

TECHNICAL DATA SHEET

Morgan is closely inspecting the bi-metal blades after the hardening operation.

BI-METAL BLADES FOR METAL

M42 BI-METAL

- Standard products
- Special - MOQ may be required

Our M42 Bi-metal blades are made of the highest quality Cobalt M42 steel and are very suitable for sawing most materials.

ALLPOWER™



		Teeth/inch											
		3	4	6	2/3	3/4	4/6	5/8	6/10	8/12	10/14		
sizes (mm)	6 x 0.6			○							○	1/4 x .025	sizes (Inches)
	6 x 0.9										○	1/4 x .035	
	10 x 0.6			○							●	3/8 x .025	
	10 x 0.9		●	○							●	3/8 x .035	
	12 x 0.6	○	○	●					●	●	●	1/2 x .025	
	12 x 0.9	○	●	●							●	1/2 x .035	
	19 x 0.9	●	○				●	●	●	●	●	3/4 x .035	
	27 x 0.9				●	●	●	●	●	●	●	1 x .035	
	34 x 1.1				●	●	●	●	●	●		1 1/4 x .042	
	41 x 1.3				●	●	●	●	●			1 1/2 x .050	
	54 x 1.3				○	○						2 x .050	
	54 x 1.6				●	●	●	●				2 x .063	
	67 x 1.6				●	●	●					2 5/8 x .063	

POWERMAX™



		Teeth/inch							
		1.3/2	2/3	3/4	4/6	5/7	8/11		
sizes (mm)	27 x 0.9			●	●	●	●		1 x .035
	34 x 1.1		●	●	●	●	○		1 1/4 x .042
	41 x 1.3	○	○	●	●	○			1 1/2 x .050
	54 x 1.6	○	○	●	○				2 x .063
	67 x 1.6		○	●					2 5/8 x .063

COMMANDER™



		Teeth/inch					
		2/3	3/4	4/6			
sizes (mm)	27 x 0.9	●	●	●		1 x .035	
	34 x 1.1	●	●	●		1 1/4 x .042	
	41 x 1.3	●	●	○		1 1/2 x .050	
	54 x 1.6	●	●	○		2 x .063	

OPTIMIZER™



		Teeth/inch					
		1.25	0.8/1.3	1.3/2			
sizes (mm)	34 x 1.1	●				1 1/4 x .042	
	41 x 1.3	○		●		1 1/2 x .050	
	54 x 1.6	○	○	●		2 x .063	
	67 x 1.6		○	○		2 5/8 x .063	

M51 BI-METAL

Our M51 bi-metal blades are made using a high-alloy backing material and an HSS M51 tooth tip.

PERFORMER™



		Teeth/inch						
		0.8/1.3	1.3/2	2/3	3/4	4/6		
sizes (mm)	27 x 0.9			○	●	●		1 x .035
	34 x 1.1			●	●	●		1 1/4 x .042
	41 x 1.3		●	●	●	○		1 1/2 x .050
	54 x 1.6	○	●	●				2 x .063
	67 x 1.6	○	●	○				2 5/8 x .063
	80 x 1.6	●	○					3 1/8 x .063

PERFORMER X™



		Teeth/inch					
		0.8/1.3	1.1/1.6	1.3/2			
sizes (mm)	41 x 1.3		○	○		1 1/2 x .050	
	54 x 1.6	○	○	○		2 x .063	
	67 x 1.6	○	○	○		2 5/8 x .063	
	80 x 1.6	○	○	○		3 1/8 x .063	

CARBIDE BLADES FOR METAL

CT CARBIDE

- Standard products
- Special - MOQ may be required

Blades tipped with Tungsten Carbide offer many advantages when cutting high hardness materials. They are more durable than conventional blades resulting in longer life and less time spent changing blades. In addition, they retain their sharpness better to give high performance for longer.

RAPID CT10

		Teeth/inch					
		0.8/1.2	1.1/1.6	1.5/2	2/3	3/4	
sizes (mm)	27 x 0.9					○	1 x .035
	34 x 1.1				○	○	1 1/4 x .042
	41 x 1.3			○	○	○	1 1/2 x .050
	54 x 1.6			○	○		2 x .063
	67 x 1.6		○	○			2 5/8 x .063
	80 x 1.6	○	○				3 1/8 x .063

RAPID CT20

		Teeth/inch					
		0.8/1.2	1.1/1.6	1.5/2	2/3		
sizes (mm)	34 x 1.1					○	1 1/4 x .042
	41 x 1.3			○	○		1 1/2 x .050
	54 x 1.6			○	○		2 x .063
	67 x 1.6	○	○	○			2 5/8 x .063
	80 x 1.6	○	○				3 1/8 x .063

RAPID CT30

		Teeth/inch				
		2	3	1.5/2	2/3	
sizes (mm)	19 x 0.9		○			3/4 x .035
	27 x 0.9		○		○	1 x .035
	34 x 1.1	○	○	○		1 1/4 x .042

RAPID CT40

		Teeth/inch		
		2/3	3/4	
sizes (mm)	27 x 0.9		○	1 x .035
	34 x 1.1		○	1 1/4 x .042
	41 x 1.3	○	○	1 1/2 x .050

CARBIDE GRIT

Used for extremely hard material that cannot be cut using normal saw blades.











CARBIDE GRIT - STRAIGHT EDGE

sizes (mm)	12 x 0.60		○	1/2 x .025
	19 x 0.80		○	3/4 x .032

CARBIDE GRIT - GULLETED EDGE

sizes (mm)	12 x 0.60		○	1/2 x .025
	19 x 0.80		○	3/4 x .035
	25 x 0.90		○	1 x .035
	32 x 1.10		○	1 1/4 x .042

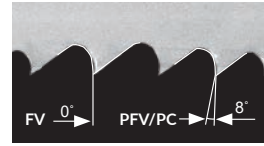
BLADES BASED ON MATERIAL

Non Ferrous, Aluminum	Carbon steels	Structural steels	Alloy steels	Mold Steels	Stainless Steels	Duplex	Tool Steels	Titanium alloys	High temp steels, Inconel	Surface hardened	Application symbols	
Easy to cut						Difficult to cut						
	ALLPOWER				ALLPOWER							
	POWERMAX				POWERMAX							
	COMMANDER						COMMANDER					
	OPTIMIZER						OPTIMIZER					
					PERFORMER			PERFORMER				
					PERFORMER X			PERFORMER				
					CT-10							
		CT-20			CT-20							
CT-30												
									CT-40			
RECOMMENDED - VERY GOOD			CUTTING POSSIBLE									

M42 BI-METAL

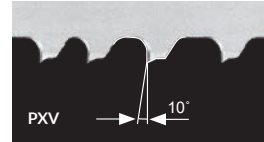
ALLPOWER™

- Our most popular allround blade from workshops to heavy industrial cutting
- Suitable for production as well as non-production cutting
- Produced from HSS M42 edge and known for its consistency
- Tooth set: AR
- Positive cutting angle (8°) in pitches: Tooth profile: PC (Hook) 3, 4, 6, Tooth profile: PFV 2/3, 3/4, 4/6 and 5/8
- Zero degree cutting angle (0°) in variable tooth pitches 6/10, 8/12 and 10/14. Tooth profile: FV



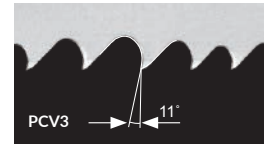
POWERMAX™

- A completely different type of blade with a unique tooth design and setting pattern
- Results in high performance for interrupted cuts in structural steels like tubes, profiles and beams
- Shock resistant, reduces vibrations, noise level and tooth breakage
- Specially suitable for bundle cutting in one or multiple layers
- Tooth set: AR
- Tooth profile: PXV



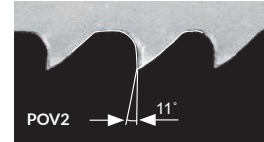
COMMANDER™

- The suitable choice where high productivity is required
- Specially designed for optimal chip flow and increased cutting rate
- High wear resistance
- Produced from HSS M42 edge suitable for solid and tough materials
- Tooth set: AR
- Tooth profile: PCV III



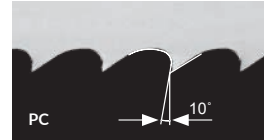
OPTIMIZER™

- Specially designed tooth for improved chip flow
- For tough and demanding production cutting
- Fast cutting of wide cross sections of ferrous and non-ferrous metals
- High heat and wear resistance
- Increased blade life when sawing in material that can work harden if not consistently penetrated
- Tooth profile: POV II



M42 LOG™

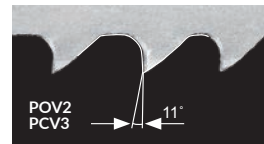
- For portable sawmills
- The suitable choice where high production is required
- Specially designed for optimal chip flow and increased cutting rate
- High wear resistance
- HSS edge for longer run time between regrinding
- Tooth set: RS



M51 BI-METAL

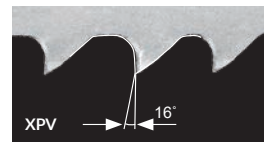
PERFORMER™

- | | | |
|---------------------------------|----------------------------------|---------------------------------|
| • M51 HSS tooth | • Long and reliable tool life | • Higher cutting rate |
| • Heavy set | • High shock resistance | • Tooth set: AR |
| • High wear and heat resistance | • For difficult to cut materials | • Tooth profiles: POVII, PCVIII |



PERFORMER X™

- | | |
|---|-------------------------------------|
| • For higher productivity on harder materials | • High shock resistance |
| • Special tooth profile - 16° | • Suitable for high-alloy materials |
| • M51 HSS tooth | • Improved chip flow |
| • Extra heavy set available | • Higher cutting rate |
| • High wear and heat resistance | • Tooth set: AR |
| • Long and reliable tool life | • Tooth profile: XPV |



CT CARBIDE

RAPID CT10

- Carbide tipped band saw blade for cutting tool steels, high speed steels and stainless steels
- The unique tooth geometry results in better chip separation, low noise and high cutting rates
- For faster cutting and excellent finish

RAPID CT20

- Carbide tipped band saw blade with unique setting
- For cutting materials with residual stress
- Suitable for titanium, titanium alloys, and Ni-Cr based alloys
- Ideal for wider / thicker profiles

RAPID CT30

- Carbide tipped band saw blade developed for cutting non-ferrous materials and especially aluminum
- The fatigue resistant alloyed steel backing withstands the severe mechanical stress due to the high cutting speeds and feeds
- For high productivity and long blade life

RAPID CT40

- Carbide tipped band saw blade with special design developed for cutting hardened and tempered or induction hardened materials
- For cutting materials with hardness between 50-60 HRC

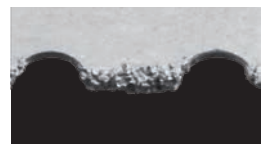
CARBIDE GRIT

CARBIDE GRIT – STRAIGHT EDGE

- Instead of teeth, this saw blade has carbide grains soldered in place
- Used for extremely hard material that cannot be cut using normal saw blades
- Suitable for glass, fibreglass, titanium and nickel alloys

CARBIDE GRIT – GULLETED EDGE

- Instead of teeth, this saw blade has carbide grains soldered in place
- Used for extremely hard material that cannot be cut using normal saw blades
- Suitable for composites, ceramics, wire, tyres and hardened steels



ACCESSORIES

TENSION METER

Correct band tension is essential for straight cut and prolonged blade life.



REFRACTOMETER

Proper concentration of the cooling lubricants is of utmost importance for the cutting result.



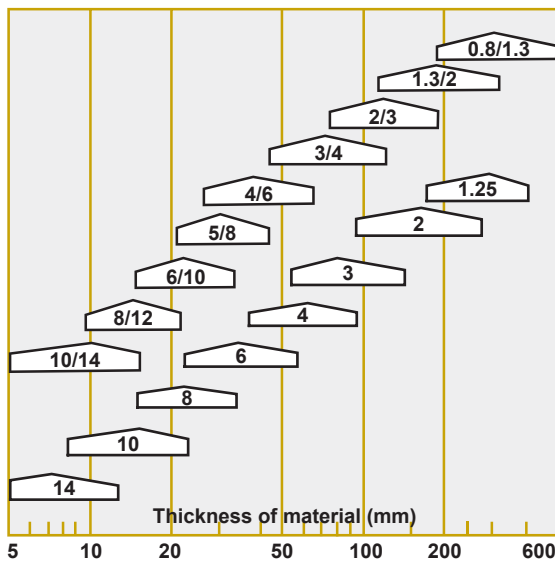
TACHOMETER

Digital tachometer showing the band speed in feet/min as well as m/min.



RECOMMENDED TOOTH PITCH.

Solid work piece

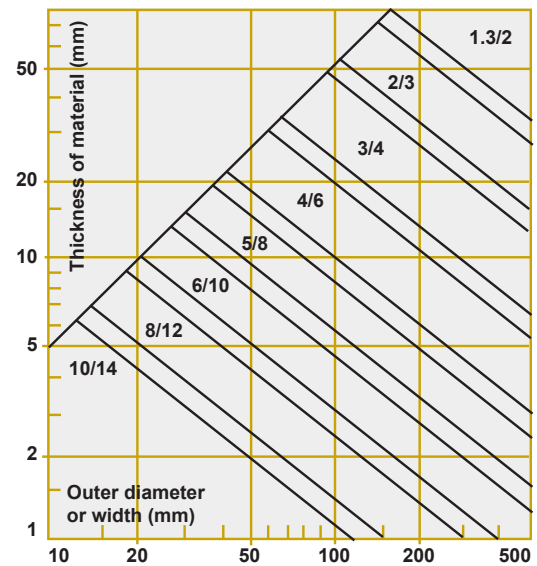


This diagram is a guide to help you chose the correct tooth pitch when **cutting solid work pieces**.

The very best choice is where the tooth pitch-area is at its widest.

When cutting soft materials such as wood, plastics, aluminum etc. choose a two-step coarser tooth pitch.

Pipes and profiles



This diagram is a guide to help you chose the correct tooth pitch when **cutting pipes and profiles**. The very best choice is in the area, where a line from the outer diameter crosses a line from the thickness of the material.

When cutting profiles, choose the tooth pitch, where the line from the width of the profile crosses the line from the material thickness of the profile.

Can't see what you're looking for?

Contact us to find out about other options and customization possibilities to match your application.