























## TTD2180230E

**Type:** High-performance extra long short twist drill with coolant holes

| d1   | d2   | l1  | l2    | l3    |
|------|------|-----|-------|-------|
| 2,30 | 4,00 | 100 | 10,15 | 49,00 |

| Coolant holes | Cut   | Point angle | Spiral angle | Cutting edges Z |
|---------------|-------|-------------|--------------|-----------------|
| Yes           | Right | 130°        | -            | 2               |

| Coated | Coating type | Material | Material type | Norm |
|--------|--------------|----------|---------------|------|
| Yes    | ALCRONOS     | MD       | SMG 10        | TUSA |

| Machinable Materials |   |   |                  |                               |
|----------------------|---|---|------------------|-------------------------------|
| Cod.                 | Material type                                       | Machinability   | Cutting speed Vc | Advancement per revolution fn |
|                      |   | <b>Recommended</b><br>Part.<br>recommended <b>Not</b><br>recommended                | (m/min)          | (mm/rev)                      |
| <b>P01</b>           | Unalloyed steels up to 800 N/mm2                    |    | 50 : 80          | 0.10-0.12                     |
| <b>P02</b>           | Low alloy steels from 800 N/mm2 to 1100 N/mm2       |    | 45 : 65          | 0.09-0.11                     |
| <b>P03</b>           | Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2 |    | 40 - 60          | 0.08-0.10                     |
| <b>M01</b>           | Ferritic stainless steels                           |    | 35 - 50          | 0.065-0.075                   |
| <b>M02</b>           | Martensitic stainless steels                        |    | 30 - 45          | 0.065-0.075                   |
| <b>M03</b>           | Martensitic stainless steels - PH                   |    | 30 - 45          | 0.065-0.075                   |
| <b>M04</b>           | Austenitic stainless steels                         |   | 30 - 45          | 0.055-0.065                   |
| <b>K01</b>           | Gray/lamellar cast iron                             |  | 80 - 100         | 0.10-0.12                     |
| <b>K02</b>           | Nodular/nodular cast iron                           |  | 80 - 100         | 0.10-0.12                     |
| <b>N01</b>           | Drawn aluminum alloys                               |  | 100 : 160        | 0.08-0.95                     |
| <b>N02</b>           | Die-cast aluminum alloys                            |  | 80 : 140         | 0.09-0.105                    |
| <b>N03</b>           | Copper  |  | 60 : 100         | 0.07-0.085                    |
| <b>N04</b>           | Brass - Bronze                                      |  | 80 : 140         | 0.095-0.11                    |
| <b>N05</b>           | Lead-free brass                                     |  | 60 : 120         | 0.075-0.09                    |
| <b>S01</b>           | Super alloys (Inconel - Hastelloy - Nimonic)        |  | 20 : 40          | 0.03-0.04                     |
| <b>S02</b>           | Pure titanium (Grade 2 - Grade 4)                   |  | 10 : 25          | 0.04-0.05                     |
| <b>S03</b>           | Titanium alloys (Grade 5)                           |  | 15 - 30          | 0.06-0.07                     |
| <b>S04</b>           | Cobalt Chrome Alloys                                |  | 35 - 50          | 0.06-0.07                     |
| <b>H01</b>           | Hardened steels up to 55 HRC                        |  | 20 - 30          | 0.012-0.016                   |
| <b>H02</b>           | Hardened steels from 55 HRC                         |  | -                | -                             |