245 West Crossroad Square
Salt Lake City, Utah 84115
(801)487-9700

www.superiorgrinding.com

PAPER DRILLS

If you are looking for replacement drill bits for your Paper Drilling Machine, you've come to the right place. We Carry Bits for Challenge, Martin Yale, Lihit, Lawson, and Nygren Dahly equipment.

Choose from a variety of sizes, styles, and coatings to find the perfect replacement bit for your paper drill machine. Be sure to check which style of chuck your machine uses to ensure that you choose the right part for your unit. Check out all of the drill bits below, and if you need help finding the right item for your machine, don't hesitate to contact us.

Standard Steel – Suitable for use on 90% of all drilling applications.

Teflon - Provides lubricity to the inside and outside of your paper drills. The Teflon reduces friction to increase the wear life of the cutting edge. This is a very good coating for keeping slugs from building up and breaking the paper drills since slugs flow smoothly without binding. Recommended for most normal paper drilling applications.

Other Coatings Available for special Applications

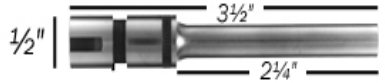
For Maximum Performance

1. Seat paper drills up past the drive pin and up against the shoulder. Keep the inside of the spindle clean with a small toothbrush and solvent, paying particular attention to the drive pin.
2. Most paper drill breakage is caused by operating dull and/or unseated paper drills which will ram into the wood block. Be sure to remove slugs and sharpen paper drills after every shift change.
3. Keep paper drills sharp and clean. Superior Will Sharpen them with a Heavy Duty Carbide Sharpening Reamer.

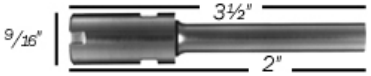
Superior Grinding & Sales, Inc.

Challenge Drills Standard
Long 2.5” x 3-9/16”

Lawson Drills Standard
Long 3”



Nygren Dahly Drills

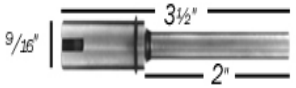


Pioneer Drills

Spinnit Drills

Hang Drills Standard

Iram/Sterling Standard
Long 3” long



Our Fluted drill bit heads are specially made to rip and tear up the paper slug. These bits work best on hard materials like chip board and card stock.

If your looking for New Paper Drilling Machines Let us know we would love to quote you.

TO ORDER PLEASE PROVIDE MACHINE NAME MODEL, NUMBER OR SAMPLE

DRILL SUPPLIES

DRILL-EASE To reduce friction and heat on hollow paper drills, Won't stain paper. Also excellent for other things that stick and bind

Challenge Round 1-1/2” x ¾”
Challenge Round 2-1/2” x ¾
Challenge Round 3” x ¾”
Challenge Rectangular Drill Blocks 6" x 1 1/4" 3/8"- 3 doz.
Challenge Rectangular Drill Blocks 12" x 1 1/4" x 3/8" - 3 doz.

Lawson® rectangular drill blocks 8 1/2" x 1 1/8" x 3/8" - 3 doz
Lawson® rectangular drill blocks 12 1/2" x 1 1/8" x 3/8" - 3 doz
Lawson® strapping 3/4" x 4600 ft (white)
Your Price: $162.80

Sterling/ Iram rectangular drill blocks 10" x 1" x 3/16" – doz

Nygren- Dahly rectangular drill blocks thin 6 1/2 x 1 1/4" x 5/16' - 3 doz
Nygren- Dahly rectangular drill blocks thick 6 1/2 x 1 1/4" x 3/8' - 3 doz

Drill Sharpeners and Reamers
Blade Cote
Glide Cote

TO ORDER PLEASE PROVIDE MACHINE NAME MODEL, NUMBER OR SAMPLE

Challenge 3-flute carbide 3/8" shank. 71 angle

Challenge Precision Hand Drill Sharpener

Dexter-Lawson® 3-flute carbide 5/16" shank. 71 angle

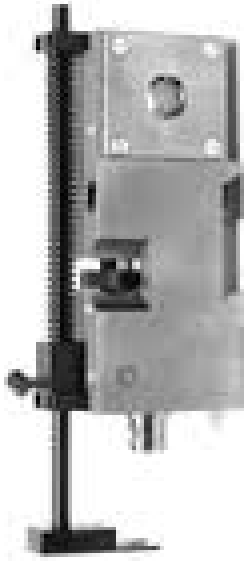
Lawson/ Nygren® Precision Hand Drill Sharpener

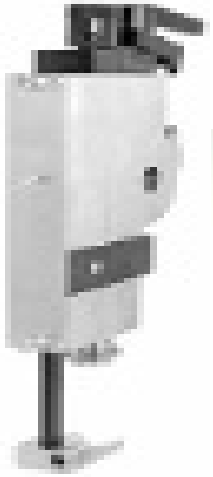
Superior Grinding & Sales, Inc.

DRILL HEADS AND PARTS

SUB-CATEGORIES

Heavy Duty Lubricating Grease for Drill Heads





NEW CORNER ROUND SETS AND SHARPENING MOST TYPES

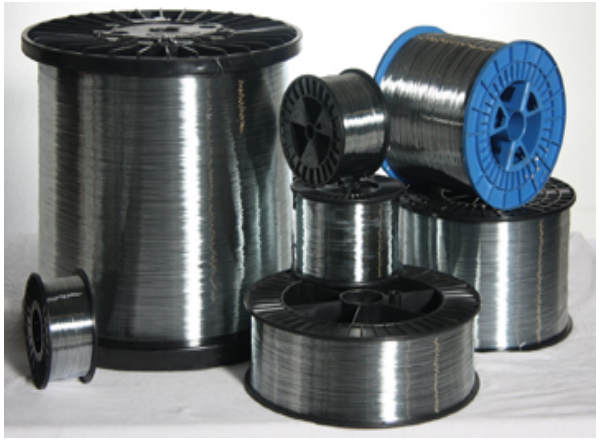
Dexter-Lawson **Challenge** **Nygren Dahly**

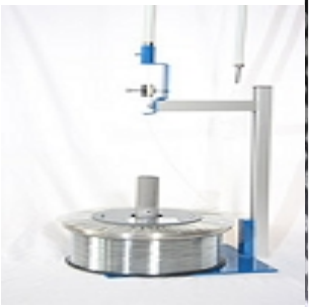
To Quote we need Name of Machine and Model with Part Numbers or manual Pictures

STITCHING

18D Style Parts
Deluxe-Bostitch Head Parts
Gathering Chains and fingers
Hohner Head Parts
Muller-Martini Style Parts
Rosback Style Parts
Stitcher Heads
Stitching Repair Kits
Stitching Wire
Wire Dereeler
Centering Guide
Magnetic Swivels
Stitcher Repair/Rebuild

Note many items are stocked per customer request. Others are per order.
With an open PO we will stock and ship as needed.

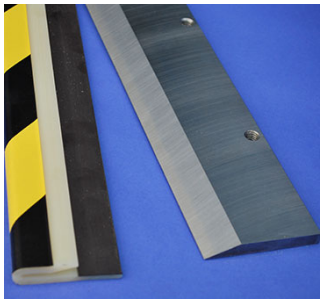


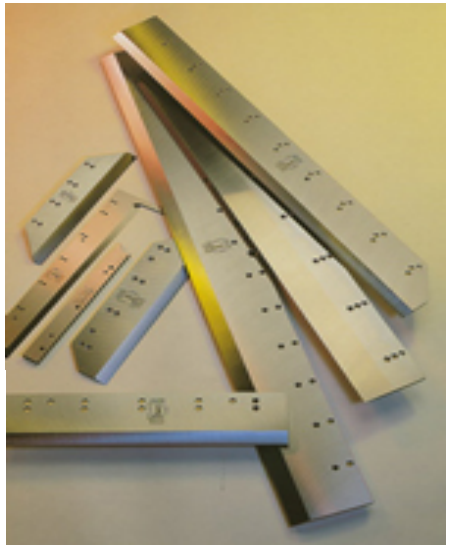


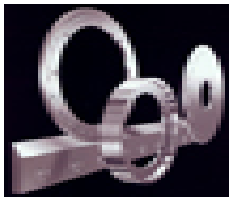
PAPER CUTTERS AND SUPPLIES

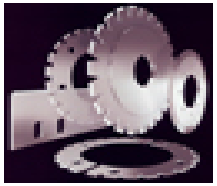
MACHINES

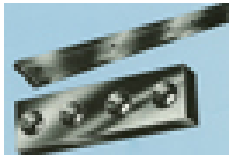
ADAST
ATLAS
BAUMFOLDER
BIAGOSCH
BIELOMATIK
BRACKETT
CAMCO
CAMPEADOR
CHALLENGE
CHANDLER & PRICE
COMO
CONSOLIDATED
CORTA
CROSSLAND
DAHLE
DEXTER
DURACUT
EBA
FLAG
GRAPHA
HARRIS
HEROLD
HOERAUF
HORIZON
IDEAL
IMPERIAL
ITOH
JET STREAM
KOLBUS
KRAUSE
KUGLER
LAWSON
MBM
MACEY
MANDELLI
MARTIN YALE
MAXIMA
MCCAIN
MIRACLE
PERFECTA
PIVANO
POLAR
PRESTO
PRISM
PRO CUT
RPM
RAPIER
RELIANCE
ROSBACK
ROYAL ZENITH
ROYO
SABER
SCHIMANEK
SCHNEIDER SENATOR
SEYBOLD
SEYPA
SHERIDAN-AT
SHERIDAN-BT
SHERIDAN-CT
SHERIDAN-FT
SHERIDAN-HT
SHERIDAN-HT-18
SHERIDAN-VT
SPEER & LECHNER
STAHL
SWISS HYDROCUT
TEMPO
TRIUMPH
VBF
VANGUARD
WOHLENBERG
ZAMBONI
MULLER MARTINI
MULTI
MULTICUT
NAGAI
NATIONAL
OLYMPIA
OMNI

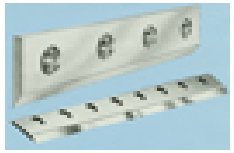








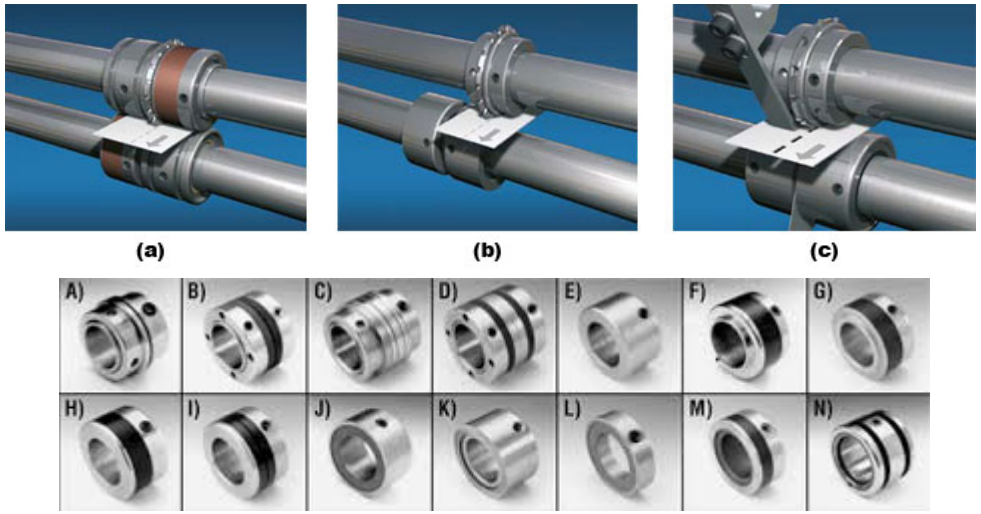


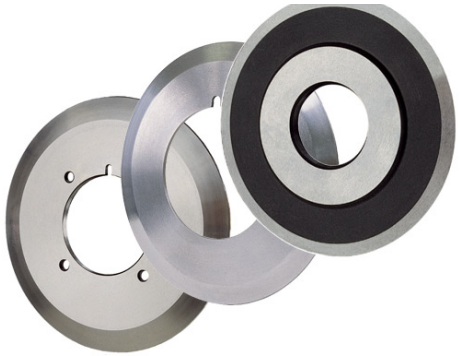


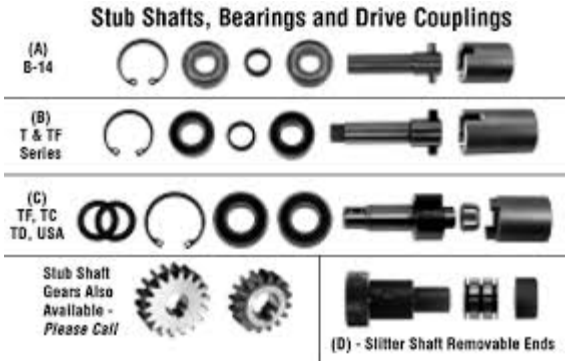
FOLDING AND SUB CATEGORIES

Superior Grinding & Sales, Inc.

- FOLDER ROLLERS
- PERFORATORS, SLITTERS AND SCORERS
- STRIPPER ASSEMBLIES
- RECOVERY AND REBUILDING KITS
- STAHL PARTS
- MBO PARTS
- ROLLER REGRINDING
- BAUM PARTS







TO ORDER PLEASE HAVE MACHINE MODEL AND PART NUMBER

SUCKERS

Suction cups for printing, collating, and mailroom machines. Click a manufacturer below to view the cups we have for your machine or Scroll Down to see all printing cups. This is just a small sample of our selection. For more cups, request our cups catalog. If you don't see your machine listed, please send a sample and we'll be glad to help identify it.

Hamada
Harris
Heidelberg
Horizon
McCain
Miehle
Phillipsburg
Muller
Ryobi
Setmaster

TO ORDER PLEASE PROVIDE MACHINE NAME MODEL, NUMBER OR SAMPLE

MISC REPLACEMENT PARTS

A few of the brands of paper cutters for which we stock non OEM replacement parts include POLAR, SEYBOLD, OSWEGO, LAWSON, CHALLENGE, NATIONAL, PIVANO, PERFECTA, SCHNEIDER, CHANDLER, IMPERIAL, HORIZON, ALFRED IVES, WOHLENBERG, ITOH, TRIUMPH, PRISM, SABER, HEIDELBERG and COMO.

KNIFE BOLTS

SHEAR BOLTS AND SHEAR PINS

POLAR CUTTER PARTS

KNIFE CHANGE HANDLES

KNIFE CHANGE KNOBS

KNIFE BOLT "T" WRENCH

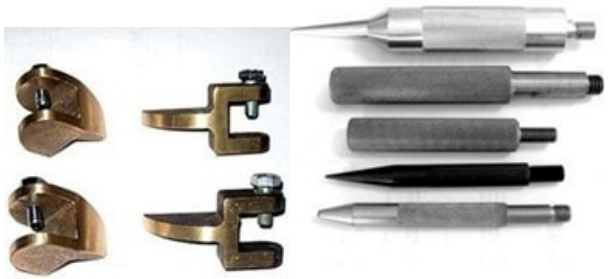
CLUTCH HANDLES

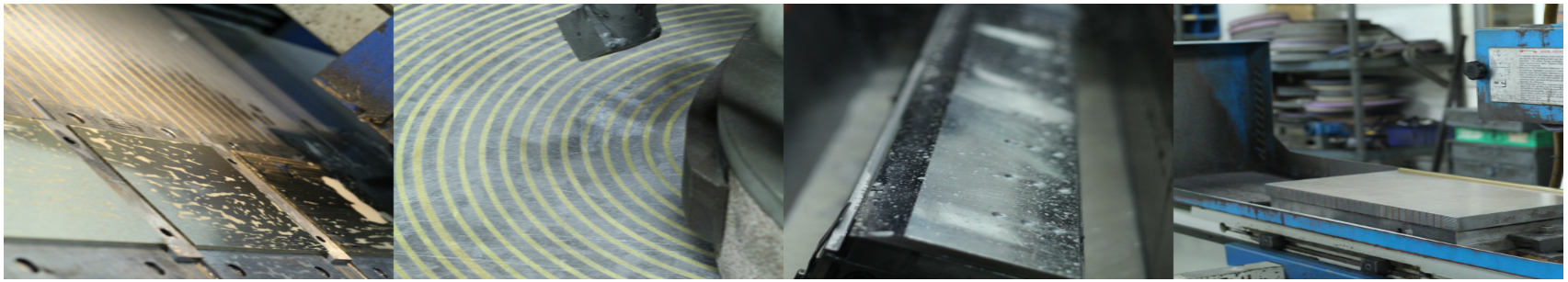
BOOK CLAMPS

MISCELLANEOUS CUTTER PARTS

USED POLAR CUTTER PARTS

TO ORDER PLEASE PROVIDE MACHINE NAME MODEL, NUMBER OR SAMPLE





Capabilities

Full Machine Shop

- **Swiss Machining up to 1-1/4” maximum diameter**
- **Lathe and CNC Mill**
- **Centerless Grinding Plunge grinding,**
- **We specialize in production runs of pins, shafts, small aerospace**
- **and medical parts.**
- **Through Feed Grinding up to 5" outside diameter**
- **Long Bar Grinding up to 20’ long.**
- **Bar Straightening**
- **We can supply you with material ground to size or you can have**
- **your material sent to us to be ground**
- **CNC Universal I.D./O.D. Grinding**
- **O.D. – Between Centers up to72” long x OD Swing up to 24” diameter**
- **I.D. – 9” depth x 10” diameter.**
- **Sunnen ID Hone Call for capabilities**
- **Surface Grinding 20” x 60” Reciprocating full auto**
- **Angle or Surface 167” x 8” x 4”**
- **Blade Grinding Industrial Machines 8 x 167” long magnetic beds**
- **Blanchard Grinding 42" swing and 24" under head**
- **CNC Circular Grinding Machine up to 20” Dia**

Our Specialty is Close Tolerance Grinding

We Sell and Service:

All types of Industrial Specialty Blades.

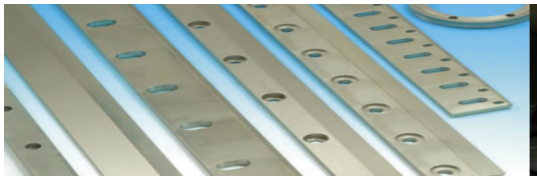
Carbide Blade Grinding Certified.

We distribute band saw blades for the Starrett , Amada and Wikus brands.

Our capabilities are very broad please call for more information.

Our grinding equipment will save costs on sharpening of Metal shears, Granulator blades, Circular Slitters, Anvils as well as other types of industrial and packaging blades.

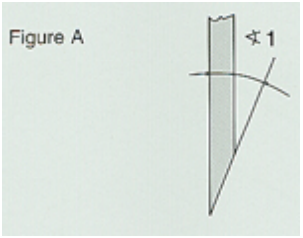
We Sell All Types Of Replacement Blades, Knives & Dies!



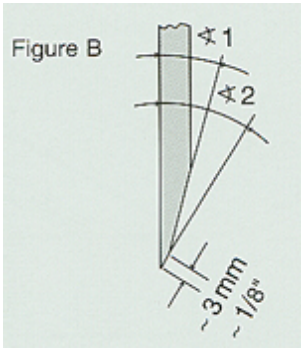
Sales of Metal Cutting Knives & Shears, Circular Blades, Punch & Die Sets, Granulators, Paper & Fiber Sheeter Blades And So Much More!

Give us a call!
We can schedule your sharpening to accommodate your production needs.

Recommended bevels for Paper Cutting Knives



For the European market all knives are supplied with a standard bevel of 22°. Listed below are various materials and suggested bevels to assist you in obtaining maximum benefit from your knives.



Materials

∢1 = 17°	rubber tubes	crude rubber	soft rubber
∢1 = 19°	aluminum foils lead foil copy paper felt carbon paper	cork blotting paper NCR paper absorbent silk paper plywood(max. 3mm)	textile fabric velour paper wood pulp zinc foils tin foils
∢1 = 22°	bible paper jointing paper normal printing paper felt paper felt board glass paper greyboard	hand board hard rubber wood board, soft index cardboard caseboard lino	postcard board PVC soft emery cloth writing paper strawboard security paper celluloid
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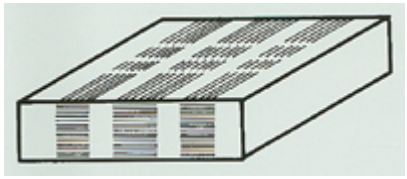
∢1 = 19°	aluminum foils lead foil copy paper felt carbon paper	cork blotting paper NCR paper absorbent silk paper plywood(max. 3mm)	textile fabric velour paper wood pulp zinc foils tin foils
∢1 = 22°	bible paper jointing paper normal printing paper felt paper felt board glass paper greyboard	hand board hard rubber wood board, soft index cardboard caseboard lino	postcard board PVC soft emery cloth writing paper strawboard security paper celluloid
∢1 = 23°	leather		
∢1 = 24°	Astralon clear vision foil cellulose foils duplex board	duplex cardboard photo paper Manila board pergamyne	pressboard transformer pressboard transparent paper

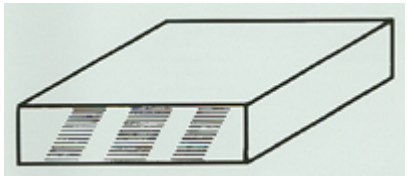
Troubleshooting

Paper cutters must be viewed as complete cuttings systems with many factors contributing to the quality of the cut. Many cutter operators too quickly blame the knife or the knife grinder for poor cutter performance when the fault is elsewhere. We have listed some common problems encountered and their probable causes to assist you in troubleshooting.



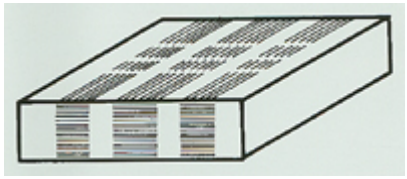
WAVY CUT (A): Vertical shading across edge of lift can be seen or felt as wavy areas.

CAUSE:	CORRECTION:
Heavy print in certain areas causes thickness differences across the sheets. This produces uneven clamp pressure in areas of dense print. The knife finds these areas harder to cut since they are packed tighter and deflect slightly.	Evenly distribute clamp pressure by applying felt or foam pad to face of clamp.
Knife burned in grinding causing soft spots that dull quickly.	Regrind knife correctly taking off at least 1/16" width to remove damaged steel.
Knife angle too sharp causing deflection in high density areas.	Increase bevel angle by 2°, i.e., 22° to 24°.
Inconsistent paper quality thickness.	Change paper.



WAVY CUT (B): Diagonal shaded areas in direction of knife travel can be seen or felt.

CAUSE:	CORRECTION:
Knife bevel too sharp and deflects easily.	Increase bevel angle by 2°, i.e., 22° to 24°.
Knife burned in grinding causing soft spots that dull quickly.	Regrind knife correctly taking off at least 1/16" width to remove damaged steel.



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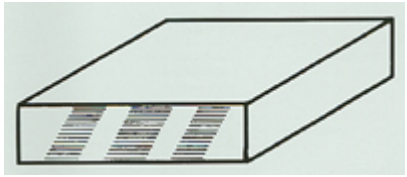

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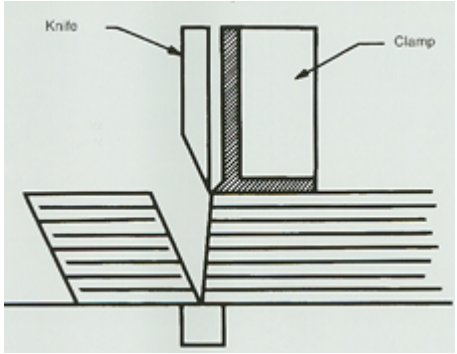
Knife burned in grinding causing soft spots that dull quickly.	Regrind knife correctly taking off at least 1/16" width to remove damaged steel.



CAUSE:	CORRECTION:
Dull knife.	Change knife.
Wrong bevel.	For soft paper, decrease bevel angle by 2°, i.e., from 22° to 20°. For hard paper, increase bevel angle by 2°, i.e., from 22° to 24°.
Too much clamp pressure - as knife gets further into lift of paper, the density increases causing deflection of knife.	Reduce clamp pressure.

ARC CUT: Sheets of paper are shorter at ends and longer in the center.

CAUSE:	CORRECTION:
Lift is clamped only at center of paper and not at ends of sheets.	Check clamp edge and apply felt or foam pad to distribute clamp pressure.

KNIFE RUBBING: Knife face rubs clamp causing scratches on knife face and clamp.

CAUSE:	CORRECTION:
Knife dull.	Resharpen knife more often.
Knife too thick.	Decrease knife thickness.
Wrong bevel.	Decrease bevel.
Gibs worn on cutter.	Repair machine.
Combinations of above plus lifts too high.	Reduce size of lifts being cut and look for improvement.

KNIFE NICKS BADLY:

CAUSE:	CORRECTION:
Knife at wrong bevel.	Increase bevel angle by 2°, i.e., 22° to 24°.
Knife burned in grinding producing small heat cracks which chip out.	Regrind knife correctly taking off at least 1/16" width to remove damaged steel.
Knife set too deeply into cutting stick or stick groove has trash in it.	Rotate to fresh stick surface and set depth of cut correctly: (max. 0.1mm/.004").
Poor cutting sticks.	Choose better quality stick. Use IKCO cutting sticks.
Contaminated chip board.	Try increasing bevel, do not use carbide knives.

Superior Grinding & Sales, Inc.

Celebrating 28 years, serving the western United States and beyond.

Our long time employees are efficient, skilled detail oriented and take pride in their high quality work. They set us apart from the competition by specializing in the ability to hold tight tolerances to .0001.

We are AS9100 REVD with ISO 9001:2015 registered, WOB, and Government certified.

Customer Service is our #1 Priority!

NSF®

NSF-ISR

Registered to AS9100