



ALTRAD Belle's Platinum range of Diamond Blades has a double laser welded 10mm high diamond segment. These have been designed to give excellent speed of cut and a very long life. Excellent value for money. ALTRAD Belle's Gold and Bronze range of Diamond Blades are designed to provide good productivity levels at the lowest possible cost. There is a blade to suit everyone's needs.

Application Bond (segment)	Disc Quality	PLATINUM ★★★★★	GOLD ★★★★★			BRONZE ★★
	Application Material	Multi Materials	Hard Materials	General Materials	Asphalt	General Purpose
	Product Code	PUX	GH	GGP	GA	BGP
Hard Soft	Mild Steel Rods & reinforcement	★★	X	X	X	X
	Scaffolding Tube	★★	X	X	X	X
	Granite	★★★	★★★	X	X	X
	Engineering Blocks	★★★	★★★	X	X	X
	Old Cured Concrete	★★★	★★★	X	X	X
	Clay Pipes	★★★	★★★	X	X	X
	Dense Clay Bricks	★★★	★★★	X	X	X
	Clay/Hard Pavers	★★★	★★★	★	X	X
	Hard Facing Bricks	★★★	★★★	★	X	★
	Concrete Paving Slabs	★★★	★★★	★★	X	★
	Reinforced Concrete Lintels	★★★	★★	★★★	X	★
	Cured Concrete	★★★	★	★★★	X	★★
	Concrete Pipes & Kerbs	★★★	★	★★★	X	★★
	Medium Facing Bricks	★★★	★	★★★	X	★★
	Hard Sandstones	★★★	★	★★★	X	★
	Slate	★★★	X	★★★	X	★
	Medium Block Pavers	★★★	X	★★★	X	★
	Concrete Roofing Tiles	★★★	X	★★	X	★
	Medium Sandstones	★★★	X	★	★	★★
	Asphalt Over Concrete	★★★	X	X	★★	X
Breeze Blocks	★★★	X	★	★★	★	
Green Concrete	★★★	X	X	★★★	X	
Hard Soft	Lignacite & Aerated Blocks	★★★	X	X	★★★	X
	Asphalt	★★★	X	X	★★★	X

★★★★ High Performance - Excellent cutting speed and life. ★★★ Good Performance - Cutting speed and life.  
★★ Recommended - Acceptable cutting speed and life. ★ Acceptable - Will do the job. X Not Suitable.

For further information, advice or a demonstration of Diamond Products, please contact our specialist  
Diamond Team on: **01298 84606**



The ALTRAD Belle specialist range of Diamond Blades has a 10mm or 12mm high segment with high diamond concentration. The PUX range is the ultimate multi purpose diamond blade.



### Platinum Universal Xtra (PUX)

A special fast cutting universal design for all Concrete (including Green Concrete), Asphalt (including Asphalt over Concrete) Masonry Materials (such as Concrete Paving Slabs & Brick) including drop segments for undercut protection.

Part Number	Size (mm)	Speed (rpm)	Segment Height (mm)	Price (£)
PUX30020	300 x 20	6360	10	115.00
PUX35025	350 x 25	5450	10	160.00
PUX45025	450 x 25	3395	12	300.00

CUTTING





The Gold range of 10 - 15mm high segment double laser welded diamond products is a range of high quality blades specifically designed to provide good productivity levels at the lowest possible cost. Blades 300mm and over include 15mm undercut protection-segments.



### Gold Hard (GH)

For hard non-abrasive products. Very hard concrete, class A engineering bricks, 65-100 Newton clay paviors, hard flint aggregate concretes. Reinforced concrete lintels, kerbs and hard paving slabs. Hard clay roof tiles, hard slate.

Part Number	Size (mm)	Speed (rpm)	Segment Height (mm)	Price (£)
GH30020	300 x 20	6360	15	73.02
GH35025	350 x 25	5450	15	127.49
GH45025	450 x 25	3395	15	187.63



### Gold General Masonry (GGP)

For extensive use on a wide range of products including most medium aggregate concretes. General masonry products, stock paving bricks, most roofing tiles and hard sandstones.

Part Number	Size (mm)	Speed (rpm)	Segment Height (mm)	Price (£)
GGP35025	350 x 25	5450	15	126.11
GGP45025	450 x 25	3395	15	185.91
GGP50025	500 x 25	5450	15	255.00



### Gold Asphalt (GA)

For use on Asphalt, some asphalt over concrete, medium to soft sandstone, abrasive blocks, breeze blocks, green concretes, and other highly abrasive applications.

Part Number	Size (mm)	Speed (rpm)	Segment Height (mm)	Price (£)
GA30020	300 x 20	6360	10	75.60
GA35025	350 x 25	5450	10	138.48
GA45025	450 x 25	3395	10	196.22

CUTTING



The ALTRAD Belle Bronze range of 10mm high diamond blades has a high diamond concentration and are for use by the general building trades that want a blade with the correct performance/cost ratio that surpasses other blades in this price range.

The ALTRAD Belle Platinum continuous rim diamond blades are ideal for precision cutting of hard materials. Ideally suited to be used with the ALTRAD Belle range of tile saws.

### Bronze General Masonry (BGP)

For extensive use on a wide range of products including most medium aggregate concretes, general masonry products and building media, stock paving bricks, most roofing tiles and hard sandstones.



Part Number	Size (mm)	Speed (rpm)	Segment Height (mm)	Price (£)
BGP23022	230 x 22	6650	10	14.00
BGP30020	300 x 20	6360	10	26.00

CUTTING



### Continuous Rim Tile Cutting Blade (CRT)

For precision cutting of hard materials such as granite, ceramic tiles, quarry tiles, floor tiles and slate tiles. Very high diamond concentration giving long life.

Part Number	Size (mm)	Speed (rpm)	Segment Height (mm)	Price (£)
CRT18025	180 x 25	8730	10	26.39
CRT20025	200 x 25	7600	10	32.68
CRT23025	230 x 25	6650	10	40.24

Reducing Rings (To decrease bore size) are available on request for all ALTRAD Belle Blades. Please contact customer service for more details.



ALTRAD Belle offers a range of Diamond blades and cores, all manufactured to ISO, FEPA and DSA international standards. The safety guidelines below explain how to ensure that the operators safety is maintained.

## General

- The correct specification blade has been selected for the application.
- The machine selected for the operation is of the correct specification and has been serviced to a standard that complies to the manufacturer's service recommendations.
- That the machine complies or exceeds all relevant health and safety regulations.
- That the area of operation is clean and tidy and complies with any need for barriers, signs, warning notices etc.
- That the operator has been properly trained and certified for machine operation and health and safety regulations.
- That in the case of electrically powered machines, the machine is of the correct voltage and that the site supply is adequate both in terms of power supply and compliance to site electricity supply regulations.
- Always ensure that when fitting a blade the machine is disconnected from the power source and the correct tools are used.
- That the site is free of pets and children.

## Using the Diamond product ensure that:

- The blade or bit is operating at the manufacturer's recommended speed.
- The blade or bit is being fed into the work at a suitable rate.
- In the case of wet cutting an adequate supply of water is available.
- The blade or bit is in a suitably undamaged condition.

- The blade is never twisted or forced in the cut.
- The blade is gradually lowered into the material being cut.
- The material being cut is not hand or foot restrained.
- The blade and machine are periodically inspected for wear or damage.

## For your personal safety always ensure that you:



Wear suitable ear defenders.



Wear suitable foot wear.



Wear suitable eye protection.



Wear suitable protection against dust.

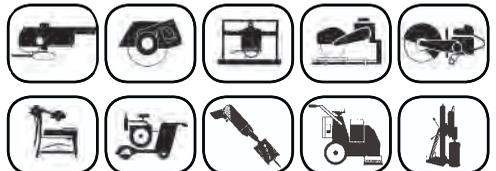


Wear suitable clothing.



Read the instructions carefully.

## Types of equipment used with diamond products:





As part of our ongoing commitment to customer safety, we hope you will find these guides a useful tool in ascertaining any problems you may come across from time to time when using ALTRAD Belle diamond blades.

### Segment Loss

- Blade has twisted or jammed in the cut because the material was not held firmly.
- Machine has been twisted or turned while blade is in the cut.



- Blade core has undercut due to cutting below the asphalt into the sub-base.
- Blade is too hard for the material being cut, resulting in the blade hammering in the cut.
- Blade is deflected in

the cut due to the blade flanges being worn or deformed and failing to provide proper support.

- Inadequate water supply.

### Damaged Arbor Hole

- Blade will hammer if it is incorrectly aligned when mounted. Make sure that the blade is mounted on the correct diameter spindle before tightening.
- Make sure that the pin holes slide over the drive pin.



- The blade will spin or vibrate on the spindle if the flanges are not properly tightened.
- The blade will pound if the saw shaft is badly worn or grooved.

### Blade not Cutting

- Check that specification is correct for the material. Dull blades can be sharpened by cutting a soft abrasive material.



- Machine drive belts need re-tightening or the machine has insufficient horsepower for the specification being used.
- Check direction of rotation.

### Undercutting

- The effect of premature wear of the steel core is a particular problem in asphalt, fresh concrete and other highly abrasive materials
- Segment loss may result from the steel core wearing to a knife edge just below the segment.



- Make sure that the blade specification has offset segments to assist removal of the slurry from the cut.
- Make sure that the blade is not cutting below the asphalt into the sub-base. Constant rubbing of the loose material causes premature wear and has no beneficial effect on the cut surface.
- Make sure that the water supply is correct as increased water flow will wash slurry from the contact area and reduce undercutting.



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## Rapid Wear

- Blade specification is causing the diamond to be overexposed. Use a blade with a harder bond system.
- If the blade wears out of round this will increase the wear normally due to bad bearing, worn shaft or the blade specification being too hard for the material.



- An inadequate water supply can cause damaged or blocked water tubes.
- Softening of the blade specification and low blade speed can be caused by loose drive belts.

## Tension Wear

- Blade core overheated.
- For wet cut blades ensure sufficient water supply.



- Check machine is running at correct rpm, that the flanges are of the correct and same size and that there is no wear on the machine bearing
- The blade is deviating in the cut because

it is too hard for the application.

- Ensure that the blade is not spinning on the spindle and that it is secure.
- Ensure that the blade is cutting in straight lines only.

## Over Heating

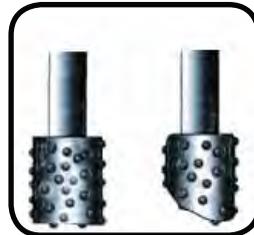
- Most common cause of blade failure. Overheating can cause many other problems such as core cracks, loss of tension, and segment loss.
- Overheating will usually cause black or bluish discoloration on the core.



- In wet cutting - inadequate water supply due to low water pressure, blocked or damaged water tubes or dust suppression systems being inadequate for wet cut blades.
- In dry cutting - excessive cutting pressure results in heat build up. Allow blade to do work. With hand held machines, use gentle reciprocating action and avoid cutting too deep in a single pass.

## Uneven Segment Wear

- Insufficient water.
- Excessive cutting pressure, caused by too high in-feed, results in the blade core bending and flexing. Metal fatigue will eventually cause the core to crack.



- Worn shafts, damaged machine bearings, or blade incorrectly mounted.



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### Segment Cracks



- Use a blade with a softer bond system, as the blade specification may be too hard for the material being cut, causing hammering in the cut.

### Core Cracks

- Blade too hard for the material being cut.
- Excessive cutting pressure, caused by too high in-feed results in the blade core bending and flexing.



- Metal fatigue will eventually cause core to crack.
- Worn shafts, damaged machine bearings, or blade incorrectly mounted.

### Out of Round

- Blade shaft bearing may possibly be worn. Fit new bearing and ensure regular lubrication.
- Blade too hard for the material being cut, this will result in the blade hammering and wearing out of round.



- Choose a blade with a softer bond system.
- Machine spindle may have groove scored in it as result of previous blade slipping on spindle.

If a product will not cut because the blade has glazed over then open the blade up by running it through abrasive materials. If a blade is wearing prematurely then use a blade with a harder bond.