






















## TTD2030220





















**Type:** Short drill with reinforced shank

| d1   | d2   | l1 | l2   |
|------|------|----|------|
| 2,20 | 3,00 | 45 | 9,40 |

| Coolant holes | Cut   | Point angle | Spiral angle | Cutting edges Z |
|---------------|-------|-------------|--------------|-----------------|
| No            | Right | 140°        | 30°          | 2               |

| Coated | Coating type | Material | Material type | Norm |
|--------|--------------|----------|---------------|------|
| Yes    | TiAlN        | MD       | SMG SP        | TUSA |

| Machinable Materials |   |   |                  |                               |
|----------------------|---|---|------------------|-------------------------------|
| Cod.                 | Material type                                       | Machinability   | Cutting speed Vc | Advancement per revolution fn |
|                      |   | <b>Recommended</b><br>Part.<br>recommended<br>Not<br>recommended                    | (m/min)          | (mm/rev)                      |
| <b>P01</b>           | Unalloyed steels up to 800 N/mm2                    |    | 80 : 120         | 0,235                         |
| <b>P02</b>           | Low alloy steels from 800 N/mm2 to 1100 N/mm2       |    | 60 : 100         | 0,235                         |
| <b>P03</b>           | Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2 |    | 40 : 80          | 0,190                         |
| <b>M01</b>           | Ferritic stainless steels                           |    | 20 : 40          | 0,065                         |
| <b>M02</b>           | Martensitic stainless steels                        |    | 25 : 50          | 0,090                         |
| <b>M03</b>           | Martensitic stainless steels - PH                   |    | 20 : 30          | 0,065                         |
| <b>M04</b>           | Austenitic stainless steels                         |   | 20 : 30          | 0,065                         |
| <b>K01</b>           | Gray/lamellar cast iron                             |  | 80 : 120         | 0,340                         |
| <b>K02</b>           | Nodular/nodular cast iron                           |  | 80 : 120         | 0,340                         |
| <b>N01</b>           | Drawn aluminum alloys                               |  | 150 : 200        | 0,140                         |
| <b>N02</b>           | Die-cast aluminum alloys                            |  | 150 : 200        | 0,125                         |
| <b>N03</b>           | Copper  |  | 80 : 120         | 0,090                         |
| <b>N04</b>           | Brass - Bronze                                      |  | 60 : 100         | 0,115                         |
| <b>N05</b>           | Lead-free brass                                     |  | 100 : 140        | 0,090                         |
| <b>S01</b>           | Super alloys (Inconel - Hastelloy - Nimonic)        |  | 20 : 40          | 0,010                         |
| <b>S02</b>           | Pure titanium (Grade 2 - Grade 4)                   |  | 20 : 40          | 0,065                         |
| <b>S03</b>           | Titanium alloys (Grade 5)                           |  | 15 : 30          | 0,070                         |
| <b>S04</b>           | Cobalt Chrome Alloys                                |  | 20 : 40          | 0,030                         |
| <b>H01</b>           | Hardened steels up to 55 HRC                        |  | 20 : 40          | 0,015                         |

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| <b>H01</b>           | Hardened steels up to 55 HRC                        |  | 20 : 40          | 0,015                         |
| <b>H02</b>           | Hardened steels from 55 HRC                         |  | 15 : 30          | 0,010                         |



SWISS HIGH PRECISION TOOLS

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