

## Procedure to set cutting conditions

### 1st step

- Select the correct blade type based on the area of application mentioned in the product description

### 2nd step

- Select the correct tooth pitch based on the tooth recommendation (see page 18)

### 3rd step

- Select the blade speed  $V_c$  (m/min) based on cutting conditions chart (see page 16)

### 4th step

- Select the cutting rate  $V_z$  ( $\text{cm}^2/\text{min}$ ) based on the cutting conditions chart (see page 16). Also consider the calculation of cutting time and cutting feed rate (see below)

## Calculation of cutting time and cutting feed rate

$$\text{cutting time } t = \frac{\text{surface of workpiece (cm}^2\text{)}}{\text{cutting rate } V_z \text{ (cm}^2\text{/min.)}}$$

$$\text{feed rate } V_f \text{ (mm/min.)} = \frac{\text{height of work piece (mm)} \times \text{cutting rate } V_z \text{ (cm}^2\text{/min.)}}{\text{surface of workpiece (cm}^2\text{)}}$$

## Break-in Procedures

Life time of bandsaw blades mainly depends on a controlled break-in. We recommend the following break in procedures:

### 1st step

- Select the correct speed  $V_c$  (m/min) and cutting rate  $V_z$  ( $\text{cm}^2/\text{min}$ ) based on cutting conditions chart (see page 16)

### 2nd step

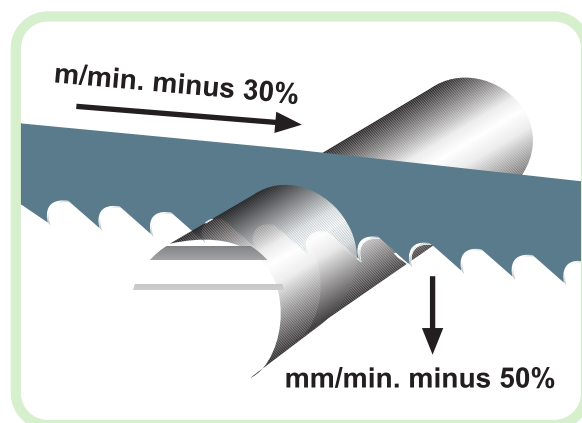
- You start with 70% of the regular cutting speed and 50% of the regular cutting rate.

### 3rd step

- If vibrations still occur, change the speed carefully until they stop. A permanent chip formation during is important during the whole cutting process.

### 4th step

- After cutting approx. 400-600  $\text{cm}^2$  or at least 15 minutes real cutting time for tubes and profiles you can **first** slowly turn up to final **speed** and **then** up to normal **cutting rate**.



## Coolants

Life time of saw blades mainly depends on the correct oil content in coolants, which should be checked regularly with the refractometer (see page 14). For ordinary low and medium alloyed materials Honsberg recommends an oil content between 8-12%, for cutting high and highest alloyed steels 13-18%.