# NC-SPOTTING DRILLS

**D2306 SERIES**

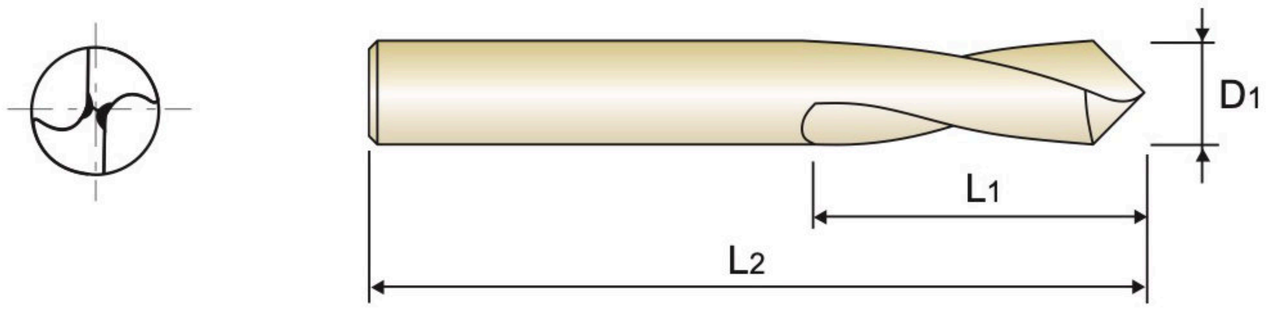
**D2321 SERIES**

## HSS Co8, NC-SPOTTING DRILLS 90°

**HSS Co8, NC-ANBOHRER 90°**
**Forets HSS Co8 à pointer NC 90°**
**PUNTE A CENTRARE NC 90°, HSS Co8**

▶**Application** : For more precise centering work on NC/CNC Machines.
The large diameter of the tool permits chamfering work after centering continuously.

▶**Verwendung** : Für positionsgenaues und schnelles Anbohren mit NC/CNC-Maschinen und Bearbeitungszentren, die Ausführung mit Spitzenwinkel 90° ermöglicht sowohl ein Zentrieren, als auch das Vorbohren für einen nächstgrößeren Durchmesser.




NC | HSS Co8 | h6 | h6 | 90° | Bright

p.A286

Recommended ToolHolder
Plain Shank
◎ NC DRILL CHUCK & OTHER TOOL HOLDERS
○ ER COLLET CHUCK

## LONG LENGTH

Unit : mm

| EDP No. | Drill Diameter D1 | Flute Length L1 | Overall Length L2 |
|---|---|---|---|
| D2306030 | 3.0 | 12 | 46 |
| D2306040 | 4.0 | 12 | 55 |
| D2306050 | 5.0 | 15 | 60 |
| D2306060 | 6.0 | 20 | 66 |
| D2306080 | 8.0 | 25 | 79 |
| D2306100 | 10.0 | 25 | 89 |
| D2306120 | 12.0 | 30 | 102 |
| D2306160 | 16.0 | 35 | 115 |
| D2306200 | 20.0 | 40 | 131 |

| EDP No. | Drill Diameter D1 | Flute Length L1 | Overall Length L2 |
|---|---|---|---|
| D2321030 | 3.0 | 12 | 80 |
| D2321040 | 4.0 | 12 | 100 |
| D2321050 | 5.0 | 15 | 120 |
| D2321060 | 6.0 | 20 | 140 |
| D2321080 | 8.0 | 25 | 140 |
| D2321100 | 10.0 | 25 | 170 |
| D2321120 | 12.0 | 30 | 170 |
| D2321160 | 16.0 | 35 | 200 |
| D2321200 | 20.0 | 40 | 200 |

▶ TiN, TiCN and TiAlN are available on your request.

◎ : Excellent ○ : Good

| ISO | P | | | | | | | | | | | M | | | K | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Non-alloy steel | | | | | Low alloy steel | | | | High alloyed steel, and tool steel | | Stainless steel | | | Grey cast iron | | Nodular cast iron | | Malleable cast iron | |
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| HRc | | 13 | 25 | 28 | 32 | 10 | 29 | 32 | 38 | 15 | 35 | 15 | 23 | 10 | 10 | 26 | 3 | 25 | | 21 |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 325 | 200 | 240 | 180 | 180 | 260 | 160 | 250 | 130 | 230 |
| Recommended | ◎ | ◎ | ◎ | | | ◎ | ○ | | | | | ○ | | | ◎ | ○ | ○ | | ○ | |

| ISO | N | | | | | | | | | | S | | | | | | | H | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Aluminum-wrought alloy | | Aluminum-cast, alloyed | | | Copper and Copper Alloys (Bronze / Brass) | | | Non Metallic Materials | | Heat Resistant Super Alloys | | | | | Titanium Alloys | | Hardened steel | | Chilled Cast Iron | Hardened Cast Iron |
| VDI 3323 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| HRc | | | | | | | | | | | 15 | 30 | 25 | 38 | 34 | | | 55 | 60 | 42 | 55 |
| HB | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 200 | 280 | 250 | 350 | 320 | 400 Rm | 1050 Rm | 550 | 630 | 400 | 550 |
| Recommended | ○ | ○ | ○ | | | | | | | | | | | | | | | | | | |