RUBBER BOND PRECISION CUT-OFF WHEELS

Radiac® Abrasives
Engineered Solutions For Your Grinding Needs™

A NEW GENERATION OF RUBBER BOND CUT-OFF WHEELS

As one of the world's foremost leaders in abrasives, Radiac has incorporated over 100 years of abrasive manufacturing experience into the new line of Rubber Bond Cut-Off wheels. Radiac Abrasives' new generation of rubber bond cut-off wheels provide superior performance, closer tolerances, finer finishes and greater strength. More importantly, you'll achieve lower production costs due to our improved product manufacturing in a state-of-the-art facility.

Radiac Abrasives is committed to maintaining customer satisfaction and provides a capable and highly experienced team of Abrasive Specialists to assist you in the correct selection of rubber cut-off wheels for your grinding application.

ENGINEERED SOLUTIONS TO YOUR GRINDING NEEDS

Radiac/National manufactures a complete line of abrasive products and rubber wheels for the grinding wheels market. Headquartered in Salem, Illinois, Radiac Abrasives operates four state-of-the-art-manufacturing facilities - three in the United States and one in Mexico. The Salem plant has over 300,000 square feet dedicated to the manufacturing and marketing of a full range of quality bonded abrasives.

PRECISE, EFFICIENT CUTTING PART AFTER PART

Radiac Rubber Bond wheels are manufactured to close tolerances, enabling the ultimate in precision. Cut-off wheels are formulated to slot and cut a wide range of materials and are ideally suited for applications where fast, accurate, consistent cutting is required with minimum heat build-up.

Wet cutting with Radiac Rubber Bond wheels is the most efficient method to cut and provide a clean, burr free surface without altering the characteristics of the material. Whatever your application, Radiac is the top performer.

FULL RANGE OF SIZES, CUSTOM FORMULATED SPECIFICATIONS, AGGRESSIVE PRICE STRUCTURE, WORLD CLASS LEAD TIMES

Radiac Abrasives provides a full range of rubber bonded cut-off wheels, from .004" (0.1mm) in thickness to .185" (4.7mm) and from 2" (50mm) to 20" (510mm) in diameter. All of our wheels are manufactured to the highest quality standards and are custom formulated for your application.

DIMENSIONAL AVAILABILITY/TOLERANCES

Diameter	Thickness	Thickness Tolerance
2"-3"	.004-.030"	± .001"
4"	.005-.030"	± .001"
5"	.008-.030"	± .001"
6"	.010-.030"	± .001"
7"	.014-.030"	± .001"
8"-12"	.020-.032"	± .003"
>12"-20"	.032-.185"	± .005"

RUBBER CUT-OFF APPLICATION GUIDE

Application	Material	Starting Specification
Automotive Industry		
Tungsten Contacts	Tungsten	A120-M-R60
Sprag Clutches	Mild Steel	A120-M-R60
Control Cables	Hardened Steel	A150-M-R45
Pump Valves	Hardened Steel	A120-M-R60
Diesel Glow Plugs	Alnico	A90-F-R35
Forgings and Castings	Various	A90-F-R35
Piston Ring Slotting	Hardened Steel	A120-M-R50
Aerospace Industry		
Metallurgical Sampling	High Nickel Alloy, Titanium	A90-F-R35
Medical Industry		
Hypodermic Needles	Stainless Steel	A400-F-R55
Dental Slotting	False Teeth	A150-M-R55
Electrical Industry		
Transformer Cores	Epoxy Laminated Steel	A120-M-R50
Contacts	Tungsten, Silver Molybdenum	A120-M-R60
Wires/Slugs	Tungsten, Silver Molybdenum	A120-F-R35
Magnets	Alnico	C120-F-R35
Light Components	Tungsten, Molybdenum, Nickel	A90-M-R45
Thermocouples	—	C320-M-R60
General Industries		
Pen Nibs	Stainless Steel	A400-U-R60
Computer Printing Heads	Tungsten, Steel	A120-F-R35
Collet Slotting	Mild Steel	A60-M-R40
Drills, Taps, End Mills	HSS	A120-M-R30 A120-M-R60
Carding Wire, Side Grinding	Stainless Steel	A120-M-R60
Tube Cutting	Brass, Copper Aluminum Stainless Steel	C320-M-R60 A240-M-R55 A400-F-R55
Fork Pronging	Mild Steel	A120-M-R45
Saw Blade Sharpening	Hardened Steel	A100-R-R45
Shower Hose	—	A120-M-R45
Ejector Pins	Hardened Steel	A120-F-R35

Order Format: D x T x H

MAKE AVAILABILITY

	Bond	Abrasive	Grit	Grade
Free Cut	R30	A	120	F, M, R
	R35	A,C	80, 90, 100, 120	F, M, R
	R40	A	60, 80, 90, 100, 120	F, M, R
	R45	A	90, 100, 120, 150, 180, 240	F, M, R
	R50	A	80, 90, 100, 120, 150	F, M, R
	R55	A	150, 180, 240, 320, 400	F, M, R
Long Life	R60	A, C	120, 150, 180, 240, 320, 400	F, M, R, U

F= Free Cut
M= General Purpose
R= Long Life
U= Ultra Durable

CUT-OFF WHEEL TROUBLE SHOOTING GUIDE

The finest abrasive cutting wheels give unsatisfactory performance if abused, improperly applied, or used on poorly maintained machines. These trouble-shooting suggestions will help you obtain optimum performance from your abrasive cut-off wheels.

1. Symptom
Wheels break as soon as the machine is started, or immediately upon beginning the first cut.

Suggested Action
A. Flex wheels, look and listen for the cracks. If cracked, check the shipping containers for damage.
B. Use the proper methods of storing and handling wheels.
C. Reduce the spindle speed. Never operate a cut-off wheel at a speed in excess of the maximum operating speed.

2. Symptom
Wheels stall or break in the widest part of cut.

Suggested Action
A. Re-adjust, repair or replace the work holder.
B. Use a softer grade wheel.
C. Reface or replace the flanges.

3. Symptom
Wheel cuts crooked and/or breaks.

Suggested action
A. Check for and remove broken wheel pieces and other materials that may be deflecting the water flow. Adjust the water flow to be equal on both sides of the wheel.
B. Check spindle runout and replace bearing if required.
C. If wheel appears to be dished or warped, notify the local distributor or factory representative.

4. Symptom
Wheels bind or break just before a cut is completed.

Suggested Action
A. Align the feed table with the work holder.
B. Repair or replace worn work holder surfaces.

5. Symptom
CUT surface is burned.

Suggested Action
A. Use a Softer grade wheel.
B. Cut faster.
C. Re-align the feed table with the work holder.
D. Repair or replace worn work holder surfaces.
E. Reduce the spindle speed. Never operate a cut-off wheel at a speed in the excess of the maximum operating speed marked on the wheel.
F. Improve water application as follows:
1. Clean the nozzle, water lines and tank.
2. Remove sludge and chips from the coolant tank.
3. Check pump for proper flow.
4. Adjust the nozzle so the water is directed to the area where wheel and material are in contact.

6. Symptom
Wheel stalls in the cut and motor stalls.

Suggested Action
A. Use a softer grade wheel.
B. Cut at a slower rate.
C. Align and/or repair the feed table and work holder.

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