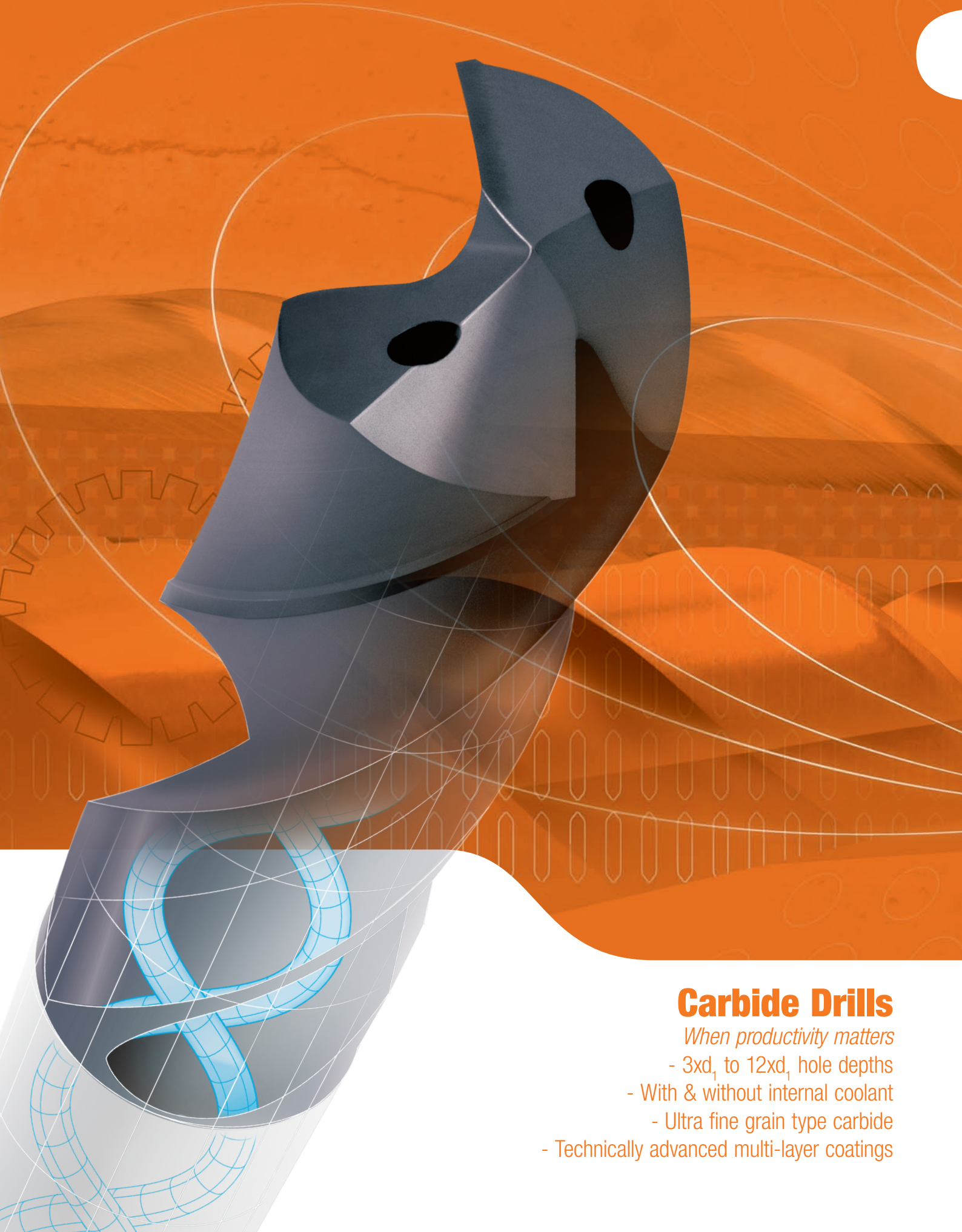


CARBIDE DRILLS



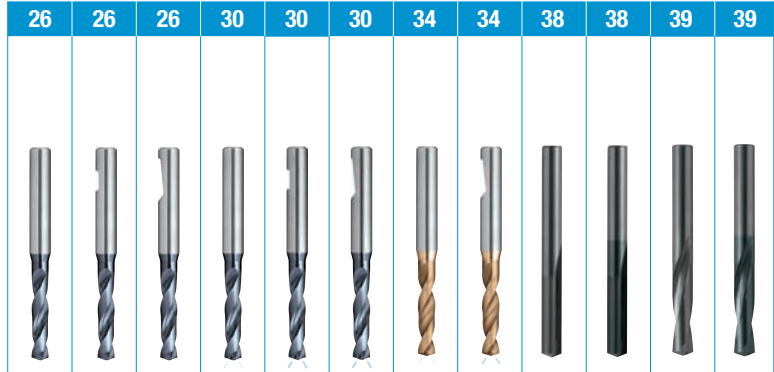
Carbide Drills

When productivity matters

- 3xd₁ to 12xd₁ hole depths
- With & without internal coolant
- Ultra fine grain type carbide
- Technically advanced multi-layer coatings

| ISO | VDI | Material Group | Sutton | Page |
|-----|-----|--|--------|------------------------|
| P | A | Steel | N | 26 |
| M | R | Stainless Steel | VA | 26 |
| K | F | Cast Iron | GG | 26 |
| N | N | Non-Ferrous Metals, Aluminiums & Coppers | Al W | 30 |
| S | S | Titaniums & Super Alloys | Ti Ni | 30 |
| H | H | Hard Materials (≥ 45 HRC) | H | 34, 34, 38, 38, 39, 39 |

^ VDI 3323 material groups can also be determined by referring to the material cross reference listing in the application guide at the back of this catalogue.



| Catalogue Code | D323 | D324 | D325 | D329 | D330 | D331 | D356 | D357 | D300 | D306 | D304 | D310 |
|--------------------|----------|------|------|------|------|------|--------|------|------|------|------|------|
| Material | VHM | | | | | | | | | | | |
| Surface Finish | AICrN | | | | | | Helica | | BrT | TiCN | BrT | TiCN |
| Sutton Designation | N | | | | | | VA | | GG | | NH | |
| Standard | DIN 6537 | | | | | | | | | | | |
| Depth of Cut | 3 x D | | | | | | | | | | | |
| Shank Tolerance | HA | HB | HE | HA | HB | HE | HA | HE | - | | | |

| ISO | VDI ³³²³ | Material | Condition | HB | N/mm ² | HA | HB | HE | HA | HB | HE | HA | HE | HA | HE | | | |
|------|---------------------|--|--|----------|-------------------|------|-----|----|----|----|----|----|----|----|----|---|---|---|
| P | 1 | Steel - Non-alloy, cast & free cutting | ~ 0.15 %C | A | 125 | 440 | ● | ● | ● | ● | ● | ● | ● | | | | | |
| | 2 | | ~ 0.45 %C | A | 190 | 640 | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | 3 | | | QT | 250 | 840 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | 4 | | ~ 0.75 %C | A | 270 | 910 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | 5 | | | QT | 300 | 1010 | ● | ● | ● | ● | ● | ● | ○ | ○ | | ● | ● | |
| | 6 | Steel - Low alloy & cast < 5% of alloying elements | A | 180 | 610 | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | 7 | | QT | 275 | 930 | ● | ● | ● | ● | ● | ● | ○ | ○ | | ● | ● | | |
| | 8 | | QT | 300 | 1010 | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | | ● | ● | |
| | 9 | | QT | 350 | 1180 | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ● | ● |
| | 10 | Steel - High alloy, cast & tool | A | 200 | 680 | ● | ● | ● | ● | ● | ● | ○ | ○ | | ● | ● | | |
| | 11 | | HT | 325 | 1100 | ● | ● | ● | ● | ● | ● | ○ | ○ | | ● | ● | | |
| | 12 | Steel - Corrosion resistant & cast | Ferritic / Martensitic | A | 200 | 680 | | | | ○ | ○ | ○ | ○ | | ● | ● | | |
| | 13 | | Martensitic | QT | 240 | 810 | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ● | ● |
| M | 14.1 | Stainless Steel | Austenitic | AH | 180 | 610 | | | ○ | ○ | ○ | ● | ● | | | | | |
| | 14.2 | | Duplex | | 250 | 840 | | | ○ | ○ | ○ | ● | ● | | | ○ | ○ | |
| | 14.3 | | Precipitation Hardening | | 250 | 840 | ○ | ○ | ○ | ● | ● | ● | ● | ● | | ● | ● | |
| K | 15 | Cast Iron - Grey (GG) | Ferritic / Pearlitic | | 180 | 610 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | 16 | | Pearlitic | | 260 | 880 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | 17 | Cast Iron - Nodular (GGG) | Ferritic | | 160 | 570 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | 18 | | Pearlitic | | 250 | 840 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | 19 | | Cast Iron - Malleable | Ferritic | | 130 | 460 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 20 | | Pearlitic | | 230 | 780 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| N | 21 | Aluminum & Magnesium - wrought alloy | Non Heat Treatable | | 60 | 210 | | | | | | ● | ● | | | ○ | ○ | |
| | 22 | | Heat Treatable | AH | 100 | 360 | | | | | | | | | | ○ | ○ | |
| | 23 | Aluminum & Magnesium - cast alloy ≤12% Si | Non Heat Treatable | | 75 | 270 | | | | | | ● | ● | ○ | ○ | ○ | ○ | |
| | 24 | | Heat Treatable | AH | 90 | 320 | | | | | | ● | ● | ○ | ○ | ○ | ○ | |
| | 25 | Al & Mg - cast alloy >12% Si | Non Heat Treatable | | 130 | 460 | | | ○ | ○ | ○ | ● | ● | ● | ● | ● | ● | |
| | 26 | Copper & Cu alloys (Brass/Bronze) | Free cutting, Pb > 1% | | 110 | 390 | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 27 | | Brass (CuZn, CuSnZn) | | 90 | 320 | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 28 | | Bronze (CuSn) | | 100 | 360 | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 29 | | Non-metallic - Thermosetting & fiber-reinforced plastics | | | | | | | | | | | | | | ○ | ○ |
| | 30 | Non-metallic - Hard rubber, wood etc. | | | | | | | | | | | | | | | | |
| S | 31 | High temp. alloys | Fe based | A | 200 | 680 | | | ○ | ○ | ○ | ● | ● | | | | | |
| | 32 | | | AH | 280 | 950 | | | ○ | ○ | ○ | ○ | ○ | | | | | |
| | 33 | | Ni / Co based | A | 250 | 840 | | | ○ | ○ | ○ | ○ | ○ | ○ | | | | |
| | 34 | | | AH | 350 | 1180 | | | ○ | ○ | ○ | ○ | ○ | ○ | | | | |
| | 35 | | C | 320 | 1080 | | | ○ | ○ | ○ | ○ | ○ | ○ | | | | | |
| | 36 | Titanium & Ti alloys | CP Titanium | | 400 MPa | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 37.1 | | Alpha alloys | | 860 MPa | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 37.2 | | Alpha / Beta alloys | A | 960 MPa | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 37.3 | AH | | | 1170 MPa | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 37.4 | Beta alloys | | A | 830 MPa | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 37.5 | | AH | 1400 MPa | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| H | 38.1 | Hardened steel | HT | 45 HRC | | ○ | ○ | ○ | ● | ● | ● | | | ○ | ○ | ● | ● | |
| | 38.2 | | | 55 HRC | | | | | | | | | | | | ○ | ○ | |
| | 39.1 | | HT | 58 HRC | | | | | | | | | | | | | | |
| | 39.2 | | HT | 62 HRC | | | | | | | | | | | | | | |
| | 40 | Cast Iron | Chilled | C | 400 | 1350 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 41 | HT | | | 55 HRC | | | | | | | | | | | | | | |

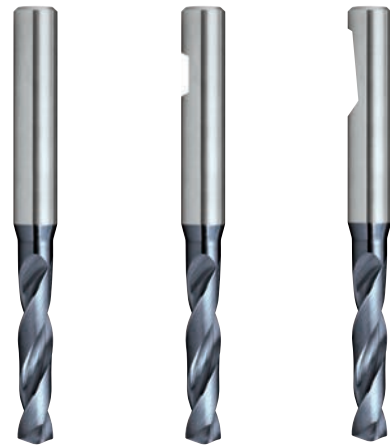
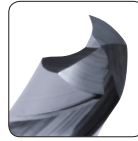
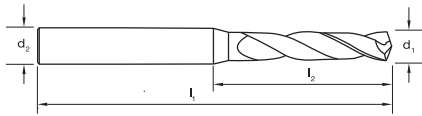
Condition: A (Annealed), AH (Age Hardened), C (Cast), HT (Hardened & Tempered), QT (Quenched & Tempered)

● Optimal ○ Effective

Drills Carbide, 3 x D, R30 N

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D323 | D324 | D325 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |
| Item # | Item # | Item # |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 0100 | 1.0 | 55 | 7 | 4 | D323 0100 | D324 0100 | D325 0100 |
| 0110 | 1.1 | 55 | 7 | 4 | D323 0110 | D324 0110 | D325 0110 |
| 0120 | 1.2 | 55 | 7 | 4 | D323 0120 | D324 0120 | D325 0120 |
| 0130 | 1.3 | 55 | 7 | 4 | D323 0130 | D324 0130 | D325 0130 |
| 0140 | 1.4 | 55 | 7 | 4 | D323 0140 | D324 0140 | D325 0140 |
| 0150 | 1.5 | 55 | 14 | 4 | D323 0150 | D324 0150 | D325 0150 |
| 0160 | 1.6 | 55 | 14 | 4 | D323 0160 | D324 0160 | D325 0160 |
| 0170 | 1.7 | 55 | 14 | 4 | D323 0170 | D324 0170 | D325 0170 |
| 0180 | 1.8 | 55 | 14 | 4 | D323 0180 | D324 0180 | D325 0180 |
| 0190 | 1.9 | 55 | 14 | 4 | D323 0190 | D324 0190 | D325 0190 |
| 0200 | 2.0 | 55 | 20 | 4 | D323 0200 | D324 0200 | D325 0200 |
| 0210 | 2.1 | 55 | 20 | 4 | D323 0210 | D324 0210 | D325 0210 |
| 0200 | 2.2 | 55 | 20 | 4 | D323 0200 | D324 0200 | D325 0200 |
| 0230 | 2.3 | 55 | 20 | 4 | D323 0230 | D324 0230 | D325 0230 |
| 0240 | 2.4 | 55 | 20 | 4 | D323 0240 | D324 0240 | D325 0240 |
| 0250 | 2.5 | 55 | 20 | 4 | D323 0250 | D324 0250 | D325 0250 |
| 0260 | 2.6 | 55 | 20 | 4 | D323 0260 | D324 0260 | D325 0260 |
| 0270 | 2.7 | 55 | 20 | 4 | D323 0270 | D324 0270 | D325 0270 |
| 0280 | 2.8 | 55 | 20 | 4 | D323 0280 | D324 0280 | D325 0280 |
| 0290 | 2.9 | 55 | 20 | 4 | D323 0290 | D324 0290 | D325 0290 |
| 0300 | 3.0 | 62 | 20 | 6 | D323 0300 | D324 0300 | D325 0300 |
| 0310 | 3.1 | 62 | 20 | 6 | D323 0310 | D324 0310 | D325 0310 |
| 0318 | 3.18 1/8 | 62 | 20 | 6 | D323 0318 | D324 0318 | D325 0318 |
| 0320 | 3.2 | 62 | 20 | 6 | D323 0320 | D324 0320 | D325 0320 |
| 0330 | 3.3 | 62 | 20 | 6 | D323 0330 | D324 0330 | D325 0330 |
| 0340 | 3.4 | 62 | 20 | 6 | D323 0340 | D324 0340 | D325 0340 |
| 0350 | 3.5 | 62 | 20 | 6 | D323 0350 | D324 0350 | D325 0350 |
| 0357 | 3.57 9/64 | 62 | 20 | 6 | D323 0357 | D324 0357 | D325 0357 |
| 0360 | 3.6 | 62 | 20 | 6 | D323 0360 | D324 0360 | D325 0360 |
| 0370 | 3.7 | 62 | 20 | 6 | D323 0370 | D324 0370 | D325 0370 |
| 0380 | 3.8 | 66 | 24 | 6 | D323 0380 | D324 0380 | D325 0380 |
| 0390 | 3.9 | 66 | 24 | 6 | D323 0390 | D324 0390 | D325 0390 |
| 0397 | 3.97 5/32 | 66 | 24 | 6 | D323 0397 | D324 0397 | D325 0397 |
| 0400 | 4.0 | 66 | 24 | 6 | D323 0400 | D324 0400 | D325 0400 |
| 0410 | 4.1 | 66 | 24 | 6 | D323 0410 | D324 0410 | D325 0410 |
| 0420 | 4.2 | 66 | 24 | 6 | D323 0420 | D324 0420 | D325 0420 |
| 0430 | 4.3 | 66 | 24 | 6 | D323 0430 | D324 0430 | D325 0430 |
| 0437 | 4.37 11/64 | 66 | 24 | 6 | D323 0437 | D324 0437 | D325 0437 |
| 0440 | 4.4 | 66 | 24 | 6 | D323 0440 | D324 0440 | D325 0440 |
| 0450 | 4.5 | 66 | 24 | 6 | D323 0450 | D324 0450 | D325 0450 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | N | | | | | | | | | | S | | | | | H | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | |
| D323 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

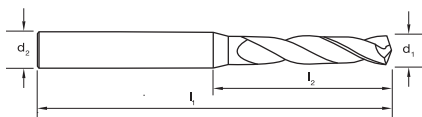
● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide, 3 x D, R30 N

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D323 | D324 | D325 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 0460 | 4.6 | 66 | 24 | 6 | D323 0460 | D324 0460 | D325 0460 |
| 0470 | 4.7 | 66 | 24 | 6 | D323 0470 | D324 0470 | D325 0470 |
| 0476 | 4.76 3/16 | 66 | 24 | 6 | D323 0476 | D324 0476 | D325 0476 |
| 0480 | 4.8 | 66 | 28 | 6 | D323 0480 | D324 0480 | D325 0480 |
| 0490 | 4.9 | 66 | 28 | 6 | D323 0490 | D324 0490 | D325 0490 |
| 0500 | 5.0 | 66 | 28 | 6 | D323 0500 | D324 0500 | D325 0500 |
| 0510 | 5.1 | 66 | 28 | 6 | D323 0510 | D324 0510 | D325 0510 |
| 0516 | 5.16 13/64 | 66 | 28 | 6 | D323 0516 | D324 0516 | D325 0516 |
| 0520 | 5.2 | 66 | 28 | 6 | D323 0520 | D324 0520 | D325 0520 |
| 0530 | 5.3 | 66 | 28 | 6 | D323 0530 | D324 0530 | D325 0530 |
| 0540 | 5.4 | 66 | 28 | 6 | D323 0540 | D324 0540 | D325 0540 |
| 0550 | 5.5 | 66 | 28 | 6 | D323 0550 | D324 0550 | D325 0550 |
| 0556 | 5.56 7/32 | 66 | 28 | 6 | D323 0556 | D324 0556 | D325 0556 |
| 0560 | 5.6 | 66 | 28 | 6 | D323 0560 | D324 0560 | D325 0560 |
| 0570 | 5.7 | 66 | 28 | 6 | D323 0570 | D324 0570 | D325 0570 |
| 0580 | 5.8 | 66 | 28 | 6 | D323 0580 | D324 0580 | D325 0580 |
| 0590 | 5.9 | 66 | 28 | 6 | D323 0590 | D324 0590 | D325 0590 |
| 0595 | 5.95 15/64 | 66 | 28 | 6 | D323 0595 | D324 0595 | D325 0595 |
| 0600 | 6.0 | 66 | 28 | 6 | D323 0600 | D324 0600 | D325 0600 |
| 0610 | 6.1 | 79 | 34 | 8 | D323 0610 | D324 0610 | D325 0610 |
| 0620 | 6.2 | 79 | 34 | 8 | D323 0620 | D324 0620 | D325 0620 |
| 0630 | 6.3 | 79 | 34 | 8 | D323 0630 | D324 0630 | D325 0630 |
| 0635 | 6.35 1/4 | 79 | 34 | 8 | D323 0635 | D324 0635 | D325 0635 |
| 0640 | 6.4 | 79 | 34 | 8 | D323 0640 | D324 0640 | D325 0640 |
| 0650 | 6.5 | 79 | 34 | 8 | D323 0650 | D324 0650 | D325 0650 |
| 0660 | 6.6 | 79 | 34 | 8 | D323 0660 | D324 0660 | D325 0660 |
| 0670 | 6.7 | 79 | 34 | 8 | D323 0670 | D324 0670 | D325 0670 |
| 0676 | 6.76 17/64 | 79 | 34 | 8 | D323 0676 | D324 0676 | D325 0676 |
| 0680 | 6.8 | 79 | 34 | 8 | D323 0680 | D324 0680 | D325 0680 |
| 0690 | 6.9 | 79 | 34 | 8 | D323 0690 | D324 0690 | D325 0690 |
| 0700 | 7.0 | 79 | 34 | 8 | D323 0700 | D324 0700 | D325 0700 |
| 0710 | 7.1 | 79 | 41 | 8 | D323 0710 | D324 0710 | D325 0710 |
| 0714 | 7.14 9/32 | 79 | 41 | 8 | D323 0714 | D324 0714 | D325 0714 |
| 0720 | 7.2 | 79 | 41 | 8 | D323 0720 | D324 0720 | D325 0720 |
| 0730 | 7.3 | 79 | 41 | 8 | D323 0730 | D324 0730 | D325 0730 |
| 0740 | 7.4 | 79 | 41 | 8 | D323 0740 | D324 0740 | D325 0740 |
| 0750 | 7.5 | 79 | 41 | 8 | D323 0750 | D324 0750 | D325 0750 |
| 0754 | 7.54 19/64 | 79 | 41 | 8 | D323 0754 | D324 0754 | D325 0754 |
| 0760 | 7.6 | 79 | 41 | 8 | D323 0760 | D324 0760 | D325 0760 |
| 0770 | 7.7 | 79 | 41 | 8 | D323 0770 | D324 0770 | D325 0770 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|
| VDI 3223 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 |
| D323 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

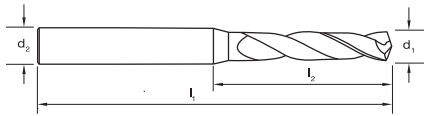
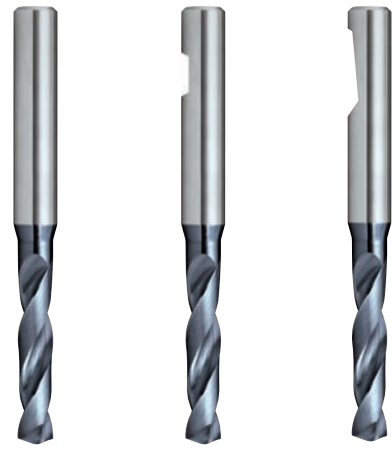
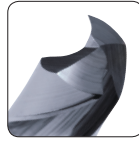
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Drills Carbide, 3 x D, R30 N

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D323 | D324 | D325 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |
| Item # | Item # | Item # |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 0780 | 7.8 | 79 | 41 | 8 | D323 0780 | D324 0780 | D325 0780 |
| 0790 | 7.9 | 79 | 41 | 8 | D323 0790 | D324 0790 | D325 0790 |
| 0794 | 7.94 5/16 | 79 | 41 | 8 | D323 0794 | D324 0794 | D325 0794 |
| 0800 | 8.0 | 79 | 41 | 8 | D323 0800 | D324 0800 | D325 0800 |
| 0810 | 8.1 | 89 | 47 | 10 | D323 0810 | D324 0810 | D325 0810 |
| 0820 | 8.2 | 89 | 47 | 10 | D323 0820 | D324 0820 | D325 0820 |
| 0830 | 8.3 | 89 | 47 | 10 | D323 0830 | D324 0830 | D325 0830 |
| 0833 | 8.33 21/64 | 89 | 47 | 10 | D323 0833 | D324 0833 | D325 0833 |
| 0840 | 8.4 | 89 | 47 | 10 | D323 0840 | D324 0840 | D325 0840 |
| 0850 | 8.5 | 89 | 47 | 10 | D323 0850 | D324 0850 | D325 0850 |
| 0860 | 8.6 | 89 | 47 | 10 | D323 0860 | D324 0860 | D325 0860 |
| 0870 | 8.7 | 89 | 47 | 10 | D323 0870 | D324 0870 | D325 0870 |
| 0873 | 8.73 11/32 | 89 | 47 | 10 | D323 0873 | D324 0873 | D325 0873 |
| 0880 | 8.8 | 89 | 47 | 10 | D323 0880 | D324 0880 | D325 0880 |
| 0890 | 8.9 | 89 | 47 | 10 | D323 0890 | D324 0890 | D325 0890 |
| 0900 | 9.0 | 89 | 47 | 10 | D323 0900 | D324 0900 | D325 0900 |
| 0910 | 9.1 | 89 | 47 | 10 | D323 0910 | D324 0910 | D325 0910 |
| 0913 | 9.13 23/64 | 89 | 47 | 10 | D323 0913 | D324 0913 | D325 0913 |
| 0920 | 9.2 | 89 | 47 | 10 | D323 0920 | D324 0920 | D325 0920 |
| 0930 | 9.3 | 89 | 47 | 10 | D323 0930 | D324 0930 | D325 0930 |
| 0940 | 9.4 | 89 | 47 | 10 | D323 0940 | D324 0940 | D325 0940 |
| 0950 | 9.5 | 89 | 47 | 10 | D323 0950 | D324 0950 | D325 0950 |
| 0953 | 9.53 3/8 | 89 | 47 | 10 | D323 0953 | D324 0953 | D325 0953 |
| 0960 | 9.6 | 89 | 47 | 10 | D323 0960 | D324 0960 | D325 0960 |
| 0970 | 9.7 | 89 | 47 | 10 | D323 0970 | D324 0970 | D325 0970 |
| 0980 | 9.8 | 89 | 47 | 10 | D323 0980 | D324 0980 | D325 0980 |
| 0990 | 9.9 | 89 | 47 | 10 | D323 0990 | D324 0990 | D325 0990 |
| 0992 | 9.92 25/64 | 89 | 47 | 10 | D323 0992 | D324 0992 | D325 0992 |
| 1000 | 10.0 | 89 | 47 | 10 | D323 1000 | D324 1000 | D325 1000 |
| 1010 | 10.1 | 102 | 55 | 12 | D323 1010 | D324 1010 | D325 1010 |
| 1020 | 10.2 | 102 | 55 | 12 | D323 1020 | D324 1020 | D325 1020 |
| 1030 | 10.3 | 102 | 55 | 12 | D323 1030 | D324 1030 | D325 1030 |
| 1032 | 10.32 13/32 | 102 | 55 | 12 | D323 1032 | D324 1032 | D325 1032 |
| 1040 | 10.4 | 102 | 55 | 12 | D323 1040 | D324 1040 | D325 1040 |
| 1050 | 10.5 | 102 | 55 | 12 | D323 1050 | D324 1050 | D325 1050 |
| 1060 | 10.6 | 102 | 55 | 12 | D323 1060 | D324 1060 | D325 1060 |
| 1070 | 10.7 | 102 | 55 | 12 | D323 1070 | D324 1070 | D325 1070 |
| 1080 | 10.8 | 102 | 55 | 12 | D323 1080 | D324 1080 | D325 1080 |
| 1090 | 10.9 | 102 | 55 | 12 | D323 1090 | D324 1090 | D325 1090 |
| 1100 | 11.0 | 102 | 55 | 12 | D323 1100 | D324 1100 | D325 1100 |

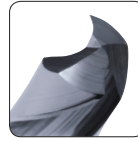
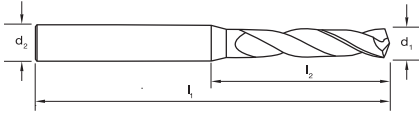
| ISO | P | | | | | | | | | | | | | M | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 |
| D323 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D323 | D324 | D325 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |
| Item # | Item # | Item # |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) |
|-----------|---------------------|----------------|----------------|---------------------|
| 1110 | 11.1 | 102 | 55 | 12 |
| 1111 | 11.11 7/16 | 102 | 55 | 12 |
| 1120 | 11.2 | 102 | 55 | 12 |
| 1130 | 11.3 | 102 | 55 | 12 |
| 1140 | 11.4 | 102 | 55 | 12 |
| 1150 | 11.5 | 102 | 55 | 12 |
| 1160 | 11.6 | 102 | 55 | 12 |
| 1170 | 11.7 | 102 | 55 | 12 |
| 1180 | 11.8 | 102 | 55 | 12 |
| 1190 | 11.9 | 102 | 55 | 12 |
| 1191 | 11.91 15/32 | 102 | 55 | 12 |
| 1200 | 12.0 | 102 | 55 | 12 |
| 1250 | 12.5 | 107 | 60 | 14 |
| 1269 | 12.70 1/2 | 107 | 60 | 14 |
| 1280 | 12.8 | 107 | 60 | 14 |
| 1300 | 13.0 | 107 | 60 | 14 |
| 1349 | 13.49 17/32 | 107 | 60 | 14 |
| 1350 | 13.5 | 107 | 60 | 14 |
| 1380 | 13.8 | 107 | 60 | 14 |
| 1400 | 14.0 | 107 | 60 | 14 |
| 1429 | 14.29 9/16 | 115 | 65 | 16 |
| 1450 | 14.5 | 115 | 65 | 16 |
| 1480 | 14.8 | 115 | 65 | 16 |
| 1500 | 15.0 | 115 | 65 | 16 |
| 1550 | 15.5 | 115 | 65 | 16 |
| 1580 | 15.8 | 115 | 65 | 16 |
| 1588 | 15.88 5/8 | 115 | 65 | 16 |
| 1600 | 16.0 | 115 | 65 | 16 |
| 1650 | 16.5 | 123 | 73 | 18 |
| 1680 | 16.8 | 123 | 73 | 18 |
| 1700 | 17.0 | 123 | 73 | 18 |
| 1746 | 17.46 11/16 | 123 | 73 | 18 |
| 1750 | 17.5 | 123 | 73 | 18 |
| 1780 | 17.8 | 123 | 73 | 18 |
| 1800 | 18.0 | 123 | 73 | 18 |
| 1850 | 18.5 | 131 | 79 | 20 |
| 1900 | 19.0 | 131 | 79 | 20 |
| 1905 | 19.05 3/4 | 131 | 79 | 20 |
| 1950 | 19.5 | 131 | 79 | 20 |
| 2000 | 20.0 | 131 | 79 | 20 |

| D323 1110 | D324 1110 | D325 1110 |
|-----------|-----------|-----------|
| D323 1111 | D324 1111 | D325 1111 |
| D323 1120 | D324 1120 | D325 1120 |
| D323 1130 | D324 1130 | D325 1130 |
| D323 1140 | D324 1140 | D325 1140 |
| D323 1150 | D324 1150 | D325 1150 |
| D323 1160 | D324 1160 | D325 1160 |
| D323 1170 | D324 1170 | D325 1170 |
| D323 1180 | D324 1180 | D325 1180 |
| D323 1190 | D324 1190 | D325 1190 |
| D323 1191 | D324 1191 | D325 1191 |
| D323 1200 | D324 1200 | D325 1200 |
| D323 1250 | D324 1250 | D325 1250 |
| D323 1269 | D324 1269 | D325 1269 |
| D323 1280 | D324 1280 | D325 1280 |
| D323 1300 | D324 1300 | D325 1300 |
| D323 1349 | D324 1349 | D325 1349 |
| D323 1350 | D324 1350 | D325 1350 |
| D323 1380 | D324 1380 | D325 1380 |
| D323 1400 | D324 1400 | D325 1400 |
| D323 1429 | D324 1429 | D325 1429 |
| D323 1450 | D324 1450 | D325 1450 |
| D323 1480 | D324 1480 | D325 1480 |
| D323 1500 | D324 1500 | D325 1500 |
| D323 1550 | D324 1550 | D325 1550 |
| D323 1580 | D324 1580 | D325 1580 |
| D323 1588 | D324 1588 | D325 1588 |
| D323 1600 | D324 1600 | D325 1600 |
| D323 1650 | D324 1650 | D325 1650 |
| D323 1680 | D324 1680 | D325 1680 |
| D323 1700 | D324 1700 | D325 1700 |
| D323 1746 | D324 1746 | D325 1746 |
| D323 1750 | D324 1750 | D325 1750 |
| D323 1780 | D324 1780 | D325 1780 |
| D323 1800 | D324 1800 | D325 1800 |
| D323 1850 | D324 1850 | D325 1850 |
| D323 1900 | D324 1900 | D325 1900 |
| D323 1905 | D324 1905 | D325 1905 |
| D323 1950 | D324 1950 | D325 1950 |
| D323 2000 | D324 2000 | D325 2000 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | N | | | | | | | | | | S | | | | | | | | | | | H | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|---|---|---|---|
| VDI 3223 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | | | |
| D323 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

P Steel **M** Stainless Steel **K** Cast Iron **N** Non-Ferrous Metals **S** Titanium & Super Alloys **H** Hard Materials

● Optimal ○ Effective

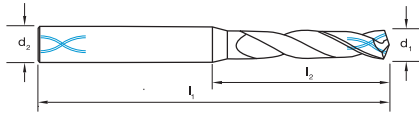
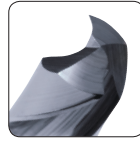
• Available on request as special manufacture. Subject to lead time.

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide, 3 x D, R30 N, IK

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D329 | D330 | D331 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 - IK | R30 - IK | R30 - IK |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |
| Item # | Item # | Item # |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 0300 | 3.0 | 62 | 20 | 6 | D329 0300 | D330 0300 | D331 0300 |
| 0310 | 3.1 | 62 | 20 | 6 | D329 0310 | D330 0310 | D331 0310 |
| 0318 | 3.18 1/8 | 62 | 20 | 6 | D329 0318 | D330 0318 | D331 0318 |
| 0320 | 3.2 | 62 | 20 | 6 | D329 0320 | D330 0320 | D331 0320 |
| 0330 | 3.3 | 62 | 20 | 6 | D329 0330 | D330 0330 | D331 0330 |
| 0340 | 3.4 | 62 | 20 | 6 | D329 0340 | D330 0340 | D331 0340 |
| 0350 | 3.5 | 62 | 20 | 6 | D329 0350 | D330 0350 | D331 0350 |
| 0357 | 3.57 9/64 | 62 | 20 | 6 | D329 0357 | D330 0357 | D331 0357 |
| 0360 | 3.6 | 62 | 20 | 6 | D329 0360 | D330 0360 | D331 0360 |
| 0370 | 3.7 | 62 | 20 | 6 | D329 0370 | D330 0370 | D331 0370 |
| 0380 | 3.8 | 66 | 24 | 6 | D329 0380 | D330 0380 | D331 0380 |
| 0390 | 3.9 | 66 | 24 | 6 | D329 0390 | D330 0390 | D331 0390 |
| 0397 | 3.97 5/32 | 66 | 24 | 6 | D329 0397 | D330 0397 | D331 0397 |
| 0400 | 4.0 | 66 | 24 | 6 | D329 0400 | D330 0400 | D331 0400 |
| 0410 | 4.1 | 66 | 24 | 6 | D329 0410 | D330 0410 | D331 0410 |
| 0420 | 4.2 | 66 | 24 | 6 | D329 0420 | D330 0420 | D331 0420 |
| 0430 | 4.3 | 66 | 24 | 6 | D329 0430 | D330 0430 | D331 0430 |
| 0437 | 4.37 11/64 | 66 | 24 | 6 | D329 0437 | D330 0437 | D331 0437 |
| 0440 | 4.4 | 66 | 24 | 6 | D329 0440 | D330 0440 | D331 0440 |
| 0450 | 4.5 | 66 | 24 | 6 | D329 0450 | D330 0450 | D331 0450 |
| 0460 | 4.6 | 66 | 24 | 6 | D329 0460 | D330 0460 | D331 0460 |
| 0470 | 4.7 | 66 | 24 | 6 | D329 0470 | D330 0470 | D331 0470 |
| 0476 | 4.76 3/16 | 66 | 24 | 6 | D329 0476 | D330 0476 | D331 0476 |
| 0480 | 4.8 | 66 | 28 | 6 | D329 0480 | D330 0480 | D331 0480 |
| 0490 | 4.9 | 66 | 28 | 6 | D329 0490 | D330 0490 | D331 0490 |
| 0500 | 5.0 | 66 | 28 | 6 | D329 0500 | D330 0500 | D331 0500 |
| 0510 | 5.1 | 66 | 28 | 6 | D329 0510 | D330 0510 | D331 0510 |
| 0516 | 5.16 13/64 | 66 | 28 | 6 | D329 0516 | D330 0516 | D331 0516 |
| 0520 | 5.2 | 66 | 28 | 6 | D329 0520 | D330 0520 | D331 0520 |
| 0530 | 5.3 | 66 | 28 | 6 | D329 0530 | D330 0530 | D331 0530 |
| 0540 | 5.4 | 66 | 28 | 6 | D329 0540 | D330 0540 | D331 0540 |
| 0550 | 5.5 | 66 | 28 | 6 | D329 0550 | D330 0550 | D331 0550 |
| 0556 | 5.56 7/32 | 66 | 28 | 6 | D329 0556 | D330 0556 | D331 0556 |
| 0560 | 5.6 | 66 | 28 | 6 | D329 0560 | D330 0560 | D331 0560 |
| 0570 | 5.7 | 66 | 28 | 6 | D329 0570 | D330 0570 | D331 0570 |
| 0580 | 5.8 | 66 | 28 | 6 | D329 0580 | D330 0580 | D331 0580 |
| 0590 | 5.9 | 66 | 28 | 6 | D329 0590 | D330 0590 | D331 0590 |
| 0595 | 5.95 15/64 | 66 | 28 | 6 | D329 0595 | D330 0595 | D331 0595 |
| 0600 | 6.0 | 66 | 28 | 6 | D329 0600 | D330 0600 | D331 0600 |
| 0610 | 6.1 | 79 | 34 | 8 | D329 0610 | D330 0610 | D331 0610 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | |
| D329 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

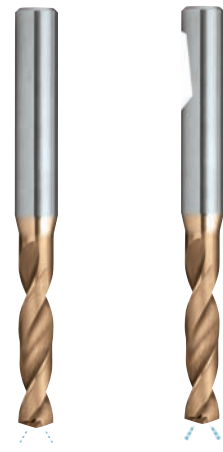
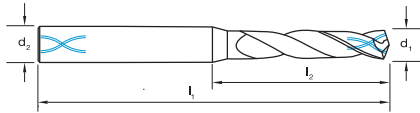
P Steel
 M Stainless Steel
 K Cast Iron
 N Non-Ferrous Metals
 S Titanium & Super Alloys
 H Hard Materials

● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

suttontools **BLACKMAGIC**

- Excellent solution for stainless steels and difficult super alloy type materials
- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness



| | | |
|---------------------------|---------------------|---------------------|
| Catalogue Code | D356 | D357 |
| Discount Group | A0210 | A0210 |
| Material | VHM | VHM |
| Surface Finish | HELICA | HELICA |
| Colour Ring & Application | VA | VA |
| Geometry | R30 - IK | R30 - IK |
| Point Type | 140° 4 Facet Form C | 140° 4 Facet Form C |
| Shank Form (DIN 6535) | HA | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # |
|-------------|---------------------|----------------|----------------|---------------------|-----------|-----------|
| 0300 | 3.0 | 62 | 20 | 6 | D356 0300 | D357 0300 |
| 0310 | 3.1 | 62 | 20 | 6 | D356 0310 | D357 0310 |
| 0318 | 3.18 1/8 | 62 | 20 | 6 | D356 0318 | D357 0318 |
| 0320 | 3.2 | 62 | 20 | 6 | D356 0320 | D357 0320 |
| 0330 | 3.3 | 62 | 20 | 6 | D356 0330 | D357 0330 |
| 0340 | 3.4 | 62 | 20 | 6 | D356 0340 | D357 0340 |
| 0350 | 3.5 | 62 | 20 | 6 | D356 0350 | D357 0350 |
| 0357 | 3.57 9/64 | 62 | 20 | 6 | D356 0357 | D357 0357 |
| 0360 | 3.6 | 62 | 20 | 6 | D356 0360 | D357 0360 |
| 0370 | 3.7 | 62 | 20 | 6 | D356 0370 | D357 0370 |
| 0380 | 3.8 | 66 | 24 | 6 | D356 0380 | D357 0380 |
| 0390 | 3.9 | 66 | 24 | 6 | D356 0390 | D357 0390 |
| 0397 | 3.97 5/32 | 66 | 24 | 6 | D356 0397 | D357 0397 |
| 0400 | 4.0 | 66 | 24 | 6 | D356 0400 | D357 0400 |
| 0410 | 4.1 | 66 | 24 | 6 | D356 0410 | D357 0410 |
| 0420 | 4.2 | 66 | 24 | 6 | D356 0420 | D357 0420 |
| 0430 | 4.3 | 66 | 24 | 6 | D356 0430 | D357 0430 |
| 0437 | 4.37 11/64 | 66 | 24 | 6 | D356 0437 | D357 0437 |
| 0440 | 4.4 | 66 | 24 | 6 | D356 0440 | D357 0440 |
| 0450 | 4.5 | 66 | 24 | 6 | D356 0450 | D357 0450 |
| 0460 | 4.6 | 66 | 24 | 6 | D356 0460 | D357 0460 |
| 0470 | 4.7 | 66 | 24 | 6 | D356 0470 | D357 0470 |
| 0476 | 4.76 3/16 | 66 | 24 | 6 | D356 0476 | D357 0476 |
| 0480 | 4.8 | 66 | 28 | 6 | D356 0480 | D357 0480 |
| 0490 | 4.9 | 66 | 28 | 6 | D356 0490 | D357 0490 |
| 0500 | 5.0 | 66 | 28 | 6 | D356 0500 | D357 0500 |
| 0510 | 5.1 | 66 | 28 | 6 | D356 0510 | D357 0510 |
| 0516 | 5.16 13/64 | 66 | 28 | 6 | D356 0516 | D357 0516 |
| 0520 | 5.2 | 66 | 28 | 6 | D356 0520 | D357 0520 |
| 0530 | 5.3 | 66 | 28 | 6 | D356 0530 | D357 0530 |
| 0540 | 5.4 | 66 | 28 | 6 | D356 0540 | D357 0540 |
| 0550 | 5.5 | 66 | 28 | 6 | D356 0550 | D357 0550 |
| 0556 | 5.56 7/32 | 66 | 28 | 6 | D356 0556 | D357 0556 |
| 0560 | 5.6 | 66 | 28 | 6 | D356 0560 | D357 0560 |
| 0570 | 5.7 | 66 | 28 | 6 | D356 0570 | D357 0570 |
| 0580 | 5.8 | 66 | 28 | 6 | D356 0580 | D357 0580 |
| 0590 | 5.9 | 66 | 28 | 6 | D356 0590 | D357 0590 |
| 0595 | 5.95 15/64 | 66 | 28 | 6 | D356 0595 | D357 0595 |
| 0600 | 6.0 | 66 | 28 | 6 | D356 0600 | D357 0600 |
| 0610 | 6.1 | 79 | 34 | 8 | D356 0610 | D357 0610 |

| ISO | P | | | | | | | | | | M | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | |
| D356 | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

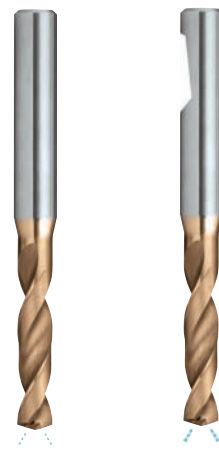
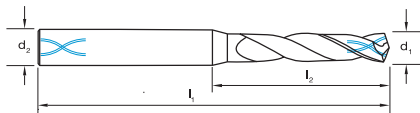
P Steel
 M Stainless Steel
 K Cast Iron
 N Non-Ferrous Metals
 S Titanium & Super Alloys
 H Hard Materials

● Optimal ○ Effective

NOTE: HE shanks available, subject to lead time.
NOTE: HB & HE shanks available, subject to lead time.

suttontools BLACKMAGIC

- Excellent solution for stainless steels and difficult super alloy type materials
- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness



| | | |
|---------------------------|---------------------|---------------------|
| Catalogue Code | D356 | D357 |
| Discount Group | A0210 | A0210 |
| Material | VHM | VHM |
| Surface Finish | HELICA | HELICA |
| Colour Ring & Application | VA | VA |
| Geometry | R30 - IK | R30 - IK |
| Point Type | 140° 4 Facet Form C | 140° 4 Facet Form C |
| Shank Form (DIN 6535) | HA | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # |
|-------------|---------------------|----------------|----------------|---------------------|-----------|-----------|
| 0940 | 9.4 | 89 | 47 | 10 | D356 0940 | D357 0940 |
| 0950 | 9.5 | 89 | 47 | 10 | D356 0950 | D357 0950 |
| 0953 | 9.53 3/8 | 89 | 47 | 10 | D356 0953 | D357 0953 |
| 0960 | 9.6 | 89 | 47 | 10 | D356 0960 | D357 0960 |
| 0970 | 9.7 | 89 | 47 | 10 | D356 0970 | D357 0970 |
| 0980 | 9.8 | 89 | 47 | 10 | D356 0980 | D357 0980 |
| 0990 | 9.9 | 89 | 47 | 10 | D356 0990 | D357 0990 |
| 0992 | 9.92 25/64 | 89 | 47 | 10 | D356 0992 | D357 0992 |
| 1000 | 10.0 | 89 | 47 | 10 | D356 1000 | D357 1000 |
| 1010 | 10.1 | 102 | 55 | 12 | D356 1010 | D357 1010 |
| 1020 | 10.2 | 102 | 55 | 12 | D356 1020 | D357 1020 |
| 1030 | 10.3 | 102 | 55 | 12 | D356 1030 | D357 1030 |
| 1032 | 10.32 13/32 | 102 | 55 | 12 | D356 1032 | D357 1032 |
| 1040 | 10.4 | 102 | 55 | 12 | D356 1040 | D357 1040 |
| 1050 | 10.5 | 102 | 55 | 12 | D356 1050 | D357 1050 |
| 1060 | 10.6 | 102 | 55 | 12 | D356 1060 | D357 1060 |
| 1070 | 10.7 | 102 | 55 | 12 | D356 1070 | D357 1070 |
| 1072 | 10.72 27/64 | 102 | 55 | 12 | D356 1072 | D357 1072 |
| 1080 | 10.8 | 102 | 55 | 12 | D356 1080 | D357 1080 |
| 1090 | 10.9 | 102 | 55 | 12 | D356 1090 | D357 1090 |
| 1100 | 11.0 | 102 | 55 | 12 | D356 1100 | D357 1100 |
| 1110 | 11.1 | 102 | 55 | 12 | D356 1110 | D357 1110 |
| 1111 | 11.11 7/16 | 102 | 55 | 12 | D356 1111 | D357 1111 |
| 1120 | 11.2 | 102 | 55 | 12 | D356 1120 | D357 1120 |
| 1130 | 11.3 | 102 | 55 | 12 | D356 1130 | D357 1130 |
| 1140 | 11.4 | 102 | 55 | 12 | D356 1140 | D357 1140 |
| 1150 | 11.5 | 102 | 55 | 12 | D356 1150 | D357 1150 |
| 1151 | 11.51 29/64 | 102 | 55 | 12 | D356 1151 | D357 1151 |
| 1160 | 11.6 | 102 | 55 | 12 | D356 1160 | D357 1160 |
| 1170 | 11.7 | 102 | 55 | 12 | D356 1170 | D357 1170 |
| 1180 | 11.8 | 102 | 55 | 12 | D356 1180 | D357 1180 |
| 1190 | 11.9 | 102 | 55 | 12 | D356 1190 | D357 1190 |
| 1191 | 11.91 15/32 | 102 | 55 | 12 | D356 1191 | D357 1191 |
| 1200 | 12.0 | 102 | 55 | 12 | D356 1200 | D357 1200 |
| 1231 | 12.30 31/64 | 107 | 60 | 14 | D356 1231 | D357 1231 |
| 1250 | 12.5 | 107 | 60 | 14 | D356 1250 | D357 1250 |
| 1269 | 12.70 1/2 | 107 | 60 | 14 | D356 1269 | D357 1269 |
| 1280 | 12.8 | 107 | 60 | 14 | D356 1280 | D357 1280 |
| 1300 | 13.0 | 107 | 60 | 14 | D356 1300 | D357 1300 |
| 1310 | 13.10 33/64 | 107 | 60 | 14 | D356 1310 | D357 1310 |

| ISO | P | | | | | | | | | | | | M | | K | | | | | N | | | | | | | | | | S | | | | | H | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|-------|---|---|----|----|-----------------|----|------|------|------|-----------|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|-------------------------|----|----|----|----|----------------|----|------|------|------|------|------|------|------|------|------|----|----|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | |
| D356 | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | P | M | K | N | S | H | Steel | | | | | Stainless Steel | | | | | Cast Iron | | | | | Non-Ferrous Metals | | | | | | | | | | Titanium & Super Alloys | | | | | Hard Materials | | | | | | | | | | | | | |

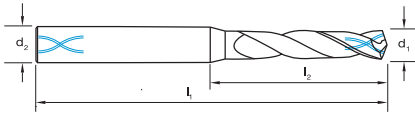
● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

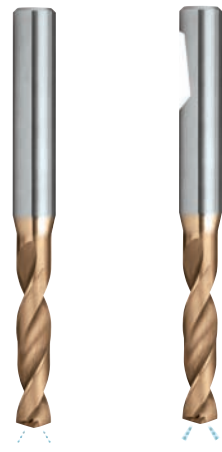
Drills Carbide 3 x D, R30 VA *Black Magic*



- Excellent solution for stainless steels and difficult super alloy type materials
- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness



| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|
| 1349 | 13.49 17/32 | 107 | 60 | 14 | D356 1349 | D357 1349 |
| 1350 | 13.5 | 107 | 60 | 14 | D356 1350 | D357 1350 |
| 1389 | 13.89 35/64 | 107 | 60 | 14 | D356 1389 | D357 1389 |
| 1400 | 14.0 | 107 | 60 | 14 | D356 1400 | D357 1400 |
| 1429 | 14.29 9/16 | 115 | 65 | 16 | D356 1429 | D357 1429 |
| 1450 | 14.5 | 115 | 65 | 16 | D356 1450 | D357 1450 |
| 1468 | 14.68 37/64 | 115 | 65 | 16 | D356 1468 | D357 1468 |
| 1500 | 15.0 | 115 | 65 | 16 | D356 1500 | D357 1500 |
| 1508 | 15.08 19/32 | 115 | 65 | 16 | D356 1508 | D357 1508 |
| 1548 | 15.48 39/64 | 115 | 65 | 16 | D356 1548 | D357 1548 |
| 1550 | 15.5 | 115 | 65 | 16 | D356 1550 | D357 1550 |
| 1588 | 15.88 5/8 | 115 | 65 | 16 | D356 1588 | D357 1588 |
| 1600 | 16.0 | 115 | 65 | 16 | D356 1600 | D357 1600 |
| 1650 | 16.5 | 123 | 73 | 18 | D356 1650 | D357 1650 |
| 1667 | 16.67 21/32 | 123 | 73 | 18 | D356 1667 | D357 1667 |
| 1700 | 17.0 | 123 | 73 | 18 | D356 1700 | D357 1700 |
| 1746 | 17.46 11/16 | 123 | 73 | 18 | D356 1746 | D357 1746 |
| 1750 | 17.5 | 123 | 73 | 18 | D356 1750 | D357 1750 |
| 1800 | 18.0 | 123 | 73 | 18 | D356 1800 | D357 1800 |
| 1826 | 18.26 23/32 | 131 | 79 | 20 | D356 1826 | D357 1826 |
| 1850 | 18.5 | 131 | 79 | 20 | D356 1850 | D357 1850 |
| 1900 | 19.0 | 131 | 79 | 20 | D356 1900 | D357 1900 |
| 1905 | 19.05 3/4 | 131 | 79 | 20 | D356 1905 | D357 1905 |
| 1950 | 19.5 | 131 | 79 | 20 | D356 1950 | D357 1950 |
| 2000 | 20.0 | 131 | 79 | 20 | D356 2000 | D357 2000 |



| | | |
|---------------------------|---------------------|---------------------|
| Catalogue Code | D356 | D357 |
| Discount Group | A0210 | A0210 |
| Material | VHM | VHM |
| Surface Finish | HELICA | HELICA |
| Colour Ring & Application | VA | VA |
| Geometry | R30 - IK | R30 - IK |
| Point Type | 140° 4 Facet Form C | 140° 4 Facet Form C |
| Shank Form (DIN 6535) | HA | HE |

| ISO | P | | | | | | | | | | M | | | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | |
| D356 | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

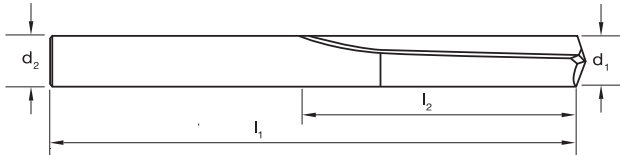
P Steel
 M Stainless Steel
 K Cast Iron
 N Non-Ferrous Metals
 S Titanium & Super Alloys
 H Hard Materials

● Optimal ○ Effective

Drills Carbide, 3 x D Straight Flute, GG

suttontools

- Suitable for use in Al>10% Si & cast iron
- Rigid twist drill with straight flutes
- For drilling short chipping or abrasive materials
- Straight flutes for increased strength and chip control
- TiCN coated for longer tool life



| | | |
|--------------------------------------|---------------------|---------------------|
| Catalogue Code | D300 | D306 |
| Discount Group | A0202 | A0206 |
| Material | VHM | VHM |
| Surface Finish | Brt | TiCN |
| Colour Ring & Application | GG | GG |
| Geometry | Straight Flute | Straight Flute |
| Point Type | 140° Type C (Facet) | 140° Type C (Facet) |
| Shank Tolerance | -0.025 | -0.025 |

| Size Ref. | d ₁ (-0,012) | l ₁ | l ₂ | d ₂ | Item # | Item # |
|-------------|-------------------------|----------------|----------------|----------------|-----------|-----------|
| 0150 | 1.5 | 38 | 12.7 | 1.5 | D300 0150 | D306 0150 |
| 0159 | 1.59 1/16 | 1-5/8 | 5/8 | 1/16 | D300 0159 | D306 0159 |
| 0200 | 2.0 | 44 | 19 | 2.0 | D300 0200 | D306 0200 |
| 0250 | 2.5 | 46 | 21 | 2.5 | D300 0250 | D306 0250 |
| 0300 | 3.0 | 48 | 22 | 3.0 | D300 0300 | D306 0300 |
| 0318 | 3.18 1/8 | 1-7/8 | 7/8 | 1/8 | D300 0318 | D306 0318 |
| 0350 | 3.5 | 49 | 24 | 3.5 | D300 0350 | D306 0350 |
| 0400 | 4.0 | 54 | 27 | 4.0 | D300 0400 | D306 0400 |
| 0450 | 4.5 | 56 | 29 | 4.5 | D300 0450 | D306 0450 |
| 0476 | 4.76 3/16 | 2-3/16 | 1-1/8 | 3/16 | D300 0476 | D306 0476 |
| 0500 | 5.0 | 57 | 30 | 5.0 | D300 0500 | D306 0500 |
| 0550 | 5.5 | 60 | 32 | 5.5 | D300 0550 | D306 0550 |
| 0600 | 6.0 | 62 | 33 | 6.0 | D300 0600 | D306 0600 |
| 0635 | 6.35 1/4 | 2-1/2 | 1-3/8 | 1/4 | D300 0635 | D306 0635 |
| 0650 | 6.5 | 64 | 35 | 6.5 | D300 0650 | D306 0650 |
| 0700 | 7.0 | 68 | 38 | 7.0 | D300 0700 | D306 0700 |
| 0750 | 7.5 | 70 | 40 | 7.5 | D300 0750 | D306 0750 |
| 0794 | 7.94 5/16 | 2-13/16 | 1-5/8 | 5/16 | D300 0794 | D306 0794 |
| 0800 | 8.0 | 71 | 41 | 8.0 | D300 0800 | D306 0800 |
| 0850 | 8.5 | 76 | 43 | 8.5 | D300 0850 | D306 0850 |
| 0900 | 9.0 | 78 | 44 | 9.0 | D300 0900 | D306 0900 |
| 0950 | 9.5 | 79 | 46 | 9.5 | D300 0950 | D306 0950 |
| 0953 | 9.53 3/8 | 3-1/8 | 1-13/16 | 3/8 | D300 0953 | D306 0953 |
| 1000 | 10.0 | 83 | 48 | 10.0 | D300 1000 | D306 1000 |
| 1050 | 10.5 | 86 | 51 | 10.5 | D300 1050 | D306 1050 |
| 1100 | 11.0 | 87 | 52 | 11.0 | D300 1100 | D306 1100 |
| 1111 | 11.11 7/16 | 3-7/16 | 2-1/16 | 7/16 | D300 1111 | D306 1111 |
| 1150 | 11.5 | 90 | 54 | 11.5 | D300 1150 | D306 1150 |
| 1200 | 12.0 | 92 | 54 | 12.0 | D300 1200 | D306 1200 |
| 1269 | 12.7 1/2 | 3-3/4 | 2-1/4 | 1/2 | D300 1269 | D306 1269 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|--|--|--|--|--|--|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | | |
| D300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D306 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

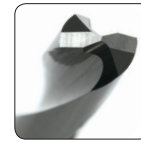
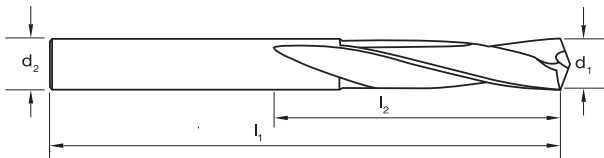
● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide, 3 x D, R15 NH

suttontools

- Rigid twist drill with slow spiral 15 degree flutes
- Suitable for martensitic & precipitation hardening, stainless steels & tool steels
- For drilling short chipping or abrasive materials



| | | |
|--------------------------------------|---------------------|---------------------|
| Catalogue Code | D304 | D310 |
| Discount Group | A0202 | A0206 |
| Material | VHM | VHM |
| Surface Finish | Brt | TICN |
| Colour Ring & Application | NH | NH |
| Geometry | R15 | R15 |
| Point Type | 135° 4 Facet Form C | 135° 4 Facet Form C |
| Shank Tolerance | -0.025 | -0.025 |

| Size Ref. | d ₁ (-0.012) | l ₁ | l ₂ | d ₂ | Item # | Item # |
|-------------|---------------------------|----------------|----------------|----------------|-----------|-----------|
| 0100 | 1.0 | 38 | 13 | 1.0 | D304 0100 | D310 0100 |
| 0150 | 1.5 | 38 | 13 | 1.5 | D304 0150 | D310 0150 |
| 0159 | 1.59 1/16 | 1-5/8 | 5/8 | 1/16 | | D310 0159 |
| 0160 | 1.6 | 43 | 18 | 1.6 | D304 0160 | D310 0160 |
| 0200 | 2.0 | 44 | 19 | 2.0 | D304 0200 | D310 0200 |
| 0238 | 2.38 3/32 | 1-3/4 | 3/4 | 3/32 | | D310 0238 |
| 0250 | 2.5 | 46 | 21 | 2.5 | D304 0250 | D310 0250 |
| 0300 | 3.0 | 48 | 22 | 3.0 | D304 0300 | D310 0300 |
| 0318 | 3.18 1/8 | 1-7/8 | 7/8 | 1/8 | | D310 0318 |
| 0330 | 3.3 | 52 | 24 | 3.3 | D304 0330 | D310 0330 |
| 0350 | 3.5 | 52 | 24 | 3.5 | D304 0350 | D310 0350 |
| 0397 | 3.97 5/32 | 2-1/16 | 1-1/16 | 5/32 | | D310 0397 |
| 0400 | 4.0 | 53 | 27 | 4.0 | D304 0400 | D310 0400 |
| 0420 | 4.2 | 53 | 27 | 4.2 | D304 0420 | D310 0420 |
| 0450 | 4.5 | 56 | 29 | 4.5 | D304 0450 | D310 0450 |
| 0476 | 4.76 3/16 | 2-3/16 | 1-1/8 | 3/16 | | D310 0476 |
| 0500 | 5.0 | 57 | 30 | 5.0 | D304 0500 | D310 0500 |
| 0550 | 5.5 | 60 | 32 | 5.5 | D304 0550 | D310 0550 |
| 0556 | 5.56 7/32 | 2-3/8 | 1-1/4 | 7/32 | | D310 0556 |
| 0600 | 6.0 | 62 | 33 | 6.0 | D304 0600 | D310 0600 |
| 0650 | 6.5 | 64 | 35 | 6.5 | D304 0650 | D310 0650 |
| 0680 | 6.8 | 68 | 38 | 6.8 | D304 0680 | D310 0680 |
| 0700 | 7.0 | 68 | 38 | 7.0 | D304 0700 | D310 0700 |
| 0714 | 7.14 9/32 | 2-11/16 | 1-1/2 | 9/32 | | D310 0714 |
| 0750 | 7.5 | 70 | 40 | 7.5 | D304 0750 | D310 0750 |
| 0794 | 7.94 5/16 | 2-13/16 | 1-5/8 | 5/16 | | D310 0794 |
| 0800 | 8.0 | 71 | 41 | 8.0 | D304 0800 | D310 0800 |
| 0850 | 8.5 | 76 | 43 | 8.5 | D304 0850 | D310 0850 |
| 0873 | 8.73 11/32 | 3 | 1-11/16 | 11/32 | | D310 0873 |
| 0900 | 9.0 | 78 | 44 | 9.0 | D304 0900 | D310 0900 |
| 0950 | 9.5 | 79 | 46 | 9.5 | D304 0950 | D310 0950 |
| 0953 | 9.53 3/8 | 3-1/8 | 1-13/16 | 3/8 | | D310 0953 |
| 1000 | 10.0 | 83 | 48 | 10.0 | D304 1000 | D310 1000 |
| 1032 | 10.32 13/32 | 3-5/16 | 1-15/16 | 13/32 | | D310 1032 |
| 1050 | 10.5 | 86 | 51 | 10.5 | D304 1050 | D310 1050 |
| 1100 | 11.0 | 87 | 52 | 11.0 | D304 1100 | D310 1100 |
| 1111 | 11.11 7/16 | 3-7/16 | 2-1/16 | 7/16 | | D310 1111 |
| 1150 | 11.5 | 90 | 54 | 11.5 | D304 1150 | D310 1150 |
| 1191 | 11.91 15/32 | 3-5/8 | 2-1/8 | 15/32 | | D310 1191 |
| 1200 | 12.0 | 92 | 54 | 12.0 | D304 1200 | D310 1200 |
| 1269 | 12.7 1/2 | 3-3/4 | 2-1/4 | 1/2 | | D310 1269 |

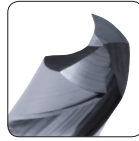
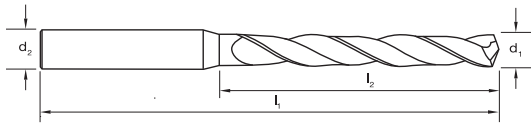
| ISO | P | | | | | | | M | | | | | | | K | | | | | | | N | | | | | | | S | | | | | | | H | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | |
| D304 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| D310 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel **M** Stainless Steel **K** Cast Iron **N** Non-Ferrous Metals **S** Titanium & Super Alloys **H** Hard Materials ● Optimal ○ Effective

Drills Carbide, 5 x D, R30 N

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D326 | D327 | D328 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 0100 | 1.0 | 57 | 8 | 4 | D326 0100 | D327 0100 | D328 0100 |
| 0110 | 1.1 | 57 | 12 | 4 | D326 0110 | D327 0110 | D328 0110 |
| 0120 | 1.2 | 57 | 12 | 4 | D326 0120 | D327 0120 | D328 0120 |
| 0130 | 1.3 | 57 | 12 | 4 | D326 0130 | D327 0130 | D328 0130 |
| 0140 | 1.4 | 57 | 12 | 4 | D326 0140 | D327 0140 | D328 0140 |
| 0150 | 1.5 | 57 | 12 | 4 | D326 0150 | D327 0150 | D328 0150 |
| 0160 | 1.6 | 57 | 16 | 4 | D326 0160 | D327 0160 | D328 0160 |
| 0170 | 1.7 | 57 | 16 | 4 | D326 0170 | D327 0170 | D328 0170 |
| 0180 | 1.8 | 57 | 16 | 4 | D326 0180 | D327 0180 | D328 0180 |
| 0190 | 1.9 | 57 | 16 | 4 | D326 0190 | D327 0190 | D328 0190 |
| 0200 | 2.0 | 57 | 21 | 4 | D326 0200 | D327 0200 | D328 0200 |
| 0210 | 2.1 | 57 | 21 | 4 | D326 0210 | D327 0210 | D328 0210 |
| 0200 | 2.2 | 57 | 21 | 4 | D326 0200 | D327 0200 | D328 0200 |
| 0230 | 2.3 | 57 | 21 | 4 | D326 0230 | D327 0230 | D328 0230 |
| 0240 | 2.4 | 57 | 21 | 4 | D326 0240 | D327 0240 | D328 0240 |
| 0250 | 2.5 | 57 | 21 | 4 | D326 0250 | D327 0250 | D328 0250 |
| 0260 | 2.6 | 57 | 21 | 4 | D326 0260 | D327 0260 | D328 0260 |
| 0270 | 2.7 | 57 | 21 | 4 | D326 0270 | D327 0270 | D328 0270 |
| 0280 | 2.8 | 57 | 21 | 4 | D326 0280 | D327 0280 | D328 0280 |
| 0290 | 2.9 | 57 | 21 | 4 | D326 0290 | D327 0290 | D328 0290 |
| 0300 | 3.0 | 66 | 28 | 6 | D326 0300 | D327 0300 | D328 0300 |
| 0310 | 3.1 | 66 | 28 | 6 | D326 0310 | D327 0310 | D328 0310 |
| 0318 | 3.18 1/8 | 66 | 28 | 6 | D326 0318 | D327 0318 | D328 0318 |
| 0320 | 3.2 | 66 | 28 | 6 | D326 0320 | D327 0320 | D328 0320 |
| 0330 | 3.3 | 66 | 28 | 6 | D326 0330 | D327 0330 | D328 0330 |
| 0340 | 3.4 | 66 | 28 | 6 | D326 0340 | D327 0340 | D328 0340 |
| 0350 | 3.5 | 66 | 28 | 6 | D326 0350 | D327 0350 | D328 0350 |
| 0357 | 3.57 9/64 | 66 | 28 | 6 | D326 0357 | D327 0357 | D328 0357 |
| 0360 | 3.6 | 66 | 28 | 6 | D326 0360 | D327 0360 | D328 0360 |
| 0370 | 3.7 | 66 | 28 | 6 | D326 0370 | D327 0370 | D328 0370 |
| 0380 | 3.8 | 74 | 36 | 6 | D326 0380 | D327 0380 | D328 0380 |
| 0390 | 3.9 | 74 | 36 | 6 | D326 0390 | D327 0390 | D328 0390 |
| 0397 | 3.97 5/32 | 74 | 36 | 6 | D326 0397 | D327 0397 | D328 0397 |
| 0400 | 4.0 | 74 | 36 | 6 | D326 0400 | D327 0400 | D328 0400 |
| 0410 | 4.1 | 74 | 36 | 6 | D326 0410 | D327 0410 | D328 0410 |
| 0420 | 4.2 | 74 | 36 | 6 | D326 0420 | D327 0420 | D328 0420 |
| 0430 | 4.3 | 74 | 36 | 6 | D326 0430 | D327 0430 | D328 0430 |
| 0437 | 4.37 11/64 | 74 | 36 | 6 | D326 0437 | D327 0437 | D328 0437 |
| 0440 | 4.4 | 74 | 36 | 6 | D326 0440 | D327 0440 | D328 0440 |
| 0450 | 4.5 | 74 | 36 | 6 | D326 0450 | D327 0450 | D328 0450 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 |
| D326 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

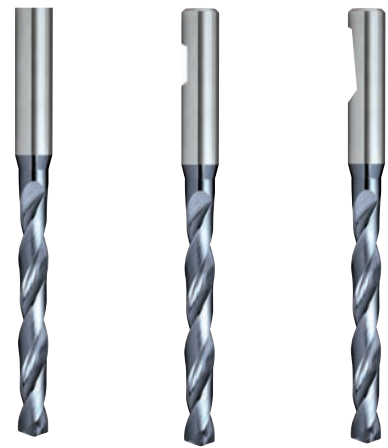
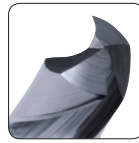
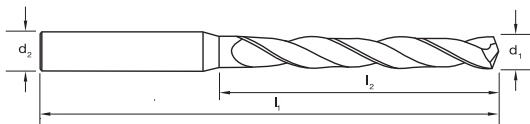
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D326 | D327 | D328 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |
| Item # | Item # | Item # |
| D326 0460 | D327 0460 | D328 0460 |
| D326 0470 | D327 0470 | D328 0470 |
| D326 0476 | D327 0476 | D328 0476 |
| D326 0480 | D327 0480 | D328 0480 |
| D326 0490 | D327 0490 | D328 0490 |
| D326 0500 | D327 0500 | D328 0500 |
| D326 0510 | D327 0510 | D328 0510 |
| D326 0516 | D327 0516 | D328 0516 |
| D326 0520 | D327 0520 | D328 0520 |
| D326 0530 | D327 0530 | D328 0530 |
| D326 0540 | D327 0540 | D328 0540 |
| D326 0550 | D327 0550 | D328 0550 |
| D326 0556 | D327 0556 | D328 0556 |
| D326 0560 | D327 0560 | D328 0560 |
| D326 0570 | D327 0570 | D328 0570 |
| D326 0580 | D327 0580 | D328 0580 |
| D326 0590 | D327 0590 | D328 0590 |
| D326 0595 | D327 0595 | D328 0595 |
| D326 0600 | D327 0600 | D328 0600 |
| D326 0610 | D327 0610 | D328 0610 |
| D326 0620 | D327 0620 | D328 0620 |
| D326 0630 | D327 0630 | D328 0630 |
| D326 0635 | D327 0635 | D328 0635 |
| D326 0640 | D327 0640 | D328 0640 |
| D326 0650 | D327 0650 | D328 0650 |
| D326 0660 | D327 0660 | D328 0660 |
| D326 0670 | D327 0670 | D328 0670 |
| D326 0676 | D327 0676 | D328 0676 |
| D326 0680 | D327 0680 | D328 0680 |
| D326 0690 | D327 0690 | D328 0690 |
| D326 0700 | D327 0700 | D328 0700 |
| D326 0710 | D327 0710 | D328 0710 |
| D326 0714 | D327 0714 | D328 0714 |
| D326 0720 | D327 0720 | D328 0720 |
| D326 0730 | D327 0730 | D328 0730 |
| D326 0740 | D327 0740 | D328 0740 |
| D326 0750 | D327 0750 | D328 0750 |
| D326 0754 | D327 0754 | D328 0754 |
| D326 0760 | D327 0760 | D328 0760 |
| D326 0770 | D327 0770 | D328 0770 |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) |
|-----------|---------------------|----------------|----------------|---------------------|
| 0460 | 4.6 | 74 | 36 | 6 |
| 0470 | 4.7 | 74 | 36 | 6 |
| 0476 | 4.76 3/16 | 74 | 36 | 6 |
| 0480 | 4.8 | 82 | 44 | 6 |
| 0490 | 4.9 | 82 | 44 | 6 |
| 0500 | 5.0 | 82 | 44 | 6 |
| 0510 | 5.1 | 82 | 44 | 6 |
| 0516 | 5.16 13/64 | 82 | 44 | 6 |
| 0520 | 5.2 | 82 | 44 | 6 |
| 0530 | 5.3 | 82 | 44 | 6 |
| 0540 | 5.4 | 82 | 44 | 6 |
| 0550 | 5.5 | 82 | 44 | 6 |
| 0556 | 5.56 7/32 | 82 | 44 | 6 |
| 0560 | 5.6 | 82 | 44 | 6 |
| 0570 | 5.7 | 82 | 44 | 6 |
| 0580 | 5.8 | 82 | 44 | 6 |
| 0590 | 5.9 | 82 | 44 | 6 |
| 0595 | 5.95 15/64 | 82 | 44 | 6 |
| 0600 | 6.0 | 82 | 44 | 6 |
| 0610 | 6.1 | 91 | 53 | 8 |
| 0620 | 6.2 | 91 | 53 | 8 |
| 0630 | 6.3 | 91 | 53 | 8 |
| 0635 | 6.35 1/4 | 91 | 53 | 8 |
| 0640 | 6.4 | 91 | 53 | 8 |
| 0650 | 6.5 | 91 | 53 | 8 |
| 0660 | 6.6 | 91 | 53 | 8 |
| 0670 | 6.7 | 91 | 53 | 8 |
| 0676 | 6.76 17/64 | 91 | 53 | 8 |
| 0680 | 6.8 | 91 | 53 | 8 |
| 0690 | 6.9 | 91 | 53 | 8 |
| 0700 | 7.0 | 91 | 53 | 8 |
| 0710 | 7.1 | 91 | 53 | 8 |
| 0714 | 7.14 9/32 | 91 | 53 | 8 |
| 0720 | 7.2 | 91 | 53 | 8 |
| 0730 | 7.3 | 91 | 53 | 8 |
| 0740 | 7.4 | 91 | 53 | 8 |
| 0750 | 7.5 | 91 | 53 | 8 |
| 0754 | 7.54 19/64 | 91 | 53 | 8 |
| 0760 | 7.6 | 91 | 53 | 8 |
| 0770 | 7.7 | 91 | 53 | 8 |

| ISO | P | | | | | | | | | | | | M | | | K | | | | N | | | | | | | | | | S | | | | | | | H | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 |
| D326 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | |

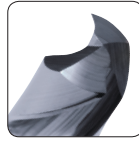
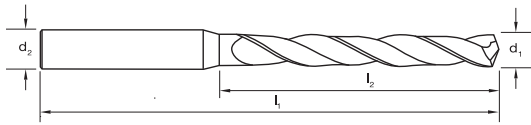
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide, 5 x D, R30 N

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D326 | D327 | D328 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |
| Item # | Item # | Item # |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) |
|-----------|---------------------|----------------|----------------|---------------------|
| 0780 | 7.8 | 91 | 53 | 8 |
| 0790 | 7.9 | 91 | 53 | 8 |
| 0794 | 7.94 5/16 | 91 | 53 | 8 |
| 0800 | 8.0 | 91 | 53 | 8 |
| 0810 | 8.1 | 103 | 61 | 10 |
| 0820 | 8.2 | 103 | 61 | 10 |
| 0830 | 8.3 | 103 | 61 | 10 |
| 0833 | 8.33 21/64 | 103 | 61 | 10 |
| 0840 | 8.4 | 103 | 61 | 10 |
| 0850 | 8.5 | 103 | 61 | 10 |
| 0860 | 8.6 | 103 | 61 | 10 |
| 0870 | 8.7 | 103 | 61 | 10 |
| 0873 | 8.73 11/32 | 103 | 61 | 10 |
| 0880 | 8.8 | 103 | 61 | 10 |
| 0890 | 8.9 | 103 | 61 | 10 |
| 0900 | 9.0 | 103 | 61 | 10 |
| 0910 | 9.1 | 103 | 61 | 10 |
| 0913 | 9.13 23/64 | 103 | 61 | 10 |
| 0920 | 9.2 | 103 | 61 | 10 |
| 0930 | 9.3 | 103 | 61 | 10 |
| 0940 | 9.4 | 103 | 61 | 10 |
| 0950 | 9.5 | 103 | 61 | 10 |
| 0953 | 9.53 3/8 | 103 | 61 | 10 |
| 0960 | 9.6 | 103 | 61 | 10 |
| 0970 | 9.7 | 103 | 61 | 10 |
| 0980 | 9.8 | 103 | 61 | 10 |
| 0990 | 9.9 | 103 | 61 | 10 |
| 0992 | 9.92 25/64 | 103 | 61 | 10 |
| 1000 | 10.0 | 103 | 61 | 10 |
| 1010 | 10.1 | 118 | 71 | 12 |
| 1020 | 10.2 | 118 | 71 | 12 |
| 1030 | 10.3 | 118 | 71 | 12 |
| 1032 | 10.32 13/32 | 118 | 71 | 12 |
| 1040 | 10.4 | 118 | 71 | 12 |
| 1050 | 10.5 | 118 | 71 | 12 |
| 1060 | 10.6 | 118 | 71 | 12 |
| 1070 | 10.7 | 118 | 71 | 12 |
| 1080 | 10.8 | 118 | 71 | 12 |
| 1090 | 10.9 | 118 | 71 | 12 |
| 1100 | 11.0 | 118 | 71 | 12 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | |
| D326 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

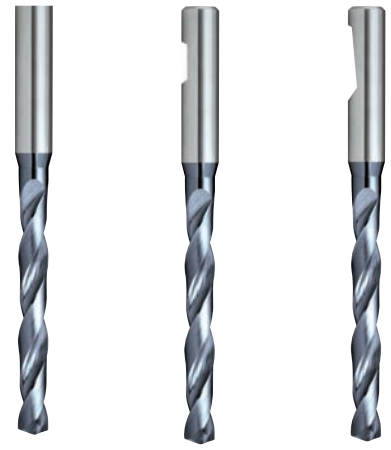
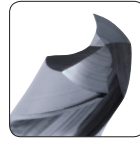
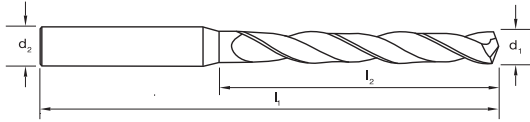
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide, 5 x D, R30 N

suttontools

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- Strong core
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



| Catalogue Code | D326 | D327 | D328 |
|---------------------------|--------------|--------------|--------------|
| Discount Group | A0210 | A0210 | A0210 |
| Material | VHM | VHM | VHM |
| Surface Finish | AlCrN | AlCrN | AlCrN |
| Colour Ring & Application | N | N | N |
| Geometry | R30 | R30 | R30 |
| Point Type | 140° Form C | 140° Form C | 140° Form C |
| Shank Form (DIN 6535) | HA | HB | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-------------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 1110 | 11.1 | 118 | 71 | 12 | D326 1110 | D327 1110 | D328 1110 |
| 1111 | 11.11 | 7/16 | 118 | 71 | D326 1111 | D327 1111 | D328 1111 |
| 1120 | 11.2 | | 118 | 71 | D326 1120 | D327 1120 | D328 1120 |
| 1130 | 11.3 | | 118 | 71 | D326 1130 | D327 1130 | D328 1130 |
| 1140 | 11.4 | | 118 | 71 | D326 1140 | D327 1140 | D328 1140 |
| 1150 | 11.5 | | 118 | 71 | D326 1150 | D327 1150 | D328 1150 |
| 1160 | 11.6 | | 118 | 71 | D326 1160 | D327 1160 | D328 1160 |
| 1170 | 11.7 | | 118 | 71 | D326 1170 | D327 1170 | D328 1170 |
| 1180 | 11.8 | | 118 | 71 | D326 1180 | D327 1180 | D328 1180 |
| 1190 | 11.9 | | 118 | 71 | D326 1190 | D327 1190 | D328 1190 |
| 1191 | 11.91 | 15/32 | 118 | 71 | D326 1191 | D327 1191 | D328 1191 |
| 1200 | 12.0 | | 118 | 71 | D326 1200 | D327 1200 | D328 1200 |
| 1250 | 12.5 | | 124 | 77 | D326 1250 | D327 1250 | D328 1250 |
| 1269 | 12.70 | 1/2 | 124 | 77 | D326 1269 | D327 1269 | D328 1269 |
| 1280 | 12.8 | | 124 | 77 | D326 1280 | D327 1280 | D328 1280 |
| 1300 | 13.0 | | 124 | 77 | D326 1300 | D327 1300 | D328 1300 |
| 1349 | 13.49 | 17/32 | 124 | 77 | D326 1349 | D327 1349 | D328 1349 |
| 1350 | 13.5 | | 124 | 77 | D326 1350 | D327 1350 | D328 1350 |
| 1380 | 13.8 | | 124 | 77 | D326 1380 | • | • |
| 1400 | 14.0 | | 124 | 77 | D326 1400 | D327 1400 | D328 1400 |
| 1429 | 14.29 | 9/16 | 133 | 83 | D326 1429 | D327 1429 | D328 1429 |
| 1450 | 14.5 | | 133 | 83 | D326 1450 | D327 1450 | D328 1450 |
| 1480 | 14.8 | | 133 | 83 | D326 1480 | D327 1480 | D328 1480 |
| 1500 | 15.0 | | 133 | 83 | D326 1500 | D327 1500 | D328 1500 |
| 1550 | 15.5 | | 133 | 83 | D326 1550 | D327 1550 | D328 1550 |
| 1580 | 15.8 | | 133 | 83 | D326 1580 | D327 1580 | D328 1580 |
| 1588 | 15.88 | 5/8 | 133 | 83 | D326 1588 | D327 1588 | D328 1588 |
| 1600 | 16.0 | | 133 | 83 | D326 1600 | D327 1600 | D328 1600 |
| 1650 | 16.5 | | 143 | 93 | D326 1650 | D327 1650 | D328 1650 |
| 1680 | 16.8 | | 143 | 93 | D326 1680 | D327 1680 | D328 1680 |
| 1700 | 17.0 | | 143 | 93 | D326 1700 | D327 1700 | D328 1700 |
| 1746 | 17.46 | 11/16 | 143 | 93 | D326 1746 | D327 1746 | D328 1746 |
| 1750 | 17.5 | | 143 | 93 | D326 1750 | D327 1750 | D328 1750 |
| 1780 | 17.8 | | 143 | 93 | D326 1780 | D327 1780 | D328 1780 |
| 1800 | 18.0 | | 143 | 93 | D326 1800 | D327 1800 | D328 1800 |
| 1850 | 18.5 | | 153 | 101 | D326 1850 | D327 1850 | D328 1850 |
| 1900 | 19.0 | | 153 | 101 | D326 1900 | D327 1900 | D328 1900 |
| 1905 | 19.05 | 3/4 | 153 | 101 | D326 1905 | D327 1905 | D328 1905 |
| 1950 | 19.5 | | 153 | 101 | D326 1950 | D327 1950 | D328 1950 |
| 1980 | 19.8 | | 153 | 101 | • | • | • |
| 2000 | 20.0 | | 153 | 101 | D326 2000 | D327 2000 | D328 2000 |

| ISO | P | | | | | | | | | | M | | | | | K | | | | | | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | |
| D326 | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |

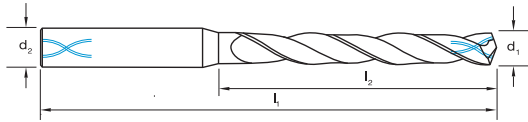
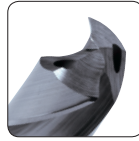
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials • Optimal ○ Effective

• Available on request as special manufacture. Subject to lead time.

NOTE: HB & HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D332 | D333 | D334 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |
| Item # | Item # | Item # |

| Size Ref. | d ₁ (m7) | L ₁ | L ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 0300 | 3.0 | 66 | 28 | 6 | D332 0300 | D333 0300 | D334 0300 |
| 0310 | 3.1 | 66 | 28 | 6 | D332 0310 | D333 0310 | D334 0310 |
| 0318 | 3.18 1/8 | 66 | 28 | 6 | D332 0318 | D333 0318 | D334 0318 |
| 0320 | 3.2 | 66 | 28 | 6 | D332 0320 | D333 0320 | D334 0320 |
| 0330 | 3.3 | 66 | 28 | 6 | D332 0330 | D333 0330 | D334 0330 |
| 0340 | 3.4 | 66 | 28 | 6 | D332 0340 | D333 0340 | D334 0340 |
| 0350 | 3.5 | 66 | 28 | 6 | D332 0350 | D333 0350 | D334 0350 |
| 0357 | 3.57 9/64 | 66 | 28 | 6 | D332 0357 | D333 0357 | D334 0357 |
| 0360 | 3.6 | 66 | 28 | 6 | D332 0360 | D333 0360 | D334 0360 |
| 0370 | 3.7 | 66 | 28 | 6 | D332 0370 | D333 0370 | D334 0370 |
| 0380 | 3.8 | 74 | 36 | 6 | D332 0380 | D333 0380 | D334 0380 |
| 0390 | 3.9 | 74 | 36 | 6 | D332 0390 | D333 0390 | D334 0390 |
| 0397 | 3.97 5/32 | 74 | 36 | 6 | D332 0397 | D333 0397 | D334 0397 |
| 0400 | 4.0 | 74 | 36 | 6 | D332 0400 | D333 0400 | D334 0400 |
| 0410 | 4.1 | 74 | 36 | 6 | D332 0410 | D333 0410 | D334 0410 |
| 0420 | 4.2 | 74 | 36 | 6 | D332 0420 | D333 0420 | D334 0420 |
| 0430 | 4.3 | 74 | 36 | 6 | D332 0430 | D333 0430 | D334 0430 |
| 0437 | 4.37 11/64 | 74 | 36 | 6 | D332 0437 | D333 0437 | D334 0437 |
| 0440 | 4.4 | 74 | 36 | 6 | D332 0440 | D333 0440 | D334 0440 |
| 0450 | 4.5 | 74 | 36 | 6 | D332 0450 | D333 0450 | D334 0450 |
| 0460 | 4.6 | 74 | 36 | 6 | D332 0460 | D333 0460 | D334 0460 |
| 0470 | 4.7 | 74 | 36 | 6 | D332 0470 | D333 0470 | D334 0470 |
| 0476 | 4.76 3/16 | 74 | 36 | 6 | D332 0476 | D333 0476 | D334 0476 |
| 0480 | 4.8 | 82 | 44 | 6 | D332 0480 | D333 0480 | D334 0480 |
| 0490 | 4.9 | 82 | 44 | 6 | D332 0490 | D333 0490 | D334 0490 |
| 0500 | 5.0 | 82 | 44 | 6 | D332 0500 | D333 0500 | D334 0500 |
| 0510 | 5.1 | 82 | 44 | 6 | D332 0510 | D333 0510 | D334 0510 |
| 0516 | 5.16 13/64 | 82 | 44 | 6 | D332 0516 | D333 0516 | D334 0516 |
| 0520 | 5.2 | 82 | 44 | 6 | D332 0520 | D333 0520 | D334 0520 |
| 0530 | 5.3 | 82 | 44 | 6 | D332 0530 | D333 0530 | D334 0530 |
| 0540 | 5.4 | 82 | 44 | 6 | D332 0540 | D333 0540 | D334 0540 |
| 0550 | 5.5 | 82 | 44 | 6 | D332 0550 | D333 0550 | D334 0550 |
| 0556 | 5.56 7/32 | 82 | 44 | 6 | D332 0556 | D333 0556 | D334 0556 |
| 0560 | 5.6 | 82 | 44 | 6 | D332 0560 | D333 0560 | D334 0560 |
| 0570 | 5.7 | 82 | 44 | 6 | D332 0570 | D333 0570 | D334 0570 |
| 0580 | 5.8 | 82 | 44 | 6 | D332 0580 | D333 0580 | D334 0580 |
| 0590 | 5.9 | 82 | 44 | 6 | D332 0590 | D333 0590 | D334 0590 |
| 0595 | 5.95 15/64 | 82 | 44 | 6 | D332 0595 | D333 0595 | D334 0595 |
| 0600 | 6.0 | 82 | 44 | 6 | D332 0600 | D333 0600 | D334 0600 |
| 0610 | 6.1 | 91 | 53 | 8 | D332 0610 | D333 0610 | D334 0610 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|---|---|---|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | | | | |
| D332 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

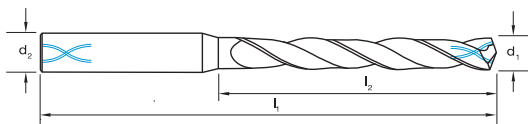
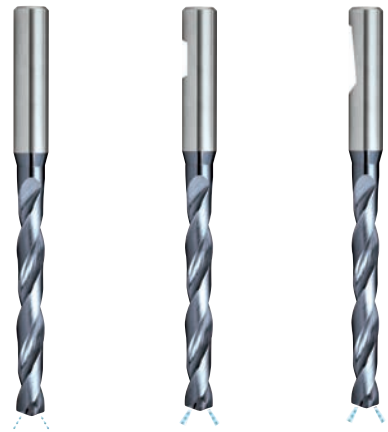
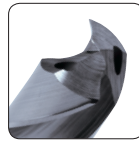
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Drills Carbide, 5 x D, R30 N, IK

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



- Catalogue Code
- Discount Group
- Material
- Surface Finish
- Colour Ring & Application
- Geometry
- Point Type
- Shank Form (DIN 6535)

| D332 | D333 | D334 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-------------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 0620 | 6.2 | 91 | 53 | 8 | D332 0620 | D333 0620 | D334 0620 |
| 0630 | 6.3 | 91 | 53 | 8 | D332 0630 | D333 0630 | D334 0630 |
| 0635 | 6.35 1/4 | 91 | 53 | 8 | D332 0635 | D333 0635 | D334 0635 |
| 0640 | 6.4 | 91 | 53 | 8 | D332 0640 | D333 0640 | D334 0640 |
| 0650 | 6.5 | 91 | 53 | 8 | D332 0650 | D333 0650 | D334 0650 |
| 0660 | 6.6 | 91 | 53 | 8 | D332 0660 | D333 0660 | D334 0660 |
| 0670 | 6.7 | 91 | 53 | 8 | D332 0670 | D333 0670 | D334 0670 |
| 0676 | 6.76 17/64 | 91 | 53 | 8 | D332 0676 | D333 0676 | D334 0676 |
| 0680 | 6.8 | 91 | 53 | 8 | D332 0680 | D333 0680 | D334 0680 |
| 0690 | 6.9 | 91 | 53 | 8 | D332 0690 | D333 0690 | D334 0690 |
| 0700 | 7.0 | 91 | 53 | 8 | D332 0700 | D333 0700 | D334 0700 |
| 0710 | 7.1 | 91 | 53 | 8 | D332 0710 | D333 0710 | D334 0710 |
| 0714 | 7.14 9/32 | 91 | 53 | 8 | D332 0714 | D333 0714 | D334 0714 |
| 0720 | 7.2 | 91 | 53 | 8 | D332 0720 | D333 0720 | D334 0720 |
| 0730 | 7.3 | 91 | 53 | 8 | D332 0730 | D333 0730 | D334 0730 |
| 0740 | 7.4 | 91 | 53 | 8 | D332 0740 | D333 0740 | D334 0740 |
| 0750 | 7.5 | 91 | 53 | 8 | D332 0750 | D333 0750 | D334 0750 |
| 0754 | 7.54 19/64 | 91 | 53 | 8 | D332 0754 | D333 0754 | D334 0754 |
| 0760 | 7.6 | 91 | 53 | 8 | D332 0760 | D333 0760 | D334 0760 |
| 0770 | 7.7 | 91 | 53 | 8 | D332 0770 | D333 0770 | D334 0770 |
| 0780 | 7.8 | 91 | 53 | 8 | D332 0780 | D333 0780 | D334 0780 |
| 0790 | 7.9 | 91 | 53 | 8 | D332 0790 | D333 0790 | D334 0790 |
| 0794 | 7.94 5/16 | 91 | 53 | 8 | D332 0794 | D333 0794 | D334 0794 |
| 0800 | 8.0 | 91 | 53 | 8 | D332 0800 | D333 0800 | D334 0800 |
| 0810 | 8.1 | 103 | 61 | 10 | D332 0810 | D333 0810 | D334 0810 |
| 0820 | 8.2 | 103 | 61 | 10 | D332 0820 | D333 0820 | D334 0820 |
| 0830 | 8.3 | 103 | 61 | 10 | D332 0830 | D333 0830 | D334 0830 |
| 0833 | 8.33 21/64 | 103 | 61 | 10 | D332 0833 | D333 0833 | D334 0833 |
| 0840 | 8.4 | 103 | 61 | 10 | D332 0840 | D333 0840 | D334 0840 |
| 0850 | 8.5 | 103 | 61 | 10 | D332 0850 | D333 0850 | D334 0850 |
| 0860 | 8.6 | 103 | 61 | 10 | D332 0860 | D333 0860 | D334 0860 |
| 0870 | 8.7 | 103 | 61 | 10 | D332 0870 | D333 0870 | D334 0870 |
| 0873 | 8.73 11/32 | 103 | 61 | 10 | D332 0873 | D333 0873 | D334 0873 |
| 0880 | 8.8 | 103 | 61 | 10 | D332 0880 | D333 0880 | D334 0880 |
| 0890 | 8.9 | 103 | 61 | 10 | D332 0890 | D333 0890 | D334 0890 |
| 0900 | 9.0 | 103 | 61 | 10 | D332 0900 | D333 0900 | D334 0900 |
| 0910 | 9.1 | 103 | 61 | 10 | D332 0910 | D333 0910 | D334 0910 |
| 0913 | 9.13 23/64 | 103 | 61 | 10 | D332 0913 | D333 0913 | D334 0913 |
| 0920 | 9.2 | 103 | 61 | 10 | D332 0920 | D333 0920 | D334 0920 |
| 0930 | 9.3 | 103 | 61 | 10 | D332 0930 | D333 0930 | D334 0930 |

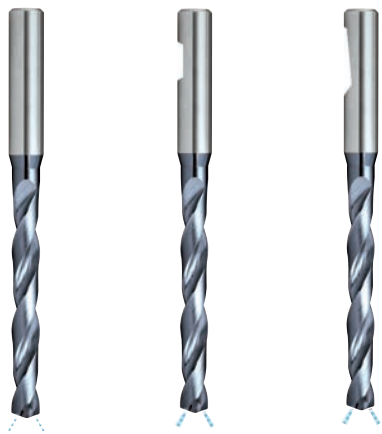
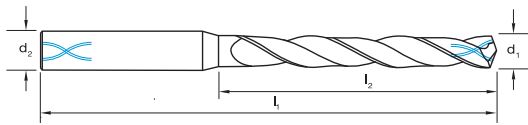
| ISO | P | | | | | | | | | | M | | | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | |
| D332 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

Drills Carbide, 5 x D, R30 N, IK

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D332 | D333 | D334 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |

| Size Ref. | d ₁ (m7) | L ₁ | L ₂ | d ₂ (h6) |
|-----------|---------------------|----------------|----------------|---------------------|
| 0940 | 9.4 | 103 | 61 | 10 |
| 0950 | 9.5 | 103 | 61 | 10 |
| 0953 | 9.53 3/8 | 103 | 61 | 10 |
| 0960 | 9.6 | 103 | 61 | 10 |
| 0970 | 9.7 | 103 | 61 | 10 |
| 0980 | 9.8 | 103 | 61 | 10 |
| 0990 | 9.9 | 103 | 61 | 10 |
| 0992 | 9.92 25/64 | 103 | 61 | 10 |
| 1000 | 10.0 | 103 | 61 | 10 |
| 1010 | 10.1 | 118 | 71 | 12 |
| 1020 | 10.2 | 118 | 71 | 12 |
| 1030 | 10.3 | 118 | 71 | 12 |
| 1032 | 10.32 13/32 | 118 | 71 | 12 |
| 1040 | 10.4 | 118 | 71 | 12 |
| 1050 | 10.5 | 118 | 71 | 12 |
| 1060 | 10.6 | 118 | 71 | 12 |
| 1070 | 10.7 | 118 | 71 | 12 |
| 1080 | 10.8 | 118 | 71 | 12 |
| 1090 | 10.9 | 118 | 71 | 12 |
| 1100 | 11.0 | 118 | 71 | 12 |
| 1110 | 11.1 | 118 | 71 | 12 |
| 1111 | 11.11 7/16 | 118 | 71 | 12 |
| 1120 | 11.2 | 118 | 71 | 12 |
| 1130 | 11.3 | 118 | 71 | 12 |
| 1140 | 11.4 | 118 | 71 | 12 |
| 1150 | 11.5 | 118 | 71 | 12 |
| 1160 | 11.6 | 118 | 71 | 12 |
| 1170 | 11.7 | 118 | 71 | 12 |
| 1180 | 11.8 | 118 | 71 | 12 |
| 1190 | 11.9 | 118 | 71 | 12 |
| 1191 | 11.91 15/32 | 118 | 71 | 12 |
| 1200 | 12.0 | 118 | 71 | 12 |
| 1250 | 12.5 | 124 | 77 | 14 |
| 1269 | 12.70 1/2 | 124 | 77 | 14 |
| 1280 | 12.8 | 124 | 77 | 14 |
| 1300 | 13.0 | 124 | 77 | 14 |
| 1349 | 13.49 17/32 | 124 | 77 | 14 |
| 1350 | 13.5 | 124 | 77 | 14 |
| 1380 | 13.8 | 124 | 77 | 14 |
| 1400 | 14.0 | 124 | 77 | 14 |

| Item # | Item # | Item # |
|-----------|-----------|-----------|
| D332 0940 | D333 0940 | D334 0940 |
| D332 0950 | D333 0950 | D334 0950 |
| D332 0953 | D333 0953 | D334 0953 |
| D332 0960 | D333 0960 | D334 0960 |
| D332 0970 | D333 0970 | D334 0970 |
| D332 0980 | D333 0980 | D334 0980 |
| D332 0990 | D333 0990 | D334 0990 |
| D332 0992 | D333 0992 | D334 0992 |
| D332 1000 | D333 1000 | D334 1000 |
| D332 1010 | D333 1010 | D334 1010 |
| D332 1020 | D333 1020 | D334 1020 |
| D332 1030 | D333 1030 | D334 1030 |
| D332 1032 | D333 1032 | D334 1032 |
| D332 1040 | D333 1040 | D334 1040 |
| D332 1050 | D333 1050 | D334 1050 |
| D332 1060 | D333 1060 | D334 1060 |
| D332 1070 | D333 1070 | D334 1070 |
| D332 1080 | D333 1080 | D334 1080 |
| D332 1090 | D333 1090 | D334 1090 |
| D332 1100 | D333 1100 | D334 1100 |
| D332 1110 | D333 1110 | D334 1110 |
| D332 1111 | D333 1111 | D334 1111 |
| D332 1120 | D333 1120 | D334 1120 |
| D332 1130 | D333 1130 | D334 1130 |
| D332 1140 | D333 1140 | D334 1140 |
| D332 1150 | D333 1150 | D334 1150 |
| D332 1160 | D333 1160 | D334 1160 |
| D332 1170 | D333 1170 | D334 1170 |
| D332 1180 | D333 1180 | D334 1180 |
| D332 1190 | D333 1190 | D334 1190 |
| D332 1191 | D333 1191 | D334 1191 |
| D332 1200 | D333 1200 | D334 1200 |
| D332 1250 | D333 1250 | D334 1250 |
| D332 1269 | D333 1269 | D334 1269 |
| D332 1280 | D333 1280 | D334 1280 |
| D332 1300 | D333 1300 | D334 1300 |
| D332 1349 | D333 1349 | D334 1349 |
| D332 1350 | D333 1350 | D334 1350 |
| . | . | . |
| D332 1400 | D333 1400 | D334 1400 |

| ISO | P | | | | | | | | | | | | | | | | | | | | | M | | | | | K | | | | | N | | | | | S | | | | | H | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|---|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | | |
| D332 | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |

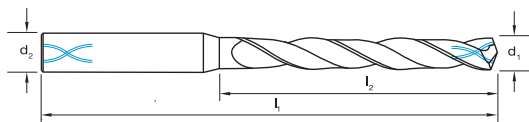
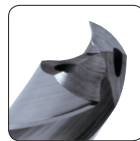
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

• Optimal ○ Effective

Drills Carbide, 5 x D, R30 N, IK

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D332 | D333 | D334 |
|--------------|--------------|--------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 | R30 | R30 |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 1429 | 14.29 9/16 | 133 | 83 | 16 | D332 1429 | D333 1429 | D334 1429 |
| 1450 | 14.5 | 133 | 83 | 16 | D332 1450 | D333 1450 | D334 1450 |
| 1480 | 14.8 | 133 | 83 | 16 | • | • | • |
| 1500 | 15.0 | 133 | 83 | 16 | D332 1500 | D333 1500 | D334 1500 |
| 1550 | 15.5 | 133 | 83 | 16 | D332 1550 | D333 1550 | D334 1550 |
| 1580 | 15.8 | 133 | 83 | 16 | • | • | • |
| 1588 | 15.88 5/8 | 133 | 83 | 16 | D332 1588 | D333 1588 | D334 1588 |
| 1600 | 16.0 | 133 | 83 | 16 | D332 1600 | D333 1600 | D334 1600 |
| 1650 | 16.5 | 143 | 93 | 18 | D332 1650 | D333 1650 | D334 1650 |
| 1680 | 16.8 | 143 | 93 | 18 | • | • | • |
| 1700 | 17.0 | 143 | 93 | 18 | D332 1700 | D333 1700 | D334 1700 |
| 1746 | 17.46 11/16 | 143 | 93 | 18 | D332 1746 | D333 1746 | D334 1746 |
| 1750 | 17.5 | 143 | 93 | 18 | D332 1750 | D333 1750 | D334 1750 |
| 1780 | 17.8 | 143 | 93 | 18 | • | • | • |
| 1800 | 18.0 | 143 | 93 | 18 | D332 1800 | D333 1800 | D334 1800 |
| 1850 | 18.5 | 153 | 101 | 20 | D332 1850 | D333 1850 | D334 1850 |
| 1900 | 19.0 | 153 | 101 | 20 | D332 1900 | D333 1900 | D334 1900 |
| 1905 | 19.05 3/4 | 153 | 101 | 20 | D332 1905 | D333 1905 | D334 1905 |
| 1950 | 19.5 | 153 | 101 | 20 | D332 1950 | D333 1950 | D334 1950 |
| 1980 | 19.8 | 153 | 101 | 20 | • | • | • |
| 2000 | 20.0 | 153 | 101 | 20 | D332 2000 | D333 2000 | D334 2000 |

| ISO | P | | | | | | | | | | M | | | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | |
| D332 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

• Available on request as special manufacture. Subject to lead time.

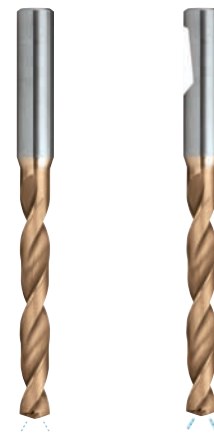
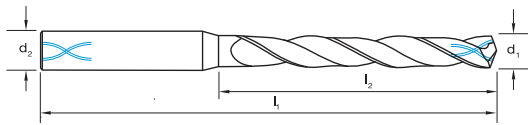
NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide 5 x D, R30 VA Black Magic

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BLACKMAGIC

- Excellent solution for stainless steels and difficult super alloy type materials
- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness



| | | |
|---------------------------|---------------------|---------------------|
| Catalogue Code | D358 | D359 |
| Discount Group | A0210 | A0210 |
| Material | VHM | VHM |
| Surface Finish | HELICA | HELICA |
| Colour Ring & Application | VA | VA |
| Geometry | R30 - IK | R30 - IK |
| Point Type | 140° 4 Facet Form C | 140° 4 Facet Form C |
| Shank Form (DIN 6535) | HA | HE |

| Size Ref. | d ₁ (m7) | L ₁ | L ₂ | d ₂ (h6) | Item # | Item # |
|-------------|---------------------|----------------|----------------|---------------------|-----------|-----------|
| 0300 | 3.0 | 66 | 28 | 6 | D358 0300 | D359 0300 |
| 0310 | 3.1 | 66 | 28 | 6 | D358 0310 | D359 0310 |
| 0318 | 3.18 1/8 | 66 | 28 | 6 | D358 0318 | D359 0318 |
| 0320 | 3.2 | 66 | 28 | 6 | D358 0320 | D359 0320 |
| 0330 | 3.3 | 66 | 28 | 6 | D358 0330 | D359 0330 |
| 0340 | 3.4 | 66 | 28 | 6 | D358 0340 | D359 0340 |
| 0350 | 3.5 | 66 | 28 | 6 | D358 0350 | D359 0350 |
| 0357 | 3.57 9/64 | 66 | 28 | 6 | D358 0357 | D359 0357 |
| 0360 | 3.6 | 66 | 28 | 6 | D358 0360 | D359 0360 |
| 0370 | 3.7 | 66 | 28 | 6 | D358 0370 | D359 0370 |
| 0380 | 3.8 | 74 | 36 | 6 | D358 0380 | D359 0380 |
| 0390 | 3.9 | 74 | 36 | 6 | D358 0390 | D359 0390 |
| 0397 | 3.97 5/32 | 74 | 36 | 6 | D358 0397 | D359 0397 |
| 0400 | 4.0 | 74 | 36 | 6 | D358 0400 | D359 0400 |
| 0410 | 4.1 | 74 | 36 | 6 | D358 0410 | D359 0410 |
| 0420 | 4.2 | 74 | 36 | 6 | D358 0420 | D359 0420 |
| 0430 | 4.3 | 74 | 36 | 6 | D358 0430 | D359 0430 |
| 0437 | 4.37 11/64 | 74 | 36 | 6 | D358 0437 | D359 0437 |
| 0440 | 4.4 | 74 | 36 | 6 | D358 0440 | D359 0440 |
| 0450 | 4.5 | 74 | 36 | 6 | D358 0450 | D359 0450 |
| 0460 | 4.6 | 74 | 36 | 6 | D358 0460 | D359 0460 |
| 0470 | 4.7 | 74 | 36 | 6 | D358 0470 | D359 0470 |
| 0476 | 4.76 3/16 | 74 | 36 | 6 | D358 0476 | D359 0476 |
| 0480 | 4.8 | 82 | 44 | 6 | D358 0480 | D359 0480 |
| 0490 | 4.9 | 82 | 44 | 6 | D358 0490 | D359 0490 |
| 0500 | 5.0 | 82 | 44 | 6 | D358 0500 | D359 0500 |
| 0510 | 5.1 | 82 | 44 | 6 | D358 0510 | D359 0510 |
| 0516 | 5.16 13/64 | 82 | 44 | 6 | D358 0516 | D359 0516 |
| 0520 | 5.2 | 82 | 44 | 6 | D358 0520 | D359 0520 |
| 0530 | 5.3 | 82 | 44 | 6 | D358 0530 | D359 0530 |
| 0540 | 5.4 | 82 | 44 | 6 | D358 0540 | D359 0540 |
| 0550 | 5.5 | 82 | 44 | 6 | D358 0550 | D359 0550 |
| 0556 | 5.56 7/32 | 82 | 44 | 6 | D358 0556 | D359 0556 |
| 0560 | 5.6 | 82 | 44 | 6 | D358 0560 | D359 0560 |
| 0570 | 5.7 | 82 | 44 | 6 | D358 0570 | D359 0570 |
| 0580 | 5.8 | 82 | 44 | 6 | D358 0580 | D359 0580 |
| 0590 | 5.9 | 82 | 44 | 6 | D358 0590 | D359 0590 |
| 0595 | 5.95 15/64 | 82 | 44 | 6 | D358 0595 | D359 0595 |
| 0600 | 6.0 | 82 | 44 | 6 | D358 0600 | D359 0600 |
| 0610 | 6.1 | 91 | 53 | 8 | D358 0610 | D359 0610 |

| ISO | P | | | | | | | | | | | | M | | | K | | | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | |
| D358 | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

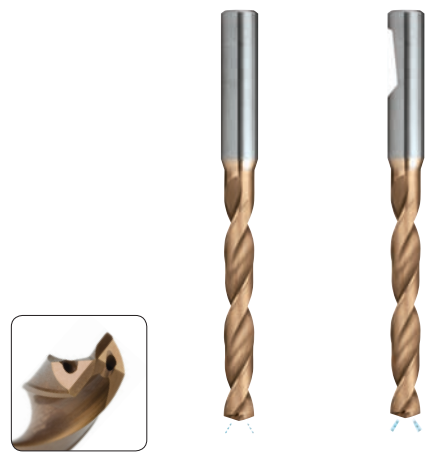
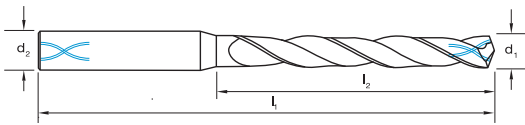
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Drills Carbide 5 x D, R30 VA Black Magic



- Excellent solution for stainless steels and difficult super alloy type materials
- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness



| | | |
|---------------------------|---------------------|---------------------|
| Catalogue Code | D358 | D359 |
| Discount Group | A0210 | A0210 |
| Material | VHM | VHM |
| Surface Finish | HELICA | HELICA |
| Colour Ring & Application | VA | VA |
| Geometry | R30 - IK | R30 - IK |
| Point Type | 140° 4 Facet Form C | 140° 4 Facet Form C |
| Shank Form (DIN 6535) | HA | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) |
|-----------|---------------------|----------------|----------------|---------------------|
| 0620 | 6.2 | 91 | 53 | 8 |
| 0630 | 6.3 | 91 | 53 | 8 |
| 0635 | 6.35 1/4 | 91 | 53 | 8 |
| 0640 | 6.4 | 91 | 53 | 8 |
| 0650 | 6.5 | 91 | 53 | 8 |
| 0660 | 6.6 | 91 | 53 | 8 |
| 0670 | 6.7 | 91 | 53 | 8 |
| 0676 | 6.76 17/64 | 91 | 53 | 8 |
| 0680 | 6.8 | 91 | 53 | 8 |
| 0690 | 6.9 | 91 | 53 | 8 |
| 0700 | 7.0 | 91 | 53 | 8 |
| 0710 | 7.1 | 91 | 53 | 8 |
| 0714 | 7.14 9/32 | 91 | 53 | 8 |
| 0720 | 7.2 | 91 | 53 | 8 |
| 0730 | 7.3 | 91 | 53 | 8 |
| 0740 | 7.4 | 91 | 53 | 8 |
| 0750 | 7.5 | 91 | 53 | 8 |
| 0754 | 7.54 19/64 | 91 | 53 | 8 |
| 0760 | 7.6 | 91 | 53 | 8 |
| 0770 | 7.7 | 91 | 53 | 8 |
| 0780 | 7.8 | 91 | 53 | 8 |
| 0790 | 7.9 | 91 | 53 | 8 |
| 0794 | 7.94 5/16 | 91 | 53 | 8 |
| 0800 | 8.0 | 91 | 53 | 8 |
| 0810 | 8.1 | 103 | 61 | 10 |
| 0820 | 8.2 | 103 | 61 | 10 |
| 0830 | 8.3 | 103 | 61 | 10 |
| 0833 | 8.33 21/64 | 103 | 61 | 10 |
| 0840 | 8.4 | 103 | 61 | 10 |
| 0850 | 8.5 | 103 | 61 | 10 |
| 0860 | 8.6 | 103 | 61 | 10 |
| 0870 | 8.7 | 103 | 61 | 10 |
| 0873 | 8.73 11/32 | 103 | 61 | 10 |
| 0880 | 8.8 | 103 | 61 | 10 |
| 0890 | 8.9 | 103 | 61 | 10 |
| 0900 | 9.0 | 103 | 61 | 10 |
| 0910 | 9.1 | 103 | 61 | 10 |
| 0913 | 9.13 23/64 | 103 | 61 | 10 |
| 0920 | 9.2 | 103 | 61 | 10 |
| 0930 | 9.3 | 103 | 61 | 10 |

| Item # | Item # |
|-----------|-----------|
| D358 0620 | D359 0620 |
| D358 0630 | D359 0630 |
| D358 0635 | D359 0635 |
| D358 0640 | D359 0640 |
| D358 0650 | D359 0650 |
| D358 0660 | D359 0660 |
| D358 0670 | D359 0670 |
| D358 0676 | D359 0676 |
| D358 0680 | D359 0680 |
| D358 0690 | D359 0690 |
| D358 0700 | D359 0700 |
| D358 0710 | D359 0710 |
| D358 0714 | D359 0714 |
| D358 0720 | D359 0720 |
| D358 0730 | D359 0730 |
| D358 0740 | D359 0740 |
| D358 0750 | D359 0750 |
| D358 0754 | D359 0754 |
| D358 0760 | D359 0760 |
| D358 0770 | D359 0770 |
| D358 0780 | D359 0780 |
| D358 0790 | D359 0790 |
| D358 0794 | D359 0794 |
| D358 0800 | D359 0800 |
| D358 0810 | D359 0810 |
| D358 0820 | D359 0820 |
| D358 0830 | D359 0830 |
| D358 0833 | D359 0833 |
| D358 0840 | D359 0840 |
| D358 0850 | D359 0850 |
| D358 0860 | D359 0860 |
| D358 0870 | D359 0870 |
| D358 0873 | D359 0873 |
| D358 0880 | D359 0880 |
| D358 0890 | D359 0890 |
| D358 0900 | D359 0900 |
| D358 0910 | D359 0910 |
| D358 0913 | D359 0913 |
| D358 0920 | D359 0920 |
| D358 0930 | D359 0930 |

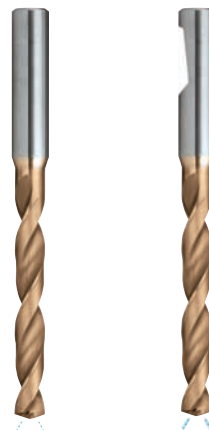
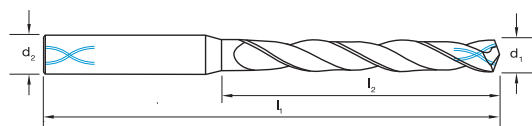
| ISO | P | | | | | | | M | | | | K | | | | N | | | | | | | S | | | | H | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | |
| D358 | ● | ● | ● | ● | ○ | ○ | ○ | ○ | | | | | | ● | ● | ● | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel **M** Stainless Steel **K** Cast Iron **N** Non-Ferrous Metals **S** Titanium & Super Alloys **H** Hard Materials ● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

suttontools BLACKMAGIC

- Excellent solution for stainless steels and difficult super alloy type materials
- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness



| | | |
|---------------------------|---------------------|---------------------|
| Catalogue Code | D358 | D359 |
| Discount Group | A0210 | A0210 |
| Material | VHM | VHM |
| Surface Finish | HELICA | HELICA |
| Colour Ring & Application | VA | VA |
| Geometry | R30 - IK | R30 - IK |
| Point Type | 140° 4 Facet Form C | 140° 4 Facet Form C |
| Shank Form (DIN 6535) | HA | HE |

| Size Ref. | d ₁ (m7) | L ₁ | L ₂ | d ₂ (h6) | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|
| 0940 | 9.4 | 103 | 61 | 10 | D358 0940 | D359 0940 |
| 0950 | 9.5 | 103 | 61 | 10 | D358 0950 | D359 0950 |
| 0953 | 9.53 3/8 | 103 | 61 | 10 | D358 0953 | D359 0953 |
| 0960 | 9.6 | 103 | 61 | 10 | D358 0960 | D359 0960 |
| 0970 | 9.7 | 103 | 61 | 10 | D358 0970 | D359 0970 |
| 0980 | 9.8 | 103 | 61 | 10 | D358 0980 | D359 0980 |
| 0990 | 9.9 | 103 | 61 | 10 | D358 0990 | D359 0990 |
| 0992 | 9.92 25/64 | 103 | 61 | 10 | D358 0992 | D359 0992 |
| 1000 | 10.0 | 103 | 61 | 10 | D358 1000 | D359 1000 |
| 1010 | 10.1 | 118 | 71 | 12 | D358 1010 | D359 1010 |
| 1020 | 10.2 | 118 | 71 | 12 | D358 1020 | D359 1020 |
| 1030 | 10.3 | 118 | 71 | 12 | D358 1030 | D359 1030 |
| 1032 | 10.32 13/32 | 118 | 71 | 12 | D358 1032 | D359 1032 |
| 1040 | 10.4 | 118 | 71 | 12 | D358 1040 | D359 1040 |
| 1050 | 10.5 | 118 | 71 | 12 | D358 1050 | D359 1050 |
| 1060 | 10.6 | 118 | 71 | 12 | D358 1060 | D359 1060 |
| 1070 | 10.7 | 118 | 71 | 12 | D358 1070 | D359 1070 |
| 1072 | 10.72 27/64 | 118 | 71 | 12 | D358 1072 | D359 1072 |
| 1080 | 10.8 | 118 | 71 | 12 | D358 1080 | D359 1080 |
| 1090 | 10.9 | 118 | 71 | 12 | D358 1090 | D359 1090 |
| 1100 | 11.0 | 118 | 71 | 12 | D358 1100 | D359 1100 |
| 1110 | 11.1 | 118 | 71 | 12 | D358 1110 | D359 1110 |
| 1111 | 11.11 7/16 | 118 | 71 | 12 | D358 1111 | D359 1111 |
| 1120 | 11.2 | 118 | 71 | 12 | D358 1120 | D359 1120 |
| 1130 | 11.3 | 118 | 71 | 12 | D358 1130 | D359 1130 |
| 1140 | 11.4 | 118 | 71 | 12 | D358 1140 | D359 1140 |
| 1150 | 11.5 | 118 | 71 | 12 | D358 1150 | D359 1150 |
| 1151 | 11.51 29/64 | 118 | 71 | 12 | D358 1151 | D359 1151 |
| 1160 | 11.6 | 118 | 71 | 12 | D358 1160 | D359 1160 |
| 1170 | 11.7 | 118 | 71 | 12 | D358 1170 | D359 1170 |
| 1180 | 11.8 | 118 | 71 | 12 | D358 1180 | D359 1180 |
| 1190 | 11.9 | 118 | 71 | 12 | D358 1190 | D359 1190 |
| 1191 | 11.91 15/32 | 118 | 71 | 12 | D358 1191 | D359 1191 |
| 1200 | 12.0 | 118 | 71 | 12 | D358 1200 | D359 1200 |
| 1231 | 12.30 31/64 | 124 | 77 | 14 | D358 1231 | D359 1231 |
| 1250 | 12.5 | 124 | 77 | 14 | D358 1250 | D359 1250 |
| 1269 | 12.70 1/2 | 124 | 77 | 14 | D358 1269 | D359 1269 |
| 1280 | 12.8 | 124 | 77 | 14 | D358 1280 | D359 1280 |
| 1300 | 13.0 | 124 | 77 | 14 | D358 1300 | D359 1300 |
| 1310 | 13.10 33/64 | 124 | 77 | 14 | D358 1310 | D359 1310 |

| ISO | P | | | | | | | | | | M | | | | K | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | | | | | | | | | |
| D358 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

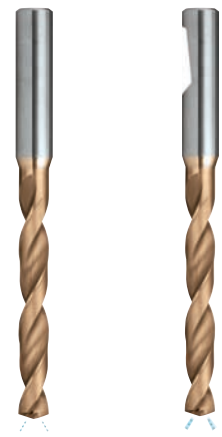
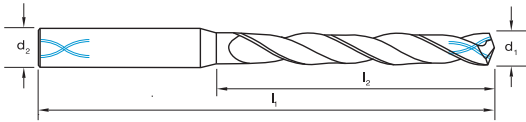
NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide 5 x D, R30 VA *Black Magic*

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- Optimised geometry ensures no work hardening and high productivity
- HELICA for outstanding oxidation resistance and hot hardness



| | | |
|---------------------------|---------------------|---------------------|
| Catalogue Code | D358 | D359 |
| Discount Group | A0210 | A0210 |
| Material | VHM | VHM |
| Surface Finish | HELICA | HELICA |
| Colour Ring & Application | VA | VA |
| Geometry | R30 - IK | R30 - IK |
| Point Type | 140° 4 Facet Form C | 140° 4 Facet Form C |
| Shank Form (DIN 6535) | HA | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|-----------|
| 1349 | 13.49 17/32 | 124 | 77 | 14 | D358 1349 | D359 1349 |
| 1350 | 13.5 | 124 | 77 | 14 | D358 1350 | D359 1350 |
| 1389 | 13.89 35/64 | 124 | 77 | 14 | D358 1389 | D359 1389 |
| 1400 | 14.0 | 124 | 77 | 14 | D358 1400 | D359 1400 |
| 1429 | 14.29 9/16 | 133 | 83 | 16 | D358 1429 | D359 1429 |
| 1450 | 14.5 | 133 | 83 | 16 | D358 1450 | D359 1450 |
| 1468 | 14.68 37/64 | 133 | 83 | 16 | D358 1468 | D359 1468 |
| 1500 | 15.0 | 133 | 83 | 16 | D358 1500 | D359 1500 |
| 1508 | 15.08 19/32 | 133 | 83 | 16 | D358 1508 | D359 1508 |
| 1548 | 15.48 39/64 | 133 | 83 | 16 | D358 1548 | D359 1548 |
| 1550 | 15.5 | 133 | 83 | 16 | D358 1550 | D359 1550 |
| 1588 | 15.88 5/8 | 133 | 83 | 16 | D358 1588 | D359 1588 |
| 1600 | 16.0 | 133 | 83 | 16 | D358 1600 | D359 1600 |
| 1650 | 16.5 | 143 | 93 | 18 | D358 1650 | D359 1650 |
| 1667 | 16.67 21/32 | 143 | 93 | 18 | D358 1667 | D359 1667 |
| 1700 | 17.0 | 143 | 93 | 18 | D358 1700 | D359 1700 |
| 1746 | 17.46 11/16 | 143 | 93 | 18 | D358 1746 | D359 1746 |
| 1750 | 17.5 | 143 | 93 | 18 | D358 1750 | D359 1750 |
| 1800 | 18.0 | 143 | 93 | 18 | D358 1800 | D359 1800 |
| 1826 | 18.26 23/32 | 153 | 101 | 20 | D358 1826 | D359 1826 |
| 1850 | 18.5 | 153 | 101 | 20 | D358 1850 | D359 1850 |
| 1900 | 19.0 | 153 | 101 | 20 | D358 1900 | D359 1900 |
| 1905 | 19.05 3/4 | 153 | 101 | 20 | D358 1905 | D359 1905 |
| 1950 | 19.5 | 153 | 101 | 20 | D358 1950 | D359 1950 |
| 2000 | 20.0 | 153 | 101 | 20 | D358 2000 | D359 2000 |

| ISO | P | | | | | | | | | | M | | | K | | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 |
| D358 | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

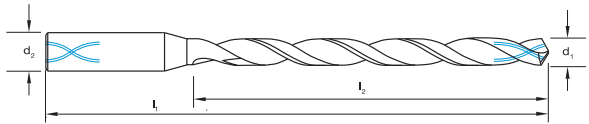
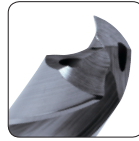
● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide, 8 x D, R30 N, IK

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D335 | D336 | D337 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 - IK | R30 - IK | R30 - IK |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) |
|-----------|---------------------|----------------|----------------|---------------------|
| 0300 | 3.0 | 72 | 34 | 6 |
| 0310 | 3.1 | 72 | 34 | 6 |
| 0318 | 3.18 1/8 | 72 | 34 | 6 |
| 0320 | 3.2 | 72 | 34 | 6 |
| 0330 | 3.3 | 72 | 34 | 6 |
| 0340 | 3.4 | 72 | 34 | 6 |
| 0350 | 3.5 | 72 | 34 | 6 |
| 0357 | 3.57 9/64 | 72 | 34 | 6 |
| 0360 | 3.6 | 72 | 34 | 6 |
| 0370 | 3.7 | 72 | 34 | 6 |
| 0380 | 3.8 | 81 | 43 | 6 |
| 0390 | 3.9 | 81 | 43 | 6 |
| 0397 | 3.97 5/32 | 81 | 43 | 6 |
| 0400 | 4.0 | 81 | 43 | 6 |
| 0410 | 4.1 | 81 | 43 | 6 |
| 0420 | 4.2 | 81 | 43 | 6 |
| 0430 | 4.3 | 81 | 43 | 6 |
| 0437 | 4.37 11/64 | 81 | 43 | 6 |
| 0440 | 4.4 | 81 | 43 | 6 |
| 0450 | 4.5 | 81 | 43 | 6 |
| 0460 | 4.6 | 81 | 43 | 6 |
| 0470 | 4.7 | 81 | 43 | 6 |
| 0476 | 4.76 3/16 | 81 | 43 | 6 |
| 0480 | 4.8 | 95 | 57 | 6 |
| 0490 | 4.9 | 95 | 57 | 6 |
| 0500 | 5.0 | 95 | 57 | 6 |
| 0510 | 5.1 | 95 | 57 | 6 |
| 0516 | 5.16 13/64 | 95 | 57 | 6 |
| 0520 | 5.2 | 95 | 57 | 6 |
| 0530 | 5.3 | 95 | 57 | 6 |
| 0540 | 5.4 | 95 | 57 | 6 |
| 0550 | 5.5 | 95 | 57 | 6 |
| 0556 | 5.56 7/32 | 95 | 57 | 6 |
| 0560 | 5.6 | 95 | 57 | 6 |
| 0570 | 5.7 | 95 | 57 | 6 |
| 0580 | 5.8 | 95 | 57 | 6 |
| 0590 | 5.9 | 95 | 57 | 6 |
| 0595 | 5.95 15/64 | 95 | 57 | 6 |
| 0600 | 6.0 | 95 | 57 | 6 |
| 0610 | 6.1 | 114 | 76 | 8 |

| Item # | Item # | Item # |
|-----------|-----------|-----------|
| D335 0300 | D336 0300 | D337 0300 |
| D335 0310 | D336 0310 | D337 0310 |
| D335 0318 | D336 0318 | D337 0318 |
| D335 0320 | D336 0320 | D337 0320 |
| D335 0330 | D336 0330 | D337 0330 |
| D335 0340 | D336 0340 | D337 0340 |
| D335 0350 | D336 0350 | D337 0350 |
| D335 0357 | D336 0357 | D337 0357 |
| D335 0360 | D336 0360 | D337 0360 |
| D335 0370 | D336 0370 | D337 0370 |
| D335 0380 | D336 0380 | D337 0380 |
| D335 0390 | D336 0390 | D337 0390 |
| D335 0397 | D336 0397 | D337 0397 |
| D335 0400 | D336 0400 | D337 0400 |
| D335 0410 | D336 0410 | D337 0410 |
| D335 0420 | D336 0420 | D337 0420 |
| D335 0430 | D336 0430 | D337 0430 |
| D335 0437 | D336 0437 | D337 0437 |
| D335 0440 | D336 0440 | D337 0440 |
| D335 0450 | D336 0450 | D337 0450 |
| D335 0460 | D336 0460 | D337 0460 |
| D335 0470 | D336 0470 | D337 0470 |
| D335 0476 | D336 0476 | D337 0476 |
| D335 0480 | D336 0480 | D337 0480 |
| D335 0490 | D336 0490 | D337 0490 |
| D335 0500 | D336 0500 | D337 0500 |
| D335 0510 | D336 0510 | D337 0510 |
| D335 0516 | D336 0516 | D337 0516 |
| D335 0520 | D336 0520 | D337 0520 |
| D335 0530 | D336 0530 | D337 0530 |
| D335 0540 | D336 0540 | D337 0540 |
| D335 0550 | D336 0550 | D337 0550 |
| D335 0556 | D336 0556 | D337 0556 |
| D335 0560 | D336 0560 | D337 0560 |
| D335 0570 | D336 0570 | D337 0570 |
| D335 0580 | D336 0580 | D337 0580 |
| D335 0590 | D336 0590 | D337 0590 |
| D335 0595 | D336 0595 | D337 0595 |
| D335 0600 | D336 0600 | D337 0600 |
| D335 0610 | D336 0610 | D337 0610 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|--|--|--|--|--|--|--|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | | | |
| D335 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | | | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

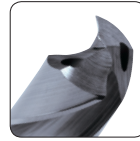
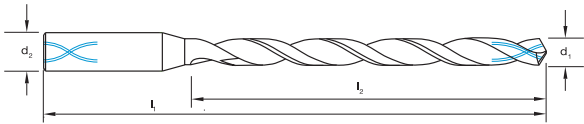
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

Drills Carbide, 8 x D, R30 N, IK

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



| | | | |
|---------------------------|--------------|--------------|--------------|
| Catalogue Code | D335 | D336 | D337 |
| Discount Group | A0210 | A0210 | A0210 |
| Material | VHM | VHM | VHM |
| Surface Finish | AlCrN | AlCrN | AlCrN |
| Colour Ring & Application | N | N | N |
| Geometry | R30 - IK | R30 - IK | R30 - IK |
| Point Type | 140° Form C | 140° Form C | 140° Form C |
| Shank Form (DIN 6535) | HA | HB | HE |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-------------|---------------------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 0620 | 6.2 | 114 | 76 | 8 | D335 0620 | D336 0620 | D337 0620 |
| 0630 | 6.3 | 114 | 76 | 8 | D335 0630 | D336 0630 | D337 0630 |
| 0635 | 6.35 1/4 | 114 | 76 | 8 | D335 0635 | D336 0635 | D337 0635 |
| 0640 | 6.4 | 114 | 76 | 8 | D335 0640 | D336 0640 | D337 0640 |
| 0650 | 6.5 | 114 | 76 | 8 | D335 0650 | D336 0650 | D337 0650 |
| 0660 | 6.6 | 114 | 76 | 8 | D335 0660 | D336 0660 | D337 0660 |
| 0670 | 6.7 | 114 | 76 | 8 | D335 0670 | D336 0670 | D337 0670 |
| 0676 | 6.76 17/64 | 114 | 76 | 8 | D335 0676 | D336 0676 | D337 0676 |
| 0680 | 6.8 | 114 | 76 | 8 | D335 0680 | D336 0680 | D337 0680 |
| 0690 | 6.9 | 114 | 76 | 8 | D335 0690 | D336 0690 | D337 0690 |
| 0700 | 7.0 | 114 | 76 | 8 | D335 0700 | D336 0700 | D337 0700 |
| 0710 | 7.1 | 114 | 76 | 8 | D335 0710 | D336 0710 | D337 0710 |
| 0714 | 7.14 9/32 | 114 | 76 | 8 | D335 0714 | D336 0714 | D337 0714 |
| 0720 | 7.2 | 114 | 76 | 8 | D335 0720 | D336 0720 | D337 0720 |
| 0730 | 7.3 | 114 | 76 | 8 | D335 0730 | D336 0730 | D337 0730 |
| 0740 | 7.4 | 114 | 76 | 8 | D335 0740 | D336 0740 | D337 0740 |
| 0750 | 7.5 | 114 | 76 | 8 | D335 0750 | D336 0750 | D337 0750 |
| 0754 | 7.54 19/64 | 114 | 76 | 8 | D335 0754 | D336 0754 | D337 0754 |
| 0760 | 7.6 | 114 | 76 | 8 | D335 0760 | D336 0760 | D337 0760 |
| 0770 | 7.7 | 114 | 76 | 8 | D335 0770 | D336 0770 | D337 0770 |
| 0780 | 7.8 | 114 | 76 | 8 | D335 0780 | D336 0780 | D337 0780 |
| 0790 | 7.9 | 114 | 76 | 8 | D335 0790 | D336 0790 | D337 0790 |
| 0794 | 7.94 5/16 | 114 | 76 | 8 | D335 0794 | D336 0794 | D337 0794 |
| 0800 | 8.0 | 114 | 76 | 8 | D335 0800 | D336 0800 | D337 0800 |
| 0810 | 8.1 | 142 | 95 | 10 | D335 0810 | D336 0810 | D337 0810 |
| 0820 | 8.2 | 142 | 95 | 10 | D335 0820 | D336 0820 | D337 0820 |
| 0830 | 8.3 | 142 | 95 | 10 | D335 0830 | D336 0830 | D337 0830 |
| 0833 | 8.33 21/64 | 142 | 95 | 10 | D335 0833 | D336 0833 | D337 0833 |
| 0840 | 8.4 | 142 | 95 | 10 | D335 0840 | D336 0840 | D337 0840 |
| 0850 | 8.5 | 142 | 95 | 10 | D335 0850 | D336 0850 | D337 0850 |
| 0860 | 8.6 | 142 | 95 | 10 | D335 0860 | D336 0860 | D337 0860 |
| 0870 | 8.7 | 142 | 95 | 10 | D335 0870 | D336 0870 | D337 0870 |
| 0873 | 8.73 11/32 | 142 | 95 | 10 | D335 0873 | D336 0873 | D337 0873 |
| 0880 | 8.8 | 142 | 95 | 10 | D335 0880 | D336 0880 | D337 0880 |
| 0890 | 8.9 | 142 | 95 | 10 | D335 0890 | D336 0890 | D337 0890 |
| 0900 | 9.0 | 142 | 95 | 10 | D335 0900 | D336 0900 | D337 0900 |
| 0910 | 9.1 | 142 | 95 | 10 | D335 0910 | D336 0910 | D337 0910 |
| 0913 | 9.13 23/64 | 142 | 95 | 10 | D335 0913 | D336 0913 | D337 0913 |
| 0920 | 9.2 | 142 | 95 | 10 | D335 0920 | D336 0920 | D337 0920 |
| 0930 | 9.3 | 142 | 95 | 10 | D335 0930 | D336 0930 | D337 0930 |

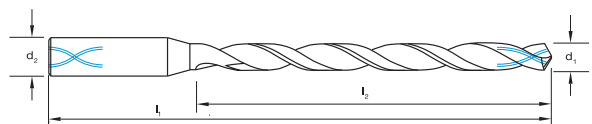
| ISO | P | | | | | | | | | | | M | | | K | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | |
| D335 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D335 | D336 | D337 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 - IK | R30 - IK | R30 - IK |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |
| Item # | Item # | Item # |

| Size Ref. | d ₁ (m7) | l ₁ | l ₂ | d ₂ (h6) |
|-----------|---------------------|----------------|----------------|---------------------|
| 0940 | 9.4 | 142 | 95 | 10 |
| 0950 | 9.5 | 142 | 95 | 10 |
| 0953 | 9.53 3/8 | 142 | 95 | 10 |
| 0960 | 9.6 | 142 | 95 | 10 |
| 0970 | 9.7 | 142 | 95 | 10 |
| 0980 | 9.8 | 142 | 95 | 10 |
| 0990 | 9.9 | 142 | 95 | 10 |
| 0992 | 9.92 25/64 | 142 | 95 | 10 |
| 1000 | 10.0 | 142 | 95 | 10 |
| 1010 | 10.1 | 162 | 114 | 12 |
| 1020 | 10.2 | 162 | 114 | 12 |
| 1030 | 10.3 | 162 | 114 | 12 |
| 1032 | 10.32 13/32 | 162 | 114 | 12 |
| 1040 | 10.4 | 162 | 114 | 12 |
| 1050 | 10.5 | 162 | 114 | 12 |
| 1060 | 10.6 | 162 | 114 | 12 |
| 1070 | 10.7 | 162 | 114 | 12 |
| 1080 | 10.8 | 162 | 114 | 12 |
| 1090 | 10.9 | 162 | 114 | 12 |
| 1100 | 11.0 | 162 | 114 | 12 |
| 1110 | 11.1 | 162 | 114 | 12 |
| 1111 | 11.11 7/16 | 162 | 114 | 12 |
| 1120 | 11.2 | 162 | 114 | 12 |
| 1130 | 11.3 | 162 | 114 | 12 |
| 1140 | 11.4 | 162 | 114 | 12 |
| 1150 | 11.5 | 162 | 114 | 12 |
| 1160 | 11.6 | 162 | 114 | 12 |
| 1170 | 11.7 | 162 | 114 | 12 |
| 1180 | 11.8 | 162 | 114 | 12 |
| 1190 | 11.9 | 162 | 114 | 12 |
| 1191 | 11.91 15/32 | 162 | 114 | 12 |
| 1200 | 12.0 | 162 | 114 | 12 |
| 1250 | 12.5 | 178 | 133 | 14 |
| 1269 | 12.70 1/2 | 178 | 133 | 14 |
| 1280 | 12.8 | 178 | 133 | 14 |
| 1300 | 13.0 | 178 | 133 | 14 |
| 1349 | 13.49 17/32 | 178 | 133 | 14 |
| 1350 | 13.5 | 178 | 133 | 14 |
| 1380 | 13.8 | 178 | 133 | 14 |
| 1400 | 14.0 | 178 | 133 | 14 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|---|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | | |
| D335 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

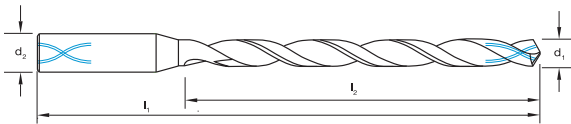
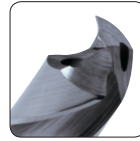
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Drills Carbide, 8 x D, R30 N, IK

suttontools

- Suitable for materials up to 1400N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D335 | D336 | D337 |
|-------------|-------------|-------------|
| A0210 | A0210 | A0210 |
| VHM | VHM | VHM |
| AlCrN | AlCrN | AlCrN |
| N | N | N |
| R30 - IK | R30 - IK | R30 - IK |
| 140° Form C | 140° Form C | 140° Form C |
| HA | HB | HE |

| Size Ref. | d ₁ (m7) | | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # | Item # |
|-----------|---------------------|-------|----------------|----------------|---------------------|-----------|-----------|-----------|
| 1429 | 14.29 | 9/16 | 203 | 152 | 16 | D335 1429 | D336 1429 | D337 1429 |
| 1450 | 14.5 | | 203 | 152 | 16 | D335 1450 | D336 1450 | D337 1450 |
| 1480 | 14.8 | | 203 | 152 | 16 | D335 1480 | D336 1480 | D337 1480 |
| 1500 | 15.0 | | 203 | 152 | 16 | D335 1500 | D336 1500 | D337 1500 |
| 1550 | 15.5 | | 203 | 152 | 16 | D335 1550 | D336 1550 | D337 1550 |
| 1580 | 15.8 | | 203 | 152 | 16 | D335 1580 | D336 1580 | D337 1580 |
| 1588 | 15.88 | 5/8 | 203 | 152 | 16 | D335 1588 | D336 1588 | D337 1588 |
| 1600 | 16.0 | | 203 | 152 | 16 | D335 1600 | D336 1600 | D337 1600 |
| 1650 | 16.5 | | 222 | 171 | 18 | D335 1650 | D336 1650 | D337 1650 |
| 1680 | 16.8 | | 222 | 171 | 18 | D335 1680 | D336 1680 | D337 1680 |
| 1700 | 17.0 | | 222 | 171 | 18 | D335 1700 | D336 1700 | D337 1700 |
| 1746 | 17.46 | 11/16 | 222 | 171 | 18 | D335 1746 | D336 1746 | D337 1746 |
| 1750 | 17.5 | | 222 | 171 | 18 | D335 1750 | D336 1750 | D337 1750 |
| 1780 | 17.8 | | 222 | 171 | 18 | D335 1780 | D336 1780 | D337 1780 |
| 1800 | 18.0 | | 222 | 171 | 18 | D335 1800 | D336 1800 | D337 1800 |
| 1850 | 18.5 | | 243 | 190 | 18 | D335 1850 | D336 1850 | D337 1850 |
| 1900 | 19.0 | | 243 | 190 | 20 | D335 1900 | D336 1900 | D337 1900 |
| 1905 | 19.05 | 3/4 | 243 | 190 | 20 | D335 1905 | D336 1905 | D337 1905 |
| 1950 | 19.5 | | 243 | 190 | 20 | D335 1950 | D336 1950 | D337 1950 |
| 1980 | 19.8 | | 243 | 190 | 20 | D335 1980 | D336 1980 | D337 1980 |
| 2000 | 20.0 | | 243 | 190 | 20 | D335 2000 | D336 2000 | D337 2000 |

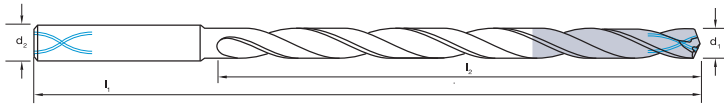
| ISO | P | | | | | | | | M | | | | | | K | | | | | | N | | | | | | S | | | | | | H | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | |
| D335 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

suttontools

- Suitable for materials up to 1200N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



| Size Ref. | d ₁ (h7) | l ₁ | l ₂ | D ₂ (h6) | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|
| 0300 | 3.0 | 90 | 50 | 6 | D371 0300 |
| 0310 | 3.1 | 90 | 50 | 6 | D371 0310 |
| 0318 | 3.18 1/8 | 90 | 50 | 6 | D371 0318 |
| 0320 | 3.2 | 90 | 50 | 6 | D371 0320 |
| 0330 | 3.3 | 90 | 50 | 6 | D371 0330 |
| 0340 | 3.4 | 90 | 50 | 6 | D371 0340 |
| 0350 | 3.5 | 90 | 50 | 6 | D371 0350 |
| 0357 | 3.57 9/64 | 90 | 50 | 6 | D371 0357 |
| 0360 | 3.6 | 90 | 50 | 6 | D371 0360 |
| 0370 | 3.7 | 90 | 50 | 6 | D371 0370 |
| 0380 | 3.8 | 102 | 64 | 6 | D371 0380 |
| 0390 | 3.9 | 102 | 64 | 6 | D371 0390 |
| 0397 | 3.97 5/32 | 102 | 64 | 6 | D371 0397 |
| 0400 | 4.0 | 102 | 64 | 6 | D371 0400 |
| 0410 | 4.1 | 102 | 64 | 6 | D371 0410 |
| 0420 | 4.2 | 102 | 64 | 6 | D371 0420 |
| 0430 | 4.3 | 102 | 64 | 6 | D371 0430 |
| 0437 | 4.37 9/64 | 102 | 64 | 6 | D371 0437 |
| 0440 | 4.4 | 102 | 64 | 6 | D371 0440 |
| 0450 | 4.5 | 102 | 64 | 6 | D371 0450 |
| 0460 | 4.6 | 102 | 64 | 6 | D371 0460 |
| 0470 | 4.7 | 102 | 64 | 6 | D371 0470 |
| 0476 | 4.76 3/16 | 102 | 64 | 6 | D371 0476 |
| 0480 | 4.8 | 116 | 78 | 6 | D371 0480 |
| 0490 | 4.9 | 116 | 78 | 6 | D371 0490 |
| 0500 | 5.0 | 116 | 78 | 6 | D371 0500 |
| 0510 | 5.1 | 116 | 78 | 6 | D371 0510 |
| 0516 | 5.16 13/64 | 116 | 78 | 6 | D371 0516 |
| 0520 | 5.2 | 116 | 78 | 6 | D371 0520 |
| 0530 | 5.3 | 116 | 78 | 6 | D371 0530 |
| 0540 | 5.4 | 116 | 78 | 6 | D371 0540 |
| 0550 | 5.5 | 116 | 78 | 6 | D371 0550 |
| 0556 | 5.56 7/32 | 116 | 78 | 6 | D371 0556 |
| 0560 | 5.6 | 116 | 78 | 6 | D371 0560 |
| 0570 | 5.7 | 116 | 78 | 6 | D371 0570 |
| 0580 | 5.8 | 116 | 78 | 6 | D371 0580 |
| 0590 | 5.9 | 116 | 78 | 6 | D371 0590 |
| 0595 | 5.95 15/64 | 116 | 78 | 6 | D371 0595 |
| 0600 | 6.0 | 116 | 78 | 6 | D371 0600 |
| 0610 | 6.1 | 146 | 108 | 8 | D371 0610 |



| | |
|---------------------------|------------------|
| Catalogue Code | D371 |
| Discount Group | A0210 |
| Material | VHM |
| Surface Finish | AlCrN Tip |
| Colour Ring & Application | N |
| Geometry | R30 - IK |
| Point Type | 135° Form C |
| Shank Form (DIN 6535) | HA |

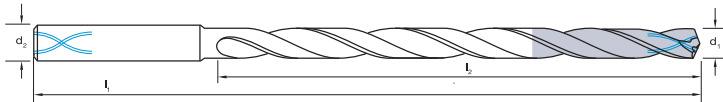
| ISO | P | | | | | | | | | | M | | K | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|--|--|--|--|--|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | |
| D371 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | ○ | ○ | | ● | ● | ● | ● | ○ | ○ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

suttontools

- Suitable for materials up to 1200N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



| | |
|---------------------------|------------------|
| Catalogue Code | D371 |
| Discount Group | A0210 |
| Material | VHM |
| Surface Finish | AlCrN Tip |
| Colour Ring & Application | N |
| Geometry | R30 - IK |
| Point Type | 135° Form C |
| Shank Form (DIN 6535) | HA |

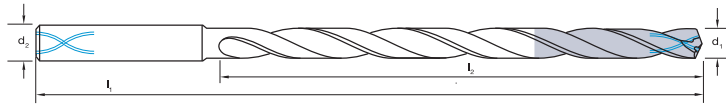
| Size Ref. | d ₁ (h7) | l ₁ | l ₂ | D ₂ (h6) | Item # |
|-------------|---------------------|----------------|----------------|---------------------|-----------|
| 0620 | 6.2 | 146 | 108 | 8 | D371 0620 |
| 0630 | 6.3 | 146 | 108 | 8 | D371 0630 |
| 0635 | 6.35 1/4 | 146 | 108 | 8 | D371 0635 |
| 0640 | 6.4 | 146 | 108 | 8 | D371 0640 |
| 0650 | 6.5 | 146 | 108 | 8 | D371 0650 |
| 0660 | 6.6 | 146 | 108 | 8 | D371 0660 |
| 0670 | 6.7 | 146 | 108 | 8 | D371 0670 |
| 0676 | 6.76 17/64 | 146 | 108 | 8 | D371 0676 |
| 0680 | 6.8 | 146 | 108 | 8 | D371 0680 |
| 0690 | 6.9 | 146 | 108 | 8 | D371 0690 |
| 0700 | 7.0 | 146 | 108 | 8 | D371 0700 |
| 0710 | 7.1 | 146 | 108 | 8 | D371 0710 |
| 0714 | 7.14 9/32 | 146 | 108 | 8 | D371 0714 |
| 0720 | 7.2 | 146 | 108 | 8 | D371 0720 |
| 0730 | 7.3 | 146 | 108 | 8 | D371 0730 |
| 0740 | 7.4 | 146 | 108 | 8 | D371 0740 |
| 0750 | 7.5 | 146 | 108 | 8 | D371 0750 |
| 0754 | 7.54 19/64 | 146 | 108 | 8 | D371 0754 |
| 0760 | 7.6 | 146 | 108 | 8 | D371 0760 |
| 0770 | 7.7 | 146 | 108 | 8 | D371 0770 |
| 0780 | 7.8 | 146 | 108 | 8 | D371 0780 |
| 0790 | 7.9 | 146 | 108 | 8 | D371 0790 |
| 0794 | 7.94 5/16 | 146 | 108 | 8 | D371 0794 |
| 0800 | 8.0 | 146 | 108 | 8 | D371 0800 |
| 0810 | 8.1 | 162 | 120 | 10 | D371 0810 |
| 0820 | 8.2 | 162 | 120 | 10 | D371 0820 |
| 0830 | 8.3 | 162 | 120 | 10 | D371 0830 |
| 0833 | 8.33 21/64 | 162 | 120 | 10 | D371 0833 |
| 0840 | 8.4 | 162 | 120 | 10 | D371 0840 |
| 0850 | 8.5 | 162 | 120 | 10 | D371 0850 |
| 0860 | 8.6 | 162 | 120 | 10 | D371 0860 |
| 0870 | 8.7 | 162 | 120 | 10 | D371 0870 |
| 0873 | 8.73 11/32 | 162 | 120 | 10 | D371 0873 |
| 0880 | 8.8 | 162 | 120 | 10 | D371 0880 |
| 0890 | 8.9 | 162 | 120 | 10 | D371 0890 |
| 0900 | 9.0 | 162 | 120 | 10 | D371 0900 |
| 0910 | 9.1 | 162 | 120 | 10 | D371 0910 |
| 0913 | 9.13 23/64 | 162 | 120 | 10 | D371 0913 |
| 0920 | 9.2 | 162 | 120 | 10 | D371 0920 |
| 0930 | 9.3 | 162 | 120 | 10 | D371 0930 |

| ISO | P | | | | | | | | | | | M | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | |
| D371 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

suttontools

- Suitable for materials up to 1200N/mm²
- Strong core with internal coolant supply
- Micro geometry & surface conditioning for optimal chip control
- AlCrN for maximum tool life



| Size Ref. | d ₁ (h7) | l ₁ | l ₂ | D ₂ (h6) | Item # |
|-----------|---------------------|----------------|----------------|---------------------|-----------|
| 0940 | 9.4 | 162 | 120 | 10 | D371 0940 |
| 0950 | 9.5 | 162 | 120 | 10 | D371 0950 |
| 0952 | 9.52 3/8 | 162 | 120 | 10 | D371 0952 |
| 0960 | 9.6 | 162 | 120 | 10 | D371 0960 |
| 0970 | 9.7 | 162 | 120 | 10 | D371 0970 |
| 0980 | 9.8 | 162 | 120 | 10 | D371 0980 |
| 0990 | 9.9 | 162 | 120 | 10 | D371 0990 |
| 0992 | 9.92 25/64 | 162 | 120 | 10 | D371 0992 |
| 1000 | 10.0 | 162 | 120 | 10 | D371 1000 |
| 1010 | 10.1 | 204 | 156 | 12 | D371 1010 |
| 1020 | 10.2 | 204 | 156 | 12 | D371 1020 |
| 1030 | 10.3 | 204 | 156 | 12 | D371 1030 |
| 1032 | 10.32 13/32 | 204 | 156 | 12 | D371 1032 |
| 1040 | 10.4 | 204 | 156 | 12 | D371 1040 |
| 1050 | 10.5 | 204 | 156 | 12 | D371 1050 |
| 1060 | 10.6 | 204 | 156 | 12 | D371 1060 |
| 1070 | 10.7 | 204 | 156 | 12 | D371 1070 |
| 1080 | 10.8 | 204 | 156 | 12 | D371 1080 |
| 1090 | 10.9 | 204 | 156 | 12 | D371 1090 |
| 1100 | 11.0 | 204 | 156 | 12 | D371 1100 |
| 1110 | 11.1 | 204 | 156 | 12 | D371 1110 |
| 1111 | 11.11 7/16 | 204 | 156 | 12 | D371 1111 |
| 1120 | 11.2 | 204 | 156 | 12 | D371 1120 |
| 1130 | 11.3 | 204 | 156 | 12 | D371 1130 |
| 1140 | 11.4 | 204 | 156 | 12 | D371 1140 |
| 1150 | 11.5 | 204 | 156 | 12 | D371 1150 |
| 1160 | 11.6 | 204 | 156 | 12 | D371 1160 |
| 1170 | 11.7 | 204 | 156 | 12 | D371 1170 |
| 1180 | 11.8 | 204 | 156 | 12 | D371 1180 |
| 1190 | 11.9 | 204 | 156 | 12 | D371 1190 |
| 1191 | 11.91 15/32 | 204 | 156 | 12 | D371 1191 |
| 1200 | 12.0 | 204 | 156 | 12 | D371 1200 |



| | |
|---------------------------|------------------|
| Catalogue Code | D371 |
| Discount Group | A0210 |
| Material | VHM |
| Surface Finish | AlCrN Tip |
| Colour Ring & Application | N |
| Geometry | R30 - IK |
| Point Type | 135° Form C |
| Shank Form (DIN 6535) | HA |

| ISO | P | | | | | | | | | | M | | | K | | | | | N | | | | | | | | | | S | | | | | | | | | | H | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|--|--|--|--|--|--|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | | | | | |
| D371 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | ○ | ○ | | ● | ● | ● | ● | ● | ○ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

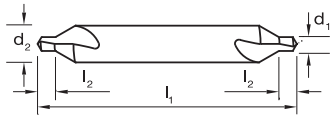
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

NOTE: HB & HE shanks available, subject to lead time.

suttontools

- Used to drill female 60° centre holes in the end of shafts and components, which will later revolve between centres
- Designed to maintain accurate centre holes on long production runs
- Also used to ensure accurate starting and centring when precision drilling is required
- Suitable for materials up to 1600N/mm²



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D318 | D319 |
|-------------|-------------|
| A0202 | A0206 |
| VHM | VHM |
| BrT | TiCN |
| N | N |
| Plain Type | Plain Type |
| 60° Stepped | 60° Stepped |
| HA | HA |

| Size Ref. | Size | d ₁ | l ₁ | l ₂ | d ₂ (h6) | Item # | Item # |
|-------------|----------|----------------|----------------|----------------|---------------------|-----------|-----------|
| 0001 | 1 | 3/64 | 1-1/4 | 1/16 | 1/8 | D318 0001 | D319 0001 |
| 0002 | 2 | 5/64 | 1-7/8 | 3/32 | 3/16 | D318 0002 | D319 0002 |
| 0003 | 3 | 7/64 | 2 | 9/64 | 1/4 | D318 0003 | D319 0003 |
| 0004 | 4 | 1/8 | 2-1/8 | 5/32 | 5/16 | D318 0004 | D319 0004 |
| 0005 | 5 | 3/16 | 2-3/4 | 1/4 | 7/16 | D318 0005 | D319 0005 |
| 0006 | 6 | 7/32 | 3 | 9/32 | 1/2 | D318 0006 | D319 0006 |

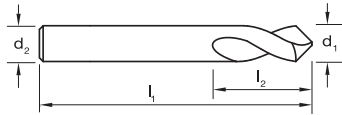
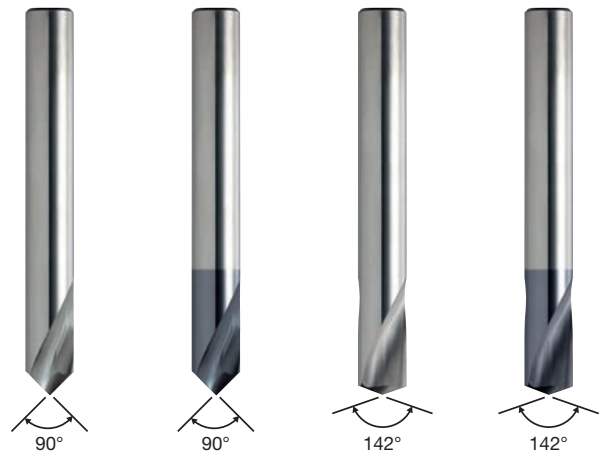
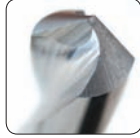
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| ISO | P | | | | | | | | | | M | | | | | K | | | | | N | | | | | S | | | | | H | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | | |
| D318 | | | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| D319 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

suttontools

- Precision drill for machine use
- Rigid design for "seat" position accuracy
- 90° offers hole chamfering & spotting with the one tool
- 142° for spotting, matching a typical drill point
- Only drill to the depth of the point
- Refer to HSS Drill section for HSS Spotting Drills.



Catalogue Code
Discount Group
Material
Surface Finish
Colour Ring & Application
Geometry
Point Type
Shank Form (DIN 6535)

| D355 | D364 | D365 | D366 |
|-------------|--------------|-------------|--------------|
| A0208 | A0210 | A0208 | A0210 |
| VHM | VHM | VHM | VHM |
| BrT | AlCrN | BrT | AlCrN |
| NC | NC | NC | NC |
| - | - | - | - |
| 90° Form A | 90° Form A | 142° Form A | 142° Form A |
| h9 | h9 | h9 | h9 |

| Size Ref. | d ₁ (h6) | l ₁ | l ₂ | d ₂ | Item # | Item # | Item # | Item # |
|-------------|---------------------|----------------|----------------|----------------|-----------|-----------|-----------|-----------|
| 0300 | 3.0 | 46 | 9 | 3.0 | D355 0300 | D364 0300 | D365 0300 | D366 0300 |
| 0400 | 4.0 | 55 | 12 | 4.0 | D355 0400 | D364 0400 | D365 0400 | D366 0400 |
| 0500 | 5.0 | 62 | 15 | 5.0 | D355 0500 | D364 0500 | D365 0500 | D366 0500 |
| 0600 | 6.0 | 66 | 18 | 6.0 | D355 0600 | D364 0600 | D365 0600 | D366 0600 |
| 0800 | 8.0 | 79 | 23 | 8.0 | D355 0800 | D364 0800 | D365 0800 | D366 0800 |
| 1000 | 10.0 | 89 | 24 | 10.0 | D355 1000 | D364 1000 | D365 1000 | D366 1000 |
| 1200 | 12.0 | 102 | 24 | 12.0 | D355 1200 | D364 1200 | D365 1200 | D366 1200 |
| 1600 | 16.0 | 115 | 26 | 16.0 | D355 1600 | D364 1600 | D365 1600 | D366 1600 |
| 2000 | 20.0 | 131 | 35 | 20.0 | D355 2000 | D364 2000 | D365 2000 | D366 2000 |

| ISO | P | | | | | | | | | | | | | M | | | K | | | | | | N | | | | | | S | | | | | | | | | | H | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|------|------|------|----|----|---|
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14.1 | 14.2 | 14.3 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 38.1 | 38.2 | 39.1 | 39.2 | 40 | 41 | |
| D355 | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| D364 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |