



MACHINING CONDITIONS

SDKW 1205-HF LT 3130

M0004483

| Material Group | SAPPHIRE CUTTING TOOLS Group | Material Example | Hardness | D.O.C | | Feed | | Vc | | Advised D.O.C | Advised Feed | Advised Vc |
|----------------|------------------------------------|--|----------|---------|---------|-----------|------------|-------------|-------------|---------------|--------------|------------|
| | | | | min[mm] | max[mm] | min[mm/t] | max [mm/t] | min [m/min] | max [m/min] | [mm] | [mm/t] | [m/min] |
| Non Alloyed | 1 | C35, Ck45, 1020, 1045, 1060, 28Mn6 | 125 HB | 0.3 | 2 | 0.3 | 2.7 | 190 | 350 | 1.3 | 1.7 | 265 |
| | | | 190 HB | 0.3 | 2 | 0.3 | 2.7 | 190 | 320 | 1.3 | 1.7 | 240 |
| | | | 250 HB | 0.3 | 2 | 0.3 | 2.7 | 190 | 280 | 1.3 | 1.7 | 215 |
| Low Alloyed | 2 | 42CrMo4, St50, Ck60, 4140, 4340, 100Cr6 | 230 HB | 0.3 | 1.6 | 0.3 | 2.5 | 150 | 230 | 1 | 1.5 | 200 |
| | | | 280 HB | 0.3 | 1.6 | 0.3 | 2.5 | 130 | 210 | 1 | 1.4 | 165 |
| | | | 180 HB | 0.3 | 1.6 | 0.3 | 2.5 | 150 | 270 | 1 | 1.5 | 215 |
| | | | 350 HB | 0.3 | 1.6 | 0.3 | 2.25 | 130 | 190 | 1 | 1.4 | 155 |
| High Alloyed | 3 | X40CrM0V5, H13, M42, D3, S6-5-2, 12Ni19 | 220 HB | 0.3 | 1.6 | 0.3 | 2.25 | 90 | 170 | 0.8 | 1.2 | 140 |
| | | | 280 HB | 0.3 | 1.3 | 0.3 | 2 | 90 | 150 | 0.8 | 1.2 | 130 |
| | | | 320 HB | 0.3 | 1.1 | 0.3 | 1.8 | 60 | 120 | 0.8 | 1 | 110 |
| | | | 350 HB | 0.3 | 1.1 | 0.3 | 1.6 | 60 | 100 | 0.8 | 1 | 90 |