



# STRAIGHT SHANK DRILLS

**Retool**

## RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDPARAMETER

**DT600, DT692, DT693** SERIES

**HSS-E, DH100 WORM PATTERN DRILLS (EXTRA LONG)**

VC = M/MIN  
RPM = rev./min.  
FEED = mm/rev.

| ISO | VDI 3323 | Material Description               | Vc | Parameter | Drill Diameter (mm) |           |           |           |           |           |           |
|-----|----------|------------------------------------|----|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|     |          |                                    |    |           | 2.0                 | 3.0       | 4.0       | 6.0       | 8.0       | 10.0      | 13.0      |
| P   | 1        | Non-alloy steel                    | 20 | RPM       | 3180                | 2120      | 1590      | 1060      | 800       | 640       | 490       |
|     |          |                                    |    | FEED      | 0.01~0.03           | 0.03~0.05 | 0.04~0.06 | 0.05~0.08 | 0.08~0.11 | 0.09~0.13 | 0.10~0.16 |
|     | 2        |                                    | 15 | RPM       | 2390                | 1590      | 1190      | 800       | 600       | 480       | 370       |
|     |          |                                    |    | FEED      | 0.01~0.03           | 0.03~0.05 | 0.04~0.06 | 0.05~0.08 | 0.08~0.11 | 0.09~0.13 | 0.10~0.16 |
|     | 3        |                                    | 10 | RPM       | 1590                | 1060      | 800       | 530       | 400       | 320       | 240       |
|     |          |                                    |    | FEED      | 0.01~0.03           | 0.03~0.05 | 0.04~0.06 | 0.05~0.08 | 0.08~0.11 | 0.09~0.13 | 0.10~0.16 |
|     | 4        | Low alloy steel                    | 10 | RPM       | 1590                | 1060      | 800       | 530       | 400       | 320       | 240       |
|     |          |                                    |    | FEED      | 0.01~0.02           | 0.01~0.03 | 0.02~0.04 | 0.02~0.05 | 0.03~0.06 | 0.03~0.06 | 0.04~0.10 |
|     | 6        |                                    | 15 | RPM       | 2390                | 1590      | 1190      | 800       | 600       | 480       | 370       |
|     |          |                                    |    | FEED      | 0.01~0.03           | 0.03~0.05 | 0.04~0.06 | 0.05~0.08 | 0.08~0.11 | 0.09~0.13 | 0.10~0.16 |
|     | 7        |                                    | 10 | RPM       | 1590                | 1060      | 800       | 530       | 400       | 320       | 240       |
|     |          |                                    |    | FEED      | 0.01~0.03           | 0.03~0.05 | 0.04~0.06 | 0.05~0.08 | 0.08~0.11 | 0.09~0.13 | 0.10~0.16 |
|     | 8        |                                    | 10 | RPM       | 1590                | 1060      | 800       | 530       | 400       | 320       | 240       |
|     |          |                                    |    | FEED      | 0.01~0.02           | 0.01~0.03 | 0.02~0.04 | 0.02~0.05 | 0.03~0.06 | 0.03~0.06 | 0.04~0.10 |
|     | 10       | High alloyed steel, and tool steel | 5  | RPM       | 800                 | 530       | 400       | 270       | 200       | 160       | 120       |
|     |          |                                    |    | FEED      | 0.01~0.03           | 0.03~0.05 | 0.04~0.06 | 0.05~0.08 | 0.08~0.11 | 0.09~0.13 | 0.10~0.16 |
| K   | 15       | Grey cast iron                     | 20 | RPM       | 3180                | 2120      | 1590      | 1060      | 800       | 640       | 490       |
|     |          |                                    |    | FEED      | 0.01~0.03           | 0.03~0.05 | 0.04~0.06 | 0.05~0.08 | 0.08~0.11 | 0.09~0.13 | 0.10~0.16 |
|     | 16       |                                    | 15 | RPM       | 2390                | 1590      | 1190      | 800       | 600       | 480       | 370       |
|     |          |                                    |    | FEED      | 0.01~0.02           | 0.01~0.03 | 0.02~0.04 | 0.02~0.05 | 0.03~0.06 | 0.03~0.06 | 0.04~0.10 |
|     | 17       | Nodular cast iron                  | 20 | RPM       | 3180                | 2120      | 1590      | 1060      | 800       | 640       | 490       |
|     |          |                                    |    | FEED      | 0.01~0.03           | 0.03~0.05 | 0.04~0.06 | 0.05~0.08 | 0.08~0.11 | 0.09~0.13 | 0.10~0.16 |
|     | 18       |                                    | 10 | RPM       | 1590                | 1060      | 800       | 530       | 400       | 320       | 240       |
|     |          |                                    |    | FEED      | 0.01~0.02           | 0.01~0.03 | 0.02~0.04 | 0.02~0.05 | 0.03~0.06 | 0.03~0.06 | 0.04~0.10 |
|     | 19       | Malleable cast iron                | 15 | RPM       | 2390                | 1590      | 1190      | 800       | 600       | 480       | 370       |
|     |          |                                    |    | FEED      | 0.01~0.03           | 0.03~0.05 | 0.04~0.06 | 0.05~0.08 | 0.08~0.11 | 0.09~0.13 | 0.10~0.16 |
|     | 20       |                                    | 10 | RPM       | 1590                | 1060      | 800       | 530       | 400       | 320       | 240       |
|     |          |                                    |    | FEED      | 0.01~0.02           | 0.01~0.03 | 0.02~0.04 | 0.02~0.05 | 0.03~0.06 | 0.03~0.06 | 0.04~0.10 |

CARBIDE

HSS

i-CONE  
DRILLS

i-DREAM  
DRILLS

DREAM  
DRILLS  
-PRO

DREAM  
DRILLS  
-GENERAL

DREAM  
DRILLS  
-HIGH FEED

DREAM  
DRILLS  
-FLAT BOTTOM

DREAM  
DRILLS  
-INOX

DREAM  
DRILLS  
-ALU

DREAM  
DRILLS  
-MQL

DREAM DRILLS  
for HIGH  
HARDENED STEELS

GENERAL  
CARBIDE  
DRILLS

MULTI-1  
DRILLS

HPD  
DRILLS

GOLD-P  
DRILLS