



**Safety for personnel, machine and environment**

It is our joint responsibility to ensure that our working environment is free from hazards and is safe for everyone concerned.

By taking precautions and being alert and watchful while working we can prevent a potential disaster.

This is an attempt to list down some cases. We hope you will add up a few more from your own experience that are typical to your working environment.

TaeguTec wishes you well.



### **Fire Accident Case 1:**

Machining process generates heat.

Due to this, while machining, some type of material may have higher tendency to catch fire.

Small chips of such material get heated up and eventually catch fire. Please check on the material characteristics and take steps to avoid inflammable situations.



### **Fire Accident Case 2:**

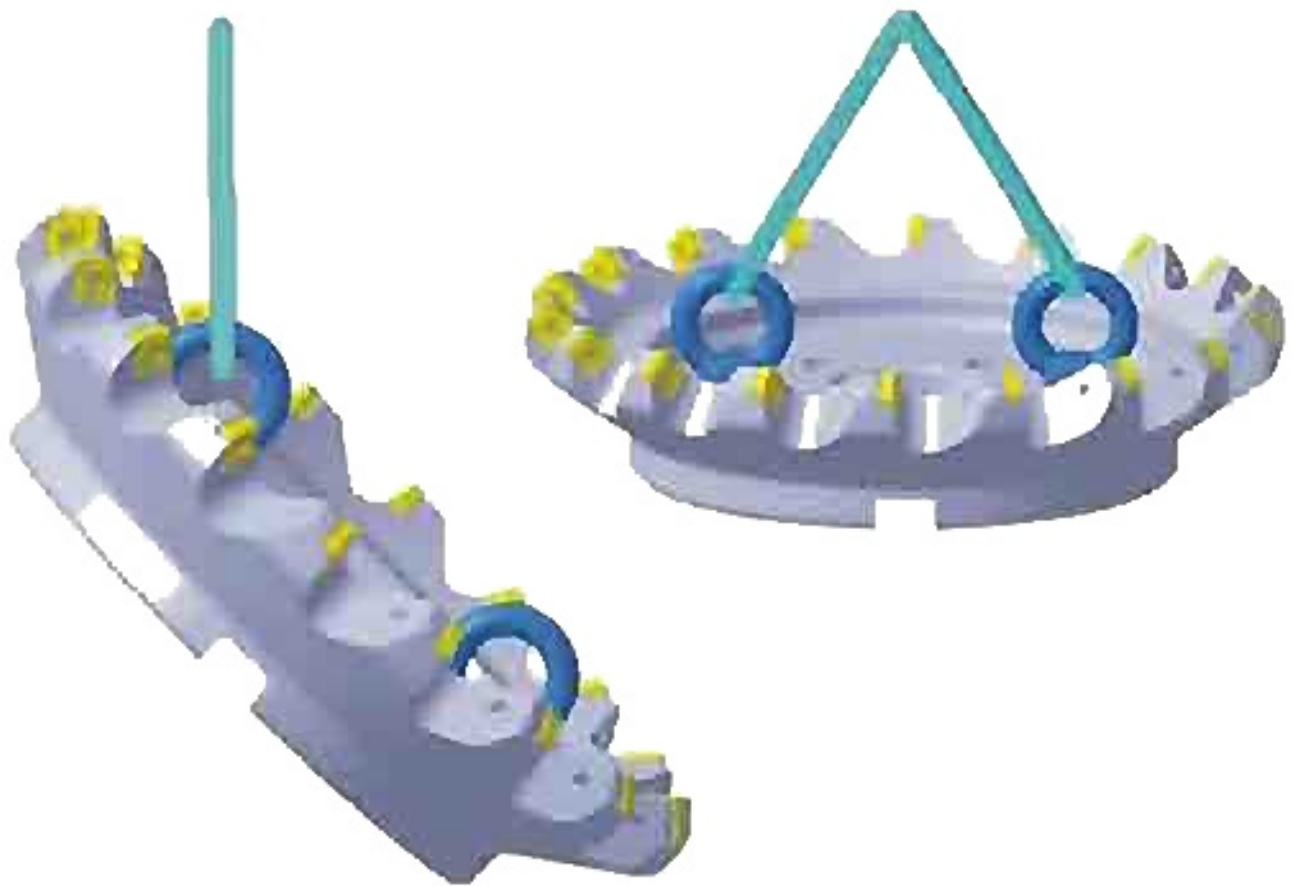
Please check the nature of cooling material before use. There is a possibility of its catching fire. Use appropriate recycling of coolant for the safety of operators.

Dry machining without coolant generates more heat. Necessary precaution should be taken to avoid fire on the machine itself.

Check with manufacturer for suitability of such operation.



# **Fire**



### **Handling of heavy tools:**

Some cutters beyond 250 mm dia, are heavier than 20kg. These may require appropriate handling equipment at the site for safe lifting and handling.

Provision is made for using M12 Eyebolts for handling purpose.

Use Eye-Bolts for lifting the cutter.

Strap the chain or belt to both or one eyebolt as shown.

Do not strap the chain or belt over the inserts or through the bore as they will get damaged.



## **Handling**



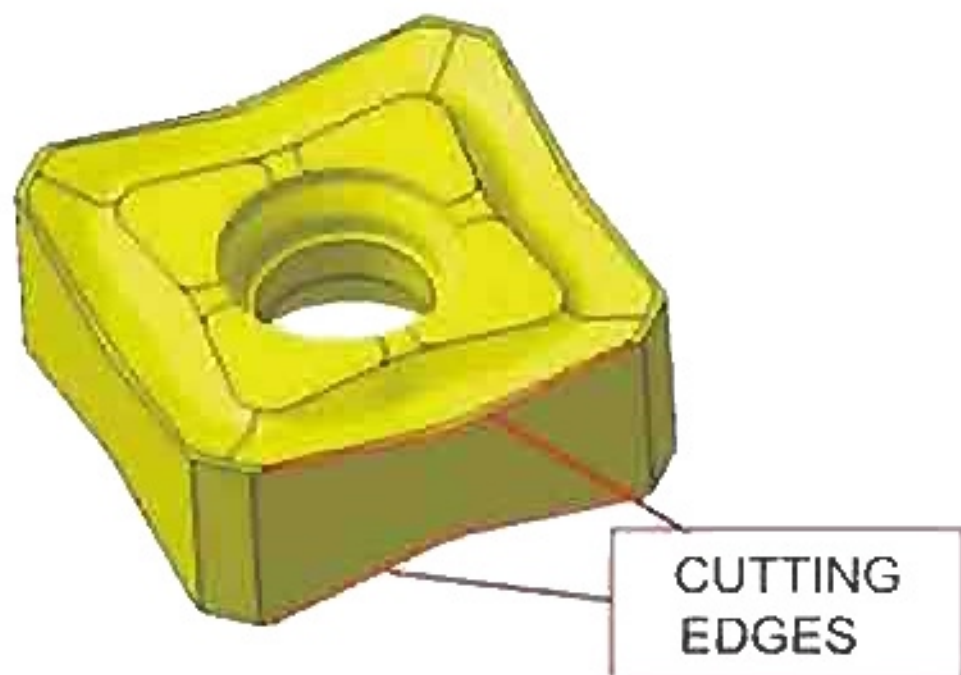
Do not hold the cutter from sides as inserts have sharp edges. Use safety gloves, if necessary.

### **Tool adapters :**

Tool adapters are used to hold the tool firm on the machine. These accessories should be firmly clamped to avoid possible movement and accident.



# Handling



**Inserts :**

Inserts are mechanically clamped. Ensure use of appropriate spares and secure clamping to avoid loose inserts flying out of tools.

**Component :**

Must be securely clamped while machining. Watch out for hot, sharp corners, burrs. Proper safety care must be taken while handling.



**Insert**

## Handling Inserts:

1. Inserts have sharp edges – Take care while holding.
2. Avoid contact of one insert with another to avoid damage to the cutting edges.
3. Replace the insert in its respective box after use and between indexing to avoid damage – This will enhance the tool life.



## Disposal of Tungsten Carbide :

These consist of Tungsten, Cobalt and other metals. We recommend appropriate disposal method so that metal can be recovered and recycled. This will help us

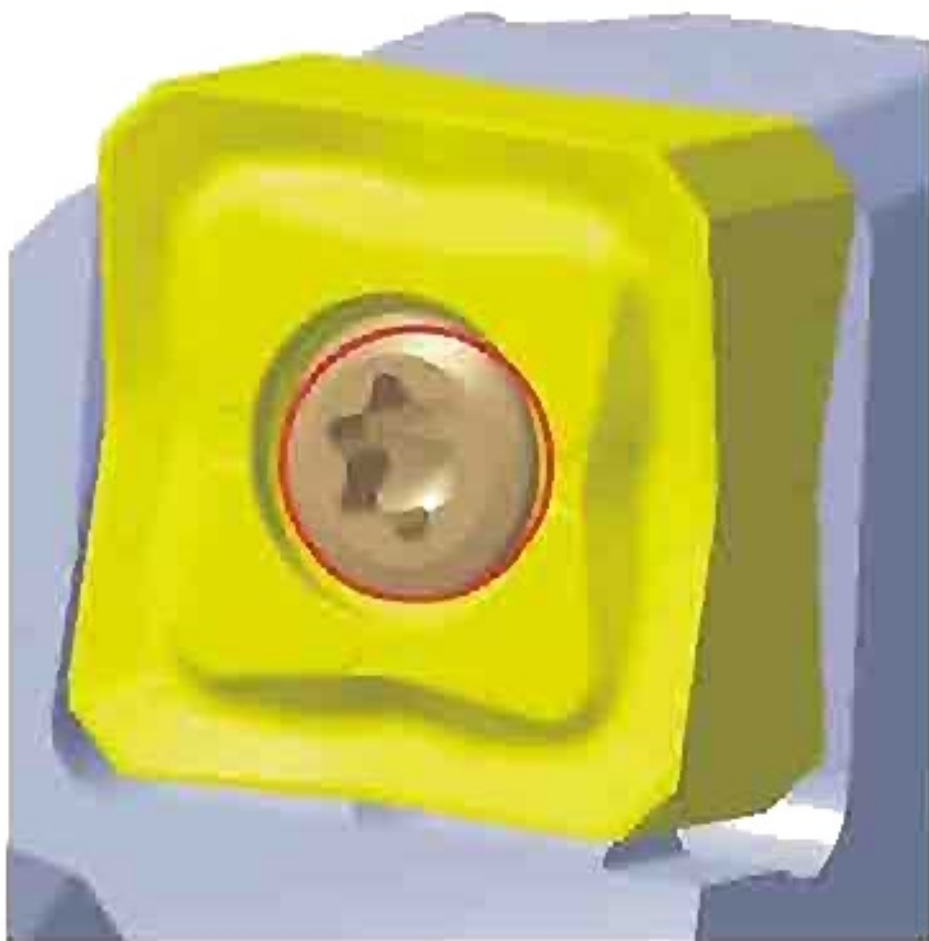
conserve depleting natural resources.



TaeguTec can assist you in this effort, if you so desire.



 **Insert**



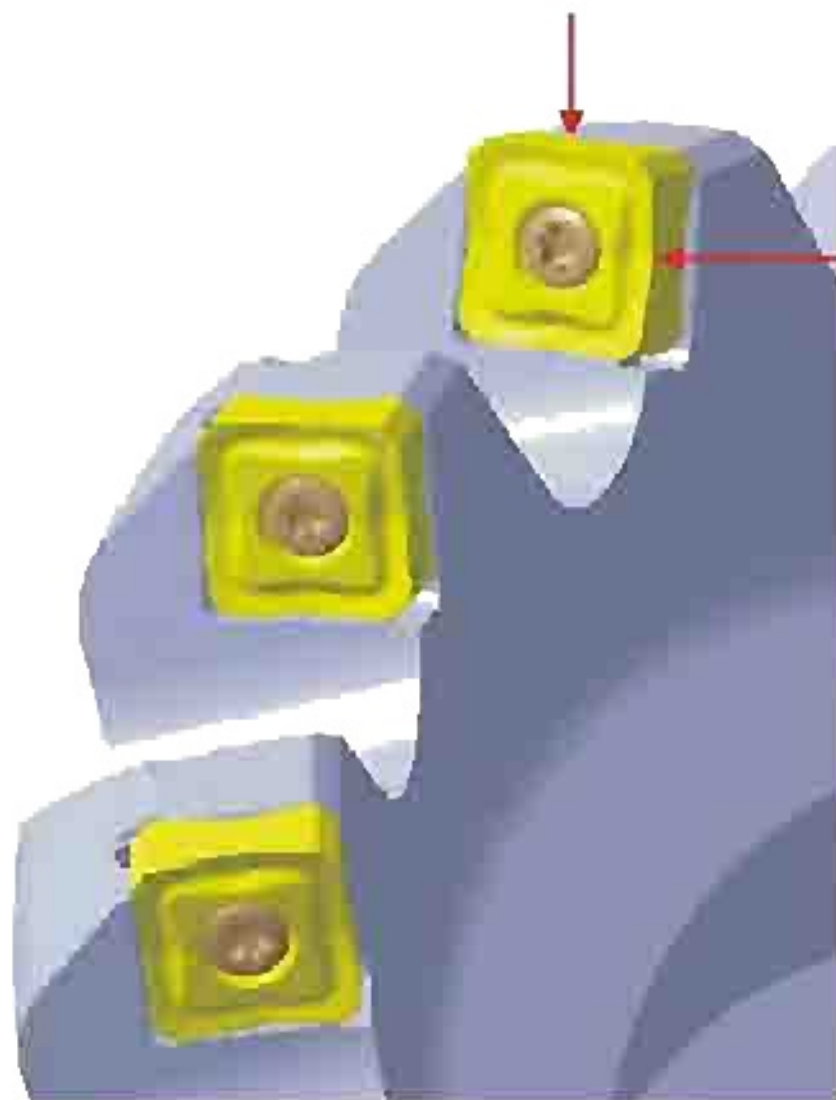
### **Handling Inserts:**

Check for worn-out screws. Replace frequently to avoid head rounding off or shearing.

Graphited grease should be applied on screw threads periodically when they become dry.



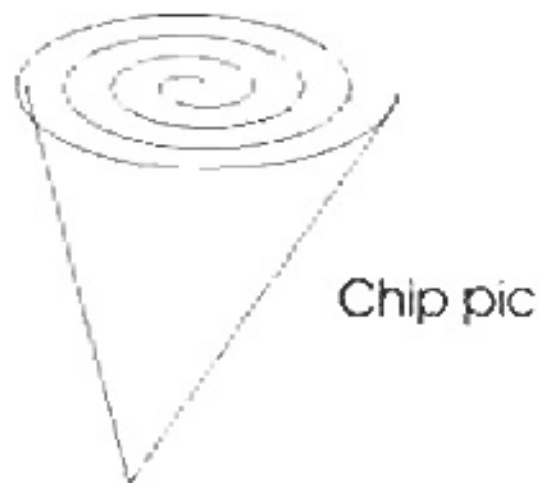
## **Insert**



### **Tightening Inserts:**

While tightening the screw, push the insert towards pocket wall as shown below to avoid misalignment of insert in the pocket





### **Hot chips:**

Tools produce metal chips. Chips are small, sharp, hot and fly at high speed.

Please use safe, appropriate method to dispose of chips.

The long chips can potentially cause accidents. Most of the time, appropriate tool and parameter selection can help you to break chips. However, in case it is not possible, use machine-guard while machining.



# **Chips**

### **Grinding:**

Grinding produces hazardous dust. To avoid adverse effects, use adequate ventilation and read material safety data sheet first.

Cutting tools can break during use. To avoid injury, take safety precautions such as Shields, Machine-guards and Goggles.

### **Metal Dust:**

While machining brittle material like graphite, chips are generated in powder form.

Use suitable Dust-extractor,  
Machine-guard and Face-mask



# **Metal Dust**

## Rotating Tools:

In the event of tools rotating at high speed, please check manufacturer's recommendation on maximum speeds.

Some of the tools may require special balancing to ensure safety.



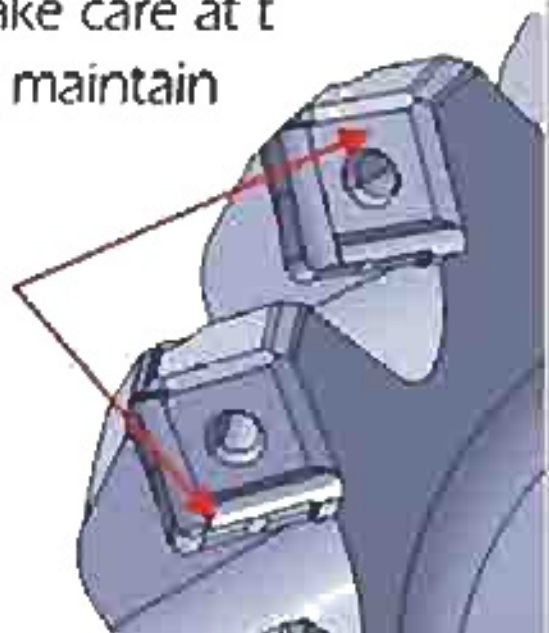
## Milling cutter:

Milling cutter performs best when the Axial & Radial Run-outs are set closely. We have ensured tighter control on the Run-out's, however take care at the following to achieve & maintain the same.

Clean the pockets.

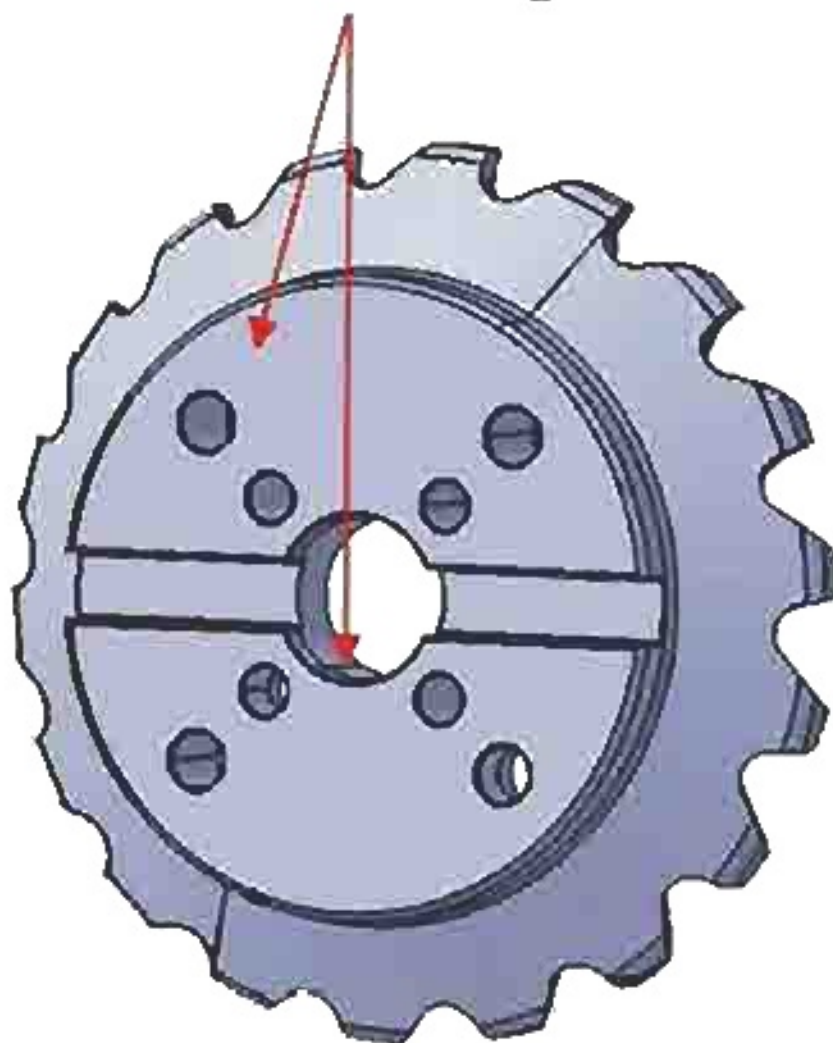
Ensure 'No chips or dust'

**Do not use damaged pockets – best is to replace the cutter as damaged pocket leads to more consumption of inserts.**



# General

The bore & the Base should be protected and should not be damaged



Before setting the cutter, ensure the seating surface is clean



**General**

**SAFETY FIRST**  
**@**  
**WORKPLACE**



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