

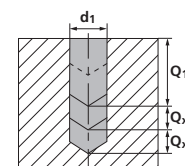
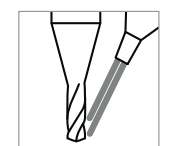
# Steel - 20 x d - non revêtu

RECOMMANDATION D'UTILISATION

● Parfaitement recommandé | ● Recommandé | ○ Peu recommandé | ☒ Non recommandé



## PERÇAGE AVEC REFROIDISSEMENT EXTERNE | VUE D'ENSEMBLE DES DONNÉES DE COUPE



| Groupe matériaux   | Matériau   | Mat. no.                | DIN                   | AISI/ASTM/UNS         | v <sub>c</sub> [m/min]                        |   | Q <sub>1</sub> | Q <sub>2</sub> | f [mm/tour] |               |               |               |               |          |   |       |       |
|--|--|-------------------------|-----------------------|-----------------------|---|---|----------------|----------------|-------------|---------------|---------------|---------------|---------------|----------|---|-------|-------|
|  |  |                         |                       |                       | ∅d1 ≤ 0.4                                     | ∅d1 > 0.4                                     |                |                | ∅d1         |               |               |               |               |          |   |       |       |
|  |  |                         |                       |                       |   |   |                |                | 0.1 mm f    | 0.2 mm f      | 0.3 mm f      | 0.4 mm f      | 0.6 mm f      | 0.8 mm f | 1.0 mm-1.2 mm f                               |       |       |
| P  | Aciers non alliés<br>Rm < 800 N/mm <sup>2</sup>        | 1.0301                  | C10                   | AISI 1010             | 5 - 40  | 40 - 60                                       | 7xd1           | 0.5xd1         | 0.002       | 0.005         | 0.010         | 0.015         | 0.030         | 0.040    | 0.060   |       |       |
|  |  | 1.0401                  | C15                   | AISI 1015             |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 1.1191                  | C45E/CK45             | AISI 1045             |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 1.0044                  | S275JR                | AISI 1020             |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 1.0715                  | 11SMn30               | AISI 1215             |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 1.5752                  | 15NiCr13              | ASTM 3415 / AISI 3310 |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  | Aciers faiblement alliés<br>Rm > 900 N/mm <sup>2</sup> | 1.7131                  | 16MnCr5               | AISI 5115             | 5 - 25  | 25 - 50                                       | 7xd1           | 0.5xd1         | 0.002       | 0.003 - 0.005 | 0.008 - 0.010 | 0.012 - 0.015 | 0.020 - 0.025 | 0.035    | 0.050   |       |       |
|  |  | 1.3505                  | 100Cr6                | AISI 52100            |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 1.7225                  | 42CrMo4               | AISI 4140             |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 1.2842                  | 90MnCrV8              | AISI O2               |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 1.2379                  | X153CrMoV12           | AISI D2               |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 1.2436                  | X210CrW12             | AISI D4/D6            |   |   |                |                |             |               |               |               |               |          |   |       |       |
| Aciers à outil fortement alliés<br>Rm < 1200 N/mm <sup>2</sup> | 1.3343   | HS6-5-2C                | AISI M2 / UNS T11302  | 5 - 20                | 20 - 35                                       | 7xd1  | 1xd1           | 0.0005         | 0.004       | 0.008         | 0.010         | 0.015         | 0.025         | 0.040    |   |       |       |
|  | 1.3355   | HS18-0-1                | AISI T1 / UNS T12001  |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  | 1.4016   | X6Cr17                  | AISI 430 / UNS S43000 |                       |   |   |                |                |             |               |               |               |               |          | Recommandé : CrazyDrill Flex SST-Inox 30 x d1 |       |       |
|  | 1.4105   | X6CrMoS17               | AISI 430F             |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  | 1.4034   | X46Cr13                 | AISI 420C             |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  | 1.4112   | X90CrMoV18              | AISI 440B             |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
| 1.4542   | X5CrNiCuNb 16-4  | AISI 630 / ASTM 17-4 PH |                       |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
| 1.4545   | X5CrNiCuNb 15-5  | ASTM 15-5 PH            |                       |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
| 1.4301   | X5CrNi 18-10   | AISI 304                |                       |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
| 1.4435   | X2CrNiMo 18-14-3                                       | AISI 316L               |                       |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
| 1.4441   | X2CrNiMo 18-15-3                                       | AISI 316LM              |                       |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
| 1.4539   | X1NiCrMoCu 25-20-5                                     | AISI 904L               |                       |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
| K  | Fonte grise  | 0.6020                  | GG20                  | ASTM 30               | 5 - 40  | 50 - 100                                      | 7xd1           | 1xd1           | 0.002       | 0.005         | 0.010         | 0.015         | 0.020         | 0.035    |   | 0.050 |       |
|  |  | 0.6030                  | GG30                  | ASTM 40B              |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 0.7040                  | GGG40                 | ASTM 60-40-18         |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 0.7060                  | GGG60                 | ASTM 80-60-03         |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 0.7060                  | GGG60                 | ASTM 80-60-03         |   |   |                |                |             |               |               |               |               |          |   |       |       |
| N  | Alliages d'aluminium corroyés                          | 3.2315                  | AlMgSi1               | ASTM 6351             | 5 - 40  | 60 - 120                                      | 7xd1           | 1xd1           | 0.003       | 0.015         | 0.040         | 0.050         | 0.080         | 0.100    | 0.120   |       |       |
|  |  | 3.4365                  | AlZnMgCu1.5           | ASTM 7075             |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  | Fonte d'aluminium                                      | 3.2163                  | GD-AlSi9Cu3           | ASTM A380             | 5 - 40  | 50 - 80                                       | 7xd1           | 1xd1           | 0.003       | 0.015         | 0.040         | 0.050         | 0.080         | 0.100    | 0.120   |       |       |
|  |  | 3.2381                  | GD-AlSi10Mg           | UNS A03590            |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  | Cuivre   | 2.004                   | Cu-OF / CW008A        | UNS C10100            | Recommandé : CrazyDrill Flex Titanium 30 x d1 |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 2.0065                  | Cu-ETP / CW004A       | UNS C11000            |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  | Laiton sans plomb                                      | 2.0321                  | CuZn37 CW508L         | UNS C27400            |   | Recommandé : CrazyDrill Flex SST-Inox 30 x d1 |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 2.036                   | CuZn40 CW509L         | UNS C28000            |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  | Laiton, Bronze<br>Rm < 400 N/mm <sup>2</sup>           | 2.0401                  | CuZn39Pb3 / CW614N    | UNS C38500            |   |   | 5 - 40         | 60 - 100       | 7xd1        | 1xd1          | 0.004         | 0.010         | 0.030         | 0.040    | 0.060   | 0.080 | 0.100 |
|  |  | 2.102                   | CuSn6                 | UNS C51900            |   |   |                |                |             |               |               |               |               |          |   |       |       |
| Bronze<br>Rm < 600 N/mm <sup>2</sup>                           | 2.0966   | CuAl10Ni5Fe4            | UNS C63000            | 5 - 20                |   |   | 20 - 40        | 2.5xd1         | 0.5xd1      | 0.002         | 0.004         | 0.006         | 0.010         | 0.015    | 0.025   | 0.040 |       |
|  | 2.096  | CuAl9Mn2                | UNS C63200            |                       |   |   |                |                |             |               |               |               |               |          |   |       |       |
| S <sub>1</sub>   | Super alliages   | 2.4856                  |                       | Inconel 625           |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 2.4668                  |                       | Inconel 718           |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 2.4617                  | NiMo28                | Hastelloy B-2         |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 2.4665                  | NiCr22Fe18Mo          | Hastelloy X           |   |   |                |                |             |               |               |               |               |          |   |       |       |
| S <sub>2</sub>   | Titane pur   | 3.7035                  | Gr.2                  | ASTM B348 / F67       |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 3.7065                  | Gr.4                  | ASTM B348 / F68       |   |   |                |                |             |               |               |               |               |          |   |       |       |
| S <sub>3</sub>   | Alliages de titane                                     | 3.7165                  | TiAl6V4               | ASTM B348 / F136      |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 9.9367                  | TiAl6Nb7              | ASTM F1295            |   |   |                |                |             |               |               |               |               |          |   |       |       |
| H <sub>1</sub>   | Aciers trempés < 55 HRC                                | 1.2510                  | 100MnCrMoW4           | AISI O1               |   |   |                |                |             |               |               |               |               |          |   |       |       |
|  |  | 1.2379                  | X153CrMoV12           | AISI D2               |   |   |                |                |             |               |               |               |               |          |   |       |       |