

TF Drills • B/K105 Series • Grade K10™ • Flood Coolant for Drill Diameters 3–20mm

| | | Cutting Speed – vc Range – m/min | | | Metric | | | | | | | | |
|----------------|---|-------------------------------------|----------------|-----|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | | | Recommended Feed Rate (f) by Diameter | | | | | | | | |
| Material Group | | min | Starting Value | max | | 3,0 | 4,0 | 6,0 | 8,0 | 10,0 | 12,0 | 16,0 | 20,0 |
| K | 1 | 60 | 85 | 110 | mm/r | 0,11 - 0,20 | 0,12 - 0,20 | 0,16 - 0,28 | 0,20 - 0,35 | 0,22 - 0,42 | 0,24 - 0,50 | 0,28 - 0,61 | 0,30 - 0,68 |
| | 2 | 70 | 72 | 90 | mm/r | 0,11 - 0,20 | 0,12 - 0,20 | 0,16 - 0,28 | 0,20 - 0,35 | 0,22 - 0,42 | 0,24 - 0,50 | 0,28 - 0,61 | 0,30 - 0,68 |
| | 3 | 50 | 51 | 70 | mm/r | 0,09 - 0,18 | 0,10 - 0,18 | 0,14 - 0,26 | 0,18 - 0,33 | .020 - 0,40 | 0,22 - 0,48 | 0,26 - 0,59 | 0,28 - 0,66 |
| N | 1 | 100 | 210 | 410 | mm/r | 0,09 - 0,15 | 0,10 - 0,20 | 0,18 - 0,33 | 0,20 - 0,38 | 0,25 - 0,43 | .033 - 0,51 | 0,43 - 0,58 | 0,64 - 0,79 |
| | 2 | 100 | 248 | 250 | mm/r | 0,10 - 0,19 | 0,12 - 0,21 | 0,18 - 0,33 | 0,25 - 0,42 | 0,30 - 0,50 | 0,35 - 0,58 | 0,44 - 0,74 | 0,52 - 0,88 |
| S | 5 | 60 | 173 | 250 | mm/r | 0,08 - 0,15 | 0,13 - 0,18 | 0,18 - 0,33 | 0,20 - 0,36 | 0,23 - 0,38 | 0,33 - 0,46 | 0,38 - 0,48 | 0,58 - 0,76 |
| | 4 | 30 | 20 | 51 | mm/r | 0,03 - 0,05 | 0,04 - 0,07 | 0,07 - 0,09 | 0,09 - 0,12 | 0,11 - 0,15 | 0,13 - 0,18 | 0,17 - 0,24 | 0,22 - 0,30 |

| | | Cutting Speed – vc Range – SFM | | | Inch | | | | | | | | |
|----------------|---|-----------------------------------|----------------|------|---------------------------------------|-------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|
| | | | | | Recommended Feed Rate (f) by Diameter | | | | | | | | |
| Material Group | | min | Starting Value | max | | 1/8 .125 | 3/16 .188 | 1/4 .250 | 5/16 .313 | 3/8 .375 | 1/2 .500 | 5/8 .625 | 3/4 .750 |
| K | 1 | 200 | 280 | 360 | IPR | .004 - .008 | .005 - .008 | .006 - .011 | .008 - .014 | .009 - .017 | .009 - .020 | .011 - .024 | .012 - .027 |
| | 2 | 230 | 240 | 300 | IPR | .004 - .008 | .005 - .008 | .006 - .011 | .008 - .014 | .009 - .017 | .009 - .020 | .011 - .024 | .012 - .027 |
| | 3 | 160 | 170 | 230 | IPR | .003 - .007 | .004 - .007 | .005 - .010 | .007 - .013 | .008 - .016 | .008 - .019 | .010 - .023 | .011 - .026 |
| N | 1 | 330 | 690 | 1340 | IPR | .003 - .007 | .004 - .008 | .007 - .013 | .008 - .015 | .010 - .017 | .013 - .020 | .017 - .023 | .025 - .031 |
| | 2 | 330 | 810 | 820 | IPR | .003 - .007 | .004 - .008 | .007 - .013 | .008 - .015 | .010 - .017 | .013 - .020 | .017 - .023 | .025 - .031 |
| S | 5 | 200 | 570 | 820 | IPR | .003 - .006 | .005 - .007 | .007 - .013 | .008 - .014 | .009 - .015 | .013 - .018 | .015 - .019 | .023 - .030 |
| | 4 | 100 | 70 | 170 | IPR | .001 - .002 | .002 - .003 | .003 - .004 | .004 - .005 | .004 - .006 | .005 - .007 | .007 - .009 | .009 - .012 |

Solid Carbide Drills

TF Drills • B/K105 Series • Grade KC7210™ • Flood Coolant for Drill Diameters 3–20mm

| | | Cutting Speed – vc Range – m/min | | | Metric | | | | | | | | |
|----------------|---|-------------------------------------|----------------|-----|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | | | Recommended Feed Rate (f) by Diameter | | | | | | | | |
| Material Group | | min | Starting Value | max | | 3,0 | 4,0 | 6,0 | 8,0 | 10,0 | 12,0 | 16,0 | 20,0 |
| K | 1 | 80 | 140 | 161 | mm/r | 0,13 - 0,20 | 0,14 - 0,24 | 0,17 - 0,31 | 0,20 - 0,39 | 0,25 - 0,45 | 0,29 - 0,51 | 0,33 - 0,62 | 0,36 - 0,70 |
| | 2 | 80 | 120 | 120 | mm/r | 0,13 - 0,20 | 0,15 - 0,23 | 0,19 - 0,28 | 0,23 - 0,34 | 0,26 - 0,38 | 0,29 - 0,43 | 0,34 - 0,50 | 0,36 - 0,54 |
| | 3 | 60 | 84 | 130 | mm/r | 0,09 - 0,18 | 0,10 - 0,18 | 0,14 - 0,26 | 0,18 - 0,33 | 0,20 - 0,40 | 0,22 - 0,48 | 0,26 - 0,59 | 0,28 - 0,66 |
| N | 2 | 100 | 298 | 300 | mm/r | 0,10 - 0,19 | 0,12 - 0,21 | 0,18 - 0,33 | 0,25 - 0,42 | 0,30 - 0,50 | 0,35 - 0,58 | 0,44 - 0,74 | 0,52 - 0,88 |
| | 5 | 60 | 225 | 300 | mm/r | 0,08 - 0,15 | 0,13 - 0,18 | 0,18 - 0,33 | 0,20 - 0,36 | 0,23 - 0,38 | 0,33 - 0,46 | 0,38 - 0,48 | 0,58 - 0,76 |

| | | Cutting Speed – vc Range – SFM | | | Inch | | | | | | | | |
|----------------|---|-----------------------------------|----------------|-----|---------------------------------------|-------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|
| | | | | | Recommended Feed Rate (f) by Diameter | | | | | | | | |
| Material Group | | min | Starting Value | max | | 1/8 .125 | 3/16 .188 | 1/4 .250 | 5/16 .313 | 3/8 .375 | 1/2 .500 | 5/8 .625 | 3/4 .750 |
| K | 1 | 260 | 460 | 520 | IPR | .005 - .008 | .006 - .009 | .007 - .012 | .008 - .015 | .010 - .018 | .011 - .020 | .013 - .024 | .014 - .028 |
| | 2 | 260 | 390 | 390 | IPR | .005 - .008 | .006 - .009 | .007 - .011 | .009 - .013 | .010 - .015 | .011 - .017 | .013 - .020 | .014 - .021 |
| | 3 | 200 | 280 | 430 | IPR | .003 - .007 | .004 - .007 | .005 - .010 | .007 - .013 | .008 - .016 | .008 - .019 | .010 - .023 | .011 - .026 |
| N | 2 | 330 | 980 | 980 | IPR | .003 - .007 | .004 - .008 | .007 - .013 | .008 - .015 | .010 - .017 | .013 - .020 | .017 - .023 | .025 - .031 |
| | 5 | 200 | 740 | 980 | IPR | .003 - .006 | .005 - .007 | .007 - .013 | .008 - .014 | .009 - .015 | .013 - .018 | .015 - .019 | .023 - .030 |

TF Drills • B/K105 Series • Grade KC7210 • MQL (Minimum Quantity Lubricant) for Dry Applications for Drill Diameters 3–20mm

| | | Cutting Speed – vc Range – m/min | | | Metric | | | | | | | | |
|----------------|---|-------------------------------------|----------------|-----|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | | | Recommended Feed Rate (f) by Diameter | | | | | | | | |
| Material Group | | min | Starting Value | max | | 3,0 | 4,0 | 6,0 | 8,0 | 10,0 | 12,0 | 16,0 | 20,0 |
| K | 1 | 60 | 110 | 150 | mm/r | 0,10 - 0,20 | 0,13 - 0,24 | 0,16 - 0,31 | 0,20 - 0,39 | 0,24 - 0,44 | 0,27 - 0,51 | 0,33 - 0,62 | 0,36 - 0,70 |
| | 2 | 60 | 94 | 100 | mm/r | 0,13 - 0,20 | 0,16 - 0,23 | 0,20 - 0,28 | 0,23 - 0,34 | 0,26 - 0,38 | 0,29 - 0,43 | 0,34 - 0,50 | 0,36 - 0,54 |
| | 3 | 50 | 84 | 110 | mm/r | .010 - 0,19 | 0,13 - 0,20 | 0,16 - 0,31 | 0,20 - 0,37 | 0,23 - 0,44 | 0,26 - 0,48 | 0,31 - 0,58 | 0,33 - 0,64 |

| | | Cutting Speed – vc Range – SFM | | | Inch | | | | | | | | |
|----------------|---|-----------------------------------|----------------|-----|---------------------------------------|-------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|
| | | | | | Recommended Feed Rate (f) by Diameter | | | | | | | | |
| Material Group | | min | Starting Value | max | | 1/8 .125 | 3/16 .188 | 1/4 .250 | 5/16 .313 | 3/8 .375 | 1/2 .500 | 5/8 .625 | 3/4 .750 |
| K | 1 | 200 | 360 | 490 | IPR | .003 - .006 | .003 - .007 | .004 - .009 | .006 - .012 | .008 - .016 | .012 - .019 | .015 - .023 | .020 - .028 |
| | 2 | 200 | 310 | 330 | IPR | .003 - .006 | .003 - .007 | .004 - .009 | .006 - .012 | .008 - .016 | .012 - .019 | .015 - .023 | .020 - .028 |
| | 3 | 160 | 280 | 360 | IPR | .003 - .006 | .003 - .007 | .004 - .009 | .006 - .012 | .008 - .016 | .012 - .019 | .015 - .023 | .020 - .028 |