

## Optimizing Hard-Turning Replacing Tipped CBN Inserts with Brazed CBN Inserts

### Inserts

**Brazed CBN Inserts:** A monolithic sintered CBN insert is welded onto a cemented carbide substrate, with a central locating hole.

#### Brazed CBN Inserts



#### Tipped CBN Inserts



**Tipped CBN Inserts:** CBN layer directly bonded to the substrate under high temperature and ultra-high pressure, single/double-sided CBN material coverage, with center hole positioning.

### Core Advantages of Brazed CBN Inserts Replacing Tipped CBN Inserts

#### 1. Lower Overall Cost of Use and Significant Cost-Effectiveness:

Tipped CBN inserts require partial wear, rendering the entire insert unusable. Brazed CBN inserts allow for individual tip replacement and reuse of the insert base, reducing replacement costs to only 50%-60% of Tipped CBN inserts, thus lowering procurement and warehousing costs.

#### 2. Higher Machining Efficiency and Longer Service Life:

The Brazed CBN inserts process ensures uniform force distribution and good heat dissipation on the insert tip, reducing wear at high temperatures. This can improve cutting parameters by 20%-35%, shortening machining time per piece.

### 3. Wider Range of Adaptability and Greater Machining Flexibility:

Tipped inserts are only suitable for specific finishing processes. Brazed CBN inserts can be paired with different grades of CBN inserts, allowing for customized cutting edge processes. This covers roughing, finishing, and semi-finishing of multiple materials, achieving "one tool for multiple uses."

### 4. Superior Chemical Stability, Aligning with Green Machining Trends:

Higher insert purity reduces built-up edge and ensures surface finish. Supports dry/semi-dry cutting, reducing cutting fluid costs.

**We can also provide customized services, in addition, we have standard inserts, such as solid CBN inserts, tipped CBN inserts, brazed CBN inserts and so on.**



### Brake Disc Cutting Tools Solutions

If you are a brake disc customer, please click the link above for more information. Compared with ceramic inserts, CBN insert (SBN850) have more advantages in brake disc processing in terms of service life and wear resistance.

Brazed CBN Inserts and Tipped CBN Inserts differ in appearance, thus forming differentiated characteristics and suitable application scenarios. The following is a comparison of brazed CBN inserts & Tipped CBN inserts.

**SCBN TOOLS offers full support for OEM, ODM and OBM services. We also provide a comprehensive range of CBN inserts to meet your diverse machining needs.**