



# Global Jaya Teknik : The Advantage Product Series

## Abrasive Grinding Wheels, CBN-Diamond Wheels



The Three Elements of Grinding Wheel

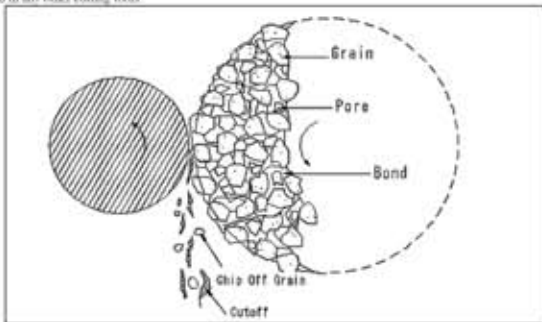
### The Three Elements of Grinding Wheel

| Grain  | Bond                             | Pore  |
|--|----------------------------------|---|
| Very hard, functions as the "cutting edge" in grinding work. | Bonds and holds abrasive grains. | Functions as a "chip pocket" and helps cool the grinding wheel. |

A grinding wheel consists of three elements: abrasive grain, bond and pore, as shown in figure 1. As the wheel turns in high speed, its innumerable grains quickly grind workpiece to beautiful finish and precise measurement.

### Mechanism of grinding whetstone

This process is called grinding process. As the processing progresses, the grains wear out and chip off and in consequence new grains or the "cutting edge" arise constantly, making it possible to continue the grinding work in the same condition. The self-sharpening cutting edge is the unique characteristic of grinding wheel, not found in any other cutting tools.



### The Five Factors of Grinding Wheel

Characteristics of grinding wheel are determined by the following five factors.

#### The Five Factors of Grinding Wheel

| Grain                    | Grain Size                     | Grade                                 | Structure                                | Bond                    |
|--------------------------|--------------------------------|---------------------------------------|--|-------------------------|
| Nature of abrasive grain | Size of abrasive grain(F or #) | Retention strength of abrasive grains | Proportion of grains to the entire wheel | Nature of bonding agent |



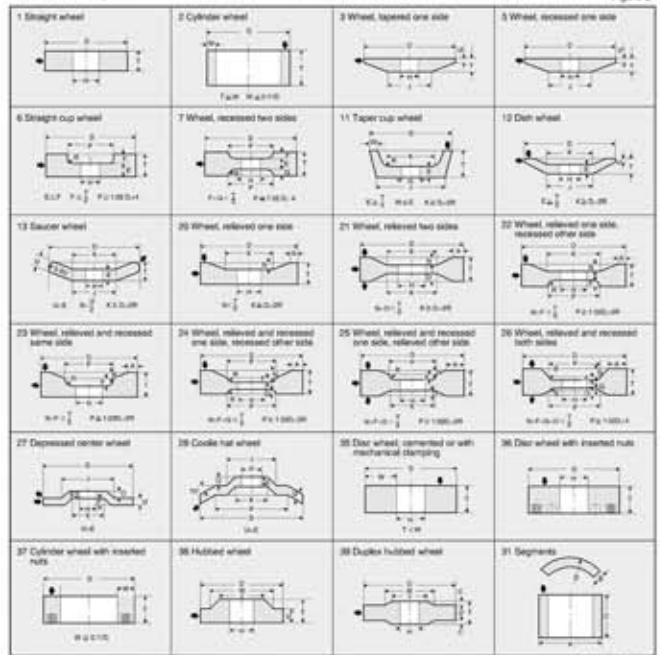
### Standard Shapes and Profiles of Grinding Wheels

Shape and profile of a grinding wheel are indicated by the corresponding shape type number (Figure 3) and profile symbol (Figure 4).

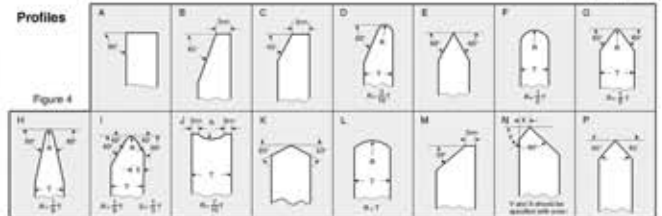
#### Standard Shapes

e.g. 1-A (Type 1 straight wheel, profile A)

Figure 3



#### Profiles



Inquire of our service clerk about the shapes and the profiles not listed above.

