






MANUFACTURER OF DIAMOND, CBN  
WHEELS AND TOOLS



## INSTRUCTION MANUAL







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- It is highly recommended that all operators read this instruction manual and wheel safety process before use DIAMATEC abrasive products.
  - Make ensure that this Instruction Manual is placed where all operators are able to see it.
-  Danger : When an accident that is highly urgent and might result in the operator's death or serious injuries is expected if mistreated.
-  Warning : When an accident that might result in the operator's death or serious injuries is expected if mistreated.
-  Caution : When an accident that might result in the operator's injuries and property damage to some extent is expected if mistreated.








## 1. Work Environment, Clothes, Protection Gear

- ▲ Operators has to wear safety gear (glasses, dust-free mask, safety helmet, safety shoes, etc) in order to protect them against the flight of a wheel or a work piece, even if there is a safety guard in place.
- ▲ Operators must wear their proper work clothes and keep the machine clean in order to prevent from being injured by rotating wheels.
- ▲ Access to the work place has to be granted by the affected personnel. Standing near the work place in a wheel rotation direction has to be prohibited.
- ▲ Using wheels in the vicinity of explosive materials and where there is some danger of fire has to be prohibited due to the possible sparking during the operation.




## 2. Before Use

-  Changes of wheel dimensions and shapes have to be made only after approval by DIAMATEC.
-  Operators have to check if the wheel rotation speed is higher than the maximum spindle rotation speed of the machine.
-  Operators have to check the wheel appearance (crack, twisting, scratch, defective abrasives bonding, etc).
-  If wheel body is metallic material, remove rust preventing oil applied on the wheel before use it.
-  Check whether the wheel is adapted to do what you want.
-  In wet operations, make sure that enough slurry is provided during the operation to prevent the excessive heat and wheel breakage.



### 3. Fixations










-  Wheel mounting has to be done only when the power of machine is shutting down.
-  Make sure that the wheel is mounted in the right rotation direction
-  Make sure that the contact area of wheel and flange are not damaged.
-  Mount the wheel on the flange gently. Excessive force on the wheel for mounting might cause cracks or breakage of wheel.
-  Screws have to be tightened in a blazed direction with imposing even force. Also check the vibration of wheel body.
-  **Safety guard has to be in place to prevent the injuries by wheel breakage or work piece during the operation.**
-  If the wheel is vitrified, place the shock absorbing materials (papers, etc) on each side of wheel to avoid the wheel breakage while mounting on flanges.

#### 4. Test Operation

-  Check where there is unusual sound or vibration during 1 to 3 minutes long no-load rotation and take a correction measures if detected.
-  Check whether the wheel and work piece are mounted properly and work piece feeds well.
-  Check whether enough slurry is provided on where grinding (cutting) takes place.

#### 5. Cutting (grinding) Operation

-  Please stick to the recommended RPM and free rate of the wheel for safety and avoiding the wheel breakage.
-  Do not touch the wheel while the wheel is rotating.

-  In order to avoid the wheel burning, do not feed the work piece as it should be, especially during the dry operation.
-  Under the circumstance of influx of alien materials during the operation, please wait until the wheel stays still automatically.
-  The wheel has to be dismantled only when the power of machine is shut down.
-  Please stop the operation if unusual sound and vibration are detected. Replace the wheel with a new one if the wheel is damaged.
-  Please make sure that enough amount of slurry is provided at where the cutting (grinding) takes places during the wet operation.
-  Do not exceed the maximum rotation speed of the machine in order to avoid the wheel breakage and machine break down.
-  Conduct the wheel truing and dressing if necessary. DIAMATEC could provide the recommended parameters for each operation upon your request.
-  Truing will be required when the deformation of wheel shape occurs.
-  Check whether there is crack or burning on the work piece.

## 6. Wheel treatment & Storage Method

- ▲ In case of re-using the wheel after dismounting and a long period for not using, please check whether there is glazing, abrasive pull out, edge breakage, cracks, and separation of abrasive layer.
- ▲ In case of being dismounted, the wheel needs to be kept in the place where is safe from the fall and shock.
- ▲ In order to prevent the corrosion, it's required to apply the rust preventive oil on the wheel body.
- ▲ The durability of wheel might be reduced due to the chemical reaction when stored in high humidity environment





## NOTE TO USERS

We congratulate you for choosing DIAMATEC'S Diamond CBN Wheels quality tools and thank you for your confidence. DIAMATEC works every day for your satisfaction, by promote quality products and services as close as to your expectations, thanks to a policy of constant improvement. Always concerned to offer the best, DIAMATEC puts at your disposal its expertise to serving your needs. Don't hesitate to contact DIAMATEC for any further information, an expert will advise you.

### **Important:**

All precautions have been taken to ensure that this instruction manual is accurate and current. However, we assume no responsibility for any errors or omissions and for any damages that may result.

Downloadable on the website: [www.diamatec.fr](http://www.diamatec.fr)