

# 910: Solid carbide deep hole drill DEEPMAX 25xD



| Material                                                                                           | 910<br>[inch]  | 0,11811 -<br>0,12204 |                | 0,12598 -<br>0,15750 |                | 0,16142 -<br>0,19690 |                | 0,20079 -<br>0,25200 |                | 0,25590 -<br>0,33070 |                | 0,33464 -<br>0,39370 |                | 0,39763 -<br>0,47240 |                | 0,39764 -<br>0,47244 |
|----------------------------------------------------------------------------------------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|
|                                                                                                    | sfm [feet/min] | f [inch/rev]         | sfm [feet/min] | f [inch/rev]         | sfm [feet/min] | f [inch/rev]         | sfm [feet/min] | f [inch/rev]         | sfm [feet/min] | f [inch/rev]         | sfm [feet/min] | f [inch/rev]         | sfm [feet/min] | f [inch/rev]         | sfm [feet/min] | f [inch/rev]         |
| General steels <500 N/mm² (<150 HB)                                                                | 253            | 0.0033               | 253            | 0.0047               | 282            | 0.0063               | 282            | 0.0075               | 312            | 0.0087               | 312            | 0.0110               | 312            | 0.0138               | 341            | 0.0138               |
| General steels <700 N/mm² (<205 HB)                                                                | 236            | 0.0033               | 236            | 0.0043               | 266            | 0.0059               | 266            | 0.0071               | 292            | 0.0083               | 292            | 0.0102               | 292            | 0.0130               | 322            | 0.0130               |
| Tempering steel <850 N/mm² (<25 HRC)                                                               | 223            | 0.0032               | 223            | 0.0039               | 249            | 0.0051               | 249            | 0.0059               | 276            | 0.0071               | 276            | 0.0091               | 276            | 0.0118               | 302            | 0.0118               |
| Tempering steel <1000 N/mm² (<32 HRC)                                                              | 210            | 0.0032               | 210            | 0.0039               | 233            | 0.0051               | 233            | 0.0059               | 259            | 0.0071               | 259            | 0.0091               | 259            | 0.0118               | 282            | 0.0118               |
| Tempering steel <1400 N/mm² (<44 HRC)                                                              | 180            | 0.0030               | 180            | 0.0035               | 203            | 0.0043               | 203            | 0.0055               | 223            | 0.0063               | 223            | 0.0079               | 223            | 0.0098               | 246            | 0.0098               |
| Hardened steel 45-55 HRC (1400-2000 N/mm²)                                                         |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Hardened steel 55-60 HRC (>2000 N/mm²)                                                             |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Hardened steel 60-65 HRC                                                                           |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Cast iron <180HB                                                                                   | 253            | 0.0033               | 253            | 0.0047               | 282            | 0.0063               | 282            | 0.0075               | 312            | 0.0087               | 312            | 0.0110               | 312            | 0.0138               | 341            | 0.0138               |
| Malleable cast iron                                                                                | 197            | 0.0030               | 197            | 0.0039               | 220            | 0.0051               | 220            | 0.0059               | 243            | 0.0071               | 243            | 0.0091               | 243            | 0.0118               | 266            | 0.0118               |
| Cast iron with nodular graphite                                                                    | 197            | 0.0030               | 197            | 0.0039               | 220            | 0.0051               | 220            | 0.0059               | 243            | 0.0071               | 243            | 0.0091               | 243            | 0.0118               | 266            | 0.0118               |
| Plastics - duroplast                                                                               |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Graphite                                                                                           |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Aluminium long-chipping                                                                            |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Aluminium short-chipping                                                                           |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Aluminium alloyed over >8% S                                                                       |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Copper, brass, bronze, red brass                                                                   |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Plastics - thermoplast                                                                             |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| GFK/CFK (fibreglass/carbon fibre plastics)                                                         |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Rust and acid constant steels <700 N/mm² (<205 HB)                                                 | 141            | 0.0022               | 141            | 0.0026               | 157            | 0.0031               | 157            | 0.0039               | 174            | 0.0047               | 174            | 0.0059               | 174            | 0.0071               | 190            | 0.0071               |
| Rust and acid constant steels >700 N/mm² (>205 HB)                                                 |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Titanium                                                                                           |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Inconel, Hastelloy, Nimonic, Monel                                                                 |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
|                                                                                                    |                |                      |                |                      |                |                      |                | Dia 3-5              | Dia 5-8        | Dia 8-12             | Dia 12-20      |                      |                |                      |                |                      |
|                                                                                                    |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |
| Recommended internal coolant pressure [PSI]:                                                       |                |                      |                |                      |                |                      |                | 870                  | 580            | 435                  | 363            |                      |                |                      |                |                      |
| Recommended MQL coolant pressure [PSI]:                                                            |                |                      |                |                      |                |                      |                | 174                  | 145            | 130                  | 116            |                      |                |                      |                |                      |
| ** if oil is used as the cooling medium, we recommend increasing the pressure by an additional 10% |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |                |                      |



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| Material                                                                                           | 910<br>[mm]<br>vc [m/min] | 3 - 3,1<br>f [mm/rev] | vc [m/min] | 3,2 - 4<br>f [mm/rev] | vc [m/min] | 4,1 - 5<br>f [mm/rev] | vc [m/min] | 5,1 - 6,4<br>f [mm/rev] | vc [m/min] | 6,5 - 8,4<br>f [mm/rev] | vc [m/min] | 8,5 - 10<br>f [mm/rev] | vc [m/min] | 10,1 - 12<br>f [mm/rev] | vc [m/min] | 10,1 - 12<br>f [mm/rev] |
|----------------------------------------------------------------------------------------------------|---------------------------|-----------------------|------------|-----------------------|------------|-----------------------|------------|-------------------------|------------|-------------------------|------------|------------------------|------------|-------------------------|------------|-------------------------|
| General steels <500 N/mm² (<150 HB)                                                                | 77                        | 0.0850                | 77         | 0.1200                | 86         | 0.1600                | 86         | 0.1900                  | 95         | 0.2200                  | 95         | 0.2800                 | 95         | 0.3500                  | 104        | 0.3500                  |
| General steels <700 N/mm² (<205 HB)                                                                | 72                        | 0.0850                | 72         | 0.1100                | 81         | 0.1500                | 81         | 0.1800                  | 89         | 0.2100                  | 89         | 0.2600                 | 89         | 0.3300                  | 98         | 0.3300                  |
| Tempering steel <850 N/mm² (<25 HRC)                                                               | 68                        | 0.0820                | 68         | 0.1000                | 76         | 0.1300                | 76         | 0.1500                  | 84         | 0.1800                  | 84         | 0.2300                 | 84         | 0.3000                  | 92         | 0.3000                  |
| Tempering steel <1000 N/mm² (<32 HRC)                                                              | 64                        | 0.0820                | 64         | 0.1000                | 71         | 0.1300                | 71         | 0.1500                  | 79         | 0.1800                  | 79         | 0.2300                 | 79         | 0.3000                  | 86         | 0.3000                  |
| Tempering steel <1400 N/mm² (<44 HRC)                                                              | 55                        | 0.0750                | 55         | 0.0900                | 62         | 0.1100                | 62         | 0.1400                  | 68         | 0.1600                  | 68         | 0.2000                 | 68         | 0.2500                  | 75         | 0.2500                  |
| Hardened steel 45-55 HRC (1400-2000 N/mm²)                                                         |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Hardened steel 55-60 HRC (>2000 N/mm²)                                                             |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Hardened steel 60-65 HRC                                                                           |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Cast iron <180HB                                                                                   | 77                        | 0.0850                | 77         | 0.1200                | 86         | 0.1600                | 86         | 0.1900                  | 95         | 0.2200                  | 95         | 0.2800                 | 95         | 0.3500                  | 104        | 0.3500                  |
| Malleable cast iron                                                                                | 60                        | 0.0750                | 60         | 0.1000                | 67         | 0.1300                | 67         | 0.1500                  | 74         | 0.1800                  | 74         | 0.2300                 | 74         | 0.3000                  | 81         | 0.3000                  |
| Cast iron with nodular graphite                                                                    | 60                        | 0.0750                | 60         | 0.1000                | 67         | 0.1300                | 67         | 0.1500                  | 74         | 0.1800                  | 74         | 0.2300                 | 74         | 0.3000                  | 81         | 0.3000                  |
| Plastics - duroplast                                                                               |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Graphite                                                                                           |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Aluminium long-chipping                                                                            |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Aluminium short-chipping                                                                           |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Aluminium alloyed over >8% S                                                                       |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Copper, brass, bronze, red brass                                                                   |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Plastics - thermoplast                                                                             |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| GFK/CFK (fibreglass/carbon fibre plastics)                                                         |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Rust and acid constant steels <700 N/mm² (<205 HB)                                                 | 43                        | 0.0550                | 43         | 0.0650                | 48         | 0.0800                | 48         | 0.1000                  | 53         | 0.1200                  | 53         | 0.1500                 | 53         | 0.1800                  | 58         | 0.1800                  |
| Rust and acid constant steels >700 N/mm² (>205 HB)                                                 |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Titanium                                                                                           |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
| Inconel, Hastelloy, Nimonic, Monel                                                                 |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |
|                                                                                                    |                           |                       |            |                       |            |                       |            | Dia 3-5                 | Dia 5-8    | Dia 8-12                | Dia 12-20  |                        |            |                         |            |                         |
| Recommended internal coolant pressure [bar]:                                                       |                           |                       |            |                       |            |                       |            | 60                      | 40         | 30                      | 25         |                        |            |                         |            |                         |
| Recommended MQL coolant pressure [bar]:                                                            |                           |                       |            |                       |            |                       |            | 12                      | 10         | 9                       | 8          |                        |            |                         |            |                         |
| ** if oil is used as the cooling medium, we recommend increasing the pressure by an additional 10% |                           |                       |            |                       |            |                       |            |                         |            |                         |            |                        |            |                         |            |                         |

