# CUTTING 70015

ON de Tipped Saw Blade ungsten ( SAFE SPEE Remember to ke ROTATION ant irn-d in r's need & RESCUE WARNING: Eye protection must be worn when using cutting tools 09 LAWSON HARDFLEX 95663 6-10 TPI 36T LAWSON

LAWSON PRODUCTS



use by the professional. In every aspect of design and construction, these blades have that little bit extra you have come to expect from a Lawson cutting tool.

TUFF-CUT™ carbide router bits also use a tough industrial carbide, and their blades are Teflon® coated.

HARD GRIT™ cutting tools have thousands of Tungsten Carbide particles - one of the hardest materials known - permanently bonded to alloy steel bodies. These particles replace the teeth found on conventional blades. With no teeth to strip or dull and the hardness of carbide, HARD GRIT™ blades can expand the cutting range of your power and hand tools. When nothing else seems to work, try a HARD GRIT™ blade. They outcut and outlast even the best conventional blades when cutting abrasive/composite materials.

HARDFLEX™ blades are built with the highest quality blade steels and exacting standards in the industry. Each one is designed with speed, finish and safety in mind. They are virtually shatterproof!

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Most of our HARDFLEX™ blades also incorporate a variable pitch design. This tooth design delivers a smoother finish while cutting in a wider range of materials, yet cutting faster and quieter than conventional blades.



TUFF-CUT™ blades are industrial grade tungsten carbide tipped circular saw blades for



**SOLUTIONS!** 

At Lawson we want to help you with solutions to your maintenance needs - not just sell you tools. We like to say "We sell holes, not drills."

As you experience the performance of Lawson's maintenance engineered cutting tools, you will learn to appreciate the difference between tools designed for repair versus tools designed for production.



REGENCY DUAL-CUT tools are more than just cutting tools. Their special maintenance engineering gives superior performance when compared to conventional production cutting tools. The manufacturing process used to make Dual-Cut tools are quite different from conventional manufacturing techniques. Each step adds that "little something extra" which Lawson customers have become accustomed to seeing.

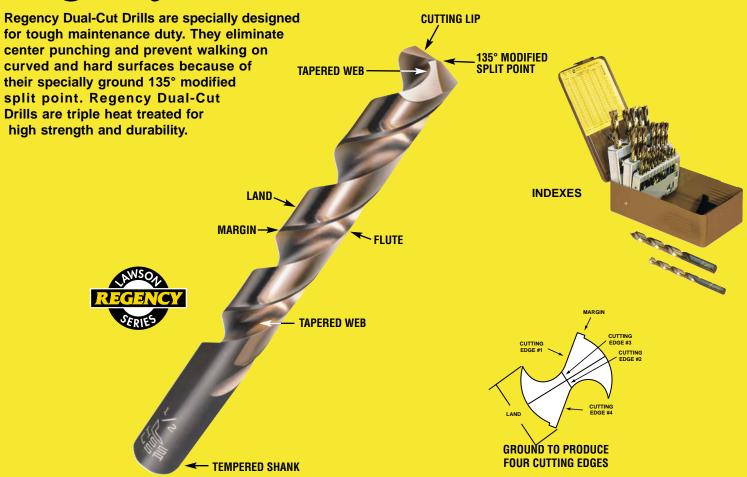




The Regency line began with drills designed for hand-held operations in the maintenance market. That beginning has lead to the birth of a list of members to the Dual-Cut family. Whether it's drill bits, reamers, endmills, taps, dies . . . you can be sure they are of the highest quality in design and construction for the maintenance industry.

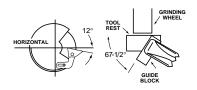
WARNING! Important instructions and warnings regarding your safety are contained in your power tool's owner/operator manual. Failure to heed these instructions and warnings could result in serious bodily injury. IMPORTANT: Always wear safety goggles or safety glasses with side shields complying with current national standards and a full face shield when needed when operating or around a cutting tool. CAUTION: Do not use a cutting tool that appears damaged in any way. Replace immediately.

## Regency DUAL-CUT DRILLS



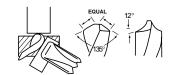
#### RE-SHARPENING PROCEDURE

#### 1. SET-UP FOR POINTING



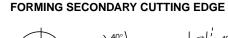
- CLAMP GUIDE BLOCK ON TOOL REST AT 67%°
- SET TOOL REST BELOW CENTER LINE.
   DRESS WHEEL FOR PARALLEL EDGES
   AND TRUE FACE.
- USE AN 80 TO 100 GRIT SEMI-FRIABLE GRINDING WHEEL.

### 2. GRIND POINT ANGLE FORMING PRIMARY CUTTING EDGE



- PRE-GRIND TO REMOVE ALL DAMAGED FDGFS
- PLACE DRILL ON TOOL REST PARALLEL TO GUIDE BLOCK.
- ALIGN CUTTING LIP PARALLEL TO MACHINE AXIS.
- PUSH INTO WHEEL.
- REPEAT FOR SECOND CUTTING EDGE.

#### 3. POINT SPLIT







- GRIND SECONDARY CUTTING EDGES.
- FEED INTO WHEEL UNTIL CENTER IS REACHED.
- REPEAT FOR OTHER SIDE.

NOTE: ALL DAMAGED SECTIONS ON THE POINT AND MARGINS MUST BE GROUND AWAY PRIOR TO ANY ABOVE RESHARPENING PROCEDURE.

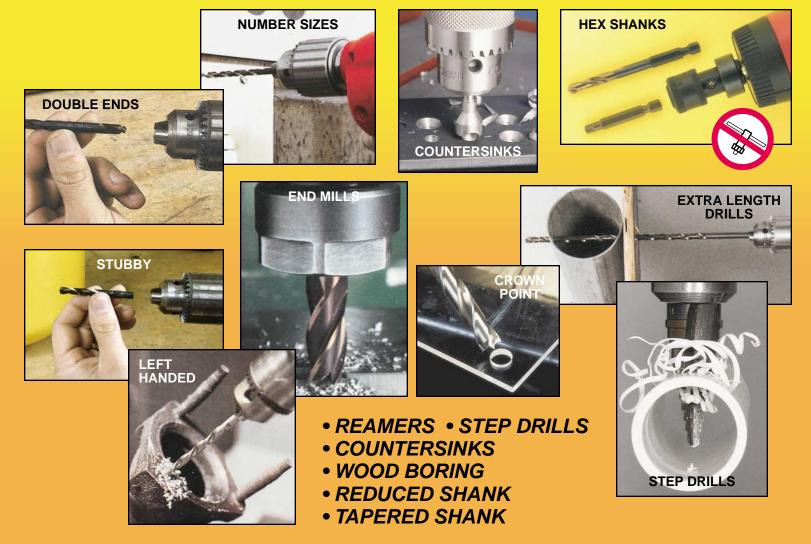
#### SUGGESTIONS FOR MAXIMUM DRILL PERFORMANCE

- 1. A reduced speed is recommended to start the drill.
- 2. The HARDER the MATERIAL, the SLOWER the SPEED.
- 3. The LARGER the DIAMETER, the SLOWER the SPEED.
- 4. DO NOT FORCE FEED, let the drill cut at its own pace.
- 5. Once the bore is started, either keep the drill cutting or remove it. Idling of the cutting edge will harden the steel and dull the bit.
- 6. At the point of break-through, lighten the feed pressure.
- 7. Avoid side pressure on the drill bit whenever possible.

#### Regency Quality is found throughout our drill bit line.



- JOBBERS LENGTH FRACTIONAL SIZES NUMBER SIZES DOUBLE END
- STUBBY HEX SHANK END MILLS MASONRY SDS ROTARY HAMMER



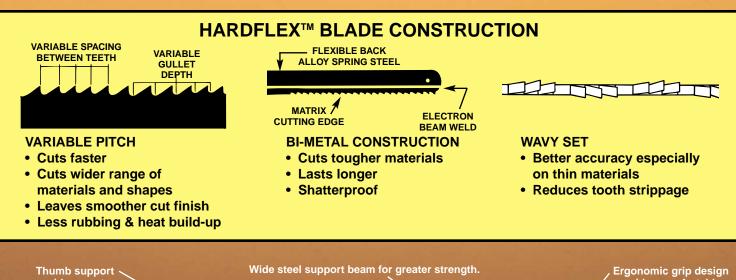
## LAWSON HARDFLEX<sup>TM</sup>

High Performance hacksaw blades featuring variable pitch for faster, easier cutting

LAWSON HARDET EX

The Lawson Matrix Bi-Metal Hacksaw Blades consist of a high speed matrix steel cutting edge, electron beam welded to a flexible shock resistant alloy steel back. By combining this construction design with the variable pitch tooth pattern and a wavy set, Lawson's blades provide:

- Shatterproof construction for safety
- · Greatly increased blade life
- Faster and smoother cutting action
- · Increased protection against tooth strippage
- A blade that can be used on a wide range of materials and/or shapes
- 12" x 1/2" x .025
- Three variable pitches: 14/18, 20/24, 26/32





## **CUTTING TIPS FOR HACKSAWS**

#### DO'S



Six teeth on work at all times



Coarse teeth, ample chip, clearance

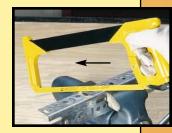


Start cut at slight angle - easier - safer

- Select a blade that keeps a minimum of 3 teeth, and optimum of 6 teeth and a maximum of 12 teeth in the work piece at all times.
   Remember 3-6-12!
- Always keep blade properly tensioned (re-tension after the first few initial strokes - the tighter the better). Do not exceed 8 turns of the tension lever.
- Metal should be held rigidly in a vise. Otherwise, the blade is likely to twist and break or the teeth may be stripped.
- The position of the saw in relation to the work is very important. Always keep in mind that saw teeth should be in contact with the work at all times (see sketches). In addition, remember that the saw should be held at a very slight angle to the surface to the material.
- Hold the saw firmly with both hands.
   This ensures steadier and straighter cutting and better control of the downward pressure.
- Use a light touch in starting the cut. Strokes should be slow and even until the blade has cut a supporting groove in the metal. When starting a cut on a corner, use a very light stroke until the cut is deep enough to allow three teeth to cut at the same time
- Clean out blade teeth after use for longer blade life.
- Bear down on the forward stroke or cutting stroke. Then raise the blade on the return stroke to avoid dragging the teeth on the metal. Dragging will dull the blade.
- Exert enough pressure on the frame to feel the blade cutting. Do not allow the blade merely to slide lightly over the material. Such rubbing will dull the teeth. On the other hand, too much pressure strains the teeth without materially speeding the job.
- Saw a long, steady stroke utilizing the full length of the blade. The speed of sawing should be kept down to 55 strokes per minute for mild steels and 40 strokes per minute for tough materials. Faster sawing generates heat that dulls the cutting edges of the teeth and often jams them. Time yourself occasionally. The use of Blade-Aid stick lubricant will extend blade life, speed cutting and improve the finish of the cut.
- For work pieces harder than Rc45, switch to a Hard Grit blade.

#### **TOOTH DIRECTION**

Frames that keep the blade under tension are designed for two-handed push stroke cutting. A blade should be installed in these frames with the teeth facing AWAY from the handle.



If the blade does not have tension on it, it should be used with pull strokes. The blade should be installed with the teeth pointing TOWARD the handle.



## CHANGING BLADES DURING A CUT

Starting a new blade in a cut that you have not finished will make the saw blade bind. Instead, turn the workpiece over and start a fresh cut that will saw through to meet the first cut.



#### **CUTTING TECHNIQUES**

Begin cutting on an angle with short, even, forward strokes. Once your line is set, switch to full length strokes.



During cutting, bear down just enough to feel the teeth bite along the full length of the blade. Relax the pressure on each return stroke to prevent blade dulling.



#### DONT'S



Teeth too coarse, straddle work, strip teeth



Teeth too small, no chip clearance, teeth clog

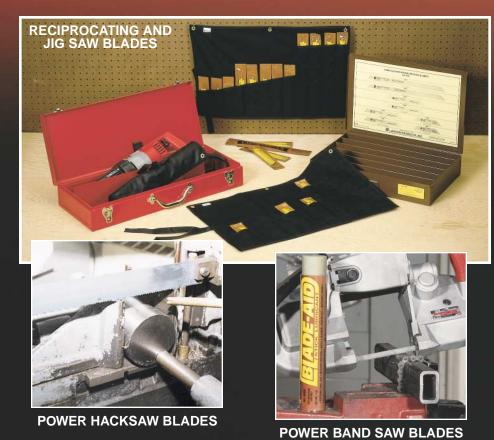


Angle of cut too abrupt, liable to strip teeth

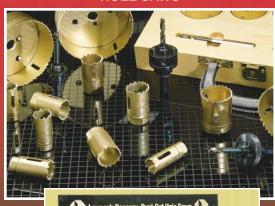


## **CUT MORE! CUT FASTER!** CHANGE BLADES LESS!

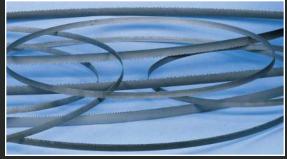
Available in almost every imaginable size, Hardflex™ Band Saw Blades are designed to be a great general purpose blade for maintenance shops. With a tough shock-resistant cobalt edge, they easily outperform conventional blades. The same high standards are also found in the other Hardflex<sup>™</sup> products shown.



**HOLE SAWS** 







**BAND SAW BLADES IN ANY SIZE** 

Our Hard Grit blades have thousands of tungsten carbide particles — one of the hardest materials known — permanently bonded to alloy steel bodies. These particles replace the teeth found on conventional blades. Hard Grit blades are known as the blades to try when nothing else seems to work. They are especially good for composite building materials.



#### HARD GRIT BLADES WILL EXPAND THE SAWING RANGE OF YOUR CUTTING TOOLS, THEY WILL OUTCUT AND OUTLAST CONVENTIONAL BLADES

#### PORTABLE BAND SAWS



WIRE REINFORCED HOSE

**HACKSAWS** 



**SYNTHETIC MARBLE** 

MATERIAL	BANDSAW	ROD SAW	HACKSAW	RECIPS &	CIRCULAR SAW	HOLESAW
TO BE CUT ( • Recommended Blade)		•		-		
Ceramic Wall Tile		•	•	•		•
Fiberglass (all types)	•	•	•	•	•	•
Plywood				•	•	•
Flagstone-Slate	•	•	•	•		•
Hardened Steel	•	•	•			•
Tempered Hardboard			•	•	•	•
Friction Materials	•	•	•	•	•	•
Sheet Steel (thru 16 ga.)	•	•	•	•	•	•
Plastic Laminates				•	•	•
Glass	•	•	•			•
Cast Iron	•	•	•			•
Stranded Cable	•	•	•			•
Marble	•	•	•	•		•
Chrome Plated Steel	•	•	•			•
Plaster With Lath				•	•	•
Brick	•	•	•	•		•
Composition Board				•	•	•
Fiber Reinforced Cement	•	•	•	•	•	•
Hardwood Flooring				•	•	•
Stainless Steel	•	•	•	●*		•
Composites	•	•	•	•	•	•

\*Requires coolant and variable speed machine.

CAUTION: Use dust collectors and respirators when cutting Fiber Reinforced Cement, Fiberglass and other similar fibrous materials.

**ROD SAWS** 



**GLASS** 

**CIRCULAR SAWS** 



THINSHEET METAL

RECIPROCATING BLADES



**CINDER BLOCK** 

#### JIG SAWS



COMPOSITE COUNTER

**HOLE SAWS** 



MARBLE

#### TUNGSTEN CARBIDE TIPPED SAW BLADES

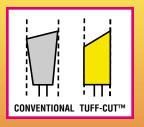
Another fine cutting tool line from Lawson Products. TUFF-CUT™ blades are industrial grade tungsten carbide tipped circular saw blades for use by the professional. In every aspect of design and construction, these blades have that little bit extra you have come to expect from a Lawson cutting tool.



#### **Precision Carbide Tips:**

The tips of TUFF-CUT™ blades are made from top grade virgin carbide, metallurgically inspected and honed to ultra-accurate edges with 400 to 600 grit diamond wheels.

The side clearance of the tips are made shallower than on conventional tips. This permits TUFF-CUT™ tips to cut with the whole side rather than just the top. This causes a planing action which produces a sanded-like finish.



#### Tough Moly-Alloy Saw Plates:

The saw plate or body is the backbone of a circular saw blade. TUFF-CUT™ plates are made from high carbon, nickel and special moly-alloy steel. This steel adds durability to TUFF-CUT™ blades by preventing warping from heat build-up and strength by absorbing initial impact shock when cutting hard materials.

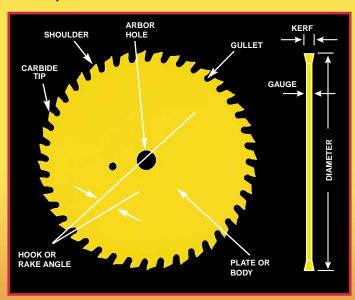
Another engineering feature of our saw plates is their less than .003" tolerance of side to side wobble or "run out." If a plate's tolerance is not kept within tight specifications, it can affect the grinding of the carbide tips, causing excessive cutting noise and a rougher cutting finish.

#### Gold / Chrome Plating:

TUFF-CUT™ blades are electrically chrome plated. The chrome plating retards heat build-up, adds hardness to the plate and inhibits rusting. An industrial gold lacquer is applied over the chrome plate to promote even wear on the blade.

#### Completely Resharpenable:

All TUFF-CUT™ saw blades are completely resharpenable.





## **ACCESSORIES**

#### MAKE THE JOB EASIER

Besides cutting tools, Lawson stocks tens of thousands of other maintenance engineered products designed to make industrial repair jobs go easier.





Along with a great line of cutting tools, your Lawson Agent can help you with safety supplies and hold safety seminars for your employees.



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## **LAWSON PRODUCTS**

#### For The Customer Who Expects Quality

Abrasives
Adhesives/Sealants

Aerosols Anchors

**Auto Body Hardware** 

**Battery Maintenance** 

Blades, Cutting

Bolts Bolt Snaps

Brushes, Shop Brushes, Wire Wheel

Bulbs

**Bushings, Machinery** 

Cabinets
Cable Ties
Capscrews
Chain Hardware

Chemicals Chisels

**Circuit Breakers** 

Clamps Cleaners

**Clevis Assemblies** 

**Clevis Pins** 

Clips

Connectors
Cotter Pins
Cutting Tools

& Accessories

Dies

Drawers (Storage)

**Drills** 

**Emission Control Electrical Supplies** 

Wire

**Insulated Terminals** 

**Switches** 

**Heat Shrink Tubing** 

**Cable Ties** 

**Electronic Hardware** 

& Supplies

Files Fittings Flashers

Fuses

**Gasket Material** 

**Grease** 

**Grease Fittings Grommets** 

Hex Keys

Hole Saws Hooks Hose

**Hydraulic Hose/Fittings** 

**Keystock** 

Lamps, Socket Assembly Lighting Systems, Fleet

Loom Cover Lubricants

Metric Products
Cutting Tools
Fasteners
Fix-A-Thred
Keenserts

Threaded Rod Mirrors, Fleet

Non-Ferrous Fasteners

& Capscrews
Nuts

Nutserts
O-Rings
Oilers

Padlocks & Accessories

Paints Pins

Pigtails, Electrical Plug Buttons

Plugs Punches

**Quick Disconnects** 

Racks

Razor Blades Retaining Rings

Rivets

Riveting Tools Roller Chain

**Ropes** 

Safety Equipment Saw Blades Scrapers & Blades

Screwdrivers

Screws

Shop Supplies Snap Rings

Solder

**Speedometer** 

**Tachometer Parts** 

Springs Studs Switches

**Tapes** 

**Tape Dispensers** 

Taps
Tarp Straps
Terminals
Threaded Rod
Throttle Ball Joints
Tire/Air Accessories

Tire Repair

#### YOUR LAWSON REPRESENTATIVE IS:

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Phil Shames

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Weathercaps
Welding Alloy &
Accessories
Wheel/Rim Parts
Wheel Weights
Wire

**Tubing & Fittings** 

**Washers** 

#### **L** LAWSON PRODUCTS, INC.

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