perfect for: Transportation of single panels of frameless glass.
- Exceptional Stability: Equipped with four non-marking, flat free tires that absorb shocks.
- Secure Clamping, Worry-Free: Simply tighten the clamp and leave the pane securely positioned on flat surfaces.

22" x 11" x 9"......PDHD1



### **Pro-Cart AT1**

Easily traverse curbs, stairs, and challenging terrains like gravel or lawns while transporting frameless glass panels with this versatile all-terrain cart.

- Perfect for: Effortlessly moving multiple frameless glass panes.
- Construction Site Pro: Transport from an A-frame to the jobsite without concerns about the terrain.
- Ample Ground Clearance: Effortlessly clear curbs, door frames, stairs, and rest securely on stair treads.

60" x 21" x 21" ......PCAT1-14



### Terra Trek™ Glass Cart

Boasting a remarkable 750 lb weight capacity, you can overcome uneven terrain and unfinished driveways; conquer curbs and stairs; glide over lawns, dirt, and gravel with the Terra Trek™ Glass Cart.

- Perfect for: Transporting framed glass across rough terrain at job sites.
- Panel Protection: Adjustable width, clamp vise jaws for precise control.
- Secure Transport: EZ Glide<sup>™</sup> Strap with Stop Blocks included for added security when transporting tall panels.

40" x 22" x 15.5" ......TTGC-23



### EZ Glide™ Glass Dolly

Extremely stable and easy-to-maneuver with a whopping 750 lb weight capacity, the EZ Glide™ Glass Dolly provides unparalleled ease of movement and precision in the shop and at the job site.

- Perfect for: Quickly transporting framed glass and windows around your shop or on commercial job sites.
- **Extremely Stable:** Adjustable guide rails keep the glass panel stable and easy-to-maneuver.
- Low Profile: Provides more height clearance through doorways.
- Secure Transport: EZ Glide™ Strap with Stop Blocks included for added security when transporting tall panels.



26.25" x 21.75" x 10.5".....EZGD-23



### Aqua-Jaw™ Carry Vise™

Elevate your glass lifting and handling experience with this allweather carry clamp, a revolutionary solution designed for safe, efficient, and ergonomic glass transportation across any terrain.

- Perfect for: Carrying heavy glass panels upstairs and other slanted or challenging terrains.
- Back Friendly: Lifts material ergonomically, protecting your spine when carrying heavy panels.
- No suction: Mechanical design eliminates the potential of losing suction that comes with vacuums..

16" x 10" x 7" (each, closed)......AJ-128-15

### Pro-Stealth Seamer™ manual

An essential tool for seamlessly joining and leveling glass surfaces, eliminating the need for waiting until adhesive is cured to start cleaning up, and ensuring consistently invisible seams.

- **Perfect for:** Bringing glass panels together in a frame.
- Easy to Use: No readjusting and no need for ratchet straps.
- Versatile: Place Pro-Stealth at an angle to make glass panels level so you can shim underneath.
- Adjustable: Move the panels up/down, forward/back, or bring them together.
  - Accessible: Entire seam is visible while the product is in use.

# **EQUIPMENT AND SERVICE**

### **Dual Belt Glass Seamers**

Complete your glass tempering and fabrication line with a dual-belt glass seamer from Salem Fabrication Supplies. Expedite the fabrication process by seaming rough glass edges quickly and cleanly before starting the tempering processes. We have options for both wet and dry applications.

4x106 in – Wet Dual Belt Glass Seamer .......KS-HHH106W 4x106 in – Dry Dual Belt Glass Seamer .......KS-HHH106D

### Features:

- High transparency
- Power Connection Method: Circuit Breaker + Magnetic Switch/Overload
- Motor HP: 1HP \* 2EA
- Exchange Device for Belt: Tension Spring
- Pulley Material: Crown Pulley AL + NBR coating
- Pulley Type: Pulley + Spindle in rotation together
- Optional caster table available

### **Specifications:**

- Working Envelope: 26x73x50 in
- Weight: 557 lbs
- Working Height: 33-37 in
- Belt Size: 4x106 in
- Power Supply: AP 220/440V 1P 50/60Hz







### Marker 101 T / 301 T

### Manual Marking Machine

These manual sand-jet marking machines have been designed as portable units that enable the operator carry out the marking operation on glass panels that have already been installed. These units are equipped with a built-in dust filter and an abrasive material container. The steel mask, on which the logo/mark is engraved, can be rotated so that the desired mark can be placed in any position.

 $\label{eq:marker} Marker 101T - max marking area \varnothing \ of 25 mm ......MM101T \\ Marker 301T - max marking area \varnothing \ of 30 mm ......MM301T \\$ 







### Easy Marker EV+

### **Automatic Marking Machine**

These **automatic** sand-jet marking machines have been designed to be used in a **vertical** production line and are suitable for serial production. The steel mask, on which the logo/mark is engraved, can be rotated and the position of the gun head can be adjusted by the operator – allowing the desired mark to be placed in different positions and at different heights. The gun head is oscillating, enabling this piece of equipment to be used with all types of vertical glass working machinery – bevelers, double edging machines, washing machines, tempering lines, etc. The Easy Marker EV speeds up the marking process and provides high quality engraving for a non-fading logo/mark.

Easy Marker EV+25 – max marking area Ø of 25 mm ...... EASYMARKEREV+25 Easy Marker EV+30 – max marking area Ø of 30 mm ..... EASYMARKEREV+30



### **Easy Marker UP+**

### **Automatic Marking Machine**

These **automatic** sand-jet marking machines have been designed to be used in a **horizontal** production line and are suitable for serial production. The steel mask, on which the logo/mark is engraved, can be rotated and the position of the gun head can be adjusted by the operator – allowing the desired mark to be placed in different positions and at different heights. The gun head is oscillating, enabling this piece of equipment to be used with all types of vertical glass working machinery – bevelers, double edging machines, washing machines, tempering lines, etc. The Easy Marker Up speeds up the marking process and provides high quality engraving for a non-fading logo/mark.

Easy Marker UP+25 – max marking area Ø of 25 mm ......EASYMARKERUP+25 Easy Marker UP+30 – max marking area Ø of 30 mm ......EASYMARKERUP+30





**Salem Fabrication Technologies Group** is dedicated to providing top-of-the-line machinery to the flat glass industry.

Our HHH Equipment Resources division handles all machinery sales, installation, maintenance and repairs. With a wide selection of equipment lines from industry-leading brands such as North Glass, Zafferani, IGis and Skill Glass, HHH has the machinery you need for your glass fabrication process.

# REDEFINE PRODUCTIVITY

HHH Equipment Resources's comprehensive line of equipment is an elite group chosen from manufacturers with a worldwide proven track record of performance and value. Our machinery is specifically designed to reduce downtime, improve quality and upgrade your expectations for productivity.

# REDEFINE PARTNERSHIP

**HHH Equipment Resources's** team is driven by our commitment to exceeding customer expectations. When you partner with us, you receive a powerful combination of **high-quality equipment and machinery**, and **unmatched service and support**.

# REDEFINE SUPPORT

HHH Equipment Resources offers superior U.S.-based technical service with the largest technician team – feet on the ground – in North America. We have the knowledge and expertise to optimize your machine's performance and life.



# **KODIAK MACHINERY LINE**

### Introducing a New Standard in Glass Fabrication

Over 100 years of glass processing equipment and supplies knowledge and expertise come together to bring you this line of high-quality, heavy-duty edgers, edger/miterers and bevelers. The KODIAK® line, from HHH Equipment Resources, offers exceptional edge quality, competitive production speeds and a proven track design.

Built for continuous operation, the KODIAK® machinery line, along with our robust premium tooling setups, will redefine your standards of productivity.

10 Cup Wheel EdgerKODIAK® 10	12 Cup Wheel High-Speed Edger KODIAK® 12HS
10 Cup Wheel Edger/Miterer KODIAK® 10-45	14 Cup Wheel Edger/Miterer KODIAK® 14-45
w/ Auto Flex System KODIAK® 10-45 AFS	11 Wheel Beveler KODIAK® 371

### **Track Elements**

The KODIAK® machinery line features a caterpillar type track system. The cast aluminum track sections are made of linking elements fitted on special bearings. The track motion is performed by gears, without chains, for high precision and a very long life.

These machines also feature riveted back track pads that are coated with 7 mm of thick rectified rubber – allowing for multiple grindings and longer element and track usage. The riveted front track pads are coated with a special grooved rubber able to firmly grip small pieces of glass and to compensate slightly for uneven glass surfaces.

### **Electrical Control**

The KODIAK® machine electronic control components feature a sticker marking the function which makes it easy for personnel to find and repair any problems that may arise over time. The components are CE/UL certification standard, from well-known manufacturers such as Schneider and Omron, allowing excellent and stable performance.

### **Display Screen**

The KODIAK® Machinery line features a 10" screen can display: glass thickness, machine speed, flowing light for leading edge location, polishing, lubrication time, finished quantity of the work piece and production report of the day/month/year, etc. The display is also intuitive and easy to operate.

### **Built Tough**

The KODIAK® machines weigh in at 12,000 lbs, on average, and feature heavy-duty 77 lb spindles. These robust machines are designed to handle large lites of glass.



# GLASS FABRICATION EQUIPMENT

### We Have What You Need

HHH Equipment Resources, the glass processing machinery division of Salem Fabrication Technologies Group, is fully dedicated to providing the right glass processing machines for your fabrication process. With a wide selection of glass edgers, bevelers, CNC work centers, mills, drills, insulating glass lines, glass handling robotics, sandblasting glass equipment and tempering furnaces, from industry-leading brands such as North Glass, Zafferani, IGis, and Skill Glass, HHH has the machinery you need for your glass fabrication process.

See our full line up at HHHGlassEquipment.com





- Automatic Glass Storage Systems
- CNC Machining Centers
- Glass Cutting Systems
- Glass Drilling Machines
- Glass Edging and Polishing
- Glass Laminating Systems
- Glass Lifting Equipment
- Glass Washing Machines
- Glass Water-Jet Cutters
- Horizontal Glass Grinding Machine
- Industrial Water Filtration Systems
- Insulated Glass Equipment
- Tempering Furnaces

### **Need to Speed up Production?**

Looking to build an automated machine island? Our glass machinery specialists can find the right equipment to meet your needs and fit the configuration of your shop floor. To keep your systems clean and operational, HHH has water filtration systems of different profiles to work within your production line. HHH also provides other equipment such as cutting tables and glass handling and lifting equipment to make the storage and transport of finished and mid-process materials safe and efficient.

Contact us today for more information.







# TECHNICAL SERVICE AND SUPPORT

### Set Yourself Up for Success

### **Cut Costs and Increase Revenue!**

Maintaining your machinery can save you from costly downtime and expensive rebuilds. HHH Equipment Resources offers preventative maintenance agreements, tailored to your needs, for tempering furnaces and glass fabrication equipment.

With the largest technician team – feet on the ground – in North America, we have the knowledge and expertise to optimize your machine's performance and life. And, with predetermined maintenance costs you'll never be caught off guard.

- Installation
- Repair
- Periodic Maintenance
- Increased Production

See more at HHHGlassEquipment.com





### **Master Service Agreements**

### **Tempering Furnaces**

Protect your tempering furnace and your business by working with the HHH technical team to determine the planned maintenance agreement that's right for you. Your maintenance plan is customized based off your business goals, facility size, machinery and workforce. Benefits of scheduled furnace maintenance include:

- Reduced downtime costs
- Increased productivity
- Mitigated order backlogs
- And more

### **Fabrication Equipment**

HHH Equipment Resources also offers preventative maintenance agreements for all glass fabrication equipment. Keep your production at peak capacity, get remote and in-person support service, and get discounts on parts and labor – all from a U.S.-based team. Sustain high glass production without skipping a beat.

We don't care about the brand of your machine – we service them all – ANY make and model.





# **NOTES**





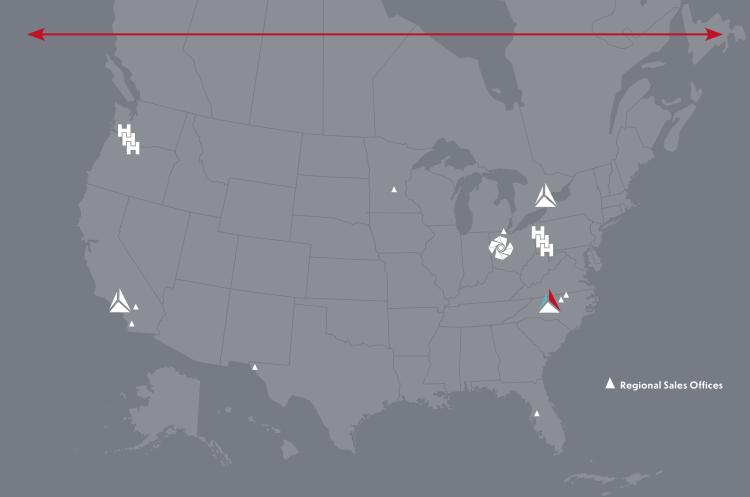






With sales and technical teams that span across the USA, Canada and Mexico, Salem Fabrication Technologies Group, Inc. helps you

## GO BEYOND THE EDGE





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