

What is a High-Quality Grinding Disc

High quality grinding disc for metal is a wheel made of resin, such as phenolic, epoxy, polyurethane, polyvinyl alcohol, etc. 4.5 inches grinding disc with high intensity, can join the strengthen of fibres and reinforced in 12 inches cut off wheel, such as cutting, grinding, most of our low price grinding disc is not waterproof, cannot use as the cutting in fluid, of course, some need to join in high performance cutting disc fluid resin, such as epoxy resin, depressed grinding disc in stock work finish good, not easy to burn workpiece, 4.5 inches grinding wheel used in grinding, double end face, heavy duty grinding wheel, polishing wheel, etc., the strength of resin bonded grinding wheel was lower than those of ceramic bond and metal bond.

How to Select the Suitable Depressed Abrasive Grinding Disc

1. The choice of abrasive depends mainly on the workpiece material and heat treatment method.
 - A. when grinding materials with high tensile strength, choose 4.5 inches grinding disc with high toughness.
 - B. For materials with low hardness and high elongation, use a more brittle high-quality low price grinding disc.
 - C. When grinding materials with high hardness, choose abrasive materials with higher hardness.
 - D. Use abrasive materials that are not easily processed for chemical reactions.

2. The choice of granularity mainly depends on the surface roughness of the workpiece and the grinding efficiency

Particle size refers to the particle size of abrasive, and its size is denoted by particle size number. When grinding with the coarse grinding wheel, the production efficiency is high, but the surface of the workpiece is rough. When grinding with fine grit grinding wheel, the workpiece surface roughness is better and productivity is lower. On the premise of satisfying the requirement of roughness, the coarse grinding wheel should be selected as far as possible to ensure high grinding efficiency. Generally, the coarse grinding wheel is used for rough grinding, and the fine grinding wheel is used for fine grinding.

3. The choice of hardness mainly depends on the workpiece material, grinding efficiency and machining surface quality.

Hardness refers to the difficulty degree of grinding grain falling off of the grinding wheel under the action of external forces.

The depressed grinding disc in stock is hard, the abrasive particles which are blunt will not fall off easily, the 4.5 inches grinding wheel is easily blocked, the grinding heat increases, the workpiece is easy to burn, the grinding efficiency is low, which affects the workpiece surface quality. The grinding wheel is too soft, and the abrasive particles fall off when it is sharp, which increases the loss of high quality grinding disc and easily loses the correct geometry, thus affecting the accuracy

of the workpiece. Therefore, the choice of 4.5 inches grinding disc hardness should be appropriate, and factors such as the contact area between grinding wheel and workpiece, workpiece shape, grinding mode, cooling mode, and the type of binding agent of grinding wheel should be considered comprehensively.

4. The selection of the organization mainly takes into account the pressure of the workpiece, the grinding method, workpiece material, etc.

5. The choice of shape and size shall be based on the conditions of the grinder and the shape of the workpiece.

The Following Selection Principles of Low Price Grinding Disc Hardness Are for Reference:

A. Choose hard depressed grinding disc in stock when grinding soft materials, and soft grinding wheel when grinding hard materials;

B. When grinding soft and strong nonferrous metals, the hardness should be selected to be softer;

C. Soft 4.5 inches grinding wheel should be selected for grinding materials with poor thermal conductivity;

D. When end face grinding is more difficult than peripheral grinding, the high-quality grinding disc should be softer;

E. Under the same grinding conditions, the hardness of the 4.5 inches grinding disc is 1~2 lower than that of the ceramic bond wheel;

F. When the grinding wheel rotation speed is high, the hardness of the low price grinding wheel can be selected as soft 1~2 grades;

G. Grinding with cooling fluid is one to two grades of hardness higher than that of the grinding wheel during dry grinding

The commonly used depressed grinding disc in stock are flat grinding wheel (P), single-sided concave grinding wheel (PDA), double-sided concave grinding wheel (PSA), thin section grinding wheel (PB), cylindrical grinding wheel (N), bowl-shaped grinding wheel (BW), disc no.1 grinding wheel (D1), etc.