

Forets

Paramètres de coupe

| Vitesse moyenne de coupe en tours/min<br>par diamètre de foret et par matière* |      |             |        |           |
|--|------|-------------|--------|-----------|
| Ø  | Inox | Acier/Fonte | Cuivre | Aluminium |
| 1  | 4059 | 7162        | 10732  | 21486     |
| 2  | 2029 | 3581        | 5366   | 10743     |
| 3  | 1353 | 2387        | 3577   | 7162      |
| 4  | 1015 | 1791        | 2683   | 5372      |
| 5  | 812  | 1433        | 2146   | 4297      |
| 6  | 677  | 1194        | 1789   | 3581      |
| 7  | 580  | 1023        | 1533   | 3070      |
| 8  | 507  | 895         | 1341   | 2686      |
| 9  | 451  | 796         | 1192   | 2387      |
| 10   | 406  | 716         | 1073   | 2149      |
| 12   | 338  | 597         | 894    | 1791      |
| 14   | 290  | 512         | 767    | 1535      |
| 16   | 254  | 448         | 671    | 1343      |
| 18   | 226  | 398         | 596    | 1194      |
| 20   | 203  | 358         | 537    | 1074      |
| 22   | 185  | 326         | 488    | 977       |
| 24   | 169  | 299         | 447    | 895       |
| 26   | 156  | 276         | 413    | 826       |
| 28   | 145  | 256         | 383    | 767       |
| 30   | 135  | 239         | 358    | 717       |
| 32   | 127  | 224         | 335    | 672       |
| 34   | 119  | 211         | 316    | 632       |
| 36   | 113  | 199         | 298    | 597       |
| 38   | 107  | 189         | 282    | 565       |
| 40   | 101  | 179         | 268    | 537       |

Exemple : la vitesse moyenne conseillée pour percer l'aluminium avec un foret de Ø10mm est 2149 t/min.

\* avec un modèle de foret adapté à la matière concernée

Forets

Foret HSS extra court meulé cobalt 5% revêtu doré

| Ø   | Long. Totale | Long. Utile | Réf.      |
|-----|--------------|-------------|-----------|
| 2.0 | 38           | 12          | F.894.020 |
| 2.5 | 43           | 14          | F.894.025 |
| 3.0 | 46           | 16          | F.894.030 |
| 3.1 | 49           | 18          | F.894.031 |
| 3.2 | 49           | 18          | F.894.032 |
| 3.3 | 49           | 18          | F.894.033 |
| 3.5 | 52           | 20          | F.894.035 |
| 4.0 | 55           | 22          | F.894.040 |
| 4.1 | 55           | 22          | F.894.041 |
| 4.2 | 55           | 22          | F.894.042 |
| 4.5 | 58           | 24          | F.894.045 |
| 5.0 | 62           | 26          | F.894.050 |
| 5.2 | 62           | 26          | F.894.052 |
| 5.5 | 66           | 28          | F.894.055 |
| 6.0 | 66           | 28          | F.894.060 |
| 6.5 | 70           | 31          | F.894.065 |

| Ø    | Long. Totale | Long. Utile | Réf.      |
|------|--------------|-------------|-----------|
| 6.8  | 74           | 34          | F.894.068 |
| 7.0  | 74           | 34          | F.894.070 |
| 7.5  | 74           | 34          | F.894.075 |
| 8.0  | 79           | 37          | F.894.080 |
| 8.5  | 79           | 37          | F.894.085 |
| 9.0  | 84           | 40          | F.894.090 |
| 9.5  | 84           | 40          | F.894.095 |
| 10.0 | 89           | 43          | F.894.100 |
| 10.2 | 89           | 43          | F.894.102 |
| 10.5 | 89           | 43          | F.894.105 |
| 11.0 | 95           | 47          | F.894.110 |
| 11.5 | 95           | 47          | F.894.115 |
| 12.0 | 102          | 51          | F.894.120 |
| 12.5 | 102          | 51          | F.894.125 |
| 13.0 | 102          | 51          | F.894.130 |

Coupe : à droite  
Affûtage : en croix (auto-centreur)  
Norme : DIN 1897

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium
  
- Adapté
- Utilisation occasionnelle
- Inadapté



## Forets

## Foret HSS extra court meulé blanc

| Ø   | Long. totale | Long. Utile | Réf.      |
|-----|--------------|-------------|-----------|
| 2.0 | 38           | 12          | F.974.020 |
| 2.1 | 38           | 12          | F.974.021 |
| 2.2 | 40           | 13          | F.974.022 |
| 2.3 | 40           | 13          | F.974.023 |
| 2.4 | 43           | 14          | F.974.024 |
| 2.5 | 43           | 14          | F.974.025 |
| 2.6 | 43           | 14          | F.974.026 |
| 2.7 | 46           | 16          | F.974.027 |
| 2.8 | 46           | 16          | F.974.028 |
| 2.9 | 46           | 16          | F.974.029 |
| 3.0 | 46           | 16          | F.974.030 |
| 3.1 | 49           | 18          | F.974.031 |
| 3.2 | 49           | 18          | F.974.032 |
| 3.3 | 49           | 18          | F.974.033 |
| 3.4 | 52           | 20          | F.974.034 |
| 3.5 | 52           | 20          | F.974.035 |
| 3.6 | 52           | 20          | F.974.036 |
| 3.7 | 52           | 20          | F.974.037 |
| 3.8 | 55           | 22          | F.974.038 |
| 3.9 | 55           | 22          | F.974.039 |
| 4.0 | 55           | 22          | F.974.040 |
| 4.1 | 55           | 22          | F.974.041 |
| 4.2 | 55           | 22          | F.974.042 |
| 4.3 | 58           | 24          | F.974.043 |
| 4.4 | 58           | 24          | F.974.044 |
| 4.5 | 58           | 24          | F.974.045 |
| 4.6 | 58           | 24          | F.974.046 |
| 4.7 | 58           | 24          | F.974.047 |
| 4.8 | 62           | 26          | F.974.048 |
| 4.9 | 62           | 26          | F.974.049 |

| Ø    | Long. Totale | Long. Utile | Réf.      |
|------|--------------|-------------|-----------|
| 5.0  | 62           | 26          | F.974.050 |
| 5.1  | 62           | 26          | F.974.051 |
| 5.2  | 62           | 26          | F.974.052 |
| 5.3  | 62           | 26          | F.974.053 |
| 5.4  | 66           | 28          | F.974.054 |
| 5.5  | 66           | 28          | F.974.055 |
| 5.6  | 66           | 28          | F.974.056 |
| 5.7  | 66           | 28          | F.974.057 |
| 5.8  | 66           | 28          | F.974.058 |
| 5.9  | 66           | 28          | F.974.059 |
| 6.0  | 66           | 28          | F.974.060 |
| 6.5  | 70           | 31          | F.974.065 |
| 6.8  | 74           | 34          | F.974.068 |
| 7.0  | 74           | 34          | F.974.070 |
| 7.5  | 74           | 34          | F.974.075 |
| 8.0  | 79           | 37          | F.974.080 |
| 8.5  | 79           | 37          | F.974.085 |
| 9.0  | 84           | 40          | F.974.090 |
| 9.5  | 84           | 40          | F.974.095 |
| 10.0 | 89           | 43          | F.974.100 |
| 10.2 | 89           | 43          | F.974.102 |
| 10.5 | 89           | 43          | F.974.105 |
| 11.0 | 95           | 47          | F.974.110 |
| 11.5 | 95           | 47          | F.974.115 |
| 12.0 | 102          | 51          | F.974.120 |
| 12.5 | 102          | 51          | F.974.125 |
| 13.0 | 102          | 51          | F.974.130 |
| 14.0 | 107          | 54          | F.974.140 |
| 15.0 | 111          | 56          | F.974.150 |
| 16.0 | 115          | 58          | F.974.160 |

Coupe : à droite  
Affûtage : en croix (auto-centreur)  
Norme : DIN 1897

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium

- Adapté
- Utilisation occasionnelle
- Inadapté



## Forets

## Foret HSS coupe à gauche meulé blanc

| Ø   | Long. Totale | Long. Utile | Réf.      |
|-----|--------------|-------------|-----------|
| 1.0 | 34           | 12          | F.864.010 |
| 1.5 | 40           | 18          | F.864.015 |
| 2.0 | 49           | 24          | F.864.020 |
| 2.5 | 57           | 30          | F.864.025 |
| 3.0 | 61           | 33          | F.864.030 |
| 3.2 | 65           | 36          | F.864.032 |
| 3.3 | 65           | 36          | F.864.033 |
| 3.5 | 70           | 39          | F.864.035 |
| 4.0 | 95           | 43          | F.864.040 |
| 4.2 | 95           | 43          | F.864.042 |
| 4.5 | 80           | 47          | F.864.045 |
| 4.8 | 86           | 52          | F.864.048 |
| 5.0 | 86           | 52          | F.864.050 |
| 5.5 | 93           | 57          | F.864.055 |
| 6.0 | 93           | 57          | F.864.060 |
| 6.4 | 101          | 63          | F.864.064 |
| 6.5 | 101          | 63          | F.864.065 |

| Ø    | Long. Totale | Long. Utile | Réf.       |
|------|--------------|-------------|------------|
| 6.8  | 109          | 69          | F.864.068  |
| 7.0  | 109          | 69          | F.864.070  |
| 7.5  | 109          | 69          | F.864.075  |
| 8.0  | 117          | 75          | F.864.080  |
| 8.5  | 117          | 75          | F.864.085  |
| 8.7  | 125          | 81          | F.864.087  |
| 9.0  | 125          | 81          | F.864.090  |
| 9.5  | 125          | 81          | F.864.095  |
| 10.0 | 133          | 87          | F.864.10.0 |
| 10.2 | 133          | 87          | F.864.10.2 |
| 10.5 | 133          | 87          | F.864.10.5 |
| 11.0 | 142          | 94          | F.864.11.0 |
| 11.5 | 142          | 94          | F.864.11.5 |
| 12.0 | 151          | 101         | F.864.12.0 |
| 12.5 | 151          | 101         | F.864.12.5 |
| 13.0 | 151          | 101         | F.864.13.0 |

Coupe : **à gauche**  
Affûtage : en croix (auto-centreur)  
Norme : DIN 338

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium

- Adapté
- Utilisation occasionnelle
- Inadapté



Forets

Foret HSS meulé cobalt 5% revêtu doré



Coupe : à droite  
Affûtage : en croix (auto-centreur)  
Norme : DIN 338

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium

- Adapté
- Utilisation occasionnelle
- Inadapté

| Ø   | Long. Totale | Long. Utile | Réf.      |
|-----|--------------|-------------|-----------|
| 1.0 | 34           | 12          | F.890.010 |
| 1.1 | 36           | 14          | F.890.011 |
| 1.2 | 38           | 16          | F.890.012 |
| 1.3 | 38           | 16          | F.890.013 |
| 1.4 | 40           | 18          | F.890.014 |
| 1.5 | 40           | 18          | F.890.015 |
| 1.6 | 43           | 20          | F.890.016 |
| 1.7 | 43           | 20          | F.890.017 |
| 1.8 | 46           | 22          | F.890.018 |
| 1.9 | 46           | 22          | F.890.019 |
| 2.0 | 49           | 24          | F.890.020 |
| 2.1 | 49           | 24          | F.890.021 |
| 2.2 | 53           | 27          | F.890.022 |
| 2.3 | 53           | 27          | F.890.023 |
| 2.4 | 57           | 30          | F.890.024 |
| 2.5 | 57           | 30          | F.890.025 |
| 2.6 | 57           | 30          | F.890.026 |
| 2.7 | 61           | 33          | F.890.027 |
| 2.8 | 61           | 33          | F.890.028 |
| 2.9 | 61           | 33          | F.890.029 |
| 3.0 | 61           | 33          | F.890.030 |
| 3.1 | 65           | 36          | F.890.031 |
| 3.2 | 65           | 36          | F.890.032 |
| 3.3 | 65           | 36          | F.890.033 |
| 3.4 | 70           | 39          | F.890.034 |
| 3.5 | 70           | 39          | F.890.035 |
| 3.6 | 70           | 39          | F.890.036 |
| 3.7 | 70           | 39          | F.890.037 |
| 3.8 | 75           | 43          | F.890.038 |
| 3.9 | 75           | 43          | F.890.039 |
| 4.0 | 75           | 43          | F.890.040 |
| 4.1 | 75           | 43          | F.890.041 |
| 4.2 | 75           | 43          | F.890.042 |
| 4.3 | 80           | 47          | F.890.043 |
| 4.4 | 80           | 47          | F.890.044 |
| 4.5 | 80           | 47          | F.890.045 |
| 4.6 | 80           | 47          | F.890.046 |
| 4.7 | 80           | 47          | F.890.047 |
| 4.8 | 86           | 52          | F.890.048 |
| 4.9 | 86           | 52          | F.890.049 |
| 5.0 | 86           | 52          | F.890.050 |
| 5.1 | 86           | 52          | F.890.051 |
| 5.2 | 86           | 52          | F.890.052 |
| 5.3 | 86           | 52          | F.890.053 |
| 5.4 | 93           | 57          | F.890.054 |
| 5.5 | 93           | 57          | F.890.055 |
| 5.6 | 93           | 57          | F.890.056 |
| 5.7 | 93           | 57          | F.890.057 |
| 5.8 | 93           | 57          | F.890.058 |

| Ø    | Long. Totale | Long. Utile | Réf.      |
|------|--------------|-------------|-----------|
| 5.9  | 93           | 57          | F.890.059 |
| 6.0  | 93           | 57          | F.890.060 |
| 6.1  | 101          | 63          | F.890.061 |
| 6.2  | 101          | 63          | F.890.062 |
| 6.3  | 101          | 63          | F.890.063 |
| 6.4  | 101          | 63          | F.890.064 |
| 6.5  | 101          | 63          | F.890.065 |
| 6.6  | 101          | 63          | F.890.066 |
| 6.7  | 101          | 63          | F.890.067 |
| 6.8  | 109          | 69          | F.890.068 |
| 6.9  | 109          | 69          | F.890.069 |
| 7.0  | 109          | 69          | F.890.070 |
| 7.1  | 109          | 69          | F.890.071 |
| 7.2  | 109          | 69          | F.890.072 |
| 7.3  | 109          | 69          | F.890.073 |
| 7.4  | 109          | 69          | F.890.074 |
| 7.5  | 109          | 69          | F.890.075 |
| 7.6  | 117          | 75          | F.890.076 |
| 7.7  | 117          | 75          | F.890.077 |
| 7.8  | 117          | 75          | F.890.078 |
| 7.9  | 117          | 75          | F.890.079 |
| 8.0  | 117          | 75          | F.890.080 |
| 8.1  | 117          | 75          | F.890.081 |
| 8.2  | 117          | 75          | F.890.082 |
| 8.3  | 117          | 75          | F.890.083 |
| 8.4  | 117          | 75          | F.890.084 |
| 8.5  | 117          | 75          | F.890.085 |
| 8.6  | 125          | 81          | F.890.086 |
| 8.7  | 125          | 81          | F.890.087 |
| 8.8  | 125          | 81          | F.890.088 |
| 8.9  | 125          | 81          | F.890.089 |
| 9.0  | 125          | 81          | F.890.090 |
| 9.1  | 125          | 81          | F.890.091 |
| 9.2  | 125          | 81          | F.890.092 |
| 9.3  | 125          | 81          | F.890.093 |
| 9.4  | 125          | 81          | F.890.094 |
| 9.5  | 125          | 81          | F.890.095 |
| 9.6  | 125          | 81          | F.890.096 |
| 9.7  | 133          | 87          | F.890.097 |
| 9.8  | 133          | 87          | F.890.098 |
| 9.9  | 133          | 87          | F.890.099 |
| 10.0 | 133          | 87          | F.890.100 |
| 10.2 | 133          | 87          | F.890.102 |
| 10.5 | 133          | 87          | F.890.105 |
| 11.0 | 142          | 94          | F.890.110 |
| 11.5 | 142          | 94          | F.890.115 |
| 12.0 | 151          | 101         | F.890.120 |
| 12.5 | 151          | 101         | F.890.125 |
| 13.0 | 151          | 101         | F.890.130 |



| Description                        | Ø              | Réf.  |
|------------------------------------|----------------|-------|
| Coffret de 25 forets HSS cobalt 5% | 1 à 13 par 0,5 | F.891 |



Coupe : à droite  
Affûtage : en croix (auto-centreur)  
Norme : DIN 338

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium

- Adapté
- Utilisation occasionnelle
- Inadapté

| Ø   | Long. Totale | Long. Utile | Réf.      |
|-----|--------------|-------------|-----------|
| 1.0 | 34           | 12          | F.860.010 |
| 1.5 | 40           | 18          | F.860.015 |
| 2.0 | 49           | 24          | F.860.020 |
| 2.1 | 49           | 24          | F.860.021 |
| 2.2 | 53           | 27          | F.860.022 |
| 2.3 | 53           | 27          | F.860.023 |
| 2.4 | 57           | 30          | F.860.024 |
| 2.5 | 57           | 30          | F.860.025 |
| 2.6 | 57           | 30          | F.860.026 |
| 2.7 | 61           | 33          | F.860.027 |
| 2.8 | 61           | 33          | F.860.028 |
| 2.9 | 61           | 33          | F.860.029 |
| 3.0 | 61           | 33          | F.860.030 |
| 3.1 | 65           | 36          | F.860.031 |
| 3.2 | 65           | 36          | F.860.032 |
| 3.3 | 65           | 36          | F.860.033 |
| 3.4 | 70           | 39          | F.860.034 |
| 3.5 | 70           | 39          | F.860.035 |
| 3.6 | 70           | 39          | F.860.036 |
| 3.7 | 70           | 39          | F.860.037 |
| 3.8 | 75           | 43          | F.860.038 |
| 3.9 | 75           | 43          | F.860.039 |
| 4.0 | 75           | 43          | F.860.040 |
| 4.1 | 75           | 43          | F.860.041 |
| 4.2 | 75           | 43          | F.860.042 |
| 4.3 | 80           | 47          | F.860.043 |
| 4.4 | 80           | 47          | F.860.044 |
| 4.5 | 80           | 47          | F.860.045 |
| 4.6 | 80           | 47          | F.860.046 |
| 4.7 | 80           | 47          | F.860.047 |
| 4.8 | 86           | 52          | F.860.048 |
| 4.9 | 86           | 52          | F.860.049 |
| 5.0 | 86           | 52          | F.860.050 |
| 5.1 | 86           | 52          | F.860.051 |
| 5.2 | 86           | 52          | F.860.052 |
| 5.3 | 86           | 52          | F.860.053 |
| 5.4 | 93           | 57          | F.860.054 |
| 5.5 | 93           | 57          | F.860.055 |
| 5.6 | 93           | 57          | F.860.056 |
| 5.7 | 93           | 57          | F.860.057 |
| 5.8 | 93           | 57          | F.860.058 |
| 5.9 | 93           | 57          | F.860.059 |
| 6.0 | 93           | 57          | F.860.060 |
| 6.1 | 101          | 63          | F.860.061 |
| 6.2 | 101          | 63          | F.860.062 |

| Ø    | Long. Totale | Long. Utile | Réf.      |
|------|--------------|-------------|-----------|
| 6.3  | 101          | 63          | F.860.063 |
| 6.4  | 101          | 63          | F.860.064 |
| 6.5  | 101          | 63          | F.860.065 |
| 6.6  | 101          | 63          | F.860.066 |
| 6.7  | 101          | 63          | F.860.067 |
| 6.8  | 109          | 69          | F.860.068 |
| 6.9  | 109          | 69          | F.860.069 |
| 7.0  | 109          | 69          | F.860.070 |
| 7.1  | 109          | 69          | F.860.071 |
| 7.2  | 109          | 69          | F.860.072 |
| 7.3  | 109          | 69          | F.860.073 |
| 7.4  | 109          | 69          | F.860.074 |
| 7.5  | 109          | 69          | F.860.075 |
| 7.6  | 117          | 75          | F.860.076 |
| 7.7  | 117          | 75          | F.860.077 |
| 7.8  | 117          | 75          | F.860.078 |
| 7.9  | 117          | 75          | F.860.079 |
| 8.0  | 117          | 75          | F.860.080 |
| 8.1  | 117          | 75          | F.860.081 |
| 8.2  | 117          | 75          | F.860.082 |
| 8.3  | 117          | 75          | F.860.083 |
| 8.4  | 117          | 75          | F.860.084 |
| 8.5  | 117          | 75          | F.860.085 |
| 8.6  | 125          | 81          | F.860.086 |
| 8.7  | 125          | 81          | F.860.087 |
| 8.8  | 125          | 81          | F.860.088 |
| 8.9  | 125          | 81          | F.860.089 |
| 9.0  | 125          | 81          | F.860.090 |
| 9.1  | 125          | 81          | F.860.091 |
| 9.2  | 125          | 81          | F.860.092 |
| 9.3  | 125          | 81          | F.860.093 |
| 9.4  | 125          | 81          | F.860.094 |
| 9.5  | 125          | 81          | F.860.095 |
| 9.6  | 125          | 81          | F.860.096 |
| 9.7  | 133          | 87          | F.860.097 |
| 9.8  | 133          | 87          | F.860.098 |
| 9.9  | 133          | 87          | F.860.099 |
| 10.0 | 133          | 87          | F.860.100 |
| 10.2 | 133          | 87          | F.860.102 |
| 10.5 | 133          | 87          | F.860.105 |
| 11.0 | 142          | 94          | F.860.110 |
| 11.5 | 142          | 94          | F.860.115 |
| 12.0 | 151          | 101         | F.860.120 |
| 12.5 | 151          | 101         | F.860.125 |
| 13.0 | 151          | 101         | F.860.130 |



| Description                            | Ø              | Réf.  |
|--|----------------|-------|
| Coffret de 25 forets HSS meulés blancs | 1 à 13 par 0,5 | F.861 |

## ■ OUTILS COUPANTS

### Forets

### Foret HSS meulé queue de 13 cobalt 5%

Coupe : à droite  
Affûtage : standard  
Norme : DIN 338

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium
  
- Adapté
- Utilisation occasionnelle
- Inadapté



| Ø    | Long. Tot. | Long. Utile | Réf.      |
|------|------------|-------------|-----------|
| 13.5 | 160        | 108         | F.998.135 |
| 14.0 | 160        | 108         | F.998.140 |
| 14.5 | 169        | 114         | F.998.145 |
| 15.0 | 169        | 114         | F.998.150 |
| 15.5 | 178        | 120         | F.998.155 |
| 16.0 | 178        | 120         | F.998.160 |
| 16.5 | 184        | 125         | F.998.165 |

| Ø    | Long. Tot. | Long. Utile | Réf.      |
|------|------------|-------------|-----------|
| 17.0 | 184        | 125         | F.998.170 |
| 17.5 | 191        | 130         | F.998.175 |
| 18.0 | 191        | 130         | F.998.180 |
| 18.5 | 198        | 135         | F.998.185 |
| 19.0 | 198        | 135         | F.998.190 |
| 19.5 | 205        | 140         | F.998.195 |
| 20.0 | 205        | 140         | F.998.200 |

### Forets

### Foret HSS meulé queue de 13

Coupe : à droite  
Affûtage : standard  
Norme : DIN 338

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium
  
- Adapté
- Utilisation occasionnelle
- Inadapté



| Ø    | Long. Totale | Long. Utile | Réf.      |
|------|--------------|-------------|-----------|
| 13.5 | 160          | 108         | F.968.135 |
| 14.0 | 160          | 108         | F.968.140 |
| 14.5 | 169          | 114         | F.968.145 |
| 15.0 | 169          | 114         | F.968.150 |
| 15.5 | 178          | 120         | F.968.155 |
| 16.0 | 178          | 120         | F.968.160 |
| 17.0 | 184          | 125         | F.968.170 |
| 18.0 | 191          | 130         | F.968.180 |
| 19.0 | 198          | 135         | F.968.190 |
| 20.0 | 205          | 140         | F.968.200 |

### Forets

### Foret HSS laminé queue de 13

Coupe : à droite  
Affûtage : standard  
Norme : DIN 338

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium
  
- Adapté
- Utilisation occasionnelle
- Inadapté



| Ø    | Long. Tot. | Long. Utile | Réf.      |
|------|------------|-------------|-----------|
| 13.5 | 160        | 108         | F.228.135 |
| 14.0 | 160        | 108         | F.228.140 |
| 14.5 | 169        | 114         | F.228.145 |
| 15.0 | 169        | 114         | F.228.150 |
| 15.5 | 178        | 120         | F.228.155 |
| 16.0 | 178        | 120         | F.228.160 |
| 16.5 | 184        | 125         | F.228.165 |
| 17.0 | 184        | 125         | F.228.170 |
| 17.5 | 191        | 130         | F.228.175 |
| 18.0 | 191        | 130         | F.228.180 |
| 18.5 | 198        | 135         | F.228.185 |
| 19.0 | 198        | 135         | F.228.190 |

| Ø    | Long. Tot. | Long. Utile | Réf.      |
|------|------------|-------------|-----------|
| 19.5 | 205        | 140         | F.228.195 |
| 20.0 | 205        | 140         | F.228.200 |
| 21.0 | 205        | 145         | F.228.210 |
| 22.0 | 210        | 150         | F.228.220 |
| 23.0 | 215        | 155         | F.228.230 |
| 24.0 | 220        | 160         | F.228.240 |
| 25.0 | 220        | 160         | F.228.250 |
| 26.0 | 235        | 165         | F.228.260 |
| 27.0 | 235        | 170         | F.228.270 |
| 28.0 | 235        | 170         | F.228.280 |
| 29.0 | 240        | 175         | F.228.290 |
| 30.0 | 240        | 175         | F.228.300 |



Coupe : à droite  
Affûtage : standard (A  
Ø>14)

Norme : DIN 345

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium
  
- Adapté
- Utilisation occasionnelle
- Inadapté

| Ø    | Long. Totale | Long. Utile | CM | Réf.      |
|------|--------------|-------------|----|-----------|
| 10.0 | 168          | 87          | 1  | F.321.100 |
| 10.5 | 168          | 87          | 1  | F.321.105 |
| 11.0 | 175          | 94          | 1  | F.321.110 |
| 11.5 | 175          | 94          | 1  | F.321.115 |
| 12.0 | 182          | 101         | 1  | F.321.120 |
| 12.5 | 182          | 101         | 1  | F.321.125 |
| 13.0 | 182          | 101         | 1  | F.321.130 |
| 13.5 | 189          | 108         | 1  | F.321.135 |
| 14.0 | 189          | 108         | 1  | F.321.140 |
| 14.5 | 212          | 114         | 2  | F.321.145 |
| 15.0 | 212          | 114         | 2  | F.321.150 |
| 15.5 | 218          | 120         | 2  | F.321.155 |
| 16.0 | 218          | 120         | 2  | F.321.160 |
| 16.5 | 223          | 125         | 2  | F.321.165 |
| 17.0 | 223          | 125         | 2  | F.321.170 |
| 17.5 | 228          | 130         | 2  | F.321.175 |
| 18.0 | 228          | 130         | 2  | F.321.180 |
| 18.5 | 233          | 135         | 2  | F.321.185 |
| 19.0 | 233          | 135         | 2  | F.321.190 |
| 19.5 | 238          | 140         | 2  | F.321.195 |
| 20.0 | 238          | 140         | 2  | F.321.200 |
| 20.5 | 243          | 145         | 2  | F.321.205 |
| 21.0 | 243          | 145         | 2  | F.321.210 |
| 21.5 | 248          | 150         | 2  | F.321.215 |
| 22.0 | 248          | 150         | 2  | F.321.220 |
| 22.5 | 253          | 155         | 2  | F.321.225 |
| 23.0 | 253          | 155         | 2  | F.321.230 |

| Ø    | Long. Totale | Long. Utile | CM | Réf.      |
|------|--------------|-------------|----|-----------|
| 23.5 | 276          | 155         | 3  | F.321.235 |
| 24.0 | 281          | 160         | 3  | F.321.240 |
| 24.5 | 281          | 160         | 3  | F.321.245 |
| 25.0 | 281          | 160         | 3  | F.321.250 |
| 25.5 | 286          | 165         | 3  | F.321.255 |
| 26.0 | 286          | 165         | 3  | F.321.260 |
| 26.5 | 286          | 165         | 3  | F.321.265 |
| 27.0 | 291          | 170         | 3  | F.321.270 |
| 27.5 | 291          | 170         | 3  | F.321.275 |
| 28.0 | 291          | 170         | 3  | F.321.280 |
| 28.5 | 296          | 175         | 3  | F.321.285 |
| 29.0 | 296          | 175         | 3  | F.321.290 |
| 29.5 | 296          | 175         | 3  | F.321.295 |
| 30.0 | 296          | 175         | 3  | F.321.300 |
| 30.5 | 301          | 180         | 3  | F.321.305 |
| 31.0 | 301          | 180         | 3  | F.321.310 |
| 31.5 | 301          | 180         | 3  | F.321.315 |
| 32.0 | 334          | 185         | 4  | F.321.320 |
| 32.5 | 334          | 185         | 4  | F.321.325 |
| 33.0 | 334          | 185         | 4  | F.321.330 |
| 34.0 | 339          | 190         | 4  | F.321.340 |
| 35.0 | 339          | 190         | 4  | F.321.350 |
| 36.0 | 344          | 195         | 4  | F.321.360 |
| 37.0 | 344          | 195         | 4  | F.321.370 |
| 38.0 | 349          | 200         | 4  | F.321.380 |
| 39.0 | 349          | 200         | 4  | F.321.390 |
| 40.0 | 349          | 200         | 4  | F.321.400 |

Forets

Foret HSS meulé queue cône morse



Coupe : à droite  
Affûtage : standard (A  
Ø>14)  
Norme : DIN 345

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium
  
- Adapté
- Utilisation occasionnelle
- Inadapté

| Ø     | Long. Totale | Long. Utile | CM | Réf.      |
|-------|--------------|-------------|----|-----------|
| 5.0   | 133          | 52          | 1  | F.980.050 |
| 5.5   | 138          | 57          | 1  | F.980.055 |
| 6.0   | 138          | 57          | 1  | F.980.060 |
| 6.5   | 144          | 63          | 1  | F.980.065 |
| 6.8   | 144          | 63          | 1  | F.980.068 |
| 7.00  | 150          | 69          | 1  | F.980.070 |
| 7.50  | 150          | 69          | 1  | F.980.075 |
| 8.00  | 156          | 75          | 1  | F.980.080 |
| 8.50  | 156          | 75          | 1  | F.980.085 |
| 9.00  | 162          | 81          | 1  | F.980.090 |
| 9.50  | 162          | 81          | 1  | F.980.095 |
| 10.00 | 168          | 87          | 1  | F.980.100 |
| 10.20 | 168          | 87          | 1  | F.980.102 |
| 10.50 | 168          | 87          | 1  | F.980.105 |
| 11.00 | 175          | 94          | 1  | F.980.110 |
| 11.50 | 175          | 94          | 1  | F.980.115 |
| 12.00 | 182          | 101         | 1  | F.980.120 |
| 12.50 | 182          | 101         | 1  | F.980.125 |
| 13.00 | 182          | 101         | 1  | F.980.130 |
| 13.50 | 189          | 108         | 1  | F.980.135 |
| 14.00 | 189          | 108         | 1  | F.980.140 |
| 14.50 | 212          | 114         | 2  | F.980.145 |
| 15.00 | 212          | 114         | 2  | F.980.150 |
| 15.50 | 218          | 120         | 2  | F.980.155 |
| 16.00 | 218          | 120         | 2  | F.980.160 |
| 16.50 | 223          | 125         | 2  | F.980.165 |
| 17.00 | 223          | 125         | 2  | F.980.170 |
| 17.50 | 228          | 130         | 2  | F.980.175 |
| 18.00 | 228          | 130         | 2  | F.980.180 |
| 18.50 | 233          | 135         | 2  | F.980.185 |
| 19.00 | 233          | 135         | 2  | F.980.190 |
| 19.50 | 238          | 140         | 2  | F.980.195 |
| 20.00 | 238          | 140         | 2  | F.980.200 |
| 20.50 | 243          | 145         | 2  | F.980.205 |
| 21.00 | 243          | 145         | 2  | F.980.210 |
| 21.50 | 248          | 150         | 2  | F.980.215 |
| 22.00 | 248          | 150         | 2  | F.980.220 |
| 22.50 | 253          | 155         | 2  | F.980.225 |
| 23.00 | 253          | 155         | 2  | F.980.230 |
| 23.50 | 276          | 155         | 3  | F.980.235 |
| 24.00 | 281          | 160         | 3  | F.980.240 |
| 24.50 | 281          | 160         | 3  | F.980.245 |
| 25.00 | 281          | 160         | 3  | F.980.250 |

| Ø     | Long. Totale | Long. Utile | CM | Réf.      |
|-------|--------------|-------------|----|-----------|
| 25.50 | 286          | 165         | 3  | F.980.255 |
| 26.00 | 286          | 165         | 3  | F.980.260 |
| 26.50 | 286          | 165         | 3  | F.980.265 |
| 27.00 | 291          | 170         | 3  | F.980.270 |
| 27.50 | 291          | 170         | 3  | F.980.275 |
| 28.00 | 291          | 170         | 3  | F.980.280 |
| 28.50 | 296          | 175         | 3  | F.980.285 |
| 29.00 | 296          | 175         | 3  | F.980.290 |
| 29.50 | 296          | 175         | 3  | F.980.295 |
| 30.00 | 296          | 175         | 3  | F.980.300 |
| 30.50 | 301          | 180         | 3  | F.980.305 |
| 31.00 | 301          | 180         | 3  | F.980.310 |
| 31.50 | 301          | 180         | 3  | F.980.315 |
| 32.00 | 334          | 185         | 4  | F.980.320 |
| 33.00 | 334          | 185         | 4  | F.980.330 |
| 34.00 | 339          | 190         | 4  | F.980.340 |
| 35.00 | 339          | 190         | 4  | F.980.350 |
| 36.00 | 344          | 195         | 4  | F.980.360 |
| 37.00 | 344          | 195         | 4  | F.980.370 |
| 38.00 | 349          | 200         | 4  | F.980.380 |
| 39.00 | 349          | 200         | 4  | F.980.390 |
| 40.00 | 349          | 200         | 4  | F.980.400 |
| 41.00 | 354          | 205         | 4  | F.980.410 |
| 42.00 | 354          | 205         | 4  | F.980.420 |
| 43.00 | 359          | 210         | 4  | F.980.430 |
| 44.00 | 359          | 210         | 4  | F.980.440 |
| 45.00 | 359          | 210         | 4  | F.980.450 |
| 46.00 | 364          | 215         | 4  | F.980.460 |
| 47.00 | 364          | 215         | 4  | F.980.470 |
| 48.00 | 369          | 220         | 4  | F.980.480 |
| 49.00 | 369          | 220         | 4  | F.980.490 |
| 50.00 | 369          | 220         | 4  | F.980.500 |
| 51.00 | 412          | 225         | 5  | F.980.510 |
| 52.00 | 412          | 225         | 5  | F.980.520 |
| 53.00 | 412          | 225         | 5  | F.980.530 |
| 54.00 | 417          | 230         | 5  | F.980.540 |
| 55.00 | 417          | 230         | 5  | F.980.550 |
| 56.00 | 417          | 230         | 5  | F.980.560 |
| 57.00 | 422          | 235         | 5  | F.980.570 |
| 58.00 | 422          | 235         | 5  | F.980.580 |
| 59.00 | 422          | 235         | 5  | F.980.590 |
| 60.00 | 422          | 235         | 5  | F.980.600 |



Coupe : à droite  
Affûtage : standard (A  
Ø>14)  
Norme : DIN 345

- Fonte
- Acier doux / mi-dur
- Acier dur
- Inox
- Aluminium

- Adapté
- Utilisation occasionnelle
- Inadapté

| Ø     | Long. Totale | Long. Utile | CM | Réf.       |
|-------|--------------|-------------|----|------------|
| 8.0   | 156          | 75          | 1  | F.444.080  |
| 8.50  | 156          | 75          | 1  | F.444.085  |
| 9.00  | 162          | 81          | 1  | F.444.090  |
| 9.50  | 162          | 81          | 1  | F.444.095  |
| 10.00 | 168          | 87          | 1  | F.444.100  |
| 10.20 | 168          | 87          | 1  | F.444.102  |
| 10.25 | 168          | 87          | 1  | F.444.1025 |
| 10.50 | 168          | 87          | 1  | F.444.105  |
| 10.75 | 175          | 94          | 1  | F.444.1075 |
| 11.00 | 175          | 94          | 1  | F.444.110  |
| 11.25 | 175          | 94          | 1  | F.444.1125 |
| 11.50 | 175          | 94          | 1  | F.444.115  |
| 11.75 | 175          | 94          | 1  | F.444.1175 |
| 12.00 | 182          | 101         | 1  | F.444.120  |
| 12.25 | 182          | 101         | 1  | F.444.1225 |
| 12.50 | 182          | 101         | 1  | F.444.125  |
| 12.75 | 182          | 101         | 1  | F.444.1275 |
| 13.00 | 182          | 101         | 1  | F.444.130  |
| 13.25 | 189          | 108         | 1  | F.444.1325 |
| 13.50 | 189          | 108         | 1  | F.444.135  |
| 13.75 | 189          | 108         | 1  | F.444.1375 |
| 14.00 | 189          | 108         | 1  | F.444.140  |
| 14.25 | 212          | 114         | 2  | F.444.1425 |
| 14.50 | 212          | 114         | 2  | F.444.145  |
| 14.75 | 212          | 114         | 2  | F.444.1475 |
| 15.00 | 212          | 114         | 2  | F.444.150  |
| 15.25 | 218          | 120         | 2  | F.444.1525 |
| 15.50 | 218          | 120         | 2  | F.444.155  |
| 15.75 | 218          | 120         | 2  | F.444.1575 |
| 16.00 | 218          | 120         | 2  | F.444.160  |
| 16.25 | 223          | 125         | 2  | F.444.1625 |
| 16.50 | 223          | 125         | 2  | F.444.165  |
| 16.75 | 223          | 125         | 2  | F.444.1675 |
| 17.00 | 223          | 125         | 2  | F.444.170  |
| 17.25 | 228          | 130         | 2  | F.444.1725 |
| 17.50 | 228          | 130         | 2  | F.444.175  |
| 17.75 | 228          | 130         | 2  | F.444.1775 |
| 18.00 | 228          | 130         | 2  | F.444.180  |
| 18.25 | 233          | 135         | 2  | F.444.1825 |
| 18.50 | 233          | 135         | 2  | F.444.185  |
| 18.75 | 233          | 135         | 2  | F.444.1875 |
| 19.00 | 233          | 135         | 2  | F.444.190  |
| 19.25 | 238          | 140         | 2  | F.444.1925 |
| 19.50 | 238          | 140         | 2  | F.444.195  |
| 19.75 | 238          | 140         | 2  | F.444.1975 |
| 20.00 | 238          | 140         | 2  | F.444.200  |

| Ø     | Long. Totale | Long. Utile | CM | Réf.       |
|-------|--------------|-------------|----|------------|
| 20.25 | 243          | 145         | 2  | F.444.2025 |
| 20.50 | 243          | 145         | 2  | F.444.205  |
| 20.75 | 243          | 145         | 2  | F.444.2075 |
| 21.00 | 243          | 145         | 2  | F.444.210  |
| 21.25 | 248          | 150         | 2  | F.444.2125 |
| 21.50 | 248          | 150         | 2  | F.444.215  |
| 21.75 | 248          | 150         | 2  | F.444.2175 |
| 22.00 | 248          | 150         | 2  | F.444.220  |
| 22.25 | 248          | 150         | 2  | F.444.2225 |
| 22.50 | 253          | 155         | 2  | F.444.225  |
| 22.75 | 253          | 155         | 2  | F.444.2275 |
| 23.00 | 253          | 155         | 2  | F.444.230  |
| 23.25 | 276          | 155         | 3  | F.444.2325 |
| 23.50 | 276          | 155         | 3  | F.444.235  |
| 23.75 | 281          | 160         | 3  | F.444.2375 |
| 24.00 | 281          | 160         | 3  | F.444.240  |
| 24.25 | 281          | 160         | 3  | F.444.2425 |
| 24.50 | 281          | 160         | 3  | F.444.245  |
| 24.75 | 281          | 160         | 3  | F.444.2475 |
| 25.00 | 281          | 160         | 3  | F.444.250  |
| 25.25 | 286          | 165         | 3  | F.444.2525 |
| 25.50 | 286          | 165         | 3  | F.444.255  |
| 25.75 | 286          | 165         | 3  | F.444.2575 |
| 26.00 | 286          | 165         | 3  | F.444.260  |
| 26.25 | 286          | 165         | 3  | F.444.2625 |
| 26.50 | 286          | 165         | 3  | F.444.265  |
| 26.75 | 291          | 170         | 3  | F.444.2675 |
| 27.00 | 291          | 170         | 3  | F.444.270  |
| 27.25 | 291          | 170         | 3  | F.444.2725 |
| 27.50 | 291          | 170         | 3  | F.444.275  |
| 27.75 | 291          | 170         | 3  | F.444.2775 |
| 28.00 | 291          | 170         | 3  | F.444.280  |
| 28.25 | 296          | 175         | 3  | F.444.2825 |
| 28.50 | 296          | 175         | 3  | F.444.285  |
| 28.75 | 296          | 175         | 3  | F.444.2875 |
| 29.00 | 296          | 175         | 3  | F.444.290  |
| 29.25 | 296          | 175         | 3  | F.444.2925 |
| 29.50 | 296          | 175         | 3  | F.444.295  |
| 29.75 | 296          | 175         | 3  | F.444.2975 |
| 30.00 | 296          | 175         | 3  | F.444.300  |
| 30.25 | 301          | 180         | 3  | F.444.3025 |
| 30.50 | 301          | 180         | 3  | F.444.305  |
| 30.75 | 301          | 180         | 3  | F.444.3075 |
| 31.00 | 301          | 180         | 3  | F.444.310  |
| 31.25 | 301          | 180         | 3  | F.444.3125 |
| 31.50 | 301          | 180         | 3  | F.444.315  |



## ■ OUTILS COUPANTS

| Ø     | Long. Totale | Long. Utile | CM | Réf.       |
|-------|--------------|-------------|----|------------|
| 31.75 | 306          | 185         | 3  | F.444.3175 |
| 32.00 | 334          | 185         | 4  | F.444.320  |
| 32.50 | 334          | 185         | 4  | F.444.325  |
| 33.00 | 334          | 185         | 4  | F.444.330  |
| 33.50 | 334          | 185         | 4  | F.444.335  |
| 34.00 | 339          | 190         | 4  | F.444.340  |
| 34.50 | 339          | 190         | 4  | F.444.345  |
| 35.00 | 339          | 190         | 4  | F.444.350  |
| 35.50 | 339          | 190         | 4  | F.444.355  |
| 36.00 | 344          | 195         | 4  | F.444.360  |
| 36.50 | 344          | 195         | 4  | F.444.365  |
| 37.00 | 344          | 195         | 4  | F.444.370  |
| 37.50 | 344          | 195         | 4  | F.444.375  |
| 38.00 | 349          | 200         | 4  | F.444.380  |
| 38.50 | 349          | 200         | 4  | F.444.385  |
| 39.00 | 349          | 200         | 4  | F.444.390  |
| 39.50 | 349          | 200         | 4  | F.444.395  |
| 40.00 | 349          | 200         | 4  | F.444.400  |
| 40.50 | 354          | 205         | 4  | F.444.405  |
| 41.00 | 354          | 205         | 4  | F.444.410  |
| 41.50 | 354          | 205         | 4  | F.444.415  |
| 42.00 | 354          | 205         | 4  | F.444.420  |
| 42.50 | 354          | 205         | 4  | F.444.425  |
| 43.00 | 359          | 210         | 4  | F.444.430  |

| Ø     | Long. Totale | Long. Utile | CM | Réf.      |
|-------|--------------|-------------|----|-----------|
| 43.50 | 359          | 210         | 4  | F.444.435 |
| 44.00 | 359          | 210         | 4  | F.444.440 |
| 44.50 | 359          | 210         | 4  | F.444.445 |
| 45.00 | 359          | 210         | 4  | F.444.450 |
| 45.50 | 364          | 215         | 4  | F.444.455 |
| 46.00 | 364          | 215         | 4  | F.444.460 |
| 46.50 | 364          | 215         | 4  | F.444.465 |
| 47.00 | 364          | 215         | 4  | F.444.470 |
| 47.50 | 364          | 215         | 4  | F.444.475 |
| 48.00 | 369          | 220         | 4  | F.444.480 |
| 48.50 | 369          | 220         | 4  | F.444.485 |
| 49.00 | 369          | 220         | 4  | F.444.490 |
| 49.50 | 369          | 220         | 4  | F.444.495 |
| 50.00 | 369          | 220         | 4  | F.444.500 |
| 51.00 | 412          | 225         | 5  | F.444.510 |
| 52.00 | 412          | 225         | 5  | F.444.520 |
| 53.00 | 412          | 225         | 5  | F.444.530 |
| 54.00 | 417          | 230         | 5  | F.444.540 |
| 55.00 | 417          | 230         | 5  | F.444.550 |
| 56.00 | 417          | 230         | 5  | F.444.560 |
| 57.00 | 422          | 235         | 5  | F.444.570 |
| 58.00 | 422          | 235         | 5  | F.444.580 |
| 59.00 | 422          | 235         | 5  | F.444.590 |
| 60.00 | 422          | 235         | 5  | F.444.600 |

### Douilles

### Douille de réduction et d'augmentation



| Douille de réduction |                |             |
|----------------------|----------------|-------------|
| Cône extérieur       | Cône intérieur | Réf.        |
| CM2                  | CM1            | F.27000.2.1 |
| CM3                  | CM1            | F.27000.3.1 |
| CM3                  | CM2            | F.27000.3.2 |
| CM4                  | CM1            | F.27000.4.1 |
| CM4                  | CM2            | F.27000.4.2 |
| CM4                  | CM3            | F.27000.4.3 |
| CM5                  | CM3            | F.27000.5.3 |
| CM5                  | CM4            | F.27000.5.4 |
| CM6                  | CM3            | F.27000.6.3 |
| CM6                  | CM4            | F.27000.6.4 |
| CM6                  | CM5            | F.27000.6.5 |

| Douille d'augmentation |                |             |             |
|------------------------|----------------|-------------|-------------|
| Cône extérieur         | Cône intérieur | Long. Utile | Réf.        |
| CM1                    | CM1            | 145         | F.29000.1.1 |
| CM1                    | CM2            | 160         | F.29000.1.2 |
| CM2                    | CM1            | 160         | F.29000.2.1 |
| CM2                    | CM2            | 175         | F.29000.2.2 |
| CM2                    | CM3            | 196         | F.29000.2.3 |
| CM3                    | CM1            | 175         | F.29000.3.1 |
| CM3                    | CM2            | 194         | F.29000.3.2 |
| CM3                    | CM3            | 215         | F.29000.3.3 |
| CM3                    | CM4            | 240         | F.29000.3.4 |
| CM4                    | CM2            | 215         | F.29000.4.2 |
| CM4                    | CM3            | 240         | F.29000.4.3 |
| CM4                    | CM4            | 265         | F.29000.4.4 |
| CM4                    | CM5            | 300         | F.29000.4.5 |

### Foret étagé

### Foret étagé tôle HSS



| Type            | Plage Ø   | Référence |
|-----------------|-----------|-----------|
| Foret étagé HSS | 4 à 30 mm | A781      |