



Hochleistungsbohrer Quadro PLUS Quadro 15 PLUS

Hochleistungszerspanung ohne Kompromisse

Die Sphinx Werkzeuge AG ist der richtige Partner wenn es um innovative Lösungen in der Zerspanung geht.

Für jede Anwendung das richtige Werkzeug und der Service nach dem Verkauf ist eine Selbstverständlichkeit. Alle Sphinxprodukte werden vollständig in der Schweiz entwickelt und hergestellt.




RABENSTEINER
PRÄZISIONSWERKZEUGE

SPHINX

Your partner

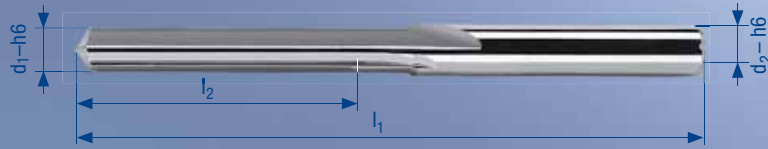
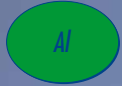


Hochleistungsbohrer QUADRO PLUS 6xd Art. 52100

Foret à grand rendement QUADRO PLUS 6xd

Punta ad alto rendimento QUADRO PLUS 6xd

High performance drill QUADRO PLUS 6xd



Vc → S./p. 15

| d ₁ mm | l ₂ mm | l ₁ mm | d ₂ mm |
|----------------------|----------------------|----------------------|----------------------|
| 3.00 | 18.00 | 82 | 6.00 |
| 3.30 | 20.00 | 82 | 6.00 |
| 3.50 | 21.00 | 82 | 6.00 |
| 4.00 | 24.00 | 82 | 6.00 |
| 4.20 | 26.00 | 88 | 6.00 |
| 4.50 | 27.00 | 88 | 6.00 |
| 5.00 | 30.00 | 88 | 6.00 |
| 5.50 | 33.00 | 94 | 6.00 |
| 6.00 | 36.00 | 94 | 6.00 |
| 6.50 | 39.00 | 102 | 8.00 |
| 6.80 | 41.00 | 102 | 8.00 |
| 7.00 | 42.00 | 102 | 8.00 |
| 7.50 | 45.00 | 108 | 8.00 |
| 8.00 | 48.00 | 108 | 8.00 |
| 8.50 | 51.00 | 121 | 10.00 |
| 9.00 | 54.00 | 121 | 10.00 |
| 9.50 | 57.00 | 127 | 10.00 |
| 10.00 | 60.00 | 127 | 10.00 |
| 10.20 | 62.00 | 141 | 12.00 |
| 10.50 | 63.00 | 141 | 12.00 |
| 11.00 | 66.00 | 141 | 12.00 |
| 11.50 | 69.00 | 147 | 12.00 |
| 12.00 | 72.00 | 147 | 12.00 |
| 12.50 | 75.00 | 155 | 14.00 |
| 13.00 | 78.00 | 155 | 14.00 |
| 13.50 | 81.00 | 162 | 14.00 |
| 14.00 | 84.00 | 162 | 14.00 |
| 14.50 | 87.00 | 172 | 16.00 |
| 15.00 | 90.00 | 172 | 16.00 |
| 15.50 | 93.00 | 178 | 16.00 |
| 16.00 | 96.00 | 178 | 16.00 |
| 16.50 | 99.00 | 192 | 18.00 |
| 17.00 | 102.00 | 192 | 18.00 |
| 17.50 | 105.00 | 192 | 18.00 |
| 18.00 | 108.00 | 192 | 18.00 |
| 18.50 | 111.00 | 207 | 20.00 |
| 19.00 | 114.00 | 207 | 20.00 |
| 19.50 | 117.00 | 207 | 20.00 |

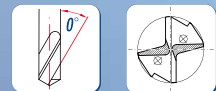
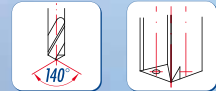
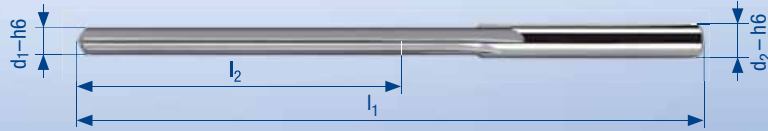
| d ₁ mm | l ₂ mm | l ₁ mm | d ₂ mm |
|----------------------|----------------------|----------------------|----------------------|
| 20.00 | 120.00 | 207 | 20.00 |

Hochleistungsbohrer QUADRO PLUS 12xd Art. 52200

Foret à grand rendement QUADRO PLUS 12xd

Punta ad alto rendimento QUADRO PLUS 12xd

High performance drill QUADRO PLUS 12xd



Vc → S./p. 15

| d ₁ | l ₂ | l ₁ | d ₂ |
|----------------|----------------|----------------|----------------|
| mm | mm | mm | mm |
| 3.00 | 36.00 | 106 | 6.00 |
| 3.20 | 39.00 | 106 | 6.00 |
| 3.30 | 40.00 | 106 | 6.00 |
| 3.50 | 42.00 | 106 | 6.00 |
| 4.00 | 48.00 | 106 | 6.00 |
| 4.20 | 51.00 | 118 | 6.00 |
| 4.50 | 54.00 | 118 | 6.00 |
| 4.80 | 58.00 | 118 | 6.00 |
| 5.00 | 60.00 | 118 | 6.00 |
| 5.50 | 66.00 | 130 | 6.00 |
| 6.00 | 72.00 | 130 | 6.00 |
| 6.40 | 78.00 | 144 | 8.00 |
| 6.50 | 78.00 | 144 | 8.00 |
| 6.80 | 82.00 | 144 | 8.00 |
| 7.00 | 84.00 | 144 | 8.00 |
| 7.50 | 90.00 | 156 | 8.00 |
| 7.60 | 92.00 | 156 | 8.00 |
| 8.00 | 96.00 | 156 | 8.00 |
| 8.50 | 102.00 | 175 | 10.00 |
| 9.00 | 108.00 | 175 | 10.00 |
| 9.50 | 114.00 | 187 | 10.00 |
| 10.00 | 120.00 | 187 | 10.00 |
| 10.20 | 123.00 | 207 | 12.00 |
| 10.50 | 126.00 | 207 | 12.00 |
| 11.00 | 132.00 | 207 | 12.00 |
| 11.50 | 138.00 | 219 | 12.00 |
| 12.00 | 144.00 | 219 | 12.00 |
| 12.50 | 150.00 | 233 | 14.00 |
| 12.70 | 153.00 | 233 | 14.00 |
| 13.00 | 156.00 | 233 | 14.00 |
| 13.50 | 162.00 | 245 | 14.00 |
| 14.00 | 168.00 | 245 | 14.00 |
| 14.50 | 174.00 | 262 | 16.00 |
| 15.00 | 180.00 | 262 | 16.00 |
| 15.50 | 186.00 | 274 | 16.00 |
| 15.90 | 191.00 | 274 | 16.00 |
| 16.00 | 192.00 | 274 | 16.00 |
| 16.50 | 198.00 | 300 | 18.00 |

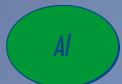
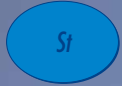
| d ₁ | l ₂ | l ₁ | d ₂ |
|----------------|----------------|----------------|----------------|
| mm | mm | mm | mm |
| 17.00 | 204.00 | 300 | 18.00 |
| 17.50 | 210.00 | 300 | 18.00 |
| 18.00 | 216.00 | 300 | 18.00 |
| 18.50 | 222.00 | 327 | 20.00 |
| 19.00 | 228.00 | 327 | 20.00 |
| 19.50 | 234.00 | 327 | 20.00 |
| 20.00 | 240.00 | 327 | 20.00 |

Hochleistungsbohrer QUADRO 15 PLUS 6xd Art. 52150

Foret à grand rendement QUADRO 15 PLUS 6xd

Punta ad alto rendimento QUADRO 15 PLUS 6xd

High performance drill QUADRO 15 PLUS 6xd



Vc → S./p. 15

| d ₁ mm | l ₂ mm | l ₁ mm | d ₂ mm |
|----------------------|----------------------|----------------------|----------------------|
| 4.00 | 24.00 | 75 | 6.00 |
| 4.20 | 25.50 | 75 | 6.00 |
| 4.50 | 27.00 | 75 | 6.00 |
| 5.00 | 30.00 | 87 | 6.00 |
| 5.50 | 33.00 | 87 | 6.00 |
| 6.00 | 36.00 | 87 | 6.00 |
| 6.50 | 39.00 | 100 | 8.00 |
| 6.80 | 41.00 | 100 | 8.00 |
| 7.00 | 42.00 | 100 | 8.00 |
| 7.50 | 45.00 | 100 | 8.00 |
| 8.00 | 48.00 | 100 | 8.00 |
| 8.50 | 51.00 | 118 | 10.00 |
| 9.00 | 54.00 | 118 | 10.00 |
| 9.50 | 57.00 | 118 | 10.00 |
| 10.00 | 60.00 | 118 | 10.00 |
| 10.20 | 62.00 | 135 | 12.00 |
| 10.50 | 63.00 | 135 | 12.00 |
| 11.00 | 66.00 | 135 | 12.00 |
| 11.50 | 69.00 | 135 | 12.00 |
| 12.00 | 72.00 | 135 | 12.00 |
| 12.50 | 75.00 | 147 | 14.00 |
| 13.00 | 78.00 | 147 | 14.00 |
| 13.50 | 81.00 | 147 | 14.00 |
| 14.00 | 84.00 | 147 | 14.00 |
| 14.50 | 87.00 | 164 | 16.00 |
| 15.00 | 90.00 | 164 | 16.00 |
| 15.50 | 93.00 | 164 | 16.00 |
| 16.00 | 96.00 | 164 | 16.00 |
| 16.50 | 99.00 | 178 | 18.00 |
| 17.00 | 102.00 | 178 | 18.00 |
| 17.50 | 105.00 | 178 | 18.00 |
| 18.00 | 108.00 | 178 | 18.00 |
| 18.50 | 111.00 | 195 | 20.00 |
| 19.00 | 114.00 | 195 | 20.00 |
| 19.50 | 117.00 | 195 | 20.00 |
| 20.00 | 120.00 | 195 | 20.00 |



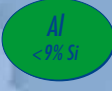
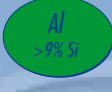


Schnittdaten

Données de coupe


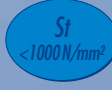
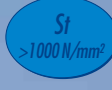


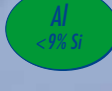
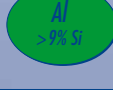
Parametri di lavoro

Cutting data

Art. 52100/52200

| Material Matière Materiale Material | Durchmesser mm Diamètre mm Diametro mm Diameter mm | v=m/min | f=mm/U f=mm/t f=mm/g f=mm/r |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------|--------------------------------------|
|  | 3.0 – 4.0 | 60 – 110 | 0.04 – 0.06 |
| | 4.1 – 8.0 | 60 – 110 | 0.06 – 0.20 |
| | 8.1 – 12.0 | 60 – 110 | 0.15 – 0.30 |
| | 12.1 – 16.0 | 60 – 110 | 0.25 – 0.40 |
| | 16.1 – 20.0 | 60 – 110 | 0.35 – 0.50 |
|  | 3.0 – 4.0 | 50 – 100 | 0.02 – 0.05 |
| | 4.1 – 8.0 | 50 – 100 | 0.05 – 0.16 |
| | 8.1 – 12.0 | 50 – 100 | 0.14 – 0.25 |
| | 12.1 – 16.0 | 50 – 100 | 0.20 – 0.35 |
| | 16.1 – 20.0 | 50 – 100 | 0.30 – 0.40 |
|  | 3.0 – 4.0 | 200 – 250 | 0.04 – 0.06 |
| | 4.1 – 8.0 | 200 – 250 | 0.06 – 0.15 |
| | 8.1 – 12.0 | 200 – 250 | 0.15 – 0.25 |
| | 12.1 – 16.0 | 200 – 250 | 0.25 – 0.40 |
| | 16.1 – 20.0 | 200 – 250 | 0.40 – 0.60 |
|  | 3.0 – 4.0 | 220 – 280 | 0.04 – 0.06 |
| | 4.1 – 8.0 | 220 – 280 | 0.06 – 0.15 |
| | 8.1 – 12.0 | 220 – 280 | 0.15 – 0.25 |
| | 12.1 – 16.0 | 220 – 280 | 0.25 – 0.40 |
| | 16.1 – 20.0 | 220 – 280 | 0.40 – 0.60 |
|  | 3.0 – 4.0 | 100 – 200 | 0.04 – 0.06 |
| | 4.1 – 8.0 | 100 – 200 | 0.06 – 0.15 |
| | 8.1 – 12.0 | 100 – 200 | 0.15 – 0.25 |
| | 12.1 – 16.0 | 100 – 200 | 0.25 – 0.35 |
| | 16.1 – 20.0 | 100 – 200 | 0.35 – 0.45 |
|  | 3.0 – 4.0 | 80 – 120 | 0.04 – 0.05 |
| | 4.1 – 8.0 | 80 – 120 | 0.05 – 0.12 |
| | 8.1 – 12.0 | 80 – 120 | 0.12 – 0.22 |
| | 12.1 – 16.0 | 80 – 120 | 0.22 – 0.33 |
| | 16.1 – 20.0 | 80 – 120 | 0.33 – 0.45 |

Art. 52150

| Balinit Futura Nano Top TiAlN | | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------|--------------------------------------|
| Material Matière Materiale Material | Durchmesser mm Diamètre mm Diametro mm Diameter mm | v=m/min | f=mm/U f=mm/t f=mm/g f=mm/r |
|  | 4.0 – 7.0 | 90 – 170 | 0.08 – 0.20 |
| | 7.0 – 10.0 | 90 – 170 | 0.18 – 0.35 |
| | 10.0 – 13.0 | 90 – 170 | 0.30 – 0.40 |
| | 13.0 – 16.0 | 90 – 170 | 0.35 – 0.45 |
| | 16.0 – 20.0 | 90 – 170 | 0.40 – 0.60 |
|  | 4.0 – 7.0 | 80 – 150 | 0.05 – 0.18 |
| | 7.0 – 10.0 | 80 – 150 | 0.15 – 0.25 |
| | 10.0 – 13.0 | 80 – 150 | 0.20 – 0.35 |
| | 13.0 – 16.0 | 80 – 150 | 0.30 – 0.40 |
| | 16.0 – 20.0 | 80 – 150 | 0.35 – 0.55 |
|  | 4.0 – 7.0 | 60 – 120 | 0.05 – 0.15 |
| | 7.0 – 10.0 | 60 – 120 | 0.12 – 0.25 |
| | 10.0 – 13.0 | 60 – 120 | 0.18 – 0.30 |
| | 13.0 – 16.0 | 60 – 120 | 0.25 – 0.35 |
| | 16.0 – 20.0 | 60 – 120 | 0.30 – 0.45 |
|  | 4.0 – 7.0 | 200 – 250 | 0.10 – 0.25 |
| | 7.0 – 10.0 | 200 – 250 | 0.20 – 0.35 |
| | 10.0 – 13.0 | 200 – 250 | 0.30 – 0.45 |
| | 13.0 – 16.0 | 200 – 250 | 0.40 – 0.55 |
| | 16.0 – 20.0 | 200 – 250 | 0.50 – 0.70 |
|  | 4.0 – 7.0 | 160 – 200 | 0.08 – 0.18 |
| | 7.0 – 10.0 | 160 – 200 | 0.15 – 0.25 |
| | 10.0 – 13.0 | 160 – 200 | 0.23 – 0.35 |
| | 13.0 – 16.0 | 160 – 200 | 0.33 – 0.50 |
| | 16.0 – 20.0 | 160 – 200 | 0.40 – 0.60 |
|  | 4.0 – 7.0 | 180 – 250 | 0.05 – 0.15 |
| | 7.0 – 10.0 | 180 – 250 | 0.13 – 0.25 |
| | 10.0 – 13.0 | 180 – 250 | 0.23 – 0.35 |
| | 13.0 – 16.0 | 180 – 250 | 0.32 – 0.55 |
| | 16.0 – 20.0 | 180 – 250 | 0.50 – 0.60 |
|  | 4.0 – 7.0 | 250 – 300 | 0.05 – 0.15 |
| | 7.0 – 10.0 | 250 – 300 | 0.13 – 0.25 |
| | 10.0 – 13.0 | 250 – 300 | 0.23 – 0.35 |
| | 13.0 – 16.0 | 250 – 300 | 0.32 – 0.55 |
| | 16.0 – 20.0 | 250 – 300 | 0.50 – 0.60 |

Genannte Werte sind Richtwerte, die je nach Maschine, Aufspannung, Kühlschmierstoff usw. noch angepasst werden müssen.

Les valeurs mentionnées sont des valeurs recommandées qui doivent être adaptées selon les conditions de la machine, du serrage, du lubrifiant etc.

Questi valori sono valori raccomandati che devono essere adattati secondo le condizioni della macchina, del serraggio, del lubrificante etc.

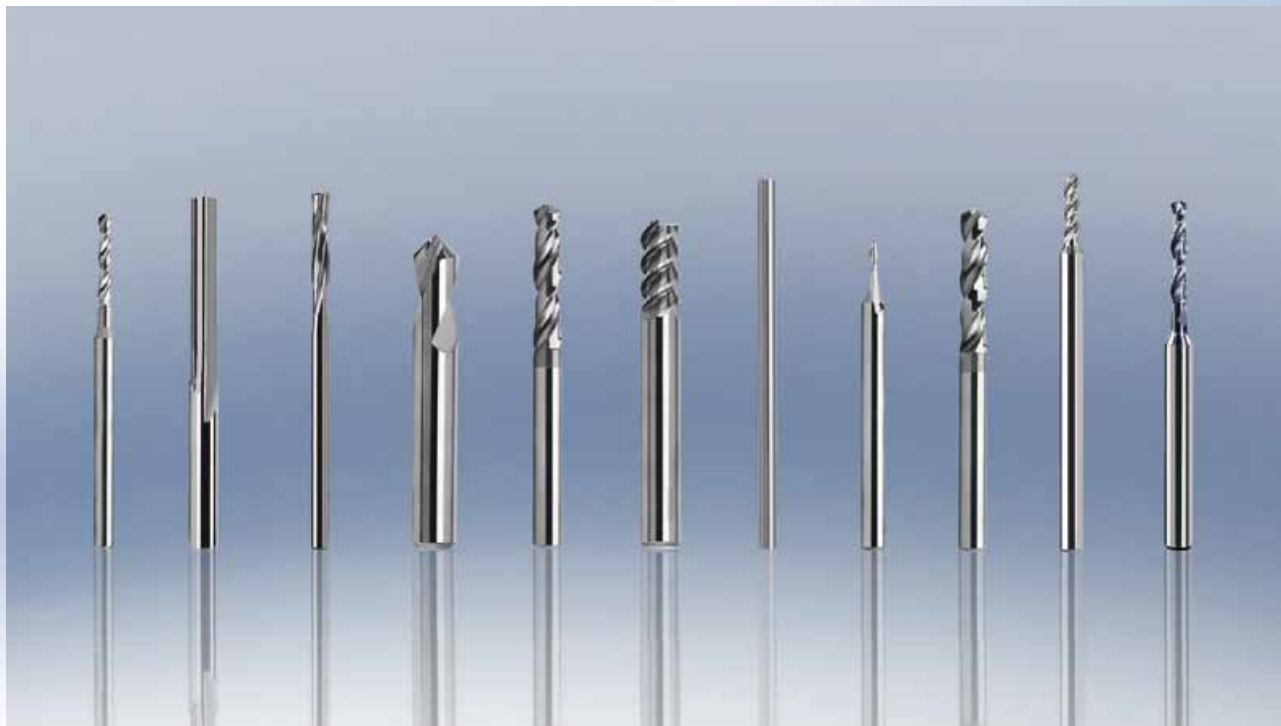
These are recommended values that depend on the condition of the machine, fixture, coolant etc. and them may have to be adapted yet.

Produkteübersicht

Gamme d'outils

Programma di fabbricazione

Product overview



Die Fertigungsstätten in Derendingen und Porrentruy, eine Referenz für «Made in Switzerland».
Les ateliers de fabrication à Derendingen et Porrentruy, une référence «Made in Switzerland».
Gli stabilimenti di produzione a Derendingen e Porrentruy, una referenza di «Made in Switzerland».
Production facilities in Derendingen and Porrentruy, a reference for «Made in Switzerland».

Sphinx Werkzeuge AG
Gewerbestrasse 1
CH-4552 Derendingen

Phone +41 32 671 21 00
Fax +41 32 671 21 11
www.sphinx-tools.ch