

## How to choose the right diamond blade

### Before you get started

Decide which is most important to you: the initial price of the blade or the cost per cut. For smaller jobs or occasional use, a low priced blade may be preferable. For larger jobs or regular use, a higher priced blade will actually be less expensive to use because it will deliver the lowest cost per cut. For really big jobs, the lowest possible sawing cost (cost per foot) is usually much more important than the initial price. Husqvarna has a grading system to help you identify the different performance levels of blades.

### Know the type and horsepower of the saw being used

A list of different types of equipment you may use diamond blades on is provided on page 7. There is a corresponding symbol for each, and these symbols are used throughout the catalog to help you locate the right blade. Blades that are to be used on power cutters have to be rated at higher rpms. Please refer to the chart on page 246. All Husqvarna high-speed cut-off blades are rated at the appropriate, higher rpms.

### Correctly identify what you're cutting

Correctly identifying the material you are going to cut is the most important factor in choosing a blade. It directly affects the cutting speed and the life of the blade. You will find diamond blade recommendations charts throughout the catalog to help you locate the proper blade for your job. Most Husqvarna blades cut a RANGE of materials. For maximum performance (cutting speed and life), the material should be matched to the blade as closely as possible. As a general rule, determine the material which will be cut most often, or the material for which top blade performance is most important.

### Choose wet or dry cutting

Choosing wet or dry may be a matter of user preference or job requirement. When using a power hand tool such as a power hand saw, it is not safe to use water because of the electrical power source. However for concrete saws, wet cutting is usually preferred because you can cut deeper when using water as a coolant. For tile and masonry saws, either wet or dry cutting blades can be used. For power cutters, dry blades are more popular, but they are often used wet to control dust. Wet blades MUST be used with

water. Dry blades may be used EITHER dry OR wet, as the job or equipment allows.



### The Significance of Segment Height

Total segment heights may be misleading because of non-diamond bearing segment bases necessary for the laser welding or brazing process. That is why Husqvarna shows you exactly how much of each segment has diamonds and can actually be used to cut.

Diamond blade segment height by itself is not a true measure of a blade segment height by itself is not a true measure of a blade's value. Many other factors affect a blade's performance and consequent value. Consider the diamond size, concentration and quality, the hardness of the bond, the cutting power (torque) of the saw, and how well the blade specification is matched to the material being cut.

**Maximum Blade Cutting Depths**

Diameter (Inches)	Cutting Depth	HS is for high-speed diamond blades.  Based on 9,500 sfpm (surface feet per minute) – the general optimum performance range for cutting concrete and masonry products is +10%. For hard, dense materials such as stone and tile, the optimum performance speed is 10-25% less than the speeds shown above.  Blade shaft speeds (rpms at no load) for most tools will be higher than the recommended operating speeds shown above. Under normal sawing conditions, the actual blade shaft speed of the tool will slow down under load, and should fall within the optimum speed range.  This speed (rpm) represents the maximum safe speed [in revolutions per minute (rpm)] at which each blade can be used. Before using any blade, make sure the blade shaft (arbor) speed or the tool is within the “maximum safe” limit of that blade.  Note: Diamond blade cutting depths listed above are approximate. Actual cutting depth will vary with the exact blade diameter or saw type (or brand), or the exact diameter of the blade collars (flanges). Cutting depth will also be reduced if saw components (motor housing, blade guard) extend below the blade collars (flanges).
<b>Concrete Saw Blades</b>		
7"	1-1/2"	
8"	2"	
12"	3-5/8"	
14"	4-5/8"	
16"	5-5/8"	
18"	6-5/8"	
20"	7-5/8"	
24"	9-5/8"	
26"	10-5/8"	
30"	11-3/4"	
36"	14-3/4"	
42"	17-1/2"	
48"	19-3/4"	
<b>Wall &amp; Hand Saw Blades</b>		
14"	4-5/8"	
18"	6-1/2"	
24"	9-1/2"	
30"	11-1/2"	
36"	14-1/2"	
42"	17-1/2"	
48"	20-3/4"	
<b>Masonry Saw Blades</b>		
14"	5"	
18"	7"	
20"	8"	
<b>Tile Saw Blades</b>		
4"	3/4"	
4-1/2"	1"	
5"	1-1/4"	
6"	1-3/4"	
7"	2-1/4"	
8"	2-3/4"	
9"	3-1/4"	
10"	3-3/4"	
<b>Power Hand Saw Blades</b>		
3-3/8"	1/2"	
4"	1"	
4-1/2"	1-1/4"	
5"	1-1/2"	
7"	2-1/2"	
8"	3"	
<b>High-Speed Saw Blades</b>		
12"	4"	
14"	5"	
16"	6"	

**Diamond Blade Operating Speeds**

Dia.	Recommended Operating Speed (RPM)*	Maximum Safe Speed(RPM)**
4"	9,072	15,000
4-1/2"	8,063	13,300
5"	7,257	12,000
6"	6,048	10,185
7"	5,184	8,730
8"	4,536	7,640
9"	4,032	6,790
10"	3,629	6,115
12"	3,629	5,095
12"HS		6,300
14"	2,592	4,365
14"HS		5,460
16"	2,268	3,820
16"HS		4,500
18"	2,016	3,395
20"	1,814	3,055
22"	1,814	3,055
24"	1,512	2,550
26"	1,396	2,350
28"	1,296	2,185
30"	1,120	2,040
32"	1,134	1,910
36"	1,008	1,700
42"	864	1,455
48"	756	1,275

**Keeping your diamond blade cool to extend its life and improve its performance**

Dry cutting diamond blades may be used dry, eliminating the need for water tanks, water hoses or wet slurry clean-up. These blades depend on airflow around the blade to prevent excessive heat build-up during cutting.

Use dry diamond blades for “intermittent” sawing. After every 10 to 15 seconds of cutting, take pressure off the blade and allow it to run back up to full speed for several seconds. This “cooling” interval allows air to flow around the blade and dissipate the heat. Use dry diamond blades ONLY for shallow cutting (1-2" deep) or step cutting (making several shallow passes to reach the full depth required).

Husqvarna dry cutting diamond blades are also designed to cut equally well wet, if the job or equipment permits. Wet cutting diamond blades MUST be used with water to prevent excessive heat build-up during cutting. Using water on the blade also reduces dust and helps remove cuttings.

A continuous water flow is critical. Using “wet” blades without water, even for a few seconds, causes excessive heat and blade damage, and creates a safety hazard. Check the saw or tool carefully before using a wet cutting diamond blade. Make sure it is safe to use the saw or tool with water.