

## Punta elicoidale autocentrante in metallo duro integrale

### Solid carbide autocentering twist drill

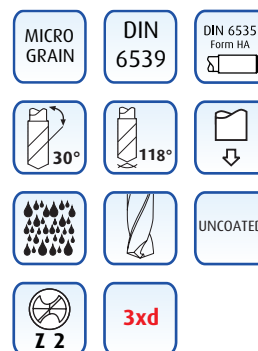
VHM - Spiralbohrer Selbstzentrierend - Foret carbure hélicoïdale autocentrage

Сверло спиральное твердосплавное автоцентрирующееся - Sk centrovací vrták



| CODE    | d1h6<br>mm | d2h6<br>mm | l1<br>mm | L<br>mm |
|---------|------------|------------|----------|---------|
| 120.004 | 0.4        | 0.4        | 6        | 26      |
| 120.005 | 0.5        | 0.5        | 6        | 26      |
| 120.006 | 0.6        | 0.6        | 6        | 26      |
| 120.007 | 0.7        | 0.7        | 6        | 26      |
| 120.008 | 0.8        | 0.8        | 6        | 26      |
| 120.009 | 0.9        | 0.9        | 6        | 26      |
| 120.010 | 1.0        | 1.0        | 6        | 26      |
| 120.011 | 1.1        | 1.1        | 7        | 28      |
| 120.012 | 1.2        | 1.2        | 8        | 30      |
| 120.013 | 1.3        | 1.3        | 8        | 30      |
| 120.014 | 1.4        | 1.4        | 9        | 32      |
| 120.015 | 1.5        | 1.5        | 9        | 32      |
| 120.016 | 1.6        | 1.6        | 10       | 34      |
| 120.017 | 1.7        | 1.7        | 10       | 34      |
| 120.018 | 1.8        | 1.8        | 11       | 36      |
| 120.019 | 1.9        | 1.9        | 11       | 36      |
| 120.020 | 2.0        | 2.0        | 12       | 38      |
| 120.021 | 2.1        | 2.1        | 12       | 38      |
| 120.022 | 2.2        | 2.2        | 13       | 40      |
| 120.023 | 2.3        | 2.3        | 13       | 40      |
| 120.024 | 2.4        | 2.4        | 14       | 43      |
| 120.025 | 2.5        | 2.5        | 14       | 43      |
| 120.026 | 2.6        | 2.6        | 14       | 43      |
| 120.027 | 2.7        | 2.7        | 16       | 46      |
| 120.028 | 2.8        | 2.8        | 16       | 46      |
| 120.029 | 2.9        | 2.9        | 16       | 46      |
| 120.030 | 3.0        | 3.0        | 16       | 46      |
| 120.031 | 3.1        | 3.1        | 18       | 49      |
| 120.032 | 3.2        | 3.2        | 18       | 49      |
| 120.033 | 3.3        | 3.3        | 18       | 49      |
| 120.034 | 3.4        | 3.4        | 20       | 52      |
| 120.035 | 3.5        | 3.5        | 20       | 52      |
| 120.036 | 3.6        | 3.6        | 20       | 52      |
| 120.037 | 3.7        | 3.7        | 20       | 52      |
| 120.038 | 3.8        | 3.8        | 22       | 55      |
| 120.039 | 3.9        | 3.9        | 22       | 55      |
| 120.040 | 4.0        | 4.0        | 22       | 55      |
| 120.041 | 4.1        | 4.1        | 22       | 55      |
| 120.042 | 4.2        | 4.2        | 22       | 55      |
| 120.043 | 4.3        | 4.3        | 24       | 58      |
| 120.044 | 4.4        | 4.4        | 24       | 58      |
| 120.045 | 4.5        | 4.5        | 24       | 58      |
| 120.046 | 4.6        | 4.6        | 24       | 58      |
| 120.047 | 4.7        | 4.7        | 24       | 58      |
| 120.048 | 4.8        | 4.8        | 26       | 62      |
| 120.049 | 4.9        | 4.9        | 26       | 62      |
| 120.050 | 5.0        | 5.0        | 26       | 62      |
| 120.051 | 5.1        | 5.1        | 26       | 62      |
| 120.052 | 5.2        | 5.2        | 26       | 62      |
| 120.053 | 5.3        | 5.3        | 26       | 62      |
| 120.054 | 5.4        | 5.4        | 28       | 66      |
| 120.055 | 5.5        | 5.5        | 28       | 66      |
| 120.056 | 5.6        | 5.6        | 28       | 66      |
| 120.057 | 5.7        | 5.7        | 28       | 66      |
| 120.058 | 5.8        | 5.8        | 28       | 66      |
| 120.059 | 5.9        | 5.9        | 28       | 66      |
| 120.060 | 6.0        | 6.0        | 28       | 66      |
| 120.061 | 6.1        | 6.1        | 31       | 70      |
| 120.062 | 6.2        | 6.2        | 31       | 70      |
| 120.063 | 6.3        | 6.3        | 31       | 70      |
| 120.064 | 6.4        | 6.4        | 31       | 70      |
| 120.065 | 6.5        | 6.5        | 31       | 70      |

| CODE    | d1h6<br>mm | d2h6<br>mm | l1<br>mm | L<br>mm |
|---------|------------|------------|----------|---------|
| 120.066 | 6.6        | 6.6        | 31       | 70      |
| 120.067 | 6.7        | 6.7        | 31       | 70      |
| 120.068 | 6.8        | 6.8        | 34       | 74      |
| 120.069 | 6.9        | 6.9        | 34       | 74      |
| 120.070 | 7.0        | 7.0        | 34       | 74      |
| 120.071 | 7.1        | 7.1        | 34       | 74      |
| 120.072 | 7.2        | 7.2        | 34       | 74      |
| 120.073 | 7.3        | 7.3        | 34       | 74      |
| 120.074 | 7.4        | 7.4        | 34       | 74      |
| 120.075 | 7.5        | 7.5        | 34       | 74      |
| 120.076 | 7.6        | 7.6        | 37       | 79      |
| 120.077 | 7.7        | 7.7        | 37       | 79      |
| 120.078 | 7.8        | 7.8        | 37       | 79      |
| 120.079 | 7.9        | 7.9        | 37       | 79      |
| 120.080 | 8.0        | 8.0        | 37       | 79      |
| 120.081 | 8.1        | 8.1        | 37       | 79      |
| 120.082 | 8.2        | 8.2        | 37       | 79      |
| 120.083 | 8.3        | 8.3        | 37       | 79      |
| 120.084 | 8.4        | 8.4        | 37       | 79      |
| 120.085 | 8.5        | 8.5        | 37       | 79      |
| 120.086 | 8.6        | 8.6        | 40       | 84      |
| 120.087 | 8.7        | 8.7        | 40       | 84      |
| 120.088 | 8.8        | 8.8        | 40       | 84      |
| 120.089 | 8.9        | 8.9        | 40       | 84      |
| 120.090 | 9.0        | 9.0        | 40       | 84      |
| 120.091 | 9.1        | 9.1        | 40       | 84      |
| 120.092 | 9.2        | 9.2        | 40       | 84      |
| 120.093 | 9.3        | 9.3        | 40       | 84      |
| 120.094 | 9.4        | 9.4        | 40       | 84      |
| 120.095 | 9.5        | 9.5        | 40       | 84      |
| 120.096 | 9.6        | 9.6        | 43       | 89      |
| 120.097 | 9.7        | 9.7        | 43       | 89      |
| 120.098 | 9.8        | 9.8        | 43       | 89      |
| 120.099 | 9.9        | 9.9        | 43       | 89      |
| 120.100 | 10.0       | 10.0       | 43       | 89      |
| 120.102 | 10.2       | 10.2       | 43       | 89      |
| 120.105 | 10.5       | 10.5       | 43       | 89      |
| 120.107 | 10.7       | 10.7       | 43       | 89      |
| 120.108 | 10.8       | 10.8       | 47       | 95      |
| 120.110 | 11.0       | 11.0       | 47       | 95      |
| 120.112 | 11.2       | 11.2       | 47       | 95      |
| 120.114 | 11.4       | 11.4       | 47       | 95      |
| 120.115 | 11.5       | 11.5       | 47       | 95      |
| 120.117 | 11.7       | 11.7       | 47       | 95      |
| 120.118 | 11.8       | 11.8       | 47       | 95      |
| 120.120 | 12.0       | 12.0       | 51       | 102     |
| 120.125 | 12.5       | 12.5       | 51       | 102     |
| 120.130 | 13.0       | 13.0       | 51       | 107     |
| 120.135 | 13.5       | 13.5       | 54       | 107     |
| 120.140 | 14.0       | 14.0       | 54       | 107     |
| 120.145 | 14.5       | 14.5       | 56       | 111     |
| 120.150 | 15.0       | 15.0       | 56       | 111     |
| 120.155 | 15.5       | 15.5       | 58       | 115     |
| 120.160 | 16.0       | 16.0       | 58       | 115     |
| 120.165 | 16.5       | 16.5       | 60       | 119     |
| 120.170 | 17.0       | 17.0       | 60       | 119     |
| 120.180 | 18.0       | 18.0       | 62       | 123     |
| 120.185 | 18.5       | 18.5       | 64       | 127     |
| 120.190 | 19.0       | 19.0       | 64       | 127     |
| 120.195 | 19.5       | 19.5       | 66       | 131     |
| 120.200 | 20.0       | 20.0       | 66       | 131     |



→ Help 203

## Punta elicoidale autocentrante in metallo duro integrale

### Solid carbide autocentering twist drill

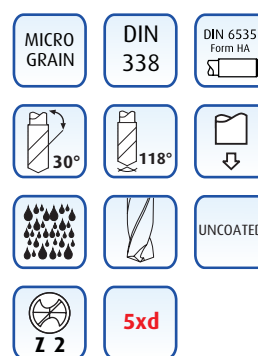
VHM - Spiralbohrer Selbstzentrierend - Foret carbure hélicoïdale autocentrage

Сверло спиральное твердосплавное автоцентрирующееся - Sk centrovací vrták



| CODE    | d1h6<br>mm | d2h6<br>mm | l1<br>mm | L<br>mm |
|---------|------------|------------|----------|---------|
| 130.004 | 0.4        | 0.4        | 6        | 26      |
| 130.005 | 0.5        | 0.5        | 6        | 26      |
| 130.006 | 0.6        | 0.6        | 6        | 26      |
| 130.007 | 0.7        | 0.7        | 9        | 28      |
| 130.008 | 0.8        | 0.8        | 10       | 30      |
| 130.009 | 0.9        | 0.9        | 11       | 32      |
| 130.010 | 1.0        | 1.0        | 12       | 34      |
| 130.011 | 1.1        | 1.1        | 14       | 36      |
| 130.012 | 1.2        | 1.2        | 16       | 38      |
| 130.013 | 1.3        | 1.3        | 16       | 38      |
| 130.014 | 1.4        | 1.4        | 18       | 40      |
| 130.015 | 1.5        | 1.5        | 18       | 40      |
| 130.016 | 1.6        | 1.6        | 20       | 43      |
| 130.017 | 1.7        | 1.7        | 20       | 43      |
| 130.018 | 1.8        | 1.8        | 22       | 46      |
| 130.019 | 1.9        | 1.9        | 22       | 46      |
| 130.020 | 2.0        | 2.0        | 24       | 49      |
| 130.021 | 2.1        | 2.1        | 24       | 49      |
| 130.022 | 2.2        | 2.2        | 27       | 53      |
| 130.023 | 2.3        | 2.3        | 27       | 53      |
| 130.024 | 2.4        | 2.4        | 30       | 57      |
| 130.025 | 2.5        | 2.5        | 30       | 57      |
| 130.026 | 2.6        | 2.6        | 30       | 57      |
| 130.027 | 2.7        | 2.7        | 33       | 61      |
| 130.028 | 2.8        | 2.8        | 33       | 61      |
| 130.029 | 2.9        | 2.9        | 33       | 61      |
| 130.030 | 3.0        | 3.0        | 33       | 61      |
| 130.031 | 3.1        | 3.1        | 36       | 65      |
| 130.032 | 3.2        | 3.2        | 36       | 65      |
| 130.033 | 3.3        | 3.3        | 36       | 65      |
| 130.034 | 3.4        | 3.4        | 39       | 70      |
| 130.035 | 3.5        | 3.5        | 39       | 70      |
| 130.036 | 3.6        | 3.6        | 39       | 70      |
| 130.037 | 3.7        | 3.7        | 39       | 70      |
| 130.038 | 3.8        | 3.8        | 43       | 75      |
| 130.039 | 3.9        | 3.9        | 43       | 75      |
| 130.040 | 4.0        | 4.0        | 43       | 75      |
| 130.041 | 4.1        | 4.1        | 43       | 75      |
| 130.042 | 4.2        | 4.2        | 43       | 75      |
| 130.043 | 4.3        | 4.3        | 47       | 80      |
| 130.044 | 4.4        | 4.4        | 47       | 80      |
| 130.045 | 4.5        | 4.5        | 47       | 80      |
| 130.046 | 4.6        | 4.6        | 47       | 80      |
| 130.047 | 4.7        | 4.7        | 47       | 80      |
| 130.048 | 4.8        | 4.8        | 52       | 86      |
| 130.049 | 4.9        | 4.9        | 52       | 86      |
| 130.050 | 5.0        | 5.0        | 52       | 86      |
| 130.051 | 5.1        | 5.1        | 52       | 86      |
| 130.052 | 5.2        | 5.2        | 52       | 86      |
| 130.053 | 5.3        | 5.3        | 52       | 86      |
| 130.054 | 5.4        | 5.4        | 57       | 93      |
| 130.055 | 5.5        | 5.5        | 57       | 93      |
| 130.056 | 5.6        | 5.6        | 57       | 93      |
| 130.057 | 5.7        | 5.7        | 57       | 93      |
| 130.058 | 5.8        | 5.8        | 57       | 93      |
| 130.059 | 5.9        | 5.9        | 57       | 93      |
| 130.060 | 6.0        | 6.0        | 57       | 93      |
| 130.061 | 6.1        | 6.1        | 63       | 101     |
| 130.062 | 6.2        | 6.2        | 63       | 101     |
| 130.063 | 6.3        | 6.3        | 63       | 101     |
| 130.064 | 6.4        | 6.4        | 63       | 101     |

| CODE    | d1h6<br>mm | d2h6<br>mm | l1<br>mm | L<br>mm |
|---------|------------|------------|----------|---------|
| 130.065 | 6.5        | 6.5        | 63       | 101     |
| 130.066 | 6.6        | 6.6        | 63       | 101     |
| 130.067 | 6.7        | 6.7        | 63       | 101     |
| 130.068 | 6.8        | 6.8        | 69       | 109     |
| 130.069 | 6.9        | 6.9        | 69       | 109     |
| 130.070 | 7.0        | 7.0        | 69       | 109     |
| 130.071 | 7.1        | 7.1        | 69       | 109     |
| 130.072 | 7.2        | 7.2        | 69       | 109     |
| 130.073 | 7.3        | 7.3        | 69       | 109     |
| 130.074 | 7.4        | 7.4        | 69       | 109     |
| 130.075 | 7.5        | 7.5        | 69       | 109     |
| 130.076 | 7.6        | 7.6        | 75       | 117     |
| 130.077 | 7.7        | 7.7        | 75       | 117     |
| 130.078 | 7.8        | 7.8        | 75       | 117     |
| 130.079 | 7.9        | 7.9        | 75       | 117     |
| 130.080 | 8.0        | 8.0        | 75       | 117     |
| 130.081 | 8.1        | 8.1        | 75       | 117     |
| 130.082 | 8.2        | 8.2        | 75       | 117     |
| 130.083 | 8.3        | 8.3        | 75       | 117     |
| 130.084 | 8.4        | 8.4        | 75       | 117     |
| 130.085 | 8.5        | 8.5        | 75       | 117     |
| 130.086 | 8.6        | 8.6        | 81       | 125     |
| 130.087 | 8.7        | 8.7        | 81       | 125     |
| 130.088 | 8.8        | 8.8        | 81       | 125     |
| 130.089 | 8.9        | 8.9        | 81       | 125     |
| 130.090 | 9.0        | 9.0        | 81       | 125     |
| 130.091 | 9.1        | 9.1        | 81       | 125     |
| 130.092 | 9.2        | 9.2        | 81       | 125     |
| 130.093 | 9.3        | 9.3        | 81       | 125     |
| 130.094 | 9.4        | 9.4        | 81       | 125     |
| 130.095 | 9.5        | 9.5        | 81       | 125     |
| 130.096 | 9.6        | 9.6        | 87       | 133     |
| 130.097 | 9.7        | 9.7        | 87       | 133     |
| 130.098 | 9.8        | 9.8        | 87       | 133     |
| 130.099 | 9.9        | 9.9        | 87       | 133     |
| 130.100 | 10.0       | 10.0       | 87       | 133     |
| 130.102 | 10.2       | 10.2       | 87       | 133     |
| 130.105 | 10.5       | 10.5       | 87       | 133     |
| 130.107 | 10.7       | 10.7       | 94       | 142     |
| 130.108 | 10.8       | 10.8       | 94       | 142     |
| 130.109 | 10.9       | 10.9       | 94       | 142     |
| 130.110 | 11.0       | 11.0       | 94       | 142     |
| 130.112 | 11.2       | 11.2       | 94       | 142     |
| 130.115 | 11.5       | 11.5       | 94       | 142     |
| 130.120 | 12.0       | 12.0       | 101      | 151     |
| 130.121 | 12.1       | 12.1       | 101      | 151     |
| 130.122 | 12.2       | 12.2       | 101      | 151     |
| 130.125 | 12.5       | 12.5       | 101      | 151     |
| 130.129 | 12.9       | 12.9       | 101      | 151     |
| 130.130 | 13.0       | 13.0       | 101      | 151     |
| 130.131 | 13.1       | 13.1       | 101      | 151     |
| 130.135 | 13.5       | 13.5       | 108      | 160     |
| 130.140 | 14.0       | 14.0       | 108      | 160     |
| 130.142 | 14.2       | 14.2       | 114      | 169     |
| 130.145 | 14.5       | 14.5       | 114      | 169     |
| 130.150 | 15.0       | 15.0       | 114      | 169     |
| 130.155 | 15.5       | 15.5       | 120      | 178     |
| 130.160 | 16.0       | 16.0       | 120      | 178     |
| 130.180 | 18.0       | 18.0       | 130      | 191     |
| 130.200 | 20.0       | 20.0       | 140      | 205     |



→ Help 203

## Punta a centrare 90° per C.N. in metallo duro integrale

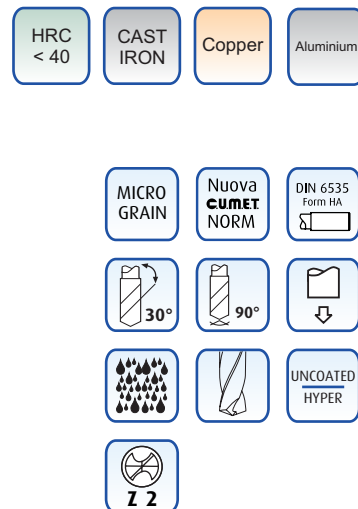
### Solid carbide N.C. center drill 90°

VHM - N.C. Anböhler - Foret carbure à centrer N.C.

Сверло центровочное твердосплавное - Sk nc centrovací vrták



| CODE UNCOATED | CODE HYPER | d1h6 mm | d2h6 mm | l1 mm | l2 mm | L MM | Z no. |
|---------------|------------|---------|---------|-------|-------|------|-------|
| 190.030       | 190T.030   | 3       | 3       | 10    | -     | 40   | 2     |
| 190.040       | 190T.040   | 4       | 4       | 12    | -     | 50   | 2     |
| -             | 190T.040L  | 4       | 6       | 10    | 12    | 121  | 2     |
| 190.050       | 190T.050   | 5       | 5       | 15    | -     | 50   | 2     |
| -             | 190T.050L  | 5       | 6       | 13    | 15    | 130  | 2     |
| 190.060       | 190T.060   | 6       | 6       | 15    | -     | 50   | 2     |
| -             | 190T.080L  | 6       | 6       | 15    | -     | 139  | 2     |
| 190.080       | 190T.080   | 8       | 8       | 20    | -     | 60   | 2     |
| -             | 190T.180L  | 8       | 8       | 17    | -     | 164  | 2     |
| 190.100       | 190T.100   | 10      | 10      | 25    | -     | 70   | 2     |
| -             | 190T.100L  | 10      | 10      | 20    | -     | 183  | 2     |
| 190.120       | 190T.120   | 12      | 12      | 25    | -     | 75   | 2     |
| -             | 190T.120L  | 12      | 12      | 25    | -     | 204  | 2     |
| 190.140       | 190T.140   | 14      | 14      | 25    | -     | 75   | 2     |
| 190.160       | 190T.160   | 16      | 16      | 30    | -     | 75   | 2     |
| -             | 190T.160L  | 16      | 16      | 25    | -     | 228  | 2     |
| 190.200       | 190T.200   | 20      | 20      | 30    | -     | 100  | 2     |



## Punta a centrare 140° per C.N. in metallo duro integrale

### Solid carbide N.C. center drill 140°

VHM - N.C. Anböhler - Foret carbure à centrer N.C.

Сверло центровочное твердосплавное - Sk nc centrovací vrták



| CODE     | d1 mm | d2h6 mm | l1 mm | l2 mm | L mm | Z no. |
|----------|-------|---------|-------|-------|------|-------|
| 190T.041 | 4     | 6       | 10    | 12    | 121  | 2     |
| 190T.051 | 5     | 6       | 13    | 15    | 130  | 2     |
| 190T.061 | 6     | 6       | 15    | -     | 139  | 2     |
| 190T.081 | 8     | 8       | 20    | -     | 164  | 2     |
| 190T.101 | 10    | 10      | 25    | -     | 183  | 2     |
| 190T.121 | 12    | 12      | 25    | -     | 204  | 2     |
| 190T.161 | 16    | 16      | 30    | -     | 230  | 2     |

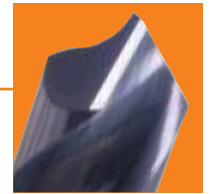


## Punta a centrare 120° per C.N. in metallo duro integrale

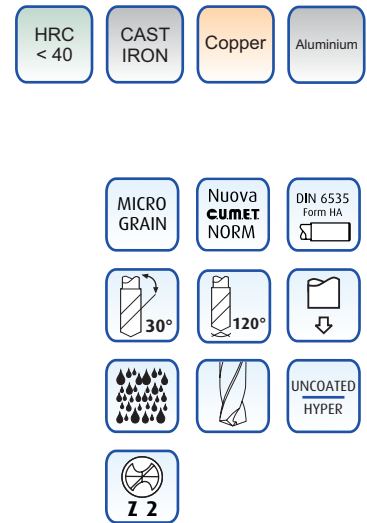
### Solid carbide N.C. center drill 120°

VHM - N.C. Anböhler - Foret carbure à centrer N.C.

Сверло центровочное твердосплавное - Sk nc centrovací vrták



| CODE UNCOATED | CODE HYPER | d1h6 mm | d2h6 mm | l1 mm | L mm | Z no. |
|---------------|------------|---------|---------|-------|------|-------|
| 190.030.1     | 190T.030.1 | 3.0     | 3.0     | 10    | 40   | 2     |
| 190.040.1     | 190T.040.1 | 4.0     | 4.0     | 12    | 50   | 2     |
| 190.050.1     | 190T.050.1 | 5.0     | 5.0     | 15    | 50   | 2     |
| 190.060.1     | 190T.060.1 | 6.0     | 6.0     | 15    | 50   | 2     |
| 190.080.1     | 190T.080.1 | 8.0     | 8.0     | 20    | 60   | 2     |
| 190.100.1     | 190T.100.1 | 10.0    | 10.0    | 25    | 70   | 2     |
| 190.120.1     | 190T.120.1 | 12.0    | 12.0    | 25    | 75   | 2     |
| 190.140.1     | 190T.140.1 | 14.0    | 14.0    | 25    | 75   | 2     |
| 190.160.1     | 190T.160.1 | 16.0    | 16.0    | 30    | 75   | 2     |
| 190.200.1     | 190T.200.1 | 20.0    | 20.0    | 30    | 100  | 2     |



## Punta a centrare in metallo duro integrale

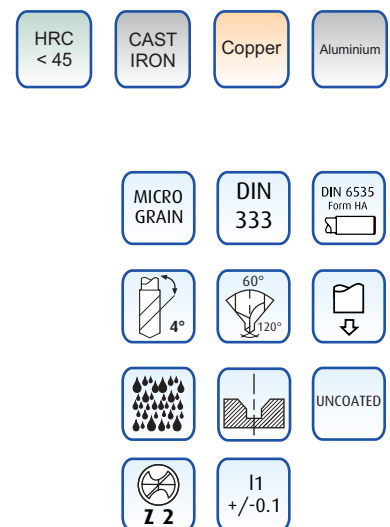
### Solid carbide center drill

VHM - Zentrierbohrer - Foret carbure à centrer

Сверло центровочное твердосплавное - Sk nc centrovací vrták



| CODE       | d1h12 mm | d2h6 mm | l1* mm | L mm | Z no. |
|------------|----------|---------|--------|------|-------|
| 140.008    | 0.8      | 3.15    | 1.10   | 40   | 2     |
| 140.010    | 1.0      | 3.15    | 1.45   | 40   | 2     |
| 140.010.1  | 1.0      | 4.0     | 1.45   | 40   | 2     |
| 140.0125   | 1.25     | 3.15    | 1.75   | 40   | 2     |
| 140.015    | 1.5      | 5.0     | 2.10   | 40   | 2     |
| 140.016    | 1.6      | 4.0     | 2.10   | 40   | 2     |
| 140.016.1  | 1.6      | 5.0     | 2.10   | 40   | 2     |
| 140.020    | 2.0      | 5.0     | 2.70   | 40   | 2     |
| 140.020.1  | 2.0      | 6.0     | 2.70   | 45   | 2     |
| 140.020.2  | 2.0      | 6.3     | 2.70   | 45   | 2     |
| 140.025    | 2.5      | 6.3     | 3.35   | 45   | 2     |
| 140.025.1  | 2.5      | 8.0     | 3.35   | 50   | 2     |
| 140.030    | 3.0      | 8.0     | 4.15   | 50   | 2     |
| 140.030.1  | 3.0      | 10.0    | 4.15   | 56   | 2     |
| 140.0315   | 3.15     | 8.0     | 4.15   | 50   | 2     |
| 140.0315.1 | 3.15     | 10.0    | 4.15   | 56   | 2     |
| 140.040    | 4.0      | 10.0    | 5.30   | 56   | 2     |



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