3 Step Industrial Bandsaw Blade Selection Guide

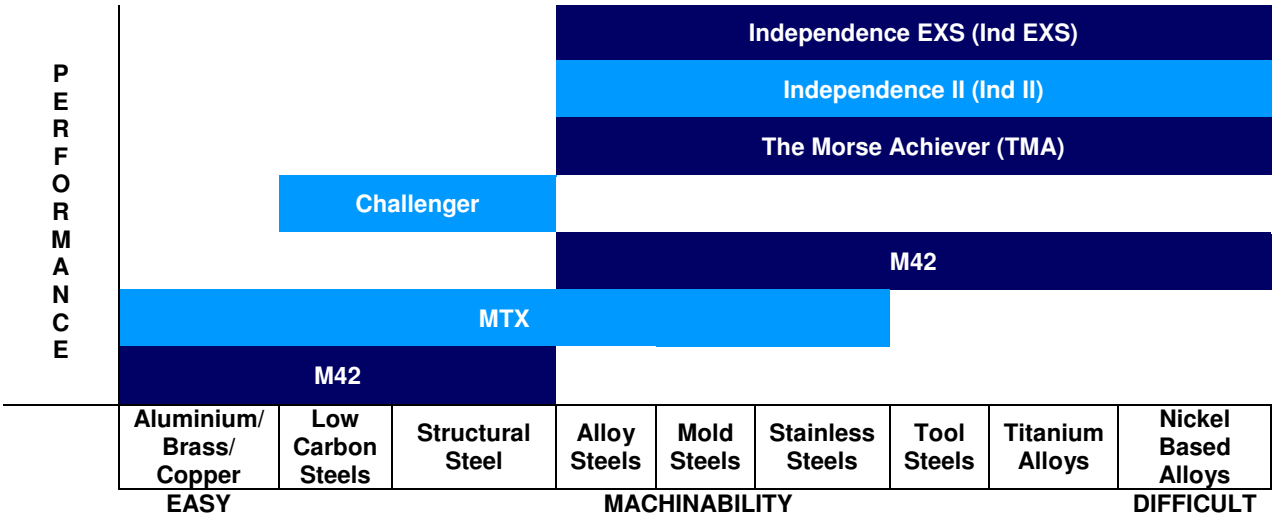
Step 1

Find the length x width x thickness of the blade the machine uses, for example:-
4115mm x 34mm x 1.1mm x 3/4 MTX PR
13' 6" x 1 ¼" x 3/4 MTX PR

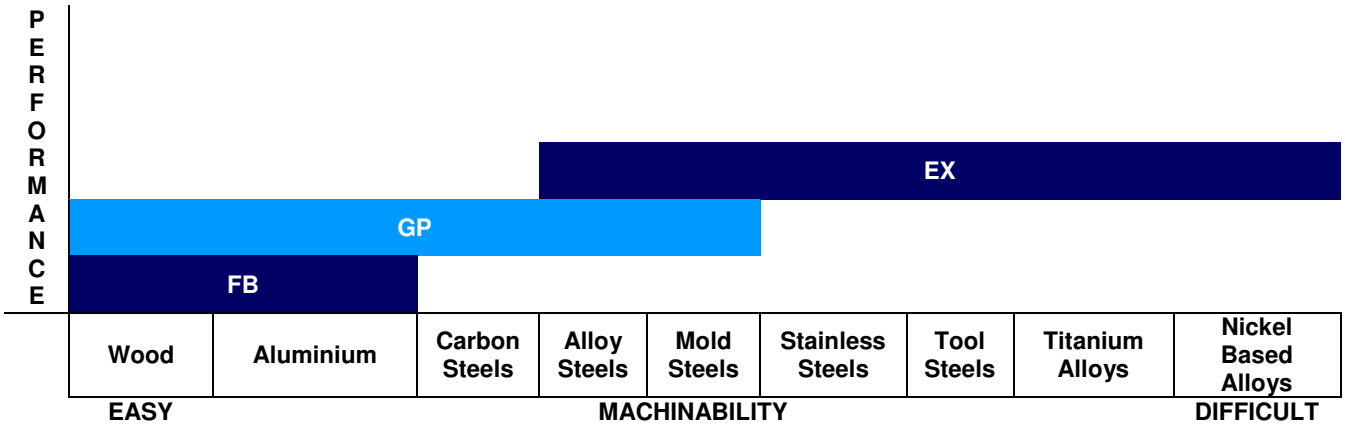
Step 2

Answer the questions:-
What material is to be cut in terms of Grade, Hardness, Shape, Size, Bundle cut and if so how or 1 at a time?
What does the end user of the blade want in terms of a production blade, general purpose blade, long life, fast cutting?
From this you will be able to then use the tables below to work out what grade of bandsaw blade and Teeth Per Inch (T.P.I.) is needed.

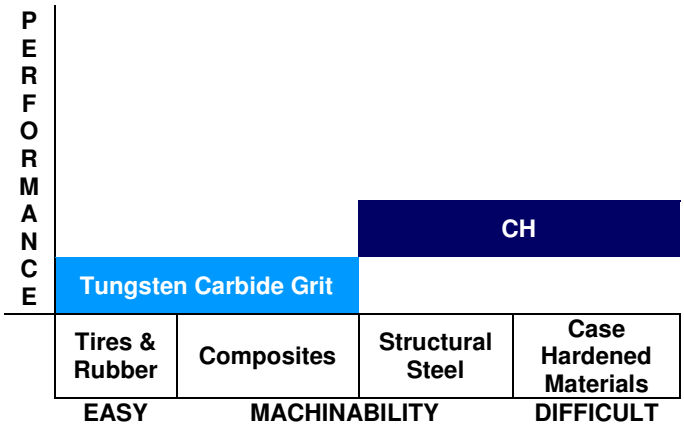
Bi-Metal Product Selection



Tungsten Carbide Tipped (TCT) Product Selection



Special Tungsten Carbide Product Selection



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Step 3

Tooth Selection Guides

Having the correct number of Teeth Per Inch (T.P.I.) is very important!

Too fewer teeth and the teeth will break off, too many and the tooth gullets will become too full, this will:-

1. Reduce the blade life.
2. Cause inaccurate, uneven, rough cuts.

All of which can, again end up being very expensive.

A good guideline is:-
A Min of 3, max of 24, 'sweet spot' of 6 to 12 teeth in the work piece at any one time.

The tables below show the min to the max that the T.P.I. can take.

Tungsten Carbide Tipped (TCT) TPI Selection Guide

Cross Section (mm)		T.P.I
From	To	
80	120	3
50	100	3/4
80	150	2/3
120	350	1.5/2
400	1000	0.75/1.1

Challenger TPI Selection Guide

Cross Section (mm)		T.P.I
From	To	
3	50	8/11
5	80	5/7
20	100	4/6
50	150	3/4
90	350	2/3

Bi-Metal - MTX, M42, TMA, Ind II, Ind EXS & Carbon – HEF TPI Selection Guide

Solid

Variable Pitch

Cross Section (mm)		T.P.I
From	To	
-	6	20/24
3	15	14/18
6	30	10/14
20	50	8/12
25	60	6/10
35	80	5/8
50	100	4/6
80	150	3/4
120	350	2/3
250	600	1.5/2
400	1000	1.1/1.5
700	1400	0.75/1.1

Constant Pitch

Cross Section (mm)		T.P.I
From	To	
-	4	32
-	6	24
3	10	18
6	15	14
15	30	10
30	50	8
50	80	6
80	120	4
120	200	3
200	400	2
300	800	1.14

Profile, i.e. Box, Tube, etc.

Wall Thickness (mm)	Outer Diameter (mm) / T.P.I.							
	20	40	60	80	100	120	150	200
2	14	14	14	14	14	14	10/14	10/14
3	14	14	10/14	10/14	10/14	10/14	8/12	8/12
4	14	14	10/14	10/14	8/12	8/12	8/12	8/12
5	14	10/14	10/14	10/14	8/12	8/12	8/12	6/10
6	14	10/14	10/14	8/12	8/12	8/12	8/12	5/8
8	14	10/14	8/12	8/12	8/12	8/12	6/10	5/8
10	-	8/12	6/10	6/10	6/10	5/8	5/8	4/6
12	-	8/12	6/10	6/10	5/8	5/8	4/6	4/6
15	-	8/12	6/10	5/8	5/8	4/6	4/6	4/6
20	-	-	6/10	5/8	4/6	4/6	4/6	3/4