

Spindle Speed Calculations

➔ Answers to questions:

1. Calculate r/min using the *precise* formula for 0.625 drill and 75 ft/min surface speed:

$$(75 \times 12) / (\pi \times 0.625) = 458 \text{ r/min}$$

2. Drill diameter is 8 mm, surface speed is 27 m/min - calculate the r/min:

$$(27 \times 1000) / (\pi \times 8) = 1074 \text{ r/min}$$

3. Calculate r/min using the *simple* formula for 12 mm drill and 20 m/min surface speed:

$$(20 \times 320) / 12 = 533 \text{ r/min}$$

4. Surface speed is 350 ft/min, part diameter is 5.25 inches - calculate the r/min:

$$(350 \times 12) / (\pi \times 5.25) = 255 \text{ r/min}$$

5. Calculate r/min using the *precise* formula for 12 mm drill and 20 m/min surface speed:

$$(20 \times 1000) / (\pi \times 12) = 531 \text{ r/min}$$

6. Surface speed is 147 m/min, part diameter is 105.45 mm - calculate the r/min:

$$(147 \times 1000) / (\pi \times 105.45) = 444 \text{ r/min}$$

7. Surface speed is 600 ft/min, part diameter is 0.75 inches - calculate the r/min:

$$(600 \times 12) / (\pi \times 0.75) = 3056 \text{ r/min}$$

8. Calculate r/min using the *simple* formula for 0.625 drill and 75 ft/min surface speed:

$$(75 \times 4) / 0.625 = 480 \text{ r/min}$$

9. Drill diameter is 0.5 in., surface speed is 120 ft/min - calculate the r/min:

$$(120 \times 12) / (\pi \times 0.5) = 917 \text{ r/min}$$

10. Surface speed is 110 m/min, part diameter is 16.75 mm - calculate the r/min:

$$(110 \times 1000) / (\pi \times 16.75) = 2090 \text{ r/min}$$