















HSS Circular Saw Cutting Information

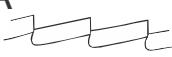






HSS Cutting Speed Recommendation/Feed Rate (m/min)

Material Profile	Structural Steel	Speciality Steel	Stainless Steel	Cast Alloy	Cast Iron	Copper	Brass	Aluminium	Bronze
 Solid Round	30-60	20-40	5-30	15-30	10-40	200-400	350-650	80-1800	25-125
 Solid Square	30-60	20-40	5-30	15-30	10-40	200-400	350-600	80-1800	25-125
 Thick walled tube	40-80	20-50	5-40	15-30	10-50	200-500	350-700	125-1800	25-125
 Thin walled tube	50-120	25-80	10-50			350-650	400-900	250-1800	
 I-Beam	50-80	20-50	10-40						
 Channel	30-60	20-50	10-40						

HSS Tooth Pitch Recommendation (mm)

Material Profile	Diameter of the material (mm)														
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
 Solid Round	5	7	9	10	11	12	13	14	15	16	17	17	18	19	20
 Solid Square	5	7	9	10	11	12	13	14	15	16	17	17	18	19	20
 Thick walled tube	5	7	7	8	9	9	9	10	10	10	11	11	11	11	11
 Thin walled tube	4	5	6	6	7	7	7	8	8	8	9	9	9	9	9
 I-Beam								13	13	13	13	13	14	14	15
 Channel			13	13	14	14	14	14	14	14	14	15	16	16	16

Tooth Profiles

<p>A</p> 	<p>B</p> 	<p>AW</p> 	<p>BW</p> 
<p>Tooth Shape A is normally used on fine toothing where the tooth pitch is less than 3mm. For applications such as screw slotting, jewellery and brass alloy cutting.</p>	<p>Tooth Shape B is normally used for very thin walled pipes and cutting structural shapes where chip removal is not an issue. It is most suitable to thin saw blades.</p>	<p>Tooth Shape AW is alternately bevelled to optimise chip shredding. This makes it particularly suitable for precision cutting.</p>	<p>Tooth Shape BW is primarily used for cutting pipes and sections. The tooth is alternately beveled at 45° which breaks the chip into two and guarantees good chip evacuation.</p>
<p>C</p> 	<p>BR</p> 	<p>VP</p> 	
<p>Tooth Shape C can be used for solid sections or very thick walled pipes. The chip is broken into three parts due to the presence of both a finishing tooth without bevels and a pre-cutting tooth (0.25mm longer) with two chamfers on each side.</p>	<p>Tooth Shape BR is used successfully for cutting pipes. It has double the number of cutting edges and guarantees a higher number of cuts and a better finish to the section. It also improves tool life by up to 20% as less material is removed at each sharpening.</p>	<p>Tooth Shape VP, variable pitch is used to cut very irregular sections which cause vibration and noise. It guarantees softer contact and offers a good balance between cut duration and reduced vibration.</p>	<p>Please contact us for the best recommendation specific to your application as there are many factors that can influence tooth shape and pitch choices.</p>