

## GUIDE TO TOOTH PITCH SELECTION AND CUTTING SPEEDS AND FEEDS

When selecting the optimum circular saw blade the following factors need to be taken into account:

1. Material to be cut
2. Type and cross section of material to be cut
3. Type of lubrication
4. Tooth geometry
5. Toothform
6. Type of coating on saw blade

### Recommended tooth pitches, feeds and speeds:

	Mild steel	Medium steel	Hard steel	Stainless steel	Cast iron	Aluminium	Bronze Copper	Brass
<b>Tube Section (mm)</b>								
	<b>Pitch T (mm)</b>							
<1	3	3	3	3	-	4	4	4
1-1.5	4	4	3	4	-	5	5	5
1.5-2	5	4	4	5	-	6	6	6
2-3	5	5	5	5	-	7	7	7
>3	6	6	5	6	-	8	8	8
<b>Solid Section (mm)</b>								
	<b>Pitch T (mm)</b>							
10-20	5	5	5	5	5	6	6	8
20-40	8	6	6	6	6	8	8	10
40-60	10	10	8	8	8	12	10	12
60-90	12	12	10	11	11	16	13	14
90-110	14	14	12	14	14	18	15	17
110-130	16	16	14	16	16	20	17	19
130-150	18	16	14	16	16	20	19	20
<b>Pitch T (mm)</b>								
	<b>Feed Speed A (mm/min)</b>							
3	350-450	250-350	90-160	70-150	350-550	-	-	-
4	300-400	200-300	80-140	60-130	280-440	-	-	-
5	250-350	150-250	70-130	55-110	210-350	-	-	-
6	200-300	100-180	60-120	50-90	180-300	-	1400-2000	2000-4000
8	150-250	80-130	45-90	40-75	140-250	4500-8500	1000-1600	1500-3200
10	100-200	70-100	40-80	35-60	120-180	3800-6000	700-1200	1000-2500
12	80-150	65-90	35-65	30-55	90-150	3000-5000	550-850	800-1800
14	70-130	60-80	25-50	20-50	75-125	2800-4600	500-700	700-1400
16	50-120	55-70	15-40	5-35	65-110	2500-3700	400-600	600-1000
<b>Saw dia. (mm)</b>								
	<b>(RPM)</b>							
200	45-80	30-65	25-40	15-35	45-80	950-1500	320-480	650-950
225	45-70	30-60	20-35	15-30	45-70	850-1250	300-430	550-850
250	40-65	25-50	20-30	15-25	40-65	750-1100	250-380	500-700
275	35-60	25-45	15-30	10-25	35-60	700-1050	230-350	450-700
300	30-55	20-45	15-25	10-20	30-55	650-950	210-320	430-640
315	30-50	20-40	15-25	10-20	30-50	600-900	200-300	400-600
350	25-45	20-35	15-25	10-20	25-45	550-820	180-270	350-550
370	25-45	15-35	15-20	10-15	25-45	520-770	170-260	350-520
400	20-40	15-30	10-20	8-15	20-40	470-720	160-240	300-480
500	18-35	13-26	10-16	6-12	18-35	380-570	130-190	250-380

## STANDARD PROGRAMME OF CUT OFF SAWS

Dimensions mm	T=Pitch in mm.						Toothform and number				
	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T14
200 x 1.8 200 x 2	200 BW	160 BW	128 C	100 C	- -	80 C	- -	- -	- -	- -	- -
225 x 2 225 x 2.5	220 BW	180 BW	140 C	120 C	- -	90 C	- -	- -	- -	- -	- -
250 x 1.6 250 x 2 250 x 2.5	250 BW	200 BW BR	160 C BR	128 C BR	- - -	100 C -	- - -	80 C -	- - -	- - -	- - -
275 x 1.6 275 x 2 275 x 2.5	280 BW	220 BW BR	180 C BR	140 C -	120 C -	110 C -	- - -	90 C -	- - -	- - -	- - -
300 x 2 300 x 2.5 300 x 3	300 BW	220 BW BR	180 C BR	160 C -	140 C -	120 C -	- - -	90 C -	- - -	- - -	- - -
315 x 2 315 x 2.5 315 x 3	320 BW	240 BW BR	200 C BR	160 C -	140 C -	120 C -	- - -	100 C -	- - -	80 C -	- - -
350 x 2.5 350 x 3	350 BW	280 BW BR	220 BW BR	180 C BR	160 C -	140 C -	120 C -	110 C -	- - -	90 C -	80 C -
370 x 3	- -	290 BW	220 C	200 C	160 C	140 C	120 C	110 C	100 C	90 C	80 C
400 x 3 400 x 3.5	- - -	310 BW BR	240 BW BR	200 C -	- - -	160 C -	140 C -	128 C -	110 C -	100 C -	- - -
425 x 3 425 x 3.5	- - -	320 BW BR	260 BW BR	220 BW -	- - -	160 C -	- - -	- - -	- - -	100 C -	- - -
450 x 3.5 450 x 4	- - -	340 BW BR	- - -	220 BW BR	- - -	180 C -	- - -	140 C -	- - -	120 C -	100 C -
500 x 4	- - -	- - -	- - -	240 C BR	- - -	200 C -	- - -	160 C -	- - -	- - -	110 C -

