

Vacuum Pencil Grinder offers source capture for detail applications



## New Product Report

Product development and insight

- Flexible Shroud Program Continues to Expand  
Preview of Central Vacuum Pencil Grinders

Models/Features - Page 2

Applications - Page 2.



Vacuum Pencil Grinder  
Extended Shroud



Outlast the competition!  
Bibielle Flap Wheel products lead the pack

## OEM Abrasive Report

Strategies, trends and new products

Featuring Bibielle and Weiler®

- Bibielle, History, Flap Wheel Report - Page 3-4.
- Weiler®, Product/Market Channels - Page 5.



Weiler® Knot Wire Wheel



64330 Front  
Shield Assembly

## ECN's You Should Know About

Something you'll see in the field

- ECN 3810, Reinforced composite couplers - Page 7.
- ECN 3831, Two-Hand Tools - Improved spacing helps vacuum capabilities - Page 7.
- ECN 3898, Two-Hand Tools - Updated levers - Page 7.
- ECN 4062, Increase Capture of The Large Metal Finishing Station - Page 8.



Dynabrade will expand offering of shrouded models. 10 New Pencil Grinder Models

## Central Vacuum Pencil Grinders ▶

### Unique Qualities

These new models will allow the operator to attach the tool directly to any central or portable vacuum system. The connection is made by attaching a 1" I.D. vacuum hose cuff onto the supplied hose cuff. These tools were inspired by the US Military for maintenance work in small restricted areas. The tool is ideally suited for surface conditioning these tight areas and concurrently capturing the airborne debris that is generated from this work. These tools are shown with carbide burrs but stones and unitized products are also a great match. These tools have similar shrouds to the 3" Disc Sanders, a clear urethane that can be cut and altered to the desired shape of the end user. Expect a distribution announcement before the new year in the US, other markets to follow.

### Standard Model



Model 51632

### Extension Model

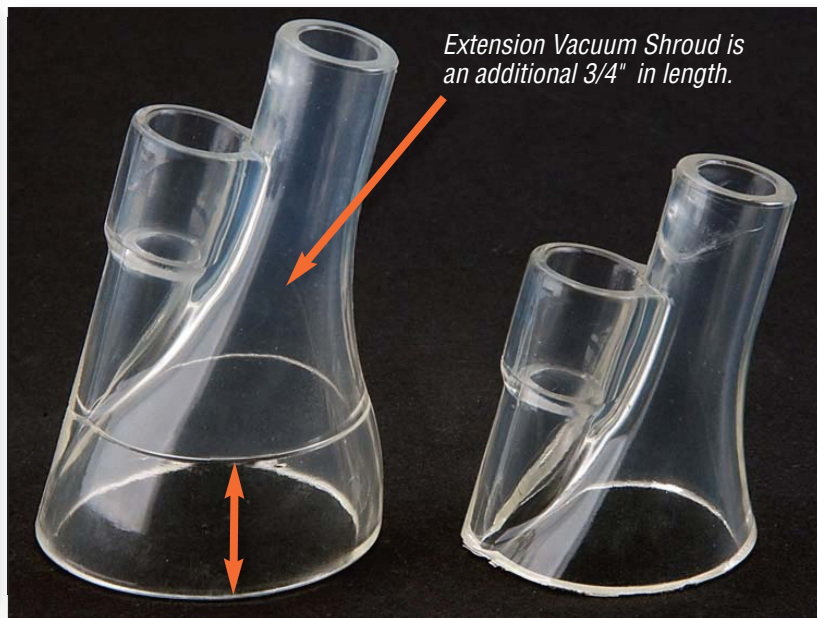


Model 51630

The models above represent the two main styles in the line, a standard offering and an extended version. 35,000, 50,000 and 60,000 RPM - 1/8" and 3 mm Collet Inserts Avail.



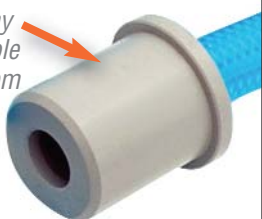
Complete tool assembly includes both hoses.



Extension Vacuum Shroud is an additional 3/4" in length.

Detail of Vacuum Pencil Grinder Shrouds. Both can be trimmed to the end users' desired shape.

Connect to any central/portable vacuum system with this slip fit cuff.



1" O.D.



With the addition of our new Abrasive Price Book we are improving our ability to system sell. In this section we will discuss a couple of our new partners' philosophies and product details.

## **Bibielle - A leader in R&D, Flap Wheels and more! ➤**

Bibielle is one of the World's largest automated producers of mounted Flap Wheels from diameter 3/8" up to 3". The RG Premium Flap Wheel is the highest quality Flap Wheel in the Industrial market.

### **HISTORY**

For more than 40 years Bibielle SpA has provided the metalworking industry the highest quality abrasive products available. From the beginning the company achieved success in the market thanks to a particular method of production of Flap Wheels that guaranteed a high level of efficiency and constant level of quality, as well as products with the highest safety standards.

### **R&D DRIVEN COMPANY**

Currently Bibielle is becoming known throughout the world as an R & D driven company offering its supply channel partners productivity and profit through innovations in Bibielle's product development. Bibielle products are designed to exceed the current products now being offered in the market giving us the competitive edge and increased profits. In the early 90's Bibielle started to invest in the development of Non Woven materials. Through this investment in 1996 Bibielle introduced Strip-It material followed by the surface conditioning materials for belts and discs. In 2001 High Performance materials were introduced. The most recent product, Unitized Wheels were launched in 2006.



### **DISTRIBUTION**

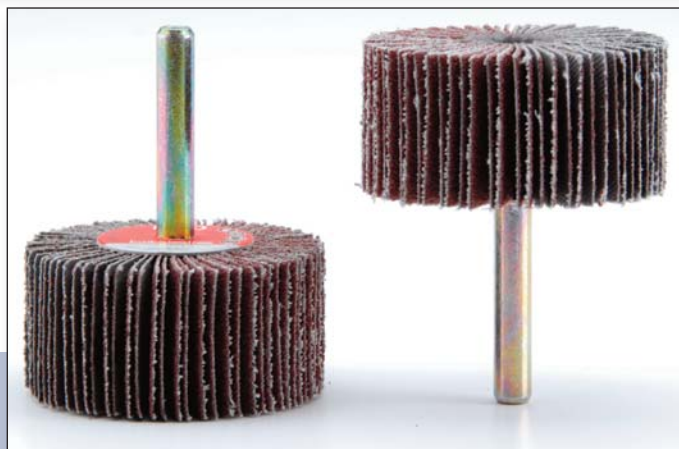
Bibielle has well established sales networks all over Europe. Lately Bibielle opened a new logistic warehouse in Chicago for fast delivery within the USA.

### **PRODUCTS**

Through automated production Bibielle offers a complete range of:

- Mounted Flap Wheels
- Non Woven and Interleaved Mounted Flap Wheels
- Unmounted Flap Wheels
- Surface Conditioning – discs, quick change discs and belts
- Strip-It and Strip-It Red – wheels, discs and shaft mounted wheels
- Unitized Wheels, discs and quick change discs
- Flap Discs – type 27 & type 29 styles also with the 5/8-11 hubs.

Bibielle is a progressive R & D driven company that is making long-term investments to secure future growth and the growth of its long-term market partners.



## PRODUCTS SPOTLIGHT - Flap Wheels on Shaft

We are glad to inform you that, thanks to the research carried out by the Bibielle R&D Department, Bibielle developed a brand new manufacturing technology and resin system for flap wheels on shafts.

## HIGHLIGHTS

- New resin, increase safety parameters up to 90%
- Improved control of manufacturing process
- Increased quality consistency
- Flat top surface design
- Improved make up of the product

## TEST REPORT - Flap Wheels on Shaft

Over a period of 6 weeks we have compared the new gluing system to the old one, with product inspected coming from several different production batches. All the wheels produced have been tested with both old and new gluing systems.

### TEST -1

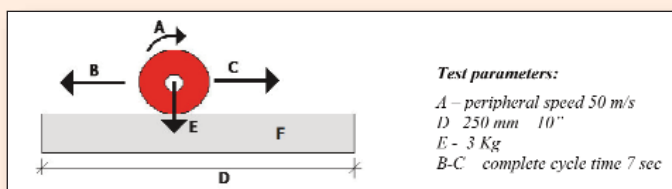
The test is performed on a fully automatic test machine that runs the wheel at maximum speed (A) with a heavy load (E). The wheel is run in both directions on the same metal piece (direction B is the correct whereas C is opposite to the direction of rotation A) on a steel bar (F). The mix of high pressure, high temperature reached by the resin core as well as an application which for 50% of the time is run in the wrong direction (wheel rotation and movement on the metal piece in opposite directions) tends to blow up the wheel. We record the time it takes the wheel fail.

### TEST -2

The test is performed on a fully automatic test machine that runs the wheel at suggested speed (A) with a heavy load (E) going in two directions on the same metal piece (direction B is correct and C is opposite to the direction of rotation A) on a steel bar (F). The difference from the blow up test is that the speed is decreased (-28%) so the temperature reached by the resin core is different, the number of contact and the friction force are considerably reduced compared with test method 1.



This is the set-up used in the tests described below.

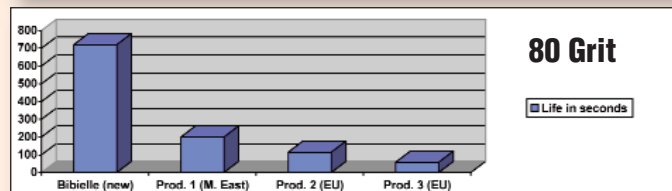
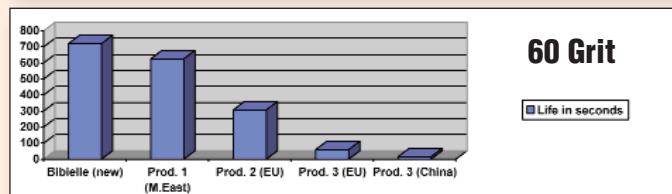
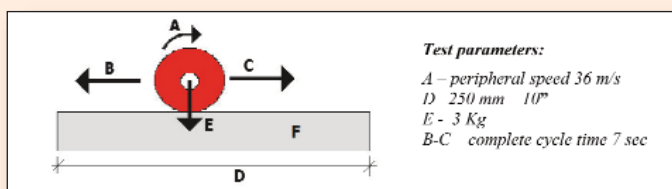


## TEST RESULTS

The results reported are the average of all the tests performed (128 wheels of different diameter and grit size).

**Old Resin:** average failure after 97 seconds

**New Resin:** average failure after 187 seconds (+92%)



### Flap Wheel RPM

Thanks to the new resin and production build the current speed rating for these has increased.

**1-1/2" = Max RPM 25,000**

**2" = Max RPM 25,000**

**3" ( up to 1" thickness) = Max RPM 20,000**

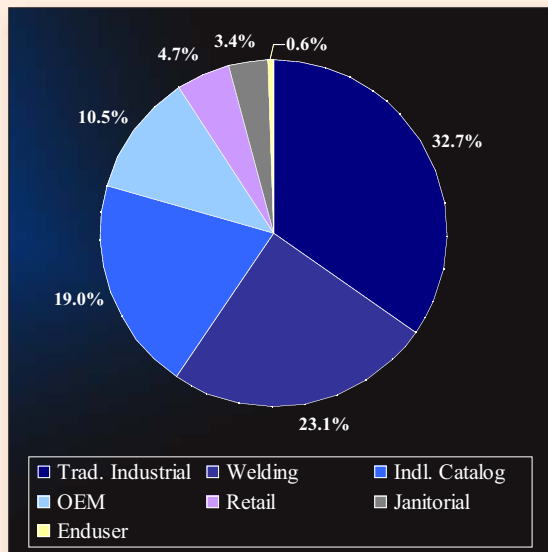
**3" ( above 1" thickness) = Max RPM 12,000**

## WEILER - An Abrasive Partner

The Weiler Corporation has progressed over the last 110 years to become the largest supplier of power brush abrasives in the world. Currently Dynabrade, Inc. has chosen to include some of these exciting power brush products in our "AbrasiveEdge" catalog. Below you will find a

couple of helpful statistics to help explain the yearly consumption of such products (USA numbers only) and who they are targeting with such products. This information will be helpful in encouraging the potential for system sells in the marketplace.

### Weiler - Channel Mix



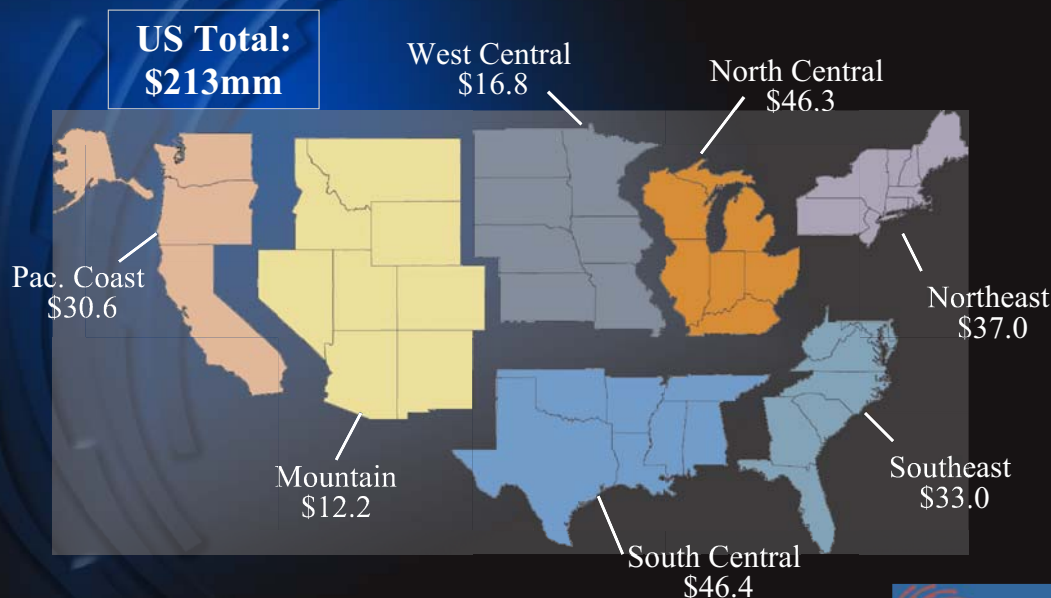
### Weiler/Dynabrade - Product Offering

Weiler products currently offered for sale by Dynabrade, Inc.

- Twist Knot Wire Wheels
- Stringer Bead Twist Wheels
- Knot Wire Cup Brushes
- Crimped Wire Cup Brushes
- Crimped Wire End Brushes
- Controlled Flare End Brushes
- Knot Wire End Brushes
- Crimped Wire Radial Wheel Brushes
- Concave Brushes
- Knot Wire Wheels



## End-User Consumption of Power Driven Brushes by Region



Brushes, Abrasives and more™ ...

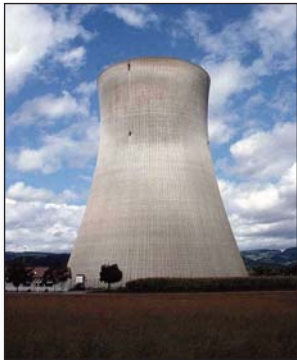


Source: Industrial Market Information, Inc.



Contributed by Steve Briggs, with the help of Mike Flannery.

## **Nuclear Maintenance - An opportunity that will only increase with the development of Vacuum Assisted Tools!**



Shown here is a typical single core reactor.

Alternative energies are providing growth opportunities for Dynabrade, and Nuclear Power plants are no exception. Most of the nuclear plants are aging and are in need of maintenance, and this is one of the areas where we can help them out.

An aging nuclear facility in Illinois needed to conduct Ultrasonic Testing on their heater shells. This type of testing will identify any cracks or critical wear that will need to be addressed. These heater shells are 6 feet (1.8m) in diameter and 72 feet (22m) long and have a layer of insulation that is 2 inches (50mm) thick.

This layer of insulation needs to be removed to bare metal so that a proper UT can be conducted. This insulation generates a high volume of powder when manipulated and has the possibility of being contaminated. Therefore it is essential to reduce the amount of airborne particulate generated by its removal. Our Illinois representative, Mike Flannery, was asked by the end user to provide a solution to their problem. Mike's demonstration and recommendation resulted in a net order of \$20,000 (USD)!



Below is a list of products that Mike sold into this account. You will notice that this order consists of tools, accessories and abrasives.



A picture of a Nuclear Power Plant while exterior and interior maintenance is being preformed.

Qty	Description
1. 11	<b>58443</b> – 6" Central Vac Gear Driven Sander
2. 5	<b>58446</b> – 8" Central Vac Gear driven Sander
3. 2	<b>52438</b> – 1 hp 5" Diamond Cut-Off Tool
4. 2	<b>30336</b> – 2" VirtuScaler
5. 7	<b>61300</b> – 9.9 Gallon Portable Vacuum System
6. 17	<b>64684</b> – HEPA Cartridge Filters
7. 5	<b>64682</b> – Disposable Paper Bag (10 pack)
8. 10	<b>57763</b> – 6" Gear-Driven Pads
9. 2	<b>98221</b> – Tune-Up Kit (gear driven tools)
10. 12	<b>56235</b> – 8" Gear-Driven Pads
11. 60	<b>98265</b> – Coupler/Plug Assembly
12. 56	<b>94990</b> – Composite Coupler/Plug Assembly
13. 8	<b>11292</b> – 3/8" Hose Assembly
14. 4	<b>11405</b> – F-R-L Combo
15. 36	<b>39002</b> – 2" Type C Rotopeen Flaps
16. 750	6" Abrasives 40 Grit
17. 1000	8" Abrasives 36 Grit

Not only was this \$20,000 order under budget for this job, it was also completed in 21 hours when 36 hours were allocated. Great job!

Globally there are 439 Power Plants. Please reference this address for a country by country listing of these facilities. [http://en.wikipedia.org/wiki/Nuclear\\_power\\_by\\_country](http://en.wikipedia.org/wiki/Nuclear_power_by_country)

If any of you have any success stories with Nuclear Power Plants please forward them to my attention so we can share them with our global sales team.



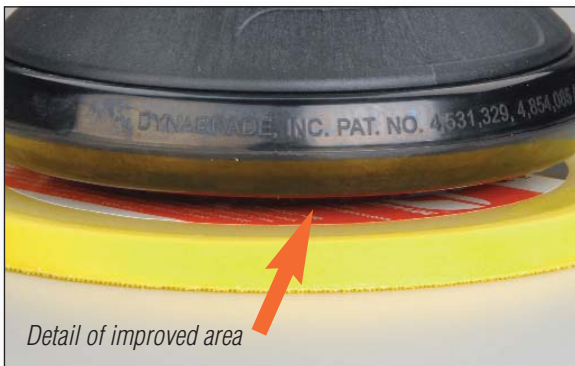
Location of area where failures occurred



New improved design showing a reinforced area by the location of the (2) set pins

## **Part/Product Improvement - ECN-3810** **Reinforced housing, improves durability**

This concerns all composite couplers, an issue has been seen in the design of the couplers that could be improved upon. The area located by the inlet has (2) pin locations which in some cases has shown failure (see photo). An updated design has reinforced this area to include more material. All tests have confirmed a stronger product. All future couplers will have this improvement. (ECN-3810)



Detail of improved area

## **Part/Product Improvement - ECN-3831** **Redesigned Lip Seal will improve fit**

All 5" & 6" Two-Hand Random Orbitals and DynaLockes will have an improved lip seal. The new lip seal has been re-shaped to achieve a closer fit between the pad and it's bottom edge. The closer fit will improve vacuum performance and give an improved appearance. (ECN-3831)



Typical composite safety throttle lever

## **Part/Product Improvement - ECN-3898** **Throttle levers, GOST symbol, booklet symbol**

Two-Hand composite throttle levers are now being assembled onto tools with new artwork. The ibook "booklet" symbol and a GOST symbol (for sale into Russia) has been incorporated onto the throttle lever. (ECN-3658)



**UPDATE**



*New shield shown in use. This facility uses hand tools and mounted motors with our Large Metal Finishing Station to capture debris and improve the working environment.*



*Detail of 64330 Front Shield Assembly.  
Note: Accessory must be used with 64331 Side Walls (2).*

## **Part/Product Improvement - ECN-4062** **New polycarbonate shield to increase capture rate of standard Large Metal Finishing Station (64300)**

This is a new product accessory for the Large Metal Finishing Station. It's a transparent shield that attaches to optional 64331 Side Walls. It will serve the dual purpose of shielding the operator from any flying particles and helps focus the suction/draw of the vacuum surface. This accessory can be easily cleaned with a damp cloth to ensure visibility. This product enhances the performance and safety of Large Metal Finishing Stations.

(ECN-4062)