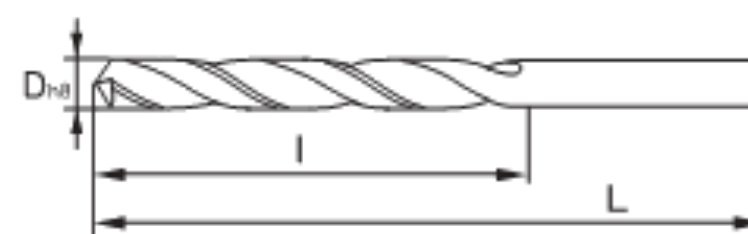



**ITEM: A1220**
**Geometry** Parabolic flute design with wide grooves to provide optimal chip removal, self centering point geometry

**Point angle** 130°

**Surface treatment** TiAlN

**Application** Particularly suitable for long chip materials with  $R \leq 1000 \text{ N/mm}^2$ , aluminium and copper alloys, soft bronzes, electrolytic copper and tough brass


|       |       |        |       |       |        |       |       |          |          |              |              |         |     |      |      |
|-------|-------|--------|-------|-------|--------|-------|-------|----------|----------|--------------|--------------|---------|-----|------|------|
| < 500 | < 850 | < 1200 | < 600 | < 850 | Duplex | < 240 | < 300 | < 10% Si | > 10% Si | Brass Copper | Bronze > 700 | Ti6Al4V | HTA | < 45 | < 60 |
| ○     | ●     | ○      | ●     | ●     |        |       |       | ○        | ○        | ●            | ●            |         |     |      |      |

**DRILL DIN 338**

| A1220      | Tech. Code |  | D<br>mm | I<br>mm | L<br>mm |  | A1220      | Tech. Code |    | D<br>mm  | I<br>mm | L<br>mm |  |
|------------|------------|--|---------|---------|---------|-------------------------------------------------------------------------------------|------------|------------|----|----------|---------|---------|-------------------------------------------------------------------------------------|
| HELIX FS/R | A12201     |  | 1.00    | 12      | 34      | 10                                                                                  | HELIX FS/R | A12204,7   |    | 4.70     | 47      | 80      | 10                                                                                  |
|            | A12201,1   |  | 1.10    | 14      | 36      |                                                                                     |            | 52         | 86 |          |         |         |                                                                                     |
|            | A12201,2   |  | 1.20    | 16      | 38      |                                                                                     |            |            |    | A12204,9 |         | 4.90    |                                                                                     |
|            | A12201,3   |  | 1.30    |         |         |                                                                                     |            |            |    | A12205   |         | 5.00    |                                                                                     |
|            | A12201,4   |  | 1.40    | 18      | 40      |                                                                                     |            |            |    | A12205,1 |         | 5.10    |                                                                                     |
|            | A12201,5   |  | 1.50    |         |         |                                                                                     |            | A12205,2   |    | 5.20     |         |         |                                                                                     |
|            | A12201,6   |  | 1.60    | 20      | 43      |                                                                                     |            | A12205,3   |    | 5.30     |         |         |                                                                                     |
|            | A12201,7   |  | 1.70    |         |         |                                                                                     |            | A12205,5   |    | 5.50     |         |         |                                                                                     |
|            | A12201,8   |  | 1.80    | 22      | 46      |                                                                                     |            | A12205,7   |    | 5.70     |         |         |                                                                                     |
|            | A12201,9   |  | 1.90    |         |         |                                                                                     |            | A12205,8   |    | 5.80     |         |         |                                                                                     |
|            | A12202     |  | 2.00    | 24      | 49      |                                                                                     |            | A12205,9   |    | 5.90     |         |         |                                                                                     |
|            | A12202,1   |  | 2.10    |         |         |                                                                                     |            | A12206     |    | 6.00     |         |         |                                                                                     |
|            | A12202,2   |  | 2.20    | 27      | 53      |                                                                                     |            | A12206,5   |    | 6.50     |         |         |                                                                                     |
|            | A12202,3   |  | 2.30    |         |         |                                                                                     |            | A12206,8   |    | 6.80     |         |         |                                                                                     |
|            | A12202,4   |  | 2.40    | 30      | 57      |                                                                                     |            | A12207     |    | 7.00     |         |         |                                                                                     |
|            | A12202,5   |  | 2.50    |         |         |                                                                                     |            | A12207,5   |    | 7.50     |         |         |                                                                                     |
|            | A12202,6   |  | 2.60    | 33      | 61      |                                                                                     |            | A12208     |    | 8.00     |         |         |                                                                                     |
|            | A12202,7   |  | 2.70    |         |         |                                                                                     |            | A12208,5   |    | 8.50     |         |         |                                                                                     |
|            | A12202,8   |  | 2.80    | 36      | 65      |                                                                                     |            | A12209     |    | 9.00     |         |         |                                                                                     |
|            | A12202,9   |  | 2.90    |         |         |                                                                                     |            | A12209,5   |    | 9.50     |         |         |                                                                                     |
|            | A12203     |  | 3.00    | 39      | 70      |                                                                                     |            | A122010    |    | 10.00    |         |         |                                                                                     |
|            | A12203,1   |  | 3.10    |         |         |                                                                                     |            | A122010,2  |    | 10.20    |         |         |                                                                                     |
|            | A12203,2   |  | 3.20    | 43      | 75      |                                                                                     |            | A122010,5  |    | 10.50    |         |         |                                                                                     |
|            | A12203,3   |  | 3.30    |         |         |                                                                                     |            | A122010,8  |    | 10.80    |         |         |                                                                                     |
|            | A12203,4   |  | 3.40    | 47      | 80      |                                                                                     |            | A122011    |    | 11.00    |         |         |                                                                                     |
|            | A12203,5   |  | 3.50    |         |         |                                                                                     |            | A122011,5  |    | 11.50    |         |         |                                                                                     |
|            | A12203,6   |  | 3.60    | 43      | 75      |                                                                                     |            | A122012    |    | 12.00    |         |         |                                                                                     |
|            | A12203,8   |  | 3.80    |         |         |                                                                                     |            | A122012,5  |    | 12.50    |         |         |                                                                                     |
|            | A12203,9   |  | 3.90    | 47      | 80      |                                                                                     |            | A122013    |    | 13.00    |         |         |                                                                                     |
|            | A12204     |  | 4.00    |         |         |                                                                                     |            | A122013,5  |    | 13.50    |         |         |                                                                                     |
|            | A12204,1   |  | 4.10    | 47      | 80      |                                                                                     |            | A122014    |    | 14.00    |         |         |                                                                                     |
|            | A12204,2   |  | 4.20    |         |         |                                                                                     |            | A122014,5  |    | 14.50    |         |         |                                                                                     |
|            | A12204,3   |  | 4.30    |         |         |                                                                                     |            | A122015    |    | 15.00    |         |         |                                                                                     |
|            | A12204,4   |  | 4.40    | 47      | 80      |                                                                                     |            | A122015,5  |    | 15.50    |         |         |                                                                                     |
|            | A12204,5   |  | 4.50    |         |         |                                                                                     |            | A122016    |    | 16.00    |         |         |                                                                                     |