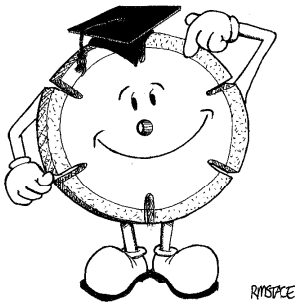
DIAMOND BLADEMAN

DIAMOND SAWING TIPS



How much is a blade for?

Diamond saw blades cannot be easily compared by price alone.

Although price has always been an indicator of quality it may not have alot to do with performance on the job.

The numerous interactions between material, machine, conditions, operator and blade need to be translated into a value for budget solution, not a price. Literally dozens of diamond specifications can be utilised by the tool designer, and just about every metal alloy ever conceived used as a bonding agent for them. This alone would result in a bewildering number of possible combinations available to the tool manufacturer. Having chosen the diamond and bond, a manufacturing method will need to be decided upon. There are many. In the manufacturing process tolerances will have to be set; density, porosity, and hardness values amongst others decided. Segment size, number, and diamond weights, as well as mounting technology and steel quality, all have their role to play. Is it any surprise that choosing a diamond blade specification is more complicated than simply by price? The applications engineer must consider local conditions, budgetry restrictions, operator preference, machine condition, intended use, especially in materials of a differing nature.

When blades are purchased by price comparison one assumes all other factors are equal. This is simply most unlikely! Blades are about as similar as tyres these days. Tyres are usually black. Blades are usually round. That is where the similarity ends.

How then does a buyer decide if he is getting value for money with this complex tool ? Perhaps this is where market place experience, reputation, service, after sales support, technical training, support literature all play a part. One thing is for sure if you compare only blade price and diameter you will take the risk that the blade chosen will not carry out the task at the envisaged cost. it may fail altogether.

Remember diamonds are available from many sources:- natural diamond and synthetic diamond is available. It varies in price per carat according to size, purity, toughness and quality consistency standards such as ISO 9001. Bonding metals are available from many sources also. Metals which perform well usually cost more to produce and supply than poor performers. Bonding metals may need to mechanically and chemically hold the diamonds.

Diamond blades can be laser welded together, brazed, sintered or laser formed. Laser welding plant is more costly than brazing equipment and produces a stronger joint which is not affected by dry cutting temperatures.

Diamond blades use special steel cores. These steel cores are required to resist stress and wear in the cutting process. Better steels hold their tension better and support the diamond segments longer and more safely. Yes, it is complex.

Applying diamond blades to the job is clearly an art, not a science. Try to find the artist.

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