



# CENTER DRILLS

## RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

**D5303** SERIES

### CARBIDE, CENTER DRILLS

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

| ISO      | VDI 3323            | Material Description | Vc         | Parameter  | Drill Diameter (mm) |            |            |           |           |           |
|----------|---------------------|----------------------|------------|------------|---------------------|------------|------------|-----------|-----------|-----------|
|          |                     |                      |            |            | 1.0                 | 2.0        | 3.0        | 4.0       | 5.0       | 6.0       |
| <b>P</b> | 1, 2, 3, 6, 7       | Non-alloy steel      | 50         | RPM        | 15920               | 7960       | 5310       | 3980      | 3180      | 2650      |
|          |                     |                      |            | FEED       | 0.02-0.04           | 0.03-0.06  | 0.04-0.08  | 0.05-0.09 | 0.06-0.10 | 0.07-0.12 |
|          |                     |                      | 40         | RPM        | 12730               | 6370       | 4240       | 3180      | 2550      | 2120      |
|          |                     |                      |            | FEED       | 0.02-0.04           | 0.03-0.06  | 0.04-0.08  | 0.05-0.09 | 0.06-0.10 | 0.07-0.12 |
|          |                     |                      | 30         | RPM        | 9550                | 4770       | 3180       | 2390      | 1910      | 1590      |
|          | FEED                | 0.01-0.03            |            | 0.01-0.035 | 0.015-0.05          | 0.02-0.06  | 0.03-0.07  | 0.04-0.08 |           |           |
|          | 6, 7                | Low alloy steel      | 40         | RPM        | 12730               | 6370       | 4240       | 3180      | 2550      | 2120      |
|          |                     |                      |            | FEED       | 0.02-0.04           | 0.03-0.06  | 0.04-0.08  | 0.05-0.09 | 0.06-0.10 | 0.07-0.12 |
|          |                     |                      | 30         | RPM        | 9550                | 4770       | 3180       | 2390      | 1910      | 1590      |
|          |                     |                      |            | FEED       | 0.01-0.03           | 0.01-0.035 | 0.015-0.05 | 0.02-0.06 | 0.03-0.07 | 0.04-0.08 |
| 20       |                     |                      | RPM        | 6370       | 3180                | 2120       | 1590       | 1270      | 1060      |           |
|          | FEED                | 0.01-0.03            | 0.01-0.035 | 0.015-0.05 | 0.02-0.06           | 0.03-0.07  | 0.04-0.08  |           |           |           |
| <b>M</b> | 12                  | Stainless steel      | 20         | RPM        | 6370                | 3180       | 2120       | 1590      | 1270      | 1060      |
| <b>K</b> | 15, 16              | Grey cast iron       | 60         | RPM        | 19100               | 9550       | 6370       | 4770      | 3820      | 3180      |
|          |                     |                      |            | FEED       | 0.02-0.04           | 0.03-0.06  | 0.04-0.08  | 0.05-0.09 | 0.06-0.10 | 0.07-0.12 |
|          |                     |                      | 50         | RPM        | 15920               | 7960       | 5310       | 3980      | 3180      | 2650      |
|          |                     |                      |            | FEED       | 0.01-0.03           | 0.01-0.035 | 0.015-0.05 | 0.02-0.06 | 0.03-0.07 | 0.04-0.08 |
|          | 17, 19              | Nodular cast iron    | 60         | RPM        | 19100               | 9550       | 6370       | 4770      | 3820      | 3180      |
|          |                     |                      |            | FEED       | 0.02-0.04           | 0.03-0.06  | 0.04-0.08  | 0.05-0.09 | 0.06-0.10 | 0.07-0.12 |
|          |                     |                      | 40         | RPM        | 12730               | 6370       | 4240       | 3180      | 2550      | 2120      |
|          |                     |                      |            | FEED       | 0.02-0.04           | 0.03-0.06  | 0.04-0.08  | 0.05-0.09 | 0.06-0.10 | 0.07-0.12 |
| 19       | Malleable cast iron | 40                   | RPM        | 12730      | 6370                | 4240       | 3180       | 2550      | 2120      |           |
|          |                     |                      | FEED       | 0.02-0.04  | 0.03-0.06           | 0.04-0.08  | 0.05-0.09  | 0.06-0.10 | 0.07-0.12 |           |