



# MACHINING CONDITIONS

WNCG 080404 NS LT 05

T0004598

| Material Group |               | SAPPHIRE CUTTING TOOLS Group | Material Example | Hardness | D.O.C |     | Feed |      | Amax | Vc  |      | Advised D.O.C | Advised Feed | Advised Vc |
|----------------|---------------|------------------------------|------------------|----------|-------|-----|------|------|------|-----|------|---------------|--------------|------------|
| Aluminium      | AI (<8%Si)    | 13                           | 4% < Si < 8%     | 100 HB   | 0.3   | 4.5 | 0.1  | 0.3  | 0.95 | 400 | 1200 | 2.3           | 0.27         | 400        |
|                |               |                              | Si < 4%          | 60 HB    | 0.3   | 4.5 | 0.1  | 0.3  | 0.95 | 250 | 600  | 2.3           | 0.27         | 300        |
|                | Copper Alloys | 14                           | CuZn30           | 100 HB   | 0.3   | 4.5 | 0.1  | 0.35 | 1.1  | 150 | 800  | 2.3           | 0.25         | 250        |
|                | Non-Metallic  | 15                           | Fiber Plastics   | -        | 0.3   | 4.5 | 0.1  | 0.27 | 0.85 | 70  | 500  | 2.3           | 0.2          | 150        |
|                |               |                              | Graphite         | -        | 0.3   | 4   | 0.1  | 0.26 | 0.73 | 80  | 300  | 1.6           | 0.18         | 150        |
|                |               |                              | Hard Rubber      | -        | 0.3   | 4.5 | 0.1  | 0.22 | 0.69 | 100 | 200  | 2.3           | 0.16         | 150        |