**Carbide GR Internal Grooving Inserts**

**Coating properties: PVD carbide coating**

**Processing use: Mainly used for steel and stainless steel processing**

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| **GER1.0/1.5/2.0----A** | **Unilateral effective cutting depth 1.8** | **Insert tip arc 0.05** |
| **GER1.0/1.5/2.0/2.5/3.0----B** | **Unilateral effective cutting depth 2.6** | **Insert tip arc 0.1** |
| **GER1.0/1.5/2.0/2.5/3.0----C** | **Unilateral effective cutting depth 2.8** | **Insert tip arc 0.1** |
| **GER1.0/1.5/2.0/3.5/4.0-2.5/3.0 / D** | **Unilateral effective cutting depth 2.8-4.5** | **Insert tip arc 0.1** |
| **Full-grinded Carbide Grooving Inserts** |
|
| **No.** | **ReferencePhoto** | **Type** | **Grade** | **Material** | **Coating** | **Work-pieceMaterials** |
| 1 |  | GER100-005A | MS3015 | Carbide | PVD | Steel, S.S |
| 2 | GER120-005A | MS3015 | Carbide | PVD | Steel, S.S |
| 3 | GER125-005A | MS3015 | Carbide | PVD | Steel, S.S |
| 4 | GER150-010A | MS3015 | Carbide | PVD | Steel, S.S |
| 5 | GER200-010A | MS3015 | Carbide | PVD | Steel, S.S |
| 6 |  | GER100-A-R050 | MS3015 | Carbide | PVD | Steel, S.S |
| 7 | GER150-A-R075 | MS3015 | Carbide | PVD | Steel, S.S |
| 8 | GER200-A-R100 | MS3015 | Carbide | PVD | Steel, S.S |
| 9 | GER250-A-R125 | MS3015 | Carbide | PVD | Steel, S.S |
| 10 | GER300-A-R150 | MS3015 | Carbide | PVD | Steel, S.S |
| 11 |  | GER080-005B | MS3015 | Carbide | PVD | Steel, S.S |
| 12 | GER090-005B | MS3015 | Carbide | PVD | Steel, S.S |
| 13 | GER100-005B | MS3015 | Carbide | PVD | Steel, S.S |
| 14 | GER110-005B | MS3015 | Carbide | PVD | Steel, S.S |
| 15 | GER120-005B | MS3015 | Carbide | PVD | Steel, S.S |
| 16 | GER150-010B | MS3015 | Carbide | PVD | Steel, S.S |
| 17 | GER170-010B | MS3015 | Carbide | PVD | Steel, S.S |
| 18 | GER180-010B | MS3015 | Carbide | PVD | Steel, S.S |
| 19 | GER190-010B | MS3015 | Carbide | PVD | Steel, S.S |
| 20 | GER200-010B | MS3015 | Carbide | PVD | Steel, S.S |
| 21 | GER210-010B | MS3015 | Carbide | PVD | Steel, S.S |
| 22 | GER220-010B | MS3015 | Carbide | PVD | Steel, S.S |
| 23 | GER230-010B | MS3015 | Carbide | PVD | Steel, S.S |
| 24 | GER240-010B | MS3015 | Carbide | PVD | Steel, S.S |
| 25 | GER250-020B | MS3015 | Carbide | PVD | Steel, S.S |
| 26 | GER260-020B | MS3015 | Carbide | PVD | Steel, S.S |
| 27 | GER270-020B | MS3015 | Carbide | PVD | Steel, S.S |
| 28 | GER280-020B | MS3015 | Carbide | PVD | Steel, S.S |
| 29 | GER290-020B | MS3015 | Carbide | PVD | Steel, S.S |
| 30 | GER300-020B | MS3015 | Carbide | PVD | Steel, S.S |
| 31 |  | GER100-B-R050 | MS3015 | Carbide | PVD | Steel, S.S |
| 32 | GER150-B-R075 | MS3015 | Carbide | PVD | Steel, S.S |
| 33 | GER200-B-R100 | MS3015 | Carbide | PVD | Steel, S.S |
| 34 | GER250-B-R125 | MS3015 | Carbide | PVD | Steel, S.S |
| 35 | GER300-B-R150 | MS3015 | Carbide | PVD | Steel, S.S |
| 36 |  | GER100-005C | MS3015 | Carbide | PVD | Steel, S.S |
| 37 | GER125-005C | MS3015 | Carbide | PVD | Steel, S.S |
| 38 | GER150-010C | MS3015 | Carbide | PVD | Steel, S.S |
| 39 | GER170-010C | MS3015 | Carbide | PVD | Steel, S.S |
| 40 | GER200-010C | MS3015 | Carbide | PVD | Steel, S.S |
| 41 | GER250-020C | MS3015 | Carbide | PVD | Steel, S.S |
| 42 | GER300-020C | MS3015 | Carbide | PVD | Steel, S.S |
| 43 | GER350-020C | MS3015 | Carbide | PVD | Steel, S.S |
| 44 |  | GER100-C-R050 | MS3015 | Carbide | PVD | Steel, S.S |
| 45 | 　 | GER150-C-R075 | MS3015 | Carbide | PVD | Steel, S.S |
| 46 | 　 | GER200-C-R100 | MS3015 | Carbide | PVD | Steel, S.S |
| 47 | 　 | GER250-C-R125 | MS3015 | Carbide | PVD | Steel, S.S |
| 48 | 　 | GER300-C-R150 | MS3015 | Carbide | PVD | Steel, S.S |
| 49 |  | GER090-005D | MS3015 | Carbide | PVD | Steel, S.S |
| 50 | GER100-005D | MS3015 | Carbide | PVD | Steel, S.S |
| 51 | GER110-005D | MS3015 | Carbide | PVD | Steel, S.S |
| 52 | GER125-005D | MS3015 | Carbide | PVD | Steel, S.S |
| 53 | GER150-010D | MS3015 | Carbide | PVD | Steel, S.S |
| 54 | GER170-010D | MS3015 | Carbide | PVD | Steel, S.S |
| 55 | GER180-010D | MS3015 | Carbide | PVD | Steel, S.S |
| 56 | GER190-010D | MS3015 | Carbide | PVD | Steel, S.S |
| 57 | GER200-010D | MS3015 | Carbide | PVD | Steel, S.S |
| 58 | GER210-010D | MS3015 | Carbide | PVD | Steel, S.S |
| 59 | GER220-010D | MS3015 | Carbide | PVD | Steel, S.S |
| 60 | GER230-010D | MS3015 | Carbide | PVD | Steel, S.S |
| 61 | GER240-010D | MS3015 | Carbide | PVD | Steel, S.S |
| 62 | GER250-020D | MS3015 | Carbide | PVD | Steel, S.S |
| 63 | GER260-020D | MS3015 | Carbide | PVD | Steel, S.S |
| 64 | GER270-020D | MS3015 | Carbide | PVD | Steel, S.S |
| 65 | GER280-020D | MS3015 | Carbide | PVD | Steel, S.S |
| 66 | GER290-020D | MS3015 | Carbide | PVD | Steel, S.S |
| 67 | GER300-020D | MS3015 | Carbide | PVD | Steel, S.S |
| 68 | GER350D-020D | MS3015 | Carbide | PVD | Steel, S.S |
| 69 | GER400D-020D | MS3015 | Carbide | PVD | Steel, S.S |
| 70 | GER090D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 71 | GER100D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 72 | GER110D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 73 | GER125D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 74 | GER150D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 75 | GER170D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 76 | GER180D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 77 | GER190D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 78 | GER200D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 79 | GER210D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 80 | GER220D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 81 | GER230D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 82 | GER240D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 83 | GER250D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 84 | GER260D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 85 | GER270D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 86 | GER280D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 87 | GER290D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 88 | GER300D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 89 | GER350D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 90 | GER400D-16 | MS3015 | Carbide | PVD | Steel, S.S |
| 91 |  | GER100-D-R050 | MS3015 | Carbide | PVD | Steel, S.S |
| 92 | GER150-D-R075 | MS3015 | Carbide | PVD | Steel, S.S |
| 93 | GER200-D-R100 | MS3015 | Carbide | PVD | Steel, S.S |
| 94 | GER250-D-R125 | MS3015 | Carbide | PVD | Steel, S.S |
| 95 | GER300-D-R150 | MS3015 | Carbide | PVD | Steel, S.S |

**Grade: MS3015**

**PVD (TiAIN) coating, Suitable for low-speed cutting and interrupted cutting of steel parts and stainless steel, with good wear resistance and high temperature oxidation resistance.**

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| **Recommended Cutting Parameters** |
| **Chip-breaker** | **Ap** | **F** | **Vc** |
| **GER-D** | **4.5** | **0.03-0.12** | **60-130** |