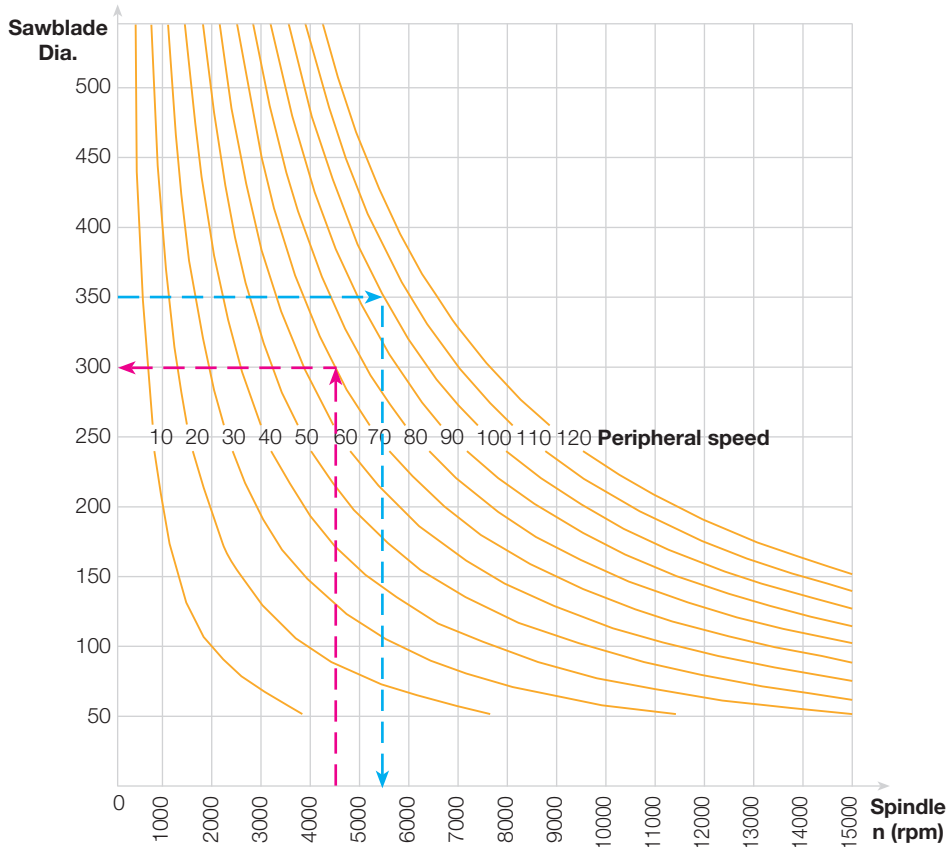


Determining Sawblade Diameter or RPM



$$n \text{ (rpm)} = \frac{1000 \times 60 \times V}{3.14 \times D}$$

n = Spindle rpm
 V = Peripheral speed m/sec
 D = Diameter mm

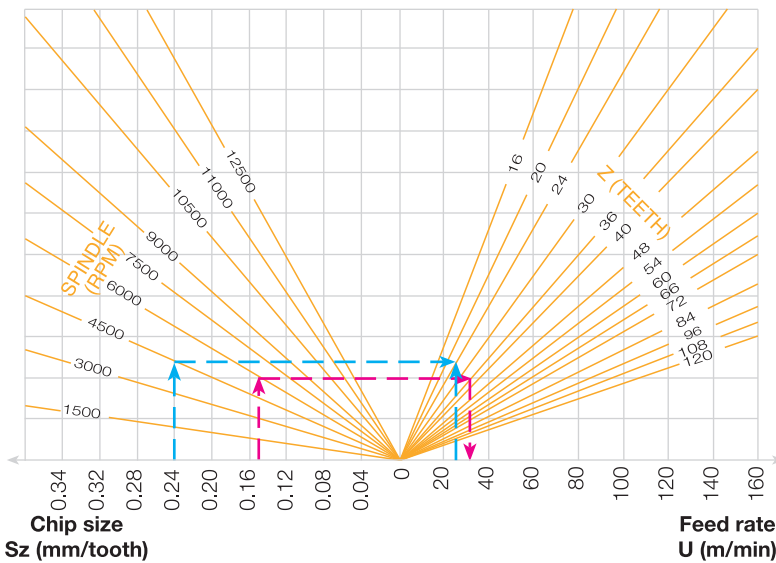
Example 1:

Determining the correct sawblade diameter to cut melamine-coated chipboard with a rpm of 4500 and a peripheral speed of 70m/sec. The correct blade diameter is 300mm.

Example 2:

Determining the correct machine rpm in order to cut at a peripheral speed of 100m/sec with a 350mm diameter sawblade. The correct rpm is 5500.

Determining Number of Teeth or Finding Feed Rate



Example 1:

Determining the Correct Feed Rate:
 Solid wood - chip size 0.15
 Spindle rpm - 6000
 Number of teeth - 36
 You should use a feed rate of - 32m/min

Example 2:

Determining Number of Teeth
 Chipboard - chip size 0.24
 Spindle rpm - 4500
 Feed rate - 22m/min
 Therefore the number of teeth = 24

Recommended Chip Size Sz (mm/tooth)

Material	Recommended Chip Size Sz (mm/tooth)
Solid wood	0.10 - 0.20
Chipboard and plywood	0.05 - 0.25
Boards with plastic lamination	0.03 - 0.06
Boards veneered on both sides	0.03 - 0.08
Hardboard	0.03 - 0.08
Duroplastic® boards	0.02 - 0.05
Thermoplastic boards	0.05 - 0.08

Sawblade Flanges

Sawblade Diameter	Sawblade Bore Diameter						
	30mm	40mm	60mm	80mm	100mm	120mm	150mm
180 ≤ 190	50/40		80/60	-	-	-	-
190 ≤ 300			80/60	120/90	140/110	-	-
300 ≤ 400			120/90		140/110	160/130	200/160
400 ≤ 450		120/90		140/110		160/130	200/160
450 ≤ 550			140/110			160/130	200/160
550 ≤ 630			160/130				200/160
630 ≤ 800					200/160		

The size of the flange is determined by the saw diameter and bore diameter.