



# HPD DRILLS

## RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDPARAMETER

### D4541, D4542 SERIES

### HPD DRILLS for STEELS

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       | 5.0       | 6.0       | 8.0       | 10.0      | 12.0      |
| P    | 1                                  | Non-alloy steel      | 35        | RPM       | 5570                | 3710      | 2790      | 2230      | 1860      | 1390      | 1110      | 930       |
|      | FEED                               |                      |           | 0.04-0.10 | 0.07-0.13           | 0.09-0.15 | 0.12-0.18 | 0.13-0.19 | 0.18-0.24 | 0.20-0.30 | 0.22-0.32 |           |
|      | 2                                  |                      | 25        | RPM       | 3980                | 2650      | 1990      | 1590      | 1330      | 990       | 800       | 660       |
|      | 3                                  | Low alloy steel      | 25        | FEED      | 0.04-0.10           | 0.07-0.13 | 0.09-0.15 | 0.12-0.18 | 0.13-0.19 | 0.18-0.24 | 0.20-0.30 | 0.22-0.32 |
|      | 6                                  |                      |           | RPM       | 3980                | 2650      | 1990      | 1590      | 1330      | 990       | 800       | 660       |
|      | 7                                  |                      | 30        | FEED      | 0.04-0.10           | 0.07-0.13 | 0.09-0.15 | 0.12-0.18 | 0.13-0.19 | 0.18-0.24 | 0.20-0.30 | 0.22-0.32 |
| 10   | High alloyed steel, and tool steel | 15                   | RPM       | 2390      | 1590                | 1190      | 950       | 800       | 600       | 480       | 400       |           |
| FEED |                                    |                      | 0.04-0.10 | 0.07-0.13 | 0.09-0.15           | 0.12-0.18 | 0.13-0.19 | 0.18-0.24 | 0.20-0.30 | 0.22-0.32 |           |           |
| K    | 15                                 | Grey cast iron       | 40        | RPM       | 6370                | 4240      | 3180      | 2550      | 2120      | 1590      | 1270      | 1060      |
| FEED | 0.06-0.12                          | 0.09-0.15            | 0.12-0.18 | 0.15-0.21 | 0.16-0.22           | 0.22-0.28 | 0.26-0.36 | 0.28-0.38 |           |           |           |           |

  

| ISO  | VDI 3323                           | Material Description | Vc        | Parameter | Drill Diameter (mm) |           |           |           |           |           |           |           |           |           |
|------|------------------------------------|----------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|      |                                    |                      |           |           | 14.0                | 16.0      | 18.0      | 20.0      | 22.0      | 24.0      | 26.0      | 28.0      | 30.0      | 32.0      |
| P    | 1                                  | Non-alloy steel      | 35        | RPM       | 800                 | 700       | 620       | 560       | 510       | 460       | 430       | 400       | 370       | 350       |
|      | FEED                               |                      |           | 0.25-0.35 | 0.28-0.38           | 0.34-0.44 | 0.35-0.45 | 0.40-0.50 | 0.44-0.54 | 0.48-0.58 | 0.52-0.62 | 0.56-0.66 | 0.60-0.70 |           |
|      | 2                                  |                      | 25        | RPM       | 570                 | 500       | 440       | 400       | 360       | 330       | 310       | 280       | 270       | 250       |
|      | 3                                  | Low alloy steel      | 25        | FEED      | 0.25-0.35           | 0.28-0.38 | 0.34-0.44 | 0.35-0.45 | 0.40-0.50 | 0.44-0.54 | 0.48-0.58 | 0.52-0.62 | 0.56-0.66 | 0.60-0.70 |
|      | 6                                  |                      |           | RPM       | 570                 | 500       | 440       | 400       | 360       | 330       | 310       | 280       | 270       | 250       |
|      | 7                                  |                      | 30        | FEED      | 0.25-0.35           | 0.28-0.38 | 0.34-0.44 | 0.35-0.45 | 0.40-0.50 | 0.44-0.54 | 0.48-0.58 | 0.52-0.62 | 0.56-0.66 | 0.60-0.70 |
| 10   | High alloyed steel, and tool steel | 15                   | RPM       | 680       | 600                 | 530       | 480       | 430       | 400       | 370       | 340       | 320       | 300       |           |
| FEED |                                    |                      | 0.25-0.35 | 0.28-0.38 | 0.34-0.44           | 0.35-0.45 | 0.40-0.50 | 0.44-0.54 | 0.48-0.58 | 0.52-0.62 | 0.56-0.66 | 0.60-0.70 |           |           |
| K    | 15                                 | Grey cast iron       | 40        | RPM       | 340                 | 300       | 270       | 240       | 220       | 200       | 180       | 170       | 160       | 150       |
| FEED | 0.25-0.35                          | 0.28-0.38            | 0.34-0.44 | 0.35-0.45 | 0.40-0.50           | 0.44-0.54 | 0.48-0.58 | 0.52-0.62 | 0.56-0.66 | 0.60-0.70 | 0.60-0.70 | 0.60-0.70 | 0.60-0.70 |           |
| RPM  | 910                                | 800                  | 710       | 640       | 580                 | 530       | 490       | 450       | 420       | 400       | 400       |           |           |           |
| FEED | 0.32-0.42                          | 0.35-0.45            | 0.42-0.52 | 0.44-0.54 | 0.50-0.60           | 0.54-0.64 | 0.59-0.69 | 0.64-0.74 | 0.69-0.79 | 0.74-0.84 |           |           |           |           |

Please decrease the feed rate (15~20%) in D4542 SERIES HPD drills.

Den Vorschub in der D4542 Gruppe HPD Bohrer bitte verringern.