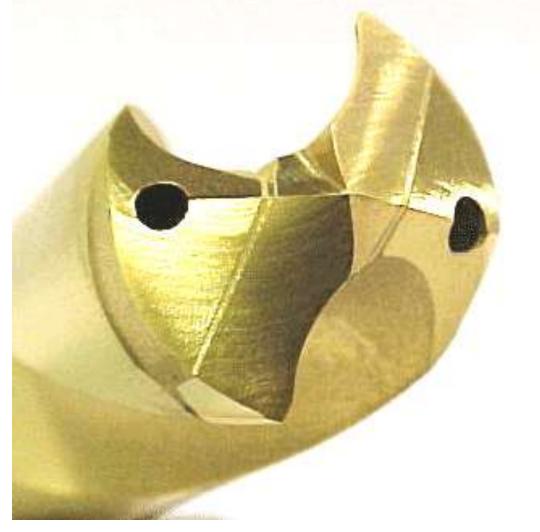
AWD Associates, Inc.

Hi-Performance Drill Reconditioning





The questions

Who is AWD

What does AWD do

Who is the customer

What is the market

Why offer reconditioning services

What are the benefits

Who is the competition

Why AWD is superior





AWD Associates, Inc.

It is our goal to increase sales and market opportunities for our distributors while providing measurable cost and performance benefits to their manufacturing customers.

We accomplish these goal by utilizing innovative processing and technology to Expand Customer Service Improve Productivity Increase Tool Life Reduce Cost





AWD offers complete reconditioning and recoating of all brands, types and styles of Hi-Performance Drills:

- Solid Carbide
- Carbide Tipped
- High Speed Steel
- Replaceable Insert Tip Drills
 - Step Drills

Up to 1.500" Diameter





AWD Associates, Inc.

AWD serves North America exclusively through a vast organization of professional cutting tool distributors, integrators and strategic partners.

The authorized AWD distributor's customer base is highly diversified; from very small job shops to mid size manufacturing companies to tier 1 & tier 2 suppliers and machining contractors to the largest of OEM accounts.



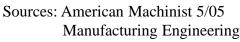


Some stats to consider

- Cutting tool industry in the U.S Fiscal 2004 \$1.697 billion purchased in US tooling
 - Globally 68% to 72% of all metal removal is drilling
 - \$1,188 billion for drills (70%)
 - \$509 million for everything else
 - Endmills, inserts, reamers, taps, gear cutters, etc

Average drill \$100

- 8.5 million drills mfg. per month
- 102 million drills mfg. per year







Statistics on drilling

- Less than 50% of drills are used twice

 \$594 million in drills thrown away
 Industry data reflects that
 - -Average resharpen-recoat is \$25
 - Average resharpen-recoat is 5 times/drill
 - Resharpen only 50% of new life
 - Resharpen-recoat 70% of new life AWD has consistently provided 100% or more of new performance.





Why regrind and the benefits:

Reduce tool cost, reduce cost per hole and overall product cost. Reduces tool inventory, improves tool availability, increases capacity.

Argument has been that regrinding reduces distributor sales.

Not true!

Customer will upgrade to more expensive tools (Most know carbide out-performs HSS, but cost too much). Expand customer service and related sales opportunities. The distributor who provides the best net cost and service establishes a strong relationship and increased customer loyalty.





Reconditioning is an on-going, value-added process, creating a profit center and cash flow

The income is created from drills you didn't sell originally.

When current drills are exhausted you will be in position for the replacement business. Access to related tooling opportunities

Bottom line is: customer is going to do it with or without you, don't let another company service your customer.





Cost/yield example

- New $\frac{1}{2}$ " drill gets 1000 holes (\$100)
- No Regrinds cost per hole \$.10
- Typical regrind process
 - Lifetime yields
 - 4500 total holes
 - Regrind/coat 5 times (\$25 each = \$125 total)
 - 70% utilization on regrinds
 - 3500 holes on 5 regrinds
 - Total drill cost is \$225
 - Tooling cost per holes is \$.05





Improved life example

- Buy the same $\frac{1}{2}$ drill (\$100),
- 100% performance (1000) (regrind)
- Lifetime yields
 - 11,000 total holes from 1 drill
 - Recondition/recoat 10 times or more (\$25 each)
 - That's 1000 holes for \$100, next 1000 holes
 @ \$25 per 1000
- Total drill cost is \$350
- Drill cost per hole is \$.032
- Net: almost 2 ¹/₂ times the holes @ 36% less cost per hole
- Cycle time and capacity improvements =bonus \$



Customer example

0.787in Dia solid Carbide drill - \$339.00 Production of 14,600 parts per year, Ductile Iron

	Previous	AWD
Speed/Feed	1102 rpm/13 ipm	1456 rpm/ 20 ipm
Cut time/part	12 secs	8 secs
Avg parts/tool	73	973
Tools needed	19	2
Regrinds	181	13
Cost per part	\$1.24	\$0.15
Tooling Cost/year	\$18,104	\$2,190

Net drill cost savings \$15,914 not including all other associated savings.





Why AWD and the competition:

There are literally hundreds of companies that regrind drills, from drill manufacturing companies to small tool shops. Drill manufacturers usually only regrind their own products, have limited geometry and coating capability, do not deal well with small or mixed lots and have substantial deliveries. Their primary manufacturing requirements have priority. Regrinding most always is performed on the same type equipment as manufacturing, while regrinding is different & complex process. Many will become your competitor at the same account.





Local small tool shops have many of the same issues as drill manufacturers except with limited resources, limited capacity and limited geometry capability. Many times older equipment, they do many types of tools, (drills are not a specialty) usually very regional in service area. Most equipment is generic tool grinders, if it is CNC, their capability is limited by the equipment and its software. Most will provide service to anyone, including your customers.





The AWD difference:

Drill reconditioning is AWD's core business, serving all of North America, we process any and all drills, there are no minimums with almost unlimited capacity. AWD is recognized nationally by many drill manufacturers.

We design and build our own dedicated, fully CNC drill grinders, fully programmable edge finishing machines and COVIS a computerized digital video inspection system.

Our grinders are the only of its kind, both simultaneous and synchronous, repeating in less than a micron, driven 100% by our software allowing us unlimited geometry and parameter control.





With hundreds of distributors and hundreds and hundreds of users, we have an extensive application information base, enabling us to optimize every process with over 140 geometries

We offer all industry standard coatings, AWD also has available a number of propriety coatings and microstructure enhancement treatmentsTM.

Uniform competitive pricing and unsurpassed delivery. In 2004 93% of all orders were shipped in 7 days or less, including coating.





Managing the process:

Once the reconditioning relationship is established, AWD has numerous logistics techniques to make the entire reconditioning process is efficient and seamless.

**Operate through your normal distribution channels.

**Customer direct; customer ships direct to us and we return direct to the customer, distributor manages the paperwork only, reducing the distributor's time, handling, and expense.





Other things we do:

Continuously expand our geometry and processing capability.

We offer coating services and our proprietary Microstructure Enhancement Treatment Process[™] for taps, end mills, reamers, form tools, dies and punches, many types of tools as well as drills.

Customer specific, turn-key drill point regrinding equipment cells.

COVIS computer video measuring and inspection equipment.





Things we don't do:

We don't manufacture tools, we don't compete with your cutting tool principles.

Our services are only available through authorized distributors.

We will not solicit a distributor's customer directly or provide reconditioning services to a user without a distributor relationship.





This presentation offers only the briefest overview of AWD's capability, contact us for detailed information and answers to any of your questions.





Visit our facility or call us at 248-922-9898