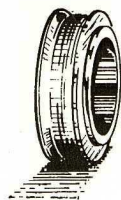


## CONSORT PRECISION DIAMOND Co LTD.

R O T A R Y  
D I A M O N D  
D R E S S E R S



**DIATEC** Utensili S.r.l.

Via Ernesto Rizzi 15/G  
20077 - Melegnano (MI) - Italy  
Tel. +39 02 98112135 - 02 98230045  
Fax. +39 02 98237589  
E-Mail : [info@diatecut.it](mailto:info@diatecut.it)  
Part.Iva/Cod.Fisc. n. 02283730154

## ENGINEERED FOR EXCELLENCE

STRAIGHTNESS



ROUNDNESS



FLATNESS



CYLINDRICITY



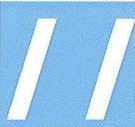
PROFILE OF LINE



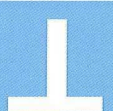
SURFACE PROFILE



PARALLELISM



SQUARENESS



ANGULARITY



RUNOUT



SYMMETRY



CONCENTRICITY



*Industry's increasing demand for high-accuracy, high-speed production has fostered a new branch of engineering technology to ensure grinding wheels are maintained in optimum condition.*

*Rotary Diamond Dressers are now recognised as the most effective and economic means of dressing and trueing grinding wheels to the correct form, tolerance and condition. Their use is growing rapidly in the manufacture of components for automotive, aerospace, power generation, machine tool and precision engineering industries.*

*Specialist techniques need specialist suppliers - which is why we established Consort Precision Diamond Co. Limited, with all our resources dedicated exclusively to developing the finest Rotary Diamond Dressers and support services in Europe.*

*We do nothing else but design, develop, manufacture, install and maintain Rotary Diamond Dressers. And we think that gives us a unique commitment to provide our customers with the best technology can offer.*

*We have the engineering, design, manufacturing and staff resources to supply the highest quality Rotary Diamond Dressers available on the market.*

*But most important of all, we have the depth of experience to ensure each product we supply is the optimum choice for each individual customer, however demanding and complex the configuration.*

*If an application calls for a Rotary Diamond Dresser, Consort Precision Diamond Co. will provide the best tool for the job.*

*All Rotary Dressers are manufactured within general tolerance of*



0,003mm  
to bore



0,002mm to  
datum side face



0,002mm  
to bore

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## ROTARY DIAMOND DRESSERS - CHOOSING THE BEST

*There are three basic categories of Rotary Diamond Dresser, sometimes called Truers or Rollers:*

HANDSET SINTERED  
RANDOM SET SINTERED  
REVERSE PLATED

*Within those categories there are many further variables of appropriate diamonds and setting patterns, which must meet the specific requirements of:*

TOLERANCE  
SURFACE FINISH  
CONFIGURATION OF FORM  
GRINDING MACHINE TYPE  
GRINDING WHEEL SPECIFICATION

*Specifying a Rotary Diamond Dresser with the best possible combination of performance and life demands experience and in-depth understanding of particular requirements. It can NOT be achieved by choosing from a small range of general purpose Dresser types.*

*Correct specification involves the appropriate design, selection and placement of diamonds in a way which takes into account all the factors affecting the individual customer's application*

*Consort Precision Diamond Co.'s experience in specifying and manufacturing Rotary Diamond Dressers for individual applications is second to none, so talk to us first about YOUR needs.*

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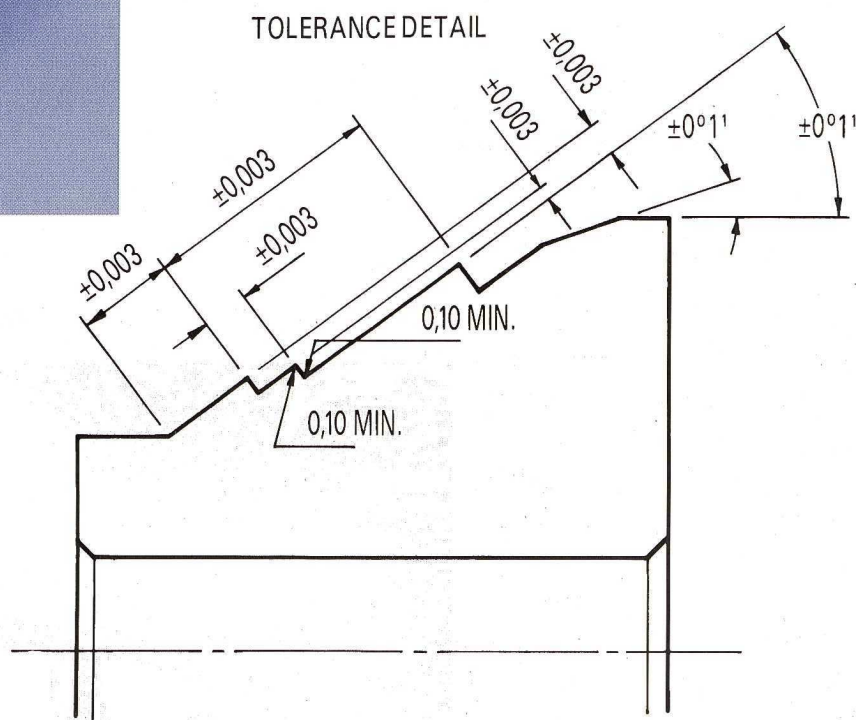
## CONSORT HANDSET SINTERED DRESSERS

*Handset Sintered Dressers are our most commonly used type of Rotary Diamond Dresser, and cover applications where robustness is required and the general tolerance is open.*

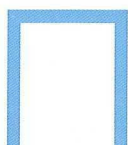
*As the name implies, diamonds are selected and set by hand in a mould, then secured in position by sintering in a tungsten based matrix. Allowances are made for consequential shrinkage to bring the finished dresser within specification tolerances.*

### TYPICAL APPLICATIONS

• Turbine Blade • Automobile Valves • Crankshafts •



General Surface Finish Produced: 0,8  $\mu$ m. 32 C.L.A.







## CONSORT RANDOM SET SINTERED DRESSERS

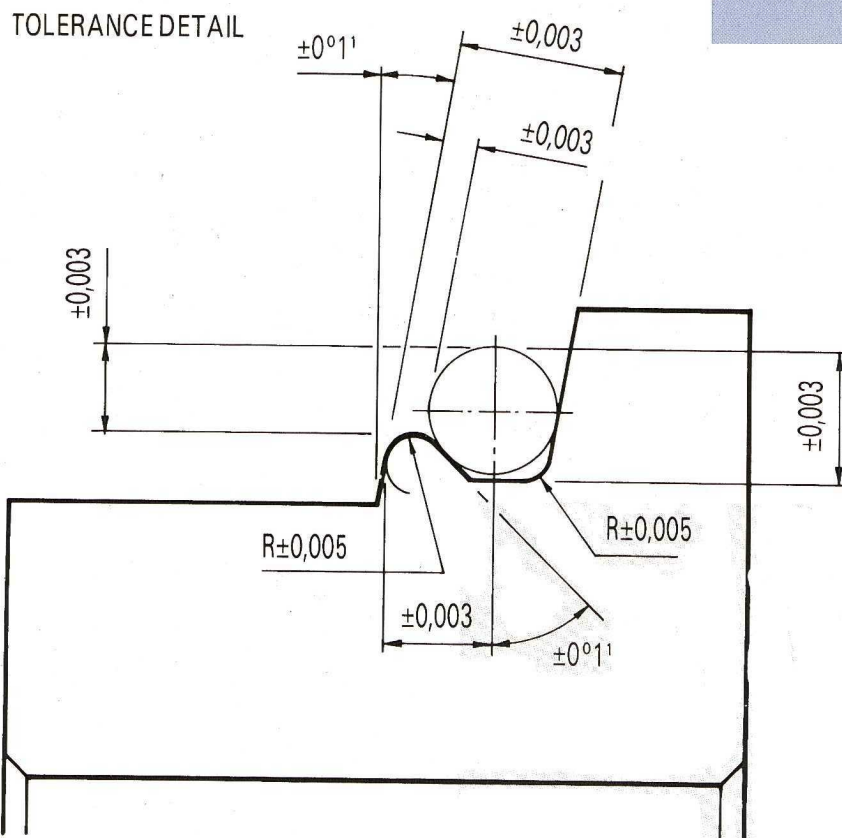
*Random Set Sintered Dressers are most suitable where openness is required, coupled with a tight form and improved surface finish.*

*Very often selected diamonds are strategically placed in the mould to support the form in vulnerable areas. The remaining area is then in-filled by centrifugal dispersion of diamonds and sintered.*

*Random Set Sintered Dressers have the advantage that they can be delivered quickly to meet urgent customer requirements.*

### TYPICAL APPLICATIONS

- Automobile Valves • Turbine Root Form •
- Flute Grinding •



General Surface Finish Produced:  $0,4\mu\text{m}$ . 16 C.L.A.



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## CONSORT REVERSE PLATED DRESSERS

*Reverse Plated Dressers are selected where high accuracy of profile detail is required together with a correspondingly high quality surface finish on the component.*

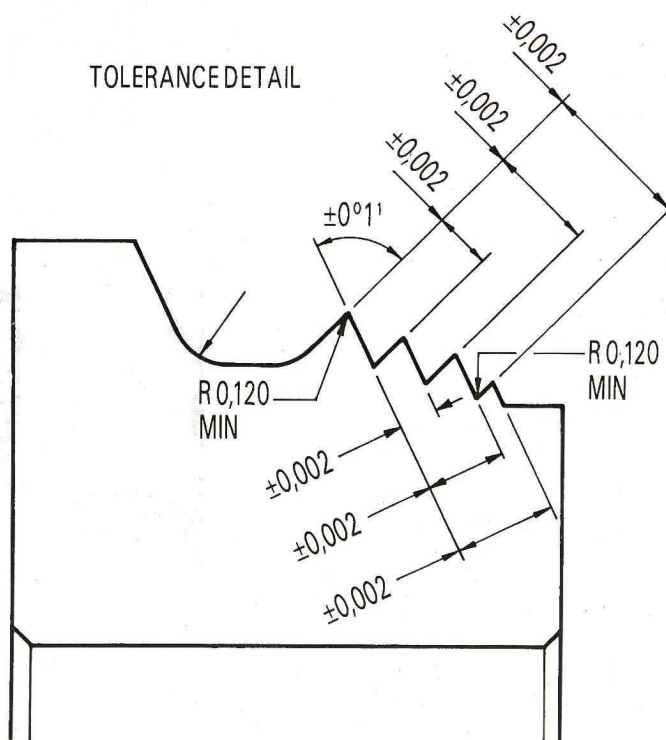
*Accuracy is achieved by centrifugal dispersion of specially selected diamonds onto the walls of a mould. These are secured by an electro-deposition process, which can take as long as several weeks, depending on the configuration of the roller.*

*The electro-deposition process is stable and unaffected by shrinkage, which results in Rotary Diamond Dressers of exceptional accuracy*

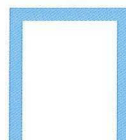
### TYPICAL APPLICATIONS

- Turbine Blade - Fir Tree Root Form • Cam Grinding •
- Bearing Industry • Ball Joints • Needle Injectors •

TOLERANCEDetail



General Surface Finish Produced:  $0,4 \mu\text{m}$ . 16 C.L.A.



## CONSULTANCY & DESIGN SERVICES

*Our breadth of experience in supplying Rotary Diamond Dressers to suit a broad range of applications is second to none in Europe.*

*However large - or small - the requirement, we are pleased to make our expertise available to improve the quality, speed and cost of production for each of our customers.*

*We operate a full in-house design and draughting service, so we can incorporate special features as required.*

*We are pleased to accept customers' component drawings as the basis for suitable Rotary Diamond Dresser installations, which may be draughted onto Consort's paper or the Client's*

*Senior Consort staff are always willing to visit customer premises and discuss particular applications.*

*Call us now to discuss your special Rotary Diamond Dresser requirements*



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**CONSORT PRECISION DIAMOND COMPANY LIMITED**  
**Rotary Diamond Dressers**

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AZIENDA CERTIFICATA  
 UNI EN ISO 9001:2000

